



Australian Government

Department of Education, Employment and Workplace Relations

AURT222170A Service air compressors and air lines

Release: 1

AURT222170A Service air compressors and air lines

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	This unit covers competence to carry out air compressor, pressure regulator and air line servicing appropriate to operation of air equipment and spray guns within the body repair sector.
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Application of the Unit

Application of the unit	<p>The unit includes identification and confirmation of work requirement, preparation for work, servicing of air compressors, servicing of air lines and completion of work finalisation processes, including clean-up and documentation.</p> <p>Work involves air compressor regulator, water trap and lines for use of spray painting equipment associated with the vehicle body repair industry.</p> <p>Work requires individuals to demonstrate judgement and problem-solving skills in managing own work activities and contributing to a productive team environment.</p> <p>Work is carried out in accordance with award provisions.</p>
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Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Prerequisite units	

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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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. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Prepare for work	1.1. Work instructions are used to determine job requirements, including method and material type 1.2. Job specifications are read and interpreted 1.3. OH&S requirements, including personal protection needs, are observed throughout the work 1.4. Materials are selected and inspected for quality 1.5. Hand, power tooling and safety equipment are identified and checked for safe use 1.6. Procedures are determined to minimise waste material 1.7. Procedures are identified for maximising energy efficiency while completing job
2. Service air compressor	2.1. Information is accessed and interpreted from manufacturer/component supplier specifications 2.2. Service is carried out using approved methods and equipment, according to specifications relative to the plant/system 2.3. Service operations are completed within established industry guidelines 2.4. Air compressor is serviced without causing damage to component or system 2.5. Workplace documentation is completed and dealt with relevant to service outcomes 2.6. Servicing activities are carried out according to industry regulations/guidelines, OH&S requirements, legislation and enterprise procedures/policies
3. Service pressure regulators and air lines	3.1. Information is accessed and interpreted from manufacturer/component supplier specifications 3.2. Service is carried out using approved methods and equipment, according to specifications relative to the plant/system 3.3. Service operations are completed within established industry guidelines 3.4. Pressure regulators and air lines are serviced without causing damage to component or system 3.5. Servicing activities are carried out according to industry regulations/guidelines, OH&S requirements, legislation and enterprise procedures/policies
4. Clean up work area and maintain	4.1. Material that can be reused is collected and stored

ELEMENT	PERFORMANCE CRITERIA
equipment	<p>4.2. Waste and scrap is removed following workplace procedure</p> <p>4.3. Equipment and work area are cleaned and inspected for serviceable condition in accordance with workplace procedures</p> <p>4.4. Unserviceable equipment is tagged and faults identified in accordance with workplace procedures</p> <p>4.5. Operator maintenance is completed in accordance with manufacturer/component supplier specifications and worksite procedures</p> <p>4.6. Tooling is maintained 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

- collect, organise and understand information related to work orders, plans and safety procedures for servicing air compressors, pressure regulators and air lines
- communicate ideas and information to enable confirmation of work requirements and specifications, coordination of work with worksite supervisor, other workers and customers, and reporting of work outcomes and problems
- plan and organise activities, including preparation and layout of worksite and obtaining of equipment and material to avoid backtracking, workflow interruptions or wastage
- work with others and in a team by recognising dependencies and using cooperative approaches to optimise workflow and productivity
- establish safe and effective work processes which anticipate and/or resolve problems and downtime, to systematically develop solutions to avoid or minimise reworking and wastage
- use mathematical ideas and techniques to calculate time, assess tolerances, apply accurate measurements, calculate material requirements and establish quality checks
- use workplace technology related to servicing of air compressors and air lines, including use of specialist tooling, measuring equipment, use of communication devices and reporting/documenting of results

Required knowledge

REQUIRED SKILLS AND KNOWLEDGE

A working knowledge of:

- OH&S regulations/requirements, equipment, material and personal safety requirements
- types of air compressors and principles of operation
- construction and operation of air compressors, air lines and regulators
- plant safety requirements and inspection procedures
- service procedures/filters/demoisturising air
- lubricants and/or fluids
- work organisation and planning processes
- enterprise quality processes

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

It is essential that competence is fully observed and there is ability to transfer competence to changing circumstances and to respond to unusual situations in critical aspects of:

- observing safety procedures and requirements
- communicating effectively with others involved in or affected by the work
- selecting methods and techniques appropriate to the circumstances
- completing preparatory activity in a systematic manner
- selecting and using relevant tooling and equipment
- identification of application, purpose and operating principles
- conducting inspection, servicing and operational testing in accordance with workplace and manufacturer/component supplier specifications
- servicing pressure regulators and air lines to workplace and manufacturer/component supplier requirements
- completing workplace/equipment documentation

Context of, and specific resources for assessment

Application of competence is to be assessed in the workplace or simulated worksite

Assessment is to occur using standard and authorised work practices, safety requirements and environmental constraints

Assessment is to comply with regulatory requirements, including Australian Standards

The following resources should be made available:

- workplace location or simulated workplace
- materials relevant to servicing of air compressors and air lines
- equipment, hand and power tooling appropriate to servicing of air compressors and air lines
- activities covering mandatory task requirements
- specifications and work instructions

Method of assessment

Assessment must satisfy endorsed assessment guidelines of

EVIDENCE GUIDE

	<p>the automotive industry's RS&R Training Package</p> <p>Assessment methods must confirm consistency and accuracy of performance together with application of underpinning knowledge</p> <p>Assessment must be by direct observation of tasks, with questioning on underpinning knowledge and it must also reinforce integration of key competencies</p> <p>Assessment may be applied under project-related conditions and require evidence of process</p> <p>Assessment must confirm a reasonable inference that competence is able not only to be satisfied under particular circumstance, but is able to be transferred to other circumstances</p> <p>It is preferable that assessment reflects a process rather than an event and occurs over a period of time to cover varying quality circumstances. Evidence of performance may be provided by customers, team leaders/members or other persons subject to agreed authentication arrangements</p> <p>Competence in this unit may be assessed in conjunction with other functional units which together form part of the holistic work role</p>
Guidance information for assessment	

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, 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.

Servicing

Servicing to include fluids, filters, adjustments and operational testing, visual inspections and records

RANGE STATEMENT	
OH&S	OH&S requirements are to be in accordance with legislation/regulations/codes of practice and enterprise safety policies and procedures. This may include protective clothing and equipment, use of tooling and equipment, workplace environment and safety, handling of material, use of fire fighting equipment, enterprise first aid, hazard control and hazardous material and substances
Personal protective equipment	Personal protective equipment is to include that prescribed under legislation/regulation/codes of practice and workplace policies and practices
Safe operating procedures	Safe operating procedures are to include, but are not limited to operational risk assessment and treatments associated with vehicular movement, toxic substances, electrical safety, machinery movement and operation, manual and mechanical lifting and shifting, working in proximity to others and worksite visitors
Emergency procedures	Emergency procedures related to this unit are to include, but are not limited to emergency shutdown and stopping of equipment, extinguishing fires, enterprise first aid requirements and worksite evacuation
Environmental requirements	Environmental requirements are to include but are not limited to waste management, noise, dust and clean-up management
Quality requirements	Quality requirements are to include, but are not limited to regulations, including Australian Standards, internal company quality policy and standards and enterprise operations and procedures
Statutory/regulatory authorities	Statutory/regulatory authorities may include Federal, State/Territory and local authorities administering applicable acts, regulations and codes of practice
Tooling and equipment	Tooling and equipment may include hand tooling, power tooling, specialist tooling for removal/adjustment, testing equipment, greasing

RANGE STATEMENT	
	equipment, air operated equipment and measuring equipment
Materials	Materials may include engine oils, gear oils, moving parts lubricants and cleaning materials
Communications	Communications are to include, but are not limited to verbal and visual instructions and fault reporting and may include worksite specific instructions, written instructions, plans or instructions related to job/task, telephones and pagers
Information/documents	<p>Sources of information/documents may include:</p> <ul style="list-style-type: none"> • verbal or written and graphical instructions, signage, work schedules/plans/specifications, work bulletins, memos, material safety data sheets, diagrams or sketches • safe work procedures related to servicing of air compressors and air lines • regulatory/legislative requirements pertaining to automotive industry, including Australian Design Rules • engineer's design specifications and instructions • organisation work specifications and requirements • instructions issued by authorised enterprise or external persons • Australian Standards

Unit Sector(s)

Unit sector	Technical
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Co-requisite units

Co-requisite units	
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Co-requisite units		

Competency field

Competency field	
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