



Australian Government

TLIB3123 Apply awareness of motive power unit fundamentals

Release: 2

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Modification History

Release 2. This is the second release of this unit of competency in the TLI Transport and Logistics Training Package:

- Minor statement changes in Knowledge Evidence
- Minor statement changes in Assessment Conditions.

Release 1. This is the first release of this unit of competency in the TLI Transport and Logistics Training Package.

Application

This unit involves the skills and knowledge required to apply awareness of motive power unit fundamentals.

It includes identifying basic motive power unit types, air/vacuum systems, electrical systems, mechanical systems, control systems, cooling and lubricating systems, auxiliary equipment, safety system equipment and their basic operations.

This unit is intended as an introduction for people entering the rail industry who will be working on or around motive power units.

A motive power unit is a rail vehicle used to provide the power to move itself or other vehicles.

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

Pre-requisite Unit

Not applicable.

Competency Field

B – Equipment Checking and Maintenance.

Unit Sector

Rail sector.

Elements and Performance Criteria

ELEMENTS

PERFORMANCE CRITERIA

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

1 Identify basic motive power unit types

1.1 Different motive power unit types and/or gauges currently in operation are identified

1.2 Basic layout of different types of motive power unit is identified

1.3 Hazards are identified, risks are assessed and risk control measures are implemented

2 Identify air/vacuum systems and operation

2.1 Basic air/vacuum components relevant to motive power unit type are located and identified

2.2 Uses and operation of air/vacuum system are identified

3 Identify electrical systems and operation

3.1 Basic electrical components relevant to motive power unit type are located and identified

3.2 Uses and operation of electrical system are identified

4 Identify mechanical systems and operation

4.1 Basic mechanical components relevant to motive power unit type are located and identified

4.2 Uses and operation of mechanical system are identified

5 Identify control systems and operation

5.1 Basic control system components relevant to motive power unit type are located and identified

5.2 Uses and operation of control systems are identified

6 Identify cooling and lubricating systems and operation

6.1 Basic cooling and lubricating system components relevant to motive power unit type are located and identified

6.2 Uses and operation of cooling and lubricating systems are identified

7 Identify auxiliary equipment and its operation

7.1 Basic auxiliary equipment components relevant to motive power unit type are located and identified

7.2 Uses and operation of auxiliary equipment are identified

8 Identify safety system equipment and their

8.1 Safety system equipment and components relevant to motive power types are identified

operation

8.2 Uses and operation of safety system equipment are identified

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Unit Mapping Information

This unit replaces and is equivalent to TLIB3123A Apply awareness of motive power unit fundamentals.

Links

Companion Volume Implementation Guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>

Assessment Requirements for TLIB3123 Apply awareness of motive power unit fundamentals

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Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria on at least one occasion and include:

- identifying job hazards and taking required actions to minimise, control or eliminate identified hazards
- identifying motive power unit types including:
 - air/vacuum systems
 - auxiliary equipment
 - control systems
 - cooling and lubricating systems
 - electrical systems
 - mechanical systems
 - safety system equipment and their operations.

Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria and include knowledge of:

- fundamentals of:
 - electrical components
 - mechanical equipment
 - railway terminology
 - track layout
- relevant work health and safety (WHS)/occupational health and safety (OHS), and environmental procedures and regulations

- relevant workplace and/or operational procedures
- types of motive power units including:
 - air/vacuum systems
 - auxiliary equipment
 - control systems
 - cooling and lubricating systems
 - electrical systems
 - mechanical systems
 - safety system equipment and their operations.

Assessment Conditions

Assessors must hold credentials specified within the Standards for Registered Training Organisations current at the time of assessment.

Assessment must satisfy the Principles of Assessment and Rules of Evidence and all regulatory requirements included within the Standards for Registered Training Organisations current at the time of assessment.

Assessment must occur in workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in simulated workplace operational situations that replicate rail workplace conditions.

Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

Resources for assessment must include access to:

- a range of relevant exercises, case studies and/or simulations
- relevant and appropriate materials, tools, equipment and personal protective equipment (PPE) currently used in industry
- applicable documentation including workplace procedures, regulations, codes of practice and operation manuals.

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