

## CHECK YOUR PROGRESS ENGINEERING 2

**NAME:**  
(answers)

TDMMR3007B

Operate and carry out basic service checks on small vessel marine propulsion systems

TDMMR3107B

Operate and carry out basic servicing on auxiliary systems

TDMMR3207B

Operate and carry out basic routine servicing of marine extra low/low voltage electrical systems

### TDMMR3107B AUXILLIARY SYSTEMS

**Question 1 (1 Mark)** Validates to TDMMR3107B element 1a

The standard colour a bilge pipe is:

- a. brown
- b. blue
- c. black
- d. red

**Question 2 (1 Mark)** Validates to TDMMR3107B element 1a

A diagram with instructions of the steering gear should be available in the:

- a. wheelhouse and engine room
- b. accommodation
- c. tiller room and engine room
- d. wheelhouse and tiller room

**Question 3 (1 Mark)** Validates to TDMMR3107B element 1a

Instructions for operational procedures for using auxiliary equipment are found in the:

- a. accommodation
- b. safety management manual
- c. office
- d. the log book

**Question 4 (1 Mark)** Validates to TDMMR3107B element 1b

A steering wheel should turn from hard over to thirty degrees on the opposite lock within \_\_\_\_\_ seconds.

**Question 5 (1 Mark)** Validates to TDMMR3107B element 1b  
Inspecting the bilge is not an engine room pre-departure check.

TRUE

FALSE

**Question 6 (1 Mark)** Validates to TDMMR3107B element 1c

A pressure tank is required in a domestic fresh water pumping system to even out demand irregularities.

TRUE

FALSE

**Question 7 (1 Mark)** Validates to TDMMR3107B element 1c

The failure of an engine room bilge pump to discharge water could be caused by a:

- a. closed L-Port cock
- b. closed seawater intake valve
- c. open fire hose cock
- d. closed engine room bilge manifold valve

**Question 8 (1 Mark)** Validates to TDMMR3107B element 2a

Back flooding to the bilges is prevented by:

- a. three way cocks
- b. a L-Port cock
- c. back flood cocks
- d. one way cocks

**Question 9 (1 Mark)** Validates to TDMMR3107B element 1c

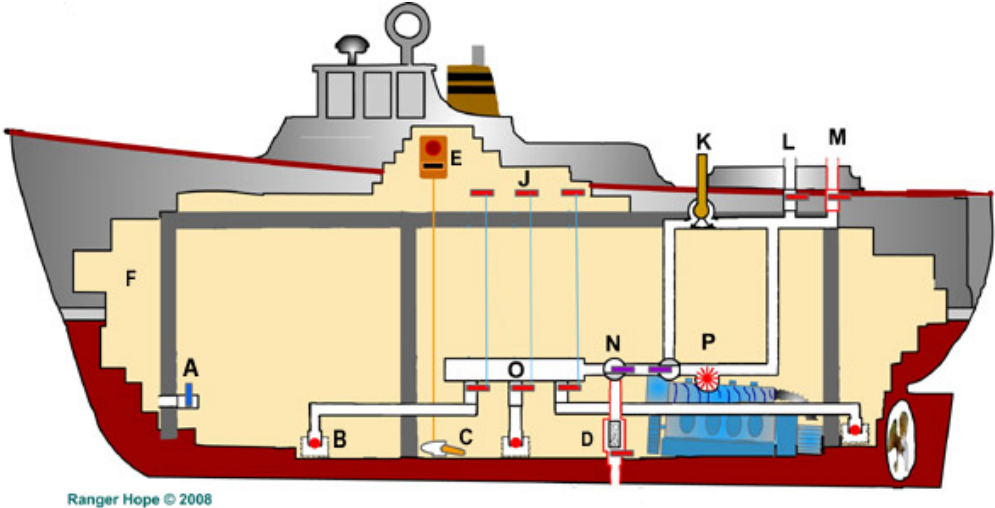
Hydraulic steering that feels lumpy may require the reservoir to be topped up.

TRUE

FALSE

**Question 10 (10 Marks)** Validates to TDMMR3107B element 2a

Name the labelled components of a vessel's bilge system.



A= \_\_\_\_\_

B= \_\_\_\_\_

C= \_\_\_\_\_

D= \_\_\_\_\_

K= \_\_\_\_\_

L= \_\_\_\_\_

M= \_\_\_\_\_

N= \_\_\_\_\_

O= \_\_\_\_\_

P= \_\_\_\_\_

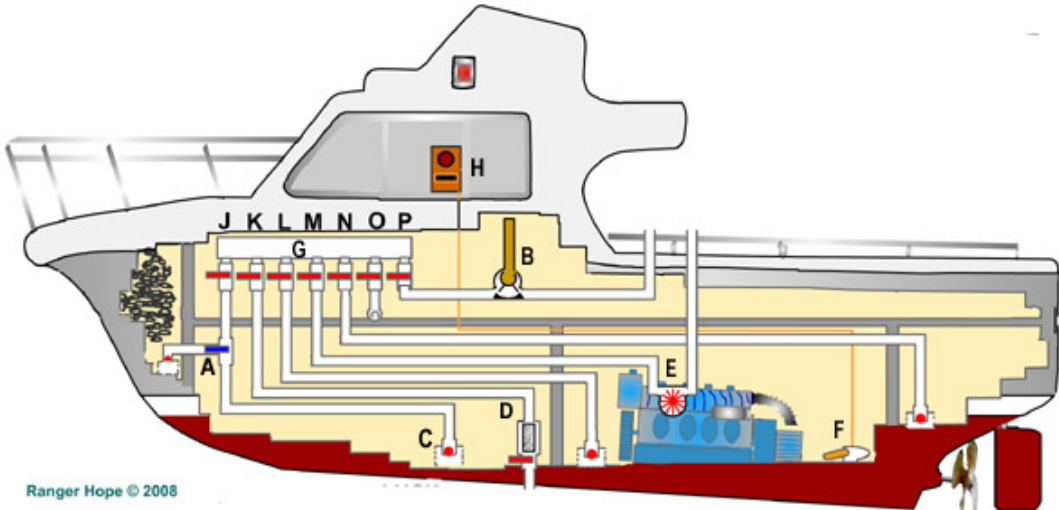
**Question 11 (1 Marks)** Validates to TDMMR3107B element 2a

The component in *Question 10* marked E is:

- a. a bilge pump switch and bilge level indicator light
- b. a bilge pump switch and bilge level audible alarm
- c. a bilge pump switch, bilge level indicator light and audible alarm
- d. a bilge level indicator light and audible alarm

**Question 12 (10 Marks)** Validates to TDMMR3107B element 2a

Name the labelled components of a small vessel's bilge system.



A= \_\_\_\_\_  
 C= \_\_\_\_\_  
 E= \_\_\_\_\_  
 G= \_\_\_\_\_  
 O= \_\_\_\_\_

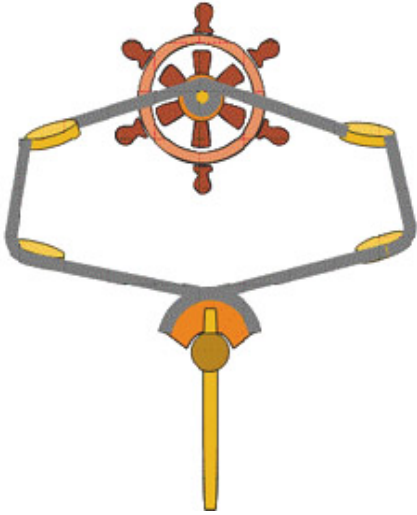
B= \_\_\_\_\_  
 D= \_\_\_\_\_  
 F= \_\_\_\_\_  
 H= \_\_\_\_\_  
 P= \_\_\_\_\_

**Question 13 (1 Mark)** Validates to TDMMR3107B element 2a

If the seawater inlet cock is open, and a bilge manifold valve open, circle on the drawing of *Question 12* the only valve that remains to prevent back flooding.

**Question 14 (2 Marks)** Validates to TDMMR3107B element 2a

- a. The steering system below is known as \_\_\_\_\_steering.
- b. Its major serviceable item is to ensure that the chains are\_\_\_\_\_.



**Question 15 (1 Mark)** Validates to TDMMR3107B element 2a

On the rudder post the vertical pin that supports the front end of the rudder is called a pintle.

TRUE

FALSE

**Question 16 (1 Mark)** Validates to TDMMR3107B element 2a

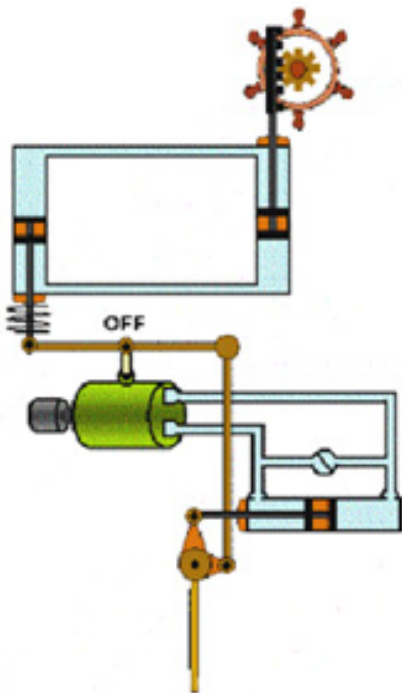
If you suspect during a voyage that your steering system is not performing as usual, you should:

- a. forget about it
- b. wait until you are sure before mentioning it
- c. report it
- d. proof test it

**Question 17 (5 Marks)** Validates to TDMMR3107B element 2a

On the telemotor and steering gear arrangement below, label:

- the telemotor
- the hunting gear
- the bypass and relief valve
- the bi-directional pump



The purpose of the pressure relief valve is to reduce damage to the steering gear if it is hit by a large \_\_\_\_\_.

**Question 18 (1 Mark)** Validates to TDMMR3107B element 2a

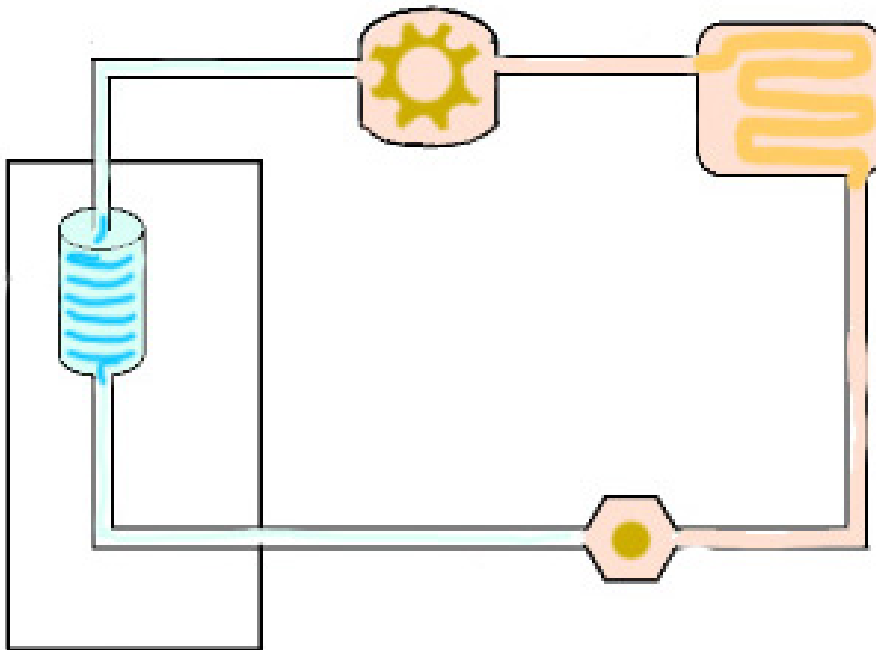
Winches and lifting gear should not be operated by crew who are not:

- under eighteen years old
- wearing PPE's
- trained and wearing PPE's
- the duty engineer

**Question 19 (5 Marks)** Validates to TDMMR3107B element 2a

On the refrigeration arrangement below, label the:

- a. condenser
- b. evaporator
- c. compressor
- d. expansion valve



**Question 20 (1 Mark)** Validates to TDMMR3107B element 2b

If you suspect that the door handles on a refrigerated unit are not operating correctly then you must\_\_\_\_\_.

**Question 21 (1 Mark)** Validates to TDMMR3107B element 2b

Non return valves fitted to a bilge system:

- a. stop debris from blocking the pipes
- b. stop back flooding
- c. isolate the system from the sea water line
- d. alarm when the pump out is complete

**Question 22 (1 Mark)** Validates to TDMMR3107B element 2b

At a survey, operational test of bilge pumps is carried out:

- a. six monthly
- b. four yearly
- c. annually
- d. two yearly

**Question 23 (1 Mark)** Validates to TDMMR3107B element 2b

The top of fuel tank breather pipes are fitted with a \_\_\_\_\_ gauze.

**Question 24 (1 Mark)** Validates to TDMMR3107B element 2b

The chain length in chain and box steering is usually adjustable:

- a. to allow for chain stretch
- b. in compliance with the regulations
- c. for heavy weather conditions
- d. for user comfort and style

**Question 25 (1 Mark)** Validates to TDMMR3107B element 2b

A screw-lift valve only permits fluid to travel in one direction.

TRUE

FALSE

**Question 26 (1 Mark)** Validates to TDMMR3107B element 3a

Leaks in LPG systems are best tested for by:

- a. testing for a flame with a lit match
- b. wiping soapy water over the piping
- c. smelling the piping
- d. listening carefully



**Question 27 (1 Mark)** Validates to TDMMR3107B element 3a

Emergency steering drills in passenger vessels with over four crew persons are conducted at intervals of every:

- a. time the vessel sails
- b. three monthly
- c. monthly
- d. six monthly

**Question 28 (1 Mark)** Validates to TDMMR3107B element 3a

LPG bottles should be stowed low down below decks when empty.

TRUE

FALSE

**Question 29 (4 Marks)** Validates to TDMMR3107B element 3b

Match the description on the right, with the correct item on the left:

- |                 |                                   |
|-----------------|-----------------------------------|
| 1. Dry Chemical | a. Coloured all red               |
| 2. Water        | b. Coloured red with a black band |
| 3. CO2          | c. Coloured red with a blue band  |
| 4. Foam         | d. Coloured red with a white band |

**Question 30 (1 Mark)** Validates to TDMMR3107B element 3b

The maximum forces acting on a rudder stock occur at the:

- a. watertight gland
- b. middle of the rudder blade
- c. lower end of the rudder stock
- d. tiller ram

**Question 31 (4 Marks)** Validates to TDMMR3107B element 3c

With reference to confined spaces, match the description on the right, with the correct item on the left:

- |                         |   |
|-------------------------|---|
| 1. Isolation            | a. Physical barriers erected to prevent entry |
| 2. Lockout              | b. Issued only by a competent person          |
| 3. Gas free certificate | c. Removal of all services into a space       |
| 4. Permit to work       | d. Required conditions of entry               |

**Question 32 (1 Mark)** Validates to TDMMR3107B element 3c

Oily bilge water should be recorded in the \_\_\_\_\_ and stored for \_\_\_\_\_ ashore.

**Question 33 (4 Marks)** Validates to TDMMR3107B element 3d

A damage control plan is summarised by the phrase to **FIRM** up -  
Find the problem, Inspect/isolate it, Report/repair it and the Monitor the repair.

Write a brief plan for the damage that I have found for you.

**F** The propeller has fallen off and seawater is seeping into the tiller space from a small gash in the hull.

**I** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**R** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**M** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Question 34 (1 Mark)** Validates to TDMMR3107B element 3e

If you experienced bilging during a passage, what action would you take first?

- a. operate the bilge pump
- b. shut down motor
- c. abandon ship
- d. close the watertight doors

**Question 35 (1 Mark)** Validates to TDMMR3107B element 3d

If the emergency steering position has inadequate view forward of the vessel then \_\_\_\_\_ to the wheelhouse must be provided.

**Question 36 (1 Mark)** Validates to TDMMR3107B element 3e

Foam fire extinguishers can be used on electrical fires.

TRUE

FALSE

**Question 37 (2 Marks)** Validates to TDMMR3107B element 3e

What actions would you take in the event of a fracture of the condenser coils in your walk in refrigeration unit?

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