



Australian Government

MARM003 Identify factors that affect a commercial vessel's fitness for purpose

Release: 1

MARM003 Identify factors that affect a commercial vessel's fitness for purpose

Modification History

Release 1. New unit of competency.

Application

This unit involves the skills and knowledge required to identify the construction and design characteristics that contribute to the watertight integrity and fitness for purpose of a commercial vessel.

This unit applies to people who assist marine surveyors or who undertake administration duties in the maritime industry and/or marine surveying sector.

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

Pre-requisite Unit

Not applicable.

Competency Field

M – Marine Surveying

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 Plan for vessel survey

- 1.1 Range of commercial vessels that may be surveyed or inspected are identified and survey regime for each is accurately documented
- 1.2 Hull shapes of typical commercial vessels are identified and verified for accuracy with surveyor
- 1.3 Type of survey to be carried out is accurately identified and basic survey plan is developed

2 Identify and explain structural

- 2.1 Types, properties and application of common materials used in construction of typical commercial vessels are identified

components and materials		and noted in survey plan
	2.2	Basic structural components used on typical commercial vessels are correctly identified and noted in survey plan
	2.3	Inspection requirements for materials and components are documented and verified with surveyor
3 Identify issues relating to vessel water and weather tight integrity	3.1	Range and types of deterioration that affect fitness for purpose of a vessel are identified and confirmed with surveyor
	3.2	Preservation and corrosion control methods to maintain fitness for purpose are outlined and confirmed with surveyor
	3.3	Deterioration of vessel hull or structure is accurately identified either in water or on slipway
	3.4	Typical requirements concerning watertight and weather tight structural integrity of vessels are identified and confirmed with surveyor
4 Determine vessel reporting requirements	4.1	Need for vessel to be fit for its intended purpose is outlined and where questionable, is reported to relevant personnel
	4.2	Condition of vessel and related action is communicated clearly and concisely with others
	4.3	Mandatory and regulatory reporting requirements in relation to general work practices are followed

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.

Commercial vessels must include: vessels defined as commercial in Marine Safety (Domestic Commercial Vessel) National Law

Common materials include one or more of the following:

- aluminium
- ferro cement
- fibre composites
- fibre reinforced plastic
- plywood
- steel
- timber

Components include one or more of the following:

- bulk heads
- collision bulkheads
- deck
- deck beams
- deck plating
- hatches and hatchways
- hull
- keel
- portholes
- propellers
- rudders
- stem and stern
- stringers
- strakes and chines
- thrusters
- ventilators

Range and types of deterioration include one or more of the following:

- dissimilar metals
- fungal attack
- insect attack
- metal fatigue and corrosion
- osmosis

Preservation and corrosion control methods include one or more of the following:

- design
- earthing and bonding
- fendering and insulation
- impressed current systems
- preservation of metals:
 - sacrificial anodes
 - anti-corrosive paints
- preservation of timber:
 - painting
 - oiling
 - varnishing

Relevant personnel
include one of the
following:

- delegates of the national regulator
- owners and operators of commercial vessels

Unit Mapping Information

This unit replaces and is equivalent to MARM3003A Identify factors that affect a commercial vessel's fitness for purpose.

Links

Companion Volume implementation guides are found in VETNet -

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