

M/V DISCOVERY PRINCESS

Lifeboat Operating Crew

Training Questions & Answers

Quick Reference

Item	Key figure
Lifeboat capacity	310 persons, including operating crew
Operating crew	5 – 1 coxswain, 1 fwd hook, 1 aft hook, 2 at the entrance
Water	3 L per person (930 L total); 0.5 L per person per day
Food	10,000 kJ per person; 310 rations
Fuel	24 hours at 6 knots minimum (SOLAS)
Sea-sickness pills	1,860 (6 per person); one every 8 hours
Thermal protective aids (TPA)	31 per lifeboat (10% of capacity)
Radio	VHF channel 16 (distress) or ship's channel 15
EPIRB battery	48 hours
SART battery	96 hours dormant / 8 hours activated

1. Loading & Embarkation

How many persons can you load into the lifeboat?

310 persons – including operating crew.

If all the lifeboats are gone, can we send passengers anywhere else?

Yes, if necessary, we can send them to the MES rafts.

A disabled person approaches your boat. What should you do?

Board them last and by the entrance. Do not board a wheelchair – the person must be lifted on board.

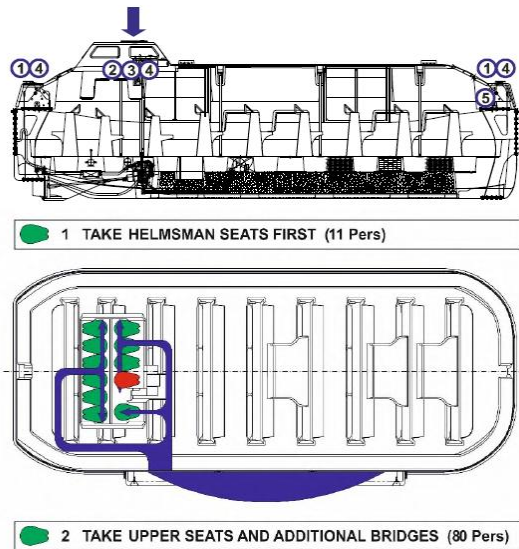
How should you seat people as they enter your lifeboat?

- Load the boat equally from fore and aft towards the centre, keeping the entrance clear.
- Tell passengers to move to the ends of the lifeboat as they embark, balancing both port and starboard sides and eventually filling in towards the middle.
- The last two crew members enter the lifeboat and stand by with the boat hooks in the forward entrance way.

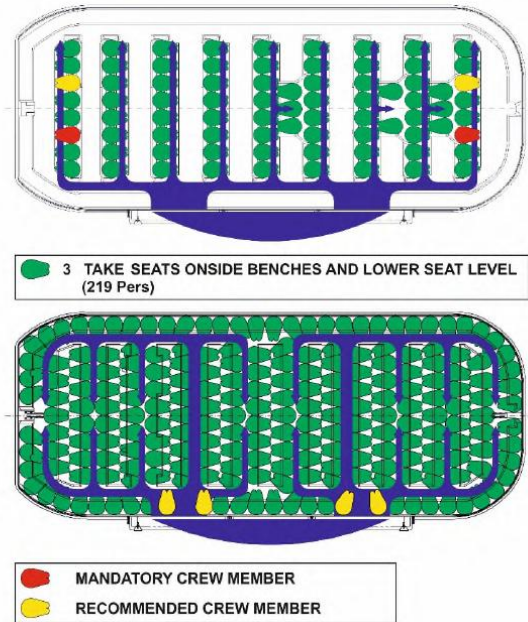
In which order is embarkation performed?

Perform the embarkation in the following order:

1. Helmsman and boat crew.
2. All persons on the upper seats.
3. All persons on the lower level and seating level (except entrance area).



Steps 1 and 2 – helmsman seats, upper seats and additional bridges



Step 3 – benches and lower seat level; crew positions

Position of lifeboat operating crew

No.	Position
1	Coxswain
1	By forward hook
1	By aft hook
2	At the entrance

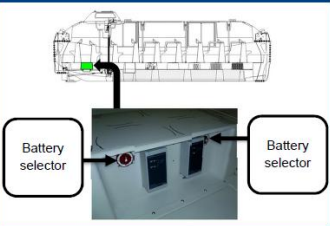
2. Before Loading Passengers

What must you do before loading passengers inside the lifeboat?

1. Turn on the battery supply (switch to 1). If it does not work, switch to 2.
2. Check that the fuel valves are in the open position.
3. Check that the drain plug is in.
4. Turn on the radio (channel 16) or ship's channel 15.
5. Get the small gear (boat equipment) out of the lockers and place it near the coxswain's position.

Which position should you put the battery switch to?

Position 1 or 2 (or 1+2 only in an emergency).

1	Battery selector switches and the battery chargers are located at a compartment outside the second seating bench from aft.	
2	Normal operation - Switch "Engine PS" to pos. 2, alternatively pos. 1. - Switch "Engine SB" to pos. 1, alternatively pos. 2. - Start engine - If an engine does not start on pos. 1 or 2 put switch to pos. "1+2"	Engine PS  Engine SB 
3	To use consumers (such as lights, navigation and communication equipment etc.), the selector switch PS has to be switched on.	Engine PS 
4	If both batteries on one side of the boat are damaged or discharged, it is possible to use the batteries from the other boat side. If necessary switch on the battery cross connection switch (optional).	

Battery selector switches – PS and SB engines

Where is the small gear (equipment) kept?

In marked lockers (compartments) under the thwarts. There are 5 lockers under the thwarts:

- The most forward locker holds the small equipment.
- The next aft holds the food.
- The next 3 are full of packets of water.

3. Survival After Abandoning the Ship

After abandoning the ship, should you leave the area?

No. Try to remain in the same area, 300–500 metres upwind and clear of the stern of the ship. Congregate with other boats and MES rafts, secured together if possible and if weather conditions allow, then wait for the rescue.

How would you use the sea anchor and why?

When the ship has been abandoned and all personnel are in the survival craft and clear of the ship, it is desirable to remain as close as possible to the last position transmitted on the distress frequencies.

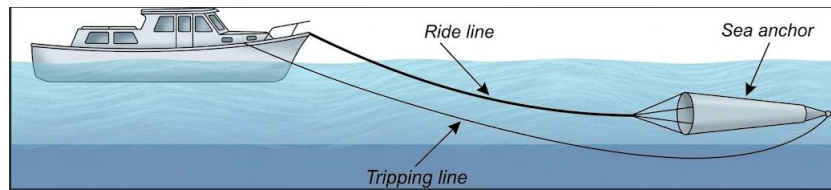
The lifeboat will remain head to seas, reducing the rolling of the boat and giving a more comfortable motion. More importantly, the sea anchor will reduce the distance the lifeboat drifts from the desired position.

The sea anchor is stowed in the inventory box. In case of a storm it is used to stabilize the lifeboat and prevents drifting. Additionally it keeps the boat bow- or stern-on to the wind, current or waves.

Fasten the free end to one hanging-off eye of one release hook and throw the parachute-shaped sea anchor into the sea.



Parachute-shaped sea anchor



Sea anchor and tripping line

When should the anti-sea-sickness pills be given?

- **Operating crew:** right away.
- **Passengers:** they will already have had their first pill at their muster station. Give the next pill once the lifeboat is away from the ship in a safe position.
- After the first pill, passengers and crew take one every 8 hours. There are enough pills for 48 hours.
- The pills are in the small equipment locker – 1,860 in total (6 per person).

Should you use fall prevention devices (FPD pins) in an emergency?

No. FPDs are used only for drills and training.

4. Water & Food

How much water is there in the lifeboat?

3 litres per person (930 litres total), in small packs of 100 ml (5 packs per day).

Should you distribute drinking water immediately once the boat enters the water?

No. No water should be given to a healthy person for the first 24 hours.

How much water would you distribute daily?

Half a litre per person daily, issued at 4 different times during the day: 0600 – 1200 – 1800 – 2400 hrs.

0.5 litre per day has been calculated as the minimum necessary in a survival situation to flush the body's organs of harmful toxins and salts.

How can you collect extra water in the lifeboat?

Collect rainwater on top of the lifeboat. The rainwater hose with the valve is inside the lifeboat. It is always advantageous to bring extra water.

How much food is there in the lifeboat?

- Food rations are supplied in vacuum-sealed packets. Each packet contains a carbohydrate-based biscuit, which also contains glucose, vitamins and other essential minerals.
- The food value supplied for each person is 10,000 kilojoules.
- No food should be eaten within the first 24 hours.
- Rations are issued equally to the survivors 4 times a day.

5. Cold Protection & Hypothermia

What is 'TPA' and how many are in the lifeboat?

TPA (Thermal Protective Aid) is a polyethylene suit with heat-sealed seams that protects from the elements and prevents hypothermia. It covers the whole body except the face.

- There are 31 TPAs in each lifeboat (10% of total carrying capacity).
- Wear them in cold temperatures.
- Very good for someone pulled in from cold water: remove their clothing, replace it with dry clothing if possible, and place the person inside a TPA. Keep a close watch on them.

What actions would you consider taking with someone suffering from hypothermia?

Provide warm, dry clothing and place the person inside a TPA with their lifejacket on.

6. Communication & Signalling

How can you communicate with other boats and the search & rescue team?

By VHF radio, using distress VHF channel 16.

How can you attract the attention of the search & rescue team?

1. Pyrotechnics

Item	Qty	Use	Range	Details
Hand flare	6	Day / night	Short	Burns 60 seconds at 15,000 candela
Red parachute rocket (flare)	4	Day / night	Long	Reaches 300 m high; burns 40 seconds; visible up to 30 miles
Smoke signal (orange)	2	Daytime only	Short	Burns 3 minutes; good for helicopter rescue

2. SART (Search and Rescue Transponder)

- Located on deck 7, port and starboard, by the rescue boats.
- When activated by the radar signals of any ship sailing in the area, it responds by sending a signal that appears as a line of 12 dots on the radar screens of ships in the area. That dotted line guides them to the lifeboat in distress.
- It has a light and audio to alert you that there is a ship in your area. Keep a good lookout.
- Place the SART as high as possible on top of the lifeboat / life raft. It also works hanging inside the survival craft.
- Battery: 96 hours in dormant mode, but only 8 hours once activated.



SART

3. EPIRB (Emergency Position Indicating Radio Beacon)

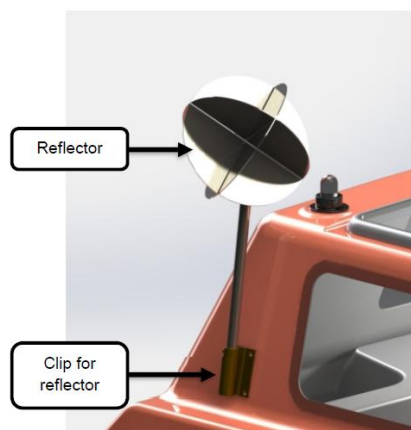
- When activated, it sends a signal to a satellite, which relays it to the nearest Rescue Coordination Centre. The centre can then dispatch search and rescue teams to the location.
- Battery life: 48 hours.
- 4 on board: 1 on the bridge, 1 on deck 18 by the port entrance of the emergency wheelhouse, and 2 on deck 15 by the magnetic compass.



EPIRB

4. Radar reflector

- The radar reflector is stored in the equipment locker. Assemble the radar reflector and mount it to the clip at the aft wing of the canopy.
- Place it as high as possible on top of the lifeboat.



*Radar reflector and clip***5. Heliograph (daylight signalling mirror)**

- Stored inside the small gear locker.
- Reflects sunlight to passing ships.

*Heliograph***6. Electric torch**

Suitable for Morse signalling.

7. Lifeboat Operation & Emergencies

How much fuel is there in the lifeboat?

As per SOLAS requirements, the quantity of fuel must be sufficient to operate the engine for 24 hours at a speed of at least 6 knots.

What should you do in case of water ingress?

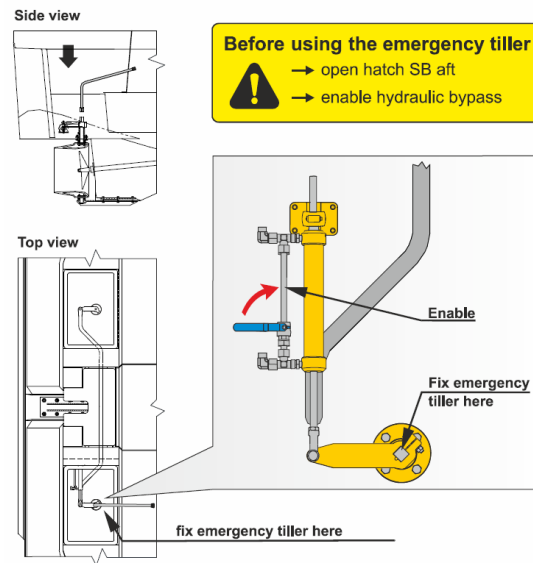
Start the electric bilge pump (switch on the driver's console) or use the manual bilge pump (near the starboard battery pack, aft part of the boat).

What should you do if you cannot steer the lifeboat – steering gear failure?

Engage the emergency steering system. The instructions are posted in the lifeboat (aft part, by the steering gear). In case of malfunction of the steering gear it is possible to steer with an emergency tiller.

To reach the steering system, open the aft floor plate on SB. Before using the emergency tiller enable the hydraulic bypass.

Then attach the tiller to the square shaft at the top of the SB rudder shaft.



Emergency tiller – before use: open hatch SB aft, enable hydraulic bypass

How can you fight a fire inside the lifeboat?

The boats have 2 × dry powder extinguishers capable of extinguishing any type of fire.

In case of engine fire

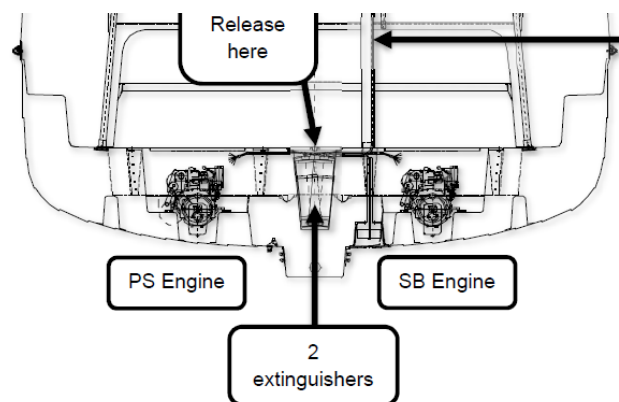
Lifeboats are equipped with a fixed foam fire-extinguishing system for the engines. There are two foam-filled extinguishers installed in the compartment between both engines.

If one or both engines are on fire:

1. Stop the engine(s).
2. Switch off the electrical systems.
3. Shut off the fuel supply.
4. Remove the cover plate of the extinguisher compartment.
5. Remove the securing pin at the fire extinguisher.
6. Pull the release handle to activate the relevant fire extinguisher (port or starboard engine).



Engine fire extinguisher compartment cover



Release point – 2 extinguishers between PS and SB engines

8. List of Lifeboat Equipment

Qty	Item	Qty	Item
2	Boat hooks	1	Buoyant bailer
2	Buckets with line	1	Survival manual with rescue signal table
1	Compass (fixed)	1	Sea anchor
2	Painters	2	Hatchets
1,860	Water rations, 0.5 L (total 930 L)	310	Food rations
4	Rocket parachute flares	6	Hand flares
2	Smoke floats	1	Waterproof electric torch with spare bulb and batteries (operational)
1	Daylight signalling mirror	1	Whistle
5	First aid kits	1,860	Sea-sickness tablets
310	Sea-sickness bags	1	Jack knife
3	Tin openers	2	Buoyant rescue quoits with line
1	Manual pump	1	Set of fishing tackle
2	Portable dry powder fire extinguishers (6 kg)	1	Radar reflector
31	Thermal protective aids		