automotive training australia

AUSTRALIAN NATIONAL TRAINING AUTHORITY

AUTOMOTIVE INDUSTRY MANUFACTURING

USER GUIDE

TRAINING PACKAGE CODE
AUM 00
(BUS, TRUCK & TRAILER SECTOR)

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As a user of the training package, and before commencing any form of training or assessment, you must ensure delivery is from the current version.

Ensure you are complying with this requirement by:

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Changes in units of competency and packaging of qualifications are reflected on the National Training Information Service which only displays current information: http://www.ntis.gov.au

MODIFICATION HISTORY – ENDORSED MATERIALS

Please refer to the National Training Information Service for the latest version of Units of Competency and Qualification information (http://www.ntis.gov.au).

AUM00 Automotive Industry Manufacturing Training Package

Sheet: 1 of 1

Version	Date of Release	Authorisation:	Comments
4	08/10/2004	NTQC	Addition of 4 units of competence to the common area of Certificate III in Automotive Manufacturing (Bus, Truck & Trailer) AUM25100 AUM9002A Receive and dispatch materials, equipment and tools AUM9003A Prepare and process materials and components AUM9005A Monitor and maintain continuous improvement of systems and processes AUM9007A Manage personal work priorities
3	09/02/2004	NTQC	Addition of thirteen Certificate III level competency standards: AUMNT3001A Rectify faults in vehicle metal components AUMNT3002A Rectify paintwork AUMNT3003A Control paint line production processes AUMNT3004A Conduct engine hot test AUMNT3005A Rework production engines AUMNT3006A Rectify mechanical faults on production vehicles AUMNT3007A Rectify electrical faults on production vehicles AUMNT3008A Rectify assembly faults in assembled vehicles AUMNT3009A Conduct die coating AUMNT3010A Conduct structural rectification of vehicle bodies AUMNT3011A Test welds ultrasonically AUMNT3012A Conduct tool setting AUMNT3013A Monitor and maintain metals treatment plant operations Note: There are no qualifications attached to these standards.
2.00	01/06/2001	NTQC	Addition of Bus, Truck & Trailer Sector
1.00	06/08/2000	NTQC	Primary release of the Passenger Motor Vehicle Sector

Forms control: All endorsed training packages will have a version number displayed on the imprint page of every volume constituting that training package. Every training package will display an up-to-date copy of this modification history form, to be placed immediately after the contents page of the first volume of the training package. Comments on changes will only show sufficient detail to enable a user to identify the nature and location of the change. Changes to training packages will generally be batched at quarterly intervals. This modification history form will be included within any displayed sample of that training package and will constitute all detail available to identify changes.

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THE AIM OF THE 'USER GUIDE'

The Bus, Truck & Trailer sector is an extension of the Automotive Manufacturing Training Package which is one of two training packages developed for the Australian automotive industry by Automotive Training Australia Limited (ATA):

Package 1: Manufacturing sector
Package 2: Retail, Service & Repair sector

ATA is the National peak body of a National network of State and Territory Industry Training Advisory Bodies and Automotive Manufacturers providing strategic advice and liaison between the industry and Governments. The Board of ATA followed a consultative strategy to ensure that industry views and requirements were the basis of the Training Packages.

This User Guide provides an overview of the Automotive Industry Manufacturing Training Package – Bus, Truck & Trailer (BT&T) sector.

It is a guide for automotive manufacturers and assemblers and training organisations that provide services to the industry. It explains how the Bus, Truck & Trailer sector can develop skills required in the workplace, and provide nationally recognised qualifications for the many thousands of people who work in the industry.

THE BUS, TRUCK & TRAILER SECTOR

The Bus, Truck & Trailer sector represents a complex and diverse range of enterprises involved in the manufacture and assembly of buses, trucks and trailers.

About 15,000 people are employed across Australia in the bus, truck & trailer manufacturing and assembly sector of the automotive industry.

It is a sector that has been largely devoid of vocational training and formal qualifications and has not offered a proper qualifications pathway for either new or existing employees.

The development of 'competency-based' Training Packages provides the opportunity to broaden the provision of recognised vocational training to a greater range of occupations and provide for skill development and recognition from entry level to management level.

KEY FEATURES OF THE MANUFACTURING TRAINING PACKAGE – BUS, TRUCK & TRAILER SECTOR

- Developed by Industry for Industry
- New and increased training opportunities
- Flexibility in:
  - * content of training programs
  - * how and where training will be delivered
  - * choice of training providers
- National recognition of skill to Industry competency standards
- Assessment that measures outcomes
- Focus on skills required in the workplace

WHAT IS IN THE BUS, TRUCK & TRAILER PACKAGE?

ENDORSED COMPONENTS

These components are outlined in this User Guide.

Competency Standards
A set of broad-based Industry and occupational competency units defining the full range of workplace requirements across the Bus, Truck & Trailer sector of the industry.

Qualifications
A range of National qualifications, based on combinations of competency units, providing meaningful outcomes at an Industry or Enterprise level.

Assessment Guidelines
Comprehensive advice on specific Industry assessment arrangements to underpin the assessment of competencies attained and form the basis of the issuing of National Qualifications and Statements of Attainment.

NON–ENDORSED COMPONENTS

Optional materials that assist in delivery and assessment of training to achieve standards/ qualifications detailed in the Training Package.

Professional Development Materials
ATA has produced a Training Package '**Tool Kit**', as a professional development resource that provides information on:

Learning Strategies
How training programs may be organised in workplaces and through registered organisations, to deliver competency-based National qualifications.

The kit includes a database (CD ROM) of a wide range of teaching and learning resources developed in both the private and public sectors, available in the market place.

Automotive Assessment Toolmaker
This CD ROM provides information about methods of assessment, with examples and a printed "Guide to Developing Record Books" for the Automotive Industry.

Further details of the '**Tool Kit**' and other resources are outlined on page 13 of this User Guide.

COMPETENCY STANDARDS

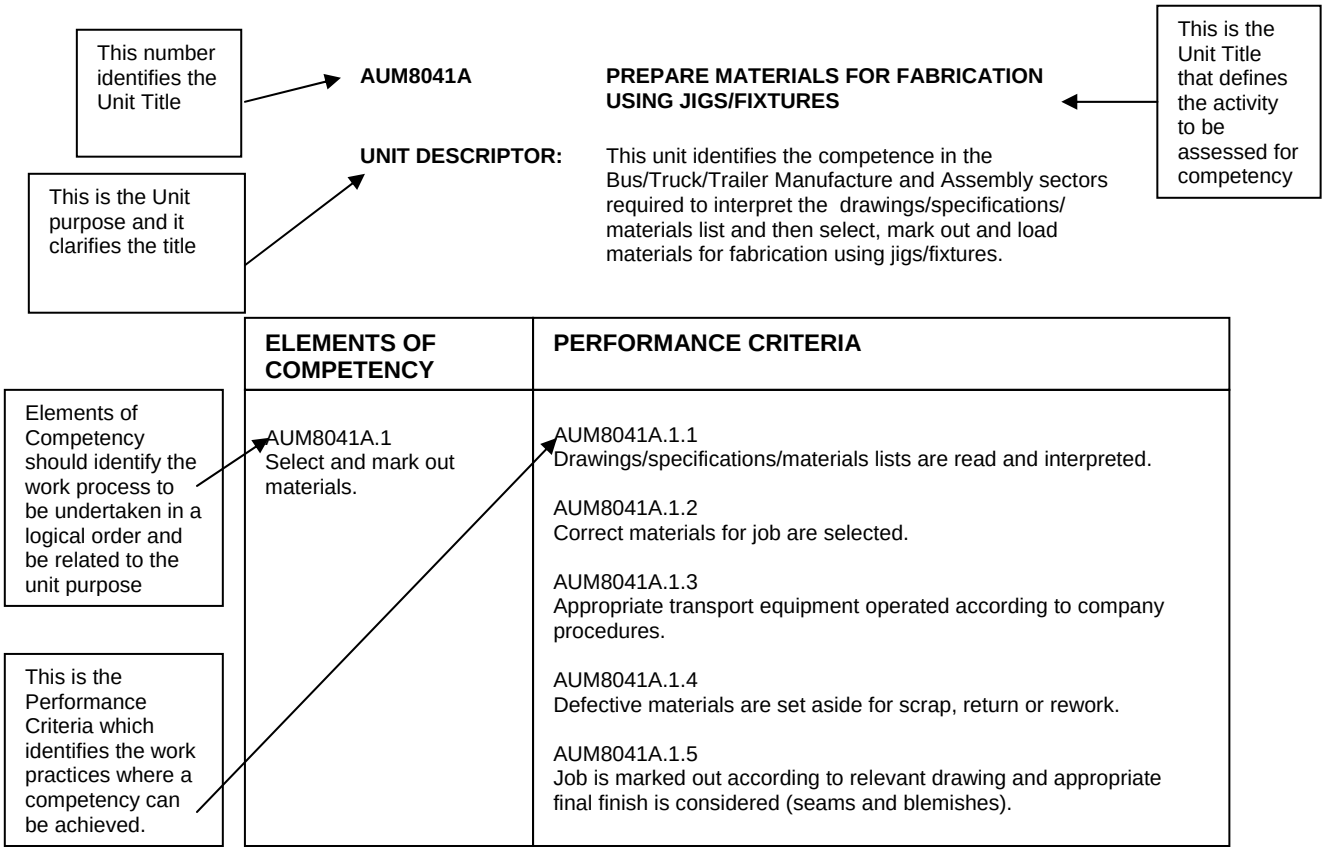
"Competency comprises the specification of knowledge and skill and the application of that knowledge and skill to the standard of performance required in the workplace."

"The concept of competency focuses on what is expected of an employee in the workplace rather than on the learning process, and embodies the ability to transfer and apply skills and knowledge to new situations and environments. This is a broad concept of competency in that all aspects of work performance, not only the narrow task skills, are involved."

ATA has ensured that the Bus, Truck & Trailer Competency Standards accurately reflect:

- skills currently applied in the workplace
- the link between skills and assessment
- consistency between the competency stated and the elements and evidence listed
- current and new technology and its application in the workplace
- application in a broad range of industry contexts

HOW TO INTERPRET THE COMPETENCY STANDARDS



Each of the competency standards provides the following further details:

The Range of Variables statements identifies the range of contexts, sources of information and resources required, methods and any special requirements.

The Evidence Guide provides instruction on the context and critical aspects for assessment, and describes the underpinning knowledge and practical demonstration requirements.

Identification of National Key Competencies contained within the Unit of Competence.

COMPETENCY STANDARDS LISTING

Automotive Bus, Truck & Trailer (BT&T) competency standards are grouped under functional headings according to skill clusters.

A standard can be referenced by number and title if known, or it can be sourced by checking under a functional heading

COMPETENCY STANDARD NUMBER	COMPETENCY STANDARDS BY CLUSTER TITLE
1. Tools and Equipment	
AUM9004A	Prepare and use/operate equipment, tools and/or machinery
AUM9006A	Monitor and maintain equipment, tools and machinery
2. Workplace Environment and Relationships	
AUM9001A	Monitor and maintain workplace environment
AUM9009A	Work effectively with others in teams
AUM8001A	Contribute to workplace relationships and processes
3. Customer Service	
AUM8011A	Provide customer service
AUM8012A	Prepare and document quotation
4. **Quality**	
AUR61447A	Participate in improving workplace productivity
AUM8021A	Inspect work and apply company technical quality standards
5. Stock Control	
AUM8031A	Receive and Store Parts
AUM8032A	Control Stock
AUM8033A	Select and Dispatch Parts
6. Preparation and Planning	
AUM8041A	Prepare materials for fabrication using jigs / fixtures
AUM8042A	Prepare materials for fabrication using manual processes
AUM8043A	Read and interpret working drawings and work orders
AUM8044A	Read and interpret engineering drawings and job specifications
AUM3401A	Plan and Organise production
7. Welding / Heating / Cutting	
AUM8051A	Conduct basic welding, thermal cutting, heating and gouging operations
AUM8052A	Conduct mechanical cutting operations
AUM8053A	Perform manual metal arc welding operations (MMAW)
AUM8054A	Perform submerged arc welding operations (SAW)
AUM8055A	Perform oxy acetylene welding operations (OAW)
AUM8056A	Perform gas tungsten arc welding operations (GTAW)
AUM8057A	Perform gas metal arc welding operations(GMAW)
AUR23808A	Carry out soldering techniques
8. Fabricate	
AUM8061A	Fabricate Plug
AUM8062A	Stamp and press parts
AUM8063A	Fabricate parts for sub-assemblies
AUM8064A	Machine parts

COMPETENCY STANDARD NUMBER	COMPETENCY STANDARDS BY CLUSTER TITLE
9. Painting	
AUM8071A	Finish surfaces for painting
AUM8072A	Paint chassis or panels
AUM8073A	Control oven baking cycle
AUM8074A	Rework paint faults
10. Assemble / Install	
AUM8081A	Apply trim to components
AUM8082A	Assemble components
AUM8083A	Assemble frame and axle
AUM8084A	Install engine and drive train
AUM8085A	Mount and Install assembled component to chassis or frame
AUM8086A	Service after assembly
AUM8087A	Assemble and Install hydraulic system kit
AUM8088A	Assemble and Install pneumatic system kit
AUM8089A	Assemble and Install braking system kit
AUM8090A	Install fixed and moveable glass components
AUM8091A	Install or Replace mechanical units / assemblies
AUM8092A	Install / Fit out components
AUM8093A	Test, service and replace battery
AUM8094A	Install or Replace electrical / electronic units / assemblies
AUM8095A	Perform wheel alignment operations
11. Repair / Modify	
AUM8101A	Modify or rectify chassis/frame and associated components
AUM8102A	Manufacture or modify wiring harnesses
AUM8103A	Rectify / Replace vehicle body panels and ancillary fittings
AUM8104A	Bond / repair components using fibreglass reinforced plastics techniques
AUM8105A	Perform minor modifications / repairs to electrical circuits / systems
12. Materials Handling	
AUM8111A	Perform forklift driving and lifting operations
AUR39430A	Inspect and test a mobile crane
AUR39419A	Drive and Operate a mobile crane
AUM8112A	Operate load shifting equipment
13. Inspection and Testing	
AUM8121A	Conduct final inspections and functional tests
AUM8122A	Conduct simulated or road performance test
AUM8123A	Conduct welding inspection
14. Air Conditioning / Refrigeration	
AUM8131A	Install and commission air conditioning system kit
AUM8132A	Install and commission refrigeration system kit
AUM8133A	Remove and replace air conditioning system
AUM8134A	Remove and replace refrigeration system
15. Design	
AUM8141A	Prepare new product designs
AUM2901A	Develop and produce documentation and procedures
AUM3003A	Document designs
AUM5301A	Produce drawings manually
AUM5403A	Produce computer-aided drawings (CAD)

LIST OF CROSS-INDUSTRY COMPETENCY STANDARDS

Frontline Management Competency Standards

BSXFMI401A	Manage personal work priorities and professional development
BSXFMI402A	Provide leadership in the workplace
BSXFMI403A	Establish and manage effective workplace relationships
BSXFMI404A	Participate in, lead and facilitate work teams
BSXFMI405A	Manage operations to achieve planned outcomes
BSXFMI406A	Manage workplace information
BSXFMI407A	Manage quality customer service
BSXFMI408A	Develop and maintain a safe workplace and environment
BSXFMI409A	Implement and monitor continuous improvements to systems and processes
BSXFMI410A	Facilitate and capitalise on change and innovation
BSXFMI411A	Contribute to the development of a workplace learning environment

(Note: Certificate IV standards are signified by the number '4' in the standard number)

Assessment & Workplace Training Competency Standards

BSZ401A	Plan assessment
BSZ402A	Conduct assessment
BSZ403A	Review assessment
BSZ404A	Train small groups
BSZ405A	Plan and promote a training program
BSZ406A	Plan a series of training sessions
BSZ407A	Deliver training sessions
BSZ408A	Review training

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BUS, TRUCK & TRAILER QUALIFICATIONS

QUALIFICATION TITLE	NATIONAL CODE
Certificate II in Automotive Manufacturing (Bus, Truck & Trailer)	AUM 25101
Certificate III in Automotive Manufacturing (Bus, Truck & Trailer)	AUM 35101
Certificate IV in Automotive Manufacturing (Bus, Truck & Trailer)	AUM 45101
Certificate IV in Automotive Manufacturing (Frontline Management)	AUM 40100
Certificate IV in Assessment & Workplace Training	BSZ 40198

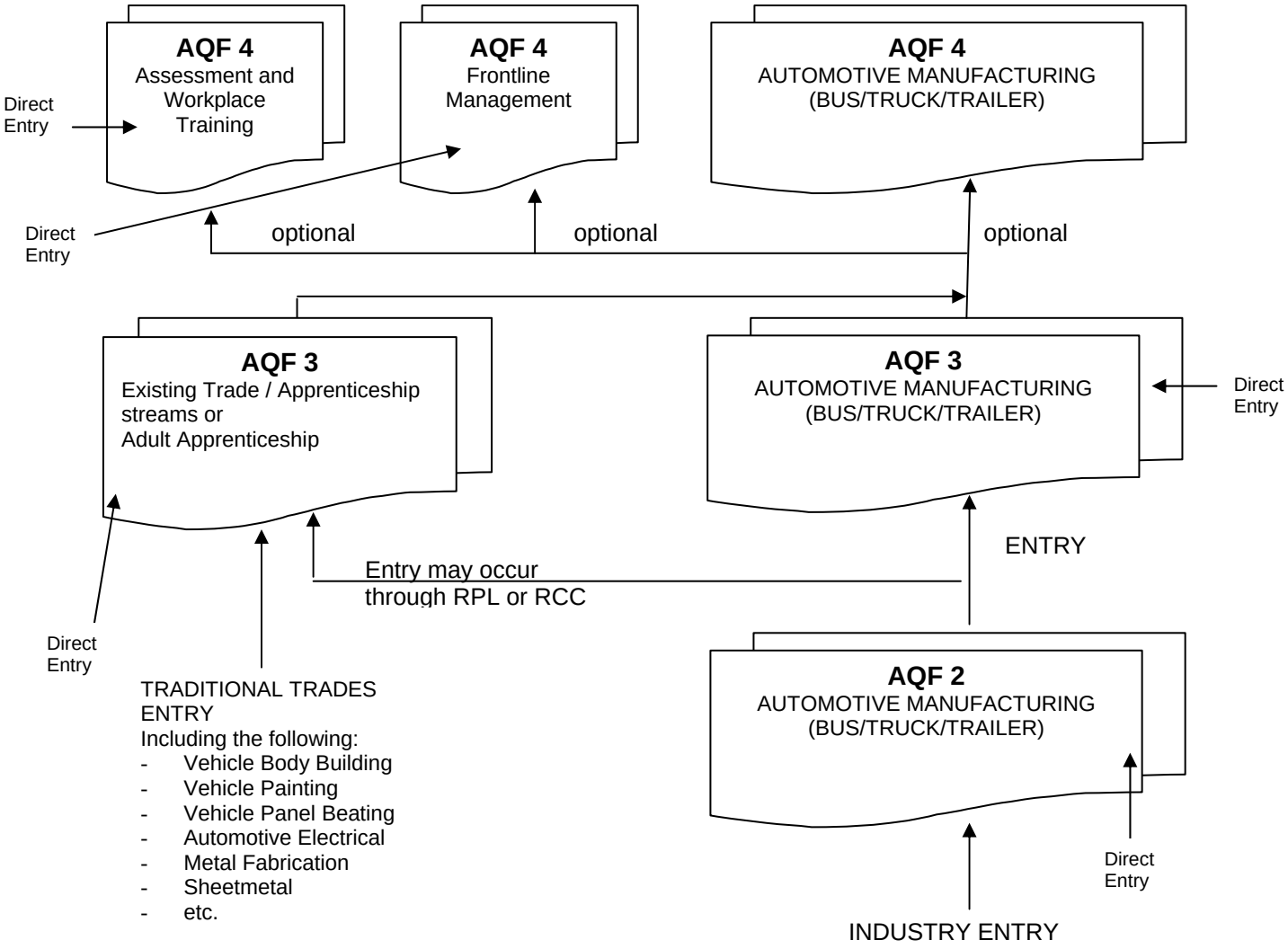
Qualifications are in the context of the Australian Qualifications Framework Guidelines (AQF).

The AQF Guidelines have been developed to assist employers, employees, professional associations, unions, curriculum developers, accrediting bodies and the wider public, including students, parents, and education and training bodies, to understand factors determining the level of a qualification available under the AQF.

Reference to Qualification Rationale can be found in Section 3 of the Training Package.

PATHWAYS TO BUS, TRUCK & TRAILER QUALIFICATIONS

This diagram identifies current career pathways in the Bus, Truck & Trailer sector.

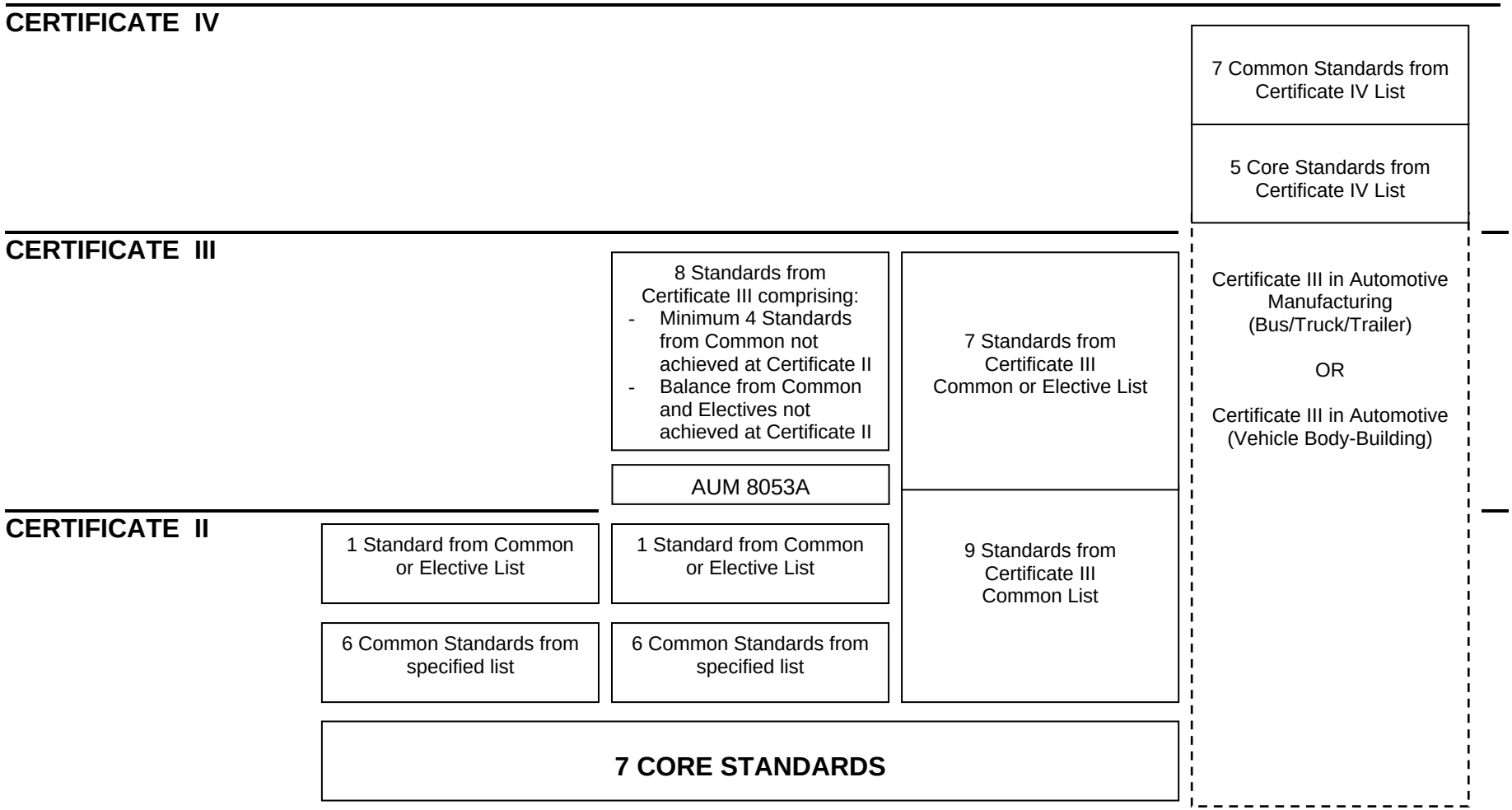


NOTE: **Exiting from any level without completion of the qualification will entitle the trainee to receive a statement of attainment.**

QUALIFICATIONS PACKAGING MODEL

The Qualifications recognise achievement of groups of Competency Standards that define a person's range of occupational skills.

The diagram below depicts the packaging model used for the qualification levels



AUTOMOTIVE INDUSTRY ASSESSMENT GUIDELINES

The Assessment Guidelines apply to the Automotive Manufacturing sector and the RS&R sector.

The Automotive Manufacturing and RS&R National Training Packages include new recognition arrangements and promote **USER CHOICE**.

All Registered Training Organisations (RTOs) providing training and/or assessment leading to a qualification endorsed in an Automotive National Training Package will be required to assess against Automotive Industry competencies, utilising the Automotive Industry Assessment Guidelines.

ASSESSMENT OF COMPETENCY

(Industry consultation has confirmed this definition of assessment.)

"Assessment is the process of collecting evidence and making judgement on whether competency has been achieved. The purpose of assessment is to confirm that an individual can perform to standards expected in the workplace as expressed in the endorsed industry/enterprise competency standards."

Automotive Assessment Guidelines have been developed to cover the following broad areas:

Assessment System Overview – a description of the assessment system operating in the Automotive Industry.

Benchmarks for assessment
Role of Registered Training Organisation
Assessment options, partnerships and pathways
Recording and Reporting outcomes
Appeal process
Review and maintenance of assessment system

Assessor Qualifications and Training – qualifications required for automotive assessors, how requirements can be met and training available for assessors.

Guidelines for Designing Assessment Materials – how to design assessment materials which enable assessors to gather sufficient, valid information upon which to make an assessment.

Guidelines for Conducting Assessments – an overview of the Automotive Industry-endorsed processes for conducting assessments. Planning, conducting, recording results. providing feedback and review process

- **Sources of Information on Assessment** – additional sources of information on Automotive Industry assessment.

The Automotive Assessment Guidelines emphasise that Assessment must be conducted according to Industry guidelines. These guidelines stipulate that:

- assessment must be done in partnership between an employer, a Registered Training Provider and the trainee;
- between the employer and training provider, competence must exist in both the skill being assessed and the assessment process;
- assessment can be conducted at any time with the agreement of the parties;
- there is a right of appeal; and
- the industry prefers that competence is assessed in the workplace where possible, but each Competency Standard provides detail about evidence required for assessment, as well as critical aspects.

The complete Automotive Industry Assessment Guidelines is available as a stand-alone booklet and is a compulsory reference for all training providers and businesses using this package.

NATIONAL SUPPORT MATERIALS FOR THE IMPLEMENTATION OF THE AUTOMOTIVE MANUFACTURING TRAINING PACKAGE – BUS, TRUCK & TRAILER SECTOR

MANUFACTURING TRAINING PACKAGE – BUS, TRUCK & TRAILER - PUBLICATIONS LIST

User Guide
A stand-alone booklet providing a map to guide you through all aspects of the Bus, Truck & Trailer package.

Assessment Guidelines
A stand-alone booklet containing the complete Assessment Guidelines. A compulsory reference for all training providers and businesses using this package.

Qualifications
Two bound books specifying all requirements necessary to attain each Qualification within the package. The books contain full details of all Competency Standards required for each Qualification stream.

Compact Disc
An electronic copy of the Training Package is also available.

Price list and ordering details are available from ATA.

THE AUTOMOTIVE TRAINING PACKAGES 'TOOL KIT'

To assist employers and training providers, Automotive Training Australia Limited has collated information and support materials and packaged them into a 'Tool Kit' which we will provide to support competency-based training and assessment against National competency standards.

The 'Tool Kit' has three parts and comprises both CD ROMs and manuals:

PROFESSIONAL DEVELOPMENT
'***About the Automotive Training Package'*** (CD ROM and Manual) is a description of training packages and provides information about competency-based training and assessment against standards.

ASSESSMENT INSTRUMENTS
'***Automotive Assessment Tool Maker'*** (CD ROM)

- Provides information about methods of assessment, with some guidelines and hints on how to assess against the automotive competency standards:
- Instructs, in a simple sequence, the actual development of assessment tools, taking examples from the techniques of:
  - questioning
  - observation
  - testing
  - projects
  - portfolios
  - co-assessment

The examples from these techniques can be saved and used by assessors in any situation, as the templates can be edited/re-used to suit individual requirements. They are provided in Microsoft Word format.

'***Guide to Developing Record Books for the Automotive Industry'*** (Manual)
Recording of Assessment is covered by the hard copy best practice guide. It provides information about developing and using student record books. The information contained in the guide is the result of research into existing record books and contains a sample recording template.

TEACHING AND LEARNING RESOURCES DATABASE
'*Resource Guide*' (CD ROM) is a data base of teaching and learning resources, assessment materials and professional development information. There are currently approximately 800 entries which can be searched using key words or course titles. The Guide will be updated regularly and expanded as additional resources become available.

Purchasers of the 'Tool Kit' will receive complimentary updates of the 'Resource Guide CD ROM' for a twelve-month period.

TRAINING AND ASSESSMENT MATERIALS

ATA has available a range of specific materials to assist Registered Training Organisations and companies implementing the Bus, Truck & Trailer Package. These include:

- a selection of the CDX Automotive Training Series that provides interactive training materials for automotive technicians, that address the underpinning knowledge requirements.
- Training Record Books

ATA intends to build on these National resources, and users are encouraged to become an ATA subscriber to keep informed of developments and gain access to innovative materials as they become available.

IMPLEMENTING THE MANUFACTURING TRAINING PACKAGE – BUS, TRUCK & TRAILER SECTOR

Following endorsement of the Manufacturing Training Package – Bus, Truck & Trailer sector, arrangements will progressively be put in place in each State and Territory to provide for the transition to the National Training Framework.

Arrangements will include:

- replacement of existing accredited courses with National Training Package Qualifications;
- registration of training organisations, including automotive companies where applicable, to operate on a National basis;
- recognition of training and assessment provided in a variety of ways, eg
  - through entry level Traineeships and Apprenticeships (now called New Apprenticeships)
  - informal attainment of skills through on-the-job experience and development
  - through 'in-house' company provided training and development programs
  - formal off-the-job training programs
  - vocational education and training at secondary schools;
- provision of public funds for delivery of training and assessment services.

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AUSTRALIAN NATIONAL TRAINING AUTHORITY

AUTOMOTIVE INDUSTRY MANUFACTURING

SECTION 2

ASSESSMENT GUIDELINES

TRAINING PACKAGE CODE

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(PASSENGER MOTOR VEHICLE SECTOR)
(BUS, TRUCK & TRAILER SECTOR)

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SECTION 2: ASSESSMENT GUIDELINES

2.1 BACKGROUND

The Assessment Guidelines for the Automotive Industry have been prepared under Australian National Training Authority (ANTA) Guidelines June 1997, for the development of Nationally endorsed Training Packages.

The Assessment Guidelines apply to the Automotive Retail, Service & Repair sector and the Manufacturing Sector.

Automotive Retail, Service & Repair and Manufacturing Training Packages include new recognition arrangements and promote User Choice. All Registered Training Organisations (RTOs) which provide training and/or assessment which leads to a qualification endorsed in an Automotive Training Package will be required to assess against Automotive Industry competencies utilising the Automotive Industry Assessment Guidelines.

Competency:
The ANTA Guidelines set out definitions of competency. These definitions are applied throughout this document.

"Competency comprises the specification of knowledge and skill and the application of that knowledge and skill to the standard of performance required in the workplace."

"The concept of competency focuses on what is expected of an employee in the workplace rather than on the learning process and embodies the ability to transfer and apply skills and knowledge to new situations and environments. This is a broad concept of competency in that all aspects of work performance, not only the narrow task skills, are included."

Assessment of Competency:
Industry consultation has confirmed this definition of assessment.

"Assessment is the process of collecting evidence and making judgement on whether competency has been achieved. The purpose of assessment is to confirm that an individual can perform to standards expected in the workplace as expressed in the endorsed industry/enterprise competency standards."

Automotive Assessment Guidelines were developed to cover the following broad areas:

- **Assessment System Overview** - a description of the assessment system which operates in the Automotive Industry.
- **Assessor Qualifications and Training** - qualifications required for automotive assessors, how requirements can be met, and training available for assessors.

- **Guidelines for Designing Assessment Materials** – how to design assessment materials which enable assessors to gather sufficient, valid information from which to make an assessment.
- **Guidelines for Conducting Assessments** - an overview of the automotive industry endorsed processes for conducting assessments.
- **Sources of Information on Assessment** – additional sources of information on Automotive Industry assessment.

2.2 ASSESSMENT SYSTEM OVERVIEW

2.2.1 Benchmarks for Assessment

Competency Standards

Units of competency comprise:

- Unit Title
- Unit Purpose
- Elements of competency, and associated Performance Criteria
- Range of Variables statement
- Evidence Guide.

Competency Standards were formulated, then reviewed and validated considering the following:

- Units of competency are the basis and smallest element for formal assessment of skills and knowledge.
- Units of competency should capture the broad application of skills and knowledge needed in workplace performance.
- Units of competency must be relevant in different contexts, and to future needs.
- Unit breadth, size and structure are important factors in application of standards for training and assessment.
- The Unit Purpose clarifies the unit title.
- Elements are directly related to the unit purpose.
- Performance Criteria are precise and can be assessed.
- The Range of Variables statement identifies context and clarifies application.
- The Evidence Guide expands interpretation, implementation and assessment criteria.

2.2.2 Role of Registered Training Organisations

The National Recognition Framework is reliant on the use of Registered Training Organisations (RTO) to carry out training, assessment and issuing of qualifications and RTOs must be registered with the State Training Authority for:

-the purposes of delivering training and undertaking assessment; or
-the sole purpose of undertaking assessment.

Responsibilities:

- Issue the relevant certificate, diploma or advanced diploma, subject to individual State/Territory arrangements, to a trainee who has been assessed as competent against the endorsed units of competency for the qualification.
- Conduct assessments of individuals against the endorsed units of competency stipulated for that qualification.
- Issue Statements of Attainment to a trainee who has been assessed as competent in one or more of the endorsed units of competency but not yet competent in the entire package of units.
- Comply with the Automotive Assessment Guidelines when performing any part of the assessment process.
- Provide to the industry assessors who meet the criteria stipulated by the industry.
- Implement quality assurance to ensure the integrity of the RTO assessment process.
- Review the RTO assessment process to ensure that the key principles of assessment are being implemented.
- Implement assessment so as to gather evidence from all relevant sources and on a number of occasions before completing assessment.
- Maintain records of trainees assessed as competent in all or some of the units of competency for a particular qualification.
- Provide security and privacy of assessment records. Access to the records should be confined to the employer, assessor and the trainee. Other persons requesting access to the records should obtain approval from the trainee.
- Develop a reporting process for assessment outcomes.
- Implement the industry assessment appeals and reassessment process when disputes arise over assessment.

2.2.3 Registered Training Organisations and Enterprises - Assessment Options and Partnership Arrangements

A number of options are available to enterprises. A key point is that the RTO has the responsibility for the integrity of the assessment process and for issuing the qualification.

- The enterprise may provide its own qualified assessor or enter into a partnership agreement with a qualified assessor, and negotiate an agreement with the RTO to monitor, validate and audit all assessment activities within industry guidelines.
- The enterprise may implement a team or panel approach for assessment of competencies. This would normally see the enterprise providing the technical experts and entering into a partnership agreement with the RTO who would provide the qualified assessor.
- The enterprise may become an RTO and under its scope of registration assess and issue qualifications for particular packages of industry-endorsed standards.

2.2.4 Assessment Pathways

Assessment should be an integrated process and conducted under agreed arrangements that facilitate flexible assessment pathways. Such assessment will lead to a statement of attainment or a nationally recognised qualification under the Australia Qualification Framework.

Workplace Assessment
Assessment can be undertaken on-the-job. The on the job assessments should be conducted and recognised under an agreement between the employer, RTO and trainee. In the case of persons not in employment, appropriate workplaces should be sought under an agreed position with an employer. If this is not possible, a simulated environment may be appropriate.

Off-The-Job Assessment
Assessment can be undertaken off the job. The off-the-job assessments should be conducted and recognised under an agreement between the employer, RTO and trainee. In some circumstances it could be possible for the majority of competencies to be assessed off the job. For those not in employment, a simulated environment reflecting workplace conditions and practice may enable students to satisfactorily demonstrate competence. It is essential that any off-the-job assessment is carried out within the spirit and criterion of the standard.

Combination of on- and off-the-job Assessment
The partnership between an RTO and employer can facilitate a combination of both on- and off-the-job assessment. Where a person is not in employment, an RTO will need to make appropriate arrangements to obtain on-the-job exposure where deemed essential by the standard.

Simulated Workplace Assessment
The employer, trainee and RTO may make arrangements to assess the Competency Standards in a simulated workplace environment which must be consistent with the Automotive Industry Training Package and the requirements of the units of competency being assessed. For those in employment, a simulated workplace must be agreed to by the employer and the trainee.

For those not in employment, simulated environments must reflect current workplace practice and conditions.

Recognition of Current Competencies (RCC) and Recognition of Prior Learning (RPL)
RCC refers to assessment which confirms the trainee is competent against some or all of the required Competency Standards whether a training program has been undertaken or not. It is aimed at avoiding unnecessary duplication of effort when a person can demonstrate competence. RCC can be assessed by an RTO or an employer provided appropriate assessment processes are in place. RCC may result from assessments or recognition of current jobs/tasks being performed competently in the workplace.

Recognition of prior learning (RPL) refers to the analysis that a registered training organisation would conduct to ascertain if the individual at enrolment could already achieve some or all of the learning outcomes of the course of study. It should be noted that although RPL is not about recognising current competencies, the learning outcomes may contribute to the individual developing competency in particular industry-endorsed standards in a short period of time.

2.2.5 Recording Assessment Outcomes

Responsibility for recording, storing and accessing assessment outcomes rests with the body that issues the qualification under the AQF.

The completion of a single Unit of Competence should be the minimum assessment data formally recorded.

If completion of individual elements is recorded to provide a progress report for the trainee, this information should be kept separate from the formal recording document used to record and report final/formal assessment outcomes.

- An enterprise, if also an RTO, may make its own internal arrangements for recording assessments.

- Statements of Attainment, identifying Units of Competence achieved when the number or combination of the standards does not equate to a Nationally recognised qualification, should be recorded by the assessor, with a copy provided to the trainee.

- The industry-agreed certification/qualification against the AQF should be recorded when the prescribed number and combination of National Competency Standards has been met. Certification should be accompanied by a list of all National Competency Standards achieved.

- The trainee should have immediate access to his/her own assessment records in whichever format the records are maintained.

2.2.6 Reporting Assessment Outcomes

Reporting assessment outcomes are governed by two requirements:
- privacy and confidentiality of information
- AQF Guidelines.

Privacy and Confidentiality
Information relating to a trainee's assessment outcomes should be treated confidentially. Access to this information should be limited to the employer, supervisor, assessor, trainee and only those other people approved, in writing, by the trainee.

AQF Guidelines
The minimum assessment to be reported is against the unit of competence. If a National Competency Standard is partially completed, evidence of partial competence may be recorded to avoid the need to retrain unnecessarily.

Where the trainee has been assessed as competent in all of the required Competency Standards which lead to a nationally recognised qualification, the RTO undertaking or approving the assessments should issue the nationally recognised AQF qualification.

2.2.7 Assessment, Appeal and Reassessment Process

The main purpose of assessment, appeal and reassessment is to provide support to the trainee so that competence may be achieved. Careful preparation, self-evaluation by the trainee and a clear understanding of the assessment processes pave the way for successful outcomes so that appeals and reassessments are rare.

The processes that should apply are outlined below.

Assessment
- The assessor and/or employer/supervisor uses the assessment process to identify areas of skill and knowledge in need of further development.
- Where the trainee is deemed "not yet competent", the assessor and/or employer/supervisor provides advice on options and preferred action to reach the required competence, eg. further training or more guided practice in the workplace.
- Where the trainee does not appeal, reassessment may be arranged in agreement with the employer/assessor, or another assessor, within a defined time, eg. one month.

Appeals
There is a requirement for an appeals process as:

- a matter of natural justice for a trainee, to avoid unfair treatment or an assessor's error of judgement;
- an incentive to quality and consistent performance by assessors;
- assurance to employers and trainees of the objectivity of the assessment system.

Appeal for reassessment to gain an independent second opinion will apply in cases where a trainee is judged as "not yet competent" and believes they have been incorrectly assessed or processes have been inaccurate.

Appeals Process

- It is preferable that appeals processes be managed in a collaborative manner within the trainee's workplace or RTO, as part of the established consultative framework used by the enterprise or RTO.
- In the case of enterprise and RTO partnership arrangements, where disagreements in relation to assessments arise it is recommended that the relevant parties meet to resolve the problem. The employer, trainee and the RTO should initially try to rectify the problem through discussion. Within the partnership, the seeking of other opinions from qualified assessors would be a means of attempting a resolution.
- If no resolution can be found under the point above, the RTO/Employer/ Trainee should access additional advice from the State Training Authority or State/Territory ITAB, regarding dispute resolution mechanisms.

Appeals Principles

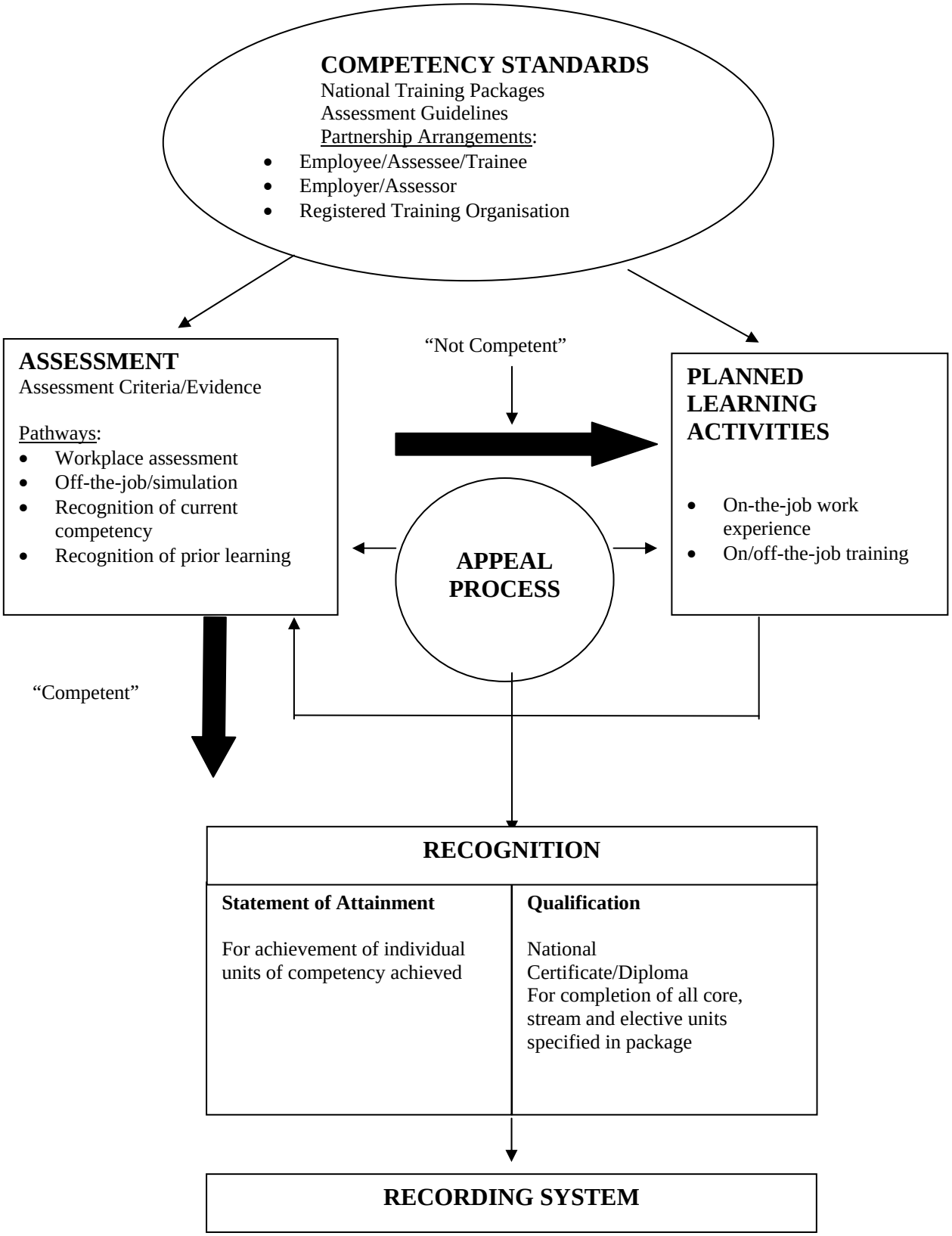
- The rights of all parties should be protected by their being kept fully informed of all appeal proceedings.
- Records of all appeal processes, outcomes, recommendations and action plans should be maintained by RTO's administration systems.
- Appeals may also be used to monitor the basic elements of the system, eg. to ensure appropriate use of Competency Standards or to verify assessors' processes internally.

Reassessment

This would take place as required, as outlined previously.

The assessment, appeals and recording system is outlined in Figure 1.

Figure 1: Assessment Process



2.2.8 Review and Maintenance of the Assessment System

The automotive assessment system will require regular review and maintenance, to provide ongoing benefits to the trainee, employer and the industry.

The principles governing the review and maintenance processes include:

- ongoing revision of industry and enterprise standards, to meet the changing competency needs of the industry

- strategies to develop and maintain assessment and trainer competence. Processes should be implemented to validate the criteria for recognition of assessors and trainers and, when necessary, adjust that criteria to meet changing industry requirements

- review of both the assessment process and units of competency for:

  validity - measure what they intend to measure
  reliability - provide consistent results in given contexts
  flexibility - applicable on- or off-the-job and can be adapted to meet different workplace contexts or special needs
  fairness - do not disadvantage individuals
  clarity - easily understood by assessors and trainees
  simplicity - easily implemented and operated

- reporting of formal and informal feedback through mechanisms built into the system

- the review of partnership arrangements to enhance the partners' level of competence

- strategic review of the assessment processes and outcomes, through random, independent validation determined by each State and Territory under industry guidelines

- review and maintenance processes, consistent with the Australian Recognition Framework (ARF) guidelines.

2.3 ASSESSOR QUALIFICATIONS

"Assessments against the competencies in the Training Package should be carried out in accordance with these endorsed guidelines. The guidelines include the necessary qualifications for those conducting assessments and provide for those situations where more than one person may contribute to the assessment and where the required technical and assessment competencies may not all be held by any one person."

2.3.1 Assessor Qualifications

The competence of assessors is fundamental to the effectiveness and quality of competency-based assessment. Assessors, panels and industry/RTO partnerships must have:

- current workplace competencies in the areas being assessed
- current competence as a workplace assessor
- interpersonal skills
- adherence to equal opportunity and cultural diversity issues.

It is not mandatory for enterprise assessors working in partnerships with an RTO to have workplace assessor qualifications, but the achievement of minimum formal qualifications in assessment by all workplace assessors is encouraged.

Minimum requirements are three units of competence from "Assessment and Workplace Training Industry Training Package" (BSZ98).

The competencies are:

BSZ401A	Plan Assessment
BSZ402A	Conduct Assessment
BSZ403A	Review Assessment

2.3.2 Assessor Arrangements

The requirement to use competent assessors can be met by implementing any of the following strategies.

- an assessor who is competent against the assessor Competency Standards and has the relevant and current technical competencies. Assessor competency may be gained through an appropriate training program or through RPL/RCC;

- an assessor who is competent against the assessor Competency Standards, working in partnership with someone who has the relevant technical competencies at least to the level being assessed;

- an RTO advisory and support role for employers who hold an equivalent qualification to that being assessed within the workplace, the RTO to provide workplace assessment advice/assistance on processes and procedures, in partnership with employer/supervisor;

- an assessment panel which includes at least one person who is competent against the assessor Competency Standards and at least one person (supervisor or peer) who is competent in the relevant vocational/technical competencies, at least to the level being assessed;

- a qualified assessor, who is also competent in the technical competencies being assessed, validating the employer's or supervisor's assessment of on-the-job competency;

- an external assessor who has both assessor qualifications and relevant technical competencies to the level being assessed. The assessor may be from industry or from an RTO. The latter case would be of use in assessment centres, where simulated work conditions may be utilised, or when access or isolation problems need to be dealt with;

- co-operative arrangements, or assessment consortia, between small business employers. This would involve use of 'external' assessors, perhaps a 'pool' or panel who come from the workplace and meet industry requirements for assessors. Within the pool both assessment and relevant technical competencies must be present.

2.4 GUIDELINES FOR DESIGNING ASSESSMENT MATERIALS

Assessment materials should be designed to provide evidence of activities occurring in the workplace and in simulated environments.

Step one for designing assessment materials is the industry-endorsed standards. The designer of assessment material should interpret the evidence requirements from the information given in each unit of competency. The designer of assessment material should have assessment and technical expertise and be able to interpret Competency Standards and their parts. For example, the elements provide the outcomes, the performance criteria the level of performance, the range of variables the contexts and conditions, and the evidence guides the critical aspects of evidence required. The interpretation should also include the workplace context.

Step two is to select the methods of assessment that will provide the most appropriate evidence.

There are three main sources of evidence:

direct
indirect
supplementary.

Direct sources of evidence are those assessment methods (practical tasks; demonstrations; simulations) that allow the individual to be observed in the workplace.

Indirect sources of evidence cover assessment methods (projects; products produced or services supplied; reports from third parties) where it may be too expensive, inappropriate or difficult to observe the individual.

Supplementary sources of evidence are those assessment methods (oral and written questions; self-assessment; off-line in the workplace) used to assess specific knowledge requirements and difficult or infrequent events or tasks.

Assessment materials will vary depending on the evidence source but they will be based on the following principles. They will be:

- **Valid** - measures what it is intended to measure.
- **Reliable** - provides consistent results in given contexts.
- **Fair** - does not disadvantage any individual and follows EEO principles.
- **Flexible** - applicable on- or off-the-job and can be adapted to meet different workplace contexts or special needs.
- **Safe** - does not endanger the individual or work colleagues.
- **Cost-effective** - minimises costs by collecting evidence already available and by not making it a special event, so disrupting the workplace.
- **Easily understood** - by both assessor and trainee.

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Figure 2: Steps in the Design of Assessment Materials

1.
Obtain industry-endorsed Automotive Competency Standards.

2.
Interpret the competencies for evidence requirements (workplace context, type of evidence and amount):
Elements - outcome required
Performance criteria - level of performance
Range of variables - contexts and conditions
Evidence guides - critical aspects of evidence

3.
Select methods of assessment that require evidence. Note that it is likely that some evidence already exists and only requires a method for collection.

4.
Develop assessment items with criteria and/or checklists; provide clear instructions; list the conditions, and describe the resources required.

5.
Trial and validate the assessment materials with a subject matter expert and a sample of the target population.

6.
Modify the assessment materials with any changes required from the trial.

7.
Implement the assessment materials.

8.
Review and improve the assessment items as part of the quality assurance process.

2.5 GUIDELINES FOR CONDUCTING ASSESSMENTS

The guidelines are based on the following four stages:

1. Plan the assessment
2. Conduct the assessment
3. Record results and provide feedback to trainee
4. Review the assessment procedure

It is expected that the employer assessor/supervisor, the Registered Training Authority (RTO) and trainee will be active participants in the critical stages of assessment.

Reassessment/assessment is to be an on-going process as a result of requests for assessment from any of the parties involved after a period of preparation and self-evaluation. Assessment is also expected to be an integral and a cumulative learning process which guides the trainee/assessor towards final assessment. There should not be any restriction on the frequency of assessment. An employer in partnership with an RTO will continue to have the opportunity to assess in the workplace.

Assessment must take place against the industry-endorsed Competency Standards. The guidelines are applicable in RTO or workplace environments, but allow for flexibility depending on the context of the assessment and the assessment instruments chosen.

2.5.1 Plan the Assessment

The RTO is the body responsible for quality assured assessment and the ultimate issuing of the qualification. In planning the assessment, RTOs especially should undertake the planning. However, some employers may wish to be actively involved. The responsibilities for record keeping within the assessment process lies with the RTO. It is important that the partnership between an RTO and employer is actively formed to ensure that both parties are satisfied that a trainee is deemed competent.

<u>Identify Assessment Context</u>

- Identify the purpose of the assessment
  - Who wants the assessment?
  - Why is the assessment required?
  - What is to be assessed? (Skills/Competency Standard/s)
  - Who is going to be assessed? (trainee)
  - Who is going to conduct the assessment? (assessor/partnership arrangement)
- Plan for the assessment to comply with Automotive Industry Assessment Guidelines.
- Gain agreement with trainee regarding standard(s) to be assessed, date, time, place, and readiness to proceed.
- Allow for trainee's self-assessment.
- Explain the role of assessor before, during and after assessment.

Clarify Evidence Requirements

- Ensure the evidence is consistent with the requirements of the competency standards.

- Identify the type and sufficiency of evidence to allow a valid decision.

- Clarify competence requirements to be demonstrated by the trainee to meet the criteria of the standard.

- Gain agreement with the trainee for the above.

Agree on Assessment Procedure with Trainee

- Select techniques that are:
  Reliable - provide consistent results in given contexts
  Valid – measure what they are intended to measure
  Fair - do not disadvantage any trainee
  Flexible - can accommodate range of contexts
  Practical - are cost-effective, clear, efficient and cause minimum disruption to the workplace.

- Identify assessment policies and requirements:
  - access to references, discussion with assessor, time limit, Occupational Health & Safety (OH&S) requirements, Equal Employment Opportunity principles
  - identify any specific rules for team assessments (if used)
  - explain the industry assessment appeals process.

Organise Assessment

Ensure workplace assessment takes place within the standard workplace environment and with all the tools, equipment and products required to carry out the assessment with due regard to Occupational Health and Safety (OH&S) issues.

2.5.2 Conduct the Assessment

Gather Evidence

- Apply agreed assessment techniques.
- Ensure match exists between evidence being collected and industry standards.
- Ensure evidence allows a fair decision to be made.
- Document evidence as it is collected.
- Provide feedback during assessment to trainee:
  - discuss progress, give encouragement, be constructive.

Make Assessment Decision

- Based on the evidence collected being:
  Accurate - competency demonstrated
  Valid - evidence is relevant, necessary and predicts competency
  Consistent - consistent with other assessments; if not, explain
  Sufficient - the evidence is sufficient or additional is required
  Current - still current and relevant evidence
  Authentic - trainee's work

- Based on the industry Competency Standards initially discussed with trainee.

2.5.3 Record Results and Provide Feedback to Trainee

Record Results

- Record assessment results in the record book or electronically.

- Ensure recording complies with these Automotive Industry Guidelines.

- Restrict access
  - ensure confidentiality of assessment records
  - comply with Industry Guidelines.

Provide Feedback

- Provide feedback to trainee:
  - provide result(s) - competent/not yet competent
  - provide constructive feedback

- Provide guidance for further activities:
  - training/practice/skills development
  - further assessment

- Clarify appeals process with trainee if decision is challenged:
  - comply with Automotive Industry Guidelines

- Provide information to all parties as appropriate:
  - communicate results on a need-to-know basis

2.5.4 Review Assessment Procedure

- Review assessment procedure:
  - strengths and weaknesses
  - feedback from trainee
  - potential improvements.

2.6 SOURCES OF INFORMATION ON ASSESSMENT

National, State and Territory Industry Training Boards

- **Automotive Training Australia**
  Mr John Braddy, Executive Director
  LaTrobe University
  BUNDOORA VIC 3086
  Phone: 03 9479 3480
  Fax: 03 9479 3487
  Email: ata@automotivetraining.org.au

- **Automotive Training Victoria (ATV)**
  Mr Greg Walsh, Executive Officer
  Level 7, VACC Building
  464 St Kilda Road
  PO Box 7428
  MELBOURNE VIC 3004
  Phone: 03 9866 1294
  Fax: 03 9866 1295
  Email: manager@atv.org.au

- **AITB (NSW)**
  Ms Maryanne Petersen, Executive Officer
  Suite 502, Level 5
  418a Elizabeth Street
  SURRY HILLS NSW 2010
  Phone: 02 9281 4877
  Fax: 02 9212 3146
  Email: mail@atbnsw.com.au

- **ATA (Qld)**
  Mr Vic Guise, Executive Officer
  202 Boundary Street
  SPRING HILL QLD 4004
  Phone: 07 3244 1727
  Fax: 07 3244 1799
  Email: ataq@automotivetrainingqld.com.au

- **AAITB (NT)**
  Mr Barry Crammond, Executive Officer
  2nd Floor, Winlow House, 75 Woods Street
  DARWIN NT 0821
  PO Box 38426
  WINNELLIE NT 0821
  Phone: 08 8941 8840
  Fax: 08 8941 8850
  Email: teatacnt@bigpond.net.au

- **Automotive Training Australia (WA)**
  Ms Lee Morton, Executive Officer
  224 Balcatta Road
  PO Box 727
  BALCATTA WA 6021
  Phone: 08 9345 3466
  Fax: 08 9345 3465
  Email: lmorton@mtawa.com.au

- **AITB (ACT)**
  Mr Bob Waldron, Executive Officer
  Frenchman Street
  PO Box 580
  DICKSON ACT 2601
  Phone: 02 6241 2923
  Fax: 02 6241 2631
  Email: rwaldron@suttonroad.com.au

- **Australian National Training Authority**
  Level 5/321 Exhibition Street
  GPO Box 5347BB
  MELBOURNE VIC 3001
  Phone: 03 9630 9800
  Fax: 03 9630 9888
  Email: webmaster@anta.gov.au

State Training Authorities

- **Accreditation & Registration Council**
  Ms. Karen White, Program Manager
  40 Allara Street
  PO Box 985 Civic Square
  CANBERRA ACT 2608
  Phone: 02 6205 7777
  Fax: 02 6205 7045
  Email: karen white@dpa.act.gov.au

- **Northern Territory Employment & Training Authority**
  Mr. Norm Buchan, Manager RAPS
  1st Floor, Harbour View Plaza Building
  Cnr McMinn & Bennett Streets
  DARWIN NT 0800
  Phone: 08 8999 4288
  Fax: 08 8999 4223
  Email: norm.buchan@nteta.nt.gov.au

- **NSW Vocational Education & Training Accreditation Board**
  Ms. Virginia Troy, Manager Registration
  Level 12, 1 Oxford Street
  Locked Bag 21
  DARLINGHURST NSW 2010
  Phone: 02 9244 5335
  Fax: 02 9244 5344

- **Office of Training & Further Education - VIC**
  Mr. Christopher Stewart, Manager Training Recognition
  Client Relations Management Division
  Level 3, 2 Treasury Place
  PO Box 266D
  MELBOURNE VIC 3000
  Phone: 03 9637 2762
  Fax: 03 9637 2520

Queensland Vocational Education Training & Employment Commission

Ms. Wendy Gadsby, Client Services Officer
Recognition & Review Branch
30 Mary Street
Lock Mail Bag 527
BRISBANE QLD 4000
Phone: 07 3247 4988
Fax: 07 3247 5488
Email: wendy.gadsby@dtir.gov.au

- **SA Accreditation & Registration Council**

  Ms. Carol Ward, Manager
  Curriculum Policy & Training Recognition Branch
  12th Floor, 31 Flinders Street
  GPO Box 2352
  ADELAIDE SA 5000
  Phone: 08 8226 3398
  Fax: 08 8226 3383
  Email: carolwar@tafe.sa.edu.au

- **TAS Department of Vocational Education and Training**

  Mr. Mark Cameron, Manager
  3rd Floor, 99 Bathurst Street
  GPO Box 301C
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  Phone: 03 6233 4539
  Fax: 03 6234 4358
  Email: reardonm@dvet.tas.gov.au

- **WA Department of Training**

  The Manager
  Accreditation Recognition Branch
  Level 2, 155 Royal Street
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  Fax: 08 9235 6142
  Email: cabrem@royalst.training.wa.gov.au

RTOs registered by State Training Authorities to conduct approved assessment and/or training programs.

Publications

The following are only several of a wide range of publications consulted in the preparation of the Automotive Assessment Guidelines.

- Australian National Training Authority (ANTA): *AQF (AQF) Implementation Handbook*, August 1995.
- Australian National Training Authority (ANTA*): The Australian Recognition Framework,* June 1997.
- Australian National Training Authority (ANTA): *Standards Best Practice Manual (Interim Edition),* ACTRAC Products Ltd, July 1996.
- Department of Employment, Education and Training (DEET) (1994): *1. Assessment Practical Guide, 2. Assessment System Design, 3. Assessment Technical Manual*, AGPS, Canberra.

GUIDE TO ACRONYMS

ANTA	Australian National Training Authority
AQF	Australian Qualifications Framework
ASF	Australian Standards Framework
ATA	Automotive Training Australia
ITAB	Industry Training Advisory Board
MINCO	Ministerial Council
NTF	National Training Framework
NTFC	National Training Framework Committee
RCC	Recognition of Current Competencies
RPL	Recognition of Prior Learning
RTO	Registered Training Organisation

automotive training australia

AUSTRALIAN NATIONAL TRAINING AUTHORITY

AUTOMOTIVE INDUSTRY MANUFACTURING

SECTION 3

QUALIFICATIONS FRAMEWORK

TRAINING PACKAGE CODE
AUM 00
(BUS, TRUCK & TRAILER SECTOR)

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SECTION 3: AUTOMOTIVE MANUFACTURING BUS, TRUCK & TRAILER (BT&T) QUALIFICATIONS FRAMEWORK

3.1 INTRODUCTION

New Directions
Following the development of a National Training Package in the Automotive Manufacturing Passenger Motor Vehicle sector, the development of a package in the Bus, Truck & Trailer sector catered for the complexity and diversification of products and functions apparent in this sector.

The Bus, Truck & Trailer manufacturing and assembly sector was analysed and the following three sub-sectors were identified:

- Truck Manufacturing and Assembly
- Truck Body, Trailer and Tanker Manufacturing
- Bus and Coach Manufacturing and Assembly

This industry sector has been largely devoid of formal qualifications and therefore, had no proper qualification's pathway existing for either new or existing employees.

Current Training
The Certificate III Automotive Retail, Service & Repair (RS&R) Vehicle Body Building course has been utilised within the sector although there have been mixed views on its appropriateness to the operations of many businesses. Those with a negative view have called for a Certificate III qualification with greater flexibility and reflecting the Bus, Truck & Trailer manufacturing and assembly sector. A Certificate III in Metal Fabrication (WA) and Certificate II Vehicle Industry Certificate are also currently utilised in the sector.

No nationally agreed automotive qualification at Certificate II or IV levels are currently delivered in this sector. There are a number of curriculum-based courses developed by individual States and Territories, individual enterprises, trade associations and private providers which are accessed by the industry according to enterprise-specific needs at this level. Generally, these courses are not aligned to National Competency Standards and fall outside of the National Qualifications Framework.

In terms of current workplace training, the most prolific training is delivered to employees at the "operator" level. This level will be identified in this package by a qualification at Certificate II.

3.2 PACKAGING

The packaging of competency standards into qualifications in this sector is designed to:

- meet the needs of semi-skilled, skilled and supervision/people management/ production management positions in this sector
- maximise flexibility to meet a variety of enterprise needs across a range of industry sub-sectors
- meet the industry demand that training maintains the integrity of traditional trade-based occupations
- take into account the demands of employers for nationally recognised training both on and off-the job
- take into account the growth in demand for enterprise-based specialist skills.

Qualifications Guidelines

Industry consultation and examination of job profiles have supported a single Certificate II, a single Certificate III and three Certificate IV qualifications for the sector. The structure is sufficiently flexible to cater for the needs of large to small enterprises and provides a clear and achievable training pathway for employees.

It is anticipated that in terms of numbers, the most significant group to benefit from this project will be those employees at the "operator" level. This will include manufacturing and assembly hands-on employees achieving qualifications at the Certificate II level. The Certificate III qualification will encompass a new qualification appropriate to this sector and also include employees qualified, or with skills in the areas of: welders, spray painters, auto electricians, fitters, trimmers, glaziers, boilermakers and body builders.

The Certificate III qualification will recognise the more varied and customised nature of workplaces and allow enterprises the option of entry level recruitment to reach the Certificate III qualification, rather than recruiting a Certificate III qualified person at the outset.

The Certificate IV Automotive Manufacturing Bus, Truck & Trailer qualification recognises the need to again package standards appropriate to all identified sub-sectors given the varied and customised nature of workplaces. It also caters for the plant/production management and supervisory roles appropriate to this sector.

Qualifications at Certificate II, III and IV carry generic descriptors appropriate to covering the Bus, Truck & Trailer sector while additional Certificate IV qualifications in Frontline Management and Assessment & Workplace Training are widely available across industries. This packaging has eliminated the potential disadvantage of having multiple packages at each Certificate level.

It is possible to achieve the Certificate III qualification with or without first having achieved the Certificate II qualification. However, to obtain the Certificate IV Automotive Manufacturing (Bus, Truck & Trailer) qualification, achievement of the Certificate III qualification or the Certificate III in Automotive (Vehicle Body-Building) from the Retail, Service & Repair package, is necessary.

VET in Schools
The Certificate II qualification is available as a VET in Schools program where the resource requirements of the competency can be meet by the training provider, or in partnership with the industry. It is also possible for statements of attainment to be granted for individual competencies achieved.

3.3 PACKAGING MODELS

The competency standards have been packaged to cater for the requirements of the industry sub-sectors, and the qualification levels reflect the responsibility, complexity and autonomy of the occupations within this sector.

3.3.1 Core Standards

For the Certificate II and III qualifications, industry has selected seven compulsory core standards. All but one standard is the same.

The seven competency standards for the Certificate II are listed as follows:

AUM8001A	Contribute to workplace relationships and processes
AUM8011A	Provide customer service
AUM8021A	Inspect work and apply company technical quality standards
AUM8043A	Read and interpret working drawings and work orders
AUM9001A	Monitor and maintain workplace environment
AUM9004A	Prepare and use/operate equipment, tools and/or machinery
AUR61447A	Participate in improving workplace productivity

For the Certificate III, the standard AUM8043A is replaced by:

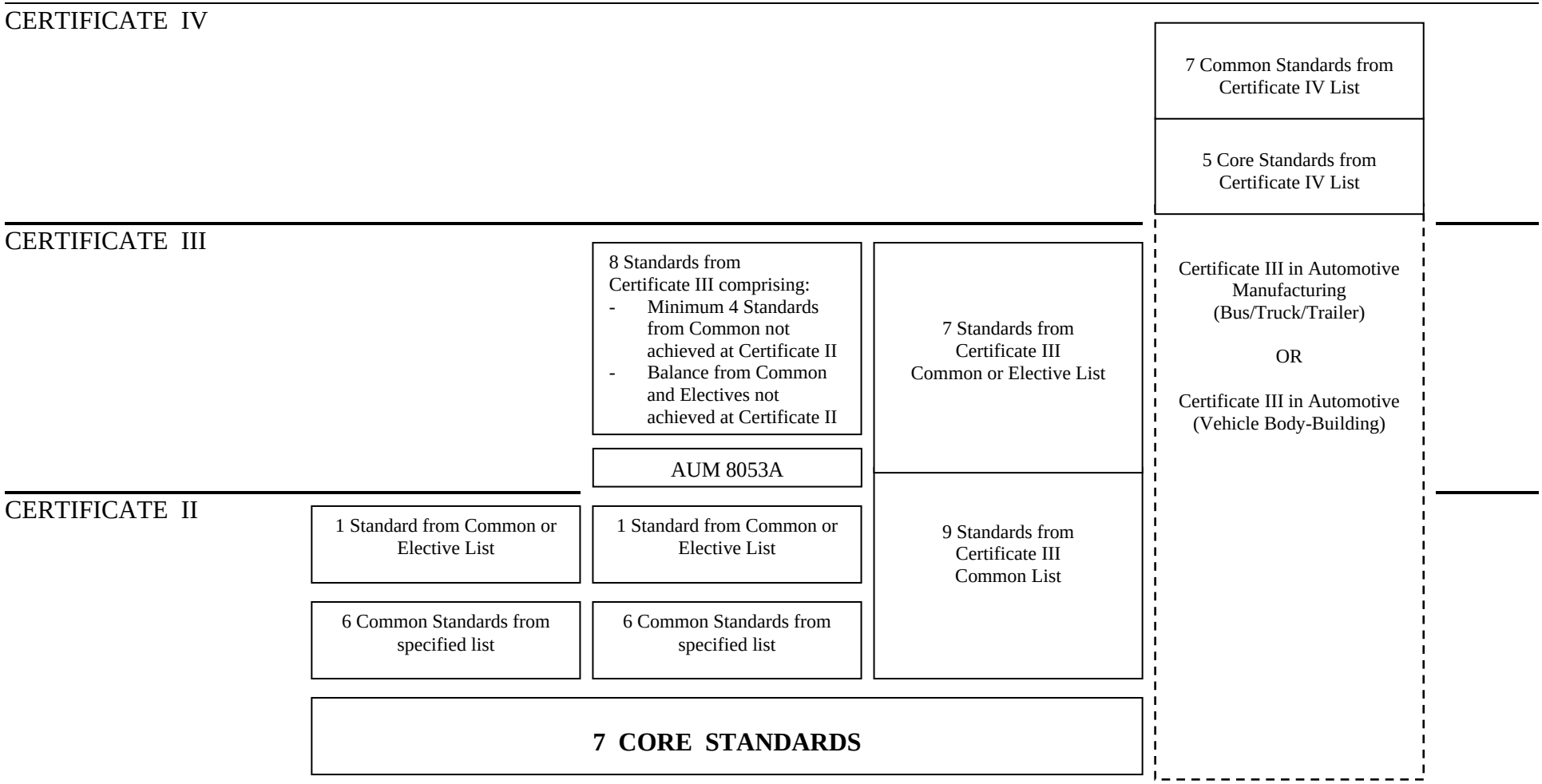
AUM8044A	Read and interpret engineering drawings and job specifications.

Industry expects the core standards to be fully assessed by the conclusion of the training period, and usually with other standards that form part of the job function and not in isolation and not during the introductory stages of training.

For the Certificate IV Bus, Truck & Trailer qualification and the Certificate IV Frontline Management qualification, the same group of five competency standards has been selected. They are as follows:

BSXFMI401A	Manage personal work priorities and professional development
BSXFMI402A	Provide leadership in the workplace
BSXFMI403A	Establish and manage effective workplace relationships
BSXFMI405A	Manage operations to achieve planned outcomes
BSXFMI408A	Develop and maintain a safe workplace and environment

This selection is in keeping with the supervisory and management functions appropriate to the sector.


CERTIFICATE IV
7 Common Standards from Certificate IV List
5 Core Standards from Certificate IV List
CERTIFICATE III
8 Standards from Certificate III comprising:
- Minimum 4 Standards from Common not achieved at Certificate II
- Balance from Common and Electives not achieved at Certificate II
7 Standards from Certificate III Common or Elective List
Certificate III in Automotive Manufacturing (Bus/Truck/Trailer)
OR
Certificate III in Automotive (Vehicle Body-Building)
AUM 8053A
CERTIFICATE II
1 Standard from Common or Elective List
1 Standard from Common or Elective List
9 Standards from Certificate III Common List
6 Common Standards from specified list
6 Common Standards from specified list
7 CORE STANDARDS

3.3.2 Common Standards

The menu of common competency standards at each of the Certificate II, III and IV levels comprise:

- a bank that is common to each of the Bus, Truck & Trailer sub-sectors
- an overview of the manufacturing and assembly process ie. building/ manufacturing, painting, assembling/fitting and finishing.

The standards may be assessed singly or with other standards that form part of the job function. The standards are listed in alphabetical, then numerical order and do not reflect a skill hierarchy or delivery order.

3.3.3 Elective Standards

Elective standards form part of the qualification to provide for enterprise-specific needs, trainee interests and flexibility. The selection of elective standards for this package is in accordance with the individual qualification requirements and the menu of elective standards listed for each.

The list of elective standards is not common necessarily to more than one of the three sub-sectors and will allow specialisation/customisation for individual enterprises. Elective standards may be assessed singly or with other standards that form part of the job function.

3.4 FLEXIBILITY

Flexibility has been achieved by the industry adopting a menu approach and a choice in both common and elective competency banks across Certificate II, III and IV qualifications. This approach provides for a single technical qualification at each level across the three sub-sectors.

The varied nature of job functions across and within the sub-sectors enforced the approach taken by the industry, and provided for the flexibility to meet enterprise needs and encourage the achievement of qualifications.

The trainee and employer, with the RTO, will decide on the competencies to be undertaken in keeping with the requirements outlined for each qualification.

3.5 CUSTOMISATION

Customisation is to be undertaken in the first instance, with agreement from the employer, employee and registered training organization.

In determining the competency standards for this package, the industry decided on the following action:

- Importing of existing automotive Manufacturing and Retail, Service & Repair and other industry competency standards without change.

- Importing of existing automotive Manufacturing and Retail, Service & Repair and other industry competency standards contextualised for this Training Package.
- Development of new competency standards for this industry sector.

The development of new competencies occurred where contextualisation of imported standards was too substantial to be appropriate and would diminish the integrity of those existing standards.

In considering whether to utilise equivalent existing competencies from other packages, the competency needed to have a manufacturing context rather than a service context.

Where customisation takes place:

- There must not be a change of Unit Number or Unit Title.
- The Unit Descriptor can be come specific but must not be decreased in content.
- The number of Elements of Competency and Performance Criteria can be expanded to include specific enterprise information but must not be decreased in number or content.
- Any addition to the Unit Descriptor must also be able to be made as an addition to the Range of Variables within the Range of Contexts for the unit.
- Additions which specify detail may be made to the Evidence Guide but must not detract from the original, which must still apply in full.

The Automotive Manufacturing Bus, Truck & Trailer core competencies must be retained unaltered. Elective competencies must be chosen from the bank of elective competencies contained in the particular qualification.

The Exporting of the Automotive Manufacturing Bus, Truck & Trailer Competency Standards

- The Automotive Manufacturing Bus, Truck & Trailer sector has developed industry-specific standards and will agree to the use of these standards by other industries subject to the same guidelines for customisation/contextualisation of an individual standard as are applied to the automotive manufacturing Bus, Truck & Trailer industry.

- Other industries wishing to import automotive Manufacturing Bus, Truck & Trailer standards must acknowledge the standard by its automotive coding and copyright to ANTA. The automotive coding must be maintained for every use of that competency wherever it appears, irrespective of the training package in which it may be used.

Statement of Attainment

Where a student has been assessed as competent but not to the full extent of the qualification, a statement of attainment should be issued clearly indicating the standards acquired.

3.6 ALIGNMENT TO AQF

The Certificate levels for each qualification are based upon the AQF level descriptors as outlined in the "Australian Qualifications Framework – Implementation Handbook" (second edition 1998).

The Certificate II, III and IV levels descriptors equate to the occupational levels and responsibilities existing in this industry sector, ie.

Certificate II - operators
Certificate III - trade level, specialists, team leaders
Certificate IV - plant manager, supervisor, production manager

Industry has supported these Certificate levels based on workplace operations.

3.7 TITLING AND CODING OF QUALIFICATIONS

The Automotive Manufacturing Bus, Truck & Trailer package recognises qualifications from Certificate II to Certificate IV. All the qualifications within the package will begin with the following qualification titles:

Certificate II in Automotive Manufacturing
Certificate III in Automotive Manufacturing
Certificate IV in Automotive Manufacturing

Qualification Coding
Under the national coding system, Automotive Manufacturing Bus, Truck & Trailer qualifications will be identified using the industry specific alpha-numeric combinations for each, followed by the list of competency standards.

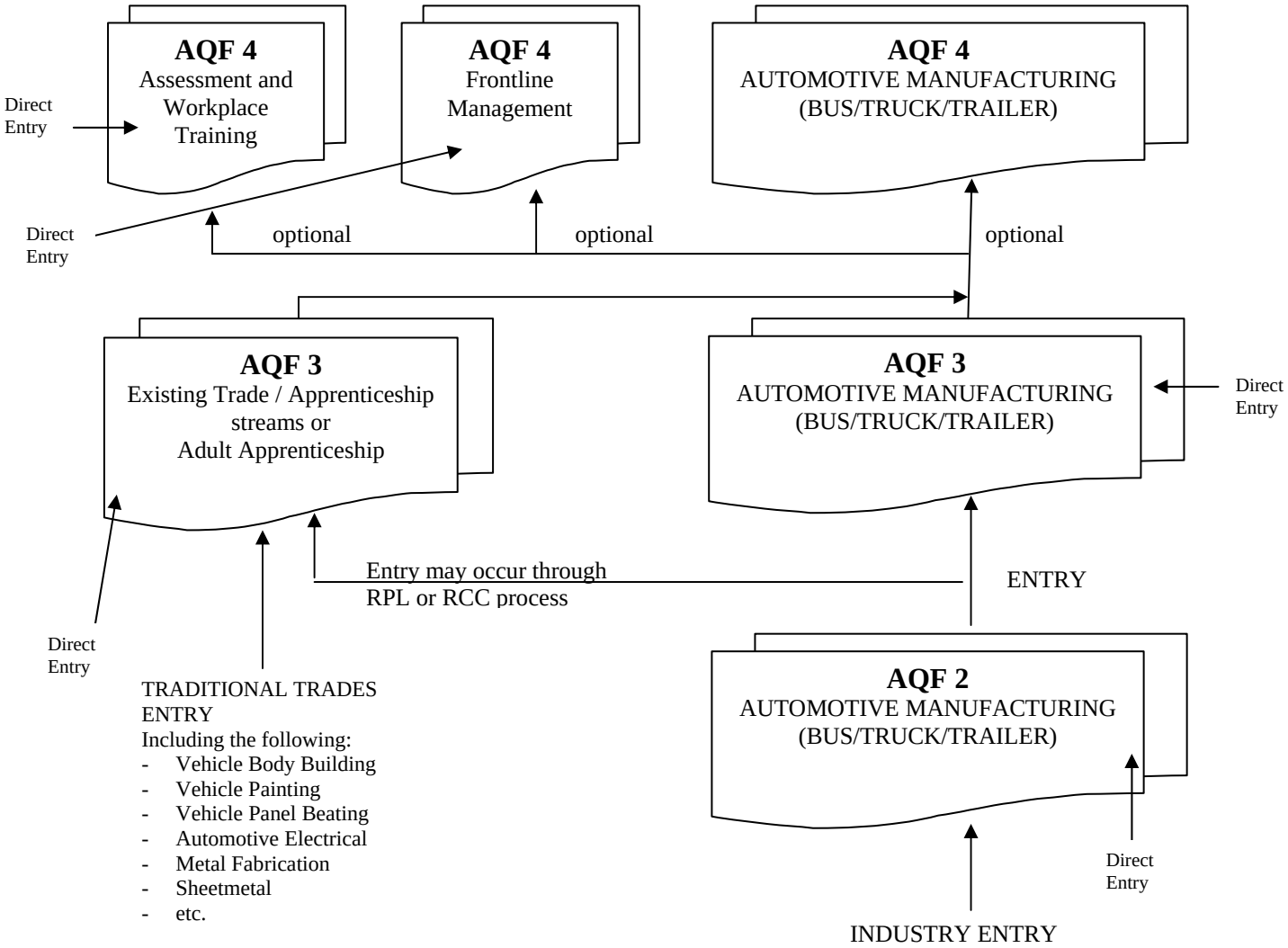
To differentiate the coding of the Automotive Manufacturing Bus, Truck &Trailer qualifications listed in this package from those in the Automotive Manufacturing Passenger Motor Vehicle (PMV) package, the qualification identifier in the coding will commence at 51 compared to 01 in the PMV package.

The only qualification common to both packages, ie. Certificate IV in Automotive Manufacturing (Frontline Management) retains the coding AUM 401 00. The Certificate IV in Assessment and Workplace Training retains its original coding of BSZ 401 98.

3.8 AUTOMOTIVE MANUFACTURING (BUS, TRUCK & TRAILER) QUALIFICATIONS LIST

QUALIFICATION TITLE	NATIONAL CODE
Certificate II in Automotive Manufacturing (Bus, Truck & Trailer)	AUM 25101
Certificate III in Automotive Manufacturing (Bus, Truck & Trailer)	AUM 35101
Certificate IV in Automotive Manufacturing (Bus, Truck & Trailer)	AUM 45101
Certificate IV in Automotive Manufacturing (Frontline Management)	AUM 401 00
Certificate IV in Assessment & Workplace Training	BSZ 401 98

3.9 PATHWAYS TO AUTOMOTIVE MANUFACTURING (BUS, TRUCK & TRAILER) QUALIFICATIONS



NOTE: Exiting from any level without completion of the qualification will entitle the trainee to receive a statement of attainment.

3.10 NEW APPRENTICESHIPS

The most common form of entry level training has been through an apprenticeship or traineeship, now known as a New Apprenticeship. In this industry, these current recognised programs align to the Certificate II and III levels.

Industry supports qualifications at Certificate II and III levels in this package aligning to New Apprenticeships. Recognition of New Apprenticeships will be made by State and Territory Training Authorities when packages are endorsed.

The development of a Certificate III Automotive Manufacturing Bus, Truck & Trailer qualification has provided for a more flexible and customised qualification for enterprises in this manufacturing and assembly sector, than that which is available in the Certificate III RS&R Vehicle Body Building qualification. The new Certificate III qualification will inform the RS&R qualification in the subsequent review process.

Where advice from industry indicates a need for new competency standards and the packaging of standards into a new qualification then alignment with, and the formation of, additional New Apprenticeships will be the outcome.

Pathways for New Apprenticeships include the same combinations of training as have the traditional apprenticeships and traineeships. These pathways are:

- combined off-the-job and workplace-based training
- workplace-based training only
- workplace-based training plus RPL and RCC
- institution-based training (including school-based training).

The automotive industry's preferred pathway is combined off-the-job and workplace-based training. Qualifications will rely heavily on this position as qualifications must be awarded against workplace delivered competency standards.

In some circumstances, an off-the-job only pathway may be feasible where acquisition of competencies can be demonstrated within a simulated situation which creates an environment similar to the workplace in terms of equipment and procedures.

Title **CERTIFICATE II IN AUTOMOTIVE MANUFACTURING (BUS/TRUCK/TRAILER)**

National Code **AUM 25101**

Qualification Requirements

To be awarded this qualification, the trainee must achieve in accordance with the Automotive Industry Assessment Guidelines a minimum of **14 competencies** from the Certificate II menu comprising:

- 7 compulsory core
- 6 common from Certificate II menu
- any other 1 from Certificate II menu

NOTE: Competency units that have an * have been sourced from other training packages but have been contextualised for the BUS, TRUCK & TRAILER sector of the Automotive Manufacturing Training Package.

Qualification Rationale

The level of this qualification is based on the following criteria:

- The application of this group of competency units that are required to be attained by the trainee, are consistent with the Key Features of the Certificate II Qualification :-
  - Breadth, depth, and complexity of knowledge and skills would prepare a person to perform in a range of varied activities or knowledge application where there is a clearly defined range of contexts in which the choice of actions is usually clear and there is limited complexity in the range of options to be applied
  - Performance of a prescribed range of functions involving known routines and procedures and some accountability for the quality of outcomes
  - Applications may include some complex or non-routine activities involving individual responsibility or autonomy and/or collaboration with others through members of a group or team

- This qualification aligns with the following performance descriptors for an AQF 2 certification (Australian Qualifications Framework Implementation Handbook – Second edition 1998). These included :-
  - demonstrate basic operational knowledge in a moderate range of areas
  - apply a defined range of skills
  - apply known solutions to a limited range of predictable problems
  - perform a range of tasks where choice between a limited range of options is required
  - assess and record information from varied sources
  - take limited responsibility for own outputs in work and learning

Core

AUM8001A	Contribute to workplace relationships and processes
AUM8011A	Provide customer service
AUM8021A	Inspect Work and Apply Company Technical Quality Standards
AUM8043A	Read and interpret working drawings and work orders
AUM9001A	Monitor and maintain workplace environment *
AUM9004A	Prepare and use/operate equipment, tools and/or machinery *
AUR61447A	Participate in improving workplace productivity *

Common

AUM8041A	Prepare materials for fabrication using jigs/fixtures
AUM8051A	Conduct basic welding, thermal cutting, heating and gouging operations
AUM8052A	Conduct mechanical cutting operations
AUM8063A	Fabricate parts for sub-assemblies
AUM8071A	Finish surfaces for painting
AUM8072A	Paint chassis or panels
AUM8082A	Assemble components
AUM8083A	Assemble frame and axle
AUM8086A	Service after assembly
AUM8092A	Install / Fit out components
AUM8105A	Perform minor modifications/repairs to electrical circuits / systems
AUM8112A	Operate load shifting equipment
AUM9002A	Receive and dispatch materials, equipment and tools
AUM9003A	Prepare and process materials and components
AUM9005A	Monitor and maintain continuous improvement of systems and processes
AUM9006A	Monitor and maintain equipment, tools and machinery *
AUM9007A	Manage personal work priorities

Electives

AUM8031A	Receive and Store Parts
AUM8033A	Select and Dispatch Parts
AUM8062A	Stamp and press parts
AUM8081A	Apply trim to components
AUM8090A	Install fixed and moveable glass components
AUM8091A	Install or Replace mechanical units / assemblies
AUM8093A	Test, service and replace battery
AUM8111A	Perform forklift driving and lifting operations
AUM9009A	Work effectively with others in teams *
AUR23808A	Carry out soldering techniques *
AUR39419A	Drive and operate a mobile crane *

Title **CERTIFICATE III IN AUTOMOTIVE MANUFACTURING (BUS/TRUCK/TRAILER)**

National Code **AUM 35101**

Qualification Requirements

To be awarded this qualification, the trainee:

1. Must achieve in accordance with the Automotive Industry Assessment Guidelines a minimum of 23 competencies from the Certificate III menu comprising:
   - 7 compulsory core
   - 9 common from Certificate III menu
   - any other 7 from Certificate III menu

   OR
2. Having completed Certificate II in Automotive Manufacturing (Bus/Truck/Trailer), will be required to achieve a minimum of 9 additional competencies from the Certificate III menu that includes:
   - Core unit AUM 8044A Read and interpret engineering drawings and job specifications
   - A minimum of 4 competencies from Certificate III "common" menu that are additional to any that were achieved at Certificate II
   - The balance of the 9 competencies to be selected from the Certificate III "common" and "elective" menu **that are additional** to any that were achieved at Certificate II.

NOTE: Competency units that have an * have been sourced from other training packages but have been contextualised for the BUS, TRUCK & TRAILER sector of the Automotive Manufacturing Training Package.

Qualification Rationale

The level of this qualification is based on the following criteria:

- The application of this group of competency units that are required to be attained by the trainee, are consistent with the Key Features of the Certificate III Qualification:
  - Breadth, depth and complexity of knowledge and competencies would cover selecting, adapting and transferring skills and knowledge to new environments and providing technical advice and some leadership in resolution of specific problems. This would be applied across a range of roles in a variety of contexts with some complexity in the extent and choice of options available
  - Performance of a defined range of skilled operations usually within a range of broader related activities involving known routines, methods and procedures where some discretion and judgement is required in the selection of equipment, services or contingency measured and within known time constraints
  - Application involves responsibility for others. Participation in teams including group or team coordination may be involved.

- This qualification aligns with the following performance descriptors for an AQF III certification (Australian Qualifications Framework Implementation Handbook – Second edition 1998). These included:
  - demonstrate some relevant theoretical knowledge
  - apply a range of well-developed skills
  - apply known solutions to a variety of predictable problems
  - perform processes that require a range of well-developed skills where some discretion and judgement is required
  - interpret available information, using discretion and judgement
  - take responsibility for own outputs in work and learning
  - take limited responsibility for the output of others.

Core

AUM8001A	Contribute to workplace relationships and processes
AUM8011A	Provide customer service
AUM8021A	Inspect Work and Apply Company Technical Quality Standards
AUM8044A	Read and interpret engineering drawings and job specifications
AUM9001A	Monitor and maintain workplace environment *
AUM9004A	Prepare and use/operate equipment, tools and/or machinery *
AUR61447A	Participate in improving workplace productivity *

Common

AUM8041A	Prepare materials for fabrication using jigs/fixtures
AUM8042A	Prepare materials for fabrication using manual processes
AUM8052A	Conduct mechanical cutting operations
AUM8055A	Perform oxyacetylene welding operations (OAW)
AUM8057A	Perform gas metal arc welding operations (GMAW)
AUM8063A	Fabricate parts for sub-assemblies
AUM8072A	Paint chassis or panels
AUM8082A	Assemble components
AUM8085A	Mount and Install assembled component to chassis or frame
AUM8090A	Install fixed and moveable glass components
AUM8091A	Install or Replace mechanical units / assemblies
AUM8092A	Install / Fit out components
AUM8094A	Install or Replace electrical / electronic units / assemblies
AUM8101A	Modify or repair chassis/frame and associated components
AUM8103A	Rectify / Replace vehicle body panels and ancillary fittings
AUM8112A	Operate load shifting equipment
AUM9006A	Monitor and maintain equipment, tools and machinery *

Electives

AUM8032A	Control Stock
AUM8051A	Conduct basic welding, thermal cutting, heating and gouging operations
AUM8053A	Perform manual metal arc welding operations (MMAW)
AUM8054A	Perform submerged arc welding operations (SAW)
AUM8056A	Perform gas tungsten arc welding operations (GTAW)
AUM8061A	Fabricate plugs
AUM8064A	Machine parts
AUM8073A	Control oven baking cycle
AUM8074A	Rework paint faults
AUM8083A	Assemble frame and axle
AUM8084A	Install engine and drive train
AUM8086A	Service after assembly
AUM8087A	Assemble and install hydraulic system kit
AUM8088A	Assemble and install pneumatic system kit
AUM8089A	Assemble and install braking system kit
AUM8095A	Perform wheel alignment operations
AUM8102A	Manufacture or modify wiring harnesses
AUM8104A	Bond/repair components using fibreglass reinforced plastic techniques
AUM8111A	Perform forklift driving and lifting operations
AUM8121A	Conduct final inspections and functional tests
AUM8131A	Install and commission air conditioning system kit
AUM8132A	Install and commission refrigeration system kit
AUM8133A	Remove and replace air conditioning system
AUM8134A	Remove and replace refrigeration system
AUM9009A	Work effectively with others in teams *
AUR23808A	Carry out soldering techniques *
AUR39419A	Drive and operate a mobile crane *
AUR39430A	Inspect and test a mobile crane *
BSXFMI401A	Manage personal work priorities and professional development
BSXFMI402A	Provide leadership in the workplace
BSZ404A	Train small groups

Title **CERTIFICATE IV IN AUTOMOTIVE MANUFACTURING (BUS/TRUCK/TRAILER)**

National Code **AUM 45101**

Qualification Requirements

To be awarded this qualification, the trainee must:

1. Have completed the Certificate III in Automotive Manufacturing (Bus / Truck/Trailer) or the Certificate III in Automotive (Vehicle Body –Building)

AND

2. Achieve in accordance with the Automotive Industry Assessment Guidelines a minimum of **12 competencies** from the Certificate IV menu comprising:
   - 5 compulsory core
   - 7 common from the Certificate IV menu **that are additional** to any that were achieved at Certificate III

NOTE: **Competency units that have an * have been sourced from other training packages but have been contextualised for the BUS, TRUCK & TRAILER sector of the Automotive Manufacturing Training Package.**

Qualification Rationale

The level of this qualification is based on the following criteria:

- The application of this group of competency units that are required to be attained by the trainee, are consistent with the Key Features of the Certificate IV Qualification:
  - Breadth, depth and complexity of knowledge and competencies would cover a broad range of varied activities or application in a wider variety of contexts most of which are complex and non-routine. Leadership and guidance are involved when organising activities of self and others as well as contributing to technical solutions of a non-routine or contingency nature.
  - Performance of a broad range of skilled applications including requirements to evaluate and analyse current practices, develop new criteria and procedures for performing current practices and provision of some leadership and guidance to others in the application and planning of the skills.
  - Application involves responsibility for, and limited organisation of, others.

- This qualification aligns with the following performance descriptors for an AQF 4 certification (Australian Qualifications Framework Implementation Handbook – Second edition 1998). These included:
  - demonstrate understanding of a broad knowledge base incorporating some theoretical concepts
  - apply solutions to a defined range of unpredictable problems
  - identify and apply skill and knowledge areas to a wide variety of contexts with depth in some areas

Core

BSXFMI401A	Manage personal work priorities and professional development
BSXFMI402A	Provide leadership in the workplace
BSXFMI403A	Establish and manage effective workplace relationships
BSXFMI405A	Manage operations to achieve planned outcomes
BSXFMI408A	Develop and maintain a safe workplace and environment

Common

AUM2901A	Develop and produce documentation and procedures *
AUM3003A	Document designs *
AUM3401A	Plan and organise production *
AUM5301A	Produce drawings manually *
AUM5403A	Produce computer-aided drawings (CAD) *
AUM8012A	Prepare and document quotation
AUM8032A	Control Stock
AUM8121A	Conduct final inspections and functional tests
AUM8122A	Conduct simulated or road performance test
AUM8123A	Conduct welding inspection
AUM8141A	Prepare new product designs
BSXFMI404A	Participate in, lead and facilitate work teams
BSXFMI406A	Manage workplace information
BSXFMI407A	Manage quality customer service
BSXFMI409A	Implement and monitor continuous improvements to systems and processes
BSXFMI410A	Facilitate and capitalise on change and innovation
BSXFMI411A	Contribute to the development of a workplace learning environment
BSZ401A	Plan assessment
BSZ402A	Conduct assessment
BSZ403A	Review assessment
BSZ404A	Train small groups

Title **CERTIFICATE IV IN AUTOMOTIVE MANUFACTURING (FRONTLINE MANAGEMENT)**

National Code **AUM 401 00**

Qualification Requirements

To be awarded this qualification, the trainee must achieve in accordance with the Automotive Industry Assessment Guidelines a minimum of 8 competencies which includes:

- 5 core
- any other 3 from the Frontline Management elective menu

Qualification Rationale

The level of this qualification is based on the following criteria:

- The application of this group of competency units that are required to be attained by the trainee, are consistent with the Key Features of the Certificate IV Qualification:
  - Breadth, depth and complexity of knowledge and competencies would cover a broad range of varied activities or application in a wider variety of contexts. Leadership and guidance are involved when organising activities of self and others as well as contributing to technical solutions of a non-routine or contingency nature.
  - Performance of a broad range of skilled applications including requirements to evaluate and analyse current practices, develop new criteria and procedures for performing current practices and provision of some leadership and guidance to others in the application and planning of the skills
  - Application involves responsibility for, and limited organisation of, others.

- This qualification aligns with the following performance descriptors for an AQF 4 certification (Australian Qualifications Framework Implementation Handbook – Second edition 1998). These included:
  - demonstrate understanding of a broad knowledge base incorporating some theoretical concepts
  - apply solutions to a defined range of unpredictable problems
  - identify and apply skill and knowledge areas to a wide variety of contexts with depth in some areas
  - identify, analyse and evaluate information from a variety of sources
  - take responsibility for own outputs in relation to specified quality standards
  - take limited responsibility for the quantity and quality of the output of others.

Core

BSXFMI401A	Manage personal work priorities and professional development
BSXFMI402A	Provide leadership in the workplace
BSXFMI403A	Establish and manage effective workplace relationships
BSXFMI405A	Manage operations to achieve planned outcomes
BSXFMI408A	Develop and maintain a safe workplace and environment

Electives

BSXFMI404A	Participate in, lead and facilitate work teams
BSXFMI406A	Manage workplace information
BSXFMI407A	Manage quality customer service
BSXFMI409A	Implement and monitor continuous improvements to systems and processes
BSXFMI410A	Facilitate and capitalise on change and innovation
BSXFMI411A	Contribute to the development of a workplace learning environment

Title **CERTIFICATE IV IN ASSESSMENT AND WORKPLACE TRAINING**

National Code **BSZ 401 98**

Qualification Requirements

To be awarded this qualification, the trainee must achieve in accordance with the Automotive Industry Assessment Guidelines all 8 competencies

Qualification Rationale

The level of this qualification is based on the following criteria:

- The application of this group of competency units that are required to be attained by the trainee, are consistent with the Key Features of the Certificate IV Qualification:
  - Breadth, depth and complexity of knowledge and competencies would cover a broad range of varied activities or application in a wider variety of contexts. Leadership and guidance are involved when organising activities of self and others as well as contributing to technical solutions of a non-routine or contingency nature.
  - Performance of a broad range of skilled applications including requirements to evaluate and analyse current practices, develop new criteria and procedures for performing current practices and provision of some leadership and guidance to others in the application and planning of the skills
  - Application involves responsibility for, and limited organisation of, others.

- This qualification aligns with the following performance descriptors for an AQF 4 certification (Australian Qualifications Framework Implementation Handbook – Second edition 1998). These included:
  - demonstrate understanding of a broad knowledge base incorporating some theoretical concepts
  - apply solutions to a defined range of unpredictable problems
  - identify and apply skill and knowledge areas to a wide variety of contexts with depth in some areas
  - identify, analyse and evaluate information from a variety of sources
  - take responsibility for own outputs in relation to specified quality standards
  - take limited responsibility for the quantity and quality of the output of others.

BSZ401A	Plan assessment
BSZ402A	Conduct assessment
BSZ403A	Review assessment
BSZ404A	Train small groups
BSZ405A	Plan and promote a training program
BSZ406A	Plan a series of training sessions
BSZ407A	Deliver training sessions
BSZ408A	Review training

automotive training australia

AUSTRALIAN NATIONAL TRAINING AUTHORITY

AUTOMOTIVE INDUSTRY MANUFACTURING

SECTION 4

COMPETENCY STANDARDS

TRAINING PACKAGE CODE
AUM 00
(BUS, TRUCK & TRAILER SECTOR)

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SECTION 4: COMPETENCY STANDARDS

4.1 DEVELOPMENT AND REVIEW OF AUTOMOTIVE MANUFACTURING BUS, TRUCK & TRAILER (BT&T) COMPETENCY STANDARDS

The Automotive Manufacturing Bus, Truck & Trailer (BT&T) National Training Package Steering Committee through the ATA Board, authorised the development of competency standards for this sector of the industry from April to December 1999.

During the Automotive Manufacturing Bus, Truck & Trailer Scoping Project in October 1998, the industry identified that qualifications at AQF Certificate II, II and IV levels were appropriate for development in this sector.

The Steering Committee established the following priority order for the selection of existing competency standards for the BT&T sector:

- the Manufacturing sector of the automotive industry
- the RS&R sector of the automotive industry
- other industry developed competency standards.

In consultation with the industry, the development and review of competency standards for this Package has involved the following:

- Importation of existing Manufacturing, RS&R and other industry competency standards without change.
- Importation of existing Manufacturing, RS&R and other industry competency standards contextualised for this Training Package.
- New competencies developed for this industry sector.

In the development of new competency standards, explanations for not using existing endorsed standards from other packages are contained in Attachment 1.

4.2 CONTENT OF AUTOMOTIVE MANUFACTURING BT&T STANDARDS

4.2.1 Consultation

The ATA Board and the National Steering Committee agreed on a consultation process which included presentation to and consultation with:

- key industry associations and enterprises
- State and Territory ITABs
- training providers
- the industrial parties - AMWU
- State and Territory Training Authorities
- enterprises and individuals as appropriate/available.

Advice received from stakeholders indicated that:

- a national set of competency standards be developed that allowed for flexibility of choice to meet the diversified business needs of industry enterprises
- existing national competency standards be identified in the automotive and associated industries, but customised is needed for each sub-sector
- training, assessment and professional development resources be specifically designed to assist competency development in the workplace for each sub-sector
- a national qualifications framework, initially AQF2-4, that covers semi-skilled, trades and supervisory/project management levels be developed.

Establishment of Focus Groups and Technical Reference Groups
Under the guidance of the Steering Committee, there were Focus Groups established in Victoria, Western Australia, New South Wales, Queensland and South Australia. They comprised representatives of enterprises in this sector, RTOs and State/Territory automotive ITABs.

The Focus Groups assisted in identifying the job functions and competencies required by operators to design, manufacture and assemble products to meet customer requirements.

The following sub-sectors were identified:
- truck chassis manufacture and assembly
- truck body manufacture and assembly
- articulated trailer manufacture and assembly
- tanker manufacture and assembly
- bus and coach manufacture and assembly
- specialised vehicle body manufacture and assembly (ambulances, disabled, stretch limousines).

Given the funding availability and its potential scope, it was agreed by the Steering Committee and ANTA to set aside the sub-sector of specialised vehicle body manufacture and assembly, for development in a separate funding submission.

Technical Reference Groups comprising technical experts from the sub-sectors were established.

The advice from these industry experts ensured that in developing the competency standards, the relevant knowledge and skills required in the workplace were reflected in the competencies. It was also necessary to address the range of variables that occur on the job, and that the required evidence is available to properly assess competency in the workplace. A draft Qualifications Framework was also developed at this stage.

Under the direction of the Steering Committee, the competency standards were put through a national validation process during October and November 1999, involving the State Focus Groups, Technical Reference Groups and State/Territory Automotive ITABs.

Further refinement to the standards resulting from this feedback, was presented to the Steering Committee in November. It was agreed to repeat the validation process and seek final comment from the involved parties.

4.2.2 Identification of Competency

It was important to ensure that all standards clearly identify the relationship between underpinning knowledge and skills, and draw the assessment of knowledge and skills together. The Automotive Industry has traditionally divided the on-the-job (skills) from the off-the-job (knowledge) training but the ANTA Guidelines definitions of competency re-aligns the disparate parts.

> "Competency comprises the specification of knowledge and skill and the application of that knowledge and skill to the standard of performance required in the workplace."
>
> "The concept of competency focuses on what is expected of an employee in the workplace rather than on the learning process and embodies the ability to transfer and apply skills and knowledge to new situations and environments. This is a broad concept of competency in that all aspects of work performance, not only the narrow task skills, are involved."

4.2.3 Structure of National Automotive Manufacturing BT&T Competency Standards

Competency Standards, whatever their application, are comprised of the same six parts:

- Unit title
- Unit purpose
- Element of competency matched to Performance Criteria
- Performance Criteria
- A range of variables statement
- Evidence guide

The unit title should define the activity to be assessed for competency.

The unit purpose should clarify the title.

Elements of competency should identify the work process to be undertaken in a logical order and be related to the unit purpose.

Range of variables statement identifies context and should explain the application.

The Evidence Guide should provide adequate interpretation, implementation steps and assessment criteria.

4.3 MAINTENANCE OF COMPETENCY STANDARDS

There is rapid technological change occurring within the automotive industry. Competency standards will require modification and possibly new standards will need to be developed to reflect the latest technology.

ATA has reached agreement with the ATA Board that a national process for the maintenance of competency standards will require upkeep from the implementation of the training package. This will be facilitated by the establishment of a Bus, Truck & Trailer Advisory Group to the ATA Board.

The BT&T Advisory Group will notify ATA of:

- changes required by new technology to be reflected in current competency standards in all of the qualifications
- any competency standards unused
- any competency standards to be developed
- elective standards most commonly chosen to support an automotive occupational qualification
- imported standards most commonly chosen to support an automotive occupational qualification.

ATA will negotiate with the BT&T Advisory Group to confirm:

- the development of national, model/generic competency-based training and assessment
- resource issues which may arise due to implementation of training packages by RTOs and State Training Authorities (STAs)
- issues specific to a State or Territory which affect the implementation of national competency-based training and assessment in that State or Territory or of an automotive enterprise.

4.4 IDENTIFICATION OF AUTOMOTIVE MANUFACTURING BT&T STANDARDS

The coding of a competency standard, for example, AUM8052A, does not reflect a qualification level, an industry stream or an order in which the standard should be trained or assessed. The national code is an identifier unique to the standard. It is a combination of the number granted to the standard plus letters which define the training package in which the standard appears and the version, e.g. first, second, etc., of that standard.

An example is Manufacturing BT&T Competency Standard AUM 8052 A:

AUM = the code for the National Automotive Manufacturing Training Package

8052 = the number for the title of the standard "Conduct Mechanical Cutting Operations"

A = the version of the standard being used in the package. "A" shows it is the first version of the standard. "B" would denote a second and "C" a third version.

Pagination of Automotive Manufacturing Competency Standards

The Competency Standards in this Package vary in length from two to five pages. Each Competency Standard has been paginated independently to indicate the number of relevant pages eg. AUM8052A is 3 pages in length. This also allows for the inclusion and deletion of Competency Standards in future.

Cross-Industry standards are paginated as a group and not on an individual standard basis.

4.5 APPLICATION OF AUTOMOTIVE MANUFACTURING BT&T STANDARDS

The automotive manufacturing BT&T competency standards may apply in three distinct groups:

- six (6) competency standards existing in the core of both Certificate II and III qualifications
- a range of fifty-two (52) competency standards existing in the Certificate II and III banks.
- thirty (30) competency standards existing only in Certificate IV qualifications.

4.6 AUTOMOTIVE COMPETENCY STANDARDS LIST

4.6.1 Automotive Competency Standards applicable to the Package

The standards are grouped under functional headings according to skill clusters.

A standard can be referenced by number and title if known, or it can be sourced by checking under a functional heading

COMPETENCY STANDARD NUMBER	COMPETENCY STANDARDS BY CLUSTER TITLE
1. Tools and Equipment	
AUM9004A	Prepare and use/operate equipment, tools and/or machinery
AUM9006A	Monitor and maintain equipment, tools and machinery
2. Workplace Environment and Relationships	
AUM9001A	Monitor and maintain workplace environment
AUM9009A	Work effectively with others in teams
AUM8001A	Contribute to workplace relationships and processes
3. Customer Service	
AUM8011A	Provide customer service
AUM8012A	Prepare and document quotation
4. **Quality**	
AUR61447A	Participate in improving workplace productivity
AUM8021A	Inspect work and apply company technical quality standards
5. Stock Control	
AUM8031A	Receive and Store Parts
AUM8032A	Control Stock
AUM8033A	Select and Dispatch Parts
6. Preparation and Planning	
AUM8041A	Prepare materials for fabrication using jigs / fixtures
AUM8042A	Prepare materials for fabrication using manual processes
AUM8043A	Read and interpret working drawings and work orders
AUM8044A	Read and interpret engineering drawings and job specifications
AUM3401A	Plan and Organise production
7. Welding / Heating / Cutting	
AUM8051A	Conduct basic welding, thermal cutting, heating and gouging operations
AUM8052A	Conduct mechanical cutting operations
AUM8053A	Perform manual metal arc welding operations (MMAW)
AUM8054A	Perform submerged arc welding operations (SAW)
AUM8055A	Perform oxy acetylene welding operations (OAW)
AUM8056A	Perform gas tungsten arc welding operations (GTAW)
AUM8057A	Perform gas metal arc welding operations(GMAW)
AUR23808A	Carry out soldering techniques

COMPETENCY STANDARD NUMBER	COMPETENCY STANDARDS BY CLUSTER TITLE
8. Fabricate	
AUM8061A	Fabricate Plug
AUM8062A	Stamp and press parts
AUM8063A	Fabricate parts for sub-assemblies
AUM8064A	Machine parts
9. Painting	
AUM8071A	Finish surfaces for painting
AUM8072A	Paint chassis or panels
AUM8073A	Control oven baking cycle
AUM8074A	Rework paint faults
10. Assemble / Install	
AUM8081A	Apply trim to components
AUM8082A	Assemble components
AUM8083A	Assemble frame and axle
AUM8084A	Install engine and drive train
AUM8085A	Mount and Install assembled component to chassis or frame
AUM8086A	Service after assembly
AUM8087A	Assemble and Install hydraulic system kit
AUM8088A	Assemble and Install pneumatic system kit
AUM8089A	Assemble and Install braking system kit
AUM8090A	Install fixed and moveable glass components
AUM8091A	Install or Replace mechanical units / assemblies
AUM8092A	Install / Fit out components
AUM8093A	Test, service and replace battery
AUM8094A	Install or Replace electrical / electronic units / assemblies
AUM8095A	Perform wheel alignment operations
11. Repair / Modify	
AUM8101A	Modify or rectify chassis/frame and associated components
AUM8102A	Manufacture or modify wiring harnesses
AUM8103A	Rectify / Replace vehicle body panels and ancillary fittings
AUM8104A	Bond / repair components using fibreglass reinforced plastics techniques
AUM8105A	Perform minor modifications / repairs to electrical circuits / systems
12. Materials Handling	
AUM8111A	Perform forklift driving and lifting operations
AUR39430A	Inspect and test a mobile crane
AUR39419A	Drive and Operate a mobile crane
AUM8112A	Operate load shifting equipment
13. Inspection and testing	
AUM8121A	Conduct final inspections and functional tests
AUM8122A	Conduct simulated or road performance test
AUM8123A	Conduct welding inspection
14. Air Conditioning / Refrigeration	
AUM8131A	Install and commission air conditioning system kit
AUM8132A	Install and commission refrigeration system kit
AUM8133A	Remove and replace air conditioning system
AUM8134A	Remove and replace refrigeration system

COMPETENCY STANDARD NUMBER	COMPETENCY STANDARDS BY CLUSTER TITLE
15. Design	
AUM8141A	Prepare new product designs
AUM2901A	Develop and produce documentation and procedures
AUM3003A	Document designs
AUM5301A	Produce drawings manually
AUM5403A	Produce computer-aided drawings (CAD)

4.6.2 Listing of Competency Standards - Cluster Groups

Following is an alphabetical listing of the Automotive Competency Standards skill clusters. There are a number of individual Competency Standards within each skill cluster.

FUNCTIONAL GROUP NUMBER	FUNCTION GROUP
14	Air Conditioning/Refrigeration
10	Assemble/Install
3	Customer Service
15	Design
8	Fabricate
13	Inspection and Testing
12	Materials Handling
9	Painting
6	Preparation and Planning
4	Quality
11	Repair/Modify
5	Stock Control
1	Tools and Equipment
7	Welding/Heating/Cutting
2	Workplace Environment and Relationsips

4.7 LIST OF CROSS-INDUSTRY COMPETENCY STANDARDS

4.7.1 Frontline Management Competency Standards

BSXFMI401A	Manage personal work priorities and professional development
BSXFMI402A	Provide leadership in the workplace
BSXFMI403A	Establish and manage effective workplace relationships
BSXFMI404A	Participate in, lead and facilitate work teams
BSXFMI405A	Manage operations to achieve planned outcomes
BSXFMI406A	Manage workplace information
BSXFMI407A	Manage quality customer service
BSXFMI408A	Develop and maintain a safe workplace and environment
BSXFMI409A	Implement and monitor continuous improvements to systems and processes
BSXFMI410A	Facilitate and capitalise on change and innovation
BSXFMI411A	Contribute to the development of a workplace learning environment

(Note: Certificate IV standards are signified by the number '4' in the standard number)

4.7.2 Assessment & Workplace Training Competency Standards

BSZ401A	Plan assessment
BSZ402A	Conduct assessment
BSZ403A	Review assessment
BSZ404A	Train small groups
BSZ405A	Plan and promote a training program
BSZ406A	Plan a series of training sessions
BSZ407A	Deliver training sessions
BSZ408A	Review training

AUM9002A RECEIVE AND DISPATCH MATERIALS, EQUIPMENT AND TOOLS

UNIT DESCRIPTOR: Process activities cannot occur unless the correct materials and equipment are in place, when and where required. This unit covers the activities required within the Automotive Manufacturing (Passenger Vehicle) industry for ensuring that materials/ equipment/components/parts/tools are received and stored, and are also dispatched in a timely fashion so the next process can receive them.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
AUM9002A.1 Receive and check materials/components/parts and equipment/tools required for the job.	AUM9002A.1.1 Materials/components/parts required for the job are received in accordance with work plans, enterprise procedures and OH&S guidelines. AUM9002A.1.2 Materials/components/parts required for the job are checked to ensure they comply with job requirements. AUM9002A.1.3 Equipment and tools required to carry out the process are received in accordance with work plans, enterprise procedures and OH&S guidelines. AUM9002A.1.4 Equipment and tools are checked to ensure that they are the correct type and are in working order to enable the process to be conducted, in accordance with work requirements, enterprise procedures and OH&S guidelines.
AUM9002A.2 Unpack and store materials/ components/parts and equipment/tools as required for the job.	AUM9002A.2.1 Materials/components/parts required for the job are unpacked and stored correctly in accordance with the requirements of the job, enterprise procedures and OH&S guidelines. AUM9002A.2.2 Equipment and tools required for the job are unpacked and stored in accordance with job requirements, enterprise procedures and OH&S guidelines.
AUM9002A.3 Stack/store materials/ parts/components as required for the process.	AUM9002A.3.1 Materials/parts/components required for the process are stacked/stored in accordance with enterprise procedures and OH&S guidelines.
AUM9002A.4 Dispatch materials/ parts/components on completion of the process.	AUM9002A.4.1 Materials/parts/components are dispatched in accordance with enterprise procedures and OH&S guidelines.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
AUM9002A.5 Store equipment and tools on completion of the process.	AUM9002A.5.1 Equipment and tools are stored at the completion of the process in accordance with enterprise procedures and OH&S guidelines.

RANGE STATEMENT:
The range of contexts for this unit of competency include:

Body Construction
Aluminium Die Casting
Iron Foundry Operations
Engine Machining
Spray Painting
Automotive Plastics
Stamping & Press Operations
Fabrication Hardware
Trim Manufacture
Vehicle Assembly
Warehousing
Engine Assembly
Seat Frame Manufacture

Examples of process include, but are not restricted to:
- Welding sub-assemblies
- Fitting hang-on components
- Fitting dies to die boxes
- Pouring aluminium
- Machining parts
- Application of paint
- Cutting blanks
- Assembly of components to form sub-assemblies
- Fitting parts to bodies
- Assembly of parts
- Parts picking

EVIDENCE GUIDE:
Context:
- Assessment must take place in accordance with the endorsed *Assessment Guidelines for the Automotive Industry*
- Assessment of the underpinning knowledge should be combined with assessment of the skill.
- Assessment of the underpinning knowledge may take place on- or off-the-job.
- Assessment of the competency should take place in a safe working environment in a passenger motor vehicle manufacturing plant or simulated environment using tools/equipment/machinery required for the production process without undue disruption to the production process.

Critical Aspects of Evidence to be Considered:
- Competency must be demonstrated in a number of workplace situations based on the agreed enterprise rotation plan.
- Demonstration of this competency must be in accordance with relevant OH&S and Environmental legislation and enterprise policies and procedures.
- The assessment of this competency should take into consideration the culture of the enterprise and the enterprise-based attitudinal requirements of the trainee. These will vary from enterprise to enterprise.

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Concurrent Assessment:
This unit should be assessed in conjunction with the following units of competency:
- Prepare and process materials and components
- Prepare and use/operate equipment, tools and/or machinery
- Monitor and maintain workplace environment

At the same time, evidence for the assessment of the following competencies will be gathered during the assessment of this unit:
- Manage personal work priorities
- Monitor and maintain continuous improvement systems and processes
- Monitor and maintain equipment, tools and machinery

Underpinning Skill, Knowledge and Attitude:
Underpinning skill, knowledge and attitudes for each unit of competency in each work area, and for specific job roles within work areas, will differ between enterprises, and will alter from time to time depending on factors such as changes in equipment, technology and culture.

Before skill, knowledge and attitudes development and assessment of the trainee begins, key operators in the area, in conjunction with trainers, union representatives and other stakeholders, must list the underpinning knowledge, skill and attitudes required to perform the unit competently (to standard). This will be used as a guide for training and assessment.

The following underpinning knowledge is common across the range of areas listed in the Range Statement:
- Relevant Occupational Health and Safety and Environmental regulations and enterprise policies and procedures needed to carry out work in a manner which ensures the safety of people, equipment and the environment. The specific regulations will vary according the area of operation.
- Knowledge of upstream customers and their requirements.
- Knowledge of the material requirements for the job, which will vary according to the function, and their correct handling and storage to comply with OH&S and environmental requirements.
- Knowledge of the correct handling and storage of equipment and tools to comply with OH&S and environmental requirements.

Resource Implications:
The resource required for this competency is a passenger vehicle manufacturing plant.

Key Competencies:
In this unit, the following key competencies would be met:

	Level
Collect, analyse and organise information	2
Communicate ideas and information	Nil
Plan and organise activities	2
Work with others in a team	2
Use mathematical ideas and techniques	Nil
Solve problems	1
Use technology	Nil

AUM9003A PREPARE AND PROCESS MATERIALS AND COMPONENTS

UNIT DESCRIPTOR: This unit describes the competencies required to undertake the preparation and processing of materials and components, under supervision, including finishing for the full range of manufacturing contexts in the Automotive Manufacturing (Passenger Vehicle) industry.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
AUM9003A.1 Select materials/components required for the operation/process.	AUM9003A.1.1 The appropriate materials/components are identified according to the job requirements. AUM9003A.1.2 The appropriate materials/components are selected according to the job requirements.
AUM9003A.2 Inspect and check materials/components prior to use.	AUM9003A.2.1 Materials/components are inspected to ensure they conform to enterprise quality standards and specifications. AUM9003A.2.2 Defective materials/components are identified and dispatched according to enterprise procedures.
AUM9003A.3 Prepare and/or load/secure materials/ components as required.	AUM9003A.3.1 Specified preparation procedures are performed on the materials/ components as required by the process/operation in accordance with enterprise procedures and OHS regulations. AUM9003A.3.2 Materials/components are loaded, aligned and secured if/as required by the process/operation in accordance with enterprise procedures and OHS regulations.
AUM9003A.4 Process materials/components as detailed in enterprise procedures to ensure a quality product.	AUM9003A.4.1 Materials/components are processed using correct tools and equipment. AUM9003A.4.2 Materials/components are processed in correct sequence as detailed in enterprise procedures. AUM9003A.4.3 Materials/components are processed following enterprise procedures, OH&S and environmental regulations. AUM9003A.4.4 Materials/components are processed within enterprise specified timeframes.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
AUM9003A.4 (continued) Process materials/components as detailed in enterprise procedures to ensure a quality product.	AUM9003A.4.5 Materials/components are processed and finished to the quality required by the standard operating procedures or other enterprise specifications. AUM9003A.4.6 Quality control tools are identified and applied.

RANGE STATEMENT:
The range of contexts for this unit of competency include:

Body Construction
Aluminium Die Casting
Iron Foundry Operations
Engine Machining
Spray Painting
Automotive Plastics
Stamping & Press Operations
Fabrication Hardware
Trim Manufacture
Vehicle Assembly
Warehousing
Engine Assembly
Seat Frame Manufacture

Examples of selection procedures include, but not exclusively:
- Matching part numbers to the model/code under construction
- Enterprise specifications for selection of materials/components may include size, shape, tolerances, critical measurements
- Identification of bin/batch numbers and codes
- Checking materials/components against requirements of production schedules/supply requisition

Inspection of materials and components may include, but not exclusively:
- Inspection for defects that may cause the manufactured components to be faulty on completion
- Inspection to ensure surfaces are cleaned and dried to the required state as determined by the standard operating procedures
- Visual inspection
- Measuring, gauging, weighing
- Checking for correct part names/codes/numbers
- Checking colour of paint meets the requirements of the job sheets

NB - Defects may be surface, structural or other

Preparation may include, but not exclusively:
- Cleaning and preparation of surfaces
- Weighing and measuring materials to specified amounts
- Removal of external packaging
- Cleaning of surfaces
- Cleaning with solvents or air blowers
- Mixing paint
- Masking off of bodies
- Application of lubricants to parts to ensure ease of fitting during assembly operations

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Loading procedures may include, but not exclusively:
- Matching materials/components to equipment on the basis of part numbers and codes
- Alignment of components/materials with predetermined points on machinery
- Secure clamping of materials/components to prevent movement and distortion and minimise waste, as specified in standard operating procedures

Examples of processes include, but are not restricted to:
- Welding sub-assemblies
- Fitting hang-on components
- Fitting dies to die boxes
- Pouring aluminium
- Machining parts
- Applying paint
- Cutting blanks
- Assembling components to form sub-assemblies
- Fitting parts to bodies
- Assembly of parts
- Parts processing in a warehouse

Finishing may include but is not restricted to:
- Final finish by grinding, metal finishing, panel flanging and hemming, hand filing, sanding
- Adjustment to tolerances
- Application of adhesives and sealants to ensure components are securely joined and free of leaks
- Nuts, bolts and screws tensioned to the specification

Regulations, policies and procedures may include, but are not restricted to:
- Enterprise regulations, policies and procedures including enterprise OH&S and environmental policy and procedures
- ISO standards (Quality Management and Environmental)
- Vehicle Industry OH&S Award
- OH&S Legislation
- Environmental Management Legislation
- Standard operating procedures
- Suppliers operating instruction manuals
- Enterprise production process sheets
- Enterprise production schedules
- Enterprise supply requisition procedures/forms
- Enterprise inventory control procedures (paper or computer based)

EVIDENCE GUIDE:
Context:
- Assessment must take place in accordance with the endorsed *Assessment Guidelines for the Automotive Industry*
- Assessment of the underpinning knowledge should be combined with assessment of the skill.
- Assessment of the underpinning knowledge may take place on- or off-the-job.
- Assessment of the competency should take place in a safe working environment in a passenger motor vehicle manufacturing plant or simulated environment using tools/equipment/machinery required for the production process without undue disruption to the production process.

Critical Aspects of Evidence to be Considered:
- Competency must be demonstrated in a number of workplace situations based on the agreed enterprise rotation plan.
- Demonstration of this competency must be in accordance with relevant OH&S and Environmental legislation and enterprise policies and procedures.
- The assessment of this competency should take into consideration the culture of the enterprise and the enterprise-based attitudinal requirements of the trainee. These will vary from enterprise to enterprise.

Concurrent Assessment:
This unit should be assessed in conjunction with the following units of competency:
- Receive and dispatch materials/components/parts and equipment/tools
- Prepare and use/operate equipment, tools and/or machinery
- Monitor and maintain workplace environment.

At the same time, evidence for the assessment of this unit will be gathered during the assessment of the following units of competency:
- Manage personal work priorities
- Monitor and maintain continuous improvement systems and processes
- Monitor and maintain equipment, tools and machinery
- Maintain effective workplace relationships
- Work effectively with others and in teams.

Underpinning Knowledge:
The following underpinning knowledge is common across the range of areas listed in the Range Statement:

- Relevant Occupational Health and Safety and Environmental regulations and enterprise policies and procedures needed to carry out work in a manner which ensures the safety of people, equipment and the environment. The specific regulations will vary according to the area of operation.

- Relevant Quality measurement tools for the area of operation to ensure the quality of the product and/or process.

Underpinning Skill, Knowledge and Attitude:
Underpinning skill, knowledge and attitudes for each unit of competency in each work area, and for specific job roles within work areas, will differ between enterprises, and will alter from time to time depending on factors such as changes in equipment, technology and culture.

Before skill, knowledge and attitudes development and assessment of the trainee begins, key operators in the area, in conjunction with trainers, union representatives and other stakeholders, must list the underpinning knowledge, skill and attitudes required to perform the unit competently (to standard). This will be used as a guide for training and assessment.

Resource Implications:
The resource required for this competency is a passenger vehicle manufacturing plant.

Key Competencies:
In this unit, the following key competencies would be met:

	Level
Collect, analyse and organise information	Nil
Communicate ideas and information	1
Plan and organise activities	Nil
Work with others in a team	Nil
Use mathematical ideas and techniques	Nil
Solve problems	1
Use technology	1

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AUM9004A PREPARE AND USE/OPERATE EQUIPMENT, TOOLS AND/OR MACHINERY

UNIT DESCRIPTOR: This unit describes the process required to prepare any equipment, tools and/or machinery ready for use and use/operate the equipment, tools and machinery, under supervision, as required for the full range of contexts in the Automotive Bus/Truck/Trailer Manufacture and Assembly Industry.

NOTE **This unit has been sourced from:**
Automotive Manufacturing Training Package – Passenger Motor Vehicle Sector and has been contextualised for the Automotive Manufacturing Training Package – Bus, Truck & Trailer Sector.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
1. Select equipment, tools and/or machinery required for the operation/process.	1.1 The appropriate equipment, tools and machinery are identified according to the job requirements. 1.2 The appropriate equipment, tools and machinery are selected according to the job requirements.
2. Inspect and check equipment, tools and/or machinery prior to use.	2.1 Equipment, tools and machinery are checked to ensure they are in operational order. 2.1 Defective equipment, tools and machinery are identified and reported according to company procedures.
3. Prepare equipment, tools and machinery as required by the process/operation.	3.1 Equipment, tools and machinery are prepared according to OH&S, environmental and company procedures and manufacturer specifications.
4. Use and/or operate equipment, tools and machinery as required by the process/operation.	4.1 Equipment, tools and/or machinery are used correctly as required by the process/operation according to OH&S, environmental and company procedures and manufacturer specifications to ensure a quality product.
5. Shut down and/or store equipment, tools and machinery at the conclusion of the operation.	5.1 Equipment, tools and/or machinery are shut down and/or stored at the conclusion of the operation according to company procedures.

RANGE STATEMENT:
Range of Contexts:
This competency standard applies to:
- Bus/Truck/Trailer Manufacture and Assembly

Resources may include:
- welding equipment
- measuring equipment – tape measure, rulers, calibration requirements
- robots – trailer welding
- forklift trucks
- hand tools
- power tools
- spray guns

- lubricating equipment
- cutting equipment – mechanical, gas cutting operations
- computer equipment
- spray booths
- wheel and axle alignment equipment
- qualified workplace assessor
- workplace or simulated workplace

Sources of information/documentation may include:
- enterprise regulations, policies and procedures including enterprise OH&S and environmental policy and procedures
- ISO standards (Quality Management and Environmental)
- OH&S Legislation
- Environmental Management Legislation
- standard operating procedures
- suppliers operating instruction manuals
- enterprise production process sheets
- enterprise production schedules
- enterprise supply requisition procedures/forms
- enterprise inventory control procedures (paper or computer-based)

EVIDENCE GUIDE:
Context:
- Competency must be assessed in a safe working environment and in accordance with endorsed industry assessment guidelines.
- The underpinning knowledge and skills may be assessed on or off-the-job.
- The assessment of practical skills must take place only after a period of supervised practice and repetitive experience. If workplace conditions are not available, assessment in simulated workplace conditions is acceptable.
- The prescribed outcome must be able to be achieved without direct supervision.

Concurrent assessment and pre-requisite relationship:
- This unit may be assessed in conjunction with other units that form part of the function or for a particular job role for a company.

Consistency of performance:
- Competency is best assessed through observation over a period of time and in a variety of situations. Supplementary evidence of underpinning knowledge and the capability to manage tasks and operational and workplace contingencies should be gained through questioning and the use of work based examples.
- Questioning should be undertaken in such a manner as is appropriate to the language and literacy levels of the operator and to the requirements of the unit of competency.

Language, literacy and numeracy skills:
Speaking and listening skills may include:
- Listening to and following verbal instructions
- Giving verbal instructions

Reading and writing skills may include:
- Reading and interpreting company forms eg work specifications, company operating procedures, company standards documentation
- Completing company forms eg job sheets, work orders
- Reading and interpreting equipment manuals, tags and labels

Numeracy skills may include:
- Determining quantities of tools and equipment
- Reading and interpreting measuring equipment
- Reading and interpreting gauges

Critical Aspects of Evidence to be considered:
For at least one of the following stages of the manufacturing and assembly process (build, paint, assemble, finish):

- Select the appropriate equipment for a task
- Check equipment for operation before use
- Operate the equipment in accordance with standard operating procedures and OH&S requirements
- Shut down and store equipment in accordance with company procedures

Underpinning Knowledge:
The following underpinning knowledge is common across the range of areas listed in the Range Statement:

- Relevant Occupational Health and Safety and Environmental regulations and enterprise policies and procedures
- Relevant quality measurement tools
- Operating procedures of workplace equipment
- Equipment applications and maintenance requirements and procedures

Key Competencies:	**Level**
Collect, analyse and organise information	1
Communicate ideas and information	1
Plan and organise activities	1
Work with others and in teams	1
Use mathematical ideas and techniques	1
Solve problems	1
Use technology	2

AUM9005A MONITOR AND MAINTAIN CONTINUOUS IMPROVEMENT OF SYSTEMS AND PROCESSES

UNIT DESCRIPTOR: This unit covers the application of continuous improvement of systems and processes and the use of quality management tools and problem solving techniques, under supervision, to ensure there is continuous improvement of product and process within the Automotive Manufacturing (Passenger Vehicle) industry.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
AUM9005A.1 Apply continuous improvement of systems and processes to improve the quality of the product/process.	AUM9005A.1.1 Continuous improvement opportunities of systems and processes are identified. AUM9005A.1.2 Continuous improvement of systems and processes are applied in the work area.
AUM9005A.2 Monitor continuous improvement of systems and processes to ensure the quality of the product/process is continually improved.	AUM9005A.2.1 The enterprise continuous improvement of systems and processes are monitored to ensure that improvements are continually being sought. AUM9005A.2.2 Customer requirements are monitored to ensure the product/process continues to exceed their expectations.
AUM9005A.3 Use continuous improvement tools and problem-solving techniques to ensure the ongoing improvement of the product and process.	AUM9005A.3.1 Continuous improvement tools and problem-solving techniques relevant to the process are identified. AUM9005A.3.2 Continuous improvement of tools and problem-solving techniques relevant to the process are applied. AUM9005A.3.2 Recommendations and solutions to problems are made through enterprise processes.
AUM9005A.4 Apply continuous improvement of systems/processes/tools to eliminate waste.	AUM9005A.4.1 Enterprise waste minimisation principles and processes are identified. AUM9005A.4.2 Enterprise waste minimisation processes are continuously applied.
AUM9005A.5 Incorporate recognised improvement opportunities into the work area.	AUM9005A.5.1 Improvements to processes are trialled. AUM9005A.5.2 Improvements to processes are monitored and evaluated. AUM9005A.5.3 Improvements to processes are incorporated into work practices.

RANGE STATEMENT:

The range of contexts for this unit of competency include:

Body Construction
Aluminium Die Casting
Iron Foundry Operations
Engine Machining
Spray Painting
Automotive Plastics
Stamping & Press Operations
Fabrication Hardware
Trim Manufacture
Vehicle Assembly
Warehousing
Engine Assembly
Seat Frame Manufacture

Continuous improvement systems could include, but are not restricted to:

- QS-9000/ISO9001/2
- Kanban
- JIT
- Enterprise-specific improvement systems

Problem solving techniques could include, but are not restricted to:

- Using facts in analysis of data
- Step-by-step process
- Use of measurement
- Action plan
- Review

Continuous improvement of quality tools may include, but are not restricted to:

- Statistics
- Cause and effect diagrams
- Fishbone diagram
- Pareto diagrams
- Run charts
- X bar R charts
- PDCA

Customers could include:

- Upstream and downstream customers
- Internal and external customers – immediate and or final

Waste can include but is not restricted to:

- Over-processing
- Over-production
- Excess inventory/stock
- Corrections/rework
- Rejects

Regulations, policies and procedures may include, but are not restricted to:

- Enterprise regulations, policies and procedures including enterprise OH&S and environmental policy and procedures
- ISO standards (Quality Management and Environmental)
- Vehicle Industry OH&S Award
- OH&S Legislation
- Environmental Management Legislation
- Standard operating procedures
- Suppliers' operating instruction manuals

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EVIDENCE GUIDE:

Context:

- Assessment must take place in accordance with the endorsed *Assessment Guidelines for the Automotive Industry*
- Assessment of the underpinning knowledge should be combined with assessment of the skill.
- Assessment of the underpinning knowledge may take place on- or off-the-job.
- Assessment of the competency should take place in a safe working environment in a passenger motor vehicle manufacturing plant or simulated environment using tools/equipment/machinery required for the production process without undue disruption to the production process.

Concurrent Assessment:

Prerequisite units - although this unit can be assessed concurrently with any of the other units of competency, candidates should have demonstrated competency in the following units before they can be credited with this unit.

- Receive and dispatch materials/components/parts and equipment/tools
- Prepare and process materials and components
- Prepare and use/operate equipment, tools and/or machinery
- Monitor and maintain workplace environment

Underpinning Skill, Knowledge and Attitude:

Underpinning skill, knowledge and attitudes for each unit of competency in each work area, and for specific job roles within work areas, will differ between enterprises, and will alter from time to time depending on factors such as changes in equipment, technology and culture.

Before skill, knowledge and attitudes development and assessment of the trainee begins, key operators in the area, in conjunction with trainers, union representatives and other stakeholders, must list the underpinning knowledge, skill and attitudes required to perform the unit competently (to standard).This will be used as a guide for training and assessment.

The following underpinning knowledge is common across the range of areas listed in the Range Statement:

- Relevant Occupational Health and Safety and Environmental regulations and enterprise policies and procedures needed to carry out work in a manner which ensures the safety of people, equipment and the environment. The specific regulations will vary according the area of operation.
- Relevant enterprise continuous improvement systems and processes
- Relevant quality measure tools for use in continuous improvement processes
- Relevant problem solving techniques
- Causes and effects of waste and methods of minimizing waste.

Resource Implications:

The resource required for this competency is a passenger vehicle manufacturing plant.

Key Competencies:

In this unit, the following key competencies would be met:

	Level
Collect, analyse and organise information	2
Communicate ideas and information	2
Plan and organise activities	1
Work with others in a team	2
Use mathematical ideas and techniques	1
Solve problems	2
Use technology	1

AUM9006A MONITOR AND MAINTAIN EQUIPMENT, TOOLS AND MACHINERY

UNIT DESCRIPTOR: This unit of competency describes the requirements for monitoring and maintaining equipment and tools to ensure optimum use in the manufacture and assembly within the Bus/Truck/Trailer industry.

NOTE **This unit has been sourced from:**
Automotive Manufacturing Training Package – Passenger Motor Vehicle Sector and has been contextualised for the Automotive Manufacturing Training Package – Bus, Truck & Trailer Sector.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
1. Monitor equipment and processes.	1.1 Processes are monitored to ensure that equipment and tools machinery are operating in accordance with manufacturer instructions, enterprise requirements and OH&S guidelines.
	1.2 The operation of equipment, tools and machinery is monitored to ensure they are performing in accordance with job requirements, manufacturer instructions and OH&S guidelines.
2. Perform incidental maintenance when required.	2.1 Incidental maintenance is performed on equipment, tools and machinery when required in accordance with enterprise procedures and OH&S regulations.
	2.2 Maintenance requirements outside the range expertise of the operator are reported to the appropriate personnel, in accordance with enterprise procedures and OH&S regulations.
3. Apply preventative maintenance systems/processes to maintain operation efficiency and effectiveness.	3.1 Preventative maintenance systems or processes are applied in accordance with, and at intervals prescribed by, enterprise and manufacturer preventative maintenance policies and procedures and OH&S regulations.
	3.2 Equipment, tools and machinery used in the process are visually and/or physically checked regularly in accordance with preventative maintenance procedures.
	3.3 Equipment, tools and machinery used in the process are functionally checked regularly in accordance with preventative maintenance procedures.
	3.4 Any identified requirements for adjustment, cleaning, repair, replacement or modification of equipment, tools and machinery are reported to appropriate personnel.
	3.5 Preventative maintenance activities and resultant action are documented in accordance with enterprise procedures.

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RANGE STATEMENT:

Range of Contexts:

This competency standard applies to:

- Bus/Truck/Trailer Manufacture and Assembly

Resources may include:

- welding equipment
- measuring equipment including calibration requirements
- forklift trucks
- hand tools
- power tools
- spray guns
- lubricating equipment
- cutting equipment
- qualified workplace assessor
- workplace or simulated workplace

Sources of information / documentation may include:

- Enterprise regulations, policies and procedures including enterprise OH&S and environmental policy and procedures
- ISO standards (Quality Management and Environmental)
- OH&S Legislation
- Environmental Management Legislation
- standard operating procedures
- supplier operating instruction manuals
- enterprise production process sheets
- enterprise production schedules
- enterprise supply requisition procedures/forms

EVIDENCE GUIDE:

Context:

- Competency must be assessed in a safe working environment and in accordance with endorsed industry assessment guidelines.
- The underpinning knowledge and skills may be assessed on or off-the-job.
- The assessment of practical skills must take place only after a period of supervised practice and repetitive experience. If workplace conditions are not available, assessment in simulated workplace conditions is acceptable.
- The prescribed outcome must be able to be achieved without direct supervision.

Concurrent assessment and pre-requisite relationship:

- This unit should be assessed after the successful completion of or in conjunction with : AUM9004 A Use and operate tools and equipment
- This unit may also be assessed in conjunction with other units that form part of the function or for a particular job role for a company.

Consistency of performance:

- Competency is best assessed through observation over a period of time and in a variety of situations. Supplementary evidence of underpinning knowledge and the capability to manage tasks and operational and workplace contingencies should be gained through questioning and the use of work based examples.
- Questioning should be undertaken in such a manner as is appropriate to the language and literacy levels of the operator and to the requirements of the unit of competency.

Language, literacy and numeracy skills:
Speaking and listening skills may include:
- Listening to and following verbal instructions
- Giving verbal instructions

Reading and writing skills may include:
- Reading and interpreting company forms eg work specifications, company standards documentation, company maintenance procedures
- Completing company forms eg job sheets, work orders, maintenance schedules and records, reports
- Reading and interpreting tags and labels

Numeracy skills may include:
- Determining the quantity of tools and equipment for maintenance
- Determining timelines for maintenance
- Reading and interpreting measuring equipment

Critical Aspects of Evidence:
For at least one of the following stages of the manufacturing and assembly process (build, paint, assemble, finish):
- Monitor equipment and processes in accordance with company standard procedures
- Perform maintenance on equipment in accordance with company standard procedures
- Document and report on maintenance performed and required in accordance with company standard procedures

Underpinning Knowledge:
- Occupational Health and Safety and Environmental regulations and enterprise policies and procedures needed to carry out work in a manner which ensures the safety of people, equipment and the environment.
- Preventative maintenance systems/processes
- Appropriate company maintenance reporting procedures written or electronic
- Methods of documenting preventative maintenance activities and recommendations for action

Key Competencies:	**Level**
Collect, analyse and organise information	2
Communicate ideas and information	1
Plan and organise activities	2
Work with others and in teams	1
Use mathematical ideas and techniques	1
Solve problems	2
Use technology	2

AUM9007A MANAGE PERSONAL WORK PRIORITIES

UNIT DESCRIPTOR: This unit of competency prepares employees within the Automotive Manufacturing (Passenger Vehicle) industry to manage their own performance and work priorities so that allocated duties are performed within the required time span and production rates are maintained. This includes being able to adjust work priorities to cater for changes in schedules and problems as they arise, and to predict problems and take appropriate action to adjust schedules, under supervision.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
AUM9007A.1 Recognise requirements for the job according to schedules and work plans.	AUM9007A.1.1 Procedural instructions for the job are obtained, interpreted and clarified, if necessary, with appropriate personnel. AUM9007A.1.2 Relevant specifications for task outcomes are obtained, interpreted and clarified, if necessary, with appropriate personnel. AUM9007A.1.3 Schedules and work plans are obtained, interpreted and clarified, if necessary, with appropriate personnel so that completion times and other requirements are identified. AUM9007A.1.4 Task outcomes are identified. AUM9007A.1.5 Quality measures are identified.
AUM9007A.2 Plan time to meet work schedules so that production rates are maintained.	AUM9007A.2.1 Individual steps or activities needed to complete the required work are planned, sequenced and verified with appropriate personnel. AUM9007A.2.2 Competing demands are prioritised to achieve personal, team and the organisation's goals and objectives. AUM9007A.2.3 Technology appropriate for the job is used efficiently and effectively to manage work priorities and commitments.
AUM9007A.3 Adjust work priorities to cater for changes in schedules.	AUM9007A.3.1 Changes in schedules are recognised and acknowledged when they occur. AUM9007A.3.2 Outcomes are compared with planned objectives, tasks, instructions, specifications and task requirements.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
AUM9007A.3 (continued) Adjust work priorities to cater for changes in schedules.	AUM9007A.3.3 Work plans and actions are adjusted, under supervision, as and when changes to schedules occur, to meet objectives and task requirements.
AUM9007A.4 Predict and recognise problems and take appropriate action.	AUM9007A.4.1 Problems which will have an impact on work plans are predicted if possible, and recognised when they occur. AUM9007A.4.2 Action is taken, under supervision, to adjust work plans when changes to schedules occur.

RANGE STATEMENT:
The range of contexts for this unit of competency include:

Body Construction
Aluminium Die Casting
Iron Foundry Operations
Engine Machining
Spray Painting
Automotive Plastics
Stamping & Press Operations
Fabrication Hardware
Trim Manufacture
Vehicle Assembly
Warehousing
Engine Assembly
Seat Frame Manufacture

Examples of process include, but are not restricted to:
- Welding sub-assemblies
- Fitting hang-on components
- Fitting dies to die boxes
- Pouring aluminium
- Machining parts
- Application of paint
- Cutting blanks
- Assembly of components to form sub-assemblies
- Fitting parts to bodies
- Assembly of parts

Supervision:
Work at this level is under supervision, and refers to tasks or functions carried out routinely.

Employees will be operating under supervision and will be provided with, for example:
- Production schedules
- Standard operating procedures
- Work plans
- Clear specifications and requirements
- Quality requirements
- Time allocation

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Regulations, policies and procedures may include, but are not restricted to:
- Enterprise regulations, policies and procedures including enterprise OH&S and environmental policy and procedures
- ISO standards (Quality Management and Environmental)
- Vehicle Industry OH&S Award
- OH&S Legislation
- Environmental Management Legislation
- Standard operating procedures
- Suppliers' operating instruction manuals

EVIDENCE GUIDE:
Context:
- Assessment must take place in accordance with the endorsed *Assessment Guidelines for the Automotive Industry*
- Assessment of the underpinning knowledge should be combined with assessment of the skill.
- Assessment of the underpinning knowledge may take place on- or off-the-job.
- Assessment of the competency should take place in a safe working environment in a passenger motor vehicle manufacturing plant or simulated environment using tools/equipment/machinery required for the production process without undue disruption to the production process.

Critical Aspects of Evidence to be Considered:
- Competency must be demonstrated in a number of workplace situations based on the agreed enterprise rotation plan.

- Demonstration of this competency must be in accordance with relevant OH&S and environmental legislation and enterprise policies and procedures.

- The assessment of this competency should take into consideration the culture of the enterprise and the enterprise-based attitudinal requirements of the trainee. These will vary from enterprise to enterprise.

Concurrent Assessment:
This unit should be assessed in conjunction with the following units of competency:
- Maintain effective workplace relations
- Work effectively with others in teams.

At the same time, evidence for the assessment of this unit will be gathered during the assessment of the following units of competency
- Prepare and process materials and components
- Prepare and use/operate equipment, tools and/or machinery.

Underpinning Skill, Knowledge and Attitude:
Underpinning skill, knowledge and attitudes for each unit of competency in each work area, and for specific job roles within work areas, will differ between enterprises, and will alter from time to time depending on factors such as changes in equipment, technology and culture.

Before skill, knowledge and attitudes development and assessment of the trainee begins, key operators in the area, in conjunction with trainers, union representatives and other stakeholders, must list the underpinning knowledge, skill and attitudes required to perform the unit competently (to standard). This will be used as a guide for training and assessment.
The following underpinning knowledge is common across the range of areas listed in the Range Statement:

- Relevant Occupational Health and Safety and Environmental regulations and enterprise policies and procedures needed to carry out work in a manner which ensures the safety of people, equipment and the environment. The specific regulations will vary according the area of operation.

- Interpretation of the relevant work instructions, specifications, quality outcomes etc for the area.
- Actions to take if objectives are not being met, eg which personnel should be notified.

The following underpinning skill is common across the range of areas listed in the Range Statement:

- Use of the relevant techniques required to complete the job.

Resource Implications:
The resource required for this competency is a passenger vehicle manufacturing plant.

Key Competencies:
In this unit, the following key competencies would be met:

	Level
Collect, analyse and organise information	2
Communicate ideas and information	2
Plan and organise activities	2
Work with others in a team	Nil
Use mathematical ideas and techniques	Nil
Solve problems	1
Use technology	1

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AUM9001A MONITOR AND MAINTAIN WORKPLACE ENVIRONMENT

UNIT DESCRIPTOR: This unit recognises that safety, security and care for the environment is everybody's responsibility. The unit covers the competencies required for the maintenance of a safe and secure workplace and external environment within the Automotive Manufacturing industry, in accordance with company policy and procedures, OH&S and environmental legislation and community standards.

NOTE **This unit has been sourced from:**
Automotive Manufacturing Training Package – Passenger Motor Vehicle Sector and has been contextualised for the Automotive Manufacturing Training Package – Bus, Truck & Trailer Sector.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
1. Recognise and follow OH&S and environmental regulations, policies and procedures, signs and codes as they apply to work area.	1.1 OH&S and environmental regulations, policies and procedures, signs and codes as they apply to work area are recognised and correctly interpreted.
	1.2 OH&S and environmental regulations, policies and procedures, signs and codes as they apply to work area are followed.
	1.3 The roles and responsibilities of key personnel within the area connected with health, safety, security and the environment are identified.
	1.4 Employer and employee rights and responsibilities in relation to health, safety, safety and the environment are identified.
	1.5 Housekeeping is undertaken in accordance with enterprise procedures and OH&S guidelines.
2. Use appropriate personal protective equipment.	2.1 Personal protective equipment appropriate for the area of operation is identified.
	2.2 Personal protective equipment is maintained and stored in accordance with enterprise policy and supplier instructions.
	2.3 Personal protective equipment is used when and where required.
3. Follow appropriate manual handling techniques.	3.1 Manual handling techniques and equipment appropriate for the area of work are identified.
	3.2 Appropriate manual handling techniques and equipment are used in the workplace in accordance with enterprise procedures and legislative guidelines.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
4. Take appropriate action to deal with hazards and potential hazards in the workplace.	4.1 Material related to the work area which is hazardous and/or potentially hazardous to the health and safety of individuals, the workplace and the environment is identified.
	4.2 Correct procedures and precautions necessary in the use, storage and labelling of hazardous material related to the work area are followed in accordance with enterprise procedures and OH&S and environmental legislation.
	4.3 Non-conformances in the use, storage and labelling of hazardous material are identified and reported to the appropriate personnel in accordance with enterprise procedures.
5. Complete incident/accident investigation reports as/when required.	5.1 Enterprise incident/accident reporting procedures are identified.
	5.2 Incident/accident investigation reports are completed correctly as/when required in accordance with enterprise procedures.
6. Follow emergency procedures.	6.1 Appropriate personnel to notify in the event of an emergency, accident or hazardous situation, and means of contacting the appropriate personnel are identified.
	6.2 Evacuation and emergency response procedures are identified and applied.
	6.3 Emergency equipment and its appropriate use is identified.
7. Recognise and act on factors which lead to an unhealthy lifestyle.	7.1 Factors within the workplace, including incorrect ergonomic practices and occupational stress which lead to an unhealthy lifestyle are recognised and acted upon.
	7.2 Internal and external resources/ agencies to assist employees deal with factors which lead to an unhealthy lifestyle are identified.

RANGE OF VARIABLES:

Range of contexts:

This competency standard applies to:

- Bus/Truck/Trailer Manufacture and Assembly

Sources of information/documents may include:
- manufacturer specifications
- company operating procedures
- material safety data sheets
- emergency/fire evacuation procedures
- security policy/procedures
- accident policy/procedures
- hazards policy/procedures
- first aid procedures
- industry/workplace codes of practice
- State/industry OH&S legislation

Resources may include:
- fire fighting and first aid equipment
- personal protection apparel
- cleaning equipment and materials
- all relevant tools, equipment and machinery
- cleaning agents and lubricants
- safety apparel
- company OH&S policies and procedures
- material safety data sheets (MSDS)
- qualified workplace assessor
- workplace or simulated workplace

EVIDENCE GUIDE:
Context:
- Competency must be assessed in a safe working environment and in accordance with endorsed industry assessment guidelines.
- The underpinning knowledge and skills may be assessed on or off-the-job.
- The assessment of practical skills must take place only after a period of supervised practice and repetitive experience. If workplace conditions are not available, assessment in simulated workplace conditions is acceptable.
- The prescribed outcome must be able to be achieved without direct supervision.

Concurrent assessment and pre-requisite relationship:
- This unit may be assessed in conjunction with other units that form part of the function or for a particular job role for a company.

Consistency of performance:
- Competency is best assessed through observation over a period of time and in a variety of situations. Supplementary evidence of underpinning knowledge and the capability to manage tasks and operational and workplace contingencies should be gained through questioning and the use of work based examples.
- Questioning should be undertaken in such a manner as is appropriate to the language and literacy levels of the operator and to the requirements of the unit of competency.

Language, literacy and numeracy skills:
Speaking and listening skills may include:
- Listening to and following verbal instructions on safety related procedures
- Relating all evacuation and safety needs to customers in emergency situation
- Contacting and giving information to emergency services
- Reporting by phone to company or emergency services all relevant action taken in an emergency situation
- Reporting by phone all injuries received to staff or customers in an emergency situation
- Verbally reporting hazards and accidents
- Asking questions to find out about company safety information
- Listening to and interpreting company safety information

Reading and writing skills may include:
- Recording all security related events
- Reading and interpreting safety signs and warnings
- Reading and interpreting chemical labels and Material Safety Data Sheets
- Reading and interpreting manufacturer specifications for equipment
- Recording and reporting safety related events on company forms eg. accident forms, hazard reporting forms
- Recording information on computer

Numeracy skills may include:
- Measuring quantities of cleaning agents
- Measuring quantities of consumable materials used
- Reconciliation of number of staff on duty with number of staff at safe evacuation point

Critical aspects of Evidence:

Evidence of achievement is required in all of the following:
- Carry out emergency procedures
- Select the correct fire extinguisher for the incident
- Maintain the cleanliness of machinery, equipment and the work area
- Identify, report and avoid workplace hazards
- Demonstrate safe manual handling and lifting techniques
- Apply basic security procedures
- Report/record injuries and potential hazards
- Follow company first aid policies and procedures

Underpinning knowledge:
- OH&S regulations/Committees
- Workplace safety procedures
- Equipment and work area maintenance requirements
- Hazard identification and avoidance in the workplace
- Company designated first aid officers and first aid procedures
- Company security procedures
- Identification and application of fire extinguishers
- Manual handling techniques
- Personal safety requirements
- Hazchem symbols

Key Competencies:	**Level**
Collect, analyse and organise information	2
Communicate ideas and information	1
Plan and organise activities	1
Work with others and in teams	1
Use mathematical ideas and techniques	1
Solve problems	2
Use technology	1

AUM9009A WORK EFFECTIVELY WITH OTHERS IN TEAMS

UNIT DESCRIPTOR: This unit covers the competencies required for employees to work effectively as part of teams within the Automotive Manufacturing industry. Teams may be work groups or other teams required to meet enterprise needs.

NOTE **This unit has been sourced from:**
Automotive Manufacturing Training Package – Passenger Motor Vehicle Sector and has been contextualised for the Automotive Manufacturing Training Package – Bus, Truck & Trailer Sector.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
1. Participate in teams to achieve production targets.	1.1 Team leader and members are identified.
	1.2 Role of team and roles and responsibilities of members are identified.
	1.3 Contributions are made to structure team tasks in the workplace.
	1.4 Participation in a team to help it achieve its production targets is demonstrated.
	1.5 Effectiveness is maintained if/when changes in team occur or when working in different teams.
	1.6 Effectiveness is maintained when working in different environments.
2. Participate in the decision-making process in team meetings.	2.1 Team decision-making processes are identified.
	2.2 Active participation in the team decision-making process is demonstrated.
	2.3 Reporting relationships within and beyond the team are identified.
	2.4 Actions which show consideration for the needs of others and the effect of one's behaviour on others is demonstrated.
3. Participate in addressing team's key production indicators.	3.1 The team's key production indicators are identified.
	3.2 Participation in meeting team's key production indicators is demonstrated.
4. Organise and conduct team meetings.	4.1 Procedures for organising team meetings are identified.
	4.2 Team meetings are organised.
	4.3 Team meetings are conducted following standard meeting procedures.
	4.4 Minutes of team meetings are taken according to the enterprise procedures.

RANGE STATEMENT:
Range of Contexts:
- Bus/Truck/Trailer Manufacture and Assembly

Resources may include:
- company standard operating procedures
- workplace work practices
- company manufacture and assembly processes
- meeting procedures
- job profiles / job specifications
- company organisational charts
- qualified workplace assessor
- workplace or simulated workplace

Sources of information / documentation may include:
- Enterprise regulations, policies and procedures including enterprise OH&S and environmental policy and procedures
- ISO standards (Quality Management and Environmental)
- OH&S Legislation
- Environmental Management Legislation
- Suppliers operating instruction manuals

EVIDENCE GUIDE:
Context:
- Competency must be assessed in a safe working environment and in accordance with endorsed industry assessment guidelines.
- The underpinning knowledge and skills may be assessed on or off-the-job.
- The assessment of practical skills must take place only after a period of supervised practice and repetitive experience. If workplace conditions are not available, assessment in simulated workplace conditions is acceptable.
- The prescribed outcome must be able to be achieved without direct supervision.

Concurrent assessment and pre-requisite relationship:
- This unit may be assessed in conjunction with other units that form part of the function or for a particular job role for a company.

Consistency of performance:
- Competency is best assessed through observation over a period of time and in a variety of situations. Supplementary evidence of underpinning knowledge and the capability to manage tasks and operational and workplace contingencies should be gained through questioning and the use of work based examples.
- Questioning should be undertaken in such a manner as is appropriate to the language and literacy levels of the operator and to the requirements of the unit of competency.

Language, literacy and numeracy skills:
Speaking and listening skills may include:
- Listening to and following verbal instructions
- Giving verbal instructions
- Participation in meeting discussions

Reading and writing skills may include:
- Reading and interpreting company documentation eg job specifications / job profiles, meeting procedures, company organisational charts, company standards documentation
- Completing company documentation eg job specifications, meeting agenda, meeting minutes

Numeracy skills may include:
- Determining quantities of documents required

Critical Aspects of Evidence:

Evidence of achievement is required in all of the following:

- Work as a member of a team to meet company targets
- Contribute to team decision making and communication processes
- Organise and lead team meetings

Underpinning Knowledge:

- Communication processes with individuals and teams
- Occupational Health and Safety and Environmental regulations and enterprise policies and procedures
- Meeting procedures and minute taking.
- Storage of meeting files and documentation – electronic and paper based

Key Competencies:	**Level**
Collect, analyse and organise information	1
Communicate ideas and information	2
Plan and organise activities	2
Work with others and in teams	2
Use mathematical ideas and techniques	1
Solve problems	1
Use technology	1

AUM8001A CONTRIBUTE TO WORKPLACE RELATIONSHIPS AND PROCESSES

UNIT DESCRIPTOR: This unit acknowledges that working with others is a major aspect of the production process. The competencies in this unit cover a range of activities involving working with others in the Automotive Bus/Truck/Trailer Manufacture and Assembly Industry.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
1. Give and receive instructions, information and messages as required by the job.	1.1 Instructions, information and messages as required by the job are received and acted upon.
	1.2 Instructions, messages and information received are confirmed with the person giving the message.
	1.3 Instructions, information and messages as required by the job are delivered using an appropriate communication technique and in an appropriate format which is understandable to the receiver/s.
	1.4 Feedback is sought from the person/s receiving the instructions, information or messages to ensure that the correct information has been received.
2. Follow company Diversity and Equal Opportunity policies and procedures.	2.1 Company Equal Opportunity, Diversity and related policies are identified.
	2.2 Personnel responsible for receiving complaints about breaches of company Equal Opportunity, Diversity and related policies are identified.
	2.3 Company Equal Opportunity, Diversity and related policies are followed.
	2.4 Contract of Employment is identified and clarified with relevant personnel.
3. Identify procedures and processes for resolving conflict in the workplace.	3.1 Processes within the organisation for resolving conflict and grievances are identified.
	3.2 Processes within the organisation for resolving conflict and grievances are followed if/when required so that there is minimum disruption to production.
4. Fill out forms as required by the job.	4.1 Forms required for the job are identified.
	4.2 Forms required for the job are completed according to company procedures and legislative requirements.

RANGE STATEMENT:

Range of Contexts:

This competency standard applies to:

- Bus/Truck/Trailer Manufacture and Assembly

Resources may include:
- company work practices and procedures
- electronic communication equipment – fax, email, computer, telephone, pager
- company / equipment documentation – electronic and paper based
- qualified workplace assessor
- workplace or simulated workplace

Sources of information / documentation may include:
- Company regulations, policies and procedures including company OH&S and EEO policy and procedures
- ISO standards (Quality Management and Environmental)
- OH&S Legislation
- Environmental Management Legislation
- standard operating procedures
- suppliers operating instruction manuals
- company production process sheets
- company production schedules
- company supply requisition procedures/forms
- contract of employment

EVIDENCE GUIDE:
Context:
- Competency must be assessed in a safe working environment and in accordance with endorsed industry assessment guidelines.
- The underpinning knowledge and skills may be assessed on or off-the-job.
- The assessment of practical skills must take place only after a period of supervised practice and repetitive experience. If workplace conditions are not available, assessment in simulated workplace conditions is acceptable.
- The prescribed outcome must be able to be achieved without direct supervision.

Concurrent assessment and pre-requisite relationship:
- This unit may be assessed in conjunction with other units that form part of the function or for a particular job role for a company.

Consistency of performance:
- Competency is best assessed through observation over a period of time and in a variety of situations. Supplementary evidence of underpinning knowledge and the capability to manage tasks and operational and workplace contingencies should be gained through questioning and the use of work based examples.
- Questioning should be undertaken in such a manner as is appropriate to the language and literacy levels of the operator and to the requirements of the unit of competency.

Language, literacy and numeracy skills:
Speaking and listening skills may include:
- Listening to and following verbal instructions
- Giving verbal instructions, messages, information
- Participation in conflict resolution

Reading and writing skills may include:
- Reading and interpreting company documentation eg equal opportunity policy, company standards documentation
- Completing company documentation (written and electronic) eg job sheets, work orders, reports

Numeracy skills may include:
- Determining quantities of documents

Critical Aspects of Evidence:

Evidence of achievement is required in all of the following:

- Complete company documentation – written and/or electronic
- Give and receive instructions in the workplace
- Implement company EEO policy
- Resolve conflict in the workplace according to company policy and procedures

Underpinning Knowledge:

- Occupational Health and Safety and EEO policies and procedures
- Format of common company communication techniques, including memos, e-mails, telephone conventions
- Company documentation requirements - written and/or electronic
- Conflict resolution techniques
- Contract of Employment

Key Competencies:	**Level**
Collect, analyse and organise information	1
Communicate ideas and information	2
Plan and organise activities	2
Work with others and in teams	2
Use mathematical ideas and techniques	1
Solve problems	1
Use technology	1

AUM8011A PROVIDE CUSTOMER SERVICE

UNIT DESCRIPTOR: This unit identifies the competence required to meet the needs and expectations of different types of customers (internal and external) when delivering quality service.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
1. Identify and assess the needs and expectations of different types of customers.	1.1 Different types of customers are accurately identified according to age, personality, cultural background and potential areas of interest and need.
	1.2 Individual customer needs and expectations are correctly identified and products and services appropriate to those needs and expectations are provided.
	1.3 All activities are carried out in accordance with statutory and company policies and procedures for OH&S.
2. Provide high quality service to customer.	2.1 Customer requests are responded to promptly and efficiently.
	2.2 Customers are treated in a manner which assists the development of a positive and professional relationship.
	2.3 Company services and products are appropriately promoted to encourage repeat business.
	2.4 Customer dissatisfaction is promptly recognised and attended to.
	2.5 All activities are carried out in accordance with statutory and company policies and procedures for OH&S.
3. Deal with difficult customers.	3.1 Complaints are handled sensitively, courteously and discreetly.
	3.2 The nature and details of the complaint are established and agreed upon with the customer.
	3.3 Appropriate action is taken to resolve the complaint to the customer's satisfaction wherever possible within the level of responsibility determined.
	3.4 The complaint is referred to a higher authority if the staff member cannot resolve the situation to the customer's satisfaction.
	3.5 Company documentation is completed in accordance with company requirements.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
4. Seek and action customer feedback	4.1 Feedback is sought from customers on product provided.
	4.2 Alternative advice/actions are discussed with the customer.
	4.3 Appropriate action is taken in response to feedback.
	4.4 Customer feedback is documented in accordance with customer requirements.

RANGE OF VARIABLES:

Range of contexts:

This competency standard applies to:

- Truck/Bus/Trailer Manufacture and Assembly

Sources of information/documents may include:

- manufacturer specifications
- company operating procedures
- product manufacturer specifications
- customer requirements
- industry/workplace codes of practice
- State/industry OH&S legislation
- award provisions

Resources may include:

- company specific - stationery including letterhead, work orders, invoices, questionnaires
- electronic equipment - phone, fax, calculators, computers, database software
- company product information
- qualified workplace assessor
- workplace or simulated workplace

EVIDENCE GUIDE:

Context:

- Competency must be assessed in a safe working environment and in accordance with endorsed industry assessment guidelines.
- The underpinning knowledge and skills may be assessed on or off-the-job.
- The assessment of practical skills must take place only after a period of supervised practice and repetitive experience. If workplace conditions are not available, assessment in simulated workplace conditions is acceptable.
- The prescribed outcome must be able to be achieved without direct supervision.

Concurrent assessment and pre-requisite relationship:

- This unit may be assessed in conjunction with other units that form part of the function or for a particular job role for a company.

Consistency of performance:

- Competency is best assessed through observation over a period of time and in a variety of situations. Supplementary evidence of underpinning knowledge and the capability to manage tasks and operational and workplace contingencies should be gained through questioning and the use of work based examples.
- Questioning should be undertaken in such a manner as is appropriate to the language and literacy levels of the operator and to the requirements of the unit of competency.

Language, literacy and numeracy skills:
Speaking and listening skills may include:
- Listening to and following verbal instructions
- Giving verbal instructions and technical information
- Questioning and interpreting customer requirements

Reading and writing skills may include:
- Reading and interpreting company documentation eg work specifications, company standards, company product manual,
- Completing company documentation
- Reading and interpreting customer feedback

Numeracy skills may include:
- Collate customer requests and feedback

Critical aspects of evidence:
Evidence of achievement is required in all of the following:
- customer needs are clarified
- customer requirements are met
- company documentation requirements are met
- customer feedback is obtained

Underpinning knowledge:
- Industry records and how to maintain them
- Personal and equipment safety requirements
- Conflict resolution techniques
- Use of relevant communication mediums
- Communication process –verbal, written, electronic
- Company policies – paper based / electronic

Key Competencies:	**Level**
Collect, analyse and organise information	1
Communicate ideas and information	1
Plan and organise activities	1
Work with others and in teams	1
Use mathematical ideas and techniques	1
Solve problems	1
Use technology	1

AUM8012A PREPARE AND DOCUMENT QUOTATION

UNIT DESCRIPTOR: This unit identifies the competency requirements to prepare a job quotation for a customer.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
1. Determine customer requirements.	1.1 Customer product requirements are established and project parameters specified.
	1.2 Customer requirements are compared with existing company products.
	1.3 Product variations required by the customer are established.
	1.4 Draft project brief established for costing.
	1.5 Customer purchase and payment arrangements are negotiated.
2. Estimate job labour, parts and material requirements.	2.1 Variations from standard company product are estimated.
	2.2 Additional processes, parts and skills required to meet customer requirements are estimated.
	2.3 Job schedule and material list is prepared.
3. Cost the job.	3.1 Company job costing procedures are employed to determine job budget.
	3.2 Estimated materials, labour and equipment costs are totalled for the job.
	3.3 Estimations for contingencies are included in the total budget.
	3.4 Job and budget requirements are included in company production schedules.
4. Document and confirm quote.	4.1 Quotation is prepared in accordance with company procedures.
	4.2 Quotation provided reflects customer requirements.
	4.3 Changes and variations are negotiated to meet customer and company needs.
	4.4 Company records/customer file is created for the job.

RANGE OF VARIABLES:

Range of contexts:

This competency standard applies to:

- Truck/Bus/Trailer Manufacture and Assembly

Sources of information/documentation may include:
- Company production specifications
- product manufacturer specifications
- company procedures – pricing policy and procedures
- industry/workplace codes of practice
- customer requirements
- State/Territory/Federal statutory requirements (including ADRs)
- State/industry OH&S legislation

Resources may include:
- Company product and marketing guides
- Parts, labour, and component price schedules
- Computer software and hardware including manuals
- Qualified workplace assessor
- Workplace or simulated workplace

EVIDENCE GUIDE:
Context:
- Competency must be assessed in a safe working environment and in accordance with endorsed industry assessment guidelines.
- The underpinning knowledge and skills may be assessed on or off-the-job.
- The assessment of practical skills must take place only after a period of supervised practice and repetitive experience. If workplace conditions are not available, assessment in simulated workplace conditions is acceptable.
- The prescribed outcome must be able to be achieved without direct supervision.

Concurrent assessment and pre-requisite relationship:
- This unit may be assessed in conjunction with other units that form part of the function or for a particular job role for a company.

Consistency of performance:
- Competency is best assessed through observation over a period of time and in a variety of situations. Supplementary evidence of underpinning knowledge and the capability to manage tasks and operational and workplace contingencies should be gained through questioning and the use of work based examples.
- Questioning should be undertaken in such a manner as is appropriate to the language and literacy levels of the operator and to the requirements of the unit of competency.

Language, literacy and numeracy skills:
Speaking and listening skills may include:
- Listening to and following verbal instructions
- Giving verbal instructions
- Questioning and interpreting customer requirements

Reading and writing skills may include:
- Reading and interpreting company documentation eg work specifications, company standards, product guides
- Completing company forms eg job sheets, work orders
- Prepare quotes – written and/or electronic

Numeracy skills may include:
- Estimate labour, parts and materials required for job
- Cost job

Critical aspects of evidence:

Evidence of achievement is required in all of the following:

- Preparation of detailed estimates of labour, parts and equipment
- Completion of detailed quote
- Calculation and allowance for contingencies
- Maintain company records – paper based / electronic

Underpinning knowledge:

- Computer applications relating to estimation and costing
- Labour rates for job schedule
- Procedures for planning and estimating for a job
- Customer contact and negotiation skills
- Company OH&S procedures and policies
- Company quotation production flow chart

Key Competencies:	**Level**
Collect, analyse and organise information	3
Communicate ideas and information	3
Plan and organise activities	3
Work with others and in teams	1
Use mathematical ideas and techniques	2
Solve problems	3
Use technology	2

AUR61447A PARTICIPATE IN IMPROVING WORKPLACE PRODUCTIVITY

UNIT DESCRIPTOR: This unit identifies the competence required to identify procedural changes to improve productivity, recommend equipment which will enhance productivity and communicate with staff on productivity related matters.

NOTE **This unit has been sourced from:**
Automotive Industry – Retail, Service & Repair Training Package and has been contextualised for the Automotive Manufacturing Training Package – Bus, Truck & Trailer.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
1. Identify procedures to improve workplace productivity.	1.1 Efficiency of current processes is monitored.
	1.2 New technology and procedures which will improve productivity are identified and referred to appropriate personnel.
2. Recommend equipment requirements to management.	2.1 Knowledge of relevant technological developments is maintained regarding new equipment.
	2.2 Appropriate new/replacement equipment recommendations are made to management.
	2.3 Effect of current and required equipment on workplace productivity is assessed.
	2.4 Cost-to-benefit ratio for new or upgraded equipment is determined and a recommendation for type of equipment required is communicated to management if appropriate.
3. Communicate with staff about workplace productivity.	3.1 Staff meetings are organised and conducted to encourage staff to provide ideas on productivity improvement.
	3.2 Staff ideas for improvements are analysed and recommended to appropriate personnel if cost effective and feasible.
	3.3 Staff are informed of and enrolled in new improvement initiatives.

RANGE OF VARIABLES:

Range of contexts:
This competency standard applies to:
- Bus/Truck/Trailer Manufacture and Assembly

Resources may include:
- company manufacture and assembly procedures
- company documentation for recommending improvements
- manufacture and assembly systems
- new product / technology information
- qualified workplace assessor
- workplace or simulated workplace

Sources of information/documents may include:
- company operating procedures
- product manufacturer specifications
- customer requirements
- industry/workplace codes of practice
- State/industry OH&S legislation
- Award provisions

EVIDENCE GUIDE:
Context:
- Competency must be assessed in a safe working environment and in accordance with endorsed industry assessment guidelines.
- The underpinning knowledge and skills may be assessed on or off-the-job.
- The assessment of practical skills must take place only after a period of supervised practice and repetitive experience. If workplace conditions are not available, assessment in simulated workplace conditions is acceptable.
- The prescribed outcome must be able to be achieved without direct supervision.

Concurrent assessment and pre-requisite relationship:
- This unit may be assessed in conjunction with other units that form part of the function or for a particular job role for a company.

Consistency of performance:
- Competency is best assessed through observation over a period of time and in a variety of situations. Supplementary evidence of underpinning knowledge and the capability to manage tasks and operational and workplace contingencies should be gained through questioning and the use of work based examples.
- Questioning should be undertaken in such a manner as is appropriate to the language and literacy levels of the operator and to the requirements of the unit of competency.

Language, literacy and numeracy skills:
Speaking and listening skills may include:
- Listening to and following verbal instructions
- Giving verbal information and instructions
- Making presentations to staff

Reading and writing skills may include:
- Reading and interpreting company documentation eg company standards documentation
- Completing company forms eg job sheets, work orders and reports
- Reading and interpreting technical information on new technology

Numeracy skills may include:
- Calculating cost / benefit of improvements

Critical aspects of evidence:
Evidence of achievement is required in all of the following:
- Monitor existing operations and identify areas for improvement
- Identify procedural changes to improve productivity
- Recommend equipment/processes which will enhance productivity
- Communicate with staff on productivity related matters

Underpinning knowledge:
- Quality assurance and continuous improvement concepts
- Relevant technological developments within field of experience and knowledge
- Quality monitoring techniques
- Cost/ benefit analysis techniques
- Company work production flow chart

Key Competencies:	Level
Collect, analyse and organise information	2
Communicate ideas and information	2
Plan and organise activities	2
Work with others and in teams	2
Use mathematical ideas and techniques	2
Solve problems	2
Use technology	2

AUM8021A INSPECT WORK AND APPLY COMPANY TECHNICAL QUALITY STANDARDS

UNIT DESCRIPTOR: This unit identifies the competence required to inspect the work done against job specification and company standards; apply quality standards to work; and protect company property and customer interests.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
1. Inspect work done against job specification.	1.1 Appropriate inspections are conducted to ensure company quality systems and procedures are maintained/followed.
	1.2 Job specification/work order and quality standards are identified.
	1.3 Faults are identified and processed according to company procedures.
2. Apply quality standards to work.	2.1 Inspections are conducted throughout the manufacturing processes to ensure quality standards are maintained.
	2.2 Appropriate quality standards are applied throughout the manufacturing processes.
	2.3 All activities are co-ordinated throughout the workplace with a view to efficient quality work outcomes.
	2.4 Records of work quality are maintained according to the requirements of the company.
3. Protect company property and customer interests.	3.1 Possible damage to company property is avoided by adherence to company quality procedures.
	3.2 Quality of work is reviewed to ensure customer requirements and company standards are met.

RANGE OF VARIABLES:

Range of contexts:

This competency standard applies to:

- Bus/Truck/Trailer Manufacture and Assembly

Sources of information/documents may include:

- company operating procedures
- product manufacturer specifications
- customer requirements
- industry/workplace codes of practice
- State/industry OH&S legislation
- award provisions

Resources may include:
- company standards documentation
- work orders, job cards, quotes/estimates, internal memoranda, file note, invoice, job specifications
- work reports – paper based / electronic
- work to be inspected
- qualified workplace assessor
- workplace or simulated workplace

EVIDENCE GUIDE:
Context:
- Competency must be assessed in a safe working environment and in accordance with endorsed industry assessment guidelines.
- The underpinning knowledge and skills may be assessed on or off-the-job.
- The assessment of practical skills must take place only after a period of supervised practice and repetitive experience. If workplace conditions are not available, assessment in simulated workplace conditions is acceptable.
- The prescribed outcome must be able to be achieved without direct supervision.

Concurrent assessment and pre-requisite relationship:
- This unit may be assessed in conjunction with other units that form part of the function or for a particular job role for a company.

Consistency of performance:
- Competency is best assessed through observation over a period of time and in a variety of situations. Supplementary evidence of underpinning knowledge and the capability to manage tasks and operational and workplace contingencies should be gained through questioning and the use of work based examples.
- Questioning should be undertaken in such a manner as is appropriate to the language and literacy levels of the operator and to the requirements of the unit of competency.

Language, literacy and numeracy skills:
Speaking and listening skills may include:
- Listening to and following verbal instructions
- Giving verbal instructions

Reading and writing skills may include:
- Reading and interpreting company forms eg job specifications, company standards documentation
- Completing company forms eg job sheets, rework orders, check lists
- Reading and interpreting tags and labels

Numeracy skills may include:
- Measuring quantities and sizes of products

Critical aspects of evidence:
Evidence of achievement is required in all of the following:
- Inspect and apply quality standards to work done.
- Protect company property and customer interests
- Conduct periodic inspections during the job
- Observe and assess work against work specifications at completion of the job
- Check and complete documentation requirements – written / electronic

Underpinning knowledge:
- Communication/feedback methods - written , verbal
- Company systems, processes and work quality requirements
- Work inspection techniques – observation, written reports, mechanical tests
- Quality assurance principles

Key Competencies:	Level
Collect, analyse and organise information	2
Communicate ideas and information	2
Plan and organise activities	2
Work with others and in teams	2
Use mathematical ideas and techniques	2
Solve problems	2
Use technology	2

AUM8031A RECEIVE AND STORE PARTS

UNIT DESCRIPTOR: This unit identifies the competence to receive, check, tag and store parts.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
1. Unload and unpack parts.	1.1 Transport equipment is selected, checked, operated, and maintained in accordance with company procedures.
	1.2 Appropriate tools and equipment are selected to meet the job requirements.
	1.3 Packing slips are removed from crates and bins and stored to prevent them being misplaced or lost.
	1.4 Parts are unpacked from crates and bins and inspected for damage or faults.
	1.5 Crates or bins are dismantled and stored or disposed of in accordance with company procedures.
2. Check parts against invoices/orders.	2.1 Contents of bins and crates are checked against delivery dockets and invoices and against company's original order form.
	2.2 Short falls are recorded on appropriate company forms for back ordering or credit.
	2.3 Documentation is routed in accordance with company procedures.
3. Select bins and racks	3.1 Bins and racks are selected to meet the storage requirements as stated in the company procedures.
	3.2 Bins and racks are matched to part numbers specified in the company procedures.
	3.3 Bins and racks are selected to meet the storage requirements in accordance with OH&S specifications.
4. Load and operate transport equipment as required.	4.1 Transport equipment is selected and operated to meet the job requirements stated in the company procedures.
	4.2 Bins and racks are loaded on to transport equipment to ensure safe transition of parts to storage areas.
5. Identify, pack and store parts.	5.1 Parts are identified and matched by numbers and codes stated in the parts catalogue.
	5.2 Parts are stacked in bins and racks to prevent damage.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
5. Identify, pack and store parts. (continued)	5.3 Location tags are selected and matched to part numbers as stated in warehouse layout plan and attached to bins and racks.
	5.4 Bins and racks are stacked in the aisles, rows and levels identified on the location tag.
6. Complete stock control inventory records.	6.1 Stock movements are recorded in accordance with company stock control procedures.
	6.2 Stock levels are recorded in accordance with company stock control procedures.
	6.3 Discrepancies in stock levels are recorded / highlighted in accordance with company stock control procedures.

RANGE OF VARIABLES:

Range of Contexts:

This competency standard applies to:

- Bus/Truck/Trailer Manufacture and Assembly

Sources of information/documents may include:

- manufacturer specifications
- company operating procedures
- product manufacturer specifications
- customer requirements
- industry/workplace codes of practice
- State/industry OH&S legislation

Resources may include:

- goods received – local goods, shipping containers, air freight lots
- transport equipment – forklift, cranes, trolleys, stock pickers, conveyors
- crates and bins – wooden crates, wire cages, wooden pallets, cardboard cartons
- parts – raw materials, parts, consumables
- qualified workplace assessor
- workplace or simulated workplace

EVIDENCE GUIDE:

Context:

- Competency must be assessed in a safe working environment and in accordance with endorsed industry assessment guidelines.
- The underpinning knowledge and skills may be assessed on or off-the-job.
- The assessment of practical skills must take place only after a period of supervised practice and repetitive experience. If workplace conditions are not available, assessment in simulated workplace conditions is acceptable.
- The prescribed outcome must be able to be achieved without direct supervision.

Concurrent assessment and pre-requisite relationship:

- This unit may be assessed in conjunction with other units that form part of the function or for a particular job role for a company.

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Consistency of performance:
- Competency is best assessed through observation over a period of time and in a variety of situations. Supplementary evidence of underpinning knowledge and the capability to manage tasks and operational and workplace contingencies should be gained through questioning and the use of work based examples.
- Questioning should be undertaken in such a manner as is appropriate to the language and literacy levels of the operator and to the requirements of the unit of competency.

Language, literacy and numeracy skills:
Speaking and listening skills may include:
- Listening to and following verbal instructions
- Giving verbal reports / instructions

Reading and writing skills may include:
- Reading and interpreting delivery dockets, invoices, packing slips, orders
- Completing company stock control sheets, forms, operating procedures and schedules – written, electronic
- Reading and interpreting tags and labels
- Reading and interpreting equipment manuals

Numeracy skills may include:
- Counting and recording parts
- Checking quantities against parts lists

Critical aspects of evidence:
Evidence of achievement is required in all of the following:
- Apply manual handling techniques
- Use transport equipment and tools
- Confirm incoming goods against orders and delivery dockets
- Tag parts and store in the appropriate racks, aisles and levels in the storage area
- Complete company stock control and inventory procedures
- Identify and mark faulty parts
- Apply enterprise OH&S policy and procedures
- Maintain an effective, clean and safe worksite

Underpinning knowledge:
- Types of transport equipment and their application - forklift, cranes, trolleys, stock pickers, conveyors
- Company inventory procedures and documentation – paper based / electronic
- Types of storage containers – wooden crates, wire cages, wooden pallets, cardboard cartons
- Identification of parts
- Knowledge of enterprise OH&S policy and procedures
- Handling and storage procedures of dangerous goods
- Company procedures for faulty parts

Key Competencies:	Level
Collect, analyse and organise information	2
Communicate ideas and information	2
Plan and organise activities	3
Work with others and in teams	2
Use mathematical ideas and techniques	2
Solve problems	2
Use technology	2

AUM8032A CONTROL STOCK

UNIT DESCRIPTOR: This unit identifies the competence required to maintain stock levels in accordance with company policies and procedures.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
1. Operate computer equipment.	1.1 Computer equipment is selected and operated to meet the job requirements stated in the company's stock control procedures.
	1.2 Computer equipment is operated to ensure records are monitored and maintained.
	1.3 Computer equipment is operated to ensure data is maintained and not lost in the operation process.
	1.4 Computer equipment is operated to ensure data is accessible at all times.
2. Identify and record on a daily basis parts received, issued or dispatched.	2.1 Parts are identified and matched by numbers, codes and location tags.
	2.2 Parts received, issued and dispatched are recorded from invoices, delivery dockets, works orders and order forms to ensure stock is accurately accounted for.
	2.3 Parts received, issued or dispatched are keyed into the computer daily to ensure stock levels are accurately maintained.
3. Deal appropriately with faulty or damaged parts.	3.1 Faulty/damaged parts are assessed for rectification, return to supplier or scrap according to company guidelines.
	3.2 Faulty/damaged parts are rectified according to company procedures.
	3.3 Faulty/damaged parts are returned to suppliers according to company procedures.
	3.4 Faulty/damaged parts are scrapped according to company procedures.
	3.5 Appropriate recording procedures are maintained.
	4.1 Stocks are monitored and maintained in accordance with company procedures.
	4.2 Reserve stocks are transferred from reserve locations to warehouse to ensure build line/customer requirements are met.
	4.3 Requisition/order forms are completed for identified stock maintenance requirements.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
4. Maintain stock levels. (continued)	4.4 Unavailable stock is recorded and reported to the appropriate personnel for action.
	4.5 Warehouse stocks are consolidated efficiently.

RANGE OF VARIABLES:

Range of Contexts:

This competency standard applies to:

- Bus/Truck/Trailer Manufacture and Assembly

Sources of information/documents may include:

- manufacturer specifications
- company operating procedures
- product manufacturer specifications
- customer requirements
- industry/workplace codes of practice
- State/industry OH&S legislation

Resources may include:

- computer software (may vary in type and information recorded and reported)
- computer equipment and stock files
- parts may include raw materials, parts, consumables
- stock control inventory reports – paper based / electronic
- qualified workplace assessor
- workplace or simulated workplace

EVIDENCE GUIDE:

Context:

- Competency must be assessed in a safe working environment and in accordance with endorsed industry assessment guidelines.
- The underpinning knowledge and skills may be assessed on or off-the-job.
- The assessment of practical skills must take place only after a period of supervised practice and repetitive experience. If workplace conditions are not available, assessment in simulated workplace conditions is acceptable.
- The prescribed outcome must be able to be achieved without direct supervision.

Concurrent assessment and pre-requisite relationship:

- This unit may be assessed in conjunction with other units that form part of the function or for a particular job role for a company.

Consistency of performance:

- Competency is best assessed through observation over a period of time and in a variety of situations. Supplementary evidence of underpinning knowledge and the capability to manage tasks and operational and workplace contingencies should be gained through questioning and the use of work based examples.
- Questioning should be undertaken in such a manner as is appropriate to the language and literacy levels of the operator and to the requirements of the unit of competency.

Language, literacy and numeracy skills:

Speaking and listening skills may include:

- Listening to and following verbal instructions
- Giving verbal instructions and technical information

Reading and writing skills may include:
- Reading and interpreting company forms eg company standards documentation, stock records
- Completing company forms eg order forms, stock record sheets, parts movements, damage reports
- Reading and interpreting tags and labels

Numeracy skills may include:
- Counting and recording parts
- Checking quantities against parts lists

Critical aspects of Evidence:

Evidence of achievement is required in all of the following:
- Record parts and their details
- Operate computer equipment
- Conduct manual and/or stocktake
- Maintain documentation / computer records
- Detect stock discrepancies
- Identify and deal with faulty or damaged stock
- Apply enterprise OH&S policy and procedures
- Maintain an effective, clean and safe work site

Underpinning knowledge:
- Identification and characteristics of parts
- Company ordering procedures
- Types of computers and operating procedures
- Identification of faulty parts
- Stock control systems and enterprise procedures
- Knowledge of enterprise OH&S policy and procedures

Key Competencies:	**Level**
Collect, analyse and organise information	3
Communicate ideas and information	2
Plan and organise activities	1
Work with others and in teams	2
Use mathematical ideas and techniques	3
Solve problems	2
Use technology	3

AUM8033A SELECT AND DISPATCH PARTS

UNIT DESCRIPTOR: This unit identifies the competence to receive orders and select and check and dispatch parts.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
1. Accept and complete works orders or order forms.	1.1 Electronic communication equipment is checked regularly for incoming messages as stated in the standard operating procedures/or in accordance with company policy.
	1.2 Messages/orders/works orders are received, accepted and recorded in accordance with company policy
	1.3 Orally recorded messages are transposed to the written format on the appropriate forms.
	1.4 Messages/order forms are prioritised and routed to appropriate destinations in accordance with company procedures.
	1.5 Appropriate documentation is completed in accordance with company procedures.
2. Pick parts from aisles, bins and racks.	2.1 Materials list/order forms are read and interpreted to determine the appropriate picking process.
	2.2 Appropriate transport equipment is selected for the parts to be picked.
	2.3 Parts ordered are matched with location points in warehouse to ensure correct selection of parts.
	2.4 Parts are picked from bins and racks on the basis of letters and codes matching part name.
	2.5 Parts letters and numbers are checked and matched against those on the order form to ensure the correct parts and quantities are picked.
	2.6 Appropriate records are completed for parts picked.
	2.7 Parts not available are recorded and reported according to company procedures.
3. Deliver parts to work area or dispatch.	3.1 Parts delivered to work area or dispatch in a timely fashion.
	3.2 Parts stored on the line/in dispatch in accordance with OH&S requirements.
	3.3 Appropriate records are completed.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
4. Pack parts	4.1 Packaging is identified and selected to secure and protect the parts to be shipped.
	4.2 Parts are coated with protective coatings/materials to ensure quality/undamaged products are received on completion of consignment (if applicable).
	4.3 Parts are packed into cartons/containers in accordance with standard operating procedures to secure and protect during transportation.
	4.4 Packaging is sealed to prevent spill or loss of stock during transportation.
5. Complete and attach invoices, dockets, stickers and labels.	5.1 Invoices, dockets stickers and labels are selected and used to meet the job requirements for parts being shipped.
	5.2 Invoices and dockets are completed and inserted into envelopes and attached to packaging as shown in the standard operating procedures.
	5.3 International handling symbol stickers are selected and attached to packaging to prevent damage to parts due to incorrect handling.
	5.4 Packaging is accurately and legibly addressed to consignee to prevent delivery to wrong address.
	5.5 Documentation is processed and dispatched internally/externally in accordance with enterprise procedures.
6. Dispatch parts.	6.1 Transport requirements are identified and requisitioned according to company procedures.
	6.2 Packaged parts are stacked on transportation equipment using methods that prevent damage and spillage during transportation.
	6.3 Packaged parts are dispatched to next requested destination in accordance with enterprise procedures.
	6.4 Transport documentation relevant to the dispatch process is completed in accordance with company procedures.

RANGE OF VARIABLES:

Range of Contexts:

This competency standard applies to:

- Truck/Bus/Trailer Manufacture and Assembly

Sources of information/documents may include:
- manufacturer specifications
- company operating procedures
- product manufacturer specifications
- customer / job requirements
- industry/workplace codes of practice
- State/industry OH&S legislation

Resources may include:
- electronic communications equipment – computers, e-mail, facsimile machines, telephones, answering machines.
- transport equipment – forklift, cranes, trolleys, stock pickers, conveyors
- packaging crates and bins – wooden crates, wire cages, wooden pallets, cardboard cartons
- parts – raw materials, parts, consumables
- sealing material – tapes, steel and nylon strapping, staples
- international handling codes – fragile, use no hooks, this end up, do not drop
- qualified workplace assessor
- workplace or simulated workplace

EVIDENCE GUIDE:
Context:
- Competency must be assessed in a safe working environment and in accordance with endorsed industry assessment guidelines.
- The underpinning knowledge and skills may be assessed on or off-the-job.
- The assessment of practical skills must take place only after a period of supervised practice and repetitive experience. If workplace conditions are not available, assessment in simulated workplace conditions is acceptable.
- The prescribed outcome must be able to be achieved without direct supervision.

Concurrent assessment and pre-requisite relationship:
- This unit may be assessed in conjunction with other units that form part of the function or for a particular job role for a company.

Consistency of performance:
- Competency is best assessed through observation over a period of time and in a variety of situations. Supplementary evidence of underpinning knowledge and the capability to manage tasks and operational and workplace contingencies should be gained through questioning and the use of work based examples.
- Questioning should be undertaken in such a manner as is appropriate to the language and literacy levels of the operator and to the requirements of the unit of competency.

Language, literacy and numeracy skills:
Speaking and listening skills may include:
- Listening to and following verbal instructions
- Giving verbal instructions and technical information

Reading and writing skills may include:
- Reading and interpreting delivery dockets, invoices, packing slips, orders
- Completing company stock control sheets, forms and schedules – written / electronic
- Reading and interpreting tags and labels

Numeracy skills may include:
- Counting and recording parts
- Checking quantities against parts lists

Critical aspects of Evidence:

Evidence of achievement is required in all of the following:

- Use transport equipment and tools to select and dispatch parts
- Apply company order and inventory procedures
- Identify and select parts
- Pack and dispatch parts
- Apply enterprise OH&S policy and procedures
- Maintain an effective, clean and safe work site
- Apply manual handling techniques

Underpinning knowledge:

- Types of electronic equipment and their application
- Types of transport equipment and their application
- Company order and inventory procedures and paperwork
- Types of storage containers - wooden crates, wire cages, wooden pallets, cardboard cartons
- Identification of parts
- Knowledge of international handling codes
- Knowledge of enterprise OH&S policy and procedures
- Company packaging procedures
- Handling and storage procedures for dangerous goods

Key Competencies:	**Level**
Collect, analyse and organise information	2
Communicate ideas and information	2
Plan and organise activities	3
Work with others and in teams	2
Use mathematical ideas and techniques	2
Solve problems	2
Use technology	2

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AUM8041A PREPARE MATERIALS FOR FABRICATION USING JIGS/FIXTURES

UNIT DESCRIPTOR: This unit identifies the competence in the Bus/Truck/Trailer Manufacture and Assembly sectors required to interpret the drawings/specifications/materials list and then select, mark out and load materials for fabrication using jigs/fixtures.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
1. Select and mark out materials.	1.1 Drawings/specifications/materials lists are read and interpreted.
	1.2 Correct materials for job are selected.
	1.3 Appropriate transport equipment operated according to company procedures.
	1.4 Defective materials are set aside for scrap, return or rework.
	1.5 Job is marked out according to relevant drawing and appropriate final finish is considered (seams and blemishes).
2. Load/unload material onto jig/fixture.	2.1 Appropriate lifting gear is used.
	2.2 Material/parts securely fixed to prevent movement and inaccurate specifications during operations.
	2.3 Materials/parts loaded and unloaded in accordance with OH&S requirements.
3. Bend/shape material for fabrication	3.1 Appropriate tools are selected in accordance with job requirements
	3.2 Bend/shape processes are employed according to manufacturer and company procedures
	3.3 Bent/shaped material is checked against job specification
	3.4 Bending/shaping processes are completed in accordance with company OH&S procedures
4. Record workflow and production schedules.	4.1 Workflow and production schedules are recorded using the appropriate paper work.
	4.2 Workflow and production schedules are completed and maintained to ensure production targets are achieved.
	4.3 Deviations to work flow and production schedules are recorded and reported to the appropriate personnel for action.

RANGE OF VARIABLES:

Range of Context:

This competency standard applies to:

- Bus/Truck/Trailer Manufacture and Assembly

Sources of information/documents may include:

- manufacturer specifications
- company operating procedures
- working/engineering drawings
- product manufacturer specifications
- customer requirements
- industry/workplace codes of practice
- State/industry OH&S legislation
- award provisions

Resources may include:

- materials – aluminum, mild steel, bissaloy, stainless steel, preformed parts
- securing processes – bolts, clamps, metal pins
- transport equipment – use of cranes, hoists, tow motors and trolleys
- jigs/fixtures
- company documents to be completed – paper based / electronic
- production drawings / specifications / materials lists
- qualified workplace assessor
- workplace or simulated workplace

EVIDENCE GUIDE:

Context:

- Competency must be assessed in a safe working environment and in accordance with endorsed industry assessment guidelines.
- The underpinning knowledge and skills may be assessed on or off-the-job.
- The assessment of practical skills must take place only after a period of supervised practice and repetitive experience. If workplace conditions are not available, assessment in simulated workplace conditions is acceptable.
- The prescribed outcome must be able to be achieved without direct supervision.

Concurrent assessment and pre-requisite relationship:

- This unit may be assessed in conjunction with other units that form part of the function or for a particular job role for a company.

Consistency of performance:

- Competency is best assessed through observation over a period of time and in a variety of situations. Supplementary evidence of underpinning knowledge and the capability to manage tasks and operational and workplace contingencies should be gained through questioning and the use of work based examples.
- Questioning should be undertaken in such a manner as is appropriate to the language and literacy levels of the operator and to the requirements of the unit of competency.

Language, literacy and numeracy skills:

Speaking and listening skills may include:

- Listening to and following verbal instructions
- Giving verbal instructions and technical information

Reading and writing skills may include:

- Reading and interpreting company documentation eg job drawings/ specifications/ materials lists, company standards documentation, operating procedures
- Completing company documentation (written / electronic) eg job sheets, work orders, damage reports, production schedules, workflow reports – written / electronic
- Reading and interpreting equipment manuals, tags and labels

Numeracy skills may include:
- Measuring materials as per documentation
- Counting and recording parts
- Checking quantities against parts lists
- Sequencing of fixing process or work order

Critical aspects:

Evidence of achievement is required in all of the following:
- Interpret drawings/specifications/materials lists
- Identify materials
- Mark out materials
- Fixing of materials in jig / fixtures for fabrication
- Produce work flow records – written / electronic
- Apply enterprise OH&S policy and procedures
- Maintain an effective, clean and safe work site
- Apply manual handling techniques

Underpinning knowledge:
- Materials lists codes
- Marking out techniques – measure, interpret work orders
- Knowledge of production schedules
- Quality standards and faulty materials
- Knowledge of work flow records
- Fixtures and jigs types and operating procedures
- Knowledge of enterprise OH&S policy and procedures

Key Competencies:	**Level**
Collect, analyse and organise information	2
Communicate ideas and information	2
Plan and organise activities	2
Work with others and in teams	2
Use mathematical ideas and techniques	1
Solve problems	1
Use technology	2

AUM8042A PREPARE MATERIALS FOR FABRICATION USING MANUAL PROCESSES

UNIT DESCRIPTOR: This unit identifies the competence in the Bus/Truck/Trailer Manufacture and Assembly sectors required to interpret the drawings/specifications/materials list and prepare the materials for fabrication using manual processes.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
1. Select and mark out materials.	1.1 Drawings/specifications/materials lists are read and interpreted.
	1.2 Correct materials for job are selected.
	1.3 Appropriate transport equipment operated according to company procedures.
	1.4 Defective materials are set aside for scrap, return or rework.
	1.5 Job is marked out according to relevant drawing and appropriate final finish is considered (seams and blemishes).
2. Bend/shape material for fabrication	2.1 Appropriate tools and lifting equipment are selected in accordance with job requirements
	2.2 Distortion prevention measures are identified and applied in accordance with job requirements
	2.3 Bend/shape processes are employed according to manufacturer and company procedures
	2.4 Bent/shaped material is checked against job specification
	2.5 Bending/shaping processes are completed in accordance with company OHS procedures
3. Record workflow and production schedules.	3.1 Workflow and production schedules are recorded using the appropriate paper work.
	3.2 Workflow and production schedules are completed and maintained to ensure production targets are achieved.
	3.3 Deviations to work flow and production schedules are recorded and reported to the appropriate personnel for action.

RANGE OF VARIABLES:

Range of Context:

This competency standard applies to:

- Bus/Truck/Trailer Manufacture and Assembly

Sources of information/documents may include:
- manufacturer specifications
- company operating procedures
- working/engineering drawings
- product manufacturer specifications
- customer requirements
- industry/workplace codes of practice
- State/industry OH&S legislation

Resources may include:
- materials – aluminum, mild steel, bissaloy, stainless steel, preformed parts
- securing processes – bolts, clamps, metal pins
- transport equipment – use of cranes, hoists, tow motors and trolleys
- welding equipment
- company documents to be completed
- production drawings / specifications / materials lists
- qualified workplace assessor
- workplace or simulated workplace

EVIDENCE GUIDE:
Context:
- Competency must be assessed in a safe working environment and in accordance with endorsed industry assessment guidelines.
- The underpinning knowledge and skills may be assessed on or off-the-job.
- The assessment of practical skills must take place only after a period of supervised practice and repetitive experience. If workplace conditions are not available, assessment in simulated workplace conditions is acceptable.
- The prescribed outcome must be able to be achieved without direct supervision.

Concurrent assessment and pre-requisite relationship:
- This unit should be assessed after the successful completion of or in conjunction with unit:
  AUM8044A Read and interpret engineering drawings and job specifications
- This unit may be assessed in conjunction with other units that form part of the function or for a particular job role for a company.

Consistency of performance:
- Competency is best assessed through observation over a period of time and in a variety of situations. Supplementary evidence of underpinning knowledge and the capability to manage tasks and operational and workplace contingencies should be gained through questioning and the use of work based examples.
- Questioning should be undertaken in such a manner as is appropriate to the language and literacy levels of the operator and to the requirements of the unit of competency.

Language, literacy and numeracy skills:
Speaking and listening skills may include:
- Listening to and following verbal instructions
- Giving verbal instructions

Reading and writing skills may include:
- Reading and interpreting company documentation eg job drawings/ specifications/ materials lists, company standards documentation, operating procedures
- Completing company documentation (written / electronic) eg job sheets, work orders, damage reports, production schedules, workflow reports
- Reading and interpreting equipment manuals, tags and labels

Numeracy skills may include:
- Measuring materials as per documentation
- Counting and recording parts
- Checking quantities against parts lists
- Read and interpret measuring equipment

Critical aspects:
Evidence of achievement is required in all of the following:
- Interpret drawings/specifications/materials lists
- Identify materials
- Mark out materials
- Prepare materials for fabrication
- Employ distortion control techniques
- Check for squareness and alignment to work order specifications
- Produce work flow records – written / electronic
- Apply enterprise OH&S policy and procedures

Underpinning knowledge:
- Materials lists codes
- Marking out and fabrication preparation techniques – straight line, template, geometric
- Distortion control techniques purpose and applications – bracing, pre-set prior to welding
- Knowledge of production schedules
- Quality standards and faulty materials
- Knowledge of work flow records
- Knowledge of enterprise OH&S policy and procedures
- Use of clamping equipment

Key Competencies:	**Level**
Collect, analyse and organise information	2
Communicate ideas and information	2
Plan and organise activities	2
Work with others and in teams	2
Use mathematical ideas and techniques	1
Solve problems	2
Use technology	2

AUM8043A READ AND INTERPRET WORKING DRAWINGS AND WORK ORDERS

UNIT DESCRIPTOR: This unit identifies the competence required to read and interpret working drawings and work orders and determine processes required for production.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
1. Read and interpret working drawings and work orders	1.1 Symbols, codes, legends and diagrammatic representations are correctly recognised.
	1.2 Product/system/component/item represented is correctly identified.
	1.3 Information represented is correctly understood.
2. Initiate work order for production.	2.1 Processes to be used are identified
	2.2 Material requirements are identified
	2.3 Production processes are initiated in accordance with company procedures.

RANGE OF VARIABLES:

Range of contexts:

This competency standard applies to:

- Bus/Truck/Trailer Manufacture and Assembly

Sources of information/documents may include:

- manufacturer specifications
- company operating procedures
- product manufacturer specifications
- customer requirements
- industry/workplace codes of practice
- State/industry OH&S legislation

Resources may include:

- Relevant tools and equipment
- Basic working drawings / work orders / sequence lists / instruction sheets
- Qualified workplace assessor
- Workplace or simulated workplace

EVIDENCE GUIDE:

Context:

- Competency must be assessed in a safe working environment and in accordance with endorsed industry assessment guidelines.
- The underpinning knowledge and skills may be assessed on or off-the-job.
- The assessment of practical skills must take place only after a period of supervised practice and repetitive experience. If workplace conditions are not available, assessment in simulated workplace conditions is acceptable.
- The prescribed outcome must be able to be achieved without direct supervision.

Concurrent assessment and pre-requisite relationship:

- This unit may be assessed in conjunction with other units that form part of the function or for a particular job role for a company.

Consistency of performance:
- Competency is best assessed through observation over a period of time and in a variety of situations. Supplementary evidence of underpinning knowledge and the capability to manage tasks and operational and workplace contingencies should be gained through questioning and the use of work based examples.
- Questioning should be undertaken in such a manner as is appropriate to the language and literacy levels of the operator and to the requirements of the unit of competency.

Language, literacy and numeracy skills:
Speaking and listening skills may include:
- Listening to and following verbal instructions
- Giving verbal instructions

Reading and writing skills may include:
- Reading and interpreting company documentation eg working drawings, work orders, company standards documentation
- Completing company documentation (written / electronic) eg job sheets, work orders, materials lists
- Reading and interpreting symbols, codes, legends, diagrams

Numeracy skills may include:
- Determining quantities of materials required for a job from job documentation and working drawings
- Measuring of materials as per work order

Critical aspects:
Evidence of achievement is required in all of the following:
- Read and Interpret working drawings/work orders
- Establish job processes and material requirements

Underpinning knowledge:
- Measuring procedures – use of rulers /tapes / squares
- Reading and Interpreting working drawings/job specifications and standards
- Product manufacturer drawing standards and practices
- Manufacture and assembly processes
- Company policies and procedures

Key Competencies:	**Level**
Collect, analyse and organise information	2
Communicate ideas and information	2
Plan and organise activities	2
Work with others and in teams	1
Use mathematical ideas and techniques	2
Solve problems	1
Use technology	1

AUM8044A READ AND INTERPRET ENGINEERING DRAWINGS AND JOB SPECIFICATIONS

UNIT DESCRIPTOR: This unit identifies the competence required to read and interpret engineering drawings and job specifications/sheets and determine processes and materials lists required for production.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
1. Read and interpret engineering drawings.	1.1 Symbols, codes, legends and diagrammatic representations are correctly recognised.
	1.2 Product/system/component/item represented is correctly identified.
	1.3 Information represented is correctly understood.
2. Determine processes to be used and prepare materials lists from engineering drawings.	2.1 Processes to be used are identified
	2.2 Material requirements are identified
	2.3 Work orders for production are initiated in accordance with company procedures.
3. Read and interpret job specification and work orders.	3.1 Materials and process requirements are identified and prepared for production
	3.2 Specific customer/job requirements are identified
	3.3 Job requirements are clarified with appropriate personnel.

RANGE OF VARIABLES:

Range of contexts:

This competency standard applies to:

- Bus/Truck/Trailer Manufacture and Assembly

Sources of information/documents may include:

- manufacturer specifications
- company operating procedures
- product manufacturer specifications
- engineering drawings
- customer requirements
- industry/workplace codes of practice
- State/industry OH&S legislation
- award provisions

Resources may include:

- Relevant tools and equipment
- Engineering drawings/job specifications
- Qualified workplace assessor
- Workplace or simulated workplace

EVIDENCE GUIDE:

Context:

- Competency must be assessed in a safe working environment and in accordance with endorsed industry assessment guidelines.
- The underpinning knowledge and skills may be assessed on or off-the-job.
- The assessment of practical skills must take place only after a period of supervised practice and repetitive experience. If workplace conditions are not available, assessment in simulated workplace conditions is acceptable.
- The prescribed outcome must be able to be achieved without direct supervision.

Concurrent assessment and pre-requisite relationship:

- This unit may be assessed in conjunction with other units that form part of the function or for a particular job role for a company.

Consistency of performance:

- Competency is best assessed through observation over a period of time and in a variety of situations. Supplementary evidence of underpinning knowledge and the capability to manage tasks and operational and workplace contingencies should be gained through questioning and the use of work based examples.
- Questioning should be undertaken in such a manner as is appropriate to the language and literacy levels of the operator and to the requirements of the unit of competency.

Language, literacy and numeracy skills:

Speaking and listening skills may include:

- Listening to and following verbal instructions
- Giving verbal instructions and technical information

Reading and writing skills may include:

- Reading and interpreting company documentation eg engineering or working drawings, job specifications or work orders, company standards documentation
- Completing company documentation (written / electronic) eg job sheets, job specifications / work orders, materials lists
- Reading and interpreting symbols, codes, legends, diagrams

Numeracy skills may include:

- Determining quantities of materials required for a job from job documentation

Critical aspects:

Evidence of achievement is required in all of the following:

- Read and Interpret engineering drawings/job specifications
- Establish job processes and material requirements

Underpinning knowledge:

- Measuring procedures – use of rulers / tapes / squares
- Reading and Interpreting basic drawings/job specifications and company work orders
- Product manufacturer engineering drawing standards and practices
- Manufacture and assembly processes
- Company policies and procedures – paper based / electronic

Key Competencies:	Level
Collect, analyse and organise information	2
Communicate ideas and information	2
Plan and organise activities	2
Work with others and in teams	1
Use mathematical ideas and techniques	2
Solve problems	1
Use technology	1

AUM3401A PLAN AND ORGANISE PRODUCTION

UNIT DESCRIPTOR: This unit identifies the competence required to be able, in conjunction with professional and other staff, to plan and organise the facilities, resources and processes required for the production and assembly of bus/truck/trailers

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
1. Identify production objectives.	1.1 Production objectives are clearly and unambiguously identified and clarified in conjunction with design, engineering, production and other relevant staff in accordance with company requirements.
2. Determine production team and resource requirements.	2.1 Production team requirements are determined based on task requirements and necessary competencies.
	2.2 Suitable staff and/or contractors are selected based on competence and availability in accordance with company procedures.
	2.3 Required raw materials, tools, equipment, assembly or fabrication jigs and other physical resources needed for the production are identified and a specification drawn up detailing the required quality and quantities.
	2.4 Costings of staffing and resource requirements are developed in accordance with company procedures.
3. Develop production budget, quotas, time schedule and milestones.	3.1 Identified production tasks and activities are costed in terms of staffing and resource requirements.
	3.2 A time schedule for the production is drawn up clearly showing the sequence and inter-relationships of activities as well as milestones and estimated start and completion dates in accordance with company requirements.
	3.3 A production budget is drawn up showing the estimated costs of various production tasks and activities and the estimated cash flow required for production completion in accordance with company requirements.
	3.4 The production plan showing the resourcing arrangements time schedule and proposed budget is submitted to the appropriate personnel in accordance with company procedures, and any necessary changes made.
4. Assign production tasks to team.	4.1 Production tasks and component activities are clearly identified and specified and team assigned to them based on their competence, experience and availability.
	4.2 The production team is briefed on their respective roles and responsibilities in accordance with company procedures.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
5. Implement production plan.	5.1 Requirements for major activities, staffing, resources, critical dates and the required final and intermediate outcomes of the production are confirmed prior to commencement of the production in accordance with the approved production plan and company requirements.
	5.2 Production team is briefed on production objectives and their respective roles and responsibilities in accordance with company requirements.
	5.3 Stakeholders (i.e. user departments, management, etc.) are kept informed of production objectives and progress throughout the production.
	5.4 Potential problems and complications are identified in the course of the production and suitable contingency action initiated in accordance with company procedures.
6. Review production progress and outcomes.	6.1 Production progress is closely monitored against required quality of products and sub-assemblies, and adherence to both budget and time schedule, and reported to appropriate personnel in accordance with company requirements.
	6.2 Adequate records are maintained of all key information pertaining to the production process in accordance with company requirements.

RANGE OF VARIABLES:

Range of contexts:

This competency standard applies to:

- Bus/Truck/Trailer Manufacture and Assembly

Sources of information/documents may include:

- Manufacturer specifications
- Company operating procedures
- Product manufacturer specifications
- Customer requirements
- Industry/Workplace Codes of Practice
- State/industry OH&S legislation

Resources may include:

- Type of plant, tooling and equipment (as per company installation)
- Documentation and reporting systems (as per company requirements)
- Production schedule – paper based / electronic
- Production manuals – paper based / electronic
- Access to professional staff
- Qualified workplace assessor
- Workplace or simulated workplace

EVIDENCE GUIDE:

Context:

- Competency must be assessed in a safe working environment and in accordance with endorsed industry assessment guidelines.
- The underpinning knowledge and skills may be assessed on or off-the-job.
- The assessment of practical skills must take place only after a period of supervised practice and repetitive experience. If workplace conditions are not available, assessment in simulated workplace conditions is acceptable.
- The prescribed outcome must be able to be achieved without direct supervision.

Concurrent assessment and pre-requisite relationship:

- This unit may be assessed in conjunction with other units that form part of the function or for a particular job role for a company.

Consistency of performance:

- Competency is best assessed through observation over a period of time and in a variety of situations. Supplementary evidence of underpinning knowledge and the capability to manage tasks and operational and workplace contingencies should be gained through questioning and the use of work based examples.
- Questioning should be undertaken in such a manner as is appropriate to the language and literacy levels of the operator and to the requirements of the unit of competency.

Language, literacy and numeracy skills:

Speaking and listening skills may include:

- Listening to and following verbal instructions
- Giving verbal instructions and technical information
- Participate in meetings about production schedules

Reading and writing skills may include:

- Reading and interpreting company documentation eg production schedules, company standards documentation
- Completing company forms (written / electronic) eg work orders, budgets, production schedules
- Reading and interpreting company production manuals

Numeracy skills may include:

- Determining quantities of materials required for production
- Calculate cost of production
- Determine timelines for production

Critical aspects of evidence:

Evidence of achievement is required in all of the following:

- Identify production objectives
- Determine production staffing and resource requirements
- Develop production budget, quotas, time schedule and milestones – written / electronic
- Assign tasks to staff
- Implement production plan and review production progress and outcomes

Underpinning knowledge:

- Process to identify production objectives
- Process for determining production staffing and resource requirements
- Development principles for production budget, quotas, time schedule and milestones
- Company procedures for assigning tasks to staff
- Procedure for implementing project plan
- Procedure for reviewing production progress and outcomes

Key Competencies:	Level
Collect, analyse and organise information	3
Communicate ideas and information	3
Plan and organise activities	3
Work with others and in teams	3
Use mathematical ideas and techniques	3
Solve problems	3
Use technology	3

AUM8051A CONDUCT BASIC WELDING, THERMAL CUTTING, HEATING AND GOUGING OPERATIONS

UNIT DESCRIPTOR: This unit identifies the competence required to conduct basic welding, thermal cutting, heating and gouging operations.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
1. Determine job requirements.	1.1 Job specifications and requirements are interpreted and determined from job sheets and / or work instructions.
	1.2 Appropriate plant/equipment is selected in accordance with job requirements.
	1.3 Appropriate OHS practices are identified in accordance with OH&S policy, standard operating procedures and statutory and company requirements.
2. Plan and prepare to undertake the work.	2.1 Resources required to satisfy the work plan are identified, obtained and inspected for compliance with the job specifications.
	2.2 Relevant plans, drawings and texts are selected and interpreted in accordance with the work plan.
	2.3 Correct size, type and quantity of materials/components are determined, obtained and inspected for compliance with the job specifications.
	2.4 Work is planned in detail including sequencing and prioritising and considerations made in accordance with system/site requirements.
	2.5 Work area is prepared in accordance with work requirements and site procedures.
	2.6 Potential hazards are identified and prevention and/or control measures are selected in accordance with the work plan and site procedures.
	2.7 Work completion details are finalised in accordance with site/enterprise procedures.
3. Conduct gas metal arc (MIG) and manual metal arc welding processes.	3.1 Work is completed without causing damage to any workplace property or vehicle, system or component.
	3.2 Information is accessed from appropriate sources to enable welding to be performed in accordance with vehicle and equipment manufacturer procedures.
	3.3 Approved methods and equipment, according to type of material and repairs required.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
3. Conduct gas metal arc (MIG) and manual metal arc welding processes. (continued)	3.4 MIG and arc welding are carried out according to a standard that meets industry regulations/guidelines, OH&S legislation, statutory legislation and company policy/ procedures.
4. Conduct oxy acetylene welding and spot welding processes.	4.1 Welding procedures are completed without causing damage to any workplace property or vehicle, system or component.
	4.2 Information is accessed from appropriate sources to enable welding to be performed in accordance with vehicle and equipment manufacturer procedures.
	4.3 Approved methods and equipment, according to type of repair required and materials to be welded.
	4.4 Oxy acetylene welding and spot welding are carried out according to a standard that meets industry regulations/guidelines, OH&S legislation, statutory legislation and company policy/procedures.
5. Conduct thermal heating processes.	5.1 Thermal heating procedures are completed without causing damage to any workplace property or vehicle, system or component
	5.2 Information is accessed from appropriate sources to enable heat shrinking to be performed in accordance with vehicle and equipment manufacturer procedures.
	5.3 Approved methods and equipment, according to type of material to be heated.
	5.4 Heating is carried out according to a standard that meets industry regulations/guidelines, OH&S legislation, statutory legislation and company policy/procedures.
6. Conduct thermal cutting and gouging processes.	6.1 Thermal cutting and gouging processes are completed without causing damage to any workplace property or vehicle, system or component.
	6.2 Information is accessed from appropriate sources to enable thermal cutting and gouging to be performed in accordance with vehicle and equipment manufacturer procedures.
	6.3 Approved methods and equipment, according to type of material to be heated.
	6.4 Thermal cutting and gouging are carried out according to a standard that meets industry regulations/guidelines, OH&S legislation, statutory legislation and company policy/procedures.

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RANGE OF VARIABLES:

Range of contexts:

This competency standard applies to:

- Bus/Truck/Trailer Manufacture and Assembly

Sources of information/documents may include:

- vehicle/manufacturer specifications
- company operating procedures
- product manufacturer specifications
- customer requirements
- industry/workplace codes of practice
- Statutory legislation
- material safety data sheets
- State/industry OH&S legislation

Resources may include:

- hand tools, welding equipment including: manual metal arc, gas metal arc (MIG), oxy acetylene and spot
- heating equipment including: oxy acetylene and oxy LPG
- thermal cutting equipment including: oxy acetylene and/or plasma arc
- substrates to include aluminum, bissaloy, steel
- job sheets, drawings, work instructions
- qualified workplace assessor
- workplace or simulated workplace

EVIDENCE GUIDE:

Context:

- Competency must be assessed in a safe working environment and in accordance with endorsed industry assessment guidelines.
- The underpinning knowledge and skills may be assessed on or off-the-job.
- The assessment of practical skills must take place only after a period of supervised practice and repetitive experience. If workplace conditions are not available, assessment in simulated workplace conditions is acceptable.
- The prescribed outcome must be able to be achieved without direct supervision.

Concurrent assessment and pre-requisite relationship:

- This unit may be assessed in conjunction with other units that form part of the function or for a particular job role for a company.

Consistency of performance:

- Competency is best assessed through observation over a period of time and in a variety of situations. Supplementary evidence of underpinning knowledge and the capability to manage tasks and operational and workplace contingencies should be gained through questioning and the use of work based examples.
- Questioning should be undertaken in such a manner as is appropriate to the language and literacy levels of the operator and to the requirements of the unit of competency.

Critical aspects of evidence:

Evidence of achievement is required in all of the following:

- Interpret and communicate operational information
- Employ safe working practices
- Conduct MIG and arc welding processes
- Conduct Oxy acetylene and resistance welding processes
- Conduct heating and thermal cutting and gouging processes
- Manual straight line cutting standards
- Use relevant tools and equipment

Underpinning knowledge:
- OH&S regulations/requirements
- Equipment safety requirements.
- Personal safety requirements (eg, toxic fumes/lead poisoning)
- Types of metals relevant to the application
- Types of fluxes, rods and their application
- Manual metal arc welding procedures
- MIG procedures
- Oxy acetylene and resistance welding procedures
- Heating procedures - oxy acetylene and oxy LPG
- Thermal cutting and gouging processes

Language, Literacy and Numeracy Skills:
Speaking and listening skills may include:
- Listening to and following verbal instructions
- Exchanging technical information

Reading and writing skills may include:
- Accessing and interpreting information on approved methods and procedures
- Reading and interpreting company forms eg. checklists, job sheets
- Reading and following written safety requirements eg. MSDS

Numeracy skills may include:
- Determining resource quantities required
- Reading welding gauges
- Using measurements eg. thickness, length

Key Competencies:	**Level**
Collect, analyse and organise information	2
Communicate ideas and information	1
Plan and organise activities	2
Work with others and in teams	1
Use mathematical ideas and techniques	1
Solve problems	2
Use technology	2

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AUM8052A CONDUCT MECHANICAL CUTTING OPERATIONS

UNIT DESCRIPTOR: This unit identifies the competence required to prepare and operate equipment/plant for mechanical cutting operations.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
1. Determine job requirements.	1.1 Job specifications and requirements are interpreted and determined from job sheets and/or work instructions.
	1.2 Appropriate plant/equipment is selected in accordance with job requirements.
	1.3 Appropriate OHS practices are identified in accordance with OH&S policy, standard operating procedures and statutory and company requirements.
2. Select and set up cutting machine	2.1 Appropriate machine for the job requirements is selected in accordance with company procedures.
	2.2 Machine is selected and inspected for safety and operational condition in accordance with company procedures.
	2.3 Machine is set up and adjusted ready for operation.
	2.4 Standard occupational health and safety equipment are utilised.
3. Operate mechanical cutting equipment.	3.1 Cutting processes are planned to ensure most economical use of material is achieved.
	3.2 Stops and guards are adjusted as required and material secured and positioned prior to machine start-up.
	3.3 Equipment start-up procedures follow company procedures.
	3.4 Machine started and material cut to meet shape/size/length specifications within appropriate cutting allowances.
	3.5 Machine maintenance procedures are completed in accordance with company procedures
	3.6 Cutting defects are identified and corrective actions are undertaken in accordance with company procedures.
	3.7 Safety clothing and protective equipment are used according to OH&S and company requirements.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
4. Check material for conformance to specification.	4.1 Machine is adjusted as required and in process adjustments carried out as necessary.
	4.2 Material is cut or holed within accepted tolerances according to the job specification.

RANGE OF VARIABLES:

Range of Contexts:

This competency standard applies to:

- Bus/Truck/Trailer Manufacture and Assembly

Sources of information/documentation may include:

- manufacturer specifications
- enterprise operating procedures
- product manufacturer specifications
- customer requirements
- industry/workplace codes of practice
- State/industry OH&S legislation

Resources may include:

- manual/machine cutting equipment – saws, croppers, guillotines
- materials being cut may include ferrous, non ferrous materials
- work orders/specifications
- measuring equipment – tapes, squares
- OH&S standards (as per company and statutory requirements)
- documentation and reporting systems (as per company requirements)- paper based / electronic
- qualified workplace assessor
- workplace or simulated workplace

EVIDENCE GUIDE:

Context:

- Competency must be assessed in a safe working environment and in accordance with endorsed industry assessment guidelines.
- The underpinning knowledge and skills may be assessed on or off-the-job.
- The assessment of practical skills must take place only after a period of supervised practice and repetitive experience. If workplace conditions are not available, assessment in simulated workplace conditions is acceptable.
- The prescribed outcome must be able to be achieved without direct supervision.

Concurrent assessment and pre-requisite relationship:

- This unit may be assessed in conjunction with other units that form part of the function or for a particular job role for a company.

Consistency of performance:

- Competency is best assessed through observation over a period of time and in a variety of situations. Supplementary evidence of underpinning knowledge and the capability to manage tasks and operational and workplace contingencies should be gained through questioning and the use of work based examples.
- Questioning should be undertaken in such a manner as is appropriate to the language and literacy levels of the operator and to the requirements of the unit of competency.

Language, literacy and numeracy skills:
Speaking and listening skills may include:
- Listening to and following verbal instructions
- Giving verbal instructions

Reading and writing skills may include:
- Reading and interpreting company documentation eg job specifications, work orders, company standards documentation
- Completing company documentation (written / electronic) eg job sheets, work reports
- Reading and interpreting equipment manuals

Numeracy skills may include:
- Measuring cut items for conformance to specifications

Critical aspects of evidence:
Evidence of achievement is required in all of the following:
- Predetermined standards of quality and safety are observed
- Manual, straight line cutting standards are achieved
- Manual or automatic heating and cutting processes meet specifications

Underpinning knowledge:
- Procedures to maintain a safe work environment
- Set up and operation of cutting equipment
- Cutting techniques – saw, shears, punch, notch
- Materials characteristics and behaviour when heated and cut
- Safety hazards
- Reading and interpreting work orders
- Marking out techniques – squaring, straight line, geometric

Key Competencies:	**Level**
Collect, analyse and organise information	2
Communicate ideas and information	1
Plan and organise activities	2
Work with others and in teams	1
Use mathematical ideas and techniques	1
Solve problems	2
Use technology	2

AUM8053A PERFORM MANUAL METAL ARC WELDING OPERATIONS (MMAW)

UNIT DESCRIPTOR: This unit identifies the competence required to perform manual, metal arc welding operations within the truck, bus and trailer manufacturing industry.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
1. Determine job requirements.	1.1 Job specifications and requirements are interpreted and determined from job sheets and/or work instructions.
	1.2 Appropriate plant/equipment is selected in accordance with job requirements.
	1.3 Appropriate OH&S practices are identified in accordance with OH&S policy, standard operating procedures and statutory and company requirements.
2. Plan and prepare to undertake the work. .	2.1 Resources required to satisfy the work plan are identified, obtained and inspected for compliance with the job specifications.
	2.2 Relevant plans, drawings and texts are selected and interpreted in accordance with the work plan.
	2.3 Correct size, type and quantity of materials/components are determined, obtained and inspected for compliance with the job specifications.
	2.4 Work is planned in detail including sequencing and prioritising and considerations made in accordance with system/site requirements.
	2.5 Work area is prepared in accordance with work requirements and site procedures.
	2.6 Potential hazards are identified and prevention and/or control measures are selected in accordance with the work plan and site procedures.
	2.7 Work completion details are finalised in accordance with site/enterprise procedures.
3. Weld materials/job.	3.1 Materials for welding are prepared and aligned in accordance with the work plan and specifications.
	3.2 Distortion prevention measures are identified and applied in accordance with job requirements.
	3.3 Equipment start-up procedures follow company standard operating procedures.
	3.4 Test runs are undertaken in accordance with the work plan and job requirements.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
3. Weld materials/job. (continued)	3.5 Materials are welded using MMAW process to Australian Standards or equivalent, in accordance with the work plan and specifications.
	3.6 Welds are cleaned using appropriate tools and techniques in accordance with the work plan.
	3.7 Safety clothing and protective equipment are used according to OH&S and company requirements.
4. Check completed work for conformance to specification.	4.1 Weld specifications are confirmed by non-destructive testing and inspection, in accordance with standard work practices.
	4.2 Defects are identified and repaired using appropriate techniques and in accordance with the work plan.
	4.3 Work is completed and appropriate personnel notified in accordance with company requirements.
	4.4 Work area is cleared of waste, cleaned, restored and secured in accordance with site/company procedures.
	4.5 Plant, tools and equipment are maintained and stored in accordance with site/company procedures.
	4.6 Work completion details are finalised in accordance with site/company procedures.

RANGE OF VARIABLES:

Range of Contexts:

This competency standard applies to:

- Truck/Bus/Trailer Manufacture and Assembly

Sources of information/documentation may include:

- manufacturer specifications
- company operating procedures
- product manufacturer specifications
- customer requirements
- industry/workplace codes of practice
- State/industry OH&S legislation

Resources may include:

- stainless steel, bissaloy, cast iron, high, mild and low carbon steel, high and low alloy steels in appropriate profiles ie: angle, plate, pipe, channel
- welding equipment includes arc welder, leads, electrodes, and welding shield
- distortion prevention measures may include bracing, pre-setting, tacking, bolting, and clamping, jigs and fixtures
- non-destructive testing may include visual inspection, dye check, magnetic particle, pressure test, and ultra sound
- OH&S standards (as per company and statutory requirements)
- documentation and reporting systems (as per company requirements) – written / electronic
- work specifications / work plan
- qualified workplace assessor
- workplace or simulated workplace

EVIDENCE GUIDE:

Context:

- Competency must be assessed in a safe working environment and in accordance with endorsed industry assessment guidelines.
- The underpinning knowledge and skills may be assessed on or off-the-job.
- The assessment of practical skills must take place only after a period of supervised practice and repetitive experience. If workplace conditions are not available, assessment in simulated workplace conditions is acceptable.
- The prescribed outcome must be able to be achieved without direct supervision.

Concurrent assessment and pre-requisite relationship:

- This unit may be assessed in conjunction with other units that form part of the function or for a particular job role for a company.

Consistency of performance:

- Competency is best assessed through observation over a period of time and in a variety of situations. Supplementary evidence of underpinning knowledge and the capability to manage tasks and operational and workplace contingencies should be gained through questioning and the use of work based examples.
- Questioning should be undertaken in such a manner as is appropriate to the language and literacy levels of the operator and to the requirements of the unit of competency.

Language, literacy and numeracy skills:

Speaking and listening skills may include:

- Listening to and following verbal instructions
- Giving verbal instructions and technical information

Reading and writing skills may include:

- Reading and interpreting company documentation eg job specifications, work plan, company standards documentation
- Completing company documentation (written/electronic) eg job sheets, work orders, damage reports
- Reading and interpreting equipment manuals, tags and labels

Numeracy skills may include:

- Determining quantities of materials required

Critical aspects of evidence:

Evidence of achievement is required in all of the following:

- Predetermined standards of quality and safety were observed
- Welding equipment was set up and used to achieve the task in accordance with standard operating procedures
- Distortion control techniques where used
- Welding standards were achieved and within specification
- Relevant OHS hazards identification and risk control measures were undertaken

Underpinning knowledge:

- Procedures to maintain a safe work environment
- Read and interpret welding symbols on drawings
- Set up and operation of welding equipment
- Job planning requirements
- Welding and material preparation techniques
- Identification and rectification of weld defects
- Distortion control techniques
- Materials characteristics and behaviour when welded
- Non destructive testing techniques and applications
- Safety hazards and risk control methods

Key Competencies:	Level
Collect, analyse and organise information	2
Communicate ideas and information	1
Plan and organise activities	2
Work with others and in teams	1
Use mathematical ideas and techniques	1
Solve problems	2
Use technology	2

AUM8054A PERFORM SUBMERGED ARC WELDING OPERATIONS (SAW)

UNIT DESCRIPTOR: This unit identifies the competence required to perform submerged arc welding operations within the truck, bus and trailer manufacturing industry

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
1. Determine job requirements.	1.1 Job specifications and requirements are interpreted and determined from job sheets and/or work instructions.
	1.2 Appropriate plant/equipment is selected in accordance with job requirements.
	1.3 Appropriate OH&S practices are identified in accordance with OH&S policy, standard operating procedures and statutory and company requirements.
2. Plan and prepare to undertake the work.	2.1 Resources required to satisfy the work plan are identified, obtained and inspected for compliance with the job specifications.
	2.2 Relevant plans, drawings and texts are selected and interpreted in accordance with the work plan.
	2.3 Correct size, type and quantity of materials/components are determined, obtained and inspected for compliance with the job specifications.
	2.4 Work is planned in detail including sequencing and prioritising and considerations made in accordance with system/site requirements.
	2.5 Work area is prepared in accordance with work requirements and site procedures.
	2.6 Potential hazards are identified and prevention and/or control measures are selected in accordance with the work plan and site procedures.
	2.7 Work completion details are finalised in accordance with site/company procedures.
3. Weld materials/job.	3.1 Materials for welding are prepared and aligned in accordance with the work plan and specifications.
	3.2 Distortion prevention measures are identified and applied in accordance with job requirements.
	3.3 Equipment start-up procedures follow company standard operating procedures.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
3. Weld materials/job. (continued)	3.4 Test runs are undertaken in accordance with the work plan and job requirements.
	3.5 Materials are welded using SAW process to Australian Standards, or equivalent, in accordance with the work plan and specifications.
	3.6 Welds are cleaned using appropriate tools and techniques in accordance with the work plan.
	3.7 Safety clothing and protective equipment are used according to OHS and company requirements.
4. Check completed work for conformance to specification.	4.1 Weld specifications are confirmed by non-destructive testing and inspection, in accordance with standard work practices.
	4.2 Defects are identified and repaired using appropriate techniques and in accordance with the work plan.
	4.3 Work is completed and appropriate personnel notified in accordance with company requirements.
	4.4 Work area is cleared of waste, cleaned, restored and secured in accordance with site/company procedures.
	4.5 Plant, tools and equipment are maintained and stored in accordance with site/enterprise procedures.
	4.6 Work completion details are finalised in accordance with site/enterprise procedures.

RANGE OF VARIABLES:

Range of Contexts:

This competency standard applies to:

- Truck/Bus/Trailer Manufacture and Assembly

Sources of information/documentation may include:

- manufacturer specifications
- company operating procedures
- product manufacturer specifications
- customer requirements
- industry/workplace codes of practice
- State/industry OH&S legislation

Resources may include:

- welding equipment may include submerged arc welder, earth piece, wire and flux
- materials may include stainless steel, high, mild and low carbon steels, high and low alloy steels in the appropriate profile
- distortion prevention measures may include bracing, pre-setting, tacking, bolting and clamping
- appropriate tools may include wire brush, oxy acetylene bottle spanner and angle grinder
- non-destructive testing may include visual inspection, dye check, magnetic particle, and pressure tests
- maintenance may refer to replacing broken parts, replacing tips, cleaning shrouds and flux channels, tips and nozzles

- work completion details may include plant and maintenance records, job cards, check sheets, on device labelling updates and reporting and/or documenting equipment defects
- OH&S standards (as per company and statutory requirements)
- documentation and reporting systems (as per company requirements)- written / electronic
- work specifications / work plan
- qualified workplace assessor
- workplace or simulated workplace

EVIDENCE GUIDE:

Context:

- Competency must be assessed in a safe working environment and in accordance with endorsed industry assessment guidelines.
- The underpinning knowledge and skills may be assessed on or off-the-job.
- The assessment of practical skills must take place only after a period of supervised practice and repetitive experience. If workplace conditions are not available, assessment in simulated workplace conditions is acceptable.
- The prescribed outcome must be able to be achieved without direct supervision.

Concurrent assessment and pre-requisite relationship:

- This unit may be assessed in conjunction with other units that form part of the function or for a particular job role for a company.

Consistency of performance:

- Competency is best assessed through observation over a period of time and in a variety of situations. Supplementary evidence of underpinning knowledge and the capability to manage tasks and operational and workplace contingencies should be gained through questioning and the use of work based examples.
- Questioning should be undertaken in such a manner as is appropriate to the language and literacy levels of the operator and to the requirements of the unit of competency.

Language, literacy and numeracy skills:

Speaking and listening skills may include:

- Listening to and following verbal instructions
- Giving verbal instructions and technical information

Reading and writing skills may include:

- Reading and interpreting company documentation eg job specifications, work plan, company standards documentation
- Completing company documentation (written/electronic) eg job sheets, work orders, damage reports
- Reading and interpreting equipment manuals, tags and labels

Numeracy skills may include:

- Determining quantities of materials required
- Reading and adjusting amperage settings

Critical aspects of evidence:

Evidence of achievement is required in all of the following:

- Prepare and plan work
- Complete submerged arc weld
- Complete work procedures
- Read and interpret drawings and plans
- Employ company OH&S policies and procedures
- Maintain welding and heating equipment
- Control distortion of materials
- Inspect and identify defects in welds
- Inspect and finalise job

Underpinning knowledge:

- Welding and heating techniques
- Read and interpret welding symbols on drawings
- Company OH&S policies and procedures
- Welding and material preparation techniques
- Distortion control techniques
- Weld testing techniques (non destructive)
- Welding equipment maintenance procedures

Key Competencies:	**Level**
Collect, analyse and organise information	2
Communicate ideas and information	2
Plan and organise activities	2
Work with others and in teams	1
Use mathematical ideas and techniques	2
Solve problems	2
Use technology	3

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AUM8055A PERFORM OXY ACETYLENE WELDING OPERATIONS (OAW)

UNIT DESCRIPTOR: This unit identifies the competence required to perform oxy acetylene welding operations within the truck, bus and trailer manufacturing industry.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
1. Determine job requirements.	1.1 Job specifications and requirements are interpreted and determined from job sheets and/or work instructions.
	1.2 Appropriate plant/equipment is selected in accordance with job requirements.
	1.3 Appropriate OH&S practices are identified in accordance with OH&S policy, standard operating procedures and statutory and company requirements.
2. Plan and prepare to undertake the work.	2.1 Resources required to satisfy the work plan are identified, obtained and inspected for compliance with the job specifications.
	2.2 Relevant plans, drawings and texts are selected and interpreted in accordance with the work plan.
	2.3 Correct size, type and quantity of materials/components are determined, obtained and inspected for compliance with the job specifications.
	2.4 Work is planned in detail including sequencing and prioritising and considerations made in accordance with system/site requirements.
	2.5 Work area is prepared in accordance with work requirements and site procedures.
	2.6 Potential hazards are identified and prevention and/or control measures are selected in accordance with the work plan and site procedures.
	2.7 Work completion details are finalised in accordance with site/enterprise procedures.
3. Weld materials/job	3.1 Materials for welding are prepared and aligned in accordance with the work plan and specifications.
	3.2 Distortion prevention measures are identified and applied in accordance with job requirements.
	3.3 Equipment start-up procedures follow company standard operating procedures.
	3.4 Test runs are undertaken in accordance with the work plan and job requirements.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
3. Weld materials/job (continued)	3.5 Materials are welded using OAW process to Australian Standards or equivalent, in accordance with the work plan and specifications.
	3.6 Welds are cleaned using appropriate tools and techniques in accordance with the work plan.
	3.7 Safety clothing and protective equipment are used according to OHS and company requirements.
4. Check completed work for conformance to specification.	4.1 Weld specifications are confirmed by non-destructive testing and inspection, in accordance with standard work practices.
	4.2 Defects are identified and repaired using appropriate techniques and in accordance with the work plan.
	4.3 Work is completed and appropriate personnel notified in accordance with site/enterprise requirements.
	4.4 Work area is cleared of waste, cleaned, restored and secured in accordance with site/enterprise procedures.
	4.5 Plant, tools and equipment are maintained and stored in accordance with site/enterprise procedures.
	4.6 Work completion details are finalised in accordance with site/enterprise procedures.

RANGE OF VARIABLES:

Range of Contexts:

This competency standard applies to:

- Bus/Truck/Trailer Manufacture and Assembly

Sources of information/documentation may include:

- manufacturer specifications
- company operating procedures
- product manufacturer specifications
- customer requirements
- industry/workplace codes of practice
- State/industry OH&S legislation

Resources may include:

- welding equipment may include oxyacetylene plant, hand pieces, hoses, filler rods, gauges, fluxes and tips
- materials may include aluminum, stainless steel, cast iron, high, mild and low carbon steels, high and low alloy steels in the appropriate profile eg plate, pipe, tube and round bar
- distortion prevention measures may include bracing, pre-setting, tacking, bolting and clamping, jigs and fixtures
- appropriate tools may include wire brush, oxyacetylene bottle spanner and angle grinder
- non-destructive testing may include visual inspection, dye check, magnetic particle, pressure test and ultra sound
- maintenance may refer to replacing/repairing damaged hoses and cleaning/replacing tips

- work completion details may include plant and maintenance records, job cards, check sheets, on device labelling updates and reporting and/or documenting equipment defects
- OH&S standards (as per company and statutory requirements)
- documentation and reporting systems (as per company requirements)
- work specifications / work plan
- qualified workplace assessor
- workplace or simulated workplace

EVIDENCE GUIDE:

Context:

- Competency must be assessed in a safe working environment and in accordance with endorsed industry assessment guidelines.
- The underpinning knowledge and skills may be assessed on or off-the-job.
- The assessment of practical skills must take place only after a period of supervised practice and repetitive experience. If workplace conditions are not available, assessment in simulated workplace conditions is acceptable.
- The prescribed outcome must be able to be achieved without direct supervision.

Concurrent assessment and pre-requisite relationship:

- This unit may be assessed in conjunction with other units that form part of the function or for a particular job role for a company.

Consistency of performance:

- Competency is best assessed through observation over a period of time and in a variety of situations. Supplementary evidence of underpinning knowledge and the capability to manage tasks and operational and workplace contingencies should be gained through questioning and the use of work based examples.
- Questioning should be undertaken in such a manner as is appropriate to the language and literacy levels of the operator and to the requirements of the unit of competency.

Language, literacy and numeracy skills:

Speaking and listening skills may include:

- Listening to and following verbal instructions
- Giving verbal instructions and technical information

Reading and writing skills may include:

- Reading and interpreting company documentation eg job specifications, work plan, company standards documentation
- Completing company documentation (written/electronic) eg job sheets, work orders, damage reports
- Reading and interpreting equipment manuals, tags and labels

Numeracy skills may include:

- Determining quantities of materials required
- Read and interpret gauge working pressures

Critical aspects of evidence:

Evidence of achievement is required in all of the following:

- Prepare and plan work
- Complete oxyacetylene weld
- Complete work procedures
- Employ company OH&S policies and procedures
- Maintain welding and heating equipment
- Control distortion of materials
- Inspect and identify defects in welds
- Inspect and finalise job

Underpinning knowledge:

- Welding and heating techniques
- Read and interpret welding symbols on drawings
- Company OH&S policies and procedures
- Welding and material preparation techniques
- Distortion control techniques
- Weld testing techniques (non destructive)
- Welding equipment maintenance procedures

Key Competencies:	**Level**
Collect, analyse and organise information	2
Communicate ideas and information	2
Plan and organise activities	2
Work with others and in teams	1
Use mathematical ideas and techniques	2
Solve problems	2
Use technology	3

AUM8056A PERFORM GAS TUNGSTEN ARC WELDING OPERATIONS (GTAW)

UNIT DESCRIPTOR: This unit identifies the competence required to perform gas tungsten arc welding operations within the truck, bus and trailer manufacturing industry.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
1. Determine job requirements.	1.1 Job specifications and requirements are interpreted and determined from job sheets and/or work instructions.
	1.2 Appropriate plant/equipment is selected in accordance with job requirements.
	1.3 Appropriate OH&S practices are identified in accordance with OH&S policy, standard operating procedures and statutory and company requirements.
2. Plan and prepare to undertake the work.	2.1 Resources required to satisfy the work plan are identified, obtained and inspected for compliance with the job specifications.
	2.2 Relevant plans, drawings and texts are selected and interpreted in accordance with the work plan.
	2.3 Correct size, type and quantity of materials/components are determined, obtained and inspected for compliance with the job specifications.
	2.4 Work is planned in detail including sequencing and prioritising and considerations made in accordance with system/site requirements.
	2.5 Work area is prepared in accordance with work requirements and site procedures.
	2.6 Potential hazards are identified and prevention and/or control measures are selected in accordance with the work plan and site procedures.
	2.7 Work completion details are finalised in accordance with site/enterprise procedures.
3. Weld materials/job.	3.1 Materials for welding are prepared and aligned in accordance with the work plan and specifications.
	3.2 Distortion prevention measures are identified and applied in accordance with job requirements.
	3.3 Equipment start-up procedures follow company standard operating procedures.
	3.4 Test runs are undertaken in accordance with the work plan and job requirements.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
3. Weld materials/job. (continued)	3.5 Materials are welded using GTAW process to Australian Standards, or equivalent, in accordance with the work plan and specifications.
	3.6 Welds are cleaned using appropriate tools and techniques in accordance with the work plan.
	3.7 Safety clothing and protective equipment are used according to OHS and company requirements.
4 . Check completed work for conformance to specification	4.1 Weld specifications are confirmed by non-destructive testing and inspection in accordance with standard work practices.
	4.2 Defects are identified and repaired using appropriate techniques and in accordance with the work plan.
	4.3 Work is completed and appropriate personnel notified in accordance with company requirements.
	4.4 Work area is cleared of waste, cleaned, restored and secured in accordance with site/company procedures.
	4.5 Plant, tools and equipment are maintained and stored in accordance with site/company procedures.
	4.6 Work completion details are finalised in accordance with site/company procedures.

RANGE OF VARIABLES:

Range of Contexts:

This competency standard applies to:

- Truck/Bus/Trailer Manufacture and Assembly

Sources of information/documentation may include:

- manufacturer specifications
- company operating procedures
- product manufacturer specifications
- customer requirements
- industry/workplace codes of practice
- State/industry OH&S legislation

Resources may include:

- welding equipment may include TIG welder, leads, argon, tungsten tips and filler rods
- materials may include mild steel, stainless steel, aluminium, high and low carbon steels, high and low alloy steels in the appropriate profile eg plate, pipe, sheet
- distortion prevention measures may include bracing, pre-setting, tacking, bolting and clamping
- appropriate tools may include wire brush and angle grinder
- non-destructive testing may include visual inspection, dye check, magnetic particle, pressure test and ultra sound
- maintenance may refer to replacing tips and gas nozzles and cleaning tips, nozzles and welders
- work completion details may include plant and maintenance records, job cards, check sheets, on device labelling updates and reporting and/or documenting equipment defects
- OH&S standards (as per company and statutory requirements)

- documentation and reporting systems (as per company requirements)
- work specifications / work plan
- qualified workplace assessor
- workplace or simulated workplace

EVIDENCE GUIDE:

Context:

- Competency must be assessed in a safe working environment and in accordance with endorsed industry assessment guidelines.
- The underpinning knowledge and skills may be assessed on or off-the-job.
- The assessment of practical skills must take place only after a period of supervised practice and repetitive experience. If workplace conditions are not available, assessment in simulated workplace conditions is acceptable.
- The prescribed outcome must be able to be achieved without direct supervision.

Concurrent assessment and pre-requisite relationship:

- This unit may be assessed in conjunction with other units that form part of the function or for a particular job role for a company.

Consistency of performance:

- Competency is best assessed through observation over a period of time and in a variety of situations. Supplementary evidence of underpinning knowledge and the capability to manage tasks and operational and workplace contingencies should be gained through questioning and the use of work based examples.
- Questioning should be undertaken in such a manner as is appropriate to the language and literacy levels of the operator and to the requirements of the unit of competency.

Language, literacy and numeracy skills:

Speaking and listening skills may include:

- Listening to and following verbal instructions
- Giving verbal instructions and technical information

Reading and writing skills may include:

- Reading and interpreting company documentation eg job specifications, work plan, company standards documentation
- Completing company documentation (written/electronic) eg job sheets, work orders, damage reports
- Reading and interpreting equipment manuals, tags and labels

Numeracy skills may include:

- Determining quantities of materials required
- Reading of gauges and amperage settings

Critical aspects of evidence:

Evidence of achievement is required in all of the following:

- Prepare and plan work
- Complete gas tungsten arc weld
- Complete work procedures
- Employ company OH&S policies and procedures
- Maintain welding and heating equipment
- Control distortion of materials
- Inspect and identify defects in welds
- Inspect and finalise job

Underpinning knowledge:

- Welding and heating techniques
- Read and interpret welding symbols on drawings
- Company OH&S policies and procedures
- Welding and material preparation techniques
- Distortion control techniques
- Weld testing techniques (non destructive)
- Welding equipment maintenance procedures

Key Competencies:	**Level**
Collect, analyse and organise information	2
Communicate ideas and information	2
Plan and organise activities	2
Work with others and in teams	1
Use mathematical ideas and techniques	2
Solve problems	2
Use technology	3

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AUM8057A PERFORM GAS METAL ARC WELDING OPERATIONS (GMAW)

UNIT DESCRIPTOR: This unit identifies the competence required to perform gas metal arc welding operations within the truck, bus and trailer manufacturing industry.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
1. Determine job requirements.	1.1 Job specifications and requirements are interpreted and determined from job sheets and/or work instructions.
	1.2 Appropriate plant/equipment is selected in accordance with job requirements.
	1.3 Appropriate OH&S practices are identified in accordance with OH&S policy, standard operating procedures and statutory and company requirements.
2. Plan and prepare for the work.	2.1 Resources required to satisfy the work plan are identified, obtained and inspected for compliance with the job specifications.
	2.2 Relevant plans, drawings and texts are selected and interpreted in accordance with the work plan.
	2.3 Correct size, type and quantity of materials/components are determined, obtained and inspected for compliance with the job specifications.
	2.4 Work is planned in detail including sequencing and prioritising and considerations made in accordance with system/site requirements.
	2.5 Work area is prepared in accordance with work requirements and site procedures.
	2.6 Potential hazards are identified and prevention and/or control measures are selected in accordance with the work plan and site procedures.
	2.7 Work area is prepared in accordance with work requirements and site procedures.
3. Weld materials/job.	3.1 Materials for welding are prepared and aligned in accordance with the work plan and specifications.
	3.2 Distortion prevention measures are identified and applied in accordance with job requirements.
	3.3 Equipment start-up procedures follow company standard operating procedures.
	3.4 Test runs are undertaken in accordance with the work plan and job requirements.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
3. Weld materials/job. (continued)	3.5 Materials are welded using GMAW process to Australian Standards or equivalent, in accordance with the work plan and specifications.
	3.6 Welds are cleaned using appropriate tools and techniques in accordance with the work plan.
	3.7 Safety clothing and protective equipment are used according to OHS and company requirements.
4. Check completed work for conformance to specification.	4.1 Weld specifications are confirmed by non-destructive testing and inspection and defects identified and repaired using appropriate techniques and in accordance with the work plan.
	4.2 Defects are identified and repaired using appropriate techniques and in accordance with the work plan.
	4.3 Work is completed and appropriate personnel notified in accordance with site/company requirements.
	4.4 Work area is cleared of waste, cleaned, restored and secured in accordance with site/company procedures.
	4.5 Plant, tools and equipment are maintained and stored in accordance with site/company procedures.
	4.6 Work completion details are finalised in accordance with site/company procedures.

RANGE OF VARIABLES:

Range of Contexts:

This competency standard applies to:

- Truck/Bus/Trailer Manufacture and Assembly

Sources of information/documentation may include:

- manufacturer specifications
- company operating procedures
- product manufacturer specifications
- customer requirements
- industry/workplace codes of practice
- State/industry OH&S legislation

Resources may include:

- welding equipment may include MIG welder, leads, argo shield, welding wire and welding shield
- materials may include stainless steel, aluminum, high, mild and low carbon steels, high and low alloy steels in the appropriate profile eg plate, pipe, rolled steel sections
- distortion prevention measures may include bracing, pre-setting, tacking, bolting and clamping, jigs and fixtures
- appropriate tools may include wire brush, angle grinder, scraper
- non-destructive testing may include visual inspection, dye check, magnetic particle, pressure test and ultra sound
- maintenance may refer to replacing tips and gas nozzles and cleaning tips, nozzles and welders

- work completion details may include plant and maintenance records, job cards, check sheets, on device labelling updates and reporting and/or documenting equipment defects
- OH&S standards (as per company and statutory requirements)
- documentation and reporting systems (as per company requirements)
- work specifications / work plan
- qualified workplace assessor
- workplace or simulated workplace

EVIDENCE GUIDE:

Context:

- Competency must be assessed in a safe working environment and in accordance with endorsed industry assessment guidelines.
- The underpinning knowledge and skills may be assessed on or off-the-job.
- The assessment of practical skills must take place only after a period of supervised practice and repetitive experience. If workplace conditions are not available, assessment in simulated workplace conditions is acceptable.
- The prescribed outcome must be able to be achieved without direct supervision.

Concurrent assessment and pre-requisite relationship:

- This unit may be assessed in conjunction with other units that form part of the function or for a particular job role for a company.

Consistency of performance:

- Competency is best assessed through observation over a period of time and in a variety of situations. Supplementary evidence of underpinning knowledge and the capability to manage tasks and operational and workplace contingencies should be gained through questioning and the use of work based examples.
- Questioning should be undertaken in such a manner as is appropriate to the language and literacy levels of the operator and to the requirements of the unit of competency.

Language, literacy and numeracy skills:

Speaking and listening skills may include:

- Listening to and following verbal instructions
- Giving verbal instructions

Reading and writing skills may include:

- Reading and interpreting company documentation eg job specifications, work plan, company standards documentation
- Completing company documentation (written/electronic) eg job sheets, work orders, damage reports
- Reading and interpreting equipment manuals, tags and labels

Numeracy skills may include:

- Determining quantities of materials required
- Reading gas flow gauges
- Setting wire speed and power settings

Critical aspects of evidence:

Evidence of achievement is required in all of the following:

- Prepare and plan work
- Complete gas metal arc weld
- Complete work procedures
- Employ company OH&S policies and procedures
- Maintain welding and heating equipment
- Control distortion of materials
- Inspect and identify defects in welds
- Inspect and finalise job

Underpinning knowledge:

- Welding and heating techniques
- Read and interpret welding symbols on drawings
- Company OH&S policies and procedures
- Welding and material preparation techniques
- Distortion control techniques
- Weld testing techniques (non destructive)
- Welding equipment maintenance procedures

Key Competencies:	**Level**
Collect, analyse and organise information	2
Communicate ideas and information	2
Plan and organise activities	2
Work with others and in teams	1
Use mathematical ideas and techniques	2
Solve problems	2
Use technology	3

AUR23808A CARRY OUT SOLDERING TECHNIQUES

UNIT DESCRIPTOR: This unit identifies the competence required to prepare for and conduct soft soldering processes.

NOTE **This unit has been sourced from:**
Automotive Industry – Retail, Service & Repair Training Package and has been contextualised for the Automotive Manufacturing Training Package – Bus, Truck & Trailer Sector.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
1. Prepare components, tools and equipment for soft soldering.	1.1 Work is completed without causing damage to any workplace property, vehicle or component.
	1.2 Job information is accessed and interpreted from work orders and appropriate manufacturer specifications.
	1.3 Materials/components to be joined are cleaned and appropriate flux added.
	1.4 Soldering equipment is prepared/cleaned and heated in readiness for soldering.
	1.5 All preparation activities are carried out according to a standard that meets industry regulations/guidelines, OH&S legislation, statutory legislation and company procedures/policies.
2. Complete soft soldering of components/materials.	2.1 Soldering is completed without causing damage to any workplace property, vehicle or component.
	2.2 Correct information is accessed and interpreted from appropriate manufacturer specifications.
	2.3 Soldering joint is tested prior to placing into service.
	2.4 Soldering activities are carried out according to a standard that meets industry regulations/guidelines, OH&S legislation, statutory legislation and enterprise procedures/policies.

RANGE OF VARIABLES:
Range of contexts:
This competency standard applies to:
- Truck/Bus/Trailer Manufacture and Assembly

Sources of information/documents may include:
- manufacturer specifications
- enterprise operating procedures
- product manufacturer specifications
- customer requirements
- industry/workplace codes of practice
- State/industry OH&S legislation

Resources may include:
- hand tools, soldering equipment, various fluxes, different types of soft solder- lead based, silver based
- power tools, gas
- materials include: electrical wiring, tubing, fittings
- soldering equipment including electric and flame heated irons, gas fired torches
- work order / job sheet
- qualified workplace assessor
- workplace or simulated workplace

EVIDENCE GUIDE:
Context:
- Competency must be assessed in a safe working environment and in accordance with endorsed industry assessment guidelines.
- The underpinning knowledge and skills may be assessed on or off-the-job.
- The assessment of practical skills must take place only after a period of supervised practice and repetitive experience. If workplace conditions are not available, assessment in simulated workplace conditions is acceptable.
- The prescribed outcome must be able to be achieved without direct supervision.

Concurrent assessment and pre-requisite relationship:
- This unit may be assessed in conjunction with other units that form part of the function or for a particular job role for a company.

Consistency of performance:
- Competency is best assessed through observation over a period of time and in a variety of situations. Supplementary evidence of underpinning knowledge and the capability to manage tasks and operational and workplace contingencies should be gained through questioning and the use of work based examples.
- Questioning should be undertaken in such a manner as is appropriate to the language and literacy levels of the operator and to the requirements of the unit of competency.

Language, literacy and numeracy skills:
Speaking and listening skills may include:
- Listening to and following verbal instructions
- Giving verbal instructions and technical information

Reading and writing skills may include:
- Reading and interpreting company forms eg job specifications, company standards documentation
- Completing company forms eg job sheets, work orders
- Reading and interpreting equipment manuals, tags and labels

Numeracy skills may include:
- Determining quantities of materials required

Critical aspects of evidence:
Evidence of achievement is required in all of the following:
- Soft solder electrical and electronic components and/or silver solder fittings and pipe connections
- Access, interpret and apply technical information including statutory regulations
- Safely and correctly use tools and equipment
- Use fluxes correctly

Underpinning knowledge:

- OH&S legislation
- Soldering procedures
- Read and interpret work orders
- Fluxes and their application
- Soft solders and their applications
- Types of material that can be soldered
- Protection of electronic systems and devices
- Personal safety requirements
- Equipment safety requirements

Key Competencies:	**Level**
Collect, analyse and organise information	1
Communicate ideas and information	1
Plan and organise activities	1
Work with others and in teams	1
Use mathematical ideas and techniques	1
Solve problems	1
Use technology	1

AUM8061A FABRICATE PLUG

UNIT DESCRIPTOR: This unit identifies the competence required to produce a plug for the fabrication of a mould to produce fibreglass components.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
1. Plan fabrication of the plug.	1.1 Profile is established and plug dimensions determined.
	1.2 Appropriate materials and equipment for plug fabrication are selected.
	1.3 Personal protective equipment is selected and used.
	1.4 Company OH&S procedures are followed.
2. Shape the plug.	2.1 Shape and attachment locations are determined and measured.
	2.2 Templates and patterns for shapes within the plug are fabricated.
	2.3 Surface and shape of the plug is prepared.
	2.4 Plug fit is tested against job requirement.
	2.5 Plug is prepared in accordance with company policies and procedures and manufacturer' requirements.

RANGE OF VARIABLES:

Range of Contexts:

This competency standard applies to:

- Truck/Bus/Trailer Manufacture and Assembly

Sources of information/documentation may include:

- manufacturer specifications
- company operating procedures
- product manufacturer specifications
- customer requirements
- industry/workplace codes of practice
- State/industry OH&S legislation

Resources may include:

- hand tools, measuring equipment, polishing equipment, wood working equipment, metal working equipment
- materials– timber, steel, chipboard, fibreglass, plaster
- template materials
- work order / job sheet
- qualified workplace assessor
- workplace or simulated workplace

EVIDENCE GUIDE:

Context:

- Competency must be assessed in a safe working environment and in accordance with endorsed industry assessment guidelines.
- The underpinning knowledge and skills may be assessed on or off-the-job.
- The assessment of practical skills must take place only after a period of supervised practice and repetitive experience. If workplace conditions are not available, assessment in simulated workplace conditions is acceptable.
- The prescribed outcome must be able to be achieved without direct supervision.

Concurrent assessment and pre-requisite relationship:

- This unit may be assessed in conjunction with other units that form part of the function or for a particular job role for a company.

Consistency of performance:

- Competency is best assessed through observation over a period of time and in a variety of situations. Supplementary evidence of underpinning knowledge and the capability to manage tasks and operational and workplace contingencies should be gained through questioning and the use of work based examples.
- Questioning should be undertaken in such a manner as is appropriate to the language and literacy levels of the operator and to the requirements of the unit of competency.

Language, literacy and numeracy skills:

Speaking and listening skills may include:

- Listening to and following verbal instructions
- Giving verbal instructions and technical information

Reading and writing skills may include:

- Reading and interpreting company forms eg job specifications, company standards documentation
- Completing company forms (written / electronic) eg job sheets, work orders
- Reading and interpreting equipment manuals, tags and labels

Numeracy skills may include:

- Measuring dimensions of the plug
- Checking quantities against parts lists

Critical aspects of evidence:

Evidence of achievement is required in all of the following:

- Produce formed plug to meet the job specification and production schedule
- Select and use appropriate materials
- Produce work flow records
- Apply company OH&S policy and procedures

Underpinning knowledge:

- Plug construction processes
- Operating procedures for equipment
- Characteristics of materials used for plug and applications
- Company finishing processes
- Quality standards
- Company work flow records – paper based / electronic
- Company OH&S policy and procedures

Key Competencies:	Level
Collect, analyse and organise information	1
Communicate ideas and information	2
Plan and organise activities	1
Work with others and in teams	1
Use mathematical ideas and techniques	2
Solve problems	2
Use technology	1

AUM8062A STAMP AND PRESS PARTS

UNIT DESCRIPTOR: This unit identifies the competence required to use cutting equipment to safely and efficiently cut blanks, fabricate formed parts and maintain the dies.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
1. Cut blanks to size.	1.1 Materials list is read and interpreted, and the correct material for the job selected.
	1.2 Materials are cleaned to remove surface impurities.
	1.3 Cutting equipment is set and adjusted to specifications to minimize waste.
	1.4 Blanks are cut to specification using appropriate tools and cutting equipment.
	1.5 Blanks are sorted and recorded for identified press production purposes
	1.6 Blanks are stacked in/on the appropriate containers/pallets for transportation.
2. Fabricate formed parts.	2.1 Materials list is read and interpreted so that the correct blanks are selected and loaded.
	2.2 Specified amount of the correct lubricant is applied to the blank.
	2.3 Waste is minimised by aligning the blank to specified press points on the die bed.
	2.4 Formed parts are pressed to specification using the appropriate press equipment.
	2.5 Formed parts are unloaded from press equipment and checked for specification and quality.
	2.6 Faulty parts are marked and recorded according to company procedures.
	2.7 Workflow and production schedule are recorded and maintained.
3. Maintain/changeover dies.	3.1 Die surfaces are steam cleaned and inspected for defects, and for conformity to specification in size, shape, tolerances and critical measurement.
	3.2 Damaged dies are marked for repair or disposal.
	3.3 Undamaged dies are coated/covered to protect their surfaces and stored in designated areas.
	3.4 Dies are pre-built on outside bolsters fitted to company specifications.

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ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
3. Maintain/changeover dies. (continued)	3.5 Die is removed/fitted in the sequence shown in the press set up specifications and aligned.
	3.6 Press is tested by producing part samples which are checked against specification.

RANGE OF VARIABLES:

Range of Contexts:

This competency standard applies to:

- Truck/Bus/Trailer Manufacture and Assembly

Sources of information/documentation may include:

- manufacturer specifications
- company operating procedures
- product manufacturer specifications
- customer requirements
- industry/workplace codes of practice
- State/industry OH&S legislation

Resources may include:

- materials – coils of steel, sheets of steel, uncut blanks
- cleaning materials – solvent, washes and detergents and steam cleaners
- transport equipment – use of cranes, hoists, tow motors and trolleys
- cutting equipment – guillotines, shear presses, metal punches
- blanks cut to various shapes as determined by the product being fabricated
- blanking operations - hitch, roller feed or guillotine
- qualified workplace assessor
- workplace or simulated workplace

EVIDENCE GUIDE:

Context:

- Competency must be assessed in a safe working environment and in accordance with endorsed industry assessment guidelines.
- The underpinning knowledge and skills may be assessed on or off-the-job.
- The assessment of practical skills must take place only after a period of supervised practice and repetitive experience. If workplace conditions are not available, assessment in simulated workplace conditions is acceptable.
- The prescribed outcome must be able to be achieved without direct supervision.

Concurrent assessment and pre-requisite relationship:

- This unit may be assessed in conjunction with other units that form part of the function or for a particular job role for a company.

Consistency of performance:

- Competency is best assessed through observation over a period of time and in a variety of situations. Supplementary evidence of underpinning knowledge and the capability to manage tasks and operational and workplace contingencies should be gained through questioning and the use of work based examples.
- Questioning should be undertaken in such a manner as is appropriate to the language and literacy levels of the operator and to the requirements of the unit of competency.

Language, literacy and numeracy skills:

Speaking and listening skills may include:

- Listening to and following verbal instructions
- Giving verbal instructions and technical information

Reading and writing skills may include:
- Reading and interpreting company forms eg job specifications, work orders, company standards documentation
- Completing company forms (written / electronic) eg job sheets, work orders
- Reading and interpreting equipment manuals, tags and labels

Numeracy skills may include:
- Counting and recording parts
- Checking quantities against parts lists

Critical aspects of evidence:

Evidence of achievement is required in all of the following:
- Use cutting equipment safely and efficiently to produce blanks with minimum waste
- Produce formed parts to meet the production schedule
- Limit the number of faulty parts to less than quality standards
- Produce work flow records
- Identify and mark faulty parts
- Maintain dies in effective condition
- Identify and deal with faulty dies
- Apply company OH&S policy and procedures

Underpinning knowledge:
- Types of cutting equipment and application
- Procedures for the safe and efficient production of blanks with minimum waste
- Company production schedules
- Quality standards and faulty parts
- Company of work flow records – written / electronic
- Identification of faulty parts
- Maintenance procedures for dies
- Identification of faulty dies
- Company OH&S policy and procedures

Key Competencies:	**Level**
Collect, analyse and organise information	1
Communicate ideas and information	2
Plan and organise activities	1
Work with others and in teams	2
Use mathematical ideas and techniques	2
Solve problems	1
Use technology	2

AUM8063A FABRICATE PARTS FOR SUB-ASSEMBLIES

UNIT DESCRIPTOR: This unit identifies the competence required to produce, finish and test parts/components for sub-assemblies or specific customer orders.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
1. elect and operate welding equipment.	1.1 Materials list is correctly read and interpreted.
	1.2 Appropriate welding equipment is selected to weld the required components.
	1.3 Welding equipment is inspected, tested and adjusted to ensure that it meets the specifications set for the required welds.
2. Weld components to form sub-assemblies.	2.1 Components are welded at the predetermined points as specified in the relevant drawings.
	2.2 Welds are completed to the quality standards and specifications stated in the standard operating procedures and include: • penetration • fillet size • no undercut on edges • weld width and height • distortion control
	2.3 Welded parts are pry tested to ensure welds meet the quality and specifications stated in the standard operating procedures.
	2.4 Any faults are identified and rectified in accordance with enterprise quality procedures.
	2.5 Workflow and production schedules are maintained and recorded as per enterprise procedures.
3. Assemble components to form sub-assemblies.	3.1 Materials list is correctly read and interpreted and appropriate tools and equipment are selected.
	3.2 Nuts, bolts, clips, screws and rivets are correctly selected and tensioned to the specification stated in the standard operating procedures.
	3.3 Seals/sealing strips, spacers, adhesives and sealants are used in accordance with company procedures to ensure assembled components are securely joined and free of leaks
	3.4 Sub-assemblies are inspected for quality and against specification.
	3.5 Faulty/defect sub-assemblies are scrapped or reworked in line with company procedures.
	3.6 Workflow and production schedules are maintained and recorded as per company procedures.

4. Complete final finish and testing of sub-assemblies.	4.1 Sub-assemblies are final finished to the quality standards stated in the company procedures.
	4.2 Final finishing of the sub-assemblies is performed to the required standard and specification by: • grinding • metal finishing • panel flanging and hemming • hand filing • sanding.
	4.3 Faulty/defect sub-assemblies are scrapped or reworked in line with company procedures.
	4.4 Workflow and production schedules are maintained and recorded as per company procedures.

RANGE OF VARIABLES:
Range of Contexts:
This competency standard applies to:
- Truck/Bus/Trailer Manufacture and Assembly

Sources of information/documentation may include:
- manufacturer specifications
- company operating procedures
- product manufacturer specifications
- customer requirements
- industry/workplace codes of practice
- State/industry OH&S legislation
- Award provisions

Resources may include:
- hand/air tools – spanners; screw drivers; measuring equipment; impact guns; air blowers; sockets; torque wrenches; hammers; dollies; flippers; portable sanders/grinders; hand files; pedestal grinders.

- seals/sealing strips, spacers, adhesives and sealants, liquid; gel; tapes
- testing equipment – micrometers; templates; tapes; dial gauges; electronic equipment; hydraulic stretchers; presses; rams.
- welding equipment
- work orders / job sheets
- production schedules
- qualified workplace assessor
- workplace or simulated workplace

EVIDENCE GUIDE:
Context:
- Competency must be assessed in a safe working environment and in accordance with endorsed industry assessment guidelines.
- The underpinning knowledge and skills may be assessed on or off-the-job.
- The assessment of practical skills must take place only after a period of supervised practice and repetitive experience. If workplace conditions are not available, assessment in simulated workplace conditions is acceptable.
- The prescribed outcome must be able to be achieved without direct supervision.

Concurrent assessment and pre-requisite relationship:
- This unit should be assessed after successful completion of or in conjunction with unit: AUM8051A Conduct basic welding, thermal cutting, heating and gouging operations
- This unit may be assessed in conjunction with other units that form part of the function or for a particular job role for a company.

Consistency of performance:
- Competency is best assessed through observation over a period of time and in a variety of situations. Supplementary evidence of underpinning knowledge and the capability to manage tasks and operational and workplace contingencies should be gained through questioning and the use of work based examples.
- Questioning should be undertaken in such a manner as is appropriate to the language and literacy levels of the operator and to the requirements of the unit of competency.

Language, literacy and numeracy skills:
Speaking and listening skills may include:
- Listening to and following verbal instructions
- Giving verbal instructions and technical information

Reading and writing skills may include:
- Reading and interpreting company forms eg job sheets, work orders, company standards documentation
- Completing company forms (written / electronic) eg job sheets, work orders
- Reading and interpreting equipment manuals, tags and labels

Numeracy skills may include:
- Counting and recording parts
- Checking quantities against parts lists
- Reading and interpreting gauges

Critical aspects of evidence:
Evidence of achievement is required in all of the following:
- Use welding equipment safely and efficiently to produce components / parts
- Produce formed components/parts to meet the production schedule
- Select and use appropriate seals and fasteners
- Complete final finishing processes
- Use testing equipment
- Produce work flow records
- Identify and mark faulty parts
- Limit the number of faulty parts to less than quality standards

- Apply company OH&S policy and procedures

Underpinning knowledge:
- Welding principles and techniques (spot pedestal and portable; MIG; braze; seam; robotic; oxy-acetylene)
- Types of welds – fillet; lap; edge; butt
- Procedures for the safe and efficient use of welding equipment
- Component assembly processes and production schedules
- Identification and application of seals and fasteners
- Company finishing processes
- Procedures for the safe and efficient use of testing equipment
- Quality standards
- Company work flow records – written / electronic
- Identification of faulty parts
- Company OH&S policy and procedures
- Manual handling processes

Key Competencies:	Level
Collect, analyse and organise information	1
Communicate ideas and information	2
Plan and organise activities	2
Work with others and in teams	1
Use mathematical ideas and techniques	2
Solve problems	2
Use technology	2

AUM8064A MACHINE PARTS

UNIT DESCRIPTOR: This unit identifies the competence required to use a range of equipment to machine parts.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
1. Prepare machines for operation.	1.1 Materials list is correctly read and interpreted.
	1.2 Appropriate hand/air tools are selected and used.
	1.3 Machine controls and cutting tools/wheels are preset or adjusted to job specification.
	1.4 Minor maintenance is carried out in accordance with company policy.
	1.5 Measuring equipment is calibrated to ensure accurate measurement within the tolerances specified.
	1.6 Machine speed and feed controls are adjusted in accordance with the specifications to suit the type of metal/alloy being machined.
2. Machine Parts.	2.1 Parts are machined to specification using the appropriate machining process.
	2.2 Parts are machined and checked for tolerances specified in the standard operating procedures and to minimise waste.
	2.3 Identified faults and defects are rectified in accordance with enterprise quality control standards to minimize wastage.
	2.4 Machined parts are washed, inspected and dried to ensure they are cleaned and contain no waste in cavities or chambers.
	2.5 Production schedule is maintained and recorded in accordance with company procedures.

RANGE OF VARIABLES:

Range of Contexts:

This competency standard applies to:

- Truck/Bus/Trailer Manufacture and Assembly

Sources of information/documentation may include:

- manufacturer specifications
- company operating procedures
- product manufacturer specifications
- customer requirements
- industry/workplace codes of practice
- State/industry OH&S legislation

Resources may include:
- machines used include drills, lathes, millers, reamers, honers, threading, grinders, broaching, CNC robot controlled.
- micrometers, vernier gauges, calipers, feeler gauges.
- work order, job sheets
- qualified workplace assessor
- workplace or simulated workplace

EVIDENCE GUIDE:
Context:
- Competency must be assessed in a safe working environment and in accordance with endorsed industry assessment guidelines.
- The underpinning knowledge and skills may be assessed on or off-the-job.
- The assessment of practical skills must take place only after a period of supervised practice and repetitive experience. If workplace conditions are not available, assessment in simulated workplace conditions is acceptable.
- The prescribed outcome must be able to be achieved without direct supervision.

Concurrent assessment and pre-requisite relationship:
- This unit may be assessed in conjunction with other units that form part of the function or for a particular job role for a company.

Consistency of performance:
- Competency is best assessed through observation over a period of time and in a variety of situations. Supplementary evidence of underpinning knowledge and the capability to manage tasks and operational and workplace contingencies should be gained through questioning and the use of work based examples.
- Questioning should be undertaken in such a manner as is appropriate to the language and literacy levels of the operator and to the requirements of the unit of competency.

Language, literacy and numeracy skills:
Speaking and listening skills may include:
- Listening to and following verbal instructions
- Giving verbal instructions and technical information

Reading and writing skills may include:
- Reading and interpreting company forms eg job sheets, work orders, company standards documentation
- Completing company forms (written / electronic) eg job sheets, work orders
- Reading and interpreting equipment manuals, tags and labels

Numeracy skills may include:
- Counting and recording parts
- Checking quantities against parts lists
- Measuring parts, calibrating machines.

Critical aspects of evidence:
Evidence of achievement is required in all of the following:
- Set up and use of machining equipment
- Machine parts to company standards
- Produce machined components / parts to meet the production schedule
- Limit the number of faulty parts to less than quality standards
- Produce work flow records
- Identify and mark faulty parts
- Employ company OH&S policy and procedures
- Apply manual handling techniques

Underpinning knowledge:

- Procedures for the safe and efficient set up and use of machining equipment
- Read and interpret work orders
- Identification of faulty parts
- Company procedures for dealing with faulty parts
- Company production schedules and work flow records – paper based / electronic
- Company Quality standards
- Company OH&S policy and procedures
- Manual handling processes

Key Competencies:	**Level**
Collect, analyse and organise information	2
Communicate ideas and information	2
Plan and organise activities	2
Work with others and in teams	2
Use mathematical ideas and techniques	2
Solve problems	3
Use technology	2

AUM8071A FINISH SURFACES FOR PAINTING

UNIT DESCRIPTOR: This unit identifies the competence required to finish surfaces to company standards and prepare surfaces for painting.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
1. Prepare surface for painting.	1.1 Hand/air tools are selected to meet the job requirements.
	1.2 Surfaces are cleaned and degreased to company standards.
	1.3 Final finishing is performed to the required standard and specification by: • grinding • metal finishing • panel flagging and hemming • hand filing • sanding • polishing
	1.4 Parts/surfaces are final finished to the quality required in the company procedures.
	1.5 Reject parts and surfaces are identified, recorded and reported for rework or scrap according to company policy.
2. Prime paint surfaces if required.	2.1 The correct paint is selected/mixed.
	2.2 Paint is applied to the specified company standard.
	2.3 Finished surface is to the specified company quality.
	2.4 Reject paintwork is identified, recorded and reworked or scrapped in accordance with company policy.

RANGE OF VARIABLES:

Range of contexts:

This competency applies to:

- Truck/Bus/Trailer Manufacture and Assembly

Sources of information/documentation may include:

- manufacturer specifications
- company operating procedures
- product manufacturer specifications
- customer requirements
- industry/workplace codes of practice
- State/industry OH&S legislation

Resources may include:
- hand tools – hammers, dollies, flippers, body files
- air tools – disc sanders, grinders and orbital sanders
- painting materials and equipment
- work order, job sheets
- qualified workplace assessor
- workplace or simulated workplace

EVIDENCE GUIDE:
Context:
- Competency must be assessed in a safe working environment and in accordance with endorsed industry assessment guidelines.
- The underpinning knowledge and skills may be assessed on or off-the-job.
- The assessment of practical skills must take place only after a period of supervised practice and repetitive experience. If workplace conditions are not available, assessment in simulated workplace conditions is acceptable.
- The prescribed outcome must be able to be achieved without direct supervision.

Concurrent assessment and pre-requisite relationship:
- This unit may be assessed in conjunction with other units that form part of the function or for a particular job role for a company.

Consistency of performance:
- Competency is best assessed through observation over a period of time and in a variety of situations. Supplementary evidence of underpinning knowledge and the capability to manage tasks and operational and workplace contingencies should be gained through questioning and the use of work based examples.
- Questioning should be undertaken in such a manner as is appropriate to the language and literacy levels of the operator and to the requirements of the unit of competency.

Language, literacy and numeracy skills:
Speaking and listening skills may include:
- Listening to and following verbal instructions
- Giving verbal instructions and technical information

Reading and writing skills may include:
- Reading and interpreting company forms eg job sheets, work orders, company standards documentation
- Completing company forms (written / electronic) eg job sheets, work orders, damage reports
- Reading and interpreting equipment manuals, tags and labels

Numeracy skills may include:
- Counting and recording parts
- Checking quantities against parts lists

Critical aspects of evidence:
Evidence of achievement is required in all of the following:
- Use finishing tools and equipment to prepare surfaces
- Produce parts with final finish to company standards
- Limit the number of faulty parts to less than quality standards
- Produce work flow records – written / electronic
- Apply company OH&S policy and procedures
- Maintain an effective, clean and safe work site
- Apply manual handling techniques

Underpinning knowledge:

- Types of finishing tools and equipment and their application
- Paint types, characteristics and application techniques
- Company finishing processes including grinding, metal finishing, panel flagging and hemming, hand filing, sanding, polishing
- Company production schedules
- Company Quality standards
- Company work flow records
- Identification of faulty parts
- Company OH&S policy and procedures

Key Competencies:	**Level**
Collect, analyse and organise information	1
Communicate ideas and information	2
Plan and organise activities	1
Work with others and in teams	2
Use mathematical ideas and techniques	2
Solve problems	3
Use technology	2

AUM8072A PAINT CHASSIS OR PANELS

UNIT DESCRIPTOR: This unit identifies the competence required to prepare and apply paint to produce quality finished painted body shell/structure/panels.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
1. Mask off designated areas for painting.	1.1 Panels are masked off to ensure surrounding areas are well protected from overspray, and meet the quality control standards requirements.
	1.2 Workflow and production schedule are recorded and maintained.
2. Select and operate spraying equipment.	2. 1 Spraying equipment is selected to meet the requirements of the coating and colour being applied.
	2.2 Spraying equipment is operated and adjusted in accordance with the suppliers operating instruction manual to give the required: • spray pattern • fan width • consistent flow of paint
	2.3 Spraying equipment found to be faulty is tagged and stored in the designated storage area and reported to the appropriate personnel.
	2.4 Materials are selected and matched for the particular paint preparation process on codes and numbers stated in the standard operating procedures.
	2.5 Paints and materials are handled and used in accordance with company and OHS requirements for emergency procedures and hazardous materials.
3. Apply primer to surfaces and colour to panel/chassis.	3.1 Paint coatings are applied to ensure interior openings and external surfaces are coated to the company standards.
	3.2 Paint coatings are applied to the: • required thickness • lustre • surface finish as stated in the job requirements.
	3.3 Paint coatings are applied to the panels must be free of: • excess orange peel • runs • other surface blemishes
	3.4 Viscosity of paint coatings is monitored and adjusted to ensure they comply with paint suppliers recommended ratios.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
3. Apply primer to surfaces and colour to panel/chassis. (continued)	3.5 Primer surfaces and colour coatings are applied in accordance with company and OH&S regulations and procedures.
	3.6 Masking materials are removed from bodies and disposed of in accordance with company waste disposal policies and procedures.
	3.7 Workflow and production schedule are recorded and maintained.
4. Record and report faulty paint film surfaces.	4.1 Paint surfaces are visually inspected and film faults are clearly identified and marked for reworking
	4.2 Paint film faults are recorded and reported to the appropriate personnel for action.
	4.3 Panels with paint film faults are redirected and stored in the designated storage area for reworking.
5. Maintain and clean equipment.	5.1 Spraying equipment is maintained in accordance with the suppliers recommended maintenance schedules and procedures.
	5.2 All maintenance and cleaning procedures are performed in accordance with company and OH&S regulations and procedures.
	5.3 Equipment maintenance schedules are checked and delays in maintenance reported to the appropriate person for attention.

RANGE OF VARIABLES:

Range of contexts:

This competency standard applies to:

- Truck/Bus/Trailer Manufacture and Assembly

Sources of information/documents may include:

- vehicle manufacturer specifications
- product manufacturer specifications
- enterprise/company operating procedures
- industry/workplace codes of practice
- customer requirements
- State/Territory/Federal statutory requirements (including ADRs)
- State/industry OH&S legislation

Resources may include:

- hand tools, power tools, vehicle protection equipment, lifting equipment, scaffolds
- equipment used may include high pressure guns, squeeze bottles, airless spraying equipment, air recirculating systems, paint recirculating systems, automatic / robotic spraying systems, extension nozzles, paint brushes and knives, air disc and hand sanding equipment, air oscillating sanding machines and tape dispensers
- paint and materials may include phosphate dips, primer coatings, colour coatings, anti-chip materials, etch primers, lacquers, enamels, two pack and anti chip paints, sealers, solvents, masking tapes and papers, and abrasive papers, spirit wipes, de-mineralised water

- washing and drying equipment may include baths, spraying washes, manual wash guns, baking ovens and hot air blowers
- work orders, job sheets
- qualified workplace assessor
- workplace or simulated workplace

EVIDENCE GUIDE:

Context:

- Competency must be assessed in a safe working environment and in accordance with endorsed industry assessment guidelines.
- The underpinning knowledge and skills may be assessed on or off-the-job.
- The assessment of practical skills must take place only after a period of supervised practice and repetitive experience. If workplace conditions are not available, assessment in simulated workplace conditions is acceptable.
- The prescribed outcome must be able to be achieved without direct supervision.

Concurrent assessment and pre-requisite relationship:

- This unit may be assessed in conjunction with other units that form part of the function or for a particular job role for a company.

Consistency of performance:

- Competency is best assessed through observation over a period of time and in a variety of situations. Supplementary evidence of underpinning knowledge and the capability to manage tasks and operational and workplace contingencies should be gained through questioning and the use of work based examples.
- Questioning should be undertaken in such a manner as is appropriate to the language and literacy levels of the operator and to the requirements of the unit of competency.

Language, literacy and numeracy skills:

Speaking and listening skills may include:

- Listening to and following verbal instructions
- Giving verbal instructions and technical information

Reading and writing skills may include:

- Reading and interpreting company forms eg job sheets, work orders, company standards documentation
- Completing company forms (written / electronic) eg job sheets, work orders, fault reports
- Reading and interpreting equipment manuals, tags and labels

Numeracy skills may include:

- Counting and recording parts
- Checking quantities against parts lists
- Measuring material quantities

Critical aspects of evidence:

Evidence of achievement is required in all of the following:

- Prepare surface for painting
- Prepare and use solvents to kill rust, remove greases, and remove protective waxes
- Mix, prepare and apply paints, e.g. primers and/or lacquers and/or enamels and/or two pack paints
- Interpret and communicate operational information
- Select appropriate sealants, adhesives, paints, tools and equipment
- Employ mechanical and manual sanding techniques
- Employ safe working practices
- Select and use relevant tools and equipment
- Maintain company records – paper based / electronic

Underpinning knowledge:

- Surface preparation procedures
- Reading and interpreting materials lists and operating procedures
- Types of paints, sealants, solvents, related chemicals and their properties
- Procedures for mixing, preparing and applying paints and other chemicals
- Company/manufacturer policies and procedures
- The use, application and maintenance of the range of tools, materials and equipment relevant to these processes
- Producing work flow records – written / electronic
- Company OH&S policies and procedures

Key Competencies:	**Level**
Collect, analyse and organise information	1
Communicate ideas and information	1
Plan and organise activities	2
Work with others and in teams	1
Use mathematical ideas and techniques	2
Solve problems	1
Use technology	2

AUM8073A CONTROL OVEN BAKING CYCLE

UNIT DESCRIPTOR: This unit identifies the competence required to prepare and operate oven baking cycles in order to produce quality finished painted body shell/structure/panels.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
1 . Operate oven baking equipment.	1.1 Oven baking equipment is checked and prepared for operation in accordance with manufacturer specifications.
	1.2 Equipment is fired to the required temperature stated in the standard operating procedures.
	1.3 Equipment found to be faulty is tagged and stored in the designated storage area and reported to appropriate personnel.
	1.4 Temperatures are monitored and maintained to ensure bodies are not over/under baked that will cause paint surface defects/faults.
	1.5 Equipment is operated in accordance with company OH&S requirements.
2. Monitor oven baking cycle.	2.1 Equipment time cycle is monitored and maintained to ensure painted body shell surfaces are cured to the required hardness stated in the quality control standards for the paint shop.
	2.2 Equipment time cycle is monitored and maintained to ensure painted surfaces are not over/under baked causing surface defects and faults.
	2.3 Time/temperature curves are plotted to ensure painted surfaces are baked to the required finished stated in the company procedures.
3. Inspect for quality	3.1 Painted body shells are inspected to ensure they meet the required standard stated in the quality control standards for the paint shop.
	3.2 Body shells with faulty/defect surfaces are identified, marked, and redirected for reworking to minimise waste.
	3.3 Identified faults are recorded and reported in accordance with quality control standards for the paint shop.
4. Record work flow and production schedules.	4.1 Work flow and production schedules are recorded according to company procedures.
	4.2 Work flow and production schedules are completed and maintained to ensure production targets are achieved.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
4. Record work flow and production schedules.	4.3 Deviations to work flow and production schedules are recorded and reported to the appropriate personnel for action.

RANGE OF VARIABLES:

Range of contexts:

This competency standard applies to:

- Truck/Bus/Trailer Manufacture and Assembly

Sources of information/documentation may include:

- vehicle manufacturer specifications
- product manufacturer specifications
- company operating procedures
- industry/workplace codes of practice
- customer requirements
- State/Territory/Federal statutory requirements (including ADRs)
- State/industry OH&S legislation

Resources may include:

- hand tools, power tools, vehicle protection equipment, lifting equipment, scaffolds
- equipment used may include high pressure guns, squeeze bottles, airless spraying equipment, air recirculating systems, paint recirculating systems, automatic / robotic spraying systems, extension nozzles, paint brushes and knives, air disc and hand sanding equipment, air oscillating sanding machines and tape dispensers
- paint and materials may include phosphate dips, primer coatings, colour coatings, anti-chip materials, etch primers, lacquers, enamels, two pack and anti chip paints, sealers, solvents, masking tapes and papers, and abrasive papers, spirit wipes, de-mineralised water
- oven baking equipment may include electric, gas, oil fired or hot air blowers, and high pressure hot water heat exchangers
- work orders, job sheets
- qualified workplace assessor
- workplace or simulated workplace

EVIDENCE GUIDE:

Context:

- Competency must be assessed in a safe working environment and in accordance with endorsed industry assessment guidelines.
- The underpinning knowledge and skills may be assessed on or off-the-job.
- The assessment of practical skills must take place only after a period of supervised practice and repetitive experience. If workplace conditions are not available, assessment in simulated workplace conditions is acceptable.
- The prescribed outcome must be able to be achieved without direct supervision.

Concurrent assessment and pre-requisite relationship:

- This unit may be assessed in conjunction with other units that form part of the function or for a particular job role for a company.

Consistency of performance:

- Competency is best assessed through observation over a period of time and in a variety of situations. Supplementary evidence of underpinning knowledge and the capability to manage tasks and operational and workplace contingencies should be gained through questioning and the use of work based examples.
- Questioning should be undertaken in such a manner as is appropriate to the language and literacy levels of the operator and to the requirements of the unit of competency.

Language, literacy and numeracy skills:
Speaking and listening skills may include:
- Listening to and following verbal instructions
- Giving verbal instructions and technical information

Reading and writing skills may include:
- Reading and interpreting company forms eg job sheets, work orders, company standards documentation
- Completing company forms (written / electronic) eg job sheets, work orders, production schedules
- Reading and interpreting equipment manuals, tags and labels

Numeracy skills may include:
- Setting and monitoring temperatures and time cycle
- Counting items and checking with job lists

Critical aspects of evidence:
Evidence of achievement is required in all of the following:
- Set up and operate oven baking equipment
- Interpret and communicate operational information
- Achieve the paint finish as designated by job specification
- Employ safe working practices
- Maintain company records – paper based / electronic

Underpinning knowledge:
- Reading and interpreting materials lists and operating procedures
- Types of paints and their properties including hardness and their response to temperature
- Operation of a range of oven baking equipment
- The effect of equipment cycles on paint finish requirements
- Procedures for mixing and preparing paints and other chemicals
- Company/manufacturer policies and procedures
- The use, application and maintenance of a the range of tools, materials and equipment relevant to these processes
- Producing work flow records – written / electronic
- Company OH&S procedures and policies

Key Competencies:	**Level**
Collect, analyse and organise information	2
Communicate ideas and information	1
Plan and organise activities	2
Work with others and in teams	1
Use mathematical ideas and techniques	2
Solve problems	1
Use technology	2

AUM8074A RE-WORK PAINT FAULTS

UNIT DESCRIPTOR: This unit identifies the competence required to identify paint faults and to employ techniques to rework or remedy the fault for the Truck/Bus/Trailer Manufacture and Assembly industry.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
1. Identify paint film faults.	1. 1 Paint film faults are identified to ensure the correct repair methods are applied in the rework processes.
	1.2 The cause/s of the paint film faults are identified in order to ensure fault is rectified and / or removed during the rework process.
2. Select and use appropriate tools and equipment	2.1 Tools and equipment are selected to meet job requirements.
	2.2 Tools and equipment are regularly checked to ensure they are in good working order.
	2.3 Tools and equipment that are faulty are reported, tagged and stored in designated areas for repair.
	2.4 Tools and equipment are cleaned at the end of each paint rework to prevent blemishes to surfaces on the next paint rework.
	2.5 Tools and equipment are used in accordance with OHS regulations.
3 . Prepare faulty paint surfaces for rectification.	3.1 Materials required for rework are selected to meet the job requirements.
	3.2 Masking papers and tapes are applied to the surrounding panels to protect painted surfaces from damage and overspray.
	3.3 Faulty paint surfaces are scuffed back to the required pre-paint standard stated in the standard operating procedures.
	3.4 Scuffed panels are wiped and cleaned to the required pre-paint standard specified in the standard operating procedures.
	3.5 Scuffed panels are inspected to ensure the paint fault has been totally removed.
	3.6 Preparation of faulty paint surfaces is performed in accordance with company OH&S policy and procedures.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
4. Apply putties, primer surfaces and colour coatings.	4.1 Putties, primer surfaces and colour coatings are selected to meet the job requirements.
	4.2 Putties and primer surfaces are prepared to the consistency recommended in the suppliers instructions guide.
	4.3 Putties and primer surfaces are applied to the specifications stated in the standard operating procedures.
	4.4 Colour coatings are matched in accordance with the paint number shown on the vehicle identification plate.
	4.5 Colour coatings are mixed to the viscosity recommended in the supplier instruction guide.
	4.6 Colour coatings are applied and blended into the existing paint work to the specification and company quality control standards.
	4.7 Putties, primer surfaces and colour coatings are applied in accordance with company OH&S regulations.
5. Finish repainted area.	5.1 Equipment is selected and used to meet the job requirements.
	5.2 Painted surfaces are baked to the required hardness stated in the job specification and to company quality control standards for paint work
	5.3 Repainted surfaces are polished to the required lustre stated in the job specification and to company quality control standards for paintwork.
	5.4 Surrounding areas are cleaned to ensure they show no excess materials or overspray and meet with the job specification standards and company quality control standards for paintwork.
	5.5 Finishing operations are performed in accordance with company OH&S regulations.
6. Complete rework job sheets.	6.1 Rework processes are recorded according to company procedures.
	6.2 Rework job sheets are completed and maintained to ensure reworks are completed to minimise waste.
	6.3 Rework job sheets are completed and attached to the vehicle in accordance with company procedures.

RANGE OF VARIABLES:

Range of contexts:

This competency standard applies to:

- Truck/Bus/Trailer Manufacture and Assembly

Sources of information/documentation may include:

- vehicle manufacturer specifications
- product manufacturer specifications
- company operating procedures
- industry/workplace codes of practice
- customer requirements
- State/Territory/Federal statutory requirements (including ADRs)
- State/industry OH&S legislation

Resources may include:

- hand tools, power tools, vehicle protection equipment, lifting equipment, scaffolds
- equipment used may include high pressure guns, squeeze bottles, airless spraying equipment, air recirculating systems, paint recirculating systems, automatic / robotic spraying systems, extension nozzles, paint brushes and knives, air disc and hand sanding equipment, air oscillating sanding machines and tape dispensers
- paint and materials may include phosphate dips, primer coatings, colour coatings, anti-chip materials, etch primers, lacquers, enamels, two pack and anti chip paints, sealers, solvents, masking tapes and papers, and abrasive papers, spirit wipes, de-mineralised water
- washing and drying equipment may include baths, spraying washes, manual wash guns, baking ovens and hot air blowers
- work orders, job sheets
- qualified workplace assessor
- workplace or simulated workplace

EVIDENCE GUIDE:

Context:

- Competency must be assessed in a safe working environment and in accordance with endorsed industry assessment guidelines.
- The underpinning knowledge and skills may be assessed on or off-the-job.
- The assessment of practical skills must take place only after a period of supervised practice and repetitive experience. If workplace conditions are not available, assessment in simulated workplace conditions is acceptable.
- The prescribed outcome must be able to be achieved without direct supervision.

Concurrent assessment and pre-requisite relationship:

- This unit may be assessed in conjunction with other units that form part of the function or for a particular job role for a company.

Consistency of performance:

- Competency is best assessed through observation over a period of time and in a variety of situations. Supplementary evidence of underpinning knowledge and the capability to manage tasks and operational and workplace contingencies should be gained through questioning and the use of work based examples.
- Questioning should be undertaken in such a manner as is appropriate to the language and literacy levels of the operator and to the requirements of the unit of competency.

Language, literacy and numeracy skills:

Speaking and listening skills may include:

- Listening to and following verbal instructions
- Giving verbal instructions and technical information

Reading and writing skills may include:
- Reading and interpreting company forms eg job sheets, work orders, company standards documentation
- Completing company forms (written / electronic) eg job sheets, work orders, fault reports
- Reading and interpreting equipment manuals, tags and labels

Numeracy skills may include:
- Counting and recording parts
- Checking quantities against parts lists
- Measuring material quantities

Critical aspects of evidence:
Evidence of achievement is required in all of the following:
- Employ appropriate reworking techniques for identified faults
- Prepare and use solvents to eliminate rust, remove greases, and remove protective waxes
- Interpret and communicate operational information
- Select appropriate sealants, adhesives, paints, tools and equipment
- Employ mechanical and manual sanding techniques
- Mix, prepare and apply paints, primers, lacquers, enamels, and two pack paints
- Employ of safe working practices
- Maintain company records – paper based / electronic

Underpinning knowledge:
- Reading and interpreting materials lists and operating procedures
- Types of paints, sealants, solvents, putties, primer surfaces and their properties
- Types of film faults and known faults identified by paint manufactures
- Techniques for mixing, preparing and applying paints and other chemicals
- Company/manufacturer policies and procedures
- The use, application and maintenance of a the range of tools, materials and equipment relevant to these processes
- Producing work flow records – written / electronic
- Company OH&S policies and procedures

Key Competencies:	**Level**
Collect, analyse and organise information	1
Communicate ideas and information	1
Plan and organise activities	2
Work with others and in teams	1
Use mathematical ideas and techniques	2
Solve problems	1
Use technology	2

AUM8081A APPLY TRIM TO COMPONENTS

UNIT DESCRIPTOR: This unit identifies the competence required to measure, cut, and attach material to components.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
1. Match, measure and cut relevant material.	1.1 Work to be completed is identified in accordance with job specification.
	1.2 All matching, measuring and cutting procedures are carried out and completed in accordance with manufacturer and company specifications.
	1.4 All activities are carried out according to industry regulations/guidelines, OH&S legislation, statutory legislation and company procedures/policies.
2. Determine method to attach material to components.	2.1 Characteristics of materials to be attached are identified.
	2.2 Attaching/bonding information is accessed and interpreted from appropriate manufacturer specifications.
	2.3 All activities are carried out according to industry regulations/guidelines, OH&S legislation, statutory legislation and enterprise procedures/policies.
3. Attach material cover to component.	3.1 Material is prepared for attachment.
	3.2 Material is attached to component.
	3.3 All attaching activities are carried out according to industry regulations/guidelines, OH&S legislation, statutory legislation and enterprise procedures/policies.

RANGE OF VARIABLES:

Range of contexts:

This competency standard applies to:

- Truck/Bus/Trailer Manufacture and Assembly

Sources of information/documents may include:

- component manufacturer specifications
- company operating procedures
- product manufacturer specifications
- customer requirements
- industry/workplace codes of practice
- Statutory legislation (including ADRs)
- State/industry OH&S legislation
- Award provisions

Resources may include:
- hand tools, power/air tools, special tools for dismantle/assembly, staple gun, hammers, wad punches, heat gun, foam cutter, scissors, knives, revolving hole punch, ruler, tape, hand clamps, adhesive gun, pop rivet kit, punch and die set, hog ring pliers, door handle remover, hacksaw, sander, staple and tack remover, scrapers and putty knives, stuffing irons, vacuum formers
- components and sheets/rolls of materials to be used for trim
- job sheets, work orders
- qualified workplace assessor
- workplace or simulated workplace

EVIDENCE GUIDE:
Context:
- Competency must be assessed in a safe working environment and in accordance with endorsed industry assessment guidelines.
- The underpinning knowledge and skills may be assessed on or off-the-job.
- The assessment of practical skills must take place only after a period of supervised practice and repetitive experience. If workplace conditions are not available, assessment in simulated workplace conditions is acceptable.
- The prescribed outcome must be able to be achieved without direct supervision.

Concurrent assessment and pre-requisite relationship:
- This unit may be assessed in conjunction with other units that form part of the function or for a particular job role for a company.

Consistency of performance:
- Competency is best assessed through observation over a period of time and in a variety of situations. Supplementary evidence of underpinning knowledge and the capability to manage tasks and operational and workplace contingencies should be gained through questioning and the use of work based examples.
- Questioning should be undertaken in such a manner as is appropriate to the language and literacy levels of the operator and to the requirements of the unit of competency.

Language, literacy and numeracy skills:
Speaking and listening skills may include:
- Listening to and following verbal instructions
- Giving verbal instructions and technical information

Reading and writing skills may include:
- Reading and interpreting company forms eg job sheets, work orders, company standards documentation
- Completing company forms (written / electronic) eg job sheets, work orders, fault reports
- Reading and interpreting equipment manuals, tags and labels

Numeracy skills may include:
- Count and record materials and components used on job sheet
- Measuring material to be used as trim

Critical aspects of evidence:
Evidence of achievement is required in all of the following:
- Cut covers/trim to specification
- Select appropriate bonding process
- Attach trim to component
- Employ safe working practices
- Apply component protection procedures

Underpinning knowledge:

- Trim matching, measuring and cutting procedures
- Application and removal methods
- Measuring/testing and adjustment procedures
- Relevant technical and legal requirements
- Equipment safety requirements
- Relevant manufacturer/company policies
- Types and use of various materials
- Gluing, riveting, cutting, forming, stapling procedures.

Key Competencies:	**Level**
Collect, analyse and organise information	2
Communicate ideas and information	1
Plan and organise activities	1
Work with others and in teams	1
Use mathematical ideas and techniques	1
Solve problems	1
Use technology	2

AUM8082A ASSEMBLE COMPONENTS

UNIT DESCRIPTOR: This unit identifies the competence required for the preparation, transportation and assembly of components for vehicle completion or for mounting on a chassis.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
1. Obtain materials/parts for job.	1.1 Materials/parts list is read and interpreted to establish requirements for the job.
	1.2 Parts are picked by matching part numbers and stacked in the appropriate bin/container
	1.3 Parts and materials are transported to identified assembly points to ensure smooth, continuous production
	1.4 Details of materials/parts received and used are recorded on the stock control system to provide an accurate record of inventory and stock movement.
2 . Select and use tools and equipment.	2. 1 Tools and equipment are selected to meet job requirements.
	2.2 Tools and equipment are checked to ensure they are in good working order.
3. Load and unload parts onto jigs.	3.1 Parts are matched to the jigging equipment on the basis of part numbers and codes.
	3.2 Parts correctly aligned with the predetermined points on the jig bed to minimise waste.
	3.3 Parts are securely clamped to prevent movement and distortion during the assembly operation as specified in the standard operating procedures.
4. Select and use adhesives, sealants and solvents.	4.1 Adhesives, sealants and solvents are selected and applied to meet the job requirements stated in the production schedule.
	4.2 Solvents are selected and used to remove excess adhesives and sealants to ensure finished product meets company quality control standards.
	4.3 Major spills are reported to the appropriate safety personnel and cleaned up in accordance with emergency procedures for hazardous materials.
5. Select and use nuts, bolts, screws, washers and fasteners.	5.1 Nuts, bolts, screws, washers and fasteners are identified and selected to meet the job requirements as stated in the materials list.
	5.2 Nuts, bolts, screws, washers and fasteners are fitted in the required number to the designated positions stated in the materials list and associated drawings.
	5.3 Company OH&S requirements are observed.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
6. Assemble components.	6.1 Materials list and drawings are correctly read and interpreted
	6.2 Parts/components are matched with the materials list for the particular component
	6.3 Parts/components are positioned and secured as per the relevant drawings/instructions
	6.4 Specified nuts, bolts and screws are tensioned to the specification stated in the standard operating procedures
	6.5 Assemblies are inspected and checked for quality and specification
	6.6 Identified faults are recorded, reported and rectified/reworked/scrapped in accordance with company procedures
	6.7 Workflow and production schedule are recorded and maintained

RANGE OF VARIABLES:

Range of contexts:

This competency standard applies to:

- Truck/Bus/Trailer Manufacture and Assembly

It covers the assembly process required to build directly onto a chassis eg bus or the assembly process prior to mounting / installation of a body on a chassis eg cab/sleeper, truck body.

Sources of information/documentation may include:

- vehicle manufacturer specifications
- product manufacturer specifications
- company operating and assembly procedures
- industry/workplace codes of practice
- customer requirements
- State/Territory/Federal statutory requirements (including ADRs)
- State/industry OH&S legislation

Resources may include:

- hand tools, power tools, vehicle protection equipment, lifting equipment, scaffolds, impact guns,
- equipment used may include conveyor equipment, tow motors, forklifts, mechanised pallet trucks and driverless tractors, robotic equipment
- jigs may include the use of quick release grips, screw grips and automatic grips
- parts may include raw materials, component parts, consumables, located in warehouse racks and aisles and will also include seals, adhesives, sealants, gels and tapes
- component parts may include doors, hoods, panels, bonnets, seats, hand rails, windows, safety belts, locks, hinges, fasteners
- job sheets, work orders
- qualified workplace assessor
- workplace or simulated workplace

EVIDENCE GUIDE:

Context:

- Competency must be assessed in a safe working environment and in accordance with endorsed industry assessment guidelines.
- The underpinning knowledge and skills may be assessed on or off-the-job.
- The assessment of practical skills must take place only after a period of supervised practice and repetitive experience. If workplace conditions are not available, assessment in simulated workplace conditions is acceptable.
- The prescribed outcome must be able to be achieved without direct supervision.

Concurrent assessment and pre-requisite relationship:

- This unit may be assessed in conjunction with other units that form part of the function or for a particular job role for a company.

Consistency of performance:

- Competency is best assessed through observation over a period of time and in a variety of situations. Supplementary evidence of underpinning knowledge and the capability to manage tasks and operational and workplace contingencies should be gained through questioning and the use of work based examples.
- Questioning should be undertaken in such a manner as is appropriate to the language and literacy levels of the operator and to the requirements of the unit of competency.

Language, literacy and numeracy skills:

Speaking and listening skills may include:

- Listening to and following verbal instructions
- Giving verbal instructions and technical information

Reading and writing skills may include:

- Reading and interpreting company forms eg job sheets, work orders, company standards documentation
- Completing company forms (written / electronic) eg job sheets, work orders, fault reports
- Reading and interpreting equipment manuals, tags and labels

Numeracy skills may include:

- Count and record materials and components used on job sheets

Critical aspects of evidence:

Evidence of achievement is required in all of the following:

- Read and interpret materials lists, drawings and production schedules
- Select appropriate parts/components, tools and equipment
- Assemble and install components to specification
- Employ safe working practices
- Maintain company records – paper based / electronic

Underpinning knowledge:

- Reading and interpreting materials lists and operating procedures
- Seals/sealants, adhesives, solvents, related chemicals and their properties
- The use and application of conveyor systems and transporting equipment (mobile cranes / forklifts) and other tools, materials and equipment relevant to these processes
- Components and their purpose within the assembly
- Company/manufacturer policies and procedures
- Work flow records – written / electronic
- Company OH&S procedures

Key Competencies:	Level
Collect, analyse and organise information	1
Communicate ideas and information	1
Plan and organise activities	2
Work with others and in teams	1
Use mathematical ideas and techniques	2
Solve problems	1
Use technology	2

AUM8083A ASSEMBLE FRAME AND AXLE

UNIT DESCRIPTOR: This unit identifies the competency requirements to prepare the chassis frame and the fit out of axles, suspension and associated service systems and components.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
1. Select and use tools and equipment.	1.1 Tools and equipment are selected to meet job requirements.
	1.2 Tools and equipment are checked to ensure they are in good working order.
2. Cut, drill and weld chassis frame.	2.1 Drawings and work orders are read and interpreted to establish work requirements.
	2.2 Appropriate lifting gear is selected and used in accordance with OH&S requirements.
	2.3 Chassis rails are cut to the length and profile specified in the drawing/work order.
	2.4 Size and position of holes drilled complies with drawing specifications
	2.5 Chassis rails are welded in accordance with company procedures and drawing specification.
3. Select and use nuts, bolts, screws, washers and fasteners.	3.1 Nuts, bolts, screws, washers and fasteners are identified and selected to meet the job requirements as stated in the materials list.
	3.2 Nuts, bolts, screws, washers and fasteners are fitted in the required number to the designated positions stated in the materials list and associated drawings.
4. Fit axles, valves, suspension, brackets and fixtures.	4.1 Materials list, drawings and work orders are read and interpreted to establish work requirements.
	4.2 Appropriate lifting gear selected and used according to OH&S requirements.
	4.3 Appropriate nuts, bolts, screws, washers and fasteners are selected and used according to specification.
	4.4 Critical bolts are tensioned to specification.
	4.5 Workflow and production schedule are recorded and maintained.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
5. Route service lines.	5.1 Materials list, drawings and work orders are read and interpreted to establish work requirements.
	5.2 Appropriate nuts, bolts, screws, washers and fasteners are selected and used according to specification.
	5.3 Service lines are routed, tied and clipped to specification.
	5.4 Workflow and production schedule are recorded and maintained.

RANGE OF VARIABLES:
Range of contexts:
This competency standard applies to:
- Truck/Bus/Trailer Manufacture and Assembly

Sources of information/documentation may include:
- vehicle manufacturer specifications
- product manufacturer specifications
- company operating procedures
- industry/workplace codes of practice
- customer requirements
- State/Territory/Federal statutory requirements (including ADRs)
- State/industry OH&S legislation

Resources may include:
- Hand tools, power tools, vehicle protection equipment, measuring equipment, lifting equipment, scaffolds, impact guns,
- Equipment used may include conveyor equipment, tow motors, forklifts, mechanised pallet trucks and driverless tractors, robotic equipment
- Jigs may include the use of quick release grips, screw grips and automatic grips
- Parts may include raw materials, component parts, consumables, located in warehouse racks and aisles and will also include adhesives, seals, sealants, gels and tapes
- Service lines include: electrical wiring, pneumatic systems and hydraulic systems
- job sheets, work orders
- qualified workplace assessor
- workplace or simulated workplace

EVIDENCE GUIDE:
Context:
- Competency must be assessed in a safe working environment and in accordance with endorsed industry assessment guidelines.
- The underpinning knowledge and skills may be assessed on or off-the-job.
- The assessment of practical skills must take place only after a period of supervised practice and repetitive experience. If workplace conditions are not available, assessment in simulated workplace conditions is acceptable.
- The prescribed outcome must be able to be achieved without direct supervision.

Concurrent assessment and pre-requisite relationship:
- This unit may be assessed in conjunction with other units that form part of the function or for a particular job role for a company.

Consistency of performance:
- Competency is best assessed through observation over a period of time and in a variety of situations. Supplementary evidence of underpinning knowledge and the capability to manage tasks and operational and workplace contingencies should be gained through questioning and the use of work based examples.
- Questioning should be undertaken in such a manner as is appropriate to the language and literacy levels of the operator and to the requirements of the unit of competency.

Language, literacy and numeracy skills:
Speaking and listening skills may include:
- Listening to and following verbal instructions
- Giving verbal instructions and technical information

Reading and writing skills may include:
- Reading and interpreting company forms eg job sheets, work orders, company standards documentation
- Completing company forms (written / electronic) eg job sheets, work orders, fault reports
- Reading and interpreting equipment manuals, tags and labels

Numeracy skills may include:
- Count and record materials used on job sheet
- Measuring materials as per work orders

Critical aspects of evidence:
Evidence of achievement is required in all of the following:
- Modify frames
- Assemble frames
- Fit out axles, suspension and associated service systems to the frame
- Access, interpret and apply technical information
- Select and use relevant tools and equipment
- Install components to specification
- Maintain company records – paper based / electronic

Underpinning knowledge:
- Reading and interpreting materials lists and operating procedures
- Types of sealants, adhesives, solvents, related chemicals and their properties
- The use and application of conveyor systems and transporting equipment (cranes, forklifts) and other tools, materials and equipment relevant to these processes
- Types of components and their purpose within the sub-assembly
- Types and application of service systems
- Relevant company/manufacturer policies and standard operational procedures
- Producing work flow records – written / electronic
- Company OH&S procedures and policies

Key Competencies:	**Level**
Collect, analyse and organise information	1
Communicate ideas and information	1
Plan and organise activities	2
Work with others and in teams	1
Use mathematical ideas and techniques	2
Solve problems	1
Use technology	2

AUM8084A INSTALL ENGINE AND DRIVE TRAIN

UNIT DESCRIPTOR: This unit identifies competency requirements to install engines, drive train assemblies and service line components in accordance with specifications.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
1. Select and use tools and equipment.	1.1 Tools and equipment are selected to meet job requirements.
	1.2 Tools and equipment are regularly checked to ensure they are in good working order.
	1.3 Daily maintenance on tools and equipment is performed as specified.
	1.4 Appropriate lifting gear is selected and used in accordance with OH&S requirements.
2. Select and use nuts, bolts, screws, washers and fasteners.	2.1 Nuts, bolts, screws, washers and fasteners are identified and selected to meet the job requirements as stated in the materials list.
	2.2 Nuts, bolts, screws, washers and fasteners are fitted in the required number to the designated positions stated in the materials list and associated drawings.
	2.3 Size and position of holes drilled complies with drawing specifications.
3. Install engine and drive train components.	3.1 Materials list and drawings are correctly read and interpreted.
	3.2 Parts/components are matched with the materials list for the job specification.
	3.3 Parts/components are positioned and secured as per the relevant drawings/instructions.
	3.4 Specified nuts, bolts and screws are tensioned to the specification stated in the standard operating procedures
	3.5 Installed components and sub-assemblies are inspected and checked for quality and specification.
	3.6 Workflow and production schedule are recorded and maintained.
4 . Route service lines.	4.1 Materials list and drawing correctly read and interpreted.
	4.2 Appropriate nuts, bolts, screws, washers and fasteners are selected and used according to specification.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
4 . Route service lines. (continued)	4.3 Service lines are routed, tied and clipped to specification.
	4.4 Workflow and production schedule are recorded and maintained.

RANGE OF VARIABLES:

Range of contexts:

This competency standard applies to:

- Truck/Bus/Trailer Manufacture and Assembly

Sources of information/documentation may include:

- vehicle manufacturer specifications
- product manufacturer specifications
- company operating procedures
- industry/workplace codes of practice
- customer requirements
- State/Territory/Federal statutory requirements (including ADRs)
- State/industry OH&S legislation

Resources may include:

- Hand tools, power tools, vehicle protection equipment, lifting equipment, scaffolds, impact guns,
- Equipment used may include conveyor equipment, tow motors, forklifts, mechanised pallet trucks and driverless tractors, robotic equipment
- Jigs may include the use of quick release grips, screw grips and automatic grips
- Parts may include raw materials, component parts, consumables, located in warehouse racks and aisles and will also include adhesives, sealants, gels and tapes
- Service lines include: electrical wiring, pneumatic systems and hydraulic systems
- job sheets, work orders
- qualified workplace assessor
- workplace or simulated workplace

EVIDENCE GUIDE:

Context:

- Competency must be assessed in a safe working environment and in accordance with endorsed industry assessment guidelines.
- The underpinning knowledge and skills may be assessed on or off-the-job.
- The assessment of practical skills must take place only after a period of supervised practice and repetitive experience. If workplace conditions are not available, assessment in simulated workplace conditions is acceptable.
- The prescribed outcome must be able to be achieved without direct supervision.

Concurrent assessment and pre-requisite relationship:

- This unit may be assessed in conjunction with other units that form part of the function or for a particular job role for a company.

Consistency of performance:

- Competency is best assessed through observation over a period of time and in a variety of situations. Supplementary evidence of underpinning knowledge and the capability to manage tasks and operational and workplace contingencies should be gained through questioning and the use of work based examples.
- Questioning should be undertaken in such a manner as is appropriate to the language and literacy levels of the operator and to the requirements of the unit of competency.

Language, literacy and numeracy skills:
Speaking and listening skills may include:
- Listening to and following verbal instructions
- Giving verbal instructions and technical information

Reading and writing skills may include:
- Reading and interpreting company forms eg job sheets, work orders, company standards documentation
- Completing company forms (written / electronic) eg job sheets, work orders, fault reports
- Reading and interpreting equipment manuals, tags and labels

Numeracy skills may include:
- Count and record materials used on job sheet

Critical aspects of evidence:
Evidence of achievement is required in all of the following:
- Install / fit engines, transmission and service lines to specification
- Select appropriate parts / components, tools and equipment
- Read and interpret materials lists, drawings and production schedules
- Interpret and communicate operational information
- Employ of safe working practices
- Maintain company records – paper based / electronic

Underpinning knowledge:
- Reading and interpreting materials lists, drawings and operating procedures
- Types and purpose of engines/ transmission assemblies used within the industry
- The use and application of conveyor systems and transporting equipment (cranes, forklifts) and other tools, materials and equipment relevant to these processes
- Types of components and their purpose within the sub assembly
- Company/manufacturer policies and standard operational assembly and installation procedures
- Producing work flow records – written / electronic
- Company OH&S procedures and policies

Key Competencies:	**Level**
Collect, analyse and organise information	2
Communicate ideas and information	1
Plan and organise activities	2
Work with others and in teams	1
Use mathematical ideas and techniques	2
Solve problems	1
Use technology	2

AUM8085A MOUNT AND INSTALL ASSEMBLED COMPONENT TO CHASSIS OR FRAME

UNIT DESCRIPTOR: This unit identifies the competency requirements to mount and install an assembled component and associated services onto a chassis or frame (eg cab/sleeper or vehicle body).

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
1. Select and use tools and equipment.	1.1 Tools and equipment are selected to meet job requirements.
	1.2 Tools and equipment are regularly checked to ensure they are in good working order.
	1.3 Daily tools and equipment maintenance is performed as specified.
	1.4 Appropriate lifting gear is selected and used in accordance with OH&S requirements.
2. Select and use nuts, bolts, screws, washers and fasteners.	2.1 Nuts, bolts, screws, washers and fasteners are identified and selected to meet the job requirements as stated in the materials list.
	2.2 Nuts, bolts, screws, washers and fasteners are fitted in the required number to the designated positions stated in the materials list and associated drawings.
	2.3 Size and position of holes drilled complies with drawing specifications.
3. Install components and sub-assemblies.	3.1 Materials list and drawings are correctly read and interpreted.
	3.2 Parts/components are matched with the materials list for the job specification.
	3.3 Parts/components are positioned and secured as per the relevant drawings/instructions.
	3.4 Specified nuts, bolts and screws are tensioned to the specification stated in the company procedures.
	3.5 Sub-assemblies are inspected and checked for quality and specification and installed in accordance with company procedures.
	3.6 Workflow and production schedule are recorded and maintained.
4. Mount assembly on the chassis or frame.	4.1 Materials list and drawing correctly read and interpreted.
	4.3 Assembly is positioned and secured as per the manufacturer's requirements.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
4. Mount assembly on the chassis or frame. (continued)	4.4 Specified nuts, bolts and screws are tensioned to the specification stated and in accordance with job requirements and company procedures.
	4.5 Mounted assembly inspected and checked for alignment quality against specification.
	4.6 Workflow and production schedule are recorded and maintained.
5. Hook-up systems.	5.1 Drawings correctly read and interpreted to comply with work order.
	5.2 Service lines are hooked up to components as per drawing/specification.
	5.3 Completed hook-up is checked and inspected for quality and specification.
	5.4 Workflow and production schedule are recorded and maintained.

RANGE OF VARIABLES:

Range of contexts:
This competency standard applies to:
- Truck/Bus/Trailer Manufacture and Assembly

Sources of information/documentation may include:
- vehicle manufacturer specifications
- product manufacturer specifications
- company operating procedures
- industry/workplace codes of practice
- customer requirements
- State/Territory/Federal statutory requirements (including ADRs)
- State/industry OH&S legislation

Resources may include:
- hand tools, power tools, vehicle protection equipment, lifting equipment, scaffolds, impact guns
- components and sub-assemblies (eg cab/sleeper, truck/trailer body)
- chassis manufacturer's guidelines
- equipment used may include conveyor equipment, tow motors, forklifts, mechanised pallet trucks and driverless tractors, robotic equipment
- jigs may include the use of quick release grips, screw grips and automatic grips
- parts may include raw materials, component parts, consumables, located in warehouse racks and aisles and will also include adhesives, sealants, gels and tapes
- service lines include electrical wiring, pneumatic systems and hydraulic systems
- job sheets, work orders
- qualified workplace assessor
- workplace or simulated workplace

EVIDENCE GUIDE:

Context:

- Competency must be assessed in a safe working environment and in accordance with endorsed industry assessment guidelines.
- The underpinning knowledge and skills may be assessed on or off-the-job.
- The assessment of practical skills must take place only after a period of supervised practice and repetitive experience. If workplace conditions are not available, assessment in simulated workplace conditions is acceptable.
- The prescribed outcome must be able to be achieved without direct supervision.

Concurrent assessment and pre-requisite relationship:

- This unit may be assessed in conjunction with other units that form part of the function or for a particular job role for a company.

Consistency of performance:

- Competency is best assessed through observation over a period of time and in a variety of situations. Supplementary evidence of underpinning knowledge and the capability to manage tasks and operational and workplace contingencies should be gained through questioning and the use of work based examples.
- Questioning should be undertaken in such a manner as is appropriate to the language and literacy levels of the operator and to the requirements of the unit of competency.

Language, literacy and numeracy skills:

Speaking and listening skills may include:

- Listening to and following verbal instructions
- Giving verbal instructions and technical information

Reading and writing skills may include:

- Reading and interpreting company forms eg job sheets, work orders, company standards documentation
- Completing company forms (written / electronic) eg job sheets, work orders, fault reports
- Reading and interpreting equipment manuals, tags and labels

Numeracy skills may include:

- Count and record materials used on job sheet

Critical aspects of evidence:

Evidence of achievement is required in all of the following:

- Mount and install assembly, components and service lines to specification
- Read and interpret materials lists, drawings and production schedules
- Interpret and communicate operational information
- Select appropriate parts / components, tools and equipment
- Employ safe working practices
- Maintain company records – paper based / electronic

Underpinning knowledge:

- Reading and interpreting materials lists, drawings and operating procedures
- Types and purpose of body component shapes and assemblies used within the industry
- The use and application of conveyor systems and transporting equipment (cranes, forklifts) and other tools, materials and equipment relevant to these processes
- Service lines and components and their purpose within the assembly
- Company/manufacturer policies and standard operational assembly and installation procedures
- Producing work flow records – written / electronic
- Company OH&S policies and procedures

Key Competencies:	Level
Collect, analyse and organise information	1
Communicate ideas and information	1
Plan and organise activities	2
Work with others and in teams	1
Use mathematical ideas and techniques	2
Solve problems	1
Use technology	2

AUM8086A SERVICE AFTER ASSEMBLY

UNIT DESCRIPTOR: This unit identifies the competency requirements of after assembly service including the addition and application of fluids and lubricants and the bleeding of air and hydraulic systems

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
1. Select and use tools and equipment.	1.1 Tools and equipment are selected to meet job requirements.
	1.2 Tools and equipment are checked to ensure they are in good working order.
2. Select and use lubricants and fluids	2.1 Lubricants and fluids are selected and matched to the vehicle by codes and numbers as stated on the lubrication data sheets/materials lists.
	2.2 Lubricants and fluids are used on the identified parts of the vehicle as stated on the lubrication data sheets/materials lists.
	2.3 Reservoirs and mechanical assemblies are filled with the identified lubricant/fluid to levels specified in the lubrication data sheets.
	2.4 Excess lubricants and fluids are removed in accordance with company quality control standards.
	2.5 Lubricants and fluids are used in accordance with company OH&S procedures.
3. Bleed air and hydraulic systems.	3.1 Tools and equipment are selected to meet the job requirements.
	3.2 Bleeding points for air and hydraulic systems are located as shown in the company procedures.
	3.3 Workflow and production schedule are recorded and maintained.
4. Complete service check list sheets.	4.1 Service check list sheets are selected and used to match the job.
	4.2 Service check lists are carried out in accordance with post assembly service procedures.
	4.3 Service check lists are completed and signed by authorised personnel to ensure all services have been completed in accordance with company quality control standards
	4.4 Workflow and production schedule are recorded and maintained.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
5. Record and report faults.	5.1 Appropriate forms are selected for recording and reporting identified faults.
	5.2 Relevant forms are completed and maintained in accordance with company procedures.
	5.3 Faults are reported to appropriate personnel for action.

RANGE OF VARIABLES:
Range of contexts:
This competency standard applies to:
- Truck/Bus/Trailer Manufacture and Assembly

Sources of information/documentation may include:
- vehicle manufacturer specifications
- product manufacturer specifications
- enterprise/company operating procedures
- industry/workplace codes of practice
- customer requirements
- State/Territory/Federal statutory requirements (including ADRs)
- State/industry OH&S legislation

Resources may include:
- Hand tools, power tools, vehicle protection equipment, lifting equipment, manual air and hydraulic pressurised lubrication equipment, special tools
- Company / manufacturer's check lists
- Components and sub-assemblies
- Lubricants may include engine oils, heavy duty oils, special fluids and coolants
- Service lines include: electrical wiring, pneumatic systems and hydraulic systems
- job sheets, work orders
- qualified workplace assessor
- workplace or simulated workplace

EVIDENCE GUIDE:
Context:
- Competency must be assessed in a safe working environment and in accordance with endorsed industry assessment guidelines.
- The underpinning knowledge and skills may be assessed on or off-the-job.
- The assessment of practical skills must take place only after a period of supervised practice and repetitive experience. If workplace conditions are not available, assessment in simulated workplace conditions is acceptable.
- The prescribed outcome must be able to be achieved without direct supervision.

Concurrent assessment and pre-requisite relationship:
- This unit may be assessed in conjunction with other units that form part of the function or for a particular job role for a company.

Consistency of performance:
- Competency is best assessed through observation over a period of time and in a variety of situations. Supplementary evidence of underpinning knowledge and the capability to manage tasks and operational and workplace contingencies should be gained through questioning and the use of work based examples.
- Questioning should be undertaken in such a manner as is appropriate to the language and literacy levels of the operator and to the requirements of the unit of competency.

Language, literacy and numeracy skills:
Speaking and listening skills may include:
- Listening to and following verbal instructions
- Giving verbal instructions and technical information

Reading and writing skills may include:
- Reading and interpreting company forms eg job sheets, work orders, company standards documentation
- Completing company forms (written / electronic) eg job sheets, work orders, fault reports
- Reading and interpreting equipment manuals, tags and labels

Numeracy skills may include:
- Counting and recording materials used on job sheet
- Measuring fluids and lubricants used in servicing

Critical aspects of evidence:
Evidence of achievement is required in all of the following:
- Read and interpret job sheets and data sheets
- Select and use appropriate lubricants, special fluids and coolants
- Service air and hydraulic systems/components
- Employ safe working practices
- Select and use relevant tools and equipment
- Maintain company records – paper based / electronic

Underpinning knowledge:
- Reading and interpreting materials lists and operating procedures
- Types and purpose of air and hydraulic systems and assemblies used
- Types and characteristics of lubricants and fluids used within the operating systems
- Application of lubricating systems and their operational procedures
- Service lines and components and their purpose within the assembly
- Relevant company/manufacturer policies and standard operational assembly and installation procedures
- Producing work flow records – written / electronic
- Company OH&S procedures and policies

Key Competencies:	**Level**
Collect, analyse and organise information	1
Communicate ideas and information	1
Plan and organise activities	2
Work with others and in teams	1
Use mathematical ideas and techniques	2
Solve problems	1
Use technology	2

AUM8087A ASSEMBLE AND INSTALL HYDRAULIC SYSTEM KIT

UNIT DESCRIPTOR: This unit identifies the competence required to assemble, install and test a hydraulic system kit.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
1. Plan the job.	1.1 Work specification is read and interpreted to determine installation process.
	1.2 Components required are determined.
	1.3 Tools and equipment are determined.
2. Assemble and install hydraulic system kit.	2.1 Assembly and installation information is accessed and interpreted from manufacturer specifications.
	2.2 Hydraulic system kit is assembled in accordance with manufacturers specifications.
	2.3 Installation procedures are carried out in accordance with manufacturer specifications and tolerances.
	2.4 Assembly and installation activities are carried out according to industry regulations/guidelines, OH&S legislation, statutory legislation and company procedures/policies.
3. Test hydraulic systems.	3.1 Test information is accessed and interpreted from manufacturer specifications.
	3.2 System tests before and or after installation are carried out in accordance with manufacturer specifications and tolerances.
	3.3 All tests are carried out according to industry regulations/guidelines, OH&S legislation, statutory legislation and company procedures/policies.

RANGE OF VARIABLES:

Range of contexts:

This competency standard applies to:

- Truck/Bus/Trailer Manufacture and Assembly

Sources of information/documentation may include:

- vehicle/manufacturer specifications
- company operating procedures
- product manufacturer specifications
- customer requirements
- industry/workplace codes of practice
- statutory legislation
- material safety data sheets
- State/industry OH&S legislation

Resources may include:
- hand tools, power tools, special tools for installation, testing equipment including: hydraulic flow meter, hydraulic pressure gauges
- power tailgates; steering systems; power take off (PTO); cab tilts; pop tops and roofs; pumps; roll back bodies
- vehicle for installation (bus/truck/trailer)
- job sheets, work orders
- qualified workplace assessor
- workplace or simulated workplace

EVIDENCE GUIDE:
Context:
- Competency must be assessed in a safe working environment and in accordance with endorsed industry assessment guidelines.
- The underpinning knowledge and skills may be assessed on or off-the-job.
- The assessment of practical skills must take place only after a period of supervised practice and repetitive experience. If workplace conditions are not available, assessment in simulated workplace conditions is acceptable.
- The prescribed outcome must be able to be achieved without direct supervision.

Concurrent assessment and pre-requisite relationship:
- This unit may be assessed in conjunction with other units that form part of the function or for a particular job role for a company.

Consistency of performance:
- Competency is best assessed through observation over a period of time and in a variety of situations. Supplementary evidence of underpinning knowledge and the capability to manage tasks and operational and workplace contingencies should be gained through questioning and the use of work based examples.
- Questioning should be undertaken in such a manner as is appropriate to the language and literacy levels of the operator and to the requirements of the unit of competency.

Language, literacy and numeracy skills:
Speaking and listening skills may include:
- Listening to and following verbal instructions
- Giving verbal instructions and technical information

Reading and writing skills may include:
- Reading and interpreting company forms eg job sheets, work orders, company standards documentation
- Completing company forms (written / electronic) eg job sheets, work orders, fault reports
- Reading and interpreting equipment installation and operating manuals, tags and labels

Numeracy skills may include:
- Counting and recording materials used on job sheet

Critical aspects of evidence:
Evidence of achievement is required in all of the following:
- assemble hydraulic system/components
- install hydraulic system/components
- test hydraulic system
- use relevant tools and equipment
- apply manual handling techniques
- employ company OH&S procedures

Underpinning knowledge:

- Relevant technical information including graphical symbols
- Design and sketch hydraulic circuitry diagrams
- Types of hydraulic fluids and their application
- Equipment safety requirements
- Hydraulic system operating principles
- Hydraulic systems/component installation and test procedures
- Construction and operation of hydraulic systems relevant to application
- Manual handling techniques
- Aural, visual and functional assessments (including damage, corrosion, fluid levels, leaks, tests, wear and safety aspects)

Key Competencies:	**Level**
Collect, analyse and organise information	1
Communicate ideas and information	1
Plan and organise activities	2
Work with others and in teams	1
Use mathematical ideas and techniques	1
Solve problems	1
Use technology	2

AUM8088A ASSEMBLE AND INSTALL PNEUMATIC SYSTEM KIT

UNIT DESCRIPTOR: This unit identifies the competence required to assemble, install and test a pneumatic system kit.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
1. Plan the job.	1.1 Work specification is read and interpreted to determine installation process.
	1.2 Components required are determined.
	1.3 Tools and equipment are determined.
2. Assemble and install pneumatic system kit.	2.1 Assembly and installation information is accessed and interpreted from manufacturer specifications.
	2.2 Pneumatic system kit is assembled in accordance with manufacturers specifications.
	2.3 Installation procedures are carried out in accordance with manufacturer specifications and tolerances.
	2.4 Assembly and installation activities are carried out according to industry regulations/guidelines, OH&S legislation, statutory legislation and company procedures/policies.
3. Test pneumatic systems.	3.1 Test information is accessed and interpreted from manufacturer specifications.
	3.2 System tests before and or after installation are carried out in accordance with manufacturer specifications and tolerances.
	3.3 All tests are carried out according to industry regulations/guidelines, OH&S legislation, statutory legislation and company procedures/policies.

RANGE OF VARIABLES:

Range of contexts:

This competency standard applies to:

- Truck/Bus/Trailer Manufacture and Assembly

Sources of information/documentation may include:

- manufacturer specifications
- company operating procedures
- industry/workplace codes of practice
- customer requirements
- Statutory legislation for vehicle road worthiness (including ADRs)
- Material safety data sheets
- State/industry OH&S legislation

Resources may include:
- hand tools, measuring equipment, fastening equipment, and testing equipment.
- power tools, air tools and lifting equipment.
- air brakes; air operated fans; gear box controls; diff locks; doors
- vehicle for installation (bus/truck/trailer)
- job sheets, work orders
- qualified workplace assessor
- workplace or simulated workplace

EVIDENCE GUIDE:
Context:
- Competency must be assessed in a safe working environment and in accordance with endorsed industry assessment guidelines.
- The underpinning knowledge and skills may be assessed on or off-the-job.
- The assessment of practical skills must take place only after a period of supervised practice and repetitive experience. If workplace conditions are not available, assessment in simulated workplace conditions is acceptable.
- The prescribed outcome must be able to be achieved without direct supervision.

Concurrent assessment and pre-requisite relationship:
- This unit may be assessed in conjunction with other units that form part of the function or for a particular job role for a company.

Consistency of performance:
- Competency is best assessed through observation over a period of time and in a variety of situations. Supplementary evidence of underpinning knowledge and the capability to manage tasks and operational and workplace contingencies should be gained through questioning and the use of work based examples.
- Questioning should be undertaken in such a manner as is appropriate to the language and literacy levels of the operator and to the requirements of the unit of competency.

Language, literacy and numeracy skills:
Speaking and listening skills may include:
- Listening to and following verbal instructions
- Giving verbal instructions and technical information

Reading and writing skills may include:
- Reading and interpreting company forms eg job sheets, work orders, company standards documentation
- Completing company forms (written / electronic) eg job sheets, work orders, fault reports
- Reading and interpreting equipment installation and operating manuals, tags and labels

Numeracy skills may include:
- Counting and recording materials used on job sheet

Critical aspects of evidence:
Evidence of achievement is required in all of the following:
- Assemble pneumatic system
- Install pneumatic systems
- Use tools and equipment
- Test pneumatic systems
- Select and use appropriate materials for the installation of pneumatic systems
- Employ safe work practices

Underpinning knowledge:

- Company OH&S procedures
- Equipment/component safety requirements
- Interpretation of technical materials, graphic symbols and diagrams
- Identification of pneumatic components
- Pneumatic system operation
- Installation procedures
- Measuring and testing procedures

Key Competencies:	**Level**
Collect, analyse and organise information	1
Communicate ideas and information	1
Plan and organise activities	2
Work with others and in teams	1
Use mathematical ideas and techniques	1
Solve problems	1
Use Technology	2

AUM8089A ASSEMBLE AND INSTALL BRAKING SYSTEM KIT

UNIT DESCRIPTOR This unit identifies the competence required to assemble, install and test braking systems and associated components including hydraulic, pneumatic, electric and mechanical operating systems.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
1. Plan the job.	1.1 Work specification is read and interpreted to determine installation process.
	1.2 Components required are determined.
	1.3 Tools and equipment are determined.
2. Assemble and install braking system kit.	2.1 Assembly and installation information is accessed and interpreted from manufacturer specifications.
	2.2 Braking system kit is assembled in accordance with manufacturers specifications.
	2.3 Installation procedures are carried out in accordance with manufacturer specifications and tolerances.
	2.4 Assembly and installation activities are carried out according to industry regulations/guidelines, OH&S legislation, statutory legislation and company procedures/policies.
3. Test braking system.	3.1 Test information is accessed and interpreted from manufacturer specifications.
	3.2 System tests before and or after installation are carried out in accordance with manufacturer specifications and tolerances.
	3.3 All tests are carried out according to industry regulations/guidelines, OH&S legislation, statutory legislation and company procedures/policies.

RANGE OF VARIABLES:

Range of contexts:

This competency standard applies to:

- Truck/Bus/Trailer Manufacture and Assembly

Sources of information/documents may include:

- product manufacturer specifications
- company operating procedures
- customer requirements
- industry/workplace codes of practice
- Statutory legislation
- State/industry OH&S legislation

Resources may include:
- hand tools, power tools, cutting equipment, measuring equipment, lifting equipment, brake bleeding equipment, testing equipment (eg brake dynomometer).
- pipe bending and flaring equipment.
- nylon tubing; steel braided hose; olives and sleeves
- hydraulic, air over hydraulic, vacuum over hydraulics, electric, electric over hydraulic systems, air braking systems.
- job sheets, work orders
- qualified workplace assessor
- workplace or simulated workplace

EVIDENCE GUIDE:
Context:
- Competency must be assessed in a safe working environment and in accordance with endorsed industry assessment guidelines.
- The underpinning knowledge and skills may be assessed on or off-the-job.
- The assessment of practical skills must take place only after a period of supervised practice and repetitive experience. If workplace conditions are not available, assessment in simulated workplace conditions is acceptable.
- The prescribed outcome must be able to be achieved without direct supervision.

Concurrent assessment and pre-requisite relationship:
- This unit may be assessed in conjunction with other units that form part of the function or for a particular job role for a company.

Consistency of performance:
- Competency is best assessed through observation over a period of time and in a variety of situations. Supplementary evidence of underpinning knowledge and the capability to manage tasks and operational and workplace contingencies should be gained through questioning and the use of work based examples.
- Questioning should be undertaken in such a manner as is appropriate to the language and literacy levels of the operator and to the requirements of the unit of competency.

Language, literacy and numeracy skills:
Speaking and listening skills may include:
- Listening to and following verbal instructions
- Giving verbal instructions and technical information

Reading and writing skills may include:
- Reading and interpreting company forms eg job sheets, work orders, company standards documentation
- Completing company forms (written / electronic) eg job sheets, work orders, fault reports
- Reading and interpreting equipment installation and operating manuals, tags and labels

Numeracy skills may include:
- Counting and recording materials used on job sheet
- Calculating fluid levels and service line distances

Critical aspects of evidence:
For at lease one type of braking system:
- Assemble and install components
- Route service lines
- Employ safe working practices
- Test systems

Underpinning knowledge:

- Company OH&S procedures
- Statutory legislation where applicable
- Braking systems operating principles
- Types of materials and their application
- Brake lines, fabrication and routing procedures
- Methods of fastening
- Assembly and fitting procedures
- Brake system test procedures
- Lubricant and brake fluid types and applications

Key Competencies:	**Level**
Collect, analyse and organise information	1
Communicate ideas and information	1
Plan and organise activities	2
Work with others and in teams	1
Use mathematical ideas and techniques	1
Solve problems	2
Use technology	2

AUM8090A INSTALL FIXED AND MOVEABLE GLASS COMPONENTS

UNIT DESCRIPTOR: This unit identifies the competence required to fabricate templates, mark out and cut panels, prepare cut edges and remove and install fixed and moveable body glass components.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
1. Measure, mark out and fabricate templates.	1.1 Relevant information is accessed and interpreted from appropriate manufacturer specifications.
	1.2 Suitable materials selected and template fabricated to required shape and size.
	1.3 Fabricating, measuring and marking out activities are carried out according to industry regulations/guidelines, OH&S legislation, statutory legislation and company procedures/policies.
2. Mark out in preparation for installation of components.	2.1 Job information is accessed and interpreted from work orders and appropriate manufacturer specifications.
	2.2 Template is used to mark out areas and are cut using approved methods and equipment in accordance with specifications.
	2.3 Panels/trim are prepared in readiness for installing components.
	2.4 Marking out, cutting and preparation activities are carried out according to industry regulations/ guidelines, OH&S legislation, statutory legislation and company procedures/policies.
3. Install/Remove body glass components.	3.1 Installation / removal information is accessed and interpreted from appropriate manufacturer specifications.
	3.2 Removal / installation of body glass components is carried out in accordance with vehicle manufacturer specifications and tolerances.
	3.3 Installed components are checked for correct operation and leak tested as necessary.
	3.4 All installation and checking is performed according to industry regulations/guidelines, OH&S legislation, statutory legislation and enterprise procedures/policies.

RANGE OF VARIABLES:

Range of contexts:

This competency standard applies to:

- Truck/Bus/Trailer Manufacture and Assembly

Sources of information/documents may include:

- vehicle manufacturer specifications
- product manufacturer specifications
- company operating procedures
- industry/workplace codes of practice
- customer requirements
- State/Territory/Federal statutory requirements (including ADRs)
- State/industry OH&S legislation

Resources may include:

- hand tools, power tools, measuring equipment, marking out equipment, cutting equipment, vehicle protection equipment, templates, lifting equipment, scaffolds,
- range of glass types (laminated, heat tempered), seals, adhesives and solvents
- range of frames for glass installation
- job sheets, work orders
- qualified workplace assessor
- workplace or simulated workplace

EVIDENCE GUIDE:

Context:

- Competency must be assessed in a safe working environment and in accordance with endorsed industry assessment guidelines.
- The underpinning knowledge and skills may be assessed on or off-the-job.
- The assessment of practical skills must take place only after a period of supervised practice and repetitive experience. If workplace conditions are not available, assessment in simulated workplace conditions is acceptable.
- The prescribed outcome must be able to be achieved without direct supervision.

Concurrent assessment and pre-requisite relationship:

- This unit may be assessed in conjunction with other units that form part of the function or for a particular job role for a company.

Consistency of performance:

- Competency is best assessed through observation over a period of time and in a variety of situations. Supplementary evidence of underpinning knowledge and the capability to manage tasks and operational and workplace contingencies should be gained through questioning and the use of work based examples.
- Questioning should be undertaken in such a manner as is appropriate to the language and literacy levels of the operator and to the requirements of the unit of competency.

Language, literacy and numeracy skills:

Speaking and listening skills may include:

- Listening to and following verbal instructions
- Giving verbal instructions and technical information

Reading and writing skills may include:

- Reading and interpreting company forms eg job sheets, work orders, company standards documentation
- Completing company forms (written / electronic) eg job sheets, work orders, fault reports
- Reading and interpreting equipment manuals, tags and labels

Numeracy skills may include:

- Counting and recording materials used on job sheet
- Measuring materials for cutting and installation

Critical aspects of evidence:
Evidence of achievement is required in all of the following:
- Prepare and install fixed and moveable glass components
- Interpret and communicate job information
- Select appropriate component, glass sealants, adhesives, tools and equipment
- Install/remove/replace/adjust fixed and moveable glass components
- Mark out and fabricate templates
- Ensure correct functions of accessories (eg. demisters, washer/wipers, doors etc.)
- Employ safe working practices
- Leak test installed glass components

Underpinning knowledge:
- Measuring and marking out procedures
- Relevant company/manufacturer policies
- Relevant cutting procedures (panels and trim)
- Equipment / personal / vehicle safety requirements
- Fixed, bonded, and moveable glass component installation procedures
- Panel reinforcing methods
- Urethane, rubber, butyl, and encapsulated installation methods
- Bonded glass installation methods

Key Competencies:	**Level**
Collect, analyse and organise information	1
Communicate ideas and information	1
Plan and organise activities	2
Work with others and in teams	1
Use mathematical ideas and techniques	2
Solve problems	1
Use technology	2

AUM8091A INSTALL OR REPLACE MECHANICAL UNITS/ASSEMBLIES

UNIT DESCRIPTOR: This unit identifies the competence required to install or replace units/assemblies.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
1. Install and test mechanical units/assemblies.	1.1 Job information is accessed and interpreted from work orders and appropriate manufacturer specifications.
	1.2 Appropriate fittings and materials are selected for the installation.
	1.3 Appropriate tools and equipment are used for the installation and testing processes.
	1.4 Installation and testing activities are carried out according to industry regulations/guidelines, OH&S legislation, statutory legislation and company procedures/policies.
2. Remove, replace and test mechanical units/assemblies.	2.1 Replacement is completed without causing damage to any workplace property or vehicle.
	2.2 Appropriate information is accessed and interpreted from appropriate manufacturer specifications.
	2.3 Protective clothing and equipment appropriate to the replacement activities are used.
	2.4 Mechanical units/assemblies are replaced and tested using approved methods, tools and equipment.
	2.5 Replacement activities are carried out according to industry regulations/guidelines, OH&S legislation, statutory legislation and company procedures/policies.

RANGE OF VARIABLES:

Range of contexts:

This competency standard applies to:

- Truck/Bus/Trailer Manufacture and Assembly

Sources of information/documentation may include:

- vehicle manufacturer specifications
- company operating procedures
- insurance company instructions
- industry/workplace codes of practice
- product manufacturer specifications
- repair quotations
- Statutory legislation and ADRs
- State/industry OH&S legislation

Resources may include:
- hand tools, jacking, support and lifting equipment
- special equipment for installation and replacement
- power tools; air tools
- suspension assemblies; steering systems; final drives; transmissions; tailgates; turntables
- job sheets, work orders
- qualified workplace assessor
- workplace or simulated workplace

EVIDENCE GUIDE:
Context:
- Competency must be assessed in a safe working environment and in accordance with endorsed industry assessment guidelines.
- The underpinning knowledge and skills may be assessed on or off-the-job.
- The assessment of practical skills must take place only after a period of supervised practice and repetitive experience. If workplace conditions are not available, assessment in simulated workplace conditions is acceptable.
- The prescribed outcome must be able to be achieved without direct supervision.

Concurrent assessment and pre-requisite relationship:
- This unit may be assessed in conjunction with other units that form part of the function or for a particular job role for a company.

Consistency of performance:
- Competency is best assessed through observation over a period of time and in a variety of situations. Supplementary evidence of underpinning knowledge and the capability to manage tasks and operational and workplace contingencies should be gained through questioning and the use of work based examples.
- Questioning should be undertaken in such a manner as is appropriate to the language and literacy levels of the operator and to the requirements of the unit of competency.

Language, literacy and numeracy skills:
Speaking and listening skills may include:
- Listening to and following verbal instructions
- Giving verbal instructions and technical information

Reading and writing skills may include:
- Reading and interpreting company forms eg job sheets, work orders, company standards documentation
- Completing company forms (written / electronic) eg job sheets, work orders, fault reports
- Reading and interpreting equipment installation and operating manuals, tags and labels

Numeracy skills may include:
- Counting and recording materials used on job sheet
- Reading and setting tensioning devices

Critical aspects of evidence:
For at lease one type of mechanical unit/assembly:
- employ safe working practices
- install or replace mechanical units/assemblies
- test installation

Underpinning knowledge:
- Company OH&S procedures
- Use of relevant tools and equipment
- Use of lifting and transportation equipment (cranes, trolleys, forklifts)
- Installation or replacement procedures for mechanical units/assemblies
- Testing equipment and application procedures for mechanical units/assemblies
- Unit/assembly operating principles

Key Competencies:	Level
Collect, analyse and organise information	1
Communicate ideas and information	2
Plan and organise activities	1
Work with others and in teams	1
Use mathematical ideas and techniques	1
Solve problems	2
Use technology	2

AUM8092A INSTALL/FIT OUT COMPONENTS

UNIT DESCRIPTOR: This unit identifies the competence required to install/fit out sub-assemblies and components to truck/bus/trailer assemblies to company standards.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
1. Select and use tools and equipment.	1.1 Tools and equipment are selected to meet job requirements.
	1.2 Tools and equipment are regularly checked to ensure they are in good working order.
	1.3 Daily maintenance on tools and equipment is performed as specified.
2. Select and use nuts, bolts, screws, washers and fasteners.	2.1 Nuts, bolts, screws, washers, rivets and fasteners are identified and selected to meet the job requirements as stated in the production schedule.
	2.2 Nuts, bolts, screws, washers, rivets and fasteners are fitted in the required number to the designated positions stated in the production schedule and associated drawings.
3. Install/fit out components and sub-assemblies.	3.1 Materials list and drawings are correctly read and interpreted.
	3.2 Parts / components are matched with the materials list and are positioned and secured as per job specification.
	3.3 Installed components and sub-assemblies are inspected and checked for quality and specification.
	3.4 Workflow and production schedule are recorded and maintained.
4. Route service lines.	4.1 Routing requirements are identified and located on the job according to job requirement.
	4.2 Service lines are routed, tied and clipped to specification.
	4.3 Workflow and production schedule are recorded and maintained.
5. Select and use adhesives, sealants and solvents.	5.1 Adhesives, sealants and solvents are selected and applied to meet quality control and the job requirements stated in the production schedule.
	5.2 Solvents are selected and used to remove excess adhesives and sealants to ensure finished product meets enterprise quality control standards.
	5.3 Major spills are reported to the appropriate safety personnel and cleaned up in accordance with emergency procedures for hazardous materials.

RANGE OF VARIABLES:

Range of contexts:

This competency standard applies to:

- Truck/Bus/Trailer Manufacture and Assembly

Sources of information/documentation may include:

- manufacturer specifications
- company operating procedures
- product manufacturer specifications
- customer requirements
- industry/workplace codes of practice
- State/industry OH&S legislation
- Award provisions

Resources may include:

- tools and equipment – spanners, impact guns, screwdrivers, sockets, torque wrenches, robotic equipment.
- nuts, bolts, screws, washers, seals and fasteners will vary in length, size, head type and tension.
- jigs – quick release grips, screwed grips and automatic grips.
- service lines – electrical wiring, pneumatic systems, hydraulic systems
- components – glass, soft trim components, mirrors, hand rails, seats, accessories, floor coverings
- assemblies – cab/sleeper, bus, truck/trailer bodies
- adhesives, solvents and sealants – liquid, gel and tapes
- job sheets, work orders
- qualified workplace assessor
- workplace or simulated workplace

EVIDENCE GUIDE:

Context:

- Competency must be assessed in a safe working environment and in accordance with endorsed industry assessment guidelines.
- The underpinning knowledge and skills may be assessed on or off-the-job.
- The assessment of practical skills must take place only after a period of supervised practice and repetitive experience. If workplace conditions are not available, assessment in simulated workplace conditions is acceptable.
- The prescribed outcome must be able to be achieved without direct supervision.

Concurrent assessment and pre-requisite relationship:

- This unit may be assessed in conjunction with other units that form part of the function or for a particular job role for a company.

Consistency of performance:

- Competency is best assessed through observation over a period of time and in a variety of situations. Supplementary evidence of underpinning knowledge and the capability to manage tasks and operational and workplace contingencies should be gained through questioning and the use of work based examples.
- Questioning should be undertaken in such a manner as is appropriate to the language and literacy levels of the operator and to the requirements of the unit of competency.

Language, literacy and numeracy skills:

Speaking and listening skills may include:

- Listening to and following verbal instructions
- Giving verbal instructions and technical information

Reading and writing skills may include:
- Reading and interpreting company forms eg job sheets, work orders, company standards documentation
- Completing company forms (written / electronic) eg job sheets, work orders, fault reports
- Reading and interpreting equipment installation and operating manuals, tags and labels

Numeracy skills may include:
- Counting and recording materials used on job sheet

Critical aspects of evidence:
For at least one of the sub-sectors (truck and/or bus and/or trailer):
- Install/fit out components and sub-assemblies in accordance with the production schedule
- Route service lines
- Attain quality standards
- Produce work flow records – paper based / electronic
- Apply company OH&S policy and procedures

Underpinning knowledge:
- Procedures for the safe and efficient installation of components and sub-assemblies
- Company installation processes
- Characteristics and application of vinyls, laminates, plastics, timber, composites, fabrics
- Procedures for routing service lines
- Tensions required for critical bolts
- Company Quality standards
- Company work flow records – written / electronic
- Company OH&S policy and procedures
- Manual handling processes

Key Competencies:	**Level**
Collect, analyse and organise information	2
Communicate ideas and information	2
Plan and organise activities	2
Work with others and in teams	1
Use mathematical ideas and techniques	1
Solve problems	2
Use technology	2

AUM8093A TEST, SERVICE AND REPLACE BATTERY

UNIT DESCRIPTOR: This unit identifies the competence required to service, remove, replace, test and charge automotive batteries.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
1. Test batteries.	1.1 Batteries are located and tested without causing damage to any workplace property or vehicle.
	1.2 Test information is accessed and interpreted from appropriate manufacturer specifications.
	1.3 Tests are performed and results analysed in accordance with manufacturer specifications.
	1.4 Testing is carried out according to industry regulations/guidelines, OH&S legislation, statutory legislation and company procedures/policies.
2. Remove and replace batteries.	2.1 Batteries are located, removed and replaced without causing damage to any workplace property or vehicle.
	2.2 Appropriate tools and equipment are selected and used.
	2.3 Information is accessed to determine if action needs to be taken to prevent loss of vehicles electronic memory.
	2.4 Removal/replacement is carried out according to industry regulations/guidelines, OH&S legislation, statutory legislation and company procedures/policies.
3. Service and charge batteries.	3.1 Battery is charged using the appropriate battery charger.
	3.2 Electrolyte levels are checked and topped up as necessary.
	3.3 Battery/terminals are cleaned.
	3.4 Service and charging activities are carried out according to industry regulations/guidelines, OH&S legislation, statutory legislation and company procedures/policies.

RANGE OF VARIABLES:
Range of contexts:
This competency standard applies to:
- Truck/Bus/Trailer Manufacture and Assembly

Sources of information/documentation may include:
- manufacturer specifications
- company operating procedures
- customer requirements
- industry/workplace codes of practice
- Statutory legislation (including ADRs)
- material safety data sheets
- State/industry OH&S legislation

Resources may include:
- hand tools, batteries, testing equipment including load tester, hydrometer, multimeter or voltmeter, battery charger
- special tools for removal/adjustment
- job sheets, work orders
- qualified workplace assessor
- workplace or simulated workplace

EVIDENCE GUIDE:
Context:
- Competency must be assessed in a safe working environment and in accordance with endorsed industry assessment guidelines.
- The underpinning knowledge and skills may be assessed on or off-the-job.
- The assessment of practical skills must take place only after a period of supervised practice and repetitive experience. If workplace conditions are not available, assessment in simulated workplace conditions is acceptable.
- The prescribed outcome must be able to be achieved without direct supervision.

Concurrent assessment and pre-requisite relationship:
- This unit may be assessed in conjunction with other units that form part of the function or for a particular job role for a company.

Consistency of performance:
- Competency is best assessed through observation over a period of time and in a variety of situations. Supplementary evidence of underpinning knowledge and the capability to manage tasks and operational and workplace contingencies should be gained through questioning and the use of work based examples.
- Questioning should be undertaken in such a manner as is appropriate to the language and literacy levels of the operator and to the requirements of the unit of competency.

Language, literacy and numeracy skills:
Speaking and listening skills may include:
- Listening to and following verbal instructions
- Giving verbal instructions and technical information

Reading and writing skills may include:
- Reading and interpreting company forms eg job sheets, work orders, company standards documentation
- Completing company forms (written / electronic) eg job sheets, work orders, fault reports
- Reading and interpreting equipment manuals, tags and labels

Numeracy skills may include:
- Counting and recording materials used on job sheet
- Reading and interpreting load measuring gauges / meters

Critical aspects of evidence:
Evidence of achievement is required in all of the following:
- Remove/replace batteries
- Service and charge batteries
- Employ safe working procedures
- Test batteries (both, load testing and specific gravity)

Underpinning knowledge:
- Company OH&S procedures
- Load testing procedures
- Specific gravity testing and procedures
- Interpreting manufacturer information
- Charging applications and techniques
- Safe handling of battery electrolyte and acids
- Statutory legislation in relation to disposal of batteries and acids
- Identification of battery types
- Servicing procedures

Key Competencies:	**Level**
Collect, analyse and organise information	1
Communicate ideas and information	1
Plan and organise activities	1
Work with others and in teams	1
Use mathematical ideas and techniques	1
Solve problems	2
Use technology	1

AUM8094A INSTALL OR REPLACE ELECTRICAL/ ELECTRONIC UNITS/ASSEMBLIES

UNIT DESCRIPTOR: This unit identifies the competence required to install or replace units/assemblies as required in the Truck/Bus/Trailer Manufacture and Assembly industry.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
1. Install and test electrical/electronic units/assemblies.	1.1 Installation requirements are determined to comply with job specification.
	1.2 Appropriate tools, equipment, fittings and materials are selected for the installation and testing processes.
	1.3 Electrical units/assemblies are installed according to job requirements and manufacturer specifications.
	1.4 Installation and testing activities are carried out according to industry regulations/guidelines, OH&S legislation, statutory legislation and company procedures/policies.
2. Remove and replace electrical/electronic units/assemblies.	2.1 Removal information is accessed and interpreted from appropriate manufacturer specifications to determine procedures.
	2.2 Electrical units/assemblies are removed and replaced using approved methods, tools and equipment.
	2.3 Removal and replacement activities are carried out according to industry regulations/guidelines, OH&S legislation, statutory legislation and company procedures/policies.

RANGE OF VARIABLES:

Range of contexts:

This competency standard applies to:

- Truck/Bus/Trailer Manufacture and Assembly

Sources of information/documentation may include:

- vehicle manufacturer specifications
- company operating procedures
- insurance company instructions
- industry/workplace codes of practice
- product manufacturer specifications
- Statutory legislation
- State/industry OH&S legislation

Resources may include:

- hand tools, jacking, support and lifting equipment
- special equipment for installation and replacement
- power tools ; air tools
- electrical test equipment – voltmeter, ampmeter, multimeter, resistance meter
- electrical / electronic components and installation kits eg lights, sound equipment, communication equipment and electrical/electronic accessories
- circuit wiring diagrams

- job sheets, work orders
- qualified workplace assessor
- workplace or simulated workplace

EVIDENCE GUIDE:

Context:

- Competency must be assessed in a safe working environment and in accordance with endorsed industry assessment guidelines.
- The underpinning knowledge and skills may be assessed on or off-the-job.
- The assessment of practical skills must take place only after a period of supervised practice and repetitive experience. If workplace conditions are not available, assessment in simulated workplace conditions is acceptable.
- The prescribed outcome must be able to be achieved without direct supervision.

Concurrent assessment and pre-requisite relationship:

- This unit should be assessed after the successful completion of or in conjunction with unit:
  AUR23808A Conduct soft soldering processes
- This unit may be assessed in conjunction with other units that form part of the function or for a particular job role for a company.

Consistency of performance:

- Competency is best assessed through observation over a period of time and in a variety of situations. Supplementary evidence of underpinning knowledge and the capability to manage tasks and operational and workplace contingencies should be gained through questioning and the use of work based examples.
- Questioning should be undertaken in such a manner as is appropriate to the language and literacy levels of the operator and to the requirements of the unit of competency.

Language, literacy and numeracy skills:

Speaking and listening skills may include:

- Listening to and following verbal instructions
- Giving verbal instructions and technical information

Reading and writing skills may include:

- Reading and interpreting company forms eg job sheets, work orders, company standards documentation
- Completing company forms (written / electronic) eg job sheets, work orders, fault reports
- Reading and interpreting equipment installation and operating manuals, tags and labels

Numeracy skills may include:

- Counting and recording materials used on job sheet

Critical aspects of evidence:

Evidence of achievement is required in all of the following:

- Employ safe working practices
- Install or replace electrical/electronic units/assemblies as per job sheet
- Test installation

Underpinning knowledge:

- Company OH&S procedures
- Use of relevant tools and equipment
- Installation or replacement procedures for electrical/electronic units/assemblies
- Testing equipment and application procedures for electrical/electronic units/assemblies
- Electrical circuit principles
- Cable termination techniques

Key Competencies:	Level
Collect, analyse and organise information	1
Communicate ideas and information	2
Plan and organise activities	2
Work with others and in teams	1
Use mathematical ideas and techniques	1
Solve problems	2
Use technology	2

AUM8095A PERFORM WHEEL ALIGNMENT OPERATIONS

UNIT DESCRIPTOR: This unit identifies the competence required to perform wheel alignment operations within the Truck/Bus/Trailer Manufacture and Assembly industry

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
1. Prepare for the job.	1.1 Work specification is read and interpreted to determine alignment process.
	1.2 Wheel alignment pre-checks are completed in accordance with company procedures.
	1.3 Tools and equipment are determined and alignment measuring equipment connected to the vehicle.
2. Perform wheel alignment.	2.1 Wheel alignment equipment information is accessed and interpreted from manufacturer specifications.
	2.2 Wheel alignment procedures are undertaken in accordance with company procedures.
	2.3 Adjustments are undertaken in accordance with the vehicle and equipment manufacturers specifications.
	2.4 Wheel alignment procedures are carried out and documentation completed in accordance with industry regulations/guidelines, OH&S legislation, statutory legislation and company procedures/policies.

RANGE OF VARIABLES:

Range of contexts:

This competency standard applies to:

- Truck/Bus/Trailer Manufacture and Assembly

Sources of information/documentation may include:

- vehicle/manufacturer specifications
- company operating procedures
- equipment manufacturer specifications
- customer requirements
- industry/workplace codes of practice
- statutory legislation and ADRs
- material safety data sheets
- State/industry OH&S legislation

Resources may include:

- hand tools, power tools, special tools and mechanical equipment for wheel alignment, laser alignment equipment
- vehicle to be used for alignment procedure
- job sheets, work orders
- qualified workplace assessor
- workplace or simulated workplace

EVIDENCE GUIDE:

Context:

- Competency must be assessed in a safe working environment and in accordance with endorsed industry assessment guidelines.
- The underpinning knowledge and skills may be assessed on or off-the-job.
- The assessment of practical skills must take place only after a period of supervised practice and repetitive experience. If workplace conditions are not available, assessment in simulated workplace conditions is acceptable.
- The prescribed outcome must be able to be achieved without direct supervision.

Concurrent assessment and pre-requisite relationship:

- This unit may be assessed in conjunction with other units that form part of the function or for a particular job role for a company.

Consistency of performance:

- Competency is best assessed through observation over a period of time and in a variety of situations. Supplementary evidence of underpinning knowledge and the capability to manage tasks and operational and workplace contingencies should be gained through questioning and the use of work based examples.
- Questioning should be undertaken in such a manner as is appropriate to the language and literacy levels of the operator and to the requirements of the unit of competency.

Language, literacy and numeracy skills:

Speaking and listening skills may include:

- Listening to and following verbal instructions
- Giving verbal instructions and technical information

Reading and writing skills may include:

- Reading and interpreting company forms eg job sheets, work orders, company standards documentation
- Completing company forms (written / electronic) eg job sheets, work orders, fault reports
- Reading and interpreting equipment manuals, tags and labels

Numeracy skills may include:

- Counting and recording materials used on job sheet
- Interpreting alignment measuring equipment

Critical aspects of evidence:

For at least one of the sub-sectors (truck and/or bus and/or trailer):

- Set equipment for alignment
- Interpret alignment information
- Align wheels to specifications
- Complete documentation requirements – written / electronic
- Use relevant tools and equipment
- Employ company OH&S procedures

Underpinning knowledge:

- Wheel alignment principles and purposes
- Equipment operating principles and alignment procedures
- Safe use of equipment

Key Competencies:	**Level**
Collect, analyse and organise information	2
Communicate ideas and information	1
Plan and organise activities	2
Work with others and in teams	1
Use mathematical ideas and techniques	2
Solve problems	2
Use technology	2

AUM8101A MODIFY OR RECTIFY CHASSIS/FRAME AND ASSOCIATED COMPONENTS

UNIT DESCRIPTOR: This unit identifies the competence required to modify or rectify and align chassis/frame and/or components applicable to vehicles with separate frame construction.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
1. Inspect to determine modification/ rectification required.	1.1 Chassis / frame is measured and inspected to establish modification requirements.
	1.2 Written inspection report prepared during inspection.
	1.3 Job specification / inspection report is accessed and interpreted to determine work required
	1.4 Inspection activities are carried out according to industry regulations/guidelines, OH&S legislation, statutory legislation and company procedures/policies.
2. Replace or rectify components.	2.1 Replacement or rectification of components is achieved without causing damage to any workplace property or vehicle section, system or component.
	2.2 Correct information is accessed and interpreted from appropriate manufacturer specifications.
	2.3 Rectification and replacements of chassis/frame components are carried out in accordance with vehicle manufacturer specifications and tolerances relative to the vehicle.
	2.4 Work done is recorded and dealt with according to company policies and procedures.
	2.5 Rectification activities are carried out according to industry regulations/guidelines, OH&S legislation, statutory legislation and company procedures/policies.
3. Align and modify chassis/frame.	3.1 Alignment / modification procedures for the chassis are carried out in accordance with manufacturer specifications and tolerances.
	3.2 Information relating to modification processes is accessed and interpreted from appropriate manufacturer specifications.
	3.3 Work done is recorded and dealt with according to company policies and procedures.
	3.4 All modification activities are carried out according to industry regulations/guidelines, OH&S legislation, statutory legislation and company procedures/policies.

RANGE OF VARIABLES:

Range of contexts:

This competency standard applies to:

- Truck/Bus/Trailer Manufacture and Assembly

Sources of information/documents may include:

- chassis manufacturer specifications
- component manufacturer specifications
- company operating procedures
- industry codes of practice
- customer requirements
- Statutory legislation
- State/industry OH&S legislation

Resources may include:

- hand tools, power tools, measuring equipment, pressing equipment, heating equipment, welding equipment may include - ARC, OXY, MIG, TIG
- chassis aligning equipment – measuring, clamping, bracing, jigs
- wheel alignment equipment
- special tools for removal/alignment
- lifting equipment – cranes, forklifts, trolleys
- chassis, wheels, service lines, accessories.
- job sheets, work orders
- qualified workplace assessor
- workplace or simulated workplace

EVIDENCE GUIDE:

Context:

- Competency must be assessed in a safe working environment and in accordance with endorsed industry assessment guidelines.
- The underpinning knowledge and skills may be assessed on or off-the-job.
- The assessment of practical skills must take place only after a period of supervised practice and repetitive experience. If workplace conditions are not available, assessment in simulated workplace conditions is acceptable.
- The prescribed outcome must be able to be achieved without direct supervision.

Concurrent assessment and pre-requisite relationship:

- This unit may be assessed in conjunction with other units that form part of the function or for a particular job role for a company.

Consistency of performance:

- Competency is best assessed through observation over a period of time and in a variety of situations. Supplementary evidence of underpinning knowledge and the capability to manage tasks and operational and workplace contingencies should be gained through questioning and the use of work based examples.
- Questioning should be undertaken in such a manner as is appropriate to the language and literacy levels of the operator and to the requirements of the unit of competency.

Language, literacy and numeracy skills:

Speaking and listening skills may include:

- Listening to and following verbal instructions
- Giving verbal instructions and technical information

Reading and writing skills may include:

- Reading and interpreting company forms eg job sheets, work orders, company standards documentation
- Completing company forms (written / electronic) eg job sheets, work orders, fault reports
- Reading and interpreting equipment manuals, tags and labels

Numeracy skills may include:
- Count and record materials used on job sheet
- Read and interpret measuring / alignment

Critical aspects of evidence:
Evidence of achievement is required in all of the following:
- Inspect to determine chassis modification or repair requirements
- Access, interpret and apply technical information
- Use relevant tools/equipment
- Carry out alignment of chassis/frame
- Modify chassis
- Employ manual handling techniques
- Carry out personal safety requirements

Underpinning knowledge:
- Company OH&S procedures
- Alignment procedures
- Inspection and measuring procedures
- Repair/replacement of components procedures
- Vehicle safety requirements
- Relevant manufacturer/company policies
- Use of lifting and transportation equipment
- Manual handling techniques
- Visual, aural and functional assessments (including: damage, wear and breakage)
- Wheel and chassis alignment geometry
- Cutting and welding procedures

Key Competencies:	**Level**
Collect, analyse and organise information	2
Communicate ideas and information	1
Plan and organise activities	2
Work with others and in teams	1
Use mathematical ideas and techniques	1
Solve problems	2
Use technology	2

AUM8102A MANUFACTURE OR MODIFY WIRING HARNESSES

UNIT DESCRIPTOR: This unit identifies the competence required to manufacture or modify wiring harnesses including checking, replacement and labelling of the wiring harness.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
1. Check/test wiring harness and determine required action.	1.1 Wiring harness and job specification is checked to determine required action.
	1.2 Job information is accessed and interpreted from appropriate manufacturer specifications.
	1.3 Materials and equipment for the manufacture / modification are identified and accessed.
	1.4 Job assessment is carried out according to industry regulations/guidelines OH&S legislation and company procedures policies.
2. Manufacture wiring harness.	2.1 Electrical circuit wiring diagrams are accessed and interpreted from appropriate manufacturer specifications.
	2.2 Manufacture harness to job specifications using appropriate tools, techniques and materials.
	2.3 Harness is tested prior to placing in service and results are recorded in accordance with company policies and procedures.
	2.4 Manufacturing activities are carried out according to industry regulations/guidelines OH&S legislation and company procedures policies.
3. Modify wiring harness.	3.1 Job information is accessed and interpreted from appropriate manufacturer specifications.
	3.2 Wiring harness is labelled and removed using appropriate tools and techniques.
	3.3 Associated components are labelled and removed and tagged for storage.
	3.4 Modified harness is correctly fitted to vehicle and reconnected according to manufacturer specifications and/or labels.
	3.5 All modifications and labelling is carried out according to industry regulations/guidelines OH&S legislation and company procedures policies.

RANGE OF VARIABLES:

Range of contexts:

This competency standard applies to:

- Truck/Bus/Trailer Manufacture and Assembly.

Sources of information/documents may include:

- manufacturer specifications
- company operating procedures
- customer requirements
- industry codes of practice
- Statutory legislation (including ADRs)
- State/industry OH&S legislation

Resources may include:

- hand tools, cable of various types and sizes, electrical tape, terminals and fitting equipment
- tagging/labelling materials
- terminating equipment
- chassis assembly
- wiring diagrams
- job sheets, work orders
- qualified workplace assessor
- workplace or simulated workplace

EVIDENCE GUIDE:

Context:

- Competency must be assessed in a safe working environment and in accordance with endorsed industry assessment guidelines.
- The underpinning knowledge and skills may be assessed on or off-the-job.
- The assessment of practical skills must take place only after a period of supervised practice and repetitive experience. If workplace conditions are not available, assessment in simulated workplace conditions is acceptable.
- The prescribed outcome must be able to be achieved without direct supervision.

Concurrent assessment and pre-requisite relationship:

- This unit may be assessed in conjunction with other units that form part of the function or for a particular job role for a company.

Consistency of performance:

- Competency is best assessed through observation over a period of time and in a variety of situations. Supplementary evidence of underpinning knowledge and the capability to manage tasks and operational and workplace contingencies should be gained through questioning and the use of work based examples.
- Questioning should be undertaken in such a manner as is appropriate to the language and literacy levels of the operator and to the requirements of the unit of competency.

Language, literacy and numeracy skills:

Speaking and listening skills may include:

- Listening to and following verbal instructions
- Giving verbal instructions and technical information

Reading and writing skills may include:

- Reading and interpreting company forms eg job sheets, work orders, company standards documentation
- Completing company forms (written / electronic) eg job sheets, work orders, fault reports
- Reading and interpreting equipment manuals, tags and labels

Numeracy skills may include:
- Count and record materials used on job sheet
- Reading and interpreting circuit testing equipment

Critical aspects of evidence:
Evidence of achievement is required in all of the following:
- Check/test wiring harnesses
- Manufacture or modify wiring harnesses
- Removal and replacement of wiring harnesses
- Test wiring harnesses and locate faults
- Terminate electrical connections
- Select and use appropriate materials for manufacture/modify of wiring harnesses
- Complete company documentation – written / electronic

Underpinning knowledge:
- OH&S legislation
- Interpreting wiring diagrams and graphic symbols
- Cable types/sizes, current carrying capacity and their application
- Circuit testing procedures (voltage drop and circuit performance)
- Repair and manufacture procedures
- Electrical termination types, applications and procedures
- Harness taping techniques
- Fault finding using aural, visual and functional assessments for damage, corrosion, wear and electrical defects.
- Reading and interpreting circuit diagrams
- Tagging disconnected components or wiring procedures

Key Competencies:	**Level**
Collect, analyse and organise information	2
Communicate ideas and information	1
Plan and organise activities	2
Work with others and in teams	1
Use mathematical ideas and techniques	2
Solve problems	2
Use Technology	1

AUM8103A RECTIFY / REPLACE VEHICLE BODY PANELS AND ANCILLARY FITTINGS

UNIT DESCRIPTOR: This unit identifies the competence required to remove and replace new or repaired body panels, body sections, and ancillary fittings.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
1. Remove body panels and ancillary fittings (including protector mouldings and decals).	1.1 Work is completed without causing damage to any workplace property or vehicle.
	1.2 Job information is accessed and interpreted from appropriate manufacturer specifications.
	1.3 Protective clothing and equipment appropriate to the removal activities are used.
	1.4 Where there is a potential disturbance to electrical, mechanical, electronic or other systems, appropriate assistance is sought, if required.
	1.5 Removal activities are carried out according to industry regulations/guidelines, OH&S legislation, statutory legislation and company procedures/policies.
2. Replace/refit body panels and ancillary fittings.	2.1 Replacement information is accessed and interpreted from appropriate manufacturer specifications.
	2.2 Protective clothing and equipment appropriate to the replacement activities are used.
	2.3 Replacement components and ancillary fittings meet specifications for dimensions, materials and functional capability.
	2.4 Components and ancillary fittings are refitted using approved methods, materials and equipment.
	2.5 Sealant is selected and applied according to the product manufacturer specification for type, method of application and thickness.
	2.6 Where there is a potential disturbance to electrical, mechanical, electronic or other systems, appropriate assistance is sought, if required.
	2.7 Replacement activities including bolt on, weld on and bond on procedures are completed within established industry guidelines.
	2.8 Replacement activities are carried out according to industry regulations/guidelines, OH&S legislation, statutory legislation and company procedures/policies.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
3. Rectify faulty or damaged panels.	3.1 Panels/sections are inspected to identify appropriate methods and procedures to be used in the rectification process.
	3.2 Protective clothing and equipment appropriate to the rectification activities are used.
	3.3 Damaged/faulty panels/sections are rectified in accordance with company procedures and quality standards.
	3.4 Company documentation is completed
	3.5 Company OHS procedures are followed.

RANGE OF VARIABLES:

Range of contexts:

This competency standard applies to:

- Truck/Bus/Trailer Manufacture and Assembly

Sources of information/documents may include:

- vehicle manufacturer specifications
- enterprise operating procedures
- insurance company instructions
- industry/workplace codes of practice
- product manufacturer specifications
- repair quotations
- Statutory legislation and ADRs
- State/industry OH&S legislation

Resources may include:

- hand tools, power tools, and special removal equipment
- body filling agents
- measuring equipment – tapes, squares
- replacement panels
- ancillary fittings
- heating and welding equipment including: oxy, arc, mig, tig and resistance welding
- templates and lifting equipment
- sealing and adhesive materials equipment
- dollies, flippers, dreadnought files, pry bars, air sanders
- job sheets, work orders
- qualified workplace assessor
- workplace or simulated workplace

EVIDENCE GUIDE:

Context:

- Competency must be assessed in a safe working environment and in accordance with endorsed industry assessment guidelines.
- The underpinning knowledge and skills may be assessed on or off-the-job.
- The assessment of practical skills must take place only after a period of supervised practice and repetitive experience. If workplace conditions are not available, assessment in simulated workplace conditions is acceptable.
- The prescribed outcome must be able to be achieved without direct supervision.

Concurrent assessment and pre-requisite relationship:
- This unit may be assessed in conjunction with other units that form part of the function or for a particular job role for a company.

Consistency of performance:
- Competency is best assessed through observation over a period of time and in a variety of situations. Supplementary evidence of underpinning knowledge and the capability to manage tasks and operational and workplace contingencies should be gained through questioning and the use of work based examples.
- Questioning should be undertaken in such a manner as is appropriate to the language and literacy levels of the operator and to the requirements of the unit of competency.

Language, literacy and numeracy skills:
Speaking and listening skills may include:
- Listening to and following verbal instructions
- Giving verbal instructions and technical information

Reading and writing skills may include:
- Reading and interpreting company forms eg job sheets, work orders, company standards documentation
- Completing company forms (written / electronic) eg job sheets, work orders, fault reports
- Reading and interpreting equipment manuals, tags and labels

Numeracy skills may include:
- Count and record materials used on job sheet
- Costing of replacements
- Measuring panels and fittings

Critical aspects of evidence:
Evidence of achievement is required in all of the following:
- Interpret and communicate operational information
- Employ safe working practices
- Remove panels and ancillary fittings
- Replace panels and ancillary fittings
- Rectify damaged panels and sections
- Identify appropriate components
- Apply manual handling techniques
- Use relevant tools and equipment
- Apply appropriate sealants
- Complete company documentation – written / electronic

Underpinning knowledge:
- Company OH&S requirements
- Equipment/material safety requirements
- Use of relevant tools and equipment
- Manual handling techniques
- Sealant selection and applications
- Removal and replacement procedures for body panels and sections
- Removal and replacement procedures for ancillary fittings
- Rectification techniques
- Measuring techniques – use of tapes, squares
- Welding, mechanical fastening, riveting and metal cutting techniques
- Adhesive bonding applications and procedures

Key Competencies:	Level
Collect, analyse and organise information	1
Communicate ideas and information	2
Plan and organise activities	2
Work with others and in teams	1
Use mathematical ideas and techniques	1
Solve problems	2
Use technology	2

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AUM8104A BOND/REPAIR COMPONENTS USING FIBREGLASS REINFORCED PLASTICS TECHNIQUES

UNIT DESCRIPTOR: This unit identifies the competence required to bond or repair components using reinforced plastic techniques for the Truck/Bus/Trailer Manufacture and Assembly industry.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
1. Plan the job.	1.1 Items to be bonded/repaired are determined from work orders.
	1.2 Appropriate materials and equipment for the processes are selected.
	1.3 Personal protective equipment is selected and used.
	1.4 Company OH&S procedures are followed.
2. Bond/repair components.	2.1 Edges and surfaces are prepared in accordance with company procedures.
	2.2 Bonding agents are mixed ready for application.
	2.3 Lay up application process is completed in accordance with work orders.
	2.4 Surface is prepared for final finish in accordance with company procedures.
	2.5 Equipment is cleaned and stored and company documentation completed.
	2.6 All activities are performed to company OH&S policies and procedures.

RANGE OF VARIABLES:

Range of Contexts:

This competency standard applies to:

- Truck/Bus/Trailer Manufacture and Assembly

Sources of information/documentation may include:

- manufacturer specifications
- company operating procedures
- product manufacturer specifications
- customer requirements
- industry/workplace codes of practice
- State/industry OH&S legislation

Resources may include:

- hand tools, measuring equipment, power tools, specialist tools for fibreglass work
- materials– fibreglass materials and mixes
- personal protection equipment
- job sheets, work orders
- qualified workplace assessor
- workplace or simulated workplace

EVIDENCE GUIDE:

Context:

- Competency must be assessed in a safe working environment and in accordance with endorsed industry assessment guidelines.
- The underpinning knowledge and skills may be assessed on or off-the-job.
- The assessment of practical skills must take place only after a period of supervised practice and repetitive experience. If workplace conditions are not available, assessment in simulated workplace conditions is acceptable.
- The prescribed outcome must be able to be achieved without direct supervision.

Concurrent assessment and pre-requisite relationship:

- This unit may be assessed in conjunction with other units that form part of the function or for a particular job role for a company.

Consistency of performance:

- Competency is best assessed through observation over a period of time and in a variety of situations. Supplementary evidence of underpinning knowledge and the capability to manage tasks and operational and workplace contingencies should be gained through questioning and the use of work based examples.
- Questioning should be undertaken in such a manner as is appropriate to the language and literacy levels of the operator and to the requirements of the unit of competency.

Language, literacy and numeracy skills:

Speaking and listening skills may include:

- Listening to and following verbal instructions
- Giving verbal instructions and technical information

Reading and writing skills may include:

- Reading and interpreting company forms eg job sheets, work orders, company standards documentation
- Completing company forms (written / electronic) eg job sheets, work orders, fault reports
- Reading and interpreting equipment manuals, tags and labels

Numeracy skills may include:

- Count and record materials used on job sheet
- Measuring quantities of materials

Critical aspects of evidence:

Evidence of achievement is required in all of the following:

- Prepare the surface for the job
- Mix and apply the materials according to specifications
- Bond / repair components to job requirement
- Finish the surface to job requirement
- Apply company OH&S policy and procedures

Underpinning knowledge:

- Measuring procedures
- Material safety requirements
- Types of composite materials and their applications
- Repair/bonding procedures
- Company finishing processes
- Company OH&S policy and procedures

Key Competencies:	Level
Collect, analyse and organise information	1
Communicate ideas and information	2
Plan and organise activities	1
Work with others and in teams	1
Use mathematical ideas and techniques	2
Solve problems	2
Use technology	1

AUM8105A PERFORM MINOR MODIFICATIONS/REPAIRS TO ELECTRICAL CIRCUITS/SYSTEMS

UNIT DESCRIPTOR: This unit identifies the competence required to test electrical circuits/systems and carry out modifications and minor repairs. Minor repairs include replacement of fuses, bulbs and terminals, wiring repairs i.e. open circuits/short circuits/earthing.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
1. Modify wiring/lighting of electrical systems.	1.1 Modification is achieved without causing damage to any component or system.
	1.2 Job information is accessed and interpreted from manufacturers specifications to determine job requirements.
	1.3 Appropriate components / materials are selected for the modification.
	1.4 Electrical wiring/lighting systems are modified using appropriate tools and equipment.
	1.5 Modification is carried out according to company procedures, OHS legislation, statutory legislation including ADRs.
2. Test systems/components and identify faults.	2.1 Work is completed without causing damage to engine management systems or other electrical/electronic devices.
	2.2 Relevant information is accessed and interpreted from appropriate manufacturer specification.
	2.3 Tests are carried out to determine faults using appropriate tools and techniques.
	2.4 Faults are identified and preferred rectification procedures are determined.
	2.5 Testing is carried out according to industry regulations/guidelines, OH&S legislation, statutory legislation and company procedures/policies.
3. Complete minor modifications/repairs to electrical circuit wiring and components.	3.1 Minor repairs are completed without causing damage to any workplace property of vehicle.
	3.2 Relevant information is accessed and interpreted from appropriate manufacturer specifications.
	3.3 Necessary repairs, component replacement and adjustments are carried out using appropriate tools, techniques and materials.
	3.4 Modifications/repairs are carried out according to industry regulations/guidelines OH&S legislation, statutory and company procedures/policies.

RANGE OF VARIABLES:

Range of contexts:

This competency standard applies to:

- Truck /Bus/Trailer Manufacture and Assembly

Sources of information/documentation may include:

- manufacturer specifications
- company operating procedures
- customer requirements
- industry codes of practice
- State/Territory/industry OH&S legislation

Resources may include:

- hand tools, test lamp, multimeter
- power/air tools, special tools for removal/replacement, special testing equipment
- soldering equipment and cable terminations
- electrical components, wiring, clips, globes, fuses, tapes
- job sheets, work orders
- qualified workplace assessor
- workplace or simulated workplace

EVIDENCE GUIDE:

Context:

- Competency must be assessed in a safe working environment and in accordance with endorsed industry assessment guidelines.
- The underpinning knowledge and skills may be assessed on or off-the-job.
- The assessment of practical skills must take place only after a period of supervised practice and repetitive experience. If workplace conditions are not available, assessment in simulated workplace conditions is acceptable.
- The prescribed outcome must be able to be achieved without direct supervision.

Concurrent assessment and pre-requisite relationship:

- This unit may be assessed in conjunction with other units that form part of the function or for a particular job role for a company.

Consistency of performance:

- Competency is best assessed through observation over a period of time and in a variety of situations. Supplementary evidence of underpinning knowledge and the capability to manage tasks and operational and workplace contingencies should be gained through questioning and the use of work based examples.
- Questioning should be undertaken in such a manner as is appropriate to the language and literacy levels of the operator and to the requirements of the unit of competency.

Language, literacy and numeracy skills:

Speaking and listening skills may include:

- Listening to and following verbal instructions
- Giving verbal instructions

Reading and writing skills may include:

- Reading and interpreting company forms eg job sheets, work orders, company standards documentation
- Completing company forms (written / electronic) eg job sheets, work orders, fault reports
- Reading and interpreting equipment manuals, tags and labels
- Reading and identifying correct replacement parts

Numeracy skills may include:

- Count and record materials used on job sheet

Critical aspects of evidence:
Evidence of achievement is required in all of the following:
- Complete minor modifications/repairs to circuit wiring and components
- Test and identify faults in electrical circuits and systems
- Employ safe working practices
- Employ vehicle electronic systems and components protection procedures
- Complete company documentation – written / electronic

Underpinning knowledge:
- Company OH&S procedures
- Electrical principles and circuit wiring characteristics
- Circuit repair procedures
- Electrical measuring and testing procedures
- Vehicle safety requirements
- Procedures to avoid damage to ECUs
- Fault finding using aural, visual and functional assessments for damage, corrosion, wear and electrical defects
- Reading and interpreting circuits diagrams

Key Competencies:	**Level**
Collect, analyse and organise information	2
Communicate ideas and information	2
Plan and organise activities	1
Work with others and in teams	1
Use mathematical ideas and techniques	1
Solve problems	2
Use technology	2

AUM8111A PERFORM FORKLIFT DRIVING AND LIFTING OPERATIONS

UNIT DESCRIPTOR: This unit identifies the competence required to inspect, test and operate a forklift truck safely and efficiently. This unit is a combination of AUR39208A and AUR39230A from the National Automotive RS&R Training Package.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
1. Inspect and test forklift and its components.	1.1 Inspection and testing is completed without causing damage to any workplace property, equipment or machinery.
	1.2 All inspection procedures are carried out using approved methods and equipment, following company policies and procedures.
	1.3 Forklift inspected and tested for correct operation of all lift and tilt and fork functions.
	1.4 Forklift inspected and tested for correct function of brakes, steering, warning devices, safety features, fluid leaks and abnormal noises.
	1.5 All activities are carried out according to industry regulations/guidelines, OH&S legislation, statutory legislation and company procedures/policies.
2. Identify, assess and report faults.	2.1 All procedures are carried out using approved methods and equipment, following company policies and procedures and manufacturer specifications.
	2.2 Faults are identified and isolated in accordance with company procedures.
	2.3 All assessed faults are recorded, forwarded and reported in accordance with company procedures.
	2.4 All activities are carried out according to industry regulations/guidelines, OH&S legislation, statutory legislation and company procedures/policies.
3. Perform forklift driving operations.	3.1 Load characteristics are identified to ensure safe transportation.
	3.2 Forklift is operated without causing damage to any workplace property or vehicle sections, system or components.
	3.3 Forklift is driven correctly and safely according to licensing/legislation requirements.
	3.4 All activities are carried out according to industry regulations/guidelines, OH&S legislation, statutory legislation and company procedures/policies.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
4. Perform forklift loading, moving and unloading procedures.	4.1 Loading, moving and unloading is completed without causing damage to any workplace property or vehicle sections, system or components.
	4.2 Hazardous materials in relation to the load requiring lifting are identified and apply the appropriate care/safety requirements.
	4.3 Forklift is operated correctly and safely in performing loading/ moving and unloading duties according to licensing/legislation requirements.
	4.4 All forklift operations are carried out according to industry regulations/guidelines, OH&S legislation, statutory legislation and company procedures/policies.

RANGE OF VARIABLES:

Range of contexts:

This competency standard applies to:

- Truck/Bus/Trailer Manufacture and Assembly

Sources of information/documents may include:

- manufacturer specifications
- company operating procedures
- industry codes of practice
- statutory legislation for vehicle road worthiness (including ADRs)
- relevant State/Territory legislation.
- forklift operations training manual
- State/industry OH&S legislation

Resources may include:

- forklift, a relevant licence up to 10,000 kg
- test equipment
- pallets, shelving, racks, boxes, components
- forklift handling attachments
- job sheets, work orders
- qualified workplace assessor
- workplace or simulated workplace

EVIDENCE GUIDE:

Context:

- Competency must be assessed in a safe working environment and in accordance with endorsed industry assessment guidelines.
- The underpinning knowledge and skills may be assessed on or off-the-job.
- The assessment of practical skills must take place only after a period of supervised practice and repetitive experience. If workplace conditions are not available, assessment in simulated workplace conditions is acceptable.
- The prescribed outcome must be able to be achieved without direct supervision.

Concurrent assessment and pre-requisite relationship:

- This unit may be assessed in conjunction with other units that form part of the function or for a particular job role for a company.

Consistency of performance:
- Competency is best assessed through observation over a period of time and in a variety of situations. Supplementary evidence of underpinning knowledge and the capability to manage tasks and operational and workplace contingencies should be gained through questioning and the use of work based examples.
- Questioning should be undertaken in such a manner as is appropriate to the language and literacy levels of the operator and to the requirements of the unit of competency.

Language, literacy and numeracy skills:
Speaking and listening skills may include:
- Listening to and following verbal instructions
- Giving verbal instructions and technical information

Reading and writing skills may include:
- Reading and interpreting company forms eg job sheets, work orders, company standards documentation
- Completing company forms (written / electronic) eg job sheets, work orders, fault reports
- Reading and interpreting equipment manuals, tags and labels

Numeracy skills may include:
- Counting items moved and compare with job sheet

Critical aspects of evidence:
Evidence of achievement is required in all of the following:
- Inspect and test the forklift and systems
- Document and report faults
- Demonstrate safe forklift operating techniques relevant to licensing/legislation requirements and including the following functions: loading, lifting, unloading, stacking, manoeuvring
- Demonstrate the appropriate use of hydraulic handling attachments, cables and slings
- Complete company documentation – written / electronic

Underpinning knowledge:
- Inspection and testing procedures
- Fork lift operation
- Relevant technical information
- Equipment/material safety handling requirements
- Personal safety requirements
- Hazardous substances type and identification relevant to application
- Loading/unloading/stacking procedures

Key Competencies:	**Level**
Collect, analyse and organise information	1
Communicate ideas and information	1
Plan and organise activities	2
Work with others and in teams	1
Use mathematical ideas and techniques	1
Solve problems	1
Use technology	2

AUR39430A INSPECT AND TEST A MOBILE CRANE

UNIT DESCRIPTOR: This unit identifies the competence required to inspect, test, identify and report faults on a mobile crane.

NOTE **This unit has been sourced from:**
Automotive Industry – Retail, Service & Repair Training Package and has been contextualised for the Automotive Manufacturing Training Package – Bus, Truck & Trailer Sector.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
1. Inspect and test a mobile crane and its components.	1.1 Inspection and testing is completed without causing damage to any equipment or machinery.
	1.2 All inspection procedures are carried out using approved methods and equipment, following enterprise policies and procedures and manufacturer specifications.
	1.3 Mobile crane is inspected and tested for correct operation of all raising functions.
	1.4 Mobile crane is inspected and tested for correct function of braking, steering, warning devices, safety features, fluid leaks and abnormal noises.
	1.5 Mobile crane is inspected for daily pre-operation checks and fluid levels.
	1.6 All activities are carried out according to industry regulations/guidelines, OH&S legislation, statutory legislation and enterprise procedures/policies.
2. Identify, assess and report faults.	2.1 Identifying, assessing and reporting of faults is completed without causing damage to any equipment or machinery.
	2.2 All procedures relating to this competency element are carried out using approved methods and equipment, following enterprise policies and procedures and manufacturer specifications.
	2.3 Faults are identified and isolated.
	2.4 All assessed faults are recorded and reported.
	2.5 All activities are carried out according to industry regulations/guidelines, OH&S legislation, statutory legislation and enterprise procedures/policies.

RANGE OF VARIABLES:
Range of contexts:
This competency standard applies to:
- RS&R Body and Mechanical streams

Sources of information/documents may include:
- manufacturer specifications
- enterprise operating procedures
- industry/workplace codes of practice
- Statutory legislation

OH&S practices must abide by:
- State/industry OH&S legislation

Resources may include:
- relevant testing equipment, hand tools, power tools
- mobile crane and relevant components
- job sheets, work orders
- qualified workplace assessor
- workplace or simulated workplace

Methods include:
- inspection, testing, identifying and assessment

Methods should be applied under normal operating conditions.

EVIDENCE GUIDE:
Context:
- Competency must be assessed in a safe working environment and in accordance with endorsed industry assessment guidelines.
- The underpinning knowledge and skills may be assessed on or off-the-job.
- The assessment of practical skills must take place only after a period of supervised practice and repetitive experience. If workplace conditions are not available, assessment in simulated workplace conditions is acceptable.
- The prescribed outcome must be able to be achieved without direct supervision.

Concurrent assessment and pre-requisite relationship:
- This unit may be assessed in conjunction with other units that form part of the function or for a particular job role for a company.

Consistency of performance:
- Competency is best assessed through observation over a period of time and in a variety of situations. Supplementary evidence of underpinning knowledge and the capability to manage tasks and operational and workplace contingencies should be gained through questioning and the use of work based examples.
- Questioning should be undertaken in such a manner as is appropriate to the language and literacy levels of the operator and to the requirements of the unit of competency.

Language, literacy and numeracy skills:
Speaking and listening skills may include:
- Listening to and following verbal instructions
- Giving verbal instructions and technical information

Reading and writing skills may include:
- Reading and interpreting company forms eg job sheets, work orders, company standards documentation
- Completing company forms (written / electronic) eg job sheets, work orders, fault reports
- Reading and interpreting equipment manuals, tags and labels

Numeracy skills may include:
- Maintain fluids levels as per specifications

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Critical aspects:
It is essential that competence is fully observed and there is the ability to transfer the competency to changing circumstances and to respond to unusual situations in the critical aspects of:

- inspection and testing carried out without damage or injury to tools, equipment and personnel
- accurate reporting of faults

Underpinning knowledge:

- Relevant technical information
- Equipment safety requirements
- Vehicle safety requirements
- Inspection and test procedures
- Personal safety requirements
- Identification and assessing methods
- Reporting requirements – verbal / written / electronic

Practical assessments:

- Access, interpret and apply technical information
- Use relevant tools/equipment
- Apply inspection and test procedures
- Apply vehicle safety requirements
- Apply equipment safety requirements
- Apply personal safety requirements
- Use identification and assessing methods
- Apply reporting requirements – verbal / paper based / electronic

Key Competencies:	**Level**
Collect, analyse and organise information	1
Communicate ideas and information	1
Plan and organise activities	1
Work with others and in teams	1
Use mathematical ideas and techniques	1
Solve problems	1
Use technology	1

AUR39419A DRIVE AND OPERATE A MOBILE CRANE

UNIT DESCRIPTOR: This unit identifies the competence required to drive and operate a mobile crane safely and efficiently in the relevant environment.

NOTE **This unit has been sourced from:**
Automotive Industry – Retail, Service & Repair Training Package and has been contextualised for the Automotive Manufacturing Training Package – Bus, Truck & Trailer Sector.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
1. Prepare loads for lifting.	1.1 Loads are prepared for lifting without causing damage to any equipment or machinery.
	1.2 Correct information is accessed and interpreted from appropriate manufacturer specifications.
	1.3 Hazardous materials in relation to the load requiring lifting are identified.
	1.4 This competency element is carried out using approved methods and equipment in accordance with enterprise policies and procedures.
	1.5 All activities are carried out according to industry regulations/guidelines, OH&S legislation, statutory legislation and enterprise procedures/policies.
2. Monitor and anticipate traffic and work area conditions.	2.1 Correct information is accessed and interpreted from appropriate manufacturer specifications.
	2.2 All activities are carried out according to industry regulations/guidelines, OH&S legislation, statutory legislation and enterprise procedures/policies.
3. Operate a mobile crane.	3.1 Crane is operated without causing damage to any equipment or machinery.
	3.2 Mobile crane is operated using approved methods and procedures following enterprise policies.
	3.3 All activities are carried out according to industry regulations/guidelines, OH&S legislation, statutory legislation and enterprise procedures/policies.

RANGE OF VARIABLES:
Range of contexts:
This competency standard applies to:
- Truck/Bus/Trailer Manufacture and Assembly

Sources of information/documents may include:
- vehicle manufacturer specifications
- enterprise operating procedures
- product manufacturer specifications
- industry/workplace codes of practice
- relevant State/Territory legislation

OH&S practices must abide by:
- State/industry OH&S legislation

Resources may include:
- mobile cranes, slings, ropes, chains, pallets, bins, magnets, lifting jigs
- relevant crane operator's licence
- power-operated material-handling attachments
- job sheets, work orders
- qualified workplace assessor
- workplace or simulated workplace

Methods include:
- lifting, stacking, manoeuvring, shifting and transporting loads

Methods should be applied under normal operating conditions.

Specific requirements:
- Relevant objects to be lifted, stacked, transported

EVIDENCE GUIDE:

Context:
- Competency must be assessed in a safe working environment and in accordance with endorsed industry assessment guidelines.
- The underpinning knowledge and skills may be assessed on or off-the-job.
- The assessment of practical skills must take place only after a period of supervised practice and repetitive experience. If workplace conditions are not available, assessment in simulated workplace conditions is acceptable.
- The prescribed outcome must be able to be achieved without direct supervision.

Concurrent assessment and pre-requisite relationship:
- This unit may be assessed in conjunction with other units that form part of the function or for a particular job role for a company.

Consistency of performance:
- Competency is best assessed through observation over a period of time and in a variety of situations. Supplementary evidence of underpinning knowledge and the capability to manage tasks and operational and workplace contingencies should be gained through questioning and the use of work based examples.
- Questioning should be undertaken in such a manner as is appropriate to the language and literacy levels of the operator and to the requirements of the unit of competency.

Language, literacy and numeracy skills:

Speaking and listening skills may include:
- Listening to and following verbal instructions
- Giving verbal instructions and technical information

Reading and writing skills may include:
- Reading and interpreting company forms eg job sheets, work orders, company standards documentation
- Completing company forms (written / electronic) eg job sheets, work orders, fault reports
- Reading and interpreting equipment manuals, tags and labels

Numeracy skills may include:
- Counting items moved and compare with job sheet

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Critical aspects:
It is essential that competence is fully observed and there is the ability to transfer the competency to changing circumstances and to respond to unusual situations in the critical aspects of:

- interpreting and communicating operational information
- safe working practices including: load lifting, transporting and positioning following approved methods using a mobile crane

Underpinning knowledge:

- Relevant crane operating procedures
- Load preparation techniques
- Material and equipment safe handling requirements
- Hazardous substances identification and safe handling requirements
- Relevant technical information
- Equipment safety requirements
- Vehicle safety requirements
- Relevant manufacturer/company policies
- Manual handling techniques
- Personal safety requirements

Practical assessments:

- Access, interpret and apply technical information
- Apply load preparation techniques
- Apply manual handling techniques
- Use relevant equipment safely
- Use relevant crane operating procedures
- Apply personal safety requirements
- Complete company documentation – written / electronic

Key Competencies:	**Level**
Collect, analyse and organise information	1
Communicate ideas and information	1
Plan and organise activities	1
Work with others and in teams	1
Use mathematical ideas and techniques	1
Solve problems	1
Use technology	2

AUM8112A OPERATE LOAD SHIFTING EQUIPMENT

UNIT DESCRIPTOR: This unit identifies the competence required to select and use load shifting equipment.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
1. Check load shifting equipment operation prior to use.	1.1 Operational checks are completed using approved methods and equipment in accordance with equipment manufacturer specifications and company policies.
	1.2 Identified faults are reported.
	1.3 All activities are carried out according to industry regulations/guidelines, OH&S legislation, statutory legislation and company procedures/policies.
2. Lift and shift loads.	2.1 Load characteristics and handling requirements are identified and appropriate shifting device is selected.
	2.2 Shift is completed using approved methods and equipment in accordance with company policies and legislative requirements.
	2.3 Shifting activities are carried out according to industry regulations/guidelines, OH&S legislation, statutory legislation and company procedures/policies
3. Place loads.	3.1 Loads are placed without causing damage to any workplace property, machinery or equipment.
	3.2 Loads are placed in specified areas/positions using approved methods and equipment in accordance with company policies/procedures and legislative requirements.
	3.3 All activities are carried out according to industry regulations/guidelines, OH&S legislation, statutory legislation and enterprise procedures/policies.

RANGE OF VARIABLES:

Range of contexts:

This competency standard applies to:

- Truck/Bus/Trailer Manufacture and Assembly

Sources of information/documentation may include:

- manufacturer specifications
- company operating procedures
- product manufacturer specifications
- industry/workplace codes of practice
- Relevant State/industry OH&S legislation

Resources may include:
- pallet trucks, hand cranes, blocks and tackles, store travelling cranes, trolley jacks
- relevant materials and articles for shifting
- job sheets, work orders
- qualified workplace assessor
- workplace or simulated workplace

EVIDENCE GUIDE:
Context:
- Competency must be assessed in a safe working environment and in accordance with endorsed industry assessment guidelines.
- The underpinning knowledge and skills may be assessed on or off-the-job.
- The assessment of practical skills must take place only after a period of supervised practice and repetitive experience. If workplace conditions are not available, assessment in simulated workplace conditions is acceptable.
- The prescribed outcome must be able to be achieved without direct supervision.

Concurrent assessment and pre-requisite relationship:
- This unit may be assessed in conjunction with other units that form part of the function or for a particular job role for a company.

Consistency of performance:
- Competency is best assessed through observation over a period of time and in a variety of situations. Supplementary evidence of underpinning knowledge and the capability to manage tasks and operational and workplace contingencies should be gained through questioning and the use of work based examples.
- Questioning should be undertaken in such a manner as is appropriate to the language and literacy levels of the operator and to the requirements of the unit of competency.

Language, literacy and numeracy skills:
Speaking and listening skills may include:
- Listening to and following verbal instructions
- Giving verbal instructions and technical information

Reading and writing skills may include:
- Reading and interpreting company forms eg job sheets, work orders, company standards documentation
- Completing company forms (written / electronic) eg job sheets, work orders, fault reports
- Reading and interpreting equipment manuals, tags and labels

Numeracy skills may include:
- Counting items moved and compare with job sheet

Critical aspects of evidence:
Evidence of achievement is required in all of the following:
- Interpret and communicate operational information
- Operate at least one type of load shifting equipment
- Employ OH&S policy/legislation requirements
- Demonstrate safe working practices including: stacking and moving components and materials
- Complete company documentation requirements – written / electronic

Underpinning knowledge:
- Manual handling techniques
- Hazardous substance types and identification
- Hazardous substance handling requirements
- Routine equipment operation and safety check procedures
- Load shifting, manoeuvring and storage procedures relevant to application

- Personal safety requirements
- Relevant operational information
- Equipment safety requirements
- Relevant manufacturer/company policies
- Relevant equipment operation

Key Competencies:	**Level**
Collect, analyse and organise information	2
Communicate ideas and information	1
Plan and organise activities	2
Work with others and in teams	1
Use mathematical ideas and techniques	1
Solve problems	1
Use technology	2

AUM8121A CONDUCT FINAL INSPECTIONS AND FUNCTIONAL TESTS

UNIT DESCRIPTOR: This unit identifies the competency requirements of the post assembly inspection and testing process and includes the rectification/adjustment procedures to be employed.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
1. Plan inspection test procedure.	1.1 Tools and equipment are selected to meet job requirements.
	1.2 Tools and equipment are regularly checked to ensure they are in good working order.
	1.3 Inspection procedure is verified and appropriate people notified.
2. Conduct inspection/tests.	2.1 Job sheets from previous inspections are checked and vehicle/component inspected to verify that faults have been rectified.
	2.2 Components/systems are tested for functional / mechanical operation to ensure they conform to specifications, tolerances and company standards
	2.3 Surfaces are inspected against the job specifications and quality standards.
	2.4 Inspection procedure is completed in accordance with company OH&S and operating procedures
	2.5 Job sheets are completed in accordance with company procedures.
3. Identify and label/mark faults.	3.1 Identify components/surfaces not meeting customer/company standards/specifications.
	3.2 Faults are labelled in accordance with company procedures.
4. Record and report faults.	4.1 Appropriate forms are selected for recording and reporting identified faults.
	4.2 Selected forms are completed in accordance with company procedures.
	4.3 Faults are reported to appropriate personnel for action.

RANGE OF VARIABLES:

Range of contexts:

This competency standard applies to:

- Truck/Bus/Trailer Manufacture and Assembly

Sources of information/documents may include:
- vehicle manufacturer specifications
- product manufacturer specifications
- company operating procedures
- industry/workplace codes of practice
- customer requirements
- State/Territory/Federal statutory requirements (including ADRs and EPA)
- State/industry OH&S legislation

Resources may include:
- hand tools, power tools, vehicle protection equipment, lifting equipment, scaffolds, truck dynomometer
- items for final inspection
- work records, job sheets
- qualified workplace assessor
- workplace or simulated workplace

EVIDENCE GUIDE:
Context:
- Competency must be assessed in a safe working environment and in accordance with endorsed industry assessment guidelines.
- The underpinning knowledge and skills may be assessed on or off-the-job.
- The assessment of practical skills must take place only after a period of supervised practice and repetitive experience. If workplace conditions are not available, assessment in simulated workplace conditions is acceptable.
- The prescribed outcome must be able to be achieved without direct supervision.

Concurrent assessment and pre-requisite relationship:
- This unit may be assessed in conjunction with other units that form part of the function or for a particular job role for a company.

Consistency of performance:
- Competency is best assessed through observation over a period of time and in a variety of situations. Supplementary evidence of underpinning knowledge and the capability to manage tasks and operational and workplace contingencies should be gained through questioning and the use of work based examples.
- Questioning should be undertaken in such a manner as is appropriate to the language and literacy levels of the operator and to the requirements of the unit of competency.

Language, literacy and numeracy skills:
Speaking and listening skills may include:
- Listening to and following verbal instructions
- Giving verbal instructions and technical information

Reading and writing skills may include:
- Reading and interpreting company forms eg job sheets, work orders, company standards documentation
- Completing company forms (written / electronic) eg job sheets, work orders, fault report and labels
- Reading and interpreting equipment manuals, tags and labels

Numeracy skills may include:
- Testing items and compare with specifications

Critical aspects of evidence:
For at least one of the sub-sectors (truck and/or bus and/or trailer):
- Read and interpret quality control standards
- Interpret and communicate operational information
- Confirm performance to quality control standards
- Selection and use of appropriate test equipment
- Employ of safe working practices
- Report test results – verbal, written, electronic
- Identify faults/non-conformance of components and systems

Underpinning knowledge:
- Reading and interpreting quality control standards
- Types and purpose of the range of test equipment used to check for quality performances to specifications
- Application procedures for the use of the test equipment
- Knowledge of service lines and components and their purpose within the assembly
- Relevant company/manufacturer policies and standard operational assembly and installation procedures
- Work flow records and procedures – paper based / electronic
- Company OH&S procedures and policies

Key Competencies:	**Level**
Collect, analyse and organise information	2
Communicate ideas and information	1
Plan and organise activities	2
Work with others and in teams	2
Use mathematical ideas and techniques	1
Solve problems	2
Use technology	2

AUM8122A CONDUCT SIMULATED OR ROAD PERFORMANCE TEST

UNIT DESCRIPTOR: This unit identifies the competency requirements to carry out pre road test checks and then final simulated or on road performance testing. This will include test reporting and final inspection

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
1. Pre-road test check.	1.1 Vehicle for testing is positioned on site to prevent injury or damage from vehicle malfunction.
	1.2 Pre road test is performed to ensure vehicle has recommended supply of fuel and lubricants for vehicle to perform without failure.
	1.3 Driver safety items are checked to ensure they are fully functional and operational and meet quality control standards and specifications.
	1.4 Appropriate documentation is completed in accordance with company procedures.
	1.5 Temporary registration plates are fitted to the vehicle for its on road test (if applicable).
	1.6 Vehicle is installed on chassis dynamometer for testing (if applicable).
2. Test vehicle for on road or truck chassis dynamometer performance.	2.1 Vehicle is driven on road in accordance with state road regulations.
	2.2 Vehicle is tested on road to ensure it steers correctly, rides smoothly and performs under load conditions.
	2.3 Vehicle is tested to ensure it is free of vibrations, squeaks and rattles, that all indicators and gauges operate to give accurate readings, and that the brakes operate efficiently.
	2.4 Minor adjustments are made to ensure vehicle is safe during on road tests.
3. Record and report faults.	3.1 Appropriate forms are selected and used for recording and reporting faults.
	3.2 Faults are recorded in accordance with company procedures.
	3.3 Faults are reported to appropriate personnel for follow up action.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
4. Implement quarantine procedures	4.1 Faults are identified off performance test sheets for quarantine purposes.
	4.2 Quarantine procedures are implemented to ensure a faulty vehicle is not dispatched to a customer.
	4.3 Vehicle is placed in quarantine based on type of faults to be rectified.
	4.4 All necessary documentation is completed in accordance with company procedures.
5. Identify and rectify faults.	5.1 Tools and equipment are selected and used to meet the job requirements as stated in the standard operating procedures /workshop manual.
	5.2 Rectification job sheets are read to ensure rectifications are performed on identified faults.
	5.3 Faults are rectified to ensure the vehicle performs to company quality control standards and performance specifications.
	5.4 Vehicle is retested on road to ensure faults have been rectified and that the vehicle performs to specification.
	5.5 Job rectification sheets are completed.
6. Conduct final inspection and commission for release.	6.1 Vehicle is inspected to ensure all rectifications are completed to company quality control standards and specification.
	6.2 Vehicle is inspected to ensure it is built to specification and to the relevant Australian Design Rules.
	6.3 Vehicle is inspected to ensure it matches the original order.
	6.4 Compliance and vehicle identification plates are fitted.
	6.5 Vehicle is dispatched for customer delivery processes.

RANGE OF VARIABLES:
Range of contexts:
This competency standard applies to:
- Truck/Bus/Trailer Manufacture and Assembly

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Sources of information/documents may include:
- vehicle manufacturer specifications
- product manufacturer specifications
- company operating procedures
- industry/workplace codes of practice
- customer requirements
- State/Territory/Federal statutory requirements (including ADRs and EPA)
- State/industry OH&S legislation
- Licensing requirements

Resources may include:
- hand tools, power tools, vehicle protection equipment, lifting equipment, scaffolds
- chassis dynamometer
- report and rectification proforma
- road test area or facility
- vehicle for testing
- work records, job sheets
- qualified workplace assessor
- workplace or simulated workplace

EVIDENCE GUIDE:
Context:
- Competency must be assessed in a safe working environment and in accordance with endorsed industry assessment guidelines.
- The underpinning knowledge and skills may be assessed on or off-the-job.
- The assessment of practical skills must take place only after a period of supervised practice and repetitive experience. If workplace conditions are not available, assessment in simulated workplace conditions is acceptable.
- The prescribed outcome must be able to be achieved without direct supervision.

Concurrent assessment and pre-requisite relationship:
- This unit may be assessed in conjunction with other units that form part of the function or for a particular job role for a company.

Consistency of performance:
- Competency is best assessed through observation over a period of time and in a variety of situations. Supplementary evidence of underpinning knowledge and the capability to manage tasks and operational and workplace contingencies should be gained through questioning and the use of work based examples.
- Questioning should be undertaken in such a manner as is appropriate to the language and literacy levels of the operator and to the requirements of the unit of competency.

Language, literacy and numeracy skills:
Speaking and listening skills may include:
- Listening to and following verbal instructions
- Giving verbal instructions and technical information

Reading and writing skills may include:
- Reading and interpreting company forms eg job sheets, work orders, company standards documentation
- Completing company forms (written / electronic) eg job sheets, work orders, fault report and labels
- Reading and interpreting equipment manuals, tags and labels

Numeracy skills may include:
- Testing items and compare with specifications

Critical aspects of evidence:
Evidence of achievement is required in all of the following:
- Identify faults / non-conformance of components and systems
- Read and interpret quality control standards
- Interpret and communicate operational information
- Confirm performance to quality control standards
- Use of appropriate test equipment
- Employ safe working practices
- Report test results – verbal, written, electronic

Underpinning knowledge:
- Reading and interpreting quality control standards
- Types and purpose of the range of test equipment used to check for quality performances to specifications
- Application procedures for the use of the test equipment
- Knowledge of service lines and components and their purpose within the assembly
- Relevant company/manufacturer policies and standard operational assembly and installation procedures
- Work flow records and procedures – paper based / electronic
- Company OH&S procedures and policies

Key Competencies:	**Level**
Collect, analyse and organise information	2
Communicate ideas and information	1
Plan and organise activities	2
Work with others and in teams	1
Use mathematical ideas and techniques	2
Solve problems	2
Use technology	2

AUM8123A CONDUCT WELDING INSPECTION

UNIT DESCRIPTOR: This unit identifies the competence required to perform welding inspection procedures, codes of practice, company procedures and manufacturer specifications relating to the Truck/Bus/Trailer Manufacture and Assembly industry.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
1. Plan and prepare for welding inspections	1.1 Work requirements are identified and clarified/confirmed with appropriate parties.
	1.2 OH&S, statutory requirements, relevant Australian standards, codes of practice, manufacturer specifications, environmental requirements and enterprise procedures are identified for the work procedure.
	1.3 Responsibilities and duties in regard to the work are identified.
	1.4 Material and consumable composition are confirmed in accordance with requirements.
	1.5 The inspection sequence is planned in accordance with company work practices.
2. Conduct welding inspection	2.1 Welding and quality assurance procedures and requirements for testing and inspection are established and validated.
	2.2 The progress of the welding is monitored to confirm it meets industry and company procedures.
	2.3 Deviations from procedures are identified and appropriate actions are taken according to requirements.
	2.4 Test results are analysed, documented and verified in accordance with the prescribed procedures.
	2.5 Weld test results, test procedure analysis and recommendations for action are reported in accordance with company procedures.
	2.6 Recommendations for procedural changes are documented in accordance with prescribed company procedures.

RANGE OF VARIABLES:

Range of Contexts:

This competency standard applies to:

- Truck/Bus/Trailer Manufacture and Assembly

Sources of information/documentation may include:
- manufacturer specifications
- company operating procedures
- product manufacturer specifications
- customer requirements
- industry/workplace codes of practice
- State/industry OH&S legislation

Resources may include:
- non destructive test procedures may include dye penetrant, magnetic particle, thickness testing, radiographic, visual, ultrasonic and pressure tests
- distortion prevention measures may include bracing, pre-setting, tacking, bolting and clamping
- work completion details may include plant and maintenance records, job cards, check sheets, on device labelling updates and reporting and/or documenting equipment defects
- OH&S standards (as per company and statutory requirements)
- documentation and reporting systems (as per company requirements) – paper based / electronic
- weld to be inspected
- work records, job sheets
- qualified workplace assessor
- workplace or simulated workplace

EVIDENCE GUIDE:
Context:
- Competency must be assessed in a safe working environment and in accordance with endorsed industry assessment guidelines.
- The underpinning knowledge and skills may be assessed on or off-the-job.
- The assessment of practical skills must take place only after a period of supervised practice and repetitive experience. If workplace conditions are not available, assessment in simulated workplace conditions is acceptable.
- The prescribed outcome must be able to be achieved without direct supervision.

Concurrent assessment and pre-requisite relationship:
- This unit may be assessed in conjunction with other units that form part of the function or for a particular job role for a company.

Consistency of performance:
- Competency is best assessed through observation over a period of time and in a variety of situations. Supplementary evidence of underpinning knowledge and the capability to manage tasks and operational and workplace contingencies should be gained through questioning and the use of work based examples.
- Questioning should be undertaken in such a manner as is appropriate to the language and literacy levels of the operator and to the requirements of the unit of competency.

Language, literacy and numeracy skills:
Speaking and listening skills may include:
- Listening to and following verbal instructions
- Giving verbal instructions and technical information

Reading and writing skills may include:
- Reading and interpreting company forms eg job sheets, work orders, company standards documentation
- Completing company forms (written / electronic) eg job sheets, work orders, fault report and labels
- Reading and interpreting equipment manuals, tags and labels

Numeracy skills may include:
- Measuring dimensions of weld and comparing with specifications

Critical aspects of evidence:
Evidence of achievement is required in all of the following:
- Prepare and plan for inspection and testing
- Verify the calibration of test equipment
- Identify deviations from work requirements
- Develop and report recommendations – verbal, written, electronic
- Complete work procedures – paper based / electronic
- Employ company OH&S policies and procedures

Underpinning knowledge:
- Welding standards
- Inspection techniques and procedures
- Company OH&S policies and procedures
- Welding and material preparation techniques for the particular type of welding operation
- Distortion control techniques
- Weld testing techniques (non-destructive)
- Mechanical properties of welded joints

Key Competencies:	**Level**
Collect, analyse and organise information	2
Communicate ideas and information	2
Plan and organise activities	2
Work with others and in teams	1
Use mathematical ideas and techniques	2
Solve problems	2
Use technology	3

AUM8131A INSTALL AND COMMISSION AIR CONDITIONING SYSTEM KIT

UNIT DESCRIPTOR: This unit identifies the competence required to install and commission air conditioning systems.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
1. Prepare the assembly/pod for installation of air conditioning system kit.	1.1 Installation and component requirements are determined from the job specifications.
	1.2 Mounting location/pod is prepared according to job specification.
	1.3 Hoses and piping are fabricated to suit system requirements.
2. Install air conditioning system kit.	2.1 Installation is completed without causing damage to any workplace property or vehicle.
	2.2 Installation information is accessed and interpreted from job specification and manufacturer specifications.
	2.3 Appropriate fittings/materials are assembled for installation.
	2.4 Air conditioning systems are installed using appropriate tools and techniques.
	2.5 Installation is tested prior to placing in service and results are recorded in accordance with company policies and procedures.
	2.6 Installation is carried out according to industry regulations/guidelines, OH&S legislation, statutory legislation and company procedures/policies.
3. Gas and commission air conditioning system.	3.1 Work is completed without causing damage to any workplace property or vehicle.
	3.2 Gassing information is accessed and interpreted from appropriate manufacturer specifications, industry codes of practice and relevant legislation.
	3.3 System is gassed and performance tested using approved methods and equipment and in accordance with company procedures.
	3.4 System installation is verified as operational in accordance with specifications.

RANGE OF VARIABLES:

Range of contexts:

This competency standard applies to:

- Truck/Bus/Trailer Manufacture and Assembly

Sources of information/documentation may include:
- manufacturer specifications
- company operating procedures
- customer requirements
- industry codes of practice
- Statutory legislation
- Statutory legislation for vehicle road worthiness (including ADRs)
- material safety data sheets
- State/industry OH&S legislation
- award provisions

Resources may include:
- hand tools, refrigerant leak detecting equipment, evacuation equipment, refrigerant recovery and/or recycling equipment, thermometers, refrigerant gassing equipment, refrigerant, refrigerant oils, air-conditioning system kits
- ram air fan
- pipes, hoses, fittings
- work order and company documentation
- qualified workplace assessor
- workplace or simulated workplace

EVIDENCE GUIDE:
Context:
- Competency must be assessed in a safe working environment and in accordance with endorsed industry assessment guidelines.
- The underpinning knowledge and skills may be assessed on or off-the-job.
- The assessment of practical skills must take place only after a period of supervised practice and repetitive experience. If workplace conditions are not available, assessment in simulated workplace conditions is acceptable.
- The prescribed outcome must be able to be achieved without direct supervision.

Concurrent assessment and pre-requisite relationship:
- This unit may be assessed in conjunction with other units that form part of the function or for a particular job role for a company.

Consistency of performance:
- Competency is best assessed through observation over a period of time and in a variety of situations. Supplementary evidence of underpinning knowledge and the capability to manage tasks and operational and workplace contingencies should be gained through questioning and the use of work based examples.
- Questioning should be undertaken in such a manner as is appropriate to the language and literacy levels of the operator and to the requirements of the unit of competency.

Language, literacy and numeracy skills:
Speaking and listening skills may include:
- Listening to and following verbal instructions
- Giving verbal instructions and technical information

Reading and writing skills may include:
- Reading and interpreting company forms and technical information eg work orders, company standards documentation, installation procedures, test procedures
- Completing company forms eg job sheets
- Reading and interpreting tags and labels

Numeracy skills may include:
- Measuring gas quantities used

Critical aspects of evidence:
Evidence of achievement is required in all of the following:
- Install air conditioning systems in accordance with specifications
- Purge air conditioning system
- Gas the refrigerant system
- Conduct system performance test
- Conduct a leak test
- Complete company documentation – written / electronic

Underpinning knowledge:
- OH&S legislation
- Industry codes of practice
- Statutory legislation where applicable
- Air conditioning installation procedures
- Construction and operation relevant to application
- Leakage test procedures
- System electrical circuits
- Equipment/material safety requirements
- Equipment maintenance procedures – paper based / electronic
- Appropriate refrigerant/oils and capacities
- Pipe and hose fabrication procedures

Key Competencies:	**Level**
Collect, analyse and organise information	2
Communicate ideas and information	1
Plan and organise activities	2
Work with others and in teams	1
Use mathematical ideas and techniques	1
Solve problems	1
Use technology	2

AUM8132A INSTALL AND COMMISSION REFRIGERATION SYSTEM KIT

UNIT DESCRIPTOR: This unit identifies the competence required to install and commission refrigeration system.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
1. Prepare the assembly/pod for installation of refrigeration system kit.	1.1 Installation and component requirements are determined from the job specifications.
	1.2 Mounting location/pod is prepared according to job specification.
	1.3 Hoses and piping are fabricated to suit system requirements.
2. Install refrigeration system kit.	2.1 Installation is completed without causing damage to any workplace property or vehicle.
	2.2 Installation information is accessed and interpreted from job specification and manufacturer specifications.
	2.3 Appropriate fittings/materials are assembled for installation.
	2.4 Refrigeration systems are installed using appropriate tools and techniques.
	2.5 Installation is tested prior to placing in service and results are recorded in accordance with company policies and procedures.
	2.6 Installation is carried out according to industry regulations/guidelines, OH&S legislation, statutory legislation and company procedures/policies.
3. Gas and commission refrigeration system.	3.1 Work is completed without causing damage to any workplace property or vehicle.
	3.2 Gassing information is accessed and interpreted from appropriate manufacturer specifications, industry codes of practice and relevant legislation.
	3.3 System is gassed and performance tested using approved methods and equipment and in accordance with company procedures.
	3.4 System installation is verified as operational in accordance with specifications.

RANGE OF VARIABLES:

Range of contexts:

This competency standard applies to:

- Truck/Bus/Trailer Manufacture and Assembly

Sources of information/documentation may include:
- manufacturer specifications
- company operating procedures
- customer requirements
- industry codes of practice
- Statutory legislation
- Statutory legislation for vehicle road worthiness (including ADRs)
- material safety data sheets
- State/industry OH&S legislation
- award provisions

Resources may include:
- hand tools, refrigerant leak detecting equipment, evacuation equipment, refrigerant recovery and/or recycling equipment, thermometers, refrigerant gassing equipment, refrigerant, refrigerant oils, refrigeration system kits
- ram air fan
- pipes, hoses, fittings
- work order and company documentation
- qualified workplace assessor
- workplace or simulated workplace

EVIDENCE GUIDE:
Context:
- Competency must be assessed in a safe working environment and in accordance with endorsed industry assessment guidelines.
- The underpinning knowledge and skills may be assessed on or off-the-job.
- The assessment of practical skills must take place only after a period of supervised practice and repetitive experience. If workplace conditions are not available, assessment in simulated workplace conditions is acceptable.
- The prescribed outcome must be able to be achieved without direct supervision.

Concurrent assessment and pre-requisite relationship:
- This unit may be assessed in conjunction with other units that form part of the function or for a particular job role for a company.

Consistency of performance:
- Competency is best assessed through observation over a period of time and in a variety of situations. Supplementary evidence of underpinning knowledge and the capability to manage tasks and operational and workplace contingencies should be gained through questioning and the use of work based examples.
- Questioning should be undertaken in such a manner as is appropriate to the language and literacy levels of the operator and to the requirements of the unit of competency.

Language, literacy and numeracy skills:
Speaking and listening skills may include:
- Listening to and following verbal instructions
- Giving verbal instructions and technical information

Reading and writing skills may include:
- Reading and interpreting company forms and technical information eg work orders, company standards documentation, installation procedures, test procedures
- Completing company forms (written / electronic) eg job sheets
- Reading and interpreting tags and labels

Numeracy skills may include:
- Measuring gas quantities used

Critical aspects of evidence:
Evidence of achievement is required in all of the following:
- Install and commission refrigeration systems in accordance with specifications
- Purge refrigeration system
- Gas the refrigerant system
- Conduct system performance test
- Conduct a leak test
- Complete company documentation – written / electronic

Underpinning knowledge:
- OH&S legislation
- Industry codes of practice
- Statutory legislation where application
- Refrigeration installation procedures
- Construction and operation relevant to application
- Leakage test procedures
- System electrical circuits
- Equipment/material safety requirements
- Equipment maintenance procedures
- Appropriate refrigerant/oils and capacities
- Pipe and hose fabrication procedures

Key Competencies:	**Level**
Collect, analyse and organise information	2
Communicate ideas and information	1
Plan and organise activities	2
Work with others and in teams	1
Use mathematical ideas and techniques	1
Solve problems	1
Use technology	2

AUM8133A REMOVE AND REPLACE AIR CONDITIONING SYSTEM

UNIT DESCRIPTOR: This unit identifies the competence required to remove and replace air conditioning systems for the Truck/Bus/Trailer Manufacture and Assembly industry.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
AUM8133A.1 De-gas air conditioning system.	AUM8133A.2.1 De-gassing requirements are accessed and interpreted from appropriate manufacturer specifications, industry codes of practice and relevant legislation. AUM8133A.2.2 System is de-gassed using approved recovery unit and in accordance with company procedures AUM8133A.2.3 De-gassing is carried out according to industry regulations/guidelines, OH&S legislation, statutory legislation and company procedures/policies
AUM8133A.2 Remove air conditioning system.	AUM8133A.2.1 Removal is completed without causing damage to any workplace property or vehicle. AUM8133A.2.2 Removal information is accessed and interpreted from job specification and manufacturer specifications. AUM8133A.2.3 Fittings/materials are disassembled for removal in accordance with manufacturer and safety requirements. AUM8133A.2.4 Air conditioning system is removed using appropriate tools and techniques. AUM8133A.2.5 Removal is carried out according to industry regulations/guidelines, OH&S legislation, statutory legislation and company procedures/policies.
AUM8133A.3 Replace air conditioning system.	AUM8133A.3.1 Replacement is completed without causing damage to any workplace property or vehicle. AUM8133A.3.2 Replacement information is accessed and interpreted from job specification and manufacturer specifications. AUM8133A.3.3 Fittings/materials are assembled for replacement in accordance with manufacturer and safety requirements.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
AUM8133A.3 (continued) Replace air conditioning system.	AUM8133A.3.4 Air conditioning system is replaced using appropriate tools and techniques. AUM8133A.3.5 Replacement is carried out according to industry regulations/guidelines, OH&S legislation, statutory legislation and company procedures/policies.
AUM8133A.4 Gas and commission air conditioning system.	AUM8133A.4.1 Work is completed without causing damage to any workplace property or vehicle. AUM8133A.4.2 Gassing information is accessed and interpreted from appropriate manufacturer specifications, industry codes of practice and relevant legislation. AUM8133A.4.3 System is gassed and performance tested using approved methods and equipment and in accordance with company procedures. AUM8133A.4.4 System installation is verified as operational in accordance with specifications

RANGE OF VARIABLES:

Range of contexts:

This competency standard applies to:

- Truck/Bus/Trailer Manufacture and Assembly

Sources of information/documentation may include:

- manufacturer specifications
- company operating procedures
- customer requirements
- industry codes of practice
- Statutory legislation- EPA
- Statutory legislation for vehicle road worthiness (including ADRs)
- material safety data sheets
- State/industry OH&S legislation

Resources may include:

- hand tools, refrigerant leak detecting equipment, evacuation equipment, refrigerant recovery and/or recycling equipment, thermometers, refrigerant gassing equipment, refrigerant, refrigerant oils, air-conditioning system kits
- ram air fan
- pipes, hoses, fittings
- workplace or simulated workplace
- qualified workplace assessor

EVIDENCE GUIDE:

Context:

- Competency must be assessed in a safe working environment and in accordance with endorsed industry assessment guidelines.
- The underpinning knowledge and skills may be assessed on or off-the-job.
- The assessment of practical skills must take place only after a period of supervised practice and repetitive experience. If workplace conditions are not available, assessment in simulated workplace conditions is acceptable.
- The prescribed outcome must be able to be achieved without direct supervision.

Concurrent assessment and pre-requisite relationship:

- This unit may be assessed in conjunction with other units that form part of the function or for a particular job role for a company.

Consistency of performance:

- Competency is best assessed through observation over a period of time and in a variety of situations. Supplementary evidence of underpinning knowledge and the capability to manage tasks and operational and workplace contingencies should be gained through questioning and the use of work based examples.
- Questioning should be undertaken in such a manner as is appropriate to the language and literacy levels of the operator and to the requirements of the unit of competency.

Language, literacy and numeracy skills:

Speaking and listening skills may include:

- Listening to and following verbal instructions
- Giving verbal instructions and technical information

Reading and writing skills may include:

- Reading and interpreting technical information and company documentation eg job specifications, company standards documentation, technical information relating to de-gassing and gassing
- Completing company forms (written / electronic) eg job sheets, work reports
- Reading and interpreting tags and labels

Numeracy skills may include:

- Measuring quantities of resources used

Critical aspects of evidence:

Evidence of achievement is required in all of the following:

- Remove and replace air conditioning systems in accordance with specifications
- Gas refrigerant system de-gassed and re-gassed
- Conduct system performance test
- Conduct a leak test
- Complete company documentation – written / electronic

Underpinning knowledge:

- OH&S legislation and Industry codes of practice
- Statutory legislation where application
- De-gassing and re-gassing procedures
- Air conditioning removal and replacement procedures
- Construction and operation relevant to application
- Leakage test procedures
- System electrical circuits
- Equipment/material safety requirements
- Equipment maintenance procedures
- Appropriate refrigerant/oils and capacities
- Pipe and hose fabrication procedures

Key Competencies:	Level
Collect, analyse and organise information	2
Communicate ideas and information	1
Plan and organise activities	2
Work with others and in teams	1
Use mathematical ideas and techniques	1
Solve problems	1
Use technology	2

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AUM8134A REMOVE AND REPLACE REFRIGERATION SYSTEM

UNIT DESCRIPTOR: This unit identifies the competence required to remove and replace refrigeration systems for the Truck/Bus/Trailer Manufacture and Assembly industry.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
1. De-gas refrigeration system.	1.1 De-gassing requirements are accessed and interpreted from appropriate manufacturer specifications, industry codes of practice and relevant legislation.
	1.2 System is de-gassed using approved recovery unit and in accordance with company procedures.
	1.3 De-gassing is carried out according to industry regulations/guidelines, OH&S legislation, statutory legislation and company procedures/policies.
2. Remove refrigeration system.	2.1 Removal is completed without causing damage to any workplace property or vehicle.
	2.2 Removal information is accessed and interpreted from job specification and manufacturer specifications.
	2.3 Fittings/materials are disassembled for removal in accordance with manufacturer and safety requirements.
	2.4 Refrigeration system is removed using appropriate tools and techniques.
	2.5 Removal is carried out according to industry regulations/guidelines, OH&S legislation, statutory legislation and company procedures/policies.
3. Replace refrigeration system.	3.1 Replacement is completed without causing damage to any workplace property or vehicle.
	3.2 Replacement information is accessed and interpreted from job specification and manufacturer specifications.
	3.3 Fittings/materials are assembled for replacement in accordance with manufacturer and safety requirements.
	3.4 Refrigeration system is replaced using appropriate tools and techniques.
	3.5 Replacement is carried out according to industry regulations/guidelines, OH&S legislation, statutory legislation and company procedures/policies.

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ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
4. Gas and commission refrigeration system.	4.1 Work is completed without causing damage to any workplace property or vehicle.
	4.2 Gassing information is accessed and interpreted from appropriate manufacturer specifications, industry codes of practice and relevant legislation.
	4.3 System is gassed and performance tested using approved methods and equipment and in accordance with company procedures.
	4.4 System installation is verified as operational in accordance with specifications.

RANGE OF VARIABLES:

Range of contexts:

This competency standard applies to:

- Truck/Bus/Trailer Manufacture and Assembly

Sources of information/documentation may include:

- manufacturer specifications
- company operating procedures
- customer requirements
- industry codes of practice
- Statutory legislation - EPA
- Statutory legislation for vehicle road worthiness (including ADRs)
- material safety data sheets
- State/industry OH&S legislation

Resources may include:

- hand tools, refrigerant leak detecting equipment, evacuation equipment, refrigerant recovery and/or recycling equipment, thermometers, refrigerant gassing equipment, refrigerant, refrigerant oils, refrigeration system kits
- ram air fan
- pipes, hoses, fittings
- workplace or simulated workplace
- qualified workplace assessor

EVIDENCE GUIDE:

Context:

- Competency must be assessed in a safe working environment and in accordance with endorsed industry assessment guidelines.
- The underpinning knowledge and skills may be assessed on or off-the-job.
- The assessment of practical skills must take place only after a period of supervised practice and repetitive experience. If workplace conditions are not available, assessment in simulated workplace conditions is acceptable.
- The prescribed outcome must be able to be achieved without direct supervision.

Concurrent assessment and pre-requisite relationship:

- This unit may be assessed in conjunction with other units that form part of the function or for a particular job role for a company.

Consistency of performance:
- Competency is best assessed through observation over a period of time and in a variety of situations. Supplementary evidence of underpinning knowledge and the capability to manage tasks and operational and workplace contingencies should be gained through questioning and the use of work based examples.
- Questioning should be undertaken in such a manner as is appropriate to the language and literacy levels of the operator and to the requirements of the unit of competency.

Language, literacy and numeracy skills:
Speaking and listening skills may include:
- Listening to and following verbal instructions
- Giving verbal instructions and technical information

Reading and writing skills may include:
- Reading and interpreting technical information and company documentation eg job specifications, company standards documentation, technical information relating to de-gassing and gassing
- Completing company forms (written / electronic) eg job sheets, work reports
- Reading and interpreting tags and labels

Numeracy skills may include:
- Measuring quantities of resources used

Critical aspects of evidence:
Evidence of achievement is required in all of the following:
- Remove and replace refrigeration systems in accordance with specifications
- Gas refrigerant system de-gassed and re-gassed
- Conduct system performance test
- Conduct a leak test
- Complete company documentation – written / electronic

Underpinning knowledge:
- OH&S legislation and Industry codes of practice
- Statutory legislation where application
- De-gassing and re-gassing procedures
- Refrigeration removal and replacement procedures
- Construction and operation relevant to application
- Leakage test procedures
- System electrical circuits
- Equipment/material safety requirements
- Equipment maintenance procedures
- Appropriate refrigerant/oils and capacities
- Pipe and hose fabrication procedures

Key Competencies:	**Level**
Collect, analyse and organise information	2
Communicate ideas and information	1
Plan and organise activities	2
Work with others and in teams	1
Use mathematical ideas and techniques	1
Solve problems	1
Use technology	2

AUM8141A PREPARE NEW PRODUCT DESIGNS

UNIT DESCRIPTOR: This unit identifies the competence required to assist professional and other staff in the planning and design of new products or sub-assemblies for the Truck/Bus/Trailer Manufacture and Assembly Industry.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
AUM8141A.1 Establish design requirements.	AUM8141A.1.1 Information on customer needs, competitor products, company objectives, fashion trends, safety needs, relevant government policies, and company production capability is gathered in accordance with company procedures. AUM8141A.1.2 Information gathered as part of the product design process is analysed to develop key requirements needed in new designs. AUM8141A.1.3. Requirement of a new design is documented in accordance with company procedures.
AUM8141A.2 Identify constraints.	AUM8141A.2.1 Constraints on design concepts (such as market price or size, production capability, product complexity, etc.) are identified and documented. AUM8141A.2.2 Suitable strategies are developed to address identified constraints on designs.
AUM8141A.3 Create design concept.	AUM8141A.3.1 An initial design concept based on identified design requirements and constraints is created in accordance with company procedures. AUM8141A.3.2 Function, physical requirements and impact of the design concept are reviewed in conjunction with engineering and marketing staff. AUM8141A.3.3 Modifications to the initial design concept are made in accordance with feedback provided by engineering and marketing and other relevant staff in accordance with company procedures.
AUM8141A.4 Produce concept sketches.	AUM8141A.4.1 Sketches are prepared to illustrate and explain proposed design concept(s) in accordance with company procedures. AUM8141A.4.2 Concept sketches are reviewed in conjunction with engineering, marketing and other relevant staff and suitable changes made in accordance with a critical evaluation of the proposed design.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
AUM8141A.5 Quantify design concept.	AUM8141A.5.1 Critical dimensions and data of a design concept are identified and quantified in accordance with company procedures. AUM8141A.5.2 Drawings are prepared to required accuracy to enable suitable manufacturing methods to be identified and evaluated. AUM8141A.5.3 Draft product specifications are prepared in accordance with company procedures. AUM8141A.5.4 Estimates of required materials, components and related costs are calculated in conjunction with engineering, marketing and other relevant staff in accordance with company procedures.
AUM8141A.6 Determine suitable production methods, materials and processes.	AUM8141A.6.1 Components and sub-assemblies are drawn in accordance with the design requirements. AUM8141A.6.2 Suitable manufacturing methods are identified for the production of components and sub assemblies to meet design requirements. AUM8141A.6.3 Identified manufacturing methods for components and sub-assemblies are evaluated in conjunction with production engineering staff. AUM8141A.6.4 Suitable assembly and finishing methods for the proposed product design are identified and evaluated in accordance with company procedures.
AUM8141A.7 Evaluate feasibility. .	AUM8141A.7.1 The proposed design and the manufacturing processes are evaluated against the design requirements in conjunction with design, engineering, marketing and other relevant staff in accordance with company procedures. AUM8141A.7.2 Suitable trials and tests of the design are devised and conducted in conjunction with engineering and other relevant staff in accordance with company procedures.
AUM8141A.8 Modify design.	AUM8141A.8.1 The product design is suitably modified, based on the outcomes of the feasibility evaluations and trials.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
AUM8141A.8 (continued) Modify design.	AUM8141A.8.2 Further tests are conducted to confirm the suitability of the modified design against the identified design requirements. AUM8141A.8.3 The outcomes of the modification and testing of the new design concept are documented in accordance with company requirements.
AUM8141A.9 Complete documentation.	AUM8141A.9.1 All documentation requirements for the proposed new product design and associated manufacturing processes are identified. AUM8141A.9.2 The design of the new product is documented in accordance with company requirements. AUM8141A.9.3 The design documentation is processed for approval in accordance with company requirements. AUM8141A.9.4 The design documentation is stored and distributed in accordance with company requirements.

RANGE OF VARIABLES:
Range of contexts:
This competency standard applies to:
- Truck/Bus/Trailer Manufacture and Assembly

Sources of information/documents may include:
- Manufacturer specifications
- Company operating procedures
- Product manufacturer specifications
- Customer requirements
- Industry/Workplace Codes of Practice
- State/industry OH&S legislation

Resources may include:
- Type of plant, tooling and equipment to be designed (as per company installation)
- Documentation and reporting systems (as per company requirements) – written / electronic
- Drawing equipment – manual, graphics, CAD system
- Access to professional staff
- Qualified workplace assessor
- Workplace or simulated workplace

EVIDENCE GUIDE:
Context:
- Competency must be assessed in a safe working environment and in accordance with endorsed industry assessment guidelines.
- The underpinning knowledge and skills may be assessed on or off-the-job.

- The assessment of practical skills must take place only after a period of supervised practice and repetitive experience. If workplace conditions are not available, assessment in simulated workplace conditions is acceptable.
- The prescribed outcome must be able to be achieved without direct supervision.

Concurrent assessment and pre-requisite relationship:
- This unit may be assessed in conjunction with other units that form part of the function or for a particular job role for a company.

Consistency of performance:
- Competency is best assessed through observation over a period of time and in a variety of situations. Supplementary evidence of underpinning knowledge and the capability to manage tasks and operational and workplace contingencies should be gained through questioning and the use of work based examples.
- Questioning should be undertaken in such a manner as is appropriate to the language and literacy levels of the operator and to the requirements of the unit of competency.

Language, literacy and numeracy skills:
Speaking and listening skills may include:
- Listening to and following verbal instructions
- Discussing design requirements with professional staff

Reading and writing skills may include:
- Reading and interpreting company forms and technical information eg job specifications, company standards documentation, ADRs
- Writing design brief and documentation – paper based / electronic
- Completing company forms (written / electronic) eg job sheets

Numeracy skills may include:
- Measuring / calculating dimensions of design item
- Calculating stress analysis

Critical aspects of evidence:
Evidence of achievement is required in all of the following:
- Establish and quantify design requirements
- Determine suitable production methods, materials and processes
- Identify design constraints
- Produce concept sketches and evaluate feasibility
- Modify and document designs – paper based / electronic

Underpinning knowledge:
- Planning the processes for development of new products/sub-assemblies
- Read and interpret drawing symbols
- Design principles, processes and constraints
- Product evaluation procedures
- Design documentation requirements – paper based /, electronic
- Interpretation and application of ADRs, State legislation, ASA and other codes

Key Competencies:	**Level**
Collect, analyse and organise information	3
Communicate ideas and information	3
Plan and organise activities	3
Work with others and in teams	3
Use mathematical ideas and techniques	3
Solve problems	3
Use technology	3

AUM2901A DEVELOP AND PRODUCE DOCUMENTATION AND PROCEDURES

UNIT DESCRIPTOR: This unit identifies the competence required to develop, trial and produce suitable documentation to support the maintenance, tooling and development operations required for the design, development and production of bus/truck trailers.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
AUM2901A.1 Identify documentation requirements.	AUM2901A.1.1 The need for documentation is identified and evaluated in conjunction with management, production, development and maintenance staff in accordance with company requirements. AUM2901A.1.2 Specifications and justification for documentation and associated procedures are prepared ensuring that the documentation will facilitate efficient and effective communications between the relevant internal and/or external persons involved in the processes concerned. AUM2901A.1.3 Approval is sought from appropriate personnel for the proposed documentation arrangements, and appropriate changes made, as required.
AUM2901A.2 Develop draft documentation, procedures and usage instructions.	AUM2901A.2.1 Suitable documentation and associated procedures are developed in accordance with the approved specification for proposed arrangements.
AUM2901A.3 Trial and modify draft documentation, procedures and usage instructions.	AUM2901A.3.1 Draft documentation, procedures and usage instructions are prepared and trialled with the intended users in accordance with company requirements. AUM2901A.3.2 The draft documentation, procedures and usage instructions are appropriately modified in accordance with feedback provided by the intended users. AUM2901A.3.3 A report on the outcomes of the trial of draft documentation, procedures and usage instructions is prepared and approval sought from appropriate personnel for implementation of the proposed arrangement in accordance with company procedures.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
AUM2901A.4 Produce documentation and usage instructions.	AUM2901A.4.1 Documentation and usage instructions as approved are produced according to specifications and company procedures. AUM2901A.4.2 Intended users are instructed in the use of the documentation in accordance with company requirement
AUM2901A.5 Store and distribute documentation and usage instructions.	AUM2901A.5.1 Documentation and usage instructions, as approved, are stored and distributed in accordance with company requirements.

RANGE OF VARIABLES:
Range of contexts:
This competency standard applies to:
- Truck/Bus/Trailer Manufacture and Assembly

Sources of information/documents may include:
- Manufacturer specifications
- Company operating procedures
- Product manufacturer specifications
- Customer requirements
- Industry/Workplace Codes of Practice
- State/industry OH&S legislation

Resources may include:
- Type of plant, tooling and equipment (as per company installation)
- Documentation and reporting systems (as per company requirements) – written / electronic
- Storage system for documentation – electronic, paper based
- Qualified workplace assessor
- Workplace or simulated workplace

EVIDENCE GUIDE:
Context:
- Competency must be assessed in a safe working environment and in accordance with endorsed industry assessment guidelines.
- The underpinning knowledge and skills may be assessed on or off-the-job.
- The assessment of practical skills must take place only after a period of supervised practice and repetitive experience. If workplace conditions are not available, assessment in simulated workplace conditions is acceptable.
- The prescribed outcome must be able to be achieved without direct supervision.

Concurrent assessment and pre-requisite relationship:
- This unit may be assessed in conjunction with other units that form part of the function or for a particular job role for a company.

Consistency of performance:
- Competency is best assessed through observation over a period of time and in a variety of situations. Supplementary evidence of underpinning knowledge and the capability to manage tasks and operational and workplace contingencies should be gained through questioning and the use of work based examples.
- Questioning should be undertaken in such a manner as is appropriate to the language and literacy levels of the operator and to the requirements of the unit of competency.

Language, literacy and numeracy skills:
Speaking and listening skills may include:
- Listening to and following verbal instructions
- Giving verbal instructions and explanations

Reading and writing skills may include:
- Reading and interpreting company forms eg job specifications, company standards documentation
- Writing documentation and instructions – paper based , electronic
- Reading user feedback and writing reports – paper based, electronic
- Completing company forms (written / electronic) eg job sheets

Numeracy skills may include:
- Measuring quantities and sizes of items

Critical aspects of evidence:
Evidence of achievement is required in all of the following:
- Develop, trial, modify and produce draft documentation
- Develop and store final documentation for procedures and production

Underpinning knowledge:
- Product documentation requirements
- Trialling and modifying processes
- Documentation processes – paper based , electronic
- Processes for storing and distributing documentation – paper based, electronic

Key Competencies:	**Level**
Collect, analyse and organise information	3
Communicate ideas and information	3
Plan and organise activities	3
Work with others and in teams	2
Use mathematical ideas and techniques	2
Solve problems	2
Use technology	2

AUM3003A DOCUMENT DESIGNS

UNIT DESCRIPTOR: This unit identifies the competence required to be able, in conjunction with professional and other staff, to document the design details and associated aspects required for the development and production of bus/truck/trailers

Note **This unit has been sourced from:**
Automotive Manufacturing Training Package – Passenger Motor Vehicle Sector and has been contextualised for the Automotive Manufacturing Training Package – Bus, Truck & Trailer Sector.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
AUM3003A.1 Identify design requirements.	AUM3003A.1.1 Design requirements of a product or sub-assembly are identified in consultation with design, engineering, marketing and other relevant staff in accordance with company procedures. AUM3003A.1.2 All design drawings and information on technical specifications for the product or sub-assembly are identified and obtained. AUM3003A.1.3 The steps involved in the manufacture of the product or sub-assembly are identified in consultation with designated staff. AUM3003A.1.4 An inventory of required equipment, parts and components is established in accordance with company procedures, including an assessment of their current availability or the need to either manufacture them or purchase/lease them. AUM3003A.1.5 Any fabrication/machining processes and instructions are determined and clarified with participating departments/ sections/areas in accordance with company procedures. AUM3003A.1.6. The timetable, budget, resource requirements, staffing and purchase/supply schedule for the manufacture of the product or sub-assembly are drawn up and confirmed in consultation with designated staff. AUM3003A.1.7 The approved plan is communicated to all relevant staff in management, production, engineering and other sections of the company concerned.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
AUM3003A.2 Specify critical product quality parameters.	AUM3003A.2.1 Critical product or sub-assembly quality and technical parameters are identified and documented in accordance with company procedures. AUM3003A.2.2 Draft documentation on product or sub-assembly quality and technical parameters is validated with relevant design, engineering and other relevant staff.
AUM3003A.3 Specify materials requirements.	AUM3003A.3.1 Required materials and components for the manufacture and assembly of the product or sub-assembly are identified and documented in accordance with company procedures. AUM3003A.3.2 Draft documentation on the required materials and components for the manufacture and assembly of the product or sub-assembly is validated with relevant design, engineering, purchasing and other relevant staff.
AUM3003A.4 Specify production processes.	AUM3003A.4.1 Processes, plant and equipment required for the manufacture and assembly of the product or sub-assembly are identified and documented in accordance with company procedures. AUM3003A.4.2 Draft documentation on the processes, plant and equipment required for the manufacture and assembly of the product or sub-assembly is validated with relevant design, engineering, purchasing and other relevant staff.
AUM3003A.5 Specify testing requirements.	AUM3003A.5.1 Required testing and quality assurance procedures for the manufacture and assembly of the product or sub-assembly are identified and documented in accordance with company procedures. AUM3003A.5.2 Draft documentation on the required testing and quality assurance procedures for the manufacture and assembly of the product or sub-assembly is validated with relevant design, engineering, purchasing and other relevant staff.
AUM3003A.6 Specify cost estimates.	AUM3003A.6.1 All direct and indirect costs involved in the manufacture and assembly of the product or sub-assembly are estimated in conjunction with relevant finance, design, engineering, purchasing and other relevant staff in accordance with company procedures. AUM3003A.6.2 Cost estimates for the manufacture and assembly of the product or sub-assembly are documented in accordance with company requirements.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
AUM3003A.6 (continued) Specify cost estimates.	AUM3003A.6.3 Draft documentation on the costs of the manufacture and assembly of the product or sub-assembly is validated with relevant finance, design, engineering, purchasing and other relevant staff.
AUM3003A.7 Disseminate documentation.	AUM3003A.7.1 All documentation related to the specification, costing, manufacture and assembly of the product or sub-assembly is processed for approval in accordance with company requirements. AUM3003A.7.2 The documentation on product or sub-assembly design specifications, costs and manufacture and assembly processes is stored and distributed in accordance with company requirements.

RANGE OF VARIABLES:
Range of contexts:
This competency standard applies to:
- Truck/Bus/Trailer Manufacture and Assembly

Sources of information/documents may include:
- Manufacturer specifications
- Company operating procedures
- Product manufacturer specifications
- Customer requirements
- Industry/Workplace Codes of Practice
- State/industry OH&S legislation, ADRs

Resources may include:
- Type of plant, tooling and equipment to be designed (as per company installation)
- Documentation and reporting systems (as per company requirements)- paper based, electronic
- Access to professional staff
- Qualified workplace assessor
- Workplace or simulated workplace

EVIDENCE GUIDE:
Context:
- Competency must be assessed in a safe working environment and in accordance with endorsed industry assessment guidelines.
- The underpinning knowledge and skills may be assessed on or off-the-job.
- The assessment of practical skills must take place only after a period of supervised practice and repetitive experience. If workplace conditions are not available, assessment in simulated workplace conditions is acceptable.
- The prescribed outcome must be able to be achieved without direct supervision.

Concurrent assessment and pre-requisite relationship:
- This unit may be assessed in conjunction with other units that form part of the function or for a particular job role for a company.

Consistency of performance:
- Competency is best assessed through observation over a period of time and in a variety of situations. Supplementary evidence of underpinning knowledge and the capability to manage tasks and operational and workplace contingencies should be gained through questioning and the use of work based examples.
- Questioning should be undertaken in such a manner as is appropriate to the language and literacy levels of the operator and to the requirements of the unit of competency.

Language, literacy and numeracy skills:
Speaking and listening skills may include:
- Listening to and following verbal instructions
- Discussing and clarifying design process stages with professional staff

Reading and writing skills may include:
- Reading and interpreting company forms eg job specifications, company standards documentation
- Completing company forms (written / electronic) eg job sheets, reports
- Reading and interpreting tags and labels

Numeracy skills may include:
- Measuring dimensions of items
- Calculating costs, budgets, timelines

Critical aspects of evidence:
Evidence of achievement is required in all of the following:
- Identify design requirements
- Design requirements incorporated involving quality, materials, production processes, testing and costing
- Documentation stored – paper based / electronic

Underpinning knowledge:
- Process to identify design requirements
- Processes to identify critical product quality, materials, tests, costing
- Processes to disseminate documentation
- Processes for storing documentation
- Diagnostic and problem solving techniques
- Company OH&S policies and procedures
- Quality improvement techniques
- Drawing principles and processes

Key Competencies:	**Level**
Collect, analyse and organise information	3
Communicate ideas and information	3
Plan and organise activities	3
Work with others and in teams	3
Use mathematical ideas and techniques	3
Solve problems	3
Use technology	3

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AUM5301A PRODUCE DRAWINGS MANUALLY

UNIT DESCRIPTOR: This unit identifies the competence required to:
Produce drawings, using manual drafting techniques, required in the design, development and production of bus/truck/trailers.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
AUM5301A.1 Clarify manual drafting requirements.	AUM5301A.1.1 For the design brief or problem, drafting project objectives are clarified and defined in accordance with company procedures. AUM5301A.1.2 For the design brief or problem, relevant parameters are identified and interpreted, including functional specifications, quality targets, materials, ergonomic considerations, documented standards (company, government etc.), technical information, cost constraints, manufacturing processes, etc. AUM5301A.1.3 Drafting requirements and processes are clarified based on consideration of project objectives and identified parameters.
AUM5301A.2 Select tools, equipment and media.	AUM5301A.2.1 Required tools, equipment and media for the manual drafting project are selected in accordance with company procedures. AUM5301A.2.2 Selected tools, equipment and media are prepared for drafting in accordance with company requirements.
AUM5301A.3 Make any required measurements.	AUM5301A.3.1 Any measurements of components, sub-assemblies, products, models, equipment, layouts or facilities needed for the preparation of the required drawings are made and recorded in accordance with company procedures. AUM5301A.3.2 Calculations of required dimensions and other drafting details based on measurements and other relevant information are made in accordance with company requirements.
AUM5301A.4 Prepare and check drawings.	AUM5301A.4.1 Critical dimensions and data for the required drawing are established.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
AUM5301A.4 (continued) Prepare and check drawings.	AUM5301A.4.2 As required, preliminary sketches are prepared and reviewed with design, engineering, production and/or other designated staff in accordance with company procedures. AUM5301A.4.3 Drawings are prepared in accordance with project objectives and specifications, to company standards and in accordance with company procedures AUM5301A.4.4 Drawings are checked against project objectives and specifications and company standards in accordance with company procedures.
AUM5301A.5 Document and store drawings.	AUM5301A.5.1 Drawings and associated technical information are documented in accordance with project requirements and company procedures. AUM5301A.5.2 The drawings and associated documentation are processed for approval in accordance with company requirements. AUM5301A.5.3 Drawings and associated documentation are stored in accordance with company procedures.

RANGE OF VARIABLES:

Range of contexts:

This competency standard applies to:

- Truck/Bus/Trailer Manufacture and Assembly

Sources of information/documents may include:

- Manufacturer specifications
- Company operating procedures
- Product manufacturer specifications
- Customer requirements
- Industry/Workplace Codes of Practice
- State/industry OH&S legislation

Resources may include:

- Type of product or sub-assembly to be designed (as per company requirements)
- Design brief and associated design parameters (eg materials, cost constraints, processes to be used, quality requirements)
- Documentation and reporting systems (as per company requirements) paper based / electronic
- Occupational health and safety standards (as per company and statutory requirements)
- Drawing equipment
- Access to professional staff
- Qualified workplace assessor
- Workplace or simulated workplace

EVIDENCE GUIDE:

Context:

- Competency must be assessed in a safe working environment and in accordance with endorsed industry assessment guidelines.
- The underpinning knowledge and skills may be assessed on or off-the-job.
- The assessment of practical skills must take place only after a period of supervised practice and repetitive experience. If workplace conditions are not available, assessment in simulated workplace conditions is acceptable.
- The prescribed outcome must be able to be achieved without direct supervision.

Concurrent assessment and pre-requisite relationship:

- This unit may be assessed in conjunction with other units that form part of the function or for a particular job role for a company.

Consistency of performance:

- Competency is best assessed through observation over a period of time and in a variety of situations. Supplementary evidence of underpinning knowledge and the capability to manage tasks and operational and workplace contingencies should be gained through questioning and the use of work based examples.
- Questioning should be undertaken in such a manner as is appropriate to the language and literacy levels of the operator and to the requirements of the unit of competency.

Language, literacy and numeracy skills:

Speaking and listening skills may include:

- Listening to and following verbal instructions
- Discussing and clarifying design brief with professional staff

Reading and writing skills may include:

- Reading and interpreting design brief and other company documentation
- Completing company forms (written / electronic) eg job sheets, work reports

Numeracy skills may include:

- Measuring / calculating dimensions of items

Critical aspects of evidence:

Evidence of achievement is required in all of the following:

- Clarify manual drafting requirements
- Select tools, equipment and media
- Make any required measurements
- Prepare drawings manually
- Check drawings
- Document drawings
- Store drawings – paper based / electronic

Underpinning knowledge:

- Processes to clarify manual drafting requirements
- Processes to select tools, equipment and media
- Processes to make any required measurements
- Processes to prepare drawings manually
- Processes to check drawings
- Processes to document drawings
- Processes to store drawings – paper based / electronic

Key Competencies:	Level
Collect, analyse and organise information	3
Communicate ideas and information	3
Plan and organise activities	3
Work with others and in teams	3
Use mathematical ideas and techniques	3
Solve problems	3
Use technology	2

AUM5403A PRODUCE COMPUTER-AIDED DRAWINGS (CAD)

UNIT DESCRIPTOR: This unit identifies the competence required to produce drawings, using computer aided drafting techniques, required in the design, development and production of bus/trucks/trailers.

Note **This unit has been sourced from:**
Automotive Manufacturing Training Package – Passenger Motor Vehicle Sector and has been contextualised for the Automotive Manufacturing Training Package – Bus, Truck & Trailer Sector.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
AUM5403A.1 Clarify CAD designer requirements.	AUM5403A.1.1 For the design brief or problem, CAD project objectives are clarified and defined in accordance with company procedures. AUM5403A.1.2 For the design brief or problem, relevant parameters are identified and interpreted, including functional specifications, quality targets, materials, ergonomic considerations, documented standards (company, government etc.), technical information, cost constraints and manufacturing processes. AUM5403A.1.3 CAD requirements and processes are clarified based on consideration of project objectives and identified parameters.
AUM5403A.2 Select tools, equipment and computer hardware and software.	AUM5403A.2.1 Required computer hardware and software, tools, and equipment for the CAD project are selected in accordance with company procedures. AUM5403A.2.2 Selected CAD hardware, software, tools, and equipment are prepared for the project in accordance with company requirements.
AUM5403A.3 Set up required CAD package.	AUM5403A.3.1 The required computer hardware for the CAD task is set up in accordance with manufacturer and company requirements. AUM5403A.3.2 The CAD software package is installed, if necessary, in accordance with the software manufacturer instructions, statutory requirements and company procedures. AUM5403A.3.3 The CAD package is booted up in accordance with the software manufacturer instructions, statutory requirements and company procedures.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
AUM5403A.3 (continued) Set up required CAD package.	AUM5403A.3.4 Files of digitised information relevant to the project are retrieved and converted if required in accordance with the software manufacturer instructions and company procedures.
AUM5403A.4 Gather object parameters and/or measurements.	AUM5403A.4.1 Any measurements of components, sub-assemblies, products, models, equipment, layouts or facilities needed for the preparation of the required drawings are made and recorded in accordance with company procedures. AUM5403A.4.2 Calculations of required dimensions and other drafting details based on measurements and other relevant dimensional information are made in accordance with company requirements. AUM5403A.4.3 System accuracy, drafting standards and tolerances and other critical information relevant to the CAD project are identified in accordance with company requirements.
AUM5403A.5 Prepare drawings.	AUM5403A.5.1 Critical dimensions and data for the required drawings are established. AUM5403A.5.2 As required, preliminary sketches are prepared and reviewed with design, engineering, production and/or other Designated staff in accordance with company procedures. AUM5403A.5.3 The CAD package is used to prepare drawings consistent with the project objectives and specifications, in accordance with manufacturer instructions and company standards and procedures. AUM5403A.5.4 The CAD package is accessed using the necessary commands and protocol in accordance with the operating Instructions of the CAD software manufacturer and company procedures. AUM5403A.5.5 Peripheral equipment such as scanners, printers, plotters etc. is used as required in accordance with manufacturer instructions and company procedures. AUM5403A.5.6 Complex 2D and 3D computer graphics systems are used including file structure, menu utilisation, system library usage, data banking, archiving, file management and maintenance and transfer to peripheral devices in accordance with manufacturer instructions and company standards and procedures.

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
AUM5403A.6 Check drawings and save drawing files.	AUM5403A.6.1 Drawings are checked against project objectives and specifications and company standards in accordance with company procedures AUM5403A.6.2 CAD data files are stored in accordance with software manufacturer instructions and company procedures and archiving requirements
AUM5403A.7 Plot drawings.	AUM5403A.7.1 Computer plotter is activated in accordance with the software application package requirements and computer hardware and peripheral protocols. AUM5403A.7.2 Retrieved information is correctly plotted in accordance with software application package instructions, task requirements and company procedures.

RANGE OF VARIABLES:
Range of contexts:
This competency standard applies to:
- Truck/Bus/Trailer Manufacture and Assembly

Sources of information/documents may include:
- Manufacturer specifications
- Company operating procedures
- Product manufacturer specifications
- Customer requirements
- Industry/Workplace Codes of Practice
- State/industry OH&S legislation

Resources may include:
- Documentation and reporting systems (as per company requirements) paper based, electronic
- Occupational health and safety standards (as per company and statutory requirements)
- Design brief for products or sub-assemblies involving a range of components and assembly processes using CAD techniques
- Industry accepted CAD system and ancillary computer equipment
- Qualified workplace assessor
- Workplace or simulated workplace

EVIDENCE GUIDE:
Context:
- Competency must be assessed in a safe working environment and in accordance with endorsed industry assessment guidelines.
- The underpinning knowledge and skills may be assessed on or off-the-job.
- The assessment of practical skills must take place only after a period of supervised practice and repetitive experience. If workplace conditions are not available, assessment in simulated workplace conditions is acceptable.
- The prescribed outcome must be able to be achieved without direct supervision.

Concurrent assessment and pre-requisite relationship:
- This unit should be assessed after the successful completion of or in conjunction with unit:
  AUM5301A Produce drawings manually
- This unit may be assessed in conjunction with other units that form part of the function or for a particular job role for a company.

Consistency of performance:
- Competency is best assessed through observation over a period of time and in a variety of situations. Supplementary evidence of underpinning knowledge and the capability to manage tasks and operational and workplace contingencies should be gained through questioning and the use of work based examples.
- Questioning should be undertaken in such a manner as is appropriate to the language and literacy levels of the operator and to the requirements of the unit of competency.

Language, literacy and numeracy skills:
Speaking and listening skills may include:
- Listening to and following verbal instructions
- Discussing and clarifying design brief with professional staff

Reading and writing skills may include:
- Reading and interpreting company forms eg design brief, company standards documentation
- Reading and interpreting computer equipment and software manuals and procedures.
- Completing company forms (written / electronic) eg job sheets, reports

Numeracy skills may include:
- Measuring / calculating dimensions for the drawings

Critical aspects of evidence:
Evidence of achievement is required in all of the following:
- Clarify CAD requirements
- Select tools, equipment and computer hardware and software
- Set up required CAD package
- Gather object parameters and/or measurements
- Prepare drawings
- Check drawings
- Save electronic drawing files
- Plot drawings

Underpinning knowledge:
- Processes to clarify CAD requirements
- Processes to select tools, equipment and computer hardware and software
- Processes to set up required CAD package
- Processes to gather object parameters and/or measurements
- Processes to prepare CAD drawings
- Processes to check drawings
- Processes to save electronic drawing files
- Processes to plot drawings

Key Competencies:	**Level**
Collect, analyse and organise information	3
Communicate ideas and information	3
Plan and organise activities	3
Work with others and in teams	3
Use mathematical ideas and techniques	3
Solve problems	3
Use technology	3

Unit BSXFMI401A Manage personal work priorities and professional development

Unit Descriptor Frontline management is responsible for managing their own performance and taking responsibility for their professional development within the context of the organisation.

Elements of Competency and Performance Criteria

BSXFMI401A/01 Manage self

- Personal qualities and performance serve as a role model in the workplace.
- Personal goals and plans reflect the organisations plans, and personal roles, responsibilities and accountabilities.
- Action is taken to achieve and extend personal goals beyond those planned.
- Consistent personal performance is maintained in varying work conditions and work contexts.

BSXFMI401A/02 Set and meet own work priorities

- Competing demands are prioritised to achieve personal, team and the organisations goals and objectives.
- Technology is used efficiently and effectively to manage work priorities and commitments.

BSXFMI401A/03 Develop and maintain professional competence

- Personal knowledge and skills is assessed against competency standards to determine development needs and priorities.
- Feedback from clients and colleagues is used to identify and develop ways to improve competence.
- Management development opportunities suitable to personal learning style(s) are selected and used to develop competence.
- Participation in professional networks and associations enhances personal knowledge, skills and relationships.
- New skills are identified and developed to achieve and maintain a competitive edge.

Range of Variables

At AQF level 4 frontline management will normally be engaged in a workplace context in which they:

- have some autonomy for operation
- work under limited guidance
- may have broad guidance and autonomy if working in teams
- have responsibility for others
- may have team co-ordination responsibilities
- apply a broad range of skills to a range of tasks/roles
- operate in a variety of workplace contexts
- are involved in some complexity in the choice of actions
- use competencies within routines, methods and procedures
- use some discretion and judgement in using resources, services and processes to achieve outcomes within time constraints

Frontline management will normally operate in a relatively simple workplace environment in which they use the organisations:

- goals, objectives, plans, systems and processes
- access & equity principles & practices
- quality and continuous improvement
- business performance plans
- processes and standards
- ethical standards
- defined resource limits

They use legislation, codes and national standards relevant to the workplace. A range of learning methods may be used, for example:

- mentoring
- exchange/rotation
- shadowing
- coaching
- action learning
- structured training programs

Evidence Guide

This guideline is to assist the development of assessment instruments/tools to assess the competence of frontline management. Typically, in providing evidence of consistent achievement of this Units workplace outcomes within the context of AQF level 4, frontline management:

- manages work to achieve goals and results
- develops links between work and learning
- explains basic principles of adult learning
- uses routine information appropriate to work responsibility
- monitors/introduces ways for people to develop knowledge and skills
- provides coaching and mentoring support
- encourages colleagues to share their knowledge and skills
- promotes available learning methods to support colleagues
- uses simple information management systems
- selects and uses available technology appropriate to the task
- uses the key competencies to achieve results.

Unit BSXFMI402A Provide leadership in the workplace

Unit Descriptor Frontline management has an important leadership role in the development of the organisation. This will be most evident in the manner in which they conduct themselves, the initiative which they take in influencing others, and the way they manage their responsibilities.

Elements of Competency and Performance Criteria

BSXFMI402A/01 Model high standards of management performance

- Performance plans are developed and implemented in accordance with the organisations goals and objectives.
- Key performance indicators are developed within the teams/organisations business plans
- Performance meets the organisations requirements.
- Performance serves as positive role model for others.

BSXFMI402A/02 Enhance the organisation's image

- The organisations standards and values are used in conducting business.
- Standards and values considered to be damaging to organisation are questioned through established communication channels.
- Personal performance contributes to developing an organisation which has integrity and credibility.

BSXFMI402A/03 Influence individuals and teams positively

- Expectations, roles and responsibilities are communicated in a way which encourages individuals/teams to take responsibility for their work.
- Individuals/teams efforts and contributions are encouraged, valued and rewarded.
- Ideas and information receive the acceptance and support of colleagues.

BSXFMI402A/04 Make informed decisions

- Information relevant to the issue(s) under consideration is gathered and organised.
- Individuals/teams participate actively in the decision making processes.
- Options are examined and their associated risks assessed to determine preferred course(s) of action.
- Decisions are timely and communicated clearly to individuals/teams.
- Plans to implement decisions are prepared and agreed by relevant individuals/teams.
- Feedback processes are used effectively to monitor the implementation and impact of decisions.

Range of Variables

At AQF level 4 frontline management will normally be engaged in a workplace context in which they:

- are autonomous, working under general guidance on progress and outcomes
- may supervise others
- may guide or facilitate teams
- have responsibility for, and limited organisation of work of others
- apply knowledge with depth in some areas
- apply a broad range of skills to a range of tasks/roles
- operate in a variety of workplace contexts
- are involved in some complexity in the choice of actions
- use competencies within routines, methods and procedures
- use some discretion and judgement for self and others in planning and using resources, services and processes to achieve outcomes within time constraints.

Frontline management at this level will normally operate in a relatively diverse workplace environment in which they use the organisations:

- goals, objectives, plans, systems and processes
- access and equity principles and practices
- quality and continuous improvement
- business and performance plans
- processes and standards
- ethical standards
- defined resource parameters

They use legislation, codes and national standards relevant to the workplace. A range of learning opportunities may be used, for example:

- mentoring
- action learning
- coaching
- shadowing
- exchange/rotation
- structured training programs

Evidence Guide

This guideline is to assist the development of assessment instruments/tools to assess the competence of frontline management. Typically, in providing evidence of consistent achievement of this Units workplace outcomes within the context of AQF level 4, frontline management:

- achieves planned results
- acquires and uses information appropriate to work responsibility
- makes decisions within responsibility and authority
- explains the organisations goals, values and objectives
- establishes and monitors Key Performance Indicators for individuals/teams
- manages work effectively to achieve goals and results
- monitors/introduces practices to improve performance
- operates effectively in diverse work environments and contexts
- uses modern management techniques in work performance
- uses effective consultative processes
- communicates routine and non-routine information clearly to senior managers, peers and subordinates
- promotes available learning methods to support colleagues competence
- uses information management systems
- selects and uses available technology appropriate to the task
- uses the key competencies to achieve results.

Unit BSXFMI403A Establish and manage effective workplace relationships

Unit Descriptor Frontline management plays an important role in developing and maintaining positive relationships in internal and external environments so that customers, suppliers and the organisation achieve planned outputs/outcomes.

Elements of Competency and Performance Criteria

BSXFMI403A/01 Gather, convey and receive information and ideas

- Information to achieve work responsibilities is collected from appropriate sources.
- The method(s) used to communicate ideas and information is appropriate to the audience.
- Communication takes into account social and cultural diversity.
- Input from internal and external sources is sought, and valued in developing and refining new ideas and approaches.
- Information to achieve work responsibilities is collected from appropriate sources.
- The method(s) used to communicate ideas and information is appropriate to the audience.
- Communication takes into account social and cultural diversity.
- Input from internal and external sources is sought, and valued in developing and refining new ideas and approaches.

BSXFMI403A/02 Develop trust and confidence

- People are treated with integrity, respect and empathy.
- The organisations social, ethical and business standards are used to develop and maintain positive relationships.
- Trust and confidence of colleagues, customers and suppliers is gained and maintained through competent performance.
- Interpersonal styles and methods are adjusted to the social and cultural environment.

BSXFMI403A/03 Build and maintain networks and relationships

- Networking is used to identify and build relationships.
- Networks and other work relationships provide identifiable benefits for the team and organisation.
- Cross-cultural cooperation results in positive outcomes for individuals, teams and the organisation.
- Coaching and mentoring is used to assist colleagues develop effective relationships in a diverse workplace.

BSXFMI403A/04 Manage difficulties to achieve positive outcomes

- Problems are identified and analysed, and action is taken to rectify the situation with minimal disruption to performance.
- Colleagues receive guidance and support to resolve their work difficulties.
- Continued poor performance is managed within the organisations processes.
- Conflict is managed constructively within the organisations processes.
- Difficult situations are negotiated to achieve results acceptable to the participants, and which meet organisation and legislative requirements.

Range of Variables

At AQF level 4 frontline management will normally be engaged in a workplace context in which they:

- are autonomous, working under general guidance on progress and outcomes
- may supervise others
- may guide or facilitate teams
- have responsibility for, and limited organisation of work of others
- apply knowledge with depth in some areas

- apply a broad range of skills to a range of tasks/roles
- operate in a variety of workplace contexts
- are involved in some complexity in the choice of actions
- use competencies within routines, methods and procedures
- use some discretion and judgement for self and others in planning and using resources, services and processes to achieve outcomes within time constraints.

Frontline management at this level will normally operate in a relatively diverse workplace environment in which they use the organisations:

- goals, objectives, plans, systems and processes
- access and equity principles and practices
- quality and continuous improvement
- business and performance plans
- processes and standards
- ethical standards
- defined resource parameters

They use legislation, codes and national standards relevant to the workplace. A range of learning opportunities may be used, for example:

- mentoring
- exchange/rotation
- shadowing
- coaching
- action learning
- structured training programs

Customers and suppliers may be:

- internal or external
- drawn from existing or new sources

Evidence Guide

This guideline is to assist the development of assessment instruments/tools to assess the competence of frontline management. Typically, in providing evidence of consistent achievement of this Units workplace outcomes within the context of AQF level 4, frontline management:

- uses information appropriate to work responsibility
- manages relationships effectively to achieve goals/results
- monitors and introduces ways to improve work relationships
- performs in a way which strengthens and reinforces relationships
- develops effective relationships in internal and external environments
- communicates clearly and concisely
- responds effectively to unexpected demands from a range of sources
- provides honest and constructive feedback
- uses effective consultative processes
- encourages contrary views to be submitted and discussed
- treats people openly and fairly
- develops constructive responses when confronted with problems and difficulties
- uses information management systems
- selects and uses available technology appropriate to the task
- uses the key competencies to achieve results.

Unit BSXFMI404A Participate in, lead and facilitate work teams

Unit Descriptor Frontline management has a key role in leading, participating in, facilitating and empowering work teams/groups within the context of the organisation. They play a prominent part in motivating, mentoring, coaching and developing team members, and in achieving team cohesion.

Elements of Competency and Performance Criteria

BSXFMI404A/01 Participate in team planning.

- The team establishes clearly defined purpose, roles, responsibilities and accountabilities within the organisations goals and objectives.
- The team performance plan contributes to the organisations business plan, policies and practices.
- The team agrees to processes to monitor and adjust its performance within the organisations continuous improvement policies.
- The team includes in its plans ways in which it can benefit from the diversity of its membership.

BSXFMI404A/02 Develop team commitment and co-operation.

- The team uses open communication processes to obtain and share information.
- The team encourages and exploits innovation and initiative.
- Support is provided to the team to develop mutual concern and camaraderie.

BSXFMI404A/03 Manage and develop team performance.

- The team is supported in making decisions within its agreed roles and responsibilities.
- The results achieved by the team contribute positively to the organisations business plans.
- Team and individual competencies are monitored regularly to confirm that the team is able to achieve its goals.
- Mentoring and coaching supports team members to enhance their knowledge and skills.
- Delegates performance is monitored to confirm that they have completed their delegation/assignment.

BSXFMI404A/04 Participate in, and facilitate the work team

- Team effectiveness is encouraged and enhanced through active participation in team activities and communication processes.
- Individuals and teams are actively encouraged to take individual and joint responsibility for their actions.
- The diversity of individuals knowledge and skills is used to enhance team performance.
- The team receives support to identify and resolve problems which impede its performance.

Range of Variables

At AQF level 4 frontline management will normally be engaged in a workplace context in which they:

- are autonomous, working under general guidance on progress and outcomes
- may supervise others
- may guide or facilitate teams
- have responsibility for, and limited organisation of work of others
- apply knowledge with depth in some areas
- apply a broad range of skills to a range of tasks/roles
- operate in a variety of workplace contexts
- are involved in some complexity in the choice of actions
- use competencies within routines, methods and procedures

- use some discretion and judgement for self and others in planning and using resources,
- services and processes to achieve outcomes within time constraints.

Frontline management at this level will normally operate in a relatively diverse workplace environment in which they use the organisations:

- goals, objectives, plans, systems and processes
- access and equity principles and practices
- quality and continuous improvement
- business and performance plans
- processes and standards
- ethical standards
- defined resource parameters

They use legislation, codes and national standards relevant to the workplace. A range of learning opportunities may be used, for example:

- mentoring
- exchange/rotation
- shadowing
- coaching
- action learning
- structured training programs

Teams may be one or a mixture of:

- on-going
- work-based
- project-based
- cross-functional

Teams may include:

- full time employees
- contractors
- part time employees

Frontline management roles in teams may include:

- leader
- facilitator
- participant
- coach
- mentor

Evidence Guide

This guideline is to assist the development of assessment instruments/tools to assess the competence of frontline management. Typically, in providing evidence of consistent achievement of this Units workplace outcomes within the context of AQF level 4, frontline management:

- acquires and uses information appropriate to work responsibility
- establishes among teams a commitment to the organisations goals, values and plans
- manages work effectively to achieve goals and results
- makes decisions within responsibility and authority
- provides clear direction in devolving responsibility and accountability
- provides constructive feedback to delegates
- monitors/proposes ways to improve team performance
- works effectively with team members who have diverse work styles, aspirations, cultures and perspectives
- uses effective consultative processes
- encourages teams to openly propose, discuss and resolve issues

- deals with conflict before it adversely affects team performance
- treats people openly and fairly
- supports team to share knowledge and skills
- promotes available learning methods to support team
- uses information management systems
- selects and uses available technology appropriate to the task
- uses the key competencies to achieve results.

Unit BSXFMI405A Manage operations to achieve planned outcomes

Unit Descriptor Frontline management is actively engaged in planning, implementing, monitoring and recording performance to achieve the business plans of the team/organisation. This pivotal role is carried out to create safe, efficient and effective products and services to customer satisfaction within the organisations productivity and profitability plans.

Elements of Competency and Performance Criteria

BSXFMI405A/01 Plan resource use to achieve profit/productivity targets.

- Resource information for use in operational plans is collected, analysed and organised in consultation with colleagues and specialist resource managers.
- Operational plans contribute to the achievement of the organisations performance/business plan.
- Operational plans identify available resources, taking into account customer needs and the organisations plans.
- Plans to maximise value gained from the diversity of the organisations resources.
- Contingency plans are prepared in the event that initial plans need to be varied.

BSXFMI405A/02 Acquire resources to achieve operational plan.

- Employees are recruited and inducted within the organisations human resource management policies and practices.
- Physical resources and services are acquired in accord with the organisations practices and procedures.

BSXFMI405A/03 Monitor operational performance.

- Performance systems and processes are monitored to assess progress in achieving profit/productivity plans and targets.
- Budget and actual financial information is analysed and interpreted to monitor profit/productivity performance.
- Unsatisfactory performance is identified and prompt action is taken to rectify the situation.
- Recommendations for variation to operational plans are negotiated and approved by the designated persons/groups.

BSXFMI405A/04 Monitor resource usage

- Systems and processes are monitored to establish whether resources are being used as planned.
- Problems with resource usage are investigated and rectified and/or reported to designated persons/groups.
- Mentoring and coaching is provided to support individuals/teams who have difficulties in using resources to the required standard.
- Systems, procedures and records associated with documenting resource acquisition and usage are managed in accordance with the organisations requirements.

Range of Variables

At AQF level 4 frontline management will normally be engaged in a workplace context in which they:

- are autonomous, working under general guidance on progress and outcomes
- may supervise others
- may guide or facilitate teams
- have responsibility for, and limited organisation of work of others
- apply knowledge with depth in some areas
- apply a broad range of skills to a range of tasks/roles
- operate in a variety of workplace contexts

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- are involved in some complexity in the choice of actions
- use competencies within routines, methods and procedures
- use some discretion and judgement for self and others in planning and using resources, services and processes to achieve outcomes within time constraints.

Frontline management at this level will normally operate in a relatively diverse workplace environment in which they use the organisations:

- goals, objectives, plans, systems and processes
- access and equity principles and practices
- quality and continuous improvement
- business performance plans
- processes and standards
- ethical standards
- defined resource parameters

They use legislation, codes and national standards relevant to the workplace. A range of learning opportunities may be used, for example:

- mentoring
- exchange/rotation
- shadowing
- coaching
- action learning
- structured training programs

Resources may include:

- people
- power/energy
- information
- finance
- buildings/facilities
- time
- equipment
- technology

Evidence Guide

This guideline is to assist the development of assessment instruments/tools to assess the competence of frontline management. Typically, in providing evidence of consistent achievement of this Units workplace outcomes within the context of AQF level 4, frontline management:

- manages work effectively to achieve goals and results
- acquires and uses information appropriate to responsibility
- makes decisions within responsibility and authority
- participates effectively in wider organisational processes which have an effect on operational performance
- organises and uses resources to achieve business plans
- provides input to the organisations planning processes
- eliminates/minimises resource inefficiencies and waste
- creates products/services which are safe for customer use
- develops alternative approaches to improve resource use
- ensures that legislative requirements are met in work operations
- prepares and negotiates recommendations to change operations
- uses effective consultative processes
- seeks feedback and acts on constructive advice
- promotes available learning methods to assist colleagues
- uses information management systems
- selects and uses available technology appropriate to the task
- records/reports information within established systems
- uses the key competencies to achieve results.

Unit BSXFMI406A Manage workplace information

Unit Descriptor Frontline management is an important creator and manager of information. Their competency in identifying, acquiring, analysing and using appropriate information plays a significant part in the efficiency and effectiveness of the individuals/teams/organisations performance.

Elements of Competency and Performance Criteria

BSXFMI406A/01 Identify and source information needs

- The information needs of individuals/teams is determined and the sources are identified.
- Information held by the organisation is reviewed to determine suitability and accessibility.
- Plans are prepared to obtain information which is not available/accessible within the organisation.

BSXFMI406A/02 Collect, analyse and report information.

- Collection of information is timely and relevant to the needs of individuals/teams.
- Information is in a format suitable for analysis, interpretation and dissemination.
- Information is analysed to identify and report relevant trends and developments in terms of the needs for which it was acquired.

BSXFMI406A/03 Use management information systems.

- Management information systems are used effectively to store and retrieve data for decision making.
- Technology available in the work area/organisation is used to manage information efficiently and effectively.
- Recommendations for improving the information system are submitted to designated persons/groups.

BSXFMI406A/04 Prepare business plans/budgets.

- Individuals/teams are involved in business plan/budget preparation in a way which uses their contribution effectively and gains their support for the outcomes.
- Business plans/budgets are prepared and presented in accordance with the organisations guidelines and requirements.
- Plans are prepared in the event that alternative action is required.

BSXFMI406A/05 Prepare resource proposals.

- Resource planning data is collected in consultation with colleagues, including those who have a specialist role in resource management.
- Estimates of resource needs and utilisation reflects the organisations business plans, and customer and supplier requirements.
- Proposals to secure resources are supported by clearly presented submissions describing realistic options, benefits, costs and outcomes.

Range of Variables

At AQF level 4 frontline management will normally be engaged in a workplace context in which they:

- are autonomous, working under general guidance on progress and outcomes
- may supervise others
- may guide or facilitate teams
- have responsibility for, and limited organisation of work of others
- apply knowledge with depth in some areas
- apply a broad range of skills to a range of tasks/roles
- operate in a variety of workplace contexts
- are involved in some complexity in the choice of actions

- use competencies within routines, methods and procedures
- use some discretion and judgement for self and others in planning and using resources, services and processes to achieve outcomes within time constraints.

Frontline management at this level will normally operate in a relatively diverse workplace environment in which they use the organisations:

- goals, objectives, plans, systems and processes
- access and equity principles and practices and processes
- quality and continuous improvement
- business performance plans
- processes and standards
- ethical standards
- defined resource parameters

They use legislation, codes and national standards relevant to the workplace. A range of learning opportunities may be used, for example:

- mentoring
- exchange/rotation
- shadowing
- coaching
- action learning
- structured training programs

Resources may include:

- people
- power/energy
- information
- finance
- buildings/facilities
- time
- equipment
- technology

Evidence Guide

This guideline is to assist the development of assessment instruments/tools to assess the competence of frontline management. Typically, in providing evidence of consistent achievement of this Units workplace outcomes within the context of AQF level 4, frontline management:

- manages work effectively to achieve goals and results
- acquires and uses information appropriate to work responsibility
- makes decisions within responsibility and authority
- monitors/improves ways to manage information
- explains basic financial concepts in business plans/budgets
- prepares basic financial information within standard format
- prepares resource proposals within budget constraints
- prepares and negotiates recommendations to improve the organisations information systems
- ensures that legislative requirements are met in plans
- promotes available learning methods to support colleagues
- uses effective consultative processes
- communicates with colleagues who have specialist responsibilities in financial and resource management
- uses information management systems
- selects and uses available technology appropriate to the task
- uses the key competencies to achieve results.

Unit BSXFMI407A Manage quality customer service

Unit Descriptor Frontline management is involved in ensuring that products and services are delivered and maintained to standards agreed by the organisation and the customer. This will be carried out in the context of the organisations policies and practices as well as legislation, conventions and codes of practice.

Elements of Competency and Performance Criteria

BSXFMI407A/01 Plan to meet internal and external customer requirements.

- The needs of customers are researched, understood, and assessed, and included in the planning process.
- Provision is made in plans to achieve the quality, time and cost specifications agreed with customers.

BSXFMI407A/02 Ensure delivery of quality products/services.

- Products/services are delivered to customer specifications within the teams/organisations business plan.
- Individual/team performance consistently meets quality, safety, resource and delivery standards.
- Coaching and mentoring assists colleagues overcome difficulty in meeting customer service standards.

BSXFMI407A/03 Monitor, adjust and report customer service.

- The organisations systems and technology are used to monitor progress in achieving product/service targets and standards.
- Customer feedback is sought and used to improve the provision of products/services.
- Resources are used effectively and efficiently to provide quality products/services to customers.
- Decisions to overcome problems with products/services are taken in consultation with designated individuals/groups.
- Adjustments are made to products/services, and those who have a role in their planning and delivery are informed of changes.
- Records, reports and recommendations are managed within the organisations systems and processes.

Range of Variables

At AQF level 4 frontline management will normally be engaged in a workplace context in which they:

- are autonomous, working under general guidance on progress and outcomes
- may supervise others
- may guide or facilitate teams
- have responsibility for, and limited organisation of work of others
- apply knowledge with depth in some areas
- apply a broad range of skills to a range of tasks/roles
- operate in a variety of workplace contexts
- are involved in some complexity in the choice of actions
- use competencies within routines, methods and procedures
- use some discretion and judgement for self and others in planning and using resources, services and processes to achieve outcomes within time constraints.

Frontline management at this level will normally operate in a relatively diverse workplace environment in which they use the organisations:

- goals, objectives, plans, systems and processes
- access and equity principles, practices and processes

Evidence Guide

This guideline is to assist the development of assessment instruments/tools to assess the competence of frontline management. Typically, in providing evidence of consistent achievement of this Units workplace outcomes within the context of AQF level 4, frontline management:

- manages work effectively to achieve goals and results
- manages products/services within budget constraints
- makes decisions within responsibility and authority
- acquires and uses information appropriate to work responsibility
- monitors/introduces ways to improve products/services
- uses effective consultative processes
- ensures that legislation and standards are met
- develops and maintains effective communication with customers
- seeks customer feedback and acts on constructive advice
- treats people openly and fairly
- promotes available learning methods to enable colleagues to maintain current competence
- uses information management systems
- selects and uses available technology appropriate to the task
- uses the key competencies to achieve results.

Unit BSXFMI408A Develop and maintain a safe workplace and environment

Unit Descriptor Frontline management has a key role in ensuring that the workplace meets safety requirements set down in legislation, standards and the organisations policies and practices. While it is recognised that safety is everyone's responsibility, frontline management has an important leadership role in promoting and monitoring a safe workplace and environment.

Elements of Competency and Performance Criteria

BSXFMI408A/01 Access and share legislation, codes and standards.

- Legislation, standards and the organisations policies and practices relevant to the creation and maintenance of a safe workplace and environment are made available to individuals/teams.
- Arrangements are made to provide information in a language, style and format which is understood by colleagues.
- Individuals/teams know their legal responsibility for maintaining a safe workplace and environment.
- The implications of an unsafe workplace and environment is clear to all within the workplace.

BSXFMI408A/02 Plan and implement safety requirements.

- Work practices are planned with colleagues to ensure compliance with workplace and environmental legislation and standards.
- Work practices are implemented in accordance with requirements specified in legislation and standards for safe workplaces and environments.
- Coaching and mentoring supports colleagues in managing their rights and responsibilities.

BSXFMI408A/03 Monitor, adjust and report safety performance.

- Actual and potential problems are identified, rectified and reported promptly and decisively to ensure workplace and environmental safety.
- Hazards are managed so that risks are minimised.
- Waste recycling, reduction and disposal is carried out within legislative and organisational requirements.
- Recommendations to make improvements to comply with legislation and associated standards are submitted to designated persons/groups.
- Individuals/teams are informed of the results of improvements in the workplace.
- Systems, records and reporting procedures are maintained according to legislative requirements.

BSXFMI408A/04 Investigate and report non-conformance.

- Non-conformance is investigated and dealt with according to legislative requirements.
- Coaching and mentoring supports colleagues to acquire and apply competencies to meet legislative requirements and the associated standards.
- Workplace practices are implemented to ensure that non-conformance is not repeated.

Range of Variables

At AQF level 4 frontline management will normally be engaged in a workplace context in which they:

- are autonomous, working under general guidance on progress and outcomes
- may supervise others
- may guide or facilitate teams
- have responsibility for, and limited organisation of work of others
- apply knowledge with depth in some areas

- apply a broad range of skills to a range of tasks/roles
- operate in a variety of workplace contexts
- are involved in some complexity in the choice of actions
- use competencies within routines, methods and procedures
- use some discretion and judgement for self and others in planning and using resources, services and processes to achieve outcomes within time constraints.

Frontline management at this level will normally operate in a relatively diverse workplace environment in which they use the organisations:

- goals, objectives, plans, systems and processes
- access and equity principles and practices
- quality and continuous improvement
- business performance plans
- processes and standards
- ethical standards
- defined resource parameters

They use legislation, codes and national standards relevant to the workplace, particularly those involved with:

- workplace safety
- environmental safety

A range of learning opportunities may be used, for example:

- mentoring
- exchange/rotation
- shadowing
- coaching
- action learning
- structured training programs

Resources may include:

- people
- equipment
- buildings/facilities
- finance
- power/energy
- technology
- information
- time

Evidence Guide

This guideline is to assist the development of assessment instruments/tools to assess the competence of frontline management. Typically, in providing evidence of consistent achievement of this Units workplace outcomes within the context of AQF level 4, frontline management:

- develops/promotes a safety conscious culture in workplace
- provides a model to others in working safely
- acquires and uses information appropriate to work responsibility
- manages work effectively to achieve goals and results
- explains safety legislation, standards and procedures
- maintains a safe workplace
- takes prompt action to rectify/report non-compliance
- prepares and negotiates recommendations to improve safety
- monitors/introduces practices to ensure safety compliance
- promotes available learning methods to support colleagues

Unit BSXFMI409A Implement and monitor continuous improvements to systems and processes

Unit Descriptor Frontline management has an active role in managing the continuous improvement process in achieving the organisations quality objectives. Their position, closely associated with the creation and delivery of products and services, means that they play an important part in influencing the on-going development of the organisation.

Elements of Competency and Performance Criteria

BSXFMI409A/01 Implement continuous improvement systems and processes.

- Team members are actively encouraged and supported to participate in decision making processes and to assume responsibility and authority.
- The organisations continuous improvement processes are communicated to individuals/teams.
- Mentoring and coaching support ensures that individuals/teams are able to implement the organisations continuous improvement processes.

BSXFMI409A/02 Monitor, adjust and report performance.

- The organisations systems and technology are used to monitor progress and to identify ways in which planning and operations could be improved.
- Customer service is strengthened through the use of continuous improvement techniques and processes.
- Plans are adjusted and communicated to those who have a role in their development and implementation.

BSXFMI409A/03 Consolidate opportunities for further improvement.

- Individuals/teams are informed of savings and productivity improvements in achieving the business plan.
- Work performance is documented and the information is used to identify opportunities for further improvement.
- Records, reports and recommendations for improvement are managed within the organisations systems and processes.

Range of Variables

At AQF level 4 frontline management will normally be engaged in a workplace context in which they:

- are autonomous, working under general guidance on progress and outcomes
- may supervise others
- may guide or facilitate teams
- have responsibility for, and limited organisation of work of others
- apply knowledge with depth in some areas
- apply a broad range of skills to a range of tasks/roles
- operate in a variety of workplace contexts
- are involved in some complexity in the choice of actions
- use competencies within routines, methods and procedures
- use some discretion and judgement for self and others in planning and using resources, services and processes to achieve outcomes within time constraints.

Frontline management at this level will normally operate in a relatively diverse workplace environment in which they use the organisations:

- goals, objectives, plans, systems and processes
- access and equity principles and practices
- quality and continuous improvement
- business performance plans
- processes and standards
- ethical standards
- defined resource parameters

They use legislation, codes and national standards relevant to the workplace. A range of learning opportunities may be used, for example:

- mentoring
- exchange/rotation
- shadowing
- coaching
- action learning
- structured training programs

Resources may include:

- people
- equipment
- buildings/facilities
- finance
- power/energy
- technology
- information
- time

Evidence Guide

This guideline is to assist the development of assessment instruments/tools to assess the competence of frontline management. Typically, in providing evidence of consistent achievement of this Units workplace outcomes within the context of AQF level 4, frontline management:

- manages work effectively to achieve goals and results
- explains the organisations continuous improvement methods
- acquires and uses information appropriate to work responsibility
- provides leadership to colleagues in the implementation of continuous improvement processes
- monitors/introduces ways to improve performance
- encourages ideas and feedback to improve processes
- prepares and negotiates recommendations to improve the continuous improvement processes
- gains the commitment of individuals/teams to continuous improvement principles and practices
- uses effective consultative processes
- promotes available learning methods
- uses information management systems
- selects and uses available technology appropriate to the task
- uses the key competencies.

Unit BSXFMI410A Facilitate and capitalise on change and innovation

Unit Descriptor Frontline management has an active role in fostering change and acting as a catalyst in the implementation of change and innovation. They have a creative role in ensuring that individuals, the team and the organisation gain from change; and that the customer benefits through improved products and services.

Elements of Competency and Performance Criteria

BSXFMI410A/01 Participate in planning the introduction of change.

- The manager contributes effectively in the organisations planning processes to introduce change.
- Plans to introduce change are made in consultation with designated individuals/groups.
- The organisations objectives and plans to introduce change are explained clearly to individuals/teams.

BSXFMI410A/02 Develop creative and flexible approaches and solutions.

- Alternative approaches to managing workplace issues and problems are identified and analysed.
- Risks are assessed and action is taken to achieve a recognised benefit or advantage to the organisation.
- The workplace is managed in a way which promotes the development of innovative approaches and outcomes.
- Creative and responsive approaches to resource management improves productivity and/or reduces costs in a competitive environment.

BSXFMI410A/03 Manage emerging challenges and opportunities.

- Individuals/teams respond effectively and efficiently to changes in the organisations goals, plans and priorities.
- Coaching and mentoring assists individuals/teams develop competencies to handle change efficiently and effectively.
- The manager uses opportunities within their responsibility and authority to make adjustments to respond to the changing needs of customers and the organisation.
- Individuals/teams are kept informed of progress in the implementation of change.
- Recommendations for improving the methods/techniques to manage change are negotiated with designated persons/groups.

Range of Variables

At AQF level 4 frontline management will normally be engaged in a workplace context in which they:

- are autonomous, working under general guidance on progress and outcomes
- may supervise others
- may guide or facilitate teams
- have responsibility for, and limited organisation of work of others
- apply knowledge with depth in some areas
- apply a broad range of skills to a range of tasks/roles
- operate in a variety of workplace contexts
- are involved in some complexity in the choice of actions
- use competencies within routines, methods and procedures
- use some discretion and judgement for self and others in planning and using resources, services and processes to achieve outcomes within time constraints

Frontline management at this level will normally operate in a relatively diverse workplace environment in which they use the organisations:

- goals, objectives, plans, systems and processes
- access and equity principles and practices
- quality and continuous improvement
- business performance plans
- processes and standards
- ethical standards
- defined resource parameters

They use legislation, codes and national standards relevant to the workplace. A range of learning opportunities may be used, for example:

- mentoring
- exchange/rotation
- shadowing
- coaching
- action learning
- structured training programs

Resources may include:

- people
- equipment
- buildings/facilities
- finance
- power/energy
- technology
- information
- time

Evidence Guide

This guideline is to assist the development of assessment instruments/tools to assess the competence of frontline management. Typically, in providing evidence of consistent achievement of this Units workplace outcomes within the context of AQF level 4, frontline management:

- manages work effectively to achieve goals and results
- explains the organisations methods to introduce change
- acquires and uses information appropriate to work responsibility
- identifies opportunities to introduce change within responsibility and authority
- draws on the diversity of workplace to assist the organisation benefit from change
- monitors trends in the external environment to develop and maintain a competitive edge
- monitors/introduces practices to improve performance
- uses effective consultation processes
- seeks feedback and acts on constructive advice
- promotes available learning methods to support colleagues
- uses information management systems
- selects and uses available technology appropriate to the task
- uses the key competencies to achieve results.

Unit BSXFMI411A Contribute to the development of a workplace learning environment

Unit Descriptor Frontline management plays a prominent role in encouraging and supporting the development of a learning organisation. Promoting a learning environment in which work and learning are integrated is an important goal to be achieved.

Elements of Competency and Performance Criteria

BSXFMI411A/01 Create learning opportunities.

- Workplace environments which facilitate learning are developed and supported.
- Learning plans are developed as an integral part of individual/team performance plans.
- Learning plans reflect the diversity of needs and learning opportunities.
- Individual/team access to, and participation in, learning opportunities is facilitated.
- Negotiation with training and development specialists results in the planning and provision of learning which enhances individual, team, and organisational performance.

BSXFMI411A/02 Facilitate and promote learning.

- Workplace activities are used as opportunities for learning.
- Coaching and mentoring contributes effectively to the development of workplace knowledge, skills and attitudes.
- The benefits of learning are shared with others in the team/organisation.
- Workplace achievement is recognised by timely and appropriate recognition, feedback and rewards.

BSXFMI411A/03 Monitor and improve learning effectiveness.

- Performance of individuals/teams is monitored to determine the type and extent of additional work-based support.
- Feedback from individuals/teams is used to identify and introduce improvements in future learning arrangements.
- Adjustments negotiated with training and development specialists results in improvements to the efficiency and effectiveness of learning.
- Records and reports of competency are documented and maintained within the organisations systems and procedures.

Range of Variables

At AQF level 4 frontline management will normally be engaged in a workplace context in which they:

- are autonomous, working under general guidance on progress and outcomes
- may supervise others
- may guide or facilitate teams
- have responsibility for, and limited organisation of work of others
- apply knowledge with depth in some areas
- apply a broad range of skills to a range of tasks/roles
- operate in a variety of workplace contexts
- are involved in some complexity in the choice of actions
- use competencies within routines, methods and procedures
- use some discretion and judgement for self and others in planning and using resources, services and processes to achieve outcomes within time constraints.

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Frontline management at this level will normally operate in a relatively diverse workplace environment in which they use the organisations:

- goals, objectives, plans, systems and processes
- access and equity principles and practices
- quality and continuous improvement
- business performance plans
- processes and standards
- ethical standards
- defined resource parameters

They use legislation, codes and national standards relevant to the workplace. A range of learning opportunities may be used, for example:

- mentoring
- exchange/rotation
- shadowing
- coaching
- action learning
- structured training programs

Evidence Guide

This guideline is to assist the development of assessment instruments/tools to assess the competence of frontline management. Typically, in providing evidence of consistent achievement of this Units workplace outcomes within the context of AQF level 4, frontline management:

- promotes a learning culture
- manages work effectively to achieve goals and results
- explains the organisations methods to introduce change
- acquires and uses information appropriate to work responsibility
- identifies opportunities to introduce change within responsibility and authority
- draws on the diversity of workplace to assist the organisation benefit from change
- monitors trends in the external environment to develop and maintain a competitive edge
- monitors/introduces practices to improve performance
- uses effective consultation processes
- seeks feedback and acts on constructive advice
- promotes available learning methods to support colleagues
- uses information management systems
- selects and uses available technology appropriate to the task

UNIT BSZ401A Plan Assessment

DESCRIPTOR This unit covers the requirements for planning an assessment in a specific context. The unit details the requirements for determining evidence requirements, selecting appropriate assessment methods and developing an assessment tool in a specific context.

Element	Performance Criteria
1. Establish evidence required for a specific context	1.1 The evidence required to infer competency from the industry/enterprise competency standards, or other standards of performance, is established for a specified context 1.2 Relevant unit(s) of competency is read and interpreted accurately to identify the evidence required 1.3 Specified evidence requirements: assure valid and reliable inferences of competency, authenticate the performance of the person being assessed and confirm that competency is current 1.4 Sufficient evidence is specified to show consistent achievement of the specified standards 1.5 The cost of gathering the required evidence is established
2. Establish suitable assessment method(s)	2.1 Assessment methods are selected which are appropriate for gathering the type and amount of evidence required 2.2 Opportunities to consolidate evidence gathering activities are identified 2.3 Allowable adjustments in the assessment method are proposed to cater for the characteristics of the person(s) being assessed
3. Develop assessment tools appropriate to a specific assessment context	3.1 An assessment tool is developed to gather valid, reliable and sufficient evidence for a specific assessment context 3.2 The assessment tool is designed to mirror the language used to demonstrate the competency in a specific context 3.3 Clear instructions (spoken or written) are prepared including any adjustments which may be made to address the characteristics of the person(s) being assessed 3.4 The assessment tool is checked to ensure flexible, fair, safe and cost-effective assessment to occur
4. Trial assessment procedure	4.1 Assessment methods and tools are trialed with an appropriate sample of people to be assessed 4.2 Evaluation of the methods and tools used in the trial provides evidence of clarity, reliability, validity, fairness, cost effectiveness and ease of administration 4.3 Appropriate adjustments are made to improve the assessment method and tools in light of the trial 4.4 Assessment procedures, including evidence requirements, assessment methods and tools, are ratified with appropriate personnel in the industry/enterprise and/or training organisation where applicable

RANGE OF VARIABLES

Assessment system may be developed by:

- the industry through the endorsed component of Training Packages Assessment Guidelines
- the enterprise
- a Registered Training Organisation
- a combination of the above.

The assessment system should specify the following:

- the purpose of assessment
- competencies required of assessors
- record keeping procedures and policies
- any allowable adjustments to the assessment method which may be made
- the appeal/review mechanisms and procedures
- the review and evaluation of the assessment process
- the linkages between assessment and training qualifications/awards
- employee classification
- remuneration
- progression
- relevant policies
- quality assurance mechanisms
- apportionment of costs/fees (if applicable)
- marketing/promotion of assessment
- verification arrangements
- auspicing arrangements, if applicable
- partnership arrangements, if applicable.

Specific assessment context may be determined by:

- purpose of the assessment such as
  - to gain a particular qualification or a licence
  - to determine employee classification
  - to recognise prior learning/current competencies
  - to identify training needs or progress.

- location of the assessment such as:
  - on the job or off the job
  - combination of both.

- Assessment Guidelines of Training Package or other assessment requirements

Characteristics of persons being assessed may include:

- language, literacy and numeracy needs
- cultural, language and educational background
- gender
- physical ability
- level of confidence, nervousness or anxiety
- age
- experience in training and assessment
- previous experience with the topic.

Appropriate Personnel many include:

- Assessors
- person(s) being assessed
- employee/union representatives
- consultative committees
- users of assessment information such as training providers, employers, human resource departments
- State/Territory Training/Recognition Authorities
- training and assessment coordinators
- relevant managers/supervisors team leaders
- technical specialists.

Appropriate procedure:
- The assessment procedure is developed (and endorsed) by person(s) responsible for the implementation of the assessment process in:
  - the industry
  - the enterprise
  - the training organisation
  - a combination of the above**.**
- The assessment procedure should specify the following:
  - recording procedure
  - appeal/review mechanism
  - assessment methods to be used
  - instructions/materials to be provided to the person(s) being assessed
  - criteria for making decisions of competent, or not yet competent
  - number of assessors
  - assessment tools
  - evidence required
  - location of assessment
  - timing of assessment
  - assessment group size
  - allowable adjustments to the assessment procedure depending on the characteristics of the person being assessed.

Assessment methods may include:
- direct observation of performance, products, practical tasks, projects and simulation exercises
- review of log books/or and portfolios of evidence
- consideration of third party reports and authenticated prior achievements
- written, oral or computer managed questioning
- These methods may be used in combination in order to provide sufficient evidence to make a judgement.

Assessment tools may include:
- specific instructions to be given relating to the performance of practical tasks or processes or simulation exercises
- specific instructions to be given in relation to the production of projects and exercises
- sets of verbal/written/computer based questions to be asked
- performance checklists
- log books
- descriptions of competent performance.

A number of these tools may be used in combination in order to provide enough evidence to make judgments.

Assessment environment and resources to be considered include:
- time
- location
- personnel
- finances/costs
- equipment
- materials
- OHS requirements
- enterprise/industry standard operating procedures.

Allowable adjustments may include:
- provision of personal support services (eg Auslan interpreter, reader, interpreter, attendant carer, scribe)
- use of adaptive technology or special equipment (eg word processor or lifting gear)
- design of shorter assessment sessions to allow for fatigue or medication
- use of large print version of any papers.

EVIDENCE GUIDE

Critical aspects of evidence

Assessment requires evidence of the following products to be collected:

- Documentation in relation to:
  - specific assessment context, including the purpose of assessment
  - features of the assessment system
  - characteristics of the person being assessed
  - evidence of competency required
  - plan of opportunities for gathering the evidence required
  - assessment methods selected including any allowable adjustments to meet characteristics of person(s) being assessed
- An assessment tool(s) for the specific assessment context which ensures valid, reliable, flexible and fair assessment including any allowable adjustments.
- An assessment procedure for the specific context.

Assessment requires evidence of the following processes to be provided:

- How the context of assessment was specified
- How the characteristics of the person(s) being assessed were identified
- Why a particular assessment method was selected
- How the assessment was planned to ensure that language, literacy and numeracy issues were taken into consideration
- How evidence was evaluated in terms of validity, authenticity, sufficiency, currency and consistent achievement of the specified standard
- How the assessment tool was developed for the specified context
- How the assessment tool was validated and ratified by appropriate personnel.

Interdependent assessment of units

This unit of competency may be assessed in conjunction with other units that form part of a job role.

Required knowledge and skills

- Knowledge of standards of performance including industry or enterprise competency standards and assessment guidelines
- Knowledge of legal and ethical responsibilities including occupational health and safety regulations and procedures, equal employment and anti-discrimination requirements relevant to the specified context
- Understanding of the assessment principles of reliability, validity, fairness, flexibility, authenticity, sufficiency and consistency
- Knowledge of the Assessment Guidelines of the Training Package Assessment and Workplace Training
- Skills in the application of various assessment methods, relevant to workplace context
- Planning of own work including predicting consequences and identifying improvements
- Language, literacy and numeracy skills required to:
  - read and interpret relevant information to plan assessment
  - give clear and precise information / instructions in spoken or written form
  - adjust spoken and written language to suit target audience
  - write assessment tools using language which mirrors the language used to demonstrate the competency in the specific context
  - prepare required documentation using clear and comprehensible language and layout
  - calculate and estimate costs
- Communication skills appropriate to the culture of the workplace and the individual(s).

Resource implications

- Access to relevant competencies, sources of information on assessment methods, assessment tools and assessment procedures
- Access to person(s) wishing to be assessed, any relevant workplace equipment, information and appropriate personnel.

Consistency in performance

- Competency in this unit needs to be assessed over a period of time, in a range of contexts and on multiple occasions, involving a combination of direct, indirect and supplementary forms of evidence.

Context for assessment

- Assessment should occur on the job or in a simulated workplace. The candidate assessor should use competencies relevant to their area of technical expertise.

KEY COMPETENCIES						
Collect, Analyse & Organise Information	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
3	**3**	**3**	**3**	**3**	**2**	**2**

UNIT BSZ402A Conduct Assessment

DESCRIPTOR This unit covers the requirements for conducting an assessment in accordance with an assessment procedure in a specific context.

Element	Performance Criteria
1. Identify and explain the context of assessment	1.1 The context and purpose of assessment are discussed and confirmed with the person(s) being assessed 1.2 The relevant performance standards to be used in the assessment (eg. current endorsed competency standards for the specific industry) are clearly explained to the person being assessed 1.3 The assessment procedure is clarified and expectations of assessor and candidate are agreed 1.4 Any legal and ethical responsibilities associated with the assessment are explained to the person(s) being assessed 1.5 The needs of the person being assessed are determined to establish any allowable adjustments in the assessment procedure 1.6 Information is conveyed using language and interactive strategies and techniques to communicate effectively with the person(s) being assessed
2. Plan evidence gathering opportunities	2.1 Opportunities to gather evidence of competency, which occurs as part of workplace or training activities, are identified covering the dimensions of competency 2.2 The need to gather additional evidence which may not occur as part of the workplace or training activities are identified 2.3 Evidence gathering activities are planned to provide sufficient, reliable, valid and fair evidence of competency in accordance with the assessment procedure
3. Organise assessment	3.1 The resources specified in the assessment procedure are obtained and arranged within a safe and accessible assessment environment 3.2 Appropriate personnel are informed of the assessment 3.3 Spoken interactions and any written documents employ language and strategies and techniques to ensure the assessment arrangements are understood by all person(s) being assessed and appropriate personnel
4. Gather evidence	4.1 Verbal and non-verbal language is adjusted and strategies are employed to promote a supportive assessment environment to gather evidence 4.2 The evidence specified in the assessment procedure is gathered, using the assessment methods and tools 4.3 Evidence is gathered in accordance with specified allowable adjustments where applicable 4.4 The evidence gathered is documented in accordance with the assessment procedure

Element	Performance Criteria
5. Make the assessment decision	5.1 the evidence is evaluated in terms of: – validity – authenticity – sufficiency – currency – consistent achievement of the specified standard 5.2 The evidence is evaluated according to the dimensions of competency: – task skills – task management skills – contingency management skills – job/role environment skill – transfer and application of knowledge and skills to new contexts 5.3 Guidance is sought, when in doubt, from a more experienced assessor(s) 5.4 The assessment decision is made in accordance with the criteria specified in the assessment procedure
6. Record assessment results	6.1 Assessment results are recorded accurately in accordance with the specified record keeping requirements 6.2 Confidentiality of assessment outcome is maintained and access to the assessment records is provided only to authorised personnel.
7. Provide feedback to persons being assessed	7.1 Clear and constructive feedback in relation to performance is given to the person(s) being assessed using language and strategies to suit the person(s) including guidance on further goals/training opportunities is provided to the person(s) being assessed 7.2 Opportunities for overcoming any gaps in competency, as revealed by the assessment, are explored with the person(s) being assessed 7.3 The person(s) being assessed is advised of available reassessment opportunities and/or review appeal mechanisms where the assessment decision is challenged
8. Report on the conduct of the assessment	8.1 Positive and negative features experienced in conducting the assessment are reported to those responsible for the assessment procedure 8.2 Any assessment decision disputed by the person(s) being assessed is recorded and reported promptly to those responsible for the assessment procedure 8.3 Suggestions for improving any aspect of the assessment process are made to appropriate personnel

RANGE OF VARIABLES

Assessment system may be developed by:

- the industry
- the enterprise
- a Registered Training Organisation
- a combination of the above.

The assessment system should specify the following:

- the purpose of assessment
- competencies required of assessors
- record keeping procedures and policies
- any allowable adjustments to the assessment method which may be made
- the appeal/review mechanisms and procedures
- the review and evaluation of the assessment process

- the linkages between assessment and training qualifications/awards, employee classification, remuneration, progression
- relevant policies
- quality assurance mechanisms
- apportionment of costs/fees (if applicable)
- marketing/promotion of assessment
- verification arrangements
- auspicing arrangements, if applicable
- partnership arrangements, if applicable.

Specific assessment context may be determined by:
- purpose of the assessment, such as
  - to gain a particular qualification or a licence
  - to determine employee classification
  - to identify training needs or progress
  - to recognise prior learning/current competencies.

- location of the assessment, such as
  - on the job or off the job
  - combination of both.

- Assessment Guidelines of the relevant Training Package or other assessment requirements

- features of assessment system.

Characteristics of persons being assessed may include:
- language, literacy and numeracy needs
- cultural, language and educational background
- gender
- physical ability
- level of confidence, nervousness or anxiety
- age
- experience in training and assessment
- previous experience with the topic.

Appropriate personnel may include:
- assessors
- person(s) being assessed
- employee/union representatives
- consultative committees
- users of assessment information such as training providers, employers, human resource departments
- State/Territory Training/Recognition Authorities
- training and assessment coordinators
- relevant managers/supervisors/team leaders
- technical specialists.

Assessment procedure may include:
- The assessment procedure is developed (and endorsed) by person(s) responsible for the implementation of the assessment process in:
  - the industry
  - the enterprise
  - the training organisation
  - a combination of the above.

- The assessment procedure should specify the following:
  - recording procedure
  - appeal/review mechanism
  - assessment methods to be used
  - instructions/materials to be provided to the person(s) being assessed
  - criteria for making decisions of competent, or not yet competent
  - number of assessors
  - assessment tools
  - evidence required
  - location of assessment
  - timing of assessment
  - assessment group size
  - allowable adjustments to the assessment procedure depending on the characteristics of the person(s) being assessed.

Assessment methods may include:
- work samples and /or simulations
- direct observation of performance, products, practical tasks, projects and simulation exercises
- review of log books and portfolios
- questioning
- consideration of third party reports and authenticated prior achievements
- written, oral or computer managed questioning

These methods may be used in combination in order to provide sufficient evidence to make a judgement.

Assessment tools may include:
- specific instructions to be given relating to the performance of practical tasks or processes or simulation exercises
- specific instructions to be given in relation to projects and exercises
- sets of oral/written/computer based questions to be asked
- performance checklists
- log books
- marking guides
- descriptions of competent performance.

A number of these tools may be used in combination in order to provide enough evidence to make judgments.

Allowable adjustments may include:
- provision of personal support services (eg Auslan interpreter, reader, interpreter, attendant carer, scribe)
- use of adaptive technology or special equipment (eg work processor or lifting gear)
- design of shorter assessment sessions to allow for fatigue or medication
- use of large print version of any papers.

Assessment environment and resources to be considered may include:
- time
- location
- personnel
- finances/costs
- equipment
- materials
- OHS requirements
- enterprise/industry standard operating procedures.

Recording procedures may include:
- forms designed for the specific assessment result (paper or electronic)
- checklists for recording observations/process used (paper or electronic)
- combination of the above.

Assessment reporting:
- Final assessments will record the unit(s) of competency in terms of code, title and endorsement date
- Summative assessment reports, where issued, will indicate units of competency where additional learning is required

NB: Statutory and legislative requirements for maintaining records may vary in States/Territories.

EVIDENCE GUIDE

Critical aspects of evidence

Assessment requires evidence of the following products to be collected:
- Description of the assessment context, including the purpose of assessment,
- The relevant competency or other performance standard and assessment procedure used
- Description of how evidence gathered is valid, authentic, sufficient, fair and reliable to ensure competency
- Conduct of assessment in accordance with competency requirements
- Recording of the assessment results in accordance with the specified assessment procedure and record keeping requirements
- Report on the conduct of the assessment, including positive and negative features and suggestions for improving any aspect of the assessment process.

Assessment requires evidence of the following processes to be provided:
- How agreement was sought with the person(s) being assessed on the conduct of the assessment
- How opportunities to gather evidence were identified as part of workplace or training activities
- How evidence was gathered in accordance with the assessment procedure
- How evidence gathering activity covered the dimensions of competency
- How resources were arranged according to the assessment procedure
- How appropriate personnel were consulted
- How evidence was gathered in accordance with allowable adjustments to the assessment method where applicable
- How evidence was evaluated in terms of validity, authenticity, sufficiency, currency and consistent achievement of the specified standard
- How the assessment was conducted to ensure that :
  - all arrangements and activities were understood by all parties
  - the person was put at ease and the supportive assessment environment was created
  - language, literacy and numeracy issues were taken into consideration
- How constructive feedback was provided to the person(s) being assessed including instances of not yet competent
- How guidance was provided to person(s) being assessed on how to overcome gaps in competency revealed.

Interdependent assessment of units

This unit of competency may be assessed in conjunction with other units that form part of a job role.

Required skills and knowledge

- Knowledge of workplace application of relevant standards of performance including industry or enterprise competency standards and assessment guidelines
- Knowledge of legal and ethical responsibilities including occupational health and safety regulations and procedures, equal employment and anti-discrimination requirements relevant to the specified context
- Understanding of policies and procedures of the workplace and/or job role together with any related legislation or regulatory requirements
- Understanding of the assessment principles of reliability, validity, fairness, flexibility, authenticity, sufficiency and consistency
- Assessment guidelines of the Training Package Assessment and Workplace Training
- Planning of own work including predicting consequences and identifying improvements
- Skills in the application of various assessment methods/tools, relevant to workplace context

- Language, literacy and numeracy skills required to:
  - give clear and precise instructions and information in spoken or written form
  - seek confirmation of understanding from the person(s) being assessed
  - adjust language to suit target audience
  - prepare required documentation using clear and comprehensible language and layout
  - ask probing questions and listen strategically to understand responses of the person being assessed
  - seek additional information for clarification purposes
  - use verbal and non-verbal language to promote a supportive assessment environment
  - use language of negotiation and conflict resolution to minimise conflict
- Communication skills appropriate to the culture of the workplace and the individual(s).

Resource implications:

- Access to relevant competencies, sources of information on assessment methods, assessment tools and assessment procedures
- Access to person(s) wishing to be assessed, relevant workplace equipment, information and appropriate personnel.

Consistency of performance:

Competency in this unit needs to be assessed over a period of time, in a range of contexts and on multiple occasions involving a combination of direct, indirect and supplementary forms of evidence.

Assessment context:

Assessment should occur on the job or in a simulated workplace. The candidate assessor should use competencies relevant to their technical expertise.

KEY COMPETENCIES					
Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
2	**2**	**2**	**2**	**2**	**3**

UNIT BSZ403A Review Assessment

DESCRIPTOR This unit covers requirements to review assessment procedures in a specific context.

Element	Performance Criteria
1. Review the assessment procedure(s)	1.1 Appropriate personnel are given the opportunity to review the assessment outcomes and procedure using agreed evaluation criteria 1.2 The review process established by the enterprise, industry or registered training organisation is followed 1.3 The assessment procedure(s) is reviewed at a specified site in cooperation with person(s) being assessed, and any appropriate personnel in the industry/enterprise/training establishment and/or any agency identified under legislation 1.4 Review activities are documented, findings are substantiated and the review approach evaluated.
2. Check consistency of assessment decision	2.1 Evidence from a range of assessments is checked for consistency across the dimensions of competency 2.2 Evidence is checked against the key competencies 2.3 Consistency of assessment decisions with defined performance standards are reviewed and discrepancies and inconsistencies are noted and acted upon
3. Report review findings	3.1 Recommendations are made to appropriate personnel for modifications to the assessment procedure(s) in light of the review outcomes 3.2 Records are evaluated to determine whether the needs of appropriate personnel have been met 3.3 Effective contributions are made to system-wide reviews of the assessment process and feedback procedures and are reviewed

RANGE OF VARIABLES

Assessment system may be developed by:

- the industry
- the enterprise
- the Registered Training Organisation
- a combination of the above.

- The assessment system should specify the following:
  - the purpose of assessment
  - competencies required of assessors
  - record keeping procedures and policies
  - any allowable adjustments to the assessment method which may be made for the person being assessed who have special needs
  - the appeal/review mechanisms and procedures
  - the review and evaluation of the assessment process
  - the linkages between assessment and training qualifications/awards, employee classification, renumeration, progression
  - relevant policies
  - quality assurance mechanisms
  - apportionment of costs/fees (if applicable)
  - marketing/promotion of assessment
  - verification arrangements
  - auspicing arrangements, if applicable
  - partnership arrangements, if applicable.

Specific assessment context may be determined by:
- purpose of the assessment such as
  - to gain a particular qualification or a licence
  - to determine employee classification
  - to identify training needs or progress
  - to recognise prior learning/current competencies
- location of the assessment such as
  - on the job or off the job
  - combination of both
- Assessment Guidelines of Training Package or other assessment requirements
- features of assessment system.

Evaluation criteria in review process should include:
- number of persons being assessed
- duration of the assessment procedure
- organisational constraints within which assessors must operate
- occupational health and safety factors
- relationship of the assessor to other appropriate personnel in the assessment process
- frequency of assessment procedure
- budgetary restraints
- information needs of government and other regulatory bodies
- support needs and professional development needs of assessors
- characteristics of persons being assessed
- human resource management implications
- consistency of assessment decisions
- levels of flexibility in the assessment procedure
- fairness of the assessment procedure
- efficiency and effectiveness of the assessment procedure
- competencies achieved by the person(s) being assessed
- difficulties encountered during the planning and conduct of the assessment
- motivation of the person(s) being assessed
- location and resource suitability
- reliability, validity, fairness and flexibility of the assessment tool(s)
- relevance of assessment to specified context
- grievances/challenges to the assessment decision by the person(s) being assessed or their supervisor/manager/employer
- ease of administration
- access and equity considerations
- practicability.

Characteristics of persons being assessed may include:
- language, literacy and numeracy needs
- cultural and language background
- educational background or general knowledge
- gender
- age
- physical ability
- previous experience with the topic
- experience in training and assessment
- level of confidence, nervousness or anxiety
- work organisation or roster.

Appropriate personnel may include:
- assessors
- person(s) being assessed
- employee/union representatives
- consultative committees
- users of assessment information such as training providers, employers, human resource departments

- State/Territory Training/Recognition Authorities
- training and assessment coordinators
- relevant managers/supervisor/team leaders
- technical specialists.

Assessment procedure:
- The assessment procedure is developed (and endorsed) by person(s) responsible for the implementation of the assessment process in:
  - the industry
  - the enterprise
  - the training organisation
  - a combination of the above.

The assessment procedure should specify the following:
- recording procedure
- appeal/review mechanism
- assessment methods to be used
- instructions/materials to be provided to the person(s) being assessed
- criteria for making decisions of competent, or not yet competent
- number of assessors
- assessment tools
- evidence required
- location of assessment
- timing of assessment
- assessment group size
- allowable adjustments to the assessment procedure depending on characteristics of person(s) being assessed.

Assessment methods may include a combination of:
- work samples and or simulations
- direct observation of performance, products, practical tasks, projects and simulation exercises
- review of log books and portfolios
- questioning
- consideration of third party reports and authenticated prior achievements
- written, oral or computer managed questioning
- These methods may be used in combination in order to provide sufficient evidence to make a judgement.

Assessment tools may include:
- specific instructions to be given relating to the performance of practical tasks or processes or simulation exercises
- specific instructions to be given in relations to the production projects and exercises
- sets of oral/written/computer based questions to be asked
- performance checklists
- log books
- marking guides
- descriptions of competent performance

A number of these tools may be used in combination in order to provide enough evidence to make judgments.

Allowable adjustments may include:
- provision of personal support services (eg Auslan interpreter, reader, interpreter, attendant carer, scribe)
- use of adaptive technology or special equipment (eg work processor or lifting gear)
- design of shorter assessment sessions to allow for fatigue or medication
- use of large print version of any papers.

Assessment environment and resources to be considered
- time
- location
- personnel
- finances/costs
- equipment
- materials
- OHS requirements
- enterprise/industry standard operating procedures.

EVIDENCE GUIDE
Critical aspects of evidence
Assessment requires evidence of the following products to be collected:
- Documented process for the review of the assessment procedure(s)
- A report on the review of the operations and outcomes of the assessment procedure(s) including substantiation of findings and any recommendations for modifications.

Assessment requires evidence of the following processes to be provided:
- How the review process for evaluating the assessments in the enterprise, industry or organisation was implemented
- Why particular review/evaluation methodologies were chosen
- How cooperation and input from the person(s) assessed and appropriate personnel was sought as part of the review.

Interdependent assessment of units:
This unit of competency may be assessed in conjunction with other units that form part of a job role.

Required knowledge and skills
- Knowledge of the review process established by the industry, enterprise or training organisation
- Knowledge of evaluation methodologies relevant to the assessment context
- Relevant standards of performance including industry or enterprise competency standards and assessment guidelines
- Knowledge of legal and ethical responsibilities including occupational health and safety regulations and procedures, equal employment and anti-discrimination requirements
- Knowledge of relevant organisational policies and procedures of the workplace and/or job roll
- Understanding of the assessment principles of reliability, validity, fairness, flexibility, authenticity, sufficiency and consistency
- Skills in the application of various assessment methods/tools in a relevant workplace context
- Planning own work including predicting consequences and identifying improvements
- Language, literacy and numeracy skills required to:
  - read and interpret review procedures
  - participate in discussions and listen strategically to evaluate information critically
  - gather, select and organise findings from a number of sources
  - document findings in summary form, graphs or tables
  - present findings in a short report to relevant personnel
  - make recommendations based on findings
  - determine cost effectiveness
- Communication skills appropriate to the culture of the workplace and the individual(s).

Resource implications:
- Access to relevant competencies, sources of information on assessment methods, assessment tools, assessment procedures and assessment review mechanisms.
- Access to assessment decisions, relevant workplace equipment, appropriate personnel.

Consistency in performance
Competency in this unit needs to be assessed over a period of time, in a range of contexts and on multiple occasions involving a combination of direct, indirect and supplementary forms of evidence.

Context for assessment
Assessment may occur on the job or in a simulated workplace. The candidate assessor should use competencies relevant to their technical expertise.

KEY COMPETENCIES						
Collect, Analyse & Organise Information	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
3	**2**	**3**	**3**	**3**	**3**	**3**

UNIT BSZ404A Train Small Groups

DESCRIPTOR This unit covers the requirements for planning, delivering and reviewing training provided for the purposes of developing competency on a one-to-one or small group basis.

Element	Performance Criteria
1. Prepare for training	1.1 Specific needs for training are identified and confirmed through consultation with appropriate personnel 1.2 Training objectives are matched to identified competency development needs 1.3 Training approaches are planned and documented
2. Deliver training	2.1 Training is conducted in a safe and accessible environment 2.2 Training delivery methods are selected appropriate to training participant(s) needs, trainer availability, location and resources 2.3 Strategies and techniques are employed which facilitate the learning process 2.4 Objectives of the training, sequence of activities and assessment processes are discussed with training participant(s) 2.5 A systematic approach is taken to training and the approach is revised and modified to meet specific needs of training participant(s)
3. Provide opportunities for practices	3.1 Practice opportunities are provided to ensure that the participant achieves the components of competency 3.2 Various methods for encouraging learning are implemented to provide diverse approaches to meet the individual needs of participants
4. Review training	4.1 Participants are encouraged to self evaluate performance and identify areas for improvement 4.2 Participants readiness for assessment is monitored and assistance provided in the collection of evidence of satisfactory performance 4.3 Training is evaluated in the context of self-assessment, participant feedback, supervisor comments and measurements against objectives 4.4 Training details are recorded according to enterprise and legislative requirements 4.5 Results of evaluation are used to guide further training

RANGE OF VARIABLES

Relevant information to identify training needs includes:

- industry/enterprise or other performance competency standards
- endorsed components of relevant industry training package
- industry/workplace training practices
- job descriptions
- results of training needs analyses
- business plans of the organisation which identify skill development requirements
- standard operating and/or other workplace procedures.

Appropriate personnel may include:

- team leaders/supervisors/ technical experts
- managers/employers
- training and assessment coordinators
- training participants

- representative government regulatory bodies
- union/employee representatives
- consultative committees
- assessors.

Training delivery methods and opportunities for practice may include:
- presentations
- demonstrations
- explanations
- problem solving
- mentoring
- experiential learning
- group work
- on the job coaching
- job rotation
- a combination of the above.

Components of competency include:
- task skills
- task management skills
- contingency management skills
- job/role environment skills
- transfer and application of skills and knowledge of new contents.

Characteristics of training participant may include information in relation to:
- language, literacy and numeracy needs
- cultural, language, and educational background
- gender
- physical ability
- level of confidence, nervousness or anxiety
- age
- previous experience with the topic
- experience in training and assessment.

Training sessions may include:
- one to one demonstration
- small group demonstration (2 to 5 persons).

Resources may include:
- time
- location
- personnel
- materials and equipment
- OHS and other workplace requirements
- enterprise/industry standard operating procedures
- finances/costs.

Strategies and techniques may include:
- active listening
- targeted questioning
- points of clarification
- group discussions.

EVIDENCE GUIDE

Critical aspects of evidence

Assessment requires evidence of the following products to be collected:

- Description of the specific training need and required competency outcomes
- Outline of the training approach and steps to be followed
- Description of training participant(s) and delivery method(s) to be used
- Specific resources required
- Outline of the evidence to be collected for monitoring training participant progress
- Trainer's self assessment of training delivery
- Participant evaluation of training delivery
- Evaluation of review comments against plan of training
- Records/documentation for monitoring progress of training participant(s).

Evidence may be collected using proformas or template

Assessment requires evidence of the following processes to be provided:

- How the specific training need was determined
- How the sequence of the training was determined
- How appropriate personnel were identified
- Why particular delivery method(s) were selected
- How the characteristics of training participant(s) as identified
- How the resource requirements were established
- How participant progress was monitored
- Why and how the training resources were selected
- How appropriate personnel confirmed training arrangements
- How participant(s) were informed of:
  - intended training outcomes
  - competencies to be achieved
  - on and/or off the job practice opportunities
  - benefits of practices
  - learning activities and tasks
  - assessment tasks and requirements
- How constructive feedback was provided to training participant about progress toward competency to be acquired
- How training participant readiness for assessment was determined and confirmed
- How records were maintained to ensure confidentiality, accuracy and security.

Evidence may be provided verbally or in written form

Interdependent assessment of units

This unit may be assessed in conjunction with other units that form part of a job function.

Required knowledge and skills:

- Competency in the units being taught
- Workplace application of the relevant competencies
- Identification of evidence of competency
- Planning of own work including predicting consequences and identifying improvements
- Application of relevant workplace policies (eg OHS and EEO) and any relevant legislative or regulatory requirements
- Correct use of equipment, and any other processes and procedures appropriate for the training
- Ethical handling of performance issues

- Language, literacy and numeracy required skills to:
  - conduct discussions and ask probing questions to review the training
  - gather information (in spoken or written form) for review purposes
  - make verbal recommendations for delivery of future training
  - adjust language to suit target audience (training participant/appropriate personnel)
  - complete records on training
  - provide verbal feedback & report on training outcomes
  - follow and model examples of written texts
  - promote training in verbal or written form
- Communication skills appropriate to the culture of the workplace, appropriate personnel and training participants.

Resource implications
Access to records system for training, information, and training participants and supervisory staff (where appropriate).

Consistency in performance
Competency in this unit needs to be assessed over a period of time, in a range of contexts and on multiple occasions involving a combination of direct, indirect and supplementary forms of evidence.

Context for assessment
Assessment may occur on the job or in a simulated workplace. Candidate workplace trainers should use competencies relevant to their area of technical expertise.

Key Competencies						
Collect, Analyse & Organise Information	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
3	**2**	**2**	**2**	**2**	**2**	**2**

UNIT BSZ405A Plan and Promote a Training Program

DESCRIPTOR This unit covers the requirement for persons to plan a training program. This involves the identification of competencies to meet the needs of a target group and the planning and promotion of appropriate training strategies.

Element	Performance Criteria
1. Identify the competency needs	1.1 The client, target group and appropriate personnel are identified and required goals and outcomes of the training program are negotiated and confirmed with the client 1.2 Relevant competency or other performance standards for the target group are obtained and verified with appropriate personnel 1.3 Gaps between the required competencies and current competencies of the target group are determined 1.4 Current competencies and any relevant characteristics of each participant in the target group are identified using appropriate investigation methods
2. Document training program requirements	2.1 Training program goals are identified to specify required knowledge and skill and links to specified units of competency qualification and/or other standards of performance 2.2 Training program documentation specifies the range of workplace applications, activities and tasks that must be undertaken to develop the requisite competencies 2.3 Available training programs and resources are customised to meet specific client needs, where required 2.4 Appropriate grouping of activities is identified to support formative and summative assessments 2.5 Overview of training sessions including appropriate timing and costs is prepared and confirmed with appropriate personnel including those relating to language, literacy and numeracy and specified in documentation 2.6 Methods of supporting and guiding participants within the target group are identified and specified
3. Identify program resources	3.1 Resources required for the program are identified and approved by appropriate personnel and allocated to meet training participants' characteristics are allocated 3.2 Safe and accessible training environment are identified and arranged to support the development of competencies 3.3 Arrangements are made with personnel required to support the training program 3.4 A register of training resources is maintained and held in an accessible form
4. Promote training	4.1 Advice on the development of the training program is provided to appropriate personnel 4.2 Information on planned training events is made widely available, utilising a variety of methods 4.3 Promotional activities are monitored for effectiveness in collaboration with the client and appropriate personnel

RANGE OF VARIABLES

Training program:

- A collection of training activities to develop competencies of a target group. Clients provide the approvals for expenditure of training resources. Target group may include:
  - employee groups (eg particular classification or work area, female employees)
  - groups or individuals with special training and/or recognition needs.

Training may be:

- on the job
- in a simulated setting
- in a training organisation
- in a combination of locations to suit the units of competency being learned and/or assessed
- in a single site or multi-site operation.

Clients may include:

- a department/division
- a work area
- an enterprise or organisation.

Clients needs may include:

- increased productivity
- increased enterprise profitability
- attainment of specified industry or enterprise competencies
- achievement of community priorities
- achievement of government priorities.

Information on the required competencies may be collected from:

- industry/enterprise competency standards
- licensing requirements
- standard operating procedures
- job descriptions
- discussions with client group
- enterprise skills audit reports
- industry skills audit reports
- benchmarking reports
- industry publications or reports
- government reports
- market needs analysis reports.

Training program may be based on:

- national industry training packages
- enterprise training packages
- agreed curriculum
- international standards.

Target group competencies may be identified by:

- matching enterprise/clint needs to available national industry training packages
- reports on assessment of competencies
- enterprise training and assessment record keeping system
- self, peer or supervisor reports.

Appropriate personnel may include:

- team leaders/supervisors/managers/employers
- participant/employee/learner
- technical and subject experts including, language, literacy, numeracy specialists
- government regulatory bodies

- union/employee representatives
- consultative committees
- users of training information such as training providers, employers, human resource departments State/Territory Training/Recognition Authorities
- assessment / training partners
- trainers/teachers and assessors.

Training program delivery may involve:
- enterprise workplace based delivery
- training provider based delivery
- community based delivery
- school based delivery
- international programs
- combination of the above.

Characteristics of participants may include:
- language, literacy and numeracy needs
- cultural language and education background
- educational background or general knowledge
- gender
- age
- physical ability
- previous experience with the topic
- experience in training and assessment
- level of confidence, nervousness or anxiety.

Variables for achieving competency may include:
- characteristics of training participants
- resources (time, location , space, people and costs)
- language, literacy and numeracy issues.

Training delivery methods may include:
- face to face
- distance learning
- lock step, partly self paced, all self paced
- trainer centred, participant centred
- real time, time independent
- place dependent, place independent
- interactive (eg audio, or video conferencing, computer assisted, discussion)
- mentoring
- active learning
- coaching.

Training support may include:
- technical experts (including particular subject and language and literacy specialists)
- equipment
- team leaders/supervisors/managers/employers
- enterprises
- assessment/training partners
- trainers/teachers and assessors
- training and assessment coordinators.

Training materials may include:
- non-endorsed components of a training package
- work books
- workshop guides
- background reading materials/documents
- handouts

- industry/enterprise competency standards
- supportive policies and legislation
- specific language, literacy and numeracy support material.

EVIDENCE GUIDE

Critical aspects of evidence

Assessment requires evidence of the following products to be collected:

- Description of client, target group and appropriate personnel
- Analysis of training needs of target group
- Documentation on consultations with appropriate personnel throughout the program development phase
- Outline of training program goals and supporting documentation including variables which may impact on the achievement of program goals
- Documentation on training resources and any other requirements for the training program.

Assessment requires evidence of the following processes to be provided:

- How client, target group and appropriate personnel were identified
- How required competencies were determined to meet the client needs
- Why there is a need for training as opposed to other non-training alternatives
- How the need for training was verified with appropriate personnel
- How appropriate personnel approved training program resources
- How language, literacy and numeracy issues were taken into consideration in the planning process.

Interdependent assessment of units:

This unit of competency may be assessed in conjunction with other units that form part of a job role.

Required knowledge and skills

- Understanding Assessment and Workplace Training Competency Standards and Assessment Guidelines
- Relevant competency standards, including industry or enterprise standards of performance
- Relationships of competencies to industrial agreements, classification systems and Australian Qualifications Framework (AQF)
- Relevant workplace policies and procedures that apply to that work and (any) related legislation or regulatory requirements(eg OHS and anti-discrimination regulations)
- Competency in unit(s) of competency relevant to the training program
- Understanding of the principles of adult learning and competency based training as applied to the target group and client
- Identification and correct use of equipment, processes and procedures relevant to competencies
- Knowledge of methods of training needs analysis and planning
- Sources of assistance for participants requiring language or other particular training support
- Planning own work including predicting consequences and identifying improvements
- Language, literacy and numeracy skills required to:
  - Collect, summarise and interpret relevant information to plan a program
  - Communicate in spoken and written form with a range of people in the specified training context
  - Adjust spoken and written language to suit audience
  - Prepare and/or customise training materials and specified documentation using clear and comprehensible language and layout
  - Calculate and estimate costs, time and length of training programs
- Awareness of language, literacy and numeracy issues relevant to the context of training and assessment, including current theories on the integration of LL&N with technical training
- Communication skills appropriate to the culture of the workplace, appropriate personnel and target group.

Resource implications
Access to target group, potential opportunities to identify training needs of a target group, relevant competencies or other standards of performance and resources.

Consistency in performance may include
Competency in this unit needs to be assessed over a period of time and in a range of contexts, and on multiple occasions, involving a combination of direct, indirect and supplementary forms of evidence.

Context for assessment
Assessment may occur on the job or in a simulated workplace.

KEY COMPETENCIES						
Collect, Analyse & Organise Information	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
3	**3**	**3**	**3**	**2**	**3**	**3**

UNIT BSZ406A Plan a Series of Training Sessions

DESCRIPTOR This unit covers the requirement for persons who implement a training program for a target group. This involves planning a series of training sessions to meet the identified competency requirements of the target group.

Element	Performance Criteria
1. Identify training requirements	1.1 Current competencies of the target group are identified 1.2 Relevant training package documentation or approved training course documentation is obtained where applicable 1.3 Qualification requirements, competencies and/or other performance standards to be attained are interpreted 1.4 Training requirements are identified from the gap between the required competencies and the current competencies of the target group 1.5 Training requirements are confirmed with appropriate personnel
2. Develop outlines of training sessions	2.1 The training program goals, outcomes, performance and underpinning knowledge requirements are identified 2.2 The training program requirements, workplace application, activities and tasks required to develop the requisite competencies are analysed 2.3 A range of training delivery methods are identified which are appropriate for: – the competencies to be achieved – training program's goals – characteristics of training participants – language, literacy and numeracy skill level of training participants – availability of equipment and resources – Industry/enterprise contexts and requirements 2.4 Training session outlines are mapped against required competencies and deficiencies are identified and addressed 2.5 Special requirements for resources, particular practice requirements and training experiences are documented 2.6 Methods of supporting and guiding training participants including appropriate training resources, language literacy and numeracy support are specified
3. Develop training materials	3.1 Available materials to support the training program are checked for relevance and appropriateness in terms of the language, style, characteristics of training participants and copyright 3.2 Existing materials are customised or resources are developed to enhance the learning capability of training participants to achieve in the delivery setting 3.3 Instructions for use of learning materials and any required equipment are provided 3.4 Copyright laws are observed 3.5 Training resource costs are identified and approvals are obtained from appropriate personnel 3.6 Documentation, resources and materials developed or used are clear and comprehensible

Element	Performance Criteria
4. Develop training sessions	4.1 Training session plans are developed to meet the goals of the training program 4.2 Training session plans specify session planned outcomes 4.3 Opportunities are created within training session design for participants to manage own competency acquisition and apply the relevant competencies in practice 4.4 Session plans identify delivery methods which are appropriate for: – the competency to be achieved – training program's goals – training participants' characteristics – language, literacy and numeracy skill level of training participants – learning resources and facilities to be used – equipment and consumable resources available – industry/enterprise/workplace contexts and requirements – each outlined training session 4.5 Training sessions are designed to measure participant progress towards the program goals 4.6 Sequence and timing of the training sessions are documented
5. Arrange resources	5.1 Resources required for the training sessions are identified and, where special access is required, approved by appropriate personnel 5.2 Appropriate training locations are identified and arranged 5.3 Arrangements are made with (any) additional personnel required to support the training program 5.4 The training environment arranged is safe, accessible and suitable for the acquisition of the identified competencies 5.5 Learning resources, documentation on required competencies, assessment procedures and information on available support for training participants is organised and held in an accessible form

RANGE OF VARIABLES

Training program may include:

- A collection of training activities to meet competency requirements and target group and client needs. Clients provide the approvals for expenditure of training resources. Target group is the group for whom training is available and may include:
  - employee groups (eg particular classification or work area, female employees)
  - groups or individuals with special training and/or recognition needs.

Training may be conducted:

- on the job
- in a simulated setting
- in a training organisation
- in a combination of locations to suit the units of competency being learned and/or assessed
- in a single site or multi site operation
- in a work environment.

Appropriate personnel may include:
- trainers/teachers and assessors
- team leaders/supervisors/managers/employers
- participant/employee/learner
- technical /subject experts
- government regulatory bodies
- union/employee representatives
- consultative committees
- users of training information such as training providers, employers, human resource departments
- State/Territory Training/Recognition Authorities
- language, literacy, numeracy specialists
- assessment/training partners.

Training programs may be based on:
- national industry training packages
- enterprise training packages
- national, state and local curriculum
- enterprise based standards, standards of performance or curriculum
- international standards
- international programs.

Target group competencies may be identified by:
- reports on assessment of competencies
- content analysis of curriculum vitae
- enterprise training and assessment record keeping system
- industry training and assessment recording system
- self, peer or supervisor reports.

Training sessions may involve:
- theory
- demonstration
- combination of the two.

Training programs may involve:
- enterprise based delivery
- provider based delivery
  - fee for service
  - local, state or national curricula
- community based delivery
- school based delivery
- international programs
- combination of the above.

Characteristics of participants include:
- language, literacy and numeracy needs
- cultural and language background
- educational background or general knowledge
- gender
- age
- physical ability
- previous experience with the topic
- experience in training and assessment
- level of confidence, nervousness or anxiety
- work organisation or roster.

Variables for achieving competency include:
- characteristics of training participants
- resources (time, location , space, people and costs)
- language, literacy and numeracy issues.

Training delivery methods include:
- face to face
- distance
- lock step, partly self paced, all self paced
- trainer centred, participant centred
- real time, time independent
- place dependent, place independent
- interactive (eg audio or video conferencing, computer assisted, discussion).

Materials may include:
- non-endorsed components of an industry training package
- work books
- language, literacy and numeracy support/integrated training materials
- workshop guides
- background reading materials/documents
- handouts
- industry/enterprise competency standards
- supportive policies and legislation.

Training support may include:
- technical and subject experts
- language and literacy specialists
- team leaders/supervisors/managers/employers
- specific enterprises
- assessment/training partners
- trainers/teachers and assessors
- training and assessment coordinators.

Practice opportunities may include:
- on the job
- off the job but located in participant's workplace
- off the job in a special demonstration area
- off the job in an external training room
- work/field placements
- job rotation
- or a combination of the above.

Training activities and tasks may include:
- oral presentations
- simulation activities
- project work
- group activities
- practical demonstrations
- assignments
- laboratory work
- shadowing, coaching, mentoring
- computer based learning
- role plays
- interviews
- discussion groups
- surveys

- action learning
- on the job learning
- off the job learning
- practical placements.

EVIDENCE GUIDE

Critical aspects of evidence

Assessment requires evidence of the following products to be collected:

- Description of target group, characteristics of training participants and appropriate personnel
- Outline of training program requirements to deliver training sessions, including any variables to meet to meet the characteristics of training participants
- Training session plans
- Samples of training materials
- Documentation of resources, assessment procedures and support needed in training delivery.

Assessment requires evidence of the following processes to be provided:

- How appropriate personnel were consulted
- How consultation took place with appropriate how the session plans meet competency requirements and characteristics of training participants
- How the training was made accessible and effective for all training participants
- How training materials and resources were selected
- How training materials were prepared
- Why training methods of delivery were selected
- How/why training delivery was modified
- How language, literacy and numeracy issues were taken into consideration in the planning process.

Interdependent assessment of units

This unit of competency may be assessed in conjunction with other units that form part of a job role.

Required knowledge and skills

- Assessment and Workplace Training Competency Standards
- Relevant competency standards, including industry or enterprise standards of performance
- Relationships of competencies to industrial agreements, classification systems and Australian Qualifications Framework (AQF)
- Relevant workplace policies and procedures that apply to that work and (any) related legislation or regulatory requirements
- Competency in unit(s) of competency relevant to the training program
- Principles of adult learning and competency based training
- Identification and correct use of equipment, processes and procedures relevant to unit(s) of competencies
- Appropriate methods of analysis and planning
- Sources of assistance for participants requiring language or other particular training support
- Planning own work, including predicting consequences and identifying improvements
- Language, literacy and numeracy skills to:
  - collect, summarise and interpret relevant information to plan a series of programs
  - communicate in spoken and written form with a range of people in specified training context
  - adjust spoken and written language to suit audience
  - prepare and/or customise training materials and specified documentation using clear and comprehensible language and layout
  - calculate and estimate costs, time and length of training sessions

- Awareness of language, literacy and numeracy issues relevant to the context of training and assessment, including current theories on the integration of LL&N with technical training
- Application of cultural understanding in the context of training and assessment

Resource implications
Access to target group, competency training program including relevant standards and resources.

Consistency in performance may include
Competency in this unit needs to be assessed over a period of time, on multiple occasions, and in a range of contexts involving a combination of direct, indirect and supplementary forms of evidence.

Context for assessment
Assessment may occur on the job or in a simulated workplace.

KEY COMPETENCIES						
Collect, Analyse & Organise Information	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
3	**3**	**3**	**3**	**2**	**3**	**3**

UNIT BSZ407A Deliver Training Sessions

DESCRIPTOR This unit covers the requirements for a person to deliver training sessions as part of a training program.

Element	Performance Criteria
1. Prepare training participants	1.1 Training program goals and training session outcomes are explained to, and discussed with, training participants 1.2 The training program workplace applications, training activities and tasks are explained and confirmed with the training participants 1.3 Needs of training participants for competency acquisition are identified 1.4 The series of training sessions for the training program are explained to training participants 1.5 Ways in which the competencies are to be developed and assessed are explained to, and confirmed with, training participants 1.6 Language is adjusted to suit the training participants and strategies / techniques (eg paraphrasing and questioning) are employed to confirm understanding
2. Present training session	2.1 Presentation and training delivery are appropriate to the characteristics of training participants and the development of the competencies 2.2 Presentation of training and design of learning activities emphasise and reinforce the components of competency – task skills – task management skills – contingency management skills – job/role environment skills – transfer and application of skills and knowledge to new contexts 2.3 Presentation and training delivery methods provide variety, encourage participation and reinforce competencies 2.4 Spoken language and communication strategies / techniques are used strategically to encourage participation and to achieve the outcomes of training sessions 2.5 Training sessions are reviewed and modified as necessary to meet training participants' needs
3. Facilitate individual and group learning	3.1 The requirements for the effective participation in the learning process is explained 3.2 Timely information and advice is given to training participants during training sessions 3.3 Training presentations are enhanced with the use of appropriate training resources 3.4 Clear and accurate information is presented in a sequence to foster competency development 3.5 Language is adjusted to suit training participants 3.6 Training participants are actively involved in sessions by being encouraged to ask questions, clarify points of concern and contribute comments at appropriate and identified stages 3.7 Training equipment and materials are used in a way that enhances learning

Element	Performance Criteria
3. Facilitate individual and group learning (continued)	3.8 Supplementary information is provided to enhance and clarify understanding as required by individuals or the group 3.9 Key points are summarised at appropriate times to reinforce learning 3.10 Individual learning and group dynamics are monitored and managed to achieve program goals 3.11 Language, literacy and numeracy issues are taken into account to facilitate learning by training participants
4. Provide opportunities for practice and feedback	4.1 Process, rationale and benefits of practice of competency are discussed with training participants 4.2 Practice opportunities are provided to match: – specific competencies to be achieved – context of the training program – specific outcomes of the training session 4.3 Training participants' readiness for assessment is monitored and discussed with participants 4.4 Constructive feedback and reinforcement are provided through further training and/or practice opportunities
5. Review delivery of training session	5.1 Training participants review of training delivery is sought 5.2 The delivery of training session is discussed with appropriate personnel at appropriate times 5.3 Trainer self assesses training delivery against program goals, session plans and Assessment and Workplace Training Competency Standards 5.4 The reactions of relevant personnel to the delivery are sought and discussed at appropriate times 5.5 Adjustments to delivery, presentation and training are considered and incorporated

RANGE OF VARIABLES

Training Program:

- A collection of training activities to develop competencies of a target group. Clients provide the approvals for expenditure of training resources. Target group include:
  - employee groups (eg particular classification or work area, female employees)
  - groups or individuals with special training and or recognition needs.

Appropriate personnel:

- trainers/teachers and assessors
- team leaders/supervisors/managers/employers
- participant/employee/learner
- technical experts
- government regulatory bodies
- union/employee representatives
- consultative committees
- users of training information such as training providers, employers, human resource departments
- State/Territory Training/Recognition Authorities.

Training program may be based on:

- national industry training packages
- enterprise training packages
- national, state and local curriculum
- enterprise based standards, standards of performance or curriculum
- international standards
- international programs.

Training programs may involve:
- enterprise based delivery
- provider based delivery
  - fee for service
  - local, state or national curricula
- community based delivery
- school based delivery
- international programs
- combination of the above.

Target group's competencies may be identified by:
- reports on assessment of competencies
- content analysis of curriculum vitae
- enterprise training and assessment record keeping system
- industry training and assessment recording system
- self, peer or supervisor reports.

Training sessions may involve:
- theory
- demonstration
- combination of the two.

Characteristics of participants:
- language, literacy and numeracy needs
- cultural and language background
- educational background or general knowledge
- gender
- age
- physical ability
- previous experience with the topic
- experience in training and assessment
- level of confidence, nervousness or anxiety.

Training delivery methods may include:
- face to face
- distance
- lock step, partly self paced, all self paced
- trainer centred, participant centred
- real time, time independent
- place dependent, place independent
- interactive (eg audio, or video conferencing, computer assisted, discussion).

Training materials may include:
- non-endorsed components of an industry training package
- work books
- workshop guides
- background reading materials/documents
- handouts
- industry/enterprise competency standards
- supportive policies and legislation.

Practice opportunities may be:
- on the job
- off the job but located in participant's workplace
- off the job in a special demonstration area
- off the job in external training room
- work/field placements
- job rotation
- or a combination of the above.

Training activities and tasks may include:
- oral presentations
- simulation activities
- project work
- group activities
- practical demonstrations
- assignments
- laboratory work
- shadowing, coaching, mentoring
- computer based learning
- role plays
- interviews
- discussion groups
- surveys
- action learning
- on the job learning
- off the job learning
- practical placements.

EVIDENCE GUIDE

Critical aspects of evidence

Assessment requires evidence of the following products to be collected:
- Delivery of training sessions in a number of contexts using a range of delivery methods to competency requirements
- Training materials and resources
- Trainers self assessment of their own training delivery
- Documentation on reaction of appropriate personnel and training participants to delivery of training sessions
- Changes made to subsequent delivery practices based on feedback by training participants and appropriate personnel.

Assessment requires evidence of the following processes to be provided:
- How training participants were informed of the:
  - program's goals
  - competencies to be achieved
  - training session outcomes,
  - on and/or off the job practice opportunities
  - benefits of practice
  - training activities and tasks
  - assessment tasks and requirements
- How the delivery of the training was conducted to ensure that :
  - training participants were involved in the sessions
  - language, literacy and numeracy issues were taken into consideration
- Why particular resource materials were selected
- How the characteristics of training participants were identified and addressed
- How readiness for assessment was determined and confirmed with training participants
- How constructive feedback was provided to the target group about their progress toward the program's goals
- How the group operated in terms of processes and dynamics
- How feedback from target group was received and program adjusted.

Interdependent assessment of units

This unit of competency may be assessed in conjunction with other units that form part of a job role.

Required knowledge and skills

- Knowledge of Assessment and Workplace Training Competency Standards and Assessment Guidelines
- Relevant competency standards including industry or enterprise standards
- Relationships of competencies to industrial agreements, classification systems and the Australian Qualifications Framework (AQF)
- Relevant workplace policies and procedures that apply to that work and (any) related legislation on regulatory requirements (eg OHS and anti-discrimination regulations)
- Competency in unit(s) of competency relevant to the training program
- Identification and correct use of equipment, processes and procedures relevant to unit(s) of competencies
- Understanding of the principles of adult learning and competency based training as applied to target group
- Design and / or customisation of effective learning resources
- Requirements for compliance with copyright law for resources used in training
- Skills in facilitating group and individual learning in specific contexts
- Knowledge of training delivery methods / strategies
- Skills in the design of activities and tasks to facilitate learning in specific contexts
- Sources of assistance for participants requiring language or other particular training support
- Planning own work including predicting consequences and identifying improvements
- Language, literacy and numeracy required skills to :
  - present information in a clear, logical and coherent manner
  - present technical information using language which mirrors the language used to perform the task or skill in the relevant work context
  - adjust spoken and written language to suit audience
  - employ interaction strategies and techniques (eg probing questioning, active listening & constructive feedback) to encourage participation
  - prepare learning resources and materials using language and layout features to suit intended audience
- Awareness of language, literacy and numeracy (LL&N) issues and principles in the context of training and assessment, including the integration of LL&N with technical training
- Communication skills appropriate to the culture of the workplace, appropriate personnel and target group.

Resource implications

Access to training program, training session plans, requisite training locations, materials and target groups for training.

Consistency in performance

Competency in this unit needs to be assessed over a period of time, in a range of context and on multiple occasions involving a combination of direct, indirect and supplementary forms of evidence.

Context for assessment

Assessment should occur in on the job or in a simulated workplace.

KEY COMPETENCIES						
Collect, Analyse & Organise Information	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
3	**3**	**2**	**3**	**3**	**2**	**2**

UNIT BSZ408A Review Training

DESCRIPTOR This unit covers the requirements of persons to record training data and review training.

Element	Performance Criteria
1. Record training data	1.1 Details of training program and target group's competency attainment are recorded in accordance with the training system requirements and securely stored 1.2 Training records are made available to authorised persons and training participants at the required times, as specified in the training system recording and reporting policy documents
2. Evaluate training	2.1 Training is evaluated against identified needs and goals of the training program 2.2 Feedback on the training program is sought from training participants and appropriate personnel 2.3 Training participants are encouraged to evaluate how progress towards achieving competency was enhanced by the training sessions 2.4 Trainer's performance is reviewed against: – program goals – the Assessment and Workplace Training Competency Standards – training participants' comments – training participants' competency attainment 2.5 Results of the evaluation are used to improve current and future training 2.6 Suggestions are made for improving any aspect of the recording procedure
3. Report on training	3.1 Reports on outcomes of the training sessions are developed and distributed to appropriate personnel

RANGE OF VARIABLES

Training program:

- A collection of training activities to develop competencies. Clients provide the approvals for expenditure of training resources. Target group is the group for whom training is available and may include:
  employee groups (eg particular classification or work area, female employees) groups or individuals with special training and or recognition needs.

Training may be:

- on the job
- in a simulated setting
- in a training organisation
- in a combination of locations to suit the units of competency being developed and/or assessed
- in a single site or a multi site operation
- a combination of the above.

Clients may include:

- a department/division
- a work area
- an enterprise or organisation.

Client needs may include:
- increased productivity
- increased enterprise profitability
- attainment of specified industry or enterprise competencies
- achievement of community priorities
- achievement of government priorities.

Characteristics of participants may include:
- language, literacy and numeracy needs
- cultural language and education background
- educational background or general knowledge
- gender
- age
- physical ability
- previous experience with the topic
- experience in training and assessment
- level of confidence, nervousness or anxiety.

Training system may be developed by:
- the industry
- the enterprise
- the training organisation
- a combination of the above.

Reports on training may be:
- on a proforma or template
- written
- verbal
- combination of the above.

Training evaluation may include:
- affective (eg. satisfaction with the program)
- cognitive (eg. knowledge or skill gain)
- performance or behaviour (eg. absenteeism from work, productivity)

Appropriate personnel may include:
- trainers/teachers and assessors
- team leaders/supervisors/managers/employers
- participant/employee/learner
- technical experts (eg language and literacy coordinators)
- government regulatory bodies
- union/employee representatives
- consultative committees
- users of training information such as training providers, employers, human resource departments
- state/territory training/recognition authorities.

Record systems may be:
- paper based
- computer based systems using magnetic or optical storage
- combination of both paper and computer based systems.

Training session may involve:
- theory
- demonstration
- or a combination of the two.

Training programs may involve:
- enterprise based delivery
- provider based delivery:
  - fee for service
  - local, state or national curricula
- community based delivery
- school based delivery
- international programs
- combination of the above.

Variables for achieving competency may include:
- participant characteristics
- resources (time, location, space, people and costs)
- language, literacy and numeracy issues.

Training delivery methods:
- face to face
- distance
- lock step, partly self paced, all self paced
- trainer centred, participant centred
- real time, time independent
- place dependent, place independent
- interactive (eg audio, or video conferencing, computer assisted, discussion).

Training materials may include:
- non-endorsed components of an industry training package
- work books
- workshop guides
- background reading materials/documents
- handouts
- industry/enterprise competency standards
- supportive policies and legislation.

Training support may come from:
- technical and subject experts (including particular subject and language and literacy specialists)
- language and literacy specialists
- team leaders/supervisors/managers/employers
- specific enterprises
- assessment/training partners
- trainers/teachers and assessors
- training and assessment coordinators.

Practice opportunities may be:
- on the job
- off the job but located in participant's workplace
- off the job in a special demonstration area
- off the job in external training room
- work/field placements
- job rotation
- or a combination of the above.

EVIDENCE GUIDE

Critical aspects of evidence

Assessment requires evidence of the following products to be collected:
- Evaluation reports in accordance with performance criteria(trainer, trainees and appropriate personnel)
- Training and assessment records
- Reports on the outcomes of the training sessions and training program
- Plans for current and future training programs and activities

- Promotional materials/reports
- Costs incurred.

Assessment requires evidence of the following processes to be provided:
- How and why evaluation methods were selected
- How evaluation information was gathered and acted upon
- How the report on training sessions/programs was made to appropriate personnel
- How records are maintained, kept confidential and secured.

Interdependent assessment of units
This unit of competency may be assessed in conjunction with other units that form part of a job role.

Required knowledge and skills:
- Assessment and Workplace Training Competency Standards
- Relevant competency standards, including industry or enterprise standards of performance
- Legal and ethical responsibilities including occupational health and safety regulations and procedures, equal employment and anti-discrimination requirements and other policies relevant to the specified context.
- Policies and procedures relating to the organisation's training system including those requirements for recording and maintaining confidential, secure and accurate records
- Evaluation and review methodolgies including those that produce qualitative and quantitative data
- Establishment of criteria to evaluate training programs
- Adaptation and use of training record systems for formative and summative assessment
- Planning own work including predicting consequences and identifying improvements
- Language, literacy and numeracy skills such as those required to :
  - collect, organise and analyse data
  - prepare reports, questionnaires and promotional material
  - present qualitative and quantitative data in a clear and coherent manner
  - use probing questioning and active listening techniques to seek feedback on training
  - adjust spoken and written language to suit audience
- Awareness of language, literacy and numeracy issues and principles in the context of training and assessment, including the integration of LL&N with technical training
- Application of cultural understanding in the context of training and assessment.

Resource implications:
Access to training record systems, programs, and appropriate personnel.
Opportunities to discuss training outcomes with appropriate personnel. Access to unit(s) of competency to be assessed, relevant training programs and materials and resources for the development of training arrangements.

Consistency in performance may include:
Competency in this unit needs to be assessed over a period of time, in a range of contexts on multiple occasions, involving a combination of direct, indirect and supplementary forms of evidence.

Context for assessment
Assessment should occur on the job or in a simulated workplace.

KEY COMPETENCIES						
Collect, Analyse & Organise Information	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
3	**3**	**3**	**3**	**3**	**3**	**3**