

# High Strength Rolled Steel for Offshore Structures

## Amended Rules and Guidance

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

Guidance 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

IACS Unified Requirement (UR) W16 (Rev.2) specifies requirements related to the material specifications and testing of high strength quenched and tempered steels intended to be used for welded structures such as mobile offshore units, tanks of liquefied gas carriers and process pressure vessels.

Since UR W16 (Rev.2) has not been amended since 2004, IACS decided the time had come to review it based upon international standards currently being applied in the field of offshore development. The revisions made by IACS include changes related to the grades of steel materials whose minimum yield point or proof stress values exceed  $890N/mm^2$  to take into account the fact that high strength steels whose strength levels exceed the values specified in IACS UR W16 (Rev.2) has been increasing since the last amendment of the UR.

In addition, requirements related to approval of manufacturing process such steels based upon requirement specified for the rolled steels used for hulls specified in IACS UR W11 had also been added. The amendments were adopted as UR W16 (Rev.3) in March 2016.

Accordingly, relevant requirements were amended in accordance with UR W16 (Rev.3).

## Outline of Amendment

The main details of the amendment are as follows:

- (1) Amended standards related to the chemical composition and mechanical properties of steels.
- (2) Amended requirements related to tests or inspections required at the time of shipment.
- (3) Amended requirements related to tests or inspections for manufacturing process approval.

## Amended Requirements

Rules for the Survey and Construction of Steel Ships

Part K: 1.4.2, 1.5.1, 1.5.2, 3.1.9, 3.8, 3.8.1, 3.8.2, 3.8.3, 3.8.4, 3.8.5, 3.8.6, 3.8.7, 3.8.11, Table K3.27, Table K3.28, Table K3.29, Table K3.30, 3.11.1, Table K3.35

Part M: 2.1.1, 2.4.1, Table M2.1, 4.1.3, 4.1.4, Table M4.4, Fig. M4.2, Fig. M4.3, 4.2.3, Table M4.6, Table M4.9, Table M4.10, 4.2.10, 4.3.8, 4.4.7, 6.9, 6.9.1, Table M6.58

Part P: 2.2.1, Table P2.1, Table P2.2, Fig. P6.3, Fig. P6.4

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Part K: K3.1.4, Fig. K3.1.4-1, Fig. K3.1.4-2, K3.1.9, K3.8

Part M: M5.1.1

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Part 1 1.2.2, 1.4.1, 1.4.2, Table 1.1-1, Table 1.1-2, Table 1.1-3, Table 1.1-4, Table 1.1-5,  
Table 1.1-6, Table 1.1-7, Table 1.1-8, Table 1.1-9, Fig. 1.1-2, 1.5.1, 1.5.2