



Australian Government

Assessment Requirements for MARH029 Perform marine towage operations

Release: 1

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Modification History

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

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:

- applying precautions and implementing risk control procedures in accordance with marine towage plan
- applying stability criteria for the towing vessel in accordance with marine towage plan
- communicating effectively with others
- completing relevant documentation in accordance with marine towage plan
- ensuring correct tension and balance between lines in accordance with safe working practices in accordance with workplace procedures
- instructing crew in accordance with marine towage operations and marine towage plan
- managing safety, environmental and hazard control precautions and procedures during the marine towage operation, including danger zones and snap back zones
- managing the placing lines for towing alongside, preparing and throwing of lines and preparing lines for towing alongside in accordance with workplace procedures
- modifying activities depending on operational contingencies, risk situations and environments in accordance with standard operating procedures and contingency plans
- passing and securing a towage line in accordance with workplace procedures
- undertaking towing operations in accordance with marine towage plan
- using personal protective equipment (PPE) in accordance with workplace procedures.

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:

- application of domestic and international conventions, regulations and legislation relevant to marine towage operations, including:
 - Convention of the International Regulations for Preventing Collisions at Sea (COLRegs)
 - International Convention for the Prevention of Pollution from Ships (MARPOL)
 - International Convention for the Safety of Life at Sea (SOLAS)
 - International Maritime Dangerous Goods (IMDG) Code
 - Marine Orders

- state/territory and port regulations
- survey and classifications
- contingency plans and procedures responding to emergency situations when supervising crew and conducting marine towage operations, including:
 - adverse weather conditions
 - collision
 - fire
 - girding/girting risk
 - person overboard
 - pollution
 - loss of propulsion
 - loss of steerage
 - towline failure
 - working line failure
- documentation, including:
 - contracts
 - insurance
 - surveys:
 - off-hire
 - on-hire
 - tow gear
 - towage certificates
- factors to be taken into consideration when supervising crew and conducting marine towage operations, including:
 - characteristics and features of marine towing operations, item to be manoeuvred and towing configurations
 - manning requirements and crew allocation
 - requirements of marine towage plan
 - working load limit (WLL)/safe working loads (SWL) of lines and equipment
 - vessel strong points used for emergency towing
- hazards and dangers, including:
 - collision
 - congested waters
 - environmental conditions:
 - air draft
 - current
 - displacement
 - drift of the tow
 - hydrodynamic effects
 - overhead clearances

- tidal streams
 - water depths
 - windage
- dangers, including:
 - bight of the line
 - danger zones, deck space and snap back zones
 - dangerous goods and cargo
 - depth of water
 - dangers of handling of towage equipment and gear
 - faulty, damaged or malfunctioning equipment and gear
 - line tension, variation in line tension and abnormalities
 - towlines including:
 - adjusting towing line
 - lengthening towing line
 - movement of tow line
 - positioning of tow line
 - selection of tow line
 - shortening towage line
 - tow line failure
 - working line failure
 - structures and cables including:
 - communication cables
 - pipelines
 - restricted sea room
 - road and rail bridges
 - subsea power cables
 - use of coupling equipment to couple and uncouple tow
- making fast the item to be moved, including the impact of:
 - current strength
 - draught
 - light
 - location
 - shape
 - size
 - weather
- obligations for personnel to use personal protective equipment (PPE) during towing operations and emergency situations, including:
 - immersion suits
 - lifebuoy
 - lifejackets

- personal locating beacons (PLB)
- portable lights
- radiocommunication equipment
- wet weather protection
- records, logs and documentation, including:
 - towage log
 - engine log
- relevant work health and safety (WHS)/occupational health and safety (OHS) and environmental protection procedures and guidelines
- risk assessment processes and procedures
- Safety Management System (SMS), including:
 - marine towage plan
 - passage plan
 - towage operation manuals
 - stability book
- WLL/SWL of lines and equipment
- towline/s, including:
 - wire ropes
 - synthetic ropes
- towage gear and equipment, including:
 - bitts including:
 - bitts for low stress tasks
 - bitts for towage
 - bridles
 - capstan
 - chafing gear
 - emergency release system
 - emergency towage rigging
 - emergency towage equipment
 - hooks
 - hydraulic systems such as shark jaws
 - rings
 - ropes
 - shackles
 - surge pendant
 - thimbles
 - towing hooks and arrangements
 - towage fittings
 - towage lines:
 - gob lines

- working lines
- towage attachment
- towing pendant
- towing pins
- towing winch brakes
- winches
- wires
- SMS, workplace procedures and standard operating procedures for towage 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 processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

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 workplace conditions.

Resources for assessment must include access to:

- a vessel capable of conducting marine towage operations
- applicable documentation such as legislation, regulations, codes of practice, workplace procedures and operational manuals
- tools, equipment, machinery, materials and relevant PPE currently used in industry.

Links

Companion Volume Implementation Guides are found in VETNet -

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