



Australian Government

AURKTA001 Synchronise plant and equipment

Release: 1

AURKTA001 Synchronise plant and equipment

Modification History

Release	Comment
Release 1	New unit of competency.

Application

This unit describes the performance outcomes required to synchronise plant and equipment. It involves preparing for the task, selecting the correct synchronising procedure, carrying out the synchronisation, performing post-synchronising testing, and completing workplace processes and documentation.

It applies to those working in the automotive service and repair industry. The plant and equipment 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.
1. Prepare to undertake synchronising operations	1.1 Job requirements are determined according to workplace instructions 1.2 Synchronisation procedures and information are sourced and interpreted 1.3 Options for synchronisation are analysed and those most

Elements	Performance Criteria
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	appropriate to the circumstances are selected and prepared 1.4 Hazards associated with the work are identified and risks are managed 1.5 Synchronisation tools and equipment are selected and checked for serviceability 1.6 Technical and calibration requirements for synchronisation are sourced, and support equipment is identified and prepared
2. Conduct synchronising operations	2.1 Synchronising procedures are carried out according to manufacturer specifications, workplace procedures, and safety and environmental requirements 2.2 Synchronising documentation is completed and reported according to workplace procedures
3. Analyse results	3.1 Operational tests are carried out and results are compared with manufacturer specifications 3.2 Results are documented and reported according to workplace procedures
4. Complete work processes	4.1 Final inspection is made to ensure work is to workplace expectations and plant and equipment are presented ready for use, including protective guards, safety features and cowlings 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 sources of information efficiently.
Reading skills to:	interpret information from manufacturer and workshop literature when seeking synchronising specifications and procedures.

Skills	Description
Writing skills to:	legibly and accurately fill out workplace documentation when reporting synchronising tests, and recording parts and material used.
Oral communication skills to:	clarify instructions.
Numeracy skills to:	- measure plant and equipment components and use basic mathematical operations, including addition, subtraction, multiplication and division, to calculate distances, pressures, tolerances and deviations from manufacturer specifications - interpret test meters and equipment scales.
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 synchronising test 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>Safety and environmental requirements</i> must include:	- work health and safety (WHS) and occupational health and safety (OHS) requirements, including procedures for: - operating engines - following electrical safety requirements - isolating and stabilising plant and equipment - environmental requirements, including procedures for trapping, storing and disposing of oils or fluids released from plant and equipment during synchronisation process.
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Unit Mapping Information

Equivalent to AURKTA3001 Synchronise plant and equipment.

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 AURKTA001 Synchronise plant and equipment

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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:

- synchronise two different pieces of plant and equipment, in which the work must involve:
 - selecting synchronising procedures appropriate to the circumstances
 - synchronising the plant and equipment
 - testing and inspecting synchronised plant and equipment.

Knowledge Evidence

Individuals must be able to demonstrate knowledge of:

- work health and safety (WHS) and occupational health and safety (OHS) requirements relating to synchronising plant and equipment, including procedures for:
 - operating engines
 - following electrical safety requirements
 - isolating and stabilising plant and equipment
- environmental requirements, including procedures for trapping, storing and disposing of oils or fluids released from plant and equipment during synchronisation process
- operating principles of plant and equipment and associated components, including:
 - electrical
 - hydraulic
 - mechanical
- plant and equipment synchronisation procedures, including:
 - electrical:
 - connect and disconnect
 - electronic control module

- electronic control of implement settings and adjustments
- hydraulic:
 - connect and disconnect
 - pressure adjustment
 - fluid, leaks, and pressures
- mechanical:
 - weight
 - power take-off (PTO)
 - three point linkage
 - towed implement
- post-synchronisation testing procedures for plant and equipment, including operational test procedures.

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 plant and equipment that they have synchronised, 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 plant and equipment synchronisation specifications
- two different pieces of plant and equipment for synchronisation
- test equipment for synchronising plant and equipment
- tools, equipment and materials appropriate for synchronising plant and equipment.

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