

### **16.5 MINIMUM TANK LEVELS**

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Date: 6-Aug-25
Rev: 10.0
Appr: DPA

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## FLEET PROCEDURES MANUAL

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### 1. RESCUE BOAT FUEL TANKS

## 1.1. SOLAS Reg MSIS 14 - Survey of LSA: Volume 1: Chapter 5 - Rescue Boats

"Sufficient fuel should be provided in fully loaded rescue boats for at least 4 hours running at 6 knots."

Personnel involved with the weekly maintenance of the LSA Equipment should inspect the following:

- a. For vessels fitted with the GRP Rescue Boat, built in fuel tank and 25HP engine the level of the fuel tank should never drop below 85% of the tanks volume. Safety margin label placed on the tank top and on the tiller stating Min level 85%.
- b. For the fitted with the Semi-Rigid Rescue boats, portable fuel tank and 40HP engine. The vessel should have 2 x 25lt fuel tanks. One should be full at all times and the one in use should not be allowed to drop below 85% of the tanks volume. Safety margin label placed on the tank top and on the tiller stating Min level 85% and reserve tank 100%.
- c. For any other vessels not mentioned in the above, Chief Engineer to calculate the required fuel needed to be retained on board to run the engine at full load for 4 hours based on the engine manufactures fuel consumption specification.
- d. All vessels should in addition have 25 lt of petrol stored in an appropriate container in reserve.



## 1.2. Resolution MSC.216 (82) adopted at MSC 82.

SOLAS CHAPTER III LIFE-SAVING APPLIANCES AND ARRANGEMENTS Regulation 20 Operational readiness, maintenance and inspections, this regulation applies to all ships.

## 1.2.1. Operational Readiness

Before the ship leaves port and at all times during the voyage, all life-saving appliances shall be in working order and ready for immediate use.



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#### 1.2.2. Weekly inspection

The following tests and inspections shall be carried out weekly and a report of the inspection shall be entered in the logbook:

- a. All survival craft, rescue boats and launching appliances shall be visually inspected to ensure that they are ready for use. The inspection shall include, but is not limited to, the condition of hooks, their attachment to the lifeboat and rescue boat, and the on-load release gear being properly and completely reset.
- b. All engines in lifeboats and rescue boats shall be run for a total period of not less than 3 min. provided the ambient temperature is above the minimum temperature required for starting and running the engine. During this period of time, it should be demonstrated that the gear box and gear box train are engaging satisfactorily. If the special characteristics of an outboard motor fitted to a rescue boat would not allow it to be run other than with its propeller submerged for a period of 3 min, it should be run for such period as prescribed in the manufacturer's handbook with a suitable water supply. "

#### 2. LIFEBOAT FUEL TANK LEVEL

### 2.1. SOLAS Reg MSIS 14 - Survey of LSA: Volume 1: Chapter 4 - Lifeboats

Fuel tanks must be of sufficient capacity for 24 hours continuous operation at speed of 6 knots and should be substantially constructed of steel or other accepted material and should be free standing as opposed to built-in design. Completed fuel tanks and their connections should be capable of withstanding hydraulic pressure to a head of at least 5 metres above the top of the tank. The fuel tank shall have no external load on it.

#### 3. **EMERGENCY GENERATOR FIEL TANK LEVEL**

- 3.1. The emergency generator fuel tank should be maintained above the calculated minimum level that will allow for operation of the emergency generator for at least for 18 hours on full load. The minimum level allowed for the afore mentioned calculation should be clearly stated on the tank and the tank gauge glass marked to indicate the minimum level.
- 3.2. (IMO SOLAS Ch. II-1 Construction Structure Subdivisions and Stability, Machinery and Electrical Installations Reg 43 – Emergency Source of Electrical Power)
- 3.3. "The electrical power available shall be sufficient to supply all those services that are essential for safety in an emergency, due regard being paid to such services as may have to be operated simultaneously. The emergency source of electrical power shall be capable, having regard to starting currents and the transitory nature of certain loads, of supplying

### HEALTH, SAFETY, ENVIRONMENT AND QUALITY MANAGEMENT SYSTEM



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simultaneously at least the following services for the periods specified hereinafter, if they depend upon an electrical source for their operation:

3.3.1. For a period of 3 h, emergency lighting at every muster and embarkation station and over the sides as required by regulations III/11.4 and III/16.7.

## 3.3.2. For a period of 18 h, emergency lighting:

- a. in all service and accommodation alleyways, stairways and exits;
- b. in the machinery spaces and main generating stations including their control positions;
- c. in all control stations, machinery control rooms, and at each main and emergency switchboard;
- d. at all stowage positions for firemen's outfits;
- e. at the steering gear;
- f. at the fire pump referred to in paragraph 2.5, at the sprinkler pump, if any, and at the emergency bilge pump, if any, and at the starting positions of their motors; and

## 3.3.3. For a period of 18 h:

- a. the navigation lights and other lights required by the International Regulations for Preventing Collisions at Sea in force;
- b. on ships constructed on or after 1 February 1995 the VHF radio installation required by regulation IV/7.1.1 and IV/7.1.2; and, if applicable:
- c. the MF radio installation required by regulations IV/9.1.1, IV/9.1.2, IV/10.1.2 and IV/10.1.3;
- d. the ship earth station required by regulation IV/10.1.1; and
- e. the MF/HF radio installation required by regulations IV/10.2.1, IV/10.2.2 and IV/11.1.

## 3.3.4. For a period of 18 h:

- a. all internal communication equipment as required in an emergency.
- b. the ship borne navigational equipment as required by regulation V/12; \* where such provision is unreasonable or impracticable the Administration may waive this requirement for ships of less than 5,000 gross tonnage.
- c. the fire detection and fire alarm system; and
- d. intermittent operation of the daylight signalling lamp, the ship's whistle, the manually operated call points and all internal signals that are required in an emergency.

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- e. unless such services have an independent supply for the period of 18 h from an accumulator battery suitably located for use in an emergency.
- 3.3.5. For a period of 18 h one of the fire pumps required by Regulation II-2/4.3.1 and 4.3.3\*\* if dependent upon the emergency generator for its source of power.
- 3.3.6. For the period of time required by regulation 29.14 the steering gear where it is required to be so supplied by that regulation.

## 4. STEERING GEAR HYDRAULIC OIL STORAGE TANK

- 4.1. IMO SOLAS Ch. II-1 Construction Subdivision and Stability, Machinery and Electrical Installations Reg 29 Steering Gear
  - 4.1.1. The steering gear emergency reserve/storage should contain sufficient hydraulic oil to replenish the system in an emergency. The minimum level allowed for the afore mentioned operation should be clearly stated on the tank and the tank gauge glass marked to indicate the minimum level.
  - 4.1.2. "12 Hydraulic power-operated steering gear shall be provided with the following:
    - a. arrangements to maintain the cleanliness of the hydraulic fluid taking into consideration the type and design of the hydraulic system.
    - a low-level alarm for each hydraulic fluid reservoir to give the earliest practicable indication of hydraulic fluid leakage. Audible and visual alarms shall be given on the navigation bridge and in the machinery space where they can be readily observed; and
    - c. a fixed storage tank having sufficient capacity to recharge at least one power actuating system including the reservoir, where the main steering gear is required to be power-operated. The storage tank shall be permanently connected by piping in such a manner that the hydraulic systems can be readily recharged from a position within the steering gear compartment and shall be provided with a contents gauge."