



Australian Government

MARC016 Operate propulsion transmission systems up to 1500 kW

Release: 1

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Modification History

Release 1. New unit of competency.

Application

This unit involves the skills and knowledge required to operate propulsion transmission systems up to 1500 kW according to technical specifications and safe operating limits.

This unit applies to engine workers in the maritime industry working as a Marine Engine Driver Grade 1 Near Coastal on vessels up to 1500 kW.

This unit has links to legislative and certification requirements.

Pre-requisite Unit

Not applicable.

Competency Field

C - Equipment Operations

Unit Sector

Not applicable.

Elements and Performance Criteria

Elements describe the essential outcomes.

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

1 Prepare for operation

- 1.1 Risks to self, others and the environment are identified and precautions are taken to minimise risk according to organisational procedures
- 1.2 Routine pre-operational checks of propulsion transmission systems are completed prior to use according to manufacturer specifications and organisational procedures

2 Operate propulsion transmission systems

- 2.1 Suitable personal protective equipment is selected and used according to organisational procedures
- 2.2 Propulsion transmission systems are operated in a safe and controlled manner

- 2.3 Performance of propulsion transmission system operations is monitored
 - 2.4 Faults or malfunctions are identified and recorded according to organisational procedures
 - 2.5 Faults or malfunctions are rectified and corrective actions are taken and recorded according to organisational procedures
 - 2.6 Procedures to be undertaken in emergencies are recognised and implemented
- 3 Complete operations**
- 3.1 Shut-down procedures are implemented according to manufacturer instructions and organisational procedures
 - 3.2 Operational records are completed according to organisational procedures

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

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

Range of Conditions

Specifies different 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.

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

- Propulsion transmission systems must include:
- control system
 - fixed pitch and controllable pitch propellers
 - gearbox and reduction gear arrangements
 - intermediate bearings
 - propeller types and arrangements
 - shafting arrangements
 - stern tube and their systems

- transmission system

Emergencies must include:

- failure or major fault in:
- propulsion transmission system or associated systems

Operational records must include:

- logbooks
- maintenance scheduling and maintenance records from organisation's safety management system
- plant and equipment manufacturer instructions and recommended procedures

Unit Mapping Information

This is a new unit. This unit is equivalent to MARC4006A Operate propulsion transmission systems up to 1500 kW.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=772efb7b-4cce-47fe-9bbd-ee3b1d1eb4c2>