



Australian Government

AURPTA005 Service and repair chainsaw cutting systems

Release: 1

AURPTA005 Service and repair chainsaw cutting systems

Modification History

Release	Comment
Release 1	New unit of competency.

Application

This unit describes the performance outcomes required to service and repair faults in the chainsaw cutting systems of outdoor power equipment according to manufacturer specifications. It involves preparing for the task, determining the service and repair requirements, carrying out the service and repair, performing post-repair testing, and completing workplace processes and documentation.

It applies to those working in the outdoor power equipment service and repair industry. The chainsaw cutting systems include those of electric, cordless and hydraulic or petrol powered systems, or pole saws.

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

Competency Field

Outdoor Power Equipment

Unit Sector

Technical

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 and repair chainsaw cutting system	1.1 Job requirements are determined from workplace instructions 1.2 <i>Service and repair procedures</i> and information is sourced and interpreted

Elements Elements describe the essential outcomes.	Performance Criteria 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.
	1.3 Hazards associated with the work are identified and risks are managed 1.4 Tools and equipment are selected and checked for serviceability
2. Determine service and repair requirements of chainsaw cutting system	2.1 Chainsaw cutting system is inspected and tested according to manufacturer specifications, workplace procedures, and safety requirements 2.2 Faults are identified from inspection and causes of faults are determined 2.3 Inspection findings and test results are reported according to workplace procedures, and include recommendations for necessary service, repair or adjustment 2.4 Authorisation to proceed with service and repair is obtained according to workplace procedures
3. Carry out service and repair activities	3.1 Service and repair options are analysed and those most appropriate to the circumstances are selected 3.2 Tools, equipment and materials are selected and checked 3.3 Components are removed and inspected for serviceability according to manufacturer specifications, workplace procedures, and safety and environmental requirements 3.4 Reusable, repaired and replacement components are fitted and adjusted according to manufacturer specifications and workplace procedures
4. Check chainsaw cutting system for normal operation	4.1 System is operated and compared to manufacturer specifications according to workplace procedures and safety requirements 4.2 Adjustments are made as required and chainsaw cutting system is re-tested
5. Complete work processes	5.1 Final inspection is made to ensure work is to workplace expectations and equipment is presented ready for use, including protective guards, cowlings and safety features 5.2 Work area is cleaned, waste and non-recyclable material are disposed of, and recyclable material is collected 5.3 Tools and equipment are checked and stored according to workplace procedures 5.4 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 appropriate sources of information efficiently.
Reading skills to:	interpret information from manufacturer and workshop literature when seeking chainsaw cutting system specifications and procedures.
Writing skills to:	legibly and accurately fill out workplace documentation when reporting inspection findings, making repair recommendations, and recording parts and material used.
Numeracy skills to:	measure chainsaw cutting system components and use basic mathematical operations, including addition and subtraction, to calculate distances, tolerances and deviations from manufacturer specifications.
Planning and organising skills to:	plan own work requirements and prioritise actions to achieve required outcomes and ensure tasks are completed within workplace timeframes.
Technology skills to:	use specialised chain sharpening equipment.

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.

<i>Service and repair procedures</i> must include:	- sharpening, grinding, tension adjusting, and testing chain cutting system components - breaking and joining saw chain - adjusting, aligning, lubricating and testing chainsaw cutting system.
<i>Tools and equipment</i> must include:	- sharpening equipment - equipment stands and vices - grinders - chain breaking and riveting equipment.
<i>Chainsaw cutting system</i> must include:	- chain and guide bar - chain brake - lubricating system

	• sprockets and guides • adjustment components • pole saw.
Safety requirements must include:	• work health and safety (WHS) and occupational health and safety (OHS) requirements, including procedures for: • starting and checking operation of chainsaw cutting system • adjusting and aligning chainsaw cutting system components • operating chain brake • selecting and using personal protective equipment (PPE) • handling and operating chainsaw, including chain brake.
Environmental requirements must include:	• procedures for trapping, storing and disposing of lubricating oils released from chainsaw cutting systems.

Unit Mapping Information

Equivalent to AURPTA2005 Service and repair chainsaw cutting systems

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 AURPTA005 Service and repair chainsaw cutting systems

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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:

- service and repair three different chainsaw cutting systems, including:
- two service and repair jobs that involve sharpening saw chains
- one service and repair job that includes fabricating and replacing a saw chain, and refurbishing or replacing a guide bar.

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 and repairing chainsaw cutting systems, including procedures for:
 - starting and checking operation of chainsaw cutting system
 - adjusting and aligning chainsaw cutting system components
 - operating chain brake
 - selecting and using personal protective equipment (PPE)
 - handling and operating chainsaw, including chain brake
- environmental requirements, including procedures for trapping, storing and disposing of lubricating oils released from chainsaw cutting systems
- application, purpose and operation of chainsaw cutting systems, including:
 - saw chain types and mounting bar
 - drive system and sprocket
 - chain brake and overload devices
 - protective guards and cowlings
 - manual and automatic lubrication systems

- chain adjusting systems
- clutch drum assembly
- service and repair procedures for chainsaw cutting systems, including:
 - chain and mounting bar
 - drive system and sprocket
 - chain brake and overload devices
 - protective guards and cowlings
 - manual and automatic lubrication systems
 - chain adjusting systems
 - clutch drum assembly
- types of lubricants, and their application and methods of lubrication
- post-repair testing procedures for chainsaw cutting systems, including operating system through full operating range.

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 chainsaw cutting systems that they have serviced and repaired, e.g. repair 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:

- outdoor power equipment repair workplace or simulated workplace
- workplace instructions
- manufacturer specifications for chainsaw cutting systems
- area and equipment, including PPE, required to safely test chainsaw cutting systems
- three different chainsaw cutting systems requiring service and repair
- tools, equipment and materials appropriate for inspecting, servicing and repairing chainsaw cutting systems, including:
 - sharpening equipment
 - saw chain
 - equipment stands and vices
 - grinders
 - chain breaking and riveting equipment.

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