

# **Welding Consumables for High Tensile Steels**

## **Amended Rules and Guidance**

Rules for the Survey and Construction of Steel Ships Part M  
Guidance for the Survey and Construction of Steel Ships Part M

## **Reason for Amendment**

IACS Unified Requirement (UR) W17 (Rev.4), which specifies welding consumables for rolled steels for hulls, standardizes welding consumables 4Y40 (whose standard impact test temperature is  $-40^{\circ}\text{C}$ ) etc. as the welding consumables to be used for YP40 steel (standard minimum proof stress of  $390\text{ N/mm}^2$ ). In reference to this, IACS received a request from industry members regarding the standardization of welding consumables whose toughness is higher than 4Y40 which are intended to be used in extremely low temperature environments.

In response to this request, IACS revised UR W17 to standardize the welding consumable 5Y40 whose tensile level is the same as 4Y40 and whose standard impact test temperature is  $-60^{\circ}\text{C}$ . The revised UR was adopted as UR W17 (Rev.5).

Accordingly, all relevant requirements were amended based upon Unified Requirement W17 (Rev.5).

## **Outline of Amendment**

The main details of the amendment were as follows:

- (1) Specified the kinds and grades of steel used for base metals which 5Y40 can be applied.
- (2) Specified requirements related to the standard value of 5Y40 as well as relevant approval tests and annual inspections.

## **Amended Requirements**

Rules for the Survey and Construction of Steel Ships  
Part M: Table M2.1, Table M4.2, Table M6.1, Table M6.4 to M6.8, Table M6.12, Table M6.15 to M6.21, Table M6.23 to M6.27, Table M6.29, Table M6.31 to M6.34, Table M6.37 to M6.39, Table M6.42  
Guidance for the Survey and Construction of Steel Ships  
Part M: M5.2.2