

mains, as well as the items listed by §126.430 of this subchapter, will normally be inspected during an inspection for certification and periodic inspection to determine whether the liftboat is in satisfactory condition and fit for the service intended.

[CGD 82-004 and CGD 86-074, 62 FR 49352, Sept. 19, 1997, as amended by USCG 1999-4976, 65 FR 6507, Feb. 9, 2000]

§ 134.130 New construction.

Each applicant for an original Certificate of Inspection and for approval of plans must submit, as well as three copies of those required by §127.110 of this subchapter, three copies of the following plans:

- (a) Operating Manual for Liftboats.
- (b) Legs, details of supporting structure, and structural calculations.

§ 134.140 Structural standards.

(a) Except as provided by paragraph (b) of this section, each liftboat must comply with the ABS's "Rules for Building and Classing Mobile Offshore Drilling Units", assuming a steady wind speed of 100 knots for liftboats in unrestricted service, and 70 knots for liftboats in restricted service under normal operating conditions and 100 knots under severe storm conditions, as follows:

(1) The main hull structure, legs, and supporting structure must comply with Section 3/4.3 of the Rules.

(2) The calculations required by Section 3/4.3 of the Rules must assume the vessel to be in the most adverse loading conditions described by Sections 3/2.1 and 3/4.1 of the Rules.

(3) Unless otherwise agreed upon by the Commandant (G-MSE), the calculations on column-buckling required by Section 3/4.3 of the Rules, must employ an effective-length factor, "K", of not less than 2.0.

(4) The calculations on single-rack jacking systems required by Sections 3/2.1 and 3/4.1 of the Rules must include an extra bending moment caused by the most adverse eccentric loading of the legs.

(b) Standards of classification societies other than the ABS, and other established standards acceptable to the Commandant (G-MSE), may be used.

(c) Upon submittal of the plans required by §§127.110 and 133.130 of this subchapter, the standard used in the design must be specified.

(d) If no established standard is used in the design, etailed design calculations must be submitted with the plans required by §§127.110 and 133.130 of this subchapter.

§ 134.150 Liftboat-jacking systems.

(a) For this subchapter, liftboat jacking systems are vital systems and must comply with Sections 4/1.13.1 through 4/1.13.3 of the ABS's "Rules for Building and Classing Mobile Offshore Drilling Units" as well as meet the applicable requirements of part 128 of this subchapter.

(b) Each control system for a liftboat jacking system must be designed so that loss of power, loss of pressure in the hydraulic system, or low hydraulic-fluid level will activate a visible and audible alarm at the operating station and will not result in the liftboat's uncontrolled descent.

§ 134.160 Freeboard markings.

Freeboard markings required by §174.260 of this subchapter must be both permanently scribed or embossed and painted white or yellow on a dark background.

§ 134.170 Operating manual.

(a) Each liftboat must have aboard an operating manual approved by the Coast Guard as complying with this section.

(b) The operating manual must be available to, and written so as to be easily understood by, the crew members of the liftboat and must include the following:

(1) A table of contents and general index.

(2) A general description of the vessel, including—

- (i) Major dimensions;
- (ii) Tonnages; and
- (iii) Load capacities for—
 - (A) Various cargoes;
 - (B) Crane hook; and
 - (C) Helicopter-landing deck.

(3) Designed limits for each mode of operation, including—

- (i) Draft;
- (ii) Air gap;

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- (iii) Wave height;
 - (iv) Wave period;
 - (v) Wind;
 - (vi) Current;
 - (vii) Temperatures; and
 - (viii) Other environmental factors.
- (4) The heaviest loads allowable on deck.
- (5) Information on the use of any special cross-flooding fittings and on the location of valves that may require closure to prevent progressive flooding.
- (6) Guidance on preparing the vessel for heavy weather and on what to do when heavy weather is forecast, including when critical decisions or acts—such as leaving the area and heading for a harbor of safe refuge, or evacuating the vessel—should be accomplished.
- (7) Guidance on operating the vessel while changing mode and while preparing the vessel to make a move, and information on how to avoid structural damage from shifting loads during heavy weather.
- (8) Information on inherent operational limitations for each mode and on changing modes, including pre-loading instructions.
- (9) Guidance on the proper procedures for discovering the flooding of a normally buoyant leg or leg pad, precautionary information concerning the effects on stability of flooded legs, and what to do upon discovering the flooding of a normally buoyant leg or leg pad.
- (10) A description, a diagram, operating guidance for the bilge system, and an alternative method of dewatering.
- (11) A general arrangement diagram showing the locations of—
- (i) Watertight and weathertight compartments;
 - (ii) Openings in the hull and structure;

- (iii) Vents and closures;
 - (iv) Shutdowns for mechanical and electrical emergencies, and for emergencies affecting ventilation;
 - (v) Alarms for flooding and for too-high and too-low levels;
 - (vi) Fire and gas detectors; and
 - (vii) Access to different compartments and decks.
- (12) A list of shutdown locations for emergencies and guidance on restarting mechanical and electrical equipment and equipment for ventilation after shutdowns.
- (13) A diagram of the hazardous locations (if applicable).
- (14) A diagram of the emergency-power system.
- (15) Stability information setting forth the maximum allowable height of the center of gravity in relation to draft data, displacement, and other applicable parameters unique to the design of the unit to determine compliance with the intact and damage stability criteria, under §§174.250 and 174.255 of this chapter.
- (16) Curves of form as required under §170.075(a)(3) of this chapter.

§ 134.180 Piping for fire-main suction.

- (a) Except as provided by paragraph (b) of this section, suction lines must comply with §132.110 of this subchapter.
- (b) Suction lines that extend below the main deck outside the hull plating and that supply the fire pump with the liftboat in the elevated mode must be metallic, unless they comply with §56.60–25(c) of this chapter for vital fresh-water and salt-water service, except that they may be of unlimited length.

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