Australian Government

Department of Education, Employment and Workplace Relations

AUM8083B Assemble frame and axle

Revision Number: 1

AUM8083B Assemble frame and axle

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	This unit describes the application of the skills and knowledge required to fit out of axles, suspension and associated service systems and components. No licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication.

Application of the Unit

Application of the unit	The unit applies to the automotive and related component manufacturing environment and involves application of skills and knowledge at a production worker level. These skills and knowledge are to be used within the scope of the person's job and authority.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units	Nil

Employability Skills Information

Employability skills	This unit contains Employability Skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the required performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge and/or the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	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
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

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the essential skills and knowledge and their level, required for this unit.

Required skills

Required knowledge

- 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
- enterprise technical work documentation covering procedures, specifications, schedules and work plans or equivalent
- enterprise quality system documentation covering instructions, procedures, performance indicators and review processes or equivalent
- enterprise cost minimisation/waste avoidance policies, procedures and practices
- environmental protection requirements relating to the disposal of waste material
- established communication channels and protocols
- problem identification and resolution techniques
- 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 (mobile cranes / forklifts) and other tools, materials and equipment relevant to these processes
- types of components and their purpose within the assembly
- types and application of service systems
- relevant company/manufacturer policies and standard operational procedures
- work flow records - written / electronic
- company OH&S procedures.

Evidence Guide

EVIDENCE GUIDE	
The Evidence Guide provides advice on assessment and must be read in conjunction with the Performance Criteria, Required Skills and Knowledge, the Range Statement and the Assessment Guidelines for this Training Package.	
Overview of assessment	

Critical aspects for assessment and evidence required to demonstrate competency in this unit	Evidence of the following is essential:
	• compliance with relevant legislative, regulations, standards, codes of practice and establish safe practices and enterprise policies and procedures for managing personal work priorities
	• maintaining a working knowledge of current work systems and practices
	• working and communicating effectively and positively with others involved in the work
	• applying, within authority, the requirements of the job or work role in relation to:
	  • achieving production goals
	  • achieving work quality goals
	  • responding positively to changing work requirements
	  • contributing effectively to cost reduction initiatives
	  • effectively applying problem solving techniques
	• modify activities to cater for variations in workplace context and environment
	• modify frames
	• assemble frames
	• fit out axles, suspension and associated service systems to the frame
	• maintain company records - paper based / electronic.

Context of and specific resources for assessment	Assessment must ensure: • 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

EVIDENCE GUIDE	
	• 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 application of competency is to be assessed in the workplace or realistically simulated workplace • assessment is to occur under standard and authorised work practices, safety requirements and environmental constraints • assessment is to comply with relevant regulatory or Australian Standards requirements • 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.
Method of assessment	A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit: • assessment methods must confirm consistency and accuracy of performance (over time and in a range of workplace relevant contexts) together with application of underpinning knowledge • assessment methods must be by direct observation of tasks and include questioning on underpinning knowledge to ensure its correct interpretation and application • assessment may be applied under project related conditions (real or simulated) and require evidence of process • assessment must confirm a reasonable inference that competency is able not only to be satisfied under the particular circumstance, but is able to be transferred to other circumstances.

Range Statement

RANGE STATEMENT	
The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording in the Performance Criteria is detailed below. Add any essential operating conditions that may be present with training and assessment depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts.	
Legislative requirements and procedures may include:	• applicable legislation from all levels of government that affect organisational operations. Requirements may include but not be limited to award and enterprise agreements, industrial relations, employee relations, Australian Standards, confidentiality and privacy, the environment, equal opportunity, anti-discrimination, relevant industry codes of practice and duty of care.
OH&S requirements may include:	• Commonwealth, State or Territory legislation and regulations, organisational safety policies and procedures. Requirements may include but not be limited to the use of personal protective equipment and clothing, rescue services, fire fighting organization and equipment, first aid equipment, hazard and risk control and elimination, systems covering of hazardous materials and substances and manual handling including lifting and carrying.
Enterprise requirements may include:	• legal • organisational and site guidelines • policies and procedures relating to own role and responsibility • quality assurance • procedural manuals • quality and continuous improvement processes and standards • OH&S • emergency and evacuation • ethical standards • recording and reporting • access and equity principles and practices • equipment use • maintenance and storage • environmental management (waste disposal,

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	recycling and re-use guidelines).
Job context may include:	• the job context is work area and process related • work areas may 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 • process may include welding sub-assemblies, fitting hang-on components, fittings 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 and replenishment.
Appropriate personnel may include:	• supervisors • team members • team leaders • suppliers • clients and managers.
Work quality goals may include:	• those established within each enterprise quality system and may include identification, minimisation and elimination of defects, product/component specifications, tolerances, inspection systems, packaging specifications and non-conforming parts or products.
Changed work requirements may include:	• result from variations in process change • line speed • interruptions to parts supply/quality • personnel absences.
Cost reduction initiatives may include:	• cost benchmarks • waste avoidance • power conservation • productivity achievement • continuous improvement levels.
Sources of information may include:	• vehicle manufacturer specifications • product manufacturer specifications • company operating and assembly procedures • industry/workplace codes of practise • customer requirements

RANGE STATEMENT	
	• 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 • Service lines include: electrical wiring, pneumatic systems and hydraulic systems • work orders / job sheets • qualified workplace assessor • workplace or simulated workplace.

Unit Sector(s)

Unit sector	Automotive Manufacturing

Competency field

Competency field	Truck/Bus/Trailer Manufacture and Assembly

Co-requisite units

Co-requisite units	Nil