

CERTIFICATE OF COMPETENCY EXAMINATION

**EXAMINATIONS ADMINISTERED BY THE
SCOTTISH QUALIFICATIONS AUTHORITY
ON BEHALF OF
MARITIME AND COASTGUARD AGENCY**

**SMALL VESSEL CHIEF ENGINEER <3000 GT, UNLIMITED
SMALL VESSEL CHIEF ENGINEER <500 GT, UNLIMITED**

059-01 - CHIEF ENGINEER STATUTORY AND OPERATIONAL REQUIREMENTS

FRIDAY, 12 September 2025

1400-1600 hrs

Examination paper inserts:

Notes for the guidance of candidates:

1. Candidates should note that 100 marks are allocated to this paper. To pass candidates must achieve 50 marks.
 2. Non-programmable calculators may be used
 3. All formulae used must be stated and the method of working and ALL intermediate steps must be made clear in the answer.

Materials to be supplied by examination centres:

Candidate's examination workbook

CHIEF ENGINEER STATUTORY AND OPERATIONAL REQUIREMENTS

Attempt ALL questions

Marks for each part question are shown in brackets

1. With reference to the International Maritime Organisation (IMO):
- (a) state SEVEN of the main matters considered by the Maritime Safety Committee (MSC); (7)
 - (b) list THREE other main committees of the IMO. ✗ $\frac{7}{10}$ (3)
2. With reference to the MARPOL Convention:
- (a) list FIVE *Particularly Sensitive Sea Areas* (P.S.S.A.); (5)
 - (b) outline the general requirements for vessels transiting P.S.S.A. * $\frac{5}{10}$ (5)
3. (a) List SIX items of information that should be conveyed to the relieving officer, prior to taking over the engineering watch at sea. (6)
- (b) State FOUR criteria which should be taken into account when deciding on the composition of the engineering watch. (4)
- $\frac{10}{10}$
4. With reference to the International Load Line Convention:
- (a) sketch and label a typical load line marking for a vessel certificated to operate in all zones; (5)
 - (b) define statutory minimum *freeboard*. $\frac{5}{10}$ (2)
 - (c) explain why there are different load lines for fresh water and sea water. (3)
5. With reference to the Code of Safe Working Practice for Merchant Seafarers (COSWP):
- (a) state THREE possible medical effects of inhaling asbestos dust; (3)
 - (b) list THREE areas on a vessel where asbestos may still be present; (3)
 - (c) state FOUR actions that should be undertaken if loose asbestos is discovered. (4)
- $\frac{10}{10}$

6. With reference to Classification Societies:

- (a) state their functions; (3)
- (b) describe the role of the International Association of Classification Societies; (4)
- (c) list THREE members of the I.A.C.S. (3)

7. With reference to plant monitoring as part of a planned maintenance system:

- (a) list FIVE machinery faults that can be detected by means of vibration analysis; (5)
- (b) outline TWO vibration parameters that are used for diagnostic work, stating the information EACH gives on the condition of the machine. (5)

8. With reference to vessel's survey requirements:

- (a) state the possible consequences of either failing to obtain, or failing to renew a Statutory Certificate; (5)
- (b) state what is meant by the *Harmonisation system of survey and certification*. (5)

9. (a) Describe the basic construction and operation of a Marine Travel Lift. (5)

(b) List THREE advantages and TWO disadvantages of a Marine Travel Lift. (5)

10. List the essential requirements for an effective fire drill. (10)