



**Australian Government**

# **AURPTA105 Service and repair chainsaw cutting systems**

**Release: 1**

# AURPTA105 Service and repair chainsaw cutting systems

## Modification History

| Release   | Comments                                                                                                |
|-----------|---------------------------------------------------------------------------------------------------------|
| Release 1 | This version first released with AUR Automotive Retail, Service and Repair Training Package Version 6.0 |

## Application

This unit describes the skills and knowledge required to service and repair faults in the chainsaw cutting systems of outdoor power equipment according to manufacturer specifications. The unit 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.

The unit 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.

## Unit Sector

Outdoor Power Equipment Technical

## Elements and Performance Criteria

| ELEMENTS                                                                | PERFORMANCE CRITERIA                                                                                                                                                                                                                                               |
|-------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Elements describe the essential outcomes.</i>                        | <i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>                                                                                                                                                             |
| 1. Prepare to service and repair chainsaw cutting system                | 1.1 Identify job requirements from workplace instructions<br>1.2 Source and interpret workplace service and repair procedures<br>1.3 Identify and manage hazards associated with the tasks<br>1.4 Select tools and equipment and check for serviceability          |
| 2. Determine service and repair requirements of chainsaw cutting system | 2.1 Inspect chainsaw cutting system and test according to manufacturer specifications, workplace procedures, and safety requirements<br>2.2 Identify faults through inspection and identify causes<br>2.3 Report inspection findings and test results according to |

| ELEMENTS                                              | PERFORMANCE CRITERIA                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                       | workplace procedures, and include recommendations for necessary service, repair or adjustment<br>2.4 Obtain authorisation to proceed with service and repair in line with recommendations                                                                                                                                                                                                                                                |
| 3. Carry out service and repair activities            | 3.1 Determine service and repair options and select appropriate methods<br>3.2 Select and inspect tools, equipment and materials<br>3.3 Remove components and inspect for serviceability according to manufacturer specifications, workplace procedures, and safety and environmental requirements<br>3.4 Fit and adjust reusable, repaired and replacement components according to manufacturer specifications and workplace procedures |
| 4. Check chainsaw cutting system for normal operation | 4.1 Operate and compare system to manufacturer specifications according to workplace procedures and safety requirements<br>4.2 Adjust chainsaw cutting system as required and re-test system                                                                                                                                                                                                                                             |
| 5. Complete work processes                            | 5.1 Conduct final inspection according to workplace procedures and confirm equipment is ready for use<br>5.2 Clear work area and dispose of or recycle materials according to workplace procedures<br>5.3 Complete documentation according to workplace procedures                                                                                                                                                                       |

## Foundation Skills

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

| SKILL                   | DESCRIPTION                                                                                                                                                                                               |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Learning                | <ul style="list-style-type: none"> <li>Locates required sources of information efficiently.</li> </ul>                                                                                                    |
| Numeracy                | <ul style="list-style-type: none"> <li>Calculates deviations and tolerances from manufacturer specifications using basic mathematical skills.</li> </ul>                                                  |
| Reading                 | <ul style="list-style-type: none"> <li>Interprets information from manufacturer and workshop literature when seeking chainsaw cutting system specifications and procedures.</li> </ul>                    |
| Planning and organising | <ul style="list-style-type: none"> <li>Plans own work requirements</li> <li>Prioritises actions to achieve required outcomes</li> <li>Ensures tasks are completed within workplace timeframes.</li> </ul> |
| Technology              | <ul style="list-style-type: none"> <li>Uses specialised equipment.</li> </ul>                                                                                                                             |

## Unit Mapping Information

Supersedes and is equivalent to AURPTA005 Service and repair chainsaw cutting systems.

## Links

Companion Volume Implementation Guide is found on VETNet -

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

# Assessment Requirements for AURPTA105 Service and repair chainsaw cutting systems

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## Performance Evidence

The candidate must demonstrate the ability to complete the tasks outlined in the elements, performance criteria and foundation skills of this unit, including evidence of the ability to:

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

## Knowledge Evidence

The candidate must be able to demonstrate knowledge to complete the tasks outlined in the elements, performance criteria and foundation skills of this unit, including knowledge of:

- methods to locate and interpret information required to service and repair chainsaw cutting systems, including:
  - information provided by customer and supervisors
  - manufacturer specifications and procedures or equivalent documentation
- workplace procedures required to service and repair chainsaw cutting systems, including:
  - establishing serviceability of tools and equipment
  - documentation procedures
  - housekeeping procedures, including:
    - examination of tools and equipment
    - storage of equipment
    - identification, tagging and isolation of faulty equipment
    - disposal of excess materials
    - recycling procedures
- work health and safety (WHS) 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
- workplace procedures, including for:
  - obtaining authorisation to service and repair
  - checking tools and equipment
  - managing risks
  - reporting inspection findings
  - processing workplace documentation
- environmental requirements, including procedures for trapping, storing and disposing of lubricating oils released from chainsaw cutting systems
- application, and key features 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

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.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

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