



Australian Government

Department of Education, Employment and Workplace Relations

MEM50009B Safely operate a mechanically powered recreational boat

Release: 1

MEM50009B Safely operate a mechanically powered recreational boat

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	<p>This unit covers safely handling/operating a powered recreational boat on coastal and inland waters. It includes manoeuvring and handling the boat as well as safe navigation and anchoring.</p> <p>This unit was developed by the National Marine Safety Committee (NMSC).</p>
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Application of the Unit

Application of the unit	<p>This unit is one of three core competencies that have been adopted by all government marine safety authorities to contribute to and promote the safe use of waterways and awareness of boating safety. The unit applies specifically to mechanical powered recreational boats including personal watercraft. However, it is recognised that some aspects of this competency apply to any recreational vessel.</p> <p>All work and work practices are undertaken to regulatory and legislative requirements.</p> <p>Unit MEM50008B (Carry out trip preparation and planning) and Unit MEM50010B (Respond to boating emergencies and incidents) are the other two NMSC core units.</p> <p>Band: A</p> <p>Unit Weight: 2</p>
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Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Prerequisite units	

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Manoeuvre and handle the boat	1.1. A pre-start check is undertaken. 1.2. Motor is prepared and started. 1.3. Boat is manoeuvred safely according to conditions and in accordance with water traffic regulations. 1.4. Performance of the boat and personnel is monitored at all times. 1.5. Impact of boat use on others and the environment is considered. 1.6. Safety equipment is used, stowed and, if required, worn in accordance with legislation and recognised regulations and rules.
2. Navigate safely	2.1. Aids to small craft navigation are identified. 2.2. Collision avoidance techniques are applied when required in accordance with relevant legislation, recognised regulations and rules. 2.3. Operation of the boat is carried out at all times in accordance with relevant legislation, recognised regulations and rules. 2.4. Navigational aids and landmarks are used to determine and monitor boat position. 2.5. Hazards and conditions are taken into account in navigating the boat.
3. Anchor the boat	3.1. Anchorage site is selected in accordance with prevailing and forecast conditions and in accordance with legislation. 3.2. Type of anchor used is suitable for location. 3.3. Anchor is lowered, set and monitored according to prevailing conditions. 3.4. Anchor is retrieved and securely stowed.

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

REQUIRED SKILLS AND KNOWLEDGE

Look for evidence that confirms skills in:

- adequately preparing and checking
- manoeuvring and handling a boat safely and accurately
- monitoring performance and being aware
- navigating safely and taking hazards into account
- anchoring techniques

Required knowledge

Look for evidence that confirms knowledge of:

- boating and other relevant legislation, rules and regulations
- legislative requirements regarding the use of safety equipment
- area of activity hazards and prevailing conditions
- boating information resources
- environmental awareness

Evidence Guide

EVIDENCE GUIDE	
<p>The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.</p>	
<p>Overview of assessment</p>	<p>A person who demonstrates competency in this unit must be able to safely handle/operate a powered recreational boat on coastal and inland waters, including basic navigation and anchoring.</p>
<p>Critical aspects for assessment and evidence required to demonstrate competency in this unit</p>	<p>Assessors must be satisfied that the candidate can competently and consistently perform all elements of the unit as specified by the criteria, including required knowledge, and be capable of applying the competency in new and different situations and contexts.</p>
<p>Context of and specific resources for assessment</p>	<p>This unit may be assessed on the job, off the job or a combination of both on and off the job. Where assessment occurs off the job, that is the candidate is not in productive work, then an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by an individual working alone or as part of a team. The assessment environment should not disadvantage the candidate.</p> <p>This unit could be assessed in conjunction with any other units addressing the safety, quality, communication, materials handling associated with a marine environment, or other units requiring the exercise of the skills and knowledge covered by this unit.</p>
<p>Method of assessment</p>	<p>Assessors should gather a range of evidence that is valid, sufficient, current and authentic. Evidence can be gathered through a variety of ways including direct observation, supervisor's reports, project work, samples and questioning. Questioning techniques should not require language, literacy and numeracy skills beyond those required in this unit of competency. The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, product and manufacturing specifications, codes, standards, manuals and reference materials.</p>
<p>Guidance information for</p>	

EVIDENCE GUIDE

assessment

Range Statement**RANGE STATEMENT**

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Pre-start check

Pre-start check may include:

- fuel is connected
- battery is charged and connected
- kill switch
- fumes, petrol
- fuel and water leaks
- hatches/windows/doors are open
- ventilation
- sea-cock opening
- loose gear is secured
- marine radio is turned on and radio aerials raised
- bilge water levels checked
- navigation lights

Manoeuvred safely according to conditions

- Manoeuvring conditions may include:
 - from or to a ramp, pontoon, wharf, mooring, anchor, confined areas such as narrow channels, marinas, moorings, obstructions
 - sea-states such as bars, waves, rips, high seas, tidal surges, choppy conditions, wakes
 - low speed/high speed
 - poor visibility
 - effect of wind
 - large vessels
- Safe manoeuvring may include:
 - steer straight line

RANGE STATEMENT	
	<ul style="list-style-type: none"> • astern • figure-eight • right of way • port-starboard • throttle control • emergency stop • trim and stability of vessel • towing or being towed • berthing • standing-on/stemming the tide • retrieval of person overboard
Monitored	<p>Monitoring may include:</p> <ul style="list-style-type: none"> • cooling system • bilge • portholes and hatches • location and welfare of persons on board • oil, fuel and water • radio • position of boat • other water users • battery and electrical systems
Environment	<p>Impact of boat use on others/environment may include:</p> <ul style="list-style-type: none"> • noise • wake • safety of others • disturbance or injury to wildlife • disposal of waste and bilge water • effects of detergent and anti-foul • fuelling arrangements
Aids to small craft navigation	<p>Aids to navigation may include:</p> <ul style="list-style-type: none"> • IALA Buoyage System 'A' • charts • compasses • GPS • sounder • tide tables • passage plan

RANGE STATEMENT	
	<ul style="list-style-type: none"> • marine references • notices to mariners • radio navigational warnings
Relevant legislation, recognised regulations and rules	<ul style="list-style-type: none"> • Collision regulations such as: <ul style="list-style-type: none"> • navigating in narrow channels • giving way to other vessels • overtaking, proper lookout • sound signals • lights and shapes • responsibilities and duty of care • use of buoyage system • speed • recognition of lights and markers • rules of road • recognition of operation areas • specific activity rules, e.g. PWCs, water skis, equipment requirements • accident/incident reporting • Marine regulations such as: <ul style="list-style-type: none"> • safety regulations • licensing and registration • speed limit restrictions • distance off requirements • port limits/rules • marine incident reporting • carrying capacity • drug and alcohol limits/effects • age of operators • Environmental and wildlife regulations as relevant and applicable to the operation of boats
Hazards and conditions	<p>Hazards and conditions may include:</p> <ul style="list-style-type: none"> • weather • set and drift • effect of wind, tide and currents • submerged objects • other boats and wash • restricted waters

RANGE STATEMENT	
	<ul style="list-style-type: none"> • crossing bars
Type of anchor	<ul style="list-style-type: none"> • Types of anchor may include: <ul style="list-style-type: none"> • Danforth • Grapnel/Reef • Bruce • Plough • Admiralty • Sarca • sea anchor • Anchoring systems may include: <ul style="list-style-type: none"> • multiple anchors • bow and stern anchors • mooring buoy

Unit Sector(s)

Unit sector	
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Co-requisite units

Co-requisite units		

Competency field

Competency field	Boating services
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