



Australian Government

AURVTN030 Service air compressors and air lines

Release: 1

AURVTN030 Service air compressors and air lines

Modification History

Release	Comment
Release 1	New unit of competency.

Application

This unit describes the performance outcomes required to service air compressors, pressure regulators, water traps, filters and air lines. It involves cleaning and replacing filters, making necessary adjustments, and completing workplace processes and documentation as part of the day-to-day maintenance of the system.

It applies to those working in the automotive service and repair industry.

No licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication.

Competency Field

Vehicle Body

Unit Sector

Technical - Body

Elements and Performance Criteria

Elements	Performance Criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold and italicised text is used, further information is detailed in the range of conditions section.
1. Prepare to service air compressor	1.1 Job requirements are determined from workplace instructions 1.2 Inspection and servicing procedures and information are sourced and interpreted 1.3 Hazards associated with the work are identified and risks are managed 1.4 Tools, equipment and materials are selected and checked for

Elements	Performance Criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold and italicised text is used, further information is detailed in the range of conditions section.
	serviceability
2. Service air compressor and tank	2.1 Service and adjustments of air compressor and tank are carried out according to manufacturer specifications, workplace procedures, and safety and environmental requirements, and without causing damage to system or components 2.2 Post-service testing is carried out according to workplace procedures
3. Service pressure regulator, filter and air line	3.1 Service and adjustments of pressure regulator, filter and air line are carried out according to manufacturer specifications, workplace procedures, and safety and environmental requirements, and without causing damage to system or components 3.2 Post-service testing is carried out according to workplace procedures
4. Complete work processes	4.1 Final inspection is made to ensure work is to workplace expectations and air compressor system is presented ready for use 4.2 Work area is cleaned, waste and non-recyclable materials are disposed of, and recyclable material is collected 4.3 Tools and equipment are checked and stored according to workplace procedures 4.4 Workplace documentation is processed according to workplace procedures

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance and are not explicit in the performance criteria.

Skills	Description
Learning skills to:	locate air compressor system information efficiently.
Writing skills to:	legibly and accurately fill out workplace documentation when reporting inspection findings, making recommendations, and recording parts and material used.
Oral communication skills to:	- clarify instructions - report inspection findings and make repair recommendations.

Skills	Description
Numeracy skills to:	• use mathematical process, including addition and subtraction, to check and measure components and pressures and compare them to manufacturer specifications • understand measuring and test equipment divisions.

Range of Conditions

This section specifies work environments and conditions that may affect performance.

Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included. Bold italicised wording, if used in the performance criteria, is detailed below.

Service must include:	• fluids and lubricating oil • compressor filters • water traps and filters • adjustments and operational testing • visual inspections • completing service records.
Safety and environmental requirements must include:	• work health and safety (WHS) and occupational health and safety (OHS) requirements, including procedures for: • selecting and using personal protective equipment(PPE) • working with stored energy, compressed air, and rotating shafts, belts and pulleys • environmental requirements, including procedures for trapping, storing and disposing of air compressor oils and fluids.
Post-service testing must include:	• compressor cut-out pressure • minimising unintended air loss • automatic timing switch adjustment.

Unit Mapping Information

Equivalent to AURVTN2030 Service air compressors and air lines

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b4278d82-d487-4070-a8c4-78045ec695b1>

Assessment Requirements for AURVTN030 Service air compressors and air lines

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Performance Evidence

Before competency can be determined, individuals must demonstrate they can perform the following according to the standards defined in this unit's elements, performance criteria, range of conditions and foundation skills:

- inspect and service two different air compressor systems, in which the work must involve the following system components:
 - air compressor motor
 - air compressor tank
 - drive system
 - pressure regulator
 - water trap and filters
 - air lines and fittings.

Knowledge Evidence

Individuals must be able to demonstrate knowledge of:

- work health and safety (WHS) and occupational health and safety (OHS) requirements relating to servicing air compressors and air lines, including procedures for:
 - selecting and using personal protective equipment (PPE)
 - working with stored energy, compressed air, and rotating shafts, belts and pulleys
- environmental requirements, including procedures for trapping, storing and disposing of air compressor oils and fluids
- types of air compressors and principles of operation, including:
 - single stage reciprocating compressors
 - rotary screw compressors
- identification, function and operation of air compressor system and components specified in the performance evidence

- types and applications of air compressor lubricants
- procedures for final inspection of air compressors and air lines, including:
 - compressor cut-out pressure
 - minimising unintended air loss
 - automatic timing switch adjustment.

Assessment Conditions

Assessors must satisfy NVR/AQTF assessor requirements.

Competency is to be assessed in the workplace or a simulated environment that accurately reflects performance in a real workplace setting.

Assessment must include direct observation of tasks.

Where assessment of competency includes third-party evidence, individuals must provide evidence that links them to the air compressor systems that they have serviced, e.g. service orders.

Assessors must verify performance evidence through questioning on skills and knowledge to ensure correct interpretation and application.

The following resources must be made available:

- automotive workplace or simulated workplace
- workplace instructions
- manufacturer air compressor specifications
- two different air compressor systems and components requiring service
- tools, equipment and materials appropriate for servicing air compressors and air lines.

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