Circular No: S.P 02/14 Revision:1 Page: 1 Adoption Date: 08.08.2014

Related Requirement: TL- R S17, TL- R S18, TL- R S20

Subject: Retrospective Requirements For Non-CSR Bulk Carriers

Entry into Force Date:

Following revisions/corrections of **TL- R S17**, **TL- R S18** and **TL- R S20** are <u>retrospectively</u> <u>applicable from 1 July 2006</u>:

1. TL- R S17 Rev.7 (Feb.2006), Corr.1 (Oct 2009), Rev.8 (May 2010) and Rev.9 (April 2014)

- **2. TL- R S18** Rev.7 (Feb 2006), Corr.1 (Oct 2009), Rev.8 (May 2010) and Rev.9 (Mar 2014)
- **3. TL- R S20** Rev.4 (Feb 2006), Corr.1 (Oct 2009), Rev.5 (May 2010) and Rev.6 (Apr 2014)

1. TL- R S17 LONGITUDINAL STRENGTH OF HULL GIRDER IN FLOODED CONDITION FOR NON-CSR BULK CARRIERS

TL- R S17 Rev.9

S17.1 General

Revision 7 or subsequent revisions or corrigenda as applicable of this requirement is to be applied to non-CSR bulk carriers of 150 m in length and upwards, intending to carry solid bulk cargoes having a density of 1,0 t/m³ or above, and with,

- a) Single side skin construction, or
- b) Double side skin construction in which any part of longitudinal bulkhead is located within B/5 or 11.5 m, whichever is less, inboard from the ship's side at right angle to the centreline at the assigned summer load line in accordance with Note 2.

Such ships are to have their hull girder strength checked for specified flooded conditions, in each of the cargo and ballast loading conditions defined in TL- R S11.2.1.2 to S11.2.1.4. and in every other condition considered in the intact longitudinal strength calculations, including those according to TL- R S1 and S1A, except that harbour conditions, docking condition afloat, loading and unloading transitory conditions in port and loading conditions encountered during ballast water exchange need not be considered.

This requirement does not apply to CSR Bulk Carriers.

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TL- R S17 Rev.8

S17.1 General

Revision 7 of this requirement is to be complied with in respect of the flooding of any cargo hold of bulk carriers, as defined in TL- R Z11.2.2, with notation BC-A or BC-B, as defined in UR S25, in accordance with Note 2.

Such ships are to have their hull girder strength checked for specified flooded conditions, in each of the cargo and ballast loading conditions defined in TL- R S11.2.1.2 to S11.2.1.4. and in every other condition considered in the intact longitudinal strength calculations, including those according to TL- R S1 and S1A, except that harbour conditions, docking condition afloat, loading and unloading transitory conditions in port and loading conditions encountered during ballast water exchange need not be considered.

This requirement does not apply to CSR Bulk Carriers.

2. TL- R S18 EVALUATION OF SCANTLINGS OF CORRUGATED TRANSVERSE WATERTIGHT BULKHEADS IN NON-CSR BULK CARRIERS CONSIDERING HOLD FLOODING

TL- R S18 Rev.9

S18.1 - Application and definitions

Revision 7 or subsequent revisions or corrigenda as applicable of this requirement is to be applied to non-CSR bulk carriers of 150 m in length and upwards, intending to carry solid bulk cargoes having a density of 1.0 t/m³, or above, with vertically corrugated transverse watertight bulkheads, and with,

- a) Single side skin construction, or
- b) Double side skin construction in which any part of longitudinal bulkhead is located within B/5 or 11.5 m, whichever is less, inboard from the ship's side at right angle to the centreline at the assigned summer load line in accordance with Note 2.

The net thickness t_{net} is the thickness obtained by applying the strength criteria given in S18.4.

The required thickness is obtained by adding the corrosion addition ts, given in S18.6, to the net thickness t_{net} .

In this requirement, homogeneous loading condition means a loading condition in which the ratio between the highest and the lowest filling ratio, evaluated for each hold, does not exceed 1.20, to be corrected for different cargo densities.

This requirement does not apply to CSR Bulk Carriers.

TL- R S18 Rev.8

S18.1 - Application and definitions

Revision 7 of this requirement is to be complied with in respect of the flooding of any cargo hold of bulk carriers, as defined in TL- R Z11.2.2, of 150 m in length and above, with single deck, topside tanks and hopper tanks, and of single side or double side skin construction, intending to carry solid bulk cargoes having a density of 1.0 t/m³, or above, with vertically corrugated transverse watertight bulkheads, in accordance with Note 2.

The net thickness t_{net} is the thickness obtained by applying the strength criteria given in S18.4.

The required thickness is obtained by adding the corrosion addition ts, given in S18.6, to the net thickness t_{net} .

In this requirement, homogeneous loading condition means a loading condition in which the ratio between the highest and the lowest filling ratio, evaluated for each hold, does not exceed 1.20, to be corrected for different cargo densities.

This requirement does not apply to CSR Bulk Carriers.

3. TL- R S20 EVALUATION OF ALLOWABLE HOLD LOADING FOR NON-CSR BULK CARRIERS CONSIDERING HOLD FLOODING

TL- R S20 Rev.6

S20.1 - Application and definitions

Revision 4 or subsequent revisions or corrigenda as applicable of this requirement is to be applied to non-CSR bulk carriers of 150 m in length and upwards, intending to carry solid bulk cargoes having a density of 1.0 t/m³ or above, and with,

a) Single side skin construction, or

b) Double side skin construction in which any part of longitudinal bulkhead is located within B/5 or 11.5 m, whichever is less, inboard from the ship's side at right angle to the centreline at the assigned summer load line in accordance with Note 2.

The loading in each hold is not to exceed the allowable hold loading in flooded condition, calculated as per S20.4, using the loads given in S20.2 and the shear capacity of the double bottom given in S20.3.

In no case is the allowable hold loading, considering flooding, to be greater than the design hold loading in the intact condition.

This requirement does not apply to CSR Bulk Carriers.

TL- R S20 Rev.5

S20.1 - Application and definitions

Revision 4 of this requirement is to be complied with in respect of the flooding of any cargo hold of bulk carriers, as defined in TL- R Z11.2.2, of 150m in length and above, with single deck, topside tanks and hopper tanks, and of single side or double side skin construction, intending to carry solid bulk cargoes having a density 1.0 t/m³, or above, in accordance with Note 2.

The loading in each hold is not to exceed the allowable hold loading in flooded condition, calculated as per S20.4, using the loads given in S20.2 and the shear capacity of the double bottom given in S20.3.

In no case is the allowable hold loading, considering flooding, to be taken greater than the design hold loading in the intact condition.

This requirement does not apply to CSR Bulk Carriers.