

Supporting Structures of Independent Prismatic Tanks

Amended Rules and Guidance

Rules for the Survey and Construction of Steel Ships Part C and CS
Guidance for the Survey and Construction of Steel Ships Part C and CS

Reason for Amendment

Damage related to the buckling of the plates which compose supporting structures of cargo tanks of some ships having independent prismatic tanks has been reported.

A damage investigation was conducted and the results showed that this type of damage was only found in the supporting structures of the foremost cargo tanks, where vertical acceleration is greatest, of asphalt tankers.

This damage was sustained in consequence of a lack of buckling strength in the plates which compose such supporting structures.

Requirement related to the supporting structures of the cargo tanks of ships carrying liquefied gases in bulk have been specified in Part N of the Rules.

Therefore, relevant requirements related to strength of the supporting structures of independent prismatic tanks were specified for ships which are not subject to Part N of the Rules.

Furthermore, a calculation method of this amendment for assessing the strength of supporting structures of independent prismatic tanks was established much simpler way than the complex one specified in Part N of the Rules.

Outline of Amendment

Requirements related to the yielding strength and buckling strength of supporting structures of cargo tanks of ships which have independent prismatic tanks and are not subject to Part N of the Rules were specified.