Coxswain Grade 2
Near Coastal
and
Coxswain Grade 2
(Endorsed to 500 kW inboard powered vessels)
Near Coastal

Skills and Knowledge Required for NSCV Certificates of Competency

PART D CREW COMPETENCIES
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The tables in this document are taken directly from AMSA 730 Skills and Knowledge Required for NSCV Certificates of Competency Part D Crew Competencies. Only those tables specific to this certificate of competency are included in this document.

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### TABLE 1 – SAFETY AND EMERGENCIES

Coxswain Grade 2 Near Coastal and Coxswain Grade 2 (Endorsed to 500 kW inboard powered vessels)

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| Elements of Shipboard Safety | Meet operational and emergency safety requirements  
- Apply basic survival skills in the event of vessel abandonment  
- Follow procedures to minimise and fight fire on a vessel  
- Meet workplace health and safety (WH&S) requirements |  
- Practice survival techniques  
- Operate lifesaving and survival equipment  
- Undertake and understand risk management processes including Safety Management System (SMS) operational practices  
- Follow safety procedures and take action  
- Understand and follow fire minimisation procedures  
- Respond to and fight fires with portable and other firefighting appliances including correct use of vessel closure and shutdown systems  
- Identify and respond to risks associated with confined spaces |

### TABLE 3 – FOLLOW SOUND ENVIRONMENTAL WORK PRACTICES

Coxswain Grade 2 Near Coastal and Coxswain Grade 2 (Endorsed to 500 kW inboard powered vessels)

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| Environment  
Follow environmental work practices | Environmental Responsibilities  
- Follow environmental workplace practices  
- Contribute to improved environmental work practices  
- Maintain environmental records  
- Precautions to prevent pollution  
- Sensitive sea and restricted sea areas  
- MARPOL  
- Oil spill equipment and its limitations |  
- Identify safe and environmentally acceptable practices for:  
  - Refuelling  
  - Cleaning up fuel or oil spills  
  - Understanding garbage, sewage, noise, anchoring or marine life and other environmental type maritime responsibilities  
  - Antipollution procedures and equipment |
**TABLE 5A – BASIC ENGINEERING**

*(PROPULSION LIMITS – OUTBOARD UNLIMITED KW, INBOARD <100 KW)*

Coxswain Grade 2 Near Coastal and Coxswain Grade 2 (Endorsed to 500 kW inboard powered vessels)

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| **Outcome 5.1 a**  
Perform basic scheduled and running maintenance on outboard and inboard engines and ancillary deck equipment | • Steering gear  
• Ancillary deck equipment  
• Cooling, lubrication and fuel systems  
• Bilge pumping arrangements  
• Monitoring machinery  
• Report and record machinery malfunction  
• Low voltage (12V to 24V) electrical systems  
• Conduct refuelling operations  
• Comply with emergency shutdown procedures | • Appropriate selection and use of machinery and equipment  
• Maintenance is undertaken in accordance with the technical specifications, maintenance schedules, vessel operating procedures and regulatory requirements, under the supervision of appropriately qualified personnel  
• Apply safety precautions and pollution control measures during refuelling s per legislative requirements and vessel operating procedures  
• Maintenance is undertaken according to safe and environmentally acceptable practices as per vessel or manufacturers procedures  
• Identify, report and record faults |
| **Outcome 5.2 a**  
Operate inboard and outboard engines | • Operate propulsion units and auxiliary systems  
• Perform pre-start, running and shut-down checks  
• Inspect the fuel systems appropriate to basic inboard and outboard engines  
• Safely inspect low voltage electrical systems appropriate to basic inboard and outboard engines  
• Identify, record and report inboard and outboard operating difficulties | • Operate inboard and outboard engines according to vessel or manufacturers’ procedures  
• Ensure fuel, electrical, steering, propulsion and cooling systems operate effectively and faults can be identified and reported  
• Trouble shoot faults with navigation lights  
• Trouble shoot faults with trailer lights  
• Risks associated with portable fuel tanks  
• Risks associated with road transport of fuel and oil (trailer boats) |
### TABLE 6 – NAUTICAL KNOWLEDGE
(SEAMANSHIP, MANOEUVRING, REGULATIONS)

<table>
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<tr>
<td><strong>Outcome 6.1</strong>&lt;br&gt;Handle a vessel up to 12 metres</td>
<td><strong>Vessel Handling and Manoeuving</strong>&lt;br&gt;• Operate a small vessel&lt;br&gt;• Handle a vessel in emergencies&lt;br&gt;• Tow and be towed&lt;br&gt;• Displacement and planning hulls&lt;br&gt;• Understanding of jet units, outboard and inboard propulsion units&lt;br&gt;• Effects of rudders and propellers&lt;br&gt;• Trim and displacement&lt;br&gt;• Manoeuving characteristics&lt;br&gt;• Berthing and unberthing in various wind and tidal conditions&lt;br&gt;• Anchoring&lt;br&gt;• Manoeuvres in adverse weather conditions&lt;br&gt;• Manoeuvre vessel in various operations and in varying conditions</td>
<td>• Demonstrate knowledge of the features of a vessel, which relate to handling characteristics and compliance with current maritime publications or accepted procedures&lt;br&gt;• Demonstrate techniques to manoeuvre the vessel through:&lt;br&gt;  - Berthing and leaving a berth&lt;br&gt;  - Berthing and unberthing in a pen&lt;br&gt;  - Person overboard&lt;br&gt;  - Coming to and leaving a mooring&lt;br&gt;  - Steering astern through an “s” configuration&lt;br&gt;  - Turn short around in a limited space&lt;br&gt;  - Towing and being towed&lt;br&gt;  - Beaching and refloating safely&lt;br&gt;  - Turn a vessel across the tide across the wind&lt;br&gt;• Demonstrate knowledge of the techniques for crossing a coastal bar with and against the sea</td>
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<td><strong>Outcome 6.2</strong>&lt;br&gt;Apply seamanship skills aboard a vessel up to 12 metres</td>
<td><strong>Practical Seamanship</strong>&lt;br&gt;• Identify and demonstrate knowledge&lt;br&gt;• Use and maintain ropes&lt;br&gt;• Secure the vessel at anchor&lt;br&gt;• Secure the vessel at a berth&lt;br&gt;• Check condition and seaworthiness of vessel&lt;br&gt;• Knowledge of structural components and material of a small vessel&lt;br&gt;• Basic stability&lt;br&gt;• Respond to navigational emergencies</td>
<td>• Demonstrate knowledge of various types of hull&lt;br&gt;• Identify deteriorated hull and fittings and understand the reason for the deterioration&lt;br&gt;• Identify rope types and common uses&lt;br&gt;• Tie common knots such as reef knot, bowline, sheet bend, clove hitch, round turn and 2 half hitches and understand their use&lt;br&gt;• Eye splice a fibre/synthetic rope end join two ends complying with the rope manufacturer’s recommendations&lt;br&gt;• Whip an end&lt;br&gt;• Rig a vessel for towing and the towed vessel according to established procedures for varying weather conditions&lt;br&gt;• Prepare and anchor a vessel in varying weather conditions&lt;br&gt;• Weigh anchor&lt;br&gt;• Rig a sea anchor to control rate and direction of drift and/or angle to sea&lt;br&gt;• Use a sea anchor to prevent broaching&lt;br&gt;• Understanding of loading and discharging and movement of weight/s&lt;br&gt;• Take appropriate action in relation to navigational emergencies within sheltered waters</td>
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<tr>
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| Outcome 6.3 | Comply with regulations to ensure safe operation of a vessel up to 12 metres | • Identify and implement local, State, Commonwealth and Territory regulations  
• Apply the duties and responsibility of the Master as per national and international requirements  
• Undertake watchkeeping duties in compliance with national and international requirements  
• Apply the International Regulations for the Prevention of Collision at Sea (as amended)  
• Understand and apply SMS, safety management plans, standard and emergency operating procedures  
• Understand and comply with the requirements for crew inductions |
| Regulations and Port Operations | • Comply with the International Regulations for the Prevention of Collision at Sea (IRPCS)  
• Understand and comply with IALA buoyage requirements  
• Understand the basic operation of Risk assessments and safety management systems (SMS)  
• Maintain records  
• Understand Commonwealth, State and local regulations |
# TABLE 5B – COXSWAIN ENGINEERING

## (INBOARD PROPULSION SYSTEMS <500 KW)

Coxswain Grade 2 (Endorsed to 500 kW inboard powered vessels)

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<thead>
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| **Outcome 5.1 b**  
Operate main propulsion unit and auxiliary systems | **Engineering**  
- Operate propulsion units and auxiliary systems  
- Basic operating principles of two- and four-stroke engines  
- Perform pre-start and shut down checks on petrol, diesel engines  
- Drive train assembly  
- Steering gear  
- Ancillary equipment  
- Cooling, lubricating and fuel systems  
- Bilge and fire pumping arrangements  
- Monitoring machinery  
- Machinery malfunction  
- Electrical systems (12 V – 240 V)  
- Liquid petroleum gas (LPG)  
- Basic refrigeration  
- Conduct refuelling operations  
- Shore power connection – an awareness of hazards  
- Comply with emergency shut-down procedures |  
- Operate equipment, machinery, pumping and auxiliary equipment adhering to principles and practices as described in manufacturers’ specifications, manuals and vessel operating procedures to ensure vessel is kept in a safe condition  
- Maintain equipment and pumps according to vessel and/or manufacturers’ maintenance requirements  
- Apply safety precautions and pollution prevention measures during refuelling according to legislative requirements, suppliers’ requirements and vessel operating procedures  
- Operate machinery according to vessel or manufacturers’ procedures  
- Identify and report faults with main propulsion unit and auxiliary systems  
- Identify and rectify basic faults with main propulsion unit and auxiliary systems |

| **Outcome 5.2 b**  
Perform basic servicing and maintenance of main propulsion unit and auxiliary systems |  
- Bilge and fire pumping systems  
- Cooling, lubricating and fuel systems  
- Steering gear  
- Low Voltage electrical systems  
- Shore power leads and connections  
- 2- and 4-stroke engines  
- Monitoring machinery  
- Drive chain assembly |  
- Appropriate selection and use of machinery and equipment  
- Maintenance is arranged and undertaken in accordance with the technical specifications, maintenance schedules, vessel operating procedures and regulatory requirements  
- Maintenance is undertaken according to safe and environmentally acceptable practices |