

## SECTION 8

## HELICOPTER FACILITIES

### 1 General

#### 1.1 Application

**1.1.1** In addition to complying with the requirements of the other Sections of this Chapter, as appropriate, yachts equipped with helicopter facilities are to comply with those of this Section.

**1.1.2** This section is applicable to all yachts: yachts less than 500GT and yachts of 500GT and over

**1.1.3** Items e) and f) of [3.1.1] and articles [5] and [6] do not contain requirements applicable for the purpose of classification; they have been reproduced for reference purposes only.

#### 1.2 Contents

**1.2.1** This Section includes the provisions of IMO Resolution A.855(20) of 27 November 1997.

#### 1.3 Definitions

##### 1.3.1 Helideck

Helideck is a purpose-built helicopter landing area located on a yacht including all structure, fire-fighting appliances and other equipment necessary for the safe operation of helicopters.

##### 1.3.2 Helicopter facilities

Helicopter facility is a helideck including any refuelling and hangar facilities.

### 2 Structure

#### 2.1 Construction of steel or other equivalent materials

**2.1.1** In general, the construction of the helidecks is to be of steel or other equivalent materials. If the helideck forms the deckhead of a deckhouse or superstructure, it is to be insulated to:

- A-60 class standard for yachts of 500GT and over
- for yachts of less than 500GT: at least the same standard as used for machinery spaces of category A boundaries, as required in Ch 4, Sec 2, [2.2.1].

#### 2.2 Construction of aluminium or other low melting point metals

**2.2.1** If the Society permits aluminium or other low melting point metal construction that is not made equivalent to steel and if the platform is located above the yacht's deckhouse or similar structure, the following conditions are to be satisfied:

- a) the deckhouse top and bulkheads under the platform are to have no opening
- b) windows under the platform are to be provided with steel shutters.

#### 2.3 Means of escape

**2.3.1** A helideck is to be provided with both a main and an emergency means of escape and access for fire-fighting and rescue personnel. These are to be located as far apart from each other as is practicable and preferably on opposite sides of the helideck.

### 3 Fire-fighting appliances

#### 3.1 General

**3.1.1** In close proximity to the helideck, the following fire-fighting appliances are to be provided and stored near the means of access to that helideck:

- a) at least two dry powder extinguishers having a total capacity of not less than 45 kg
  - b) carbon dioxide extinguishers of a total capacity of not less than 18 kg or equivalent
  - c) a suitable foam application system consisting of monitors or foam-making branch pipes capable of delivering foam to all parts of the helideck in all weather conditions in which helicopters can operate. The system is to be capable of delivering a discharge rate as required in Tab 1 for at least five minutes
  - d) The principal agent is to meet the applicable performance standards of the International Civil Aviation Organization - Airport Services Manual, Part 1 - Rescue and Firefighting, Chapter 8 - Extinguishing Agent Characteristics, Paragraph 8.1.5 - Foam Specifications Table 8-1, Level "B" foam, and be suitable for use with salt water
- AUTHOR'S COMMENT [I]**
- e) at least two nozzles of an approved dual-purpose type (jet/spray) and hoses sufficient to reach any part of the helideck
  - f) two sets of fire-fighter's outfits, and

g) at least the following equipment, stored in a manner that provides for immediate use and protection from the elements:

- adjustable wrench
- blanket, fire-resistant
- cutters, bolt 60 cm
- hook, grab or salving
- hacksaw, heavy duty complete with 6 spare blades
- ladder
- lift line 5 mm diameter and 15 m in length
- pliers, side-cutting
- set of assorted screwdrivers, and
- harness knife complete with sheath.

### 3.2 Drainage facilities

3.2.1 Drainage facilities in way of helidecks are to be constructed of steel and are to lead directly overboard independent of any other system and are to be designed so that drainage does not fall onto any part of the yacht.

## 4 Helicopter refuelling and hangar facilities

### 4.1 Fuel storage system

#### 4.1.1 Storage area

- a) A designated area is to be provided for the storage of fuel tanks which is to be:
- as remote as practicable from accommodation spaces, escape routes and embarkation stations, and
  - isolated from areas containing a source of vapour ignition.
- b) The fuel storage area is to be provided with arrangements whereby fuel spillage may be collected and drained to a safe location.

#### 4.1.2 Fuel tanks

- a) Tanks and associated equipment are to be protected against physical damage and from a fire in an adjacent space or area.
- b) Where portable fuel storage tanks are used, special attention is to be given to:
- 1) design of the tank for its intended purpose
  - 2) mounting and securing arrangements
  - 3) electric bonding, and
  - 4) inspection procedures.

#### 4.1.3 Fuel pumping

- a) Storage tank fuel pumps are to be provided with means which permit shutdown from a safe remote location in the event of a fire. Where a gravity fuelling system is installed, equivalent closing arrangements are to be provided to isolate the fuel source

b) The fuel pumping unit is to be connected to one tank at a time. The piping between the tank and the pumping unit is to be of steel or equivalent material, as short as possible, and protected against damage.

c) Electrical fuel pumping units and associated control equipment are to be of a type suitable for the location and potential hazards.

d) Fuel pumping units are to incorporate a device which is to prevent over-pressurization of the delivery or filling hose.

**Table 1 : Foam discharge rates**

Category	Helicopter overall length	Discharge rate foam solution (l/min)
H1	up to but not including 15 m	250
H2	from 15 m up to but not including 24 m	500
H3	from 24 m up to but not including 35 m	800

#### 4.1.4 Refuelling equipment

Equipment used in refuelling operations is to be electrically bonded.

### 4.2 “No smoking” signs

4.2.1 “NO SMOKING” signs are to be displayed at appropriate locations.

### 4.3 Hangar, refuelling and maintenance facilities

4.3.1 Hangar, refuelling and maintenance facilities are to be treated as category A machinery spaces with regard to structural fire protection, fixed fire-extinguishing and detection system requirements.

### 4.4 Arrangement of spaces containing the refuelling installations

#### 4.4.1 Ventilation

Enclosed hangar facilities or enclosed spaces containing refuelling installations are to be provided with mechanical ventilation as required by Ch 4, Sec 9, [2] for enclosed vehicle spaces. Ventilation fans are to be of non-sparking type (see Ch 4, Sec 9, [1.2.5]).

#### 4.4.2 Electric equipment and wiring

Electric equipment and wiring in enclosed hangars or enclosed spaces containing refuelling installations are to comply with the requirements of Ch 4, Sec 9, [3].

## **5 Occasional and emergency helicopter operations**

### **5.1 General**

**5.1.1** Where helicopters land or conduct winching operations on an occasional or emergency basis on yachts without helidecks, fire-fighting equipment fitted in accordance with the requirements of Ch 4, Sec 5, [2] for yachts of less than 500GT, and requirements of Part C, Ch 4, Sec 6, [1] of the Rules for Steel Ships for yachts of 500Gt and over may be used. This equipment is to be made readily available in

close proximity to the landing or winching areas during helicopter operations.

## **6 Operations manual**

### **6.1 General**

**6.1.1** Each helicopter facility is to have an operations manual, including a description and a checklist of safety precautions, procedures and equipment requirements. This manual may be part of the yacht's emergency response procedures.