

**GUIDANCE NOTE No: 51/2000**

**REVISION No: 3**

## **Particular Requirements for a Certificate of Competency as Marine Engine Driver (Motor) Grade 2**

The Northern Territory Marine Act places certain certification requirements upon persons wishing to take charge of the propulsion machinery on a seagoing vessel operating in Northern Territory Waters. This information sheet has been compiled for the benefit of persons wishing to apply for or undertake the examination for a Certificate of Competency as Marine Engine Driver (Motor) Grade 2.

If an applicant intends enrolling on a course, completed application forms together with assessment fees must be lodged with Marine Safety Branch at least **two weeks** prior to the commencement of the course **or applicants may not be allowed to take the examinations on completion of the course.**

Course information can be obtained from either:

**Charles Darwin University**  
**Transport and Maritime Industries**  
Casuarina Campus  
Postal:  
Charles Darwin University  
Darwin NT 0909  
Ph: 08 8946 7504, Fax: 08 8946 6155,  
Email: [tmi@cdu.edu.au](mailto:tmi@cdu.edu.au)

**Seafood and Maritime Industries Training**  
Level 1, Darwin Shipstores Building  
Fishermans Wharf, Darwin NT  
GPO Box 4119  
DARWIN NT 0801  
Ph: 08 8981 0495, Fax: 08 8981 4677,  
Email: [enquiry@smitech.com.au](mailto:enquiry@smitech.com.au)

It is stressed that attendance at these courses is ***not*** a prerequisite for the issue of a Certificate of Competency and that persons may be examined subsequent to private study or distance learning providing the other prerequisites are fulfilled.

## CERTIFICATE OF COMPETENCY AS MARINE ENGINE DRIVER (MOTOR) GRADE 2

### Acceptable Qualification for:

- (a) Taking charge of the propulsion machinery on a seagoing vessel -
- of less than 500 kw operating OFFSHORE.
  - of less than 750 kw operating INSHORE.
- (b) Second in charge of the machinery on a seagoing vessel -
- of less than 1500 kw operating OFFSHORE.

OFFSHORE means within a limit of 200 nautical miles to seaward.

INSHORE means within a limit of 15 nautical miles to seaward.

### Prerequisites:

Prior to sitting any examinations, an Applicant must :-

1. Complete the application and record of sea service forms and submit them with a fee of \$30 to the Marine Office. Cheques should be made payable to the 'Receiver of Territory Monies';
2. Have attained the age of 18 years;
3. Provide proof of identification;
4. Provide documentary evidence of approved service in an engineering capacity on vessels of not less than 150 kw propulsion power as detailed hereunder:
  - No previous training 12 months;
  - or**
  - Marine fitter 3 months;  
Diesel or Motor Mechanic  
Refrigeration Mechanic  
Electrical Fitter Mechanic
  - or**
  - Marine Engine-Driver Grade 3 6 months;  
(service to be while holding Certificate)

**Applicants who do not have the required sea service may sit the written examinations only if they have obtained more than half the sea service requirements and satisfy all other prerequisites.**

**ONLY SEA SERVICE OBTAINED FROM THE AGE OF 15 YEARS CAN BE ACCEPTED FOR ASSESSMENT OF YOUR ELIGIBILITY TO SIT THE EXAMINATIONS FOR A MARINE QUALIFICATION.**

Note 1: **Approved Service**

For purposes of engineer qualifications, APPROVED SERVICE means **service in a capacity carrying out engineering duties appropriate to the level of certificate at sea and maintenance in port** on vessels propelled by inboard compression ignition engines only. Service on vessels propelled by outboard motors will **NOT** be accepted.

Note 2: In the case of a person operating a vessel in a dual capacity (eg. Master/Engineer or Deckhand/Assistant Engineer), 50% of the total service will be taken as engineering service.

5. Satisfactorily complete a Shipboard Safety Course consisting of Lifesaving Appliances, Firefighting and Senior First Aid

**Please note:**

- (a) That the fire-fighting and sea survival elements of a Shipboard Safety course must have been completed within the **5** years prior to the issue of a seafarers' first Certificate of Competency.
  - (b) First aid Certificates must be valid at the time of issue of any Certificates of Competency.
  - (c) If a Shipboard Safety Certificate is more than **10** years old, Seafarers must resit the Fire-fighting and Sea survival elements prior to the issue of a new Certificate of Competency. (this is not applicable for replacement certificates).
  - (d) For the issue of the second or third etc. Certificate of Competency, if a Shipboard Safety Certificate is between 5 and 10 years old, the Marine Safety Branch will determine the validity of the Fire-fighting element.
  - (e) **Exemptions** may only be granted if the training/experience has been obtained within the 5 years prior to the issue of the first Certificate of Competency. Exemptions are valid for a maximum of 5 years.
6. Make payment of examination fees of \$110. (\$55 each for the written and oral examination). Note: A fee of \$55 is applicable for the resit of any examination.

**Issue of Certificate**

An unrestricted certificate of competency as Marine Engine Driver (Motor) Grade 2 will be issued by the Marine Safety Branch after all prerequisites have been completed and the applicant has :-

1. passed the written and oral examinations;
2. provided valid copies to the Marine Safety Branch, of applicant's:
  - Elements of Shipboard Safety Certificate;
  - Senior First Aid Certificate
3. paid a fee of \$20 for the issue of the certificate;
4. signed two signature labels; and
5. provided two (2) colour passport photographs.

Note: Fees include GST where applicable.

### **Examination:**

The examination will be based on the syllabus and will comprise :-

ENGINEERING KNOWLEDGE (WRITTEN) - 3 HOURS - **Pass Mark 60%**  
ENGINEERING KNOWLEDGE (ORAL)

### **VALIDITY OF EXAMINATION RESULTS**

Note: **The passes in the written and oral examinations are valid for one (1) year.** If you have not completed the requirements for the issue of the certificate within the validity dates you may be required to re-sit the examinations

### **NOTES:**

1. Candidates with at least 50% approved sea service in an engineering capacity may apply for a Restricted Marine Engine Driver Grade 2 Certificate of Competency.
2. Each application will be assessed on a case by case basis and candidate may be granted a Restricted Certificate of Certificate of Competency endorsed for use on a particular vessel, class of vessel, vessel power, area of operation etc.
3. Fees of \$50 are applicable (\$30 application/assessment fee plus \$20 for the issue of the certificate. Examination fees may apply and will be dependent nature of examination undertaken).

### **SAFETY MANNING REQUIREMENTS - ENGINEERING QUALIFICATIONS (FISHING VESSELS)** – refer to Guidance Note: 28/96.

Note: **Trading** Vessels are subject to determination by the Manning Committee.

## **MARINE ENGINE DRIVER (MOTOR) GRADE 2 - SYLLABUS**

- (a) Operation and maintenance of marine internal combustion engines;
- (b) Care and operation of lubricating oil and cooling systems;
- (c) Pumps and arrangements of bilge and seawater piping systems. Dangers associated with back flooding;
- (d) Attention to steering gears, in particular hydraulic systems and associated pipelines. Emergency steering;
- (e) Arrangements of fuel oil piping systems and filters. Fuel tank ventilation, filling and draining. Tank gauging; knowledge of effect of slack tanks on stability;
- (f) Oil and grease lubrication;
- (g) Care of electrical systems and batteries. Series and parallel operation. Safety procedures when working on low and medium voltage a.c. and d.c. systems; protection devices;
- (h) Dangers of LP gas and liquid fuels; refrigeration safety;
- (i) Precautions against fire and explosion. Methods of dealing with fires; extinguishers, fire pumps, fire mains and hoses, nozzles and sprays, fixed installations, closing appliances, remote shut-offs;
- (j) Items for inspection on slipway or in drydock;
- (k) Maintenance and recognition of deterioration of various items;
- (l) Preparing for sea. Securing vessel after voyage;
- (m) Methods of propulsion reversal;
- (n) Calculations dealing with consumption of fuel. Speed and range of vessels.

### **Propulsion Power**

For purposes of engineer qualifications and manning PROPULSION POWER means :-

- (1) In the case of a multiscrew vessel of less than 35 metres in length for use in sheltered waters, inshore, restricted offshore or offshore operations, propulsion power means the maximum continuous rated power in kilowatts of the larger engine provided for the propulsion of the vessel by one screw; and

- (2) In the case of a vessel not included in (1) above, means the total maximum continuous rated power in kilowatts of all the machinery provided for propulsion of the vessel.

Signed by: Sri Srinivas

Date Issued: 5 March 2008

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**For further information contact Marine Safety Branch:**

2nd Floor, Energy House, 18-20 Cavenagh, Darwin NT 0800, GPO Box 2520, Darwin NT 0801

Telephone: 08 8924 7100, Facsimile: 08 8924 7009

Email: [marinesafety@nt.gov.au](mailto:marinesafety@nt.gov.au)

<http://www.nt.gov.au/dpi/>

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