



Australian Government

MARA024 Manage vessel stability

Release: 1

MARA024 Manage vessel stability

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 manage the dynamic factors affecting the stability of a vessel less than 80 metres.

It includes calculating stability, controlling vessel stress and stability, and maintaining records of stability management.

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

- Master on commercial vessels less than 35 metres in length within the exclusive economic zone (EEZ)
- Master on vessels less than 80 metres in length in inshore waters
- Chief Mate or Deck Watchkeeper on vessels less than 80 metres in length within the EEZ
- Chief Engineer on vessels with inboard engines less than 1500 kW within the EEZ
- Second Engineer on vessels with inboard engines less than 3000 kW within the EEZ
- 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 metres in length with propulsion power less than 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 Master less than 35 metres Near Coastal, Mate less than 80 metres and 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

A - Handling Cargo and Vessel Stability

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.

1 Calculate stability

1.1 Vessel stability data book is made available and checked for endorsement

1.2 Data is interpreted to determine safety parameters for vessel

1.3 Stability is accurately calculated using data extracted from vessel stability data book

1.4 Stability calculations are checked to ensure they correlate with data set out in vessel stability book

1.5 Miscalculations or unsafe conditions are recognised and recalculated or checked

1.6 Calculated stability data is recorded using appropriate units and correct number of significant figures

2 Control vessel stress and stability

2.1 Information from vessel stability information is used to determine loading limits and displacement from draft

2.2 Vessel weight distribution is managed to maintain stability condition within safe limits at all times and regulatory requirements are complied with under all conditions of loading

2.3 Relevant stability information is correctly communicated to others, as required

2.4 Stability conditions of vessel are managed in adverse weather conditions

2.5 Emergencies that may jeopardise vessel stability are recognised and appropriate actions taken

3 Maintain records of stability management

3.1 Data and information related to stability management is accurately recorded

- 3.2** Data and information related to stability management is filed and stored according to organisational procedures

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 MARA004 Manage vessel stability.

Links

Companion Volume implementation guide can be found in VetNet -

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