



**Australian Government**

# **MARC054 Operate propulsion transmission systems up to 1500 kW**

**Release: 1**

# MARC054 Operate propulsion transmission systems up to 1500 kW

## Modification History

Release 1. This is the first release of this unit of competency in the MAR Maritime Training Package.

## 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.

It includes preparing for operations, operating propulsion transmission systems and completing operations.

This unit applies to people working in the maritime industry in the capacity of:

- Chief Engineer on vessels with inboard engines less than 1500 kW within the exclusive economic zone (EEZ)
- Second Engineer on vessels with inboard engines less than 3000 kW within the EEZ
- Chief or Second Engineer on vessels with outboard engines with unlimited propulsion power within the EEZ
- assistant under the direct supervision of the Chief Engineer
- worker in the engine room of a vessel less than 80 meters in length with propulsion power up to 3000 kW.

## Licensing/Regulatory Information

Legislative and regulatory requirements are applicable to this unit.

This unit is one of the requirements to obtain Australian Maritime Safety Authority (AMSA) certification as a Marine Engine Driver Grade 1 Near Coastal, as defined in the National Standard for Commercial Vessels (NSCV) Part D.

## Pre-requisite Unit

Not applicable.

## Competency Field

C - Equipment Operations

## Unit Sector

Not applicable.

## Elements and Performance Criteria

### ELEMENTS

Elements describe the essential outcomes.

### PERFORMANCE CRITERIA

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

- |  |   |
|--|---|
| <b>1 Prepare for operation</b>                   | <p><b>1.1</b> Risks to self, others and the environment are identified and precautions are taken to minimise risk according to organisational procedures</p> <p><b>1.2</b> Routine pre-operational checks of propulsion transmission systems are completed prior to use according to manufacturer specifications and organisational procedures</p>  |
| <b>2 Operate propulsion transmission systems</b> | <p><b>2.1</b> Suitable personal protective equipment (PPE) is selected and used according to organisational procedures</p> <p><b>2.2</b> Propulsion transmission systems are operated in a safe and controlled manner</p> <p><b>2.3</b> Performance of propulsion transmission system operations is monitored</p> <p><b>2.4</b> Faults or malfunctions are identified and recorded according to organisational procedures</p> <p><b>2.5</b> Faults or malfunctions are rectified and corrective actions are taken and recorded according to organisational procedures</p> <p><b>2.6</b> Procedures to be undertaken in emergencies are recognised and implemented</p> |
| <b>3 Complete operations</b>                     | <p><b>3.1</b> Shutdown procedures are implemented according to manufacturer instructions and organisational procedures</p> <p><b>3.2</b> Operational records are completed according to organisational procedures</p>   |

## 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 MARC016 Operate propulsion transmission systems up to 1500 kW.

## **Links**

Companion Volume implementation guide can be found in VetNet -

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