



Australian Government

Department of Education, Employment and Workplace Relations

AURT337273A Service and repair trailers in excess of 4.5 tonnes

Release: 1

AURT337273A Service and repair trailers in excess of 4.5 tonnes

Modification History

Not Applicable

Unit Descriptor

| | |
|-------------------------------|--|
| <p>Unit descriptor</p> | <p>This unit of competency describes the skills and knowledge required to service and repair load carrying trailers without motive power, with a gross trailer mass rating (GTMR) or an aggregate trailer mass (ATM) over 4.5 tonnes and designed to be hauled by another vehicle.</p> <p>It requires the ability to identify and confirm work requirements, to use technical skills to service, repair and/or maintain trailers over 4.5 tonnes and to complete the work finalisation processes.</p> <p>Licensing, legislative, regulatory or certification requirements may apply to this unit in some jurisdictions. Users are advised to check with the relevant regulatory authority.</p> |
|-------------------------------|--|

Application of the Unit

| | |
|---------------------------------------|--|
| <p>Application of the unit</p> | <p>This unit applies to individuals who undertake and document the adjustment, testing, servicing and repair of load carrying trailers in excess of 4.5 tonnes of varying types and in varying environments.</p> |
|---------------------------------------|--|

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

| | | |
|----------------------------------|--|--|
| <p>Prerequisite units</p> | | |
| | | |

| | | |
|---------------------------|--|--|
| Prerequisite units | | |
| | | |

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 performance needed to demonstrate achievement of the element. Assessment of performance is to be consistent with the evidence guide. |
|---|--|

Elements and Performance Criteria

| ELEMENT | PERFORMANCE CRITERIA |
|---|---|
| 1. Prepare for work | 1.1. Confirm nature and scope of work to be carried out 1.2. Locate occupational health and safety (OHS) and workplace environmental and sustainable procedures and practices applicable to the work 1.3. Source service procedures and relevant workshop manuals and manufacturer information 1.4. Access and interpret state and territory regulations and requirements 1.5. Check and prepare tools, equipment and materials 1.6. Decide service and/or repair method in accordance with OHS, environmental and industry regulations and guidelines, and enterprise procedures 1.7. Set up work area |
| 2. Adjust trailer to suit individual applications | 2.1. Identify trailer application 2.2. Measure to ascertain ride height in preparation for trailer adjustment 2.3. Use methods, equipment and tolerances suitable to the trailer application and in accordance with manufacturer specifications 2.4. Carry out adjustment in accordance with manufacturer and component supplier specifications, and OHS and workplace environmental and sustainable procedures and practices |
| 3. Test, service, repair and/or maintain trailer | 3.1. Select appropriate diagnostic test 3.2. Undertake testing of trailer 3.3. Identify service, repair and/or maintenance requirements 3.4. Carry out service, repair and/or maintenance using methods, equipment and tolerances suitable to the trailer application in accordance with manufacturer specifications, OHS, and workplace environmental and sustainable procedures and practices |
| 4. Verify system | 4.1. Undertake visual and audible tests 4.2. Repair and eliminate identified issues 4.3. Organise for trailer to be test driven |
| 5. Clean up work area and maintain equipment | 5.1. Clean and inspect equipment and tooling according to workplace requirements 5.2. Tag unserviceable equipment and faults identified in accordance with workplace requirements |

| ELEMENT | PERFORMANCE CRITERIA |
|---------|---|
| | <p>5.3. Finalise and process work completion documentation, update customer and warranty information and give to appropriate persons, as required</p> <p>5.4. Clean work area, dispose of waste and scrap, and store re-useable material, tools and equipment in accordance with workplace procedures</p> |

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

Required skills include:

- technical skills to the level required to adjust, service and repair load carrying trailers with a GTMR or ATM of over 4.5 tonnes, including use of workplace computerised technology for the testing, reporting and recording of results
- communication skills to the level required to confirm work requirements and specifications, to communicate effectively regarding work requirements with supervisor, other workers and customers, to relate to people from a range of social, cultural and ethnic backgrounds and of varying physical and mental abilities, and to report work outcomes and problems
- literacy skills to the level required to understand information related to work orders, including common industry terminology, plans and safety procedures, to interpret technical information and specifications, and to complete workplace documents
- numeracy skills to the level required to correctly calculate time, assess tolerances, apply accurate measurements, calculate material requirements and establish quality checks
- problem-solving skills to the level required to identify technical and procedural problems to avoid planning and scheduling problems, and time and material wastage
- team skills to the level required to work effectively and cooperatively with others to optimise workflow and productivity

Required knowledge

Required knowledge includes:

- types of load carrying trailers with a GTMR or ATM of over 4.5 tonnes

REQUIRED SKILLS AND KNOWLEDGE

- operating principles and their relationship to each other of braking systems and components, including disc, drum and air braking systems, and their sub-systems
- operating principles of suspension types
- operating principles of steering systems
- operating principles of wheel alignment
- inspection and repair procedures applicable to the trailer type and including 5th wheel, king pins, landing gear and coupling, frames and sub-frames
- work organisation and planning processes
- Sub Assembly Registration Number (SARN) system
- Australian Road Transport (ARTSA) - Brake Code of Practice
- service and repair manuals (hard copy and electronic)
- manufacturer and component supplier specifications, including workshop manuals and repair guides related to the servicing and repairing of trailers with a GTMR or ATM of over 4.5 tonnes and their components
- applicable commonwealth, state or territory legislation, regulations, standards and codes of practice, including OHS, personal safety and environment, relevant to the servicing and repairing of trailers with a GTMR or ATM of over 4.5 tonnes and including state and territory braking requirements for trailers
- organisational policies and procedures, including quality requirements and reporting and recording procedures, related to servicing and repairing of trailers with a GTMR or ATM of over 4.5 tonnes and their components

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, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Assessors must be satisfied that the candidate can competently and consistently:

- observe safety procedures and requirements
- communicate effectively with others involved in or affected by the work
- select servicing and repair methods and techniques appropriate to the circumstances and trailer type
- complete preparatory activity in a systematic manner
- service and repair a variety of trailer types with a GTMR or ATM of over 4.5 tonnes to regulatory and manufacturer and component supplier requirements
- complete workplace and equipment records and workplace clean-up requirements.

Context of, and specific resources for assessment

- The application of competency is to be assessed in the workplace or a simulated environment that reflects as far as possible the actual working environment.
- Assessment is to occur using standard and authorised work practices, safety requirements and environmental constraints.
- Assessment is to comply with relevant regulatory requirements, including specified Australian standards.
- Where applicable, reasonable adjustment must be made to work environments and training situations to accommodate ethnicity, age, gender, demographics and disability.
- The following resources should be made available:
 - appropriate worksite
 - a range of trailers with a GTMR or ATM of over 4.5 tonnes requiring servicing and/or repairing
 - specifications and work instructions
 - equipment, hand and power tooling appropriate to servicing and repairing trailers with a GTMR or ATM of over 4.5 tonnes
 - relevant information, including manufacturer specifications.

| EVIDENCE GUIDE | |
|--|--|
| Method of assessment | <ul style="list-style-type: none"> • Assessment must satisfy the endorsed Assessment Guidelines of this Training Package. • Assessment methods must confirm consistency and accuracy of performance (over time and in a range of workplace relevant contexts) together with application of Required Skills and Knowledge. • Assessment methods must be by direct observation of tasks and include questioning on Required Skills and 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. • Competence in this unit may be assessed in conjunction with other functional units which together form part of the holistic work role. |
| Guidance information for assessment | Assessment processes and techniques must be culturally sensitive and appropriate to the language and literacy capacity of the candidate and the work being performed. |

Range Statement

| RANGE STATEMENT | |
|--|--|
| <p>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, if used in the performance criteria, is detailed below. 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) may also be included.</p> | |
| Trailers with a GTMR or ATM of over 4.5 tonnes | <p>Trailers with a GTMR or ATM over 4.5 tonnes may include:</p> <ul style="list-style-type: none"> • box trailers (skeleton type) • heavy goods trailers • low loaders • farm trailers |

| RANGE STATEMENT | |
|---|---|
| | <ul style="list-style-type: none"> • multiple car carriers • mobile machinery/equipment • cane bin trailers • dolly trailers • semi-trailers • timber jinkers • bus semi-trailers • dog trailers • pig trailers • semi-trailer/B-double/B-triple/AB-triple/road train tail trailers • B-double lead trailers • B-triple lead trailers • B-triple middle trailers • converter dolly • low loader dolly • tandem trailers |
| Axles | <p>Axles may include:</p> <ul style="list-style-type: none"> • single • tandem • tri-axle • quad-axle • non-pivoting axles • pivoting front axles |
| Servicing, repair and/or maintaining | <p>Servicing, repair and/or maintaining may include:</p> <ul style="list-style-type: none"> • minor adjustments • operational testing • replacement of fluids and filters |
| Verify system | <p>Verify system may include checking:</p> <ul style="list-style-type: none"> • sub-frame • suspensions components • axles • wheel end • wheels • 5th wheel • king pins • landing gear • coupling |

| RANGE STATEMENT | |
|----------------------------------|---|
| Tooling and equipment | <p>Tooling and equipment may include:</p> <ul style="list-style-type: none"> • hand tools • testing equipment, including multimeters • power tools • air tools • specialist tools and equipment • lubricating equipment • measuring equipment • pressure gauges • vacuum gauges • manufacturer special stools |
| Materials | <p>Materials may include:</p> <ul style="list-style-type: none"> • spare parts • lubricants • fluids • cleaning materials |
| Safe operating procedures | <p>Safe operating procedures may include:</p> <ul style="list-style-type: none"> • operational risk assessment and treatments • toxic substances • electrical safety • machinery movement and operation • manual and mechanical lifting and shifting • working in proximity to others |
| Information/documents | <p>Information/documents may include:</p> <ul style="list-style-type: none"> • verbal, written and graphical instructions issued by authorised internal and external persons • parts listing prices and catalogues • inventory systems • Repair Times manuals • material safety data sheets (MSDS) • diagrams or sketches • engineer's design specifications and instructions • manufacturer specifications • industry standards e.g. Australian Design Rules • Australian Road Transport (ARTSA) - Brake |

| RANGE STATEMENT | |
|------------------------------------|--|
| | Code of Practice <ul style="list-style-type: none"> • Australian standards • workplace specifications and requirements • current driver's licence |
| Legislative requirements | Legislative requirements are to be in accordance with applicable commonwealth, state or territory legislation, regulations, certification requirements and codes of practice, and may include: <ul style="list-style-type: none"> • award and enterprise agreements • industrial relations • Australian standards • Australian Design Rules • confidentiality and privacy • OHS • the environment • equal opportunity • anti-discrimination • duty of care |
| OHS requirements | OHS requirements are to be in accordance with applicable commonwealth, state or territory legislation and regulations, and organisational safety policies and procedures, and may include: <ul style="list-style-type: none"> • personal protective equipment and clothing • safety equipment • first aid equipment • hazard and risk control • elimination of hazardous materials and substances • manual handling, including shifting, lifting and carrying • emergency procedures • road rules • safe driving policy |
| Environmental requirements | Environmental requirements may include: <ul style="list-style-type: none"> • waste management • noise • dust • clean-up management |
| Organisational policies and | Organisational policies and procedures may |

RANGE STATEMENT

| | |
|-------------------|---|
| procedures | include: <ul style="list-style-type: none"> • quality policies and procedures, including Australian Standards • OHS, sustainability, environment, equal opportunity and anti-discrimination • manufacturer specifications and industry codes of practice • safe work procedures • reporting and recording procedures |
|-------------------|---|

Unit Sector(s)

| | |
|--------------------|-----------------------|
| Unit sector | Heavy vehicle trailer |
|--------------------|-----------------------|

Co-requisite units

| | |
|---------------------------|--|
| Co-requisite units | |
| | |
| | |

Competency field

| | |
|-------------------------|--|
| Competency field | |
|-------------------------|--|