



Australian Government

AURPTA004 Service and repair drum cutting systems

Release: 1

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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 drum 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 drum cutting systems include those of push type, electric or internal combustion powered systems, and include reel mowers or gang mowers. This unit relates to the service and repair of the drum cutting system only and not the driving engine or motor.

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

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.
system	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 serviceability
2. Determine service and repair requirements of drum cutting system	2.1 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 drum 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 drum 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 materials 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 drum 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 drum 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 blade grinding 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:	- grinding, adjusting and aligning cutting blades - lubricating system and components - testing repaired unit - documenting and reporting service and repair procedures.
<i>Safety requirements</i> 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 electrical systems - working with drum cutting system - checking protective guards, cowlings and safety features.
<i>Environmental requirements</i> must include:	procedures for trapping, storing and disposing of lubricating oils released from drum cutting systems

Unit Mapping Information

Equivalent to AURPTA2004 Service and repair drum 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 AURPTA004 Service and repair drum 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 two different drum cutting systems, including:
 - two of the following:
 - push type single reel
 - motorised single reel
 - gang (multi-reel)
 - all of the following:
 - cutting blades and attachments
 - blade mounting
 - drive system
 - wheels.

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 drum cutting systems, including procedures for:
 - selecting and using personal protective equipment (PPE)
 - working with electrical systems
 - working with drum cutting system
 - checking protective guards, cowlings and safety features
- environmental requirements, including procedures for trapping, storing and disposing of lubricating oils released from drum cutting systems

- application, purpose and operation of drum cutting systems, including push type, electric and internal combustion powered systems, including:
 - reel mowers
 - gang (multi-reel) mowers
- types of lubricants, and their application and methods of lubrication
- service and repair procedures for drum cutting systems, including:
 - grinding, adjusting and aligning cutting blades
 - aligning cutter housing
 - adjusting cutting blade mounting and attachments
 - analysing wear of drive system
- post-repair testing procedures for drum 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 drum 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 drum cutting systems
- area and equipment, including PPE, required to safely test drum cutting systems
- two different drum cutting systems as specified in the performance evidence requiring service and repair
- tools, equipment and materials appropriate for inspecting, servicing and repairing drum cutting systems, including specialised blade grinding equipment.

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