



Australian Government

AURKTA005 Inspect, service and repair track type drive and support systems

Release: 1

AURKTA005 Inspect, service and repair track type drive and support systems

Modification History

Release	Comment
Release 1	New unit of competency.

Application

This unit describes the performance outcomes required to inspect, service and repair faults in track type drive and support systems. It involves preparing for the task, inspecting the system to determine 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 automotive service and repair industry. The track type drive and support systems include those of agricultural machinery or mobile plant machinery.

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

Competency Field

Mechanical - Mobile Plant

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.

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. Prepare to inspect track type drive and support system	1.1 Job requirements are determined from workplace instructions 1.2 Inspection procedures and information are sourced and interpreted 1.3 Options are analysed and those most appropriate to the circumstances are selected 1.4 Hazards associated with the work are identified and risks are managed 1.5 Tools, equipment and materials are selected and checked for serviceability
2. Conduct inspection and report results	2.1 Inspection is carried out according to manufacturer specifications, workplace procedures, and <i>safety and environmental requirements</i> 2.2 Inspection results are compared with manufacturer specifications 2.3 Inspection findings are reported according to workplace procedures, and include recommendations for necessary service, repairs or adjustments
3. Service and repair track type drive and support system	3.1 Service and repair procedures and information are sourced and interpreted 3.2 Service and repair tools, equipment and materials are selected and checked 3.3 Service and adjustments are carried out according to manufacturer specifications, workplace procedures, and safety and environmental requirements 3.4 Repairs and component replacements and adjustments are carried out according to manufacturer specifications, workplace procedures, and safety and environmental requirements 3.5 Post-repair 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 machinery is presented ready for use, including ensuring that protective guards, safety features and cowlings are in place 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 appropriate information efficiently.
Reading skills to:	interpret information from manufacturer and workshop literature when seeking track type drive specifications and procedures.
Writing skills to:	legibly and accurately fill out workplace documentation when reporting diagnostic findings, making repair recommendations, and recording parts and material used.
Oral communication skills to:	clarify workplace instructions and determine job requirements.
Numeracy skills to:	- measure track type drive and support system components and use basic mathematical operations, including addition and subtraction, to calculate distances, tolerances and deviations from manufacturer specifications - understand measuring and test equipment divisions.
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 measuring equipment and wear gauges.

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>Safety and environmental requirements</i> must include:	- work health and safety (WHS) and occupational health and safety (OHS) requirements, including procedures for: - manually handling system components - isolating and stabilising machines - releasing track chain tensioner - working with recoil spring stored energy - disassembling track chain tensioner
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	• working with stored hydraulic pressure • environmental requirements, including procedures for: • trapping, storing and disposing of lubricants and fluids released from track type drive and support systems • waste management, machine hygiene, dust and clean-up management.
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Unit Mapping Information

Equivalent to AURKTA3005 Inspect, service and repair track type drive and support 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 AURKTA005 Inspect, service and repair track type drive and support 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:

- inspect, service and repair one machine track type drive and support system, including four of the following components:
 - carrier roller
 - track roller
 - undercarriage idler
 - drive sprocket
 - track chain
 - recoil spring
 - track chain tensioner
 - track plate
 - track frame, including its alignment.

Knowledge Evidence

Individuals must be able to demonstrate knowledge of:

- work health and safety (WHS) and occupational health and safety (OHS) requirements relating to inspecting, servicing and repairing track type drive and support systems, including procedures for:
 - manually handling system components
 - isolating and stabilising machines
 - releasing track chain tensioner
 - working with recoil spring stored energy
 - disassembling track chain tensioner

- working with stored hydraulic pressure
- environmental requirements, including procedures for:
 - trapping, storing and disposing of lubricants and fluids released from track type drive and support systems
 - waste management, machine hygiene, dust and clean-up management
- operating principles of track type drive and support systems, including:
 - track system
 - undercarriage system
- application, purpose and operation of track type drive and support systems, including:
 - track links, pins, bushings and track shoes
 - undercarriage idlers, carrier rollers, drive sprockets, track chain tensioners, recoil spring, accumulator, track plate, track frame and guards
- inspection procedures for track type drive and support systems, including:
 - component wear analysis
 - system operation analysis
- diagnostic testing procedures for track type drive and support systems, including:
 - component wear analysis, including:
 - track links, pins, bushings and track shoes
 - undercarriage idlers, rollers, drive sprockets, tensioners, track frame and guards
 - track frame alignment
- reclamation principles of track type drive components
- service and repair procedures for track type drive and support systems, including removing, replacing, repairing and adjusting system components
- post-repair testing procedures for track type drive and support systems, including:
 - track tension adjustment
 - track frame alignment.

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 track type drive and support 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:

- automotive repair workplace or simulated workplace

- workplace instructions
- manufacturer track type drive specifications
- machinery with track type drive and support system requiring service and repair
- track drive system inspection and measurement tools and gauges, including:
 - track chain, track link, pin, bushing and track shoe
 - undercarriage tensioner, roller, idler and drive sprocket
- tools, equipment and materials appropriate for inspecting, servicing, repairing and adjusting track type drive and support systems.

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