GUIDE FOR BUILDING AND CLASSING

LIFTBOATS
2018

NOTICE NO. 1 – July 2018

The following Rule Changes were approved by the ABS Rules Committee on 1 June 2018 and become **EFFECTIVE AS OF 1 JULY 2018.**

(See http://www.eagle.org for the consolidated version of the Guide for Building and Classing Liftboats 2018, with all Notices and Corrigenda incorporated.)

Notes - The date in the parentheses means the date that the Rule becomes effective for new construction based on the contract date for construction, unless otherwise noted. (See 1-1-4/3.3 of the ABS Rules for Conditions of Classification – Offshore Units and Structures (Part 1).)

PART 3 HULL CONSTRUCTION AND EQUIPMENT

CHAPTER 2 HULL STRUCTURES AND ARRANGEMENTS

SECTION 1 LONGITUDINAL STRENGTH

9 Longitudinal Strength with Higher-Strength Material

(Revise Paragraph 3-2-1/9.5, as follows:)

9.5 Hull Girder Section Modulus *(1 July 2018)*

When either the top or bottom flange of the hull girder, or both, is constructed of higher-strength material, the section modulus as obtained from 3-2-1/3.1 may be reduced by the factor Q.

$$SM_{hts} = Q(SM)$$

where

Q = 0.78 for Grade H32

Q = 0.72 for Grade H36

Q = 0.68[(1)] for H40 strength steel

H32, H36, H40 are as specified in 2-1-3/Tables 1-4 of the ABS *Rules for Materials and Welding (Part 2).*

Note:

1 The material factor for H40 may be taken as 0.66, provided that the hull structure is additionally verified for compliance with the requirements of:

- ABS *Guide for 'SafeHull-Dynamic Loading Approach' for Vessels*
- ABS *Guide for Spectral-Based Fatigue Analysis for Vessels*

Q factors for steels having other yield point or yield strength will be specially considered.

PART 4 MACHINERY AND SYSTEMS

CHAPTER 1 GENERAL

SECTION 1 CLASSIFICATION OF MACHINERY

15 Astern Propulsion Power *(2005)*

(Revise Paragraph 4-1-1/15.1, as follows:)

15.1 General *(1 July 2018)*

Sufficient power for going astern is to be provided to secure proper control of the liftboat in all normal circumstances. The astern power of the main propelling machinery is to be capable of maintaining in free route astern at least 70% of the ahead rpm corresponding to the maximum continuous ahead power. For main propulsion systems with reversing gears, controllable pitch propellers or electric propulsion drive, running astern is not to lead to overload of the propulsion machinery.

Main propulsion systems are to undergo tests to demonstrate the astern response characteristics. The tests are to be carried out at least over the maneuvering range of the propulsion system and from all control positions. A test plan is to be provided by the yard and accepted by the surveyor. If specific operational characteristics have been defined by the manufacturer these shall be included in the test plan. The ability of the machinery, including the blade pitch control system of controllable pitch propellers, to reverse the direction of thrust of the propeller in sufficient time, and so to bring the liftboat to rest within a reasonable distance from maximum ahead service speed, is to be demonstrated and recorded during trials.

PART 4 MACHINERY AND SYSTEMS

CHAPTER 2 PRIME MOVERS

SECTION 1 INTERNAL COMBUSTION ENGINES AND REDUCTION GEARS

1 General

(Revise Paragraph 4-2-1/1.1, as follows:)

1.1 Construction and Installation *(1 July 2018)*

Internal combustion engines of 100 kW [135 horsepower (hp)] and over and associated reduction gears are to be constructed in accordance with Part 4, Chapters 2 and 3 of the *Steel Vessel Rules* and installed in accordance with the following requirements, to the satisfaction of the Surveyor. Engines of less than 100 kW (135 hp) and associated reduction gears are to be constructed and equipped in accordance with good commercial practice, and will be accepted subject to satisfactory performance test conducted to the satisfaction of the Surveyor after installation.

For engines driving generators refer to the applicable requirements of 4-7-4/3.17.

Additional requirements for exhaust emission abatement equipment connected to internal combustion engines or boilers are provided in the ABS *Guide for Exhaust Emission Abatement*.

15 Engine Exhaust Systems

(Add new Paragraph 4-2-1/15.7, as follows:)

15.7 Exhaust Emission Abatement Systems *(1 July 2018)*

Where a liftboat is fitted with an exhaust emission abatement system and the optional vessel notations detailed under 1/9.3 through 1/9.9 of the ABS *Guide for Exhaust Emission Abatement* are not requested, the installed exhaust emission abatement system is to comply with the minimum requirements prescribed in Section 1, Table 1 of the Guide and is to be verified by an ABS Surveyor during installation. This is applicable to new construction and existing liftboat conversions.

PART 4 MACHINERY AND SYSTEMS

CHAPTER 5 PUMPS AND PIPING SYSTEMS

SECTION 2 PUMPS, PIPES, VALVES AND FITTINGS

3 Pressure Tests

(Revise Paragraph 4-5-2/3.13, as follows:)

3.13 Hydrostatic Tests of Shell Valves *(1 July 2018)*

All valves intended for installation on the side shell at or below the load waterline, including those at the sea chests, are to be hydrostatically tested before installation and in the presence of the Surveyor.

The valve housing of each valve is to be subjected to a pressure of not to be less than test pressure of 5 bar (5.1 kgf/cm^2, 72.5 psi). No leakage is permitted and holding time as follows:

- 15 seconds for sizes up to 50 mm (2 inch)
- 60 seconds for sizes 75 mm - 150 mm (2.5 inch - 6 inch)
- 120 seconds for sizes 200 mm - 300 mm (8 inch - 12 inch)
- 300 seconds for sizes 350 mm (14 inch) and larger

The valve assembly is to be subjected to a hydrostatic seat leakage test. The test is to be performed with closed valve with the other end open to atmosphere. The pressure is to be applied independently on each side. Test pressure is not to be less than 5 bar (5.1 kgf/cm^2, 72.5 psi). Holding time is 5 minutes for all sizes.

5 Metallic Pipes

(Revise Paragraph 4-4-2/5.8, as follows:)

5.8 Other Materials *(1 July 2018)*

Piping containing flammable fluids is to be constructed of steel or other materials approved by ABS. Other equivalent material with a melting point above 930°C (1706°F) and with an elongation above 12% may be accepted. Aluminum and aluminum alloys which are characterized by low melting points, below 930°C (1706°F), are considered heat sensitive materials and are not to be used to convey flammable fluids, except for such piping as arranged inside cargo tanks or heat exchangers or as otherwise permitted for engine, turbine and gearbox installations, see 4-2-1/7.7 of the *Steel Vessel Rules*.

PART 4 MACHINERY AND SYSTEMS

CHAPTER 5 PUMPS AND PIPING SYSTEMS

SECTION 4 FUEL OIL AND LUBRICATING OIL SYSTEMS AND TANKS

9 Lubricating Oil Systems

(Revise Paragraph 4-5-4/9.1, as follows:)

9.1 General *(1 July 2018)*

The lubricating systems are to be so arranged that they will function satisfactorily under the conditions specified in 4-1-1/17. Consideration is to be given to all acceptable fill levels in the lube oil sumps and tanks for compliance with this requirement.

The lubricating-oil piping is to be entirely separated from other piping systems. In addition, the requirements of 4-5-4/1.1.2, 4-5-4/1.3, and 4-5-4/1.5 are applicable.

The requirements in 4-5-4/3.7 are also applicable for lubricating-oil tanks; however, arrangements for remotely closing the valve from a position outside the compartment need not be provided if inadvertent valve closure could result in damage to the running machinery due to lack of lubricating-oil. Where the machinery is arranged for automatic shutdown upon loss of lubricating-oil, the valve required by 4-5-4/3.7 is to be provided with means to close it from a readily accessible and safe location outside the compartment in which the valve is located.