

# **Lean Duplex Rolled Stainless Steels**

## **Amended Rules and Guidance**

Rules for the Survey and Construction of Steel Ships Parts K and M

Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use

## **Reason for Amendment**

JIS G4304 “Hot-rolled stainless steel plate, sheet and strip” and JIS G4305 “Cold-rolled stainless steel plate, sheet and strip” each specify requirements related to standards for duplex rolled stainless steels used for the cargo tanks of chemical tankers. In September 2015, the aforementioned JIS standards were revised, with standards for super duplex rolled stainless steels with improved strength and corrosion resistance and standards for lean duplex rolled stainless steels with decreased alloy elements both being added.

Since lean duplex rolled stainless steels are occasionally used in *NK*-classed ships, the above is anticipated to lead to a corresponding increase in the number of applications related to the use of lean duplex rolled stainless steels.

Accordingly, relevant requirements were amended based upon the latest versions of JIS G4304 and G4305.

In addition to the above, requirements for rolled stainless steels specified in Part K of the Rules for the Survey and Construction of Steel Ships do not require hardness tests be carried out as part of approval tests even though hardness tests are required at times of shipment. Accordingly, in order to aim for consistency of this requirement, relevant requirements were amended in order to add hardness tests to the approval test items for rolled stainless steels.

## **Outline of Amendment**

The main details of the amendment are as follows:

- (1) Added requirements related to standards for duplex rolled stainless steels.
- (2) Added requirements related to hardness tests to the approval test items for rolled stainless steels.

## **Amended Requirements**

Rules for the Survey and Construction of Steel Ships

Part K: Table K3.18, Table K3.19

Part M: Table M6.43, Table M6.49

Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use

Part 1 Table 1.1-2