RULES
FOR THE CLASSIFICATION OF SHIPS

2013

Part 5 – SUBDIVISION

Amendments No. 3

2017
By the decision of the General Committee of Croatian Register of Shipping,

Amendments No. 3 to the
RULES FOR THE CLASSIFICATION OF SHIPS
Part 5 – SUBDIVISION

have been adopted on 30th June 2017 and shall enter into force on 1st July 2017
INTRODUCTORY NOTES

These amendments are necessary to read together with the requirements in the Rules for the classification of ships, Part 5 - Subdivision, edition 2013 and Amendments No.1 and No.2 to that Part of the Rules, edition 2014.

Table 1 contains review of amendments, where items changed or added in relating to 2013 edition are given, with short description of each modification or addition.
The subject part of the Rules includes the requirements of the following international organisations:

**International Maritime Organization (IMO)**

**Conventions:**
- International Convention for the Safety of Life at Sea 1974 (SOLAS 1974) and all subsequent amendments up to and including the 2012 amendments (MSC. 325(90))
- International Convention on Load Lines, 1966, and Protocol of 1988, as amended up to and including the 2012 amendments (MSC. 345(91))
- International Convention for the Prevention of Pollution from Ships 1973, as modified by the Protocol of 1978 thereto (MARPOL 73/78) and all subsequent amendments up to and including the 2011 amendments (MEPC. 201(62))

**Resolutions:**
- Guidelines for the design and construction of offshore supply vessels, 2006, MSC. 235(82), as amended by (MSC. 335(90))

**Codes:**
- International Code of Safety for High-Speed Craft (HSC Code), MSC. 36(63), MSC. 97(73)
- Code of Safety for Dynamically Supported Craft, A.373(X)
- Code of Safety for Special Purpose Ships, 2008, MSC.266(84)

**International Association of Classification Societies (IACS)**

**Unified Interpretations (UI):**
- CC7 (June 2016); LL 63 (Rev.2, 2008); LL 65 (Rev.2, 2008); LL 69 (Rev.1, 2008);
- LL 75 (Rev.1, 2009); LL80 (June 2016); MPC93 (Rev.1, 2016); MPC129 (June 2016);
- SC 161 (Rev.1, 2008)

**Recommendations (Rec.):**
- No.110 (Rev.1, 2010)

**EU Directives:**
TABLE 1 – REVIEW OF AMENDMENTS

This review comprises amendments in relation to the Rules for the Classification of Ships, Part 5 - Subdivision, issued 2013.

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SECTION 1 – GENERAL

Head 1.5 – ADDITIONAL CLASS NOTATION FOR SHIPS COMPLYING SUBDIVISION REQUIREMENTS, a new item 1.5.2 has been added, and should be read as:

1.5.2 Passenger ships engaged on national service navigation which are shown to comply with the damage stability requirements stated in 1.1.2 of this Rules may be assigned with additional class notation SD (class B/C/D). The capital character in the brackets shall correspond to assigned area of operation of the ship, according to EU Directive referred to in item 1.1.2.
SECTION 9 – TANKERS

Head 9.3 – DAMAGE STABILITY CRITERIA, an additional footnote to item 9.3.4 has been added:

9.3.4 The stability in the final stage of flooding shall be investigated and may be regarded as a sufficient if the righting lever curve has at least a range of $20^\circ$ beyond the position of equilibrium in association with a maximum residual righting lever of at least 0.1 m within the $20^\circ$ range; the area under the curve within this range shall not be less than 0.0175 metre radians. Unprotected openings shall not be immersed within this range unless the space concerned is assumed to be flooded. Within this range, the immersion of any of the openings listed in 9.3.2 and other openings capable of being closed weathertight may be permitted.*

* Other openings capable of being closed weathertight do not include ventilators (complying with ILLC 19(4)) that for operational reasons have to remain open to supply air to the engine room or emergency generator room (if the same is considered buoyant in the stability calculation or protecting openings leading below) for the effective operation of the ship.

Head 9.6 – ACCIDENTAL OIL OUTFLOW PERFORMANCE, an additional footnote to item 9.6.8 has been added:

9.6.8 ... .3 The oil outflow $O_{bl}$ for each cargo oil tank shall be calculated based on pressure balance principles, in accordance with the following assumptions:

.1 The ship shall be assumed stranded with zero trim and heel, with the stranded draught prior to tidal change equal to the load line draught $d_S$.

.2 The cargo level after damage shall be calculated as follows:

$$h_c = \frac{(d_s + t_c - Z_1)(\rho_s) - (1000p)/g}{\rho_n}$$

where:

- $h_c$ = the height of the cargo oil above $Z_1$, in metres;
- $p$ = if an inert gas system is fitted, the normal overpressure, in kPa, to be taken as not less than 5 kPa*; if an inert gas system is not fitted, the overpressure may be taken as 0;
- $\rho_s$, $\rho_n$ = the densities of the cargo oil and water, respectively.

* According to IACS UI MPC93 (Rev.1, 2016), if an inert gas system is fitted on tankers which are contracted for construction on or after 1 April 2009, the normal overpressure, in kPa, is to be taken as 5 kPa. The “contracted for construction” date means the date on which the contract to build the vessel is signed between the prospective owner and the shipbuilder.