

CERTIFICATES OF COMPETENCY FOR ENGINEERS (YACHT)

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

SMALL VESSEL CHIEF ENGINEER UNLIMITED
SMALL VESSEL CHIEF ENGINEER LIMITED

059-01 - CHIEF ENGINEER STATUTORY AND OPERATIONAL REQUIREMENTS

FRIDAY, 09 November 2018

1400-1600 hrs

Examination paper inserts:

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Notes for the guidance of candidates:

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Materials to be supplied by examination centres:

Candidate's examination workbook

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CHIEF ENGINEER STATUTORY AND OPERATIONAL REQUIREMENTS

Attempt ALL questions

Marks for each part question are shown in brackets

1. With reference to the MARPOL Convention Annex I - Shipboard Oil Pollution Emergency Plan (SOPEP):
 - (a) outline FOUR minimum requirements that should be included in the plan; (4)
 - (b) describe the actions that should be taken on discovering an accidental discharge of oil during bunkering. (6)

2. With reference to the STCW '78 as amended, machinery space watchkeeping requirements, state EACH of the following:
 - (a) the purpose of *standing orders*; (3)
 - (b) FOUR examples of *standing orders*; (4)
 - (c) the circumstances under which it would be inappropriate for an officer in charge of an engineering watch to hand over responsibility to a relief watchkeeper. (3)

3. With reference to the International Convention on Load Lines:
 - (a) define the terms *freeboard* and *freeboard deck*; (5)
 - (b) list FIVE items that would be inspected by a surveyor before issuing or endorsing a load line certificate. (5)

4.
 - (a) List FOUR aspects upon which a new person joining a vessel for the first time would receive instruction. (4)
 - (b) Detail SIX ways in which personal action can increase the risk of fire on a vessel. (6)

5.
 - (a) Define a Classification Society. (6)
 - (b) State the periods between docking surveys for a vessel less than 15 years old. (4)

6.
 - (a) List SIX examples of *condition monitoring* that could be applied as part of a planned maintenance system. (6)
 - (b) Explain how condition monitoring can assist in expediting classification survey requirements. (4)

7. With reference to vessel's survey requirements:

(a) describe FIVE ways in which Government Surveyors will act in maintaining the statutory requirements of a vessel; (5)

(b) list FIVE ways in which Classification Surveyors can act to maintain the class and statutory requirements of the vessel. (5)

8. With reference to the periodical dry-docking of a vessel:

(a) list SIX items of information that could be obtained from a docking plan; (6)

(b) list FOUR conditions to be met prior to dry-docking a vessel. (4)

9. A vessel has bunkered 250 tonnes of diesel fuel of which 10% is assumed to be unpumpable. The average combined sea load of the vessel is 2800kW with a stated specific consumption of 0.35kg/kWh at a speed of 18 knots.

Calculate EACH of the following:

(a) the daily fuel consumption of the vessel; (4)

(b) the safe steaming range of the vessel. (6)

10. (a) Write standing orders detailing the procedures to be followed in the event of a fire within the machinery spaces. (6)

(b) List FOUR types of portable fire extinguisher that could be found within the machinery spaces, stating on which class of fire EACH should be used. (4)