

Hull Structures Using YP47 Steel Plates

Amended Rules and Guidance

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

Reason for Amendment

In recent years, as the size of container carriers has continued to increase, the steel plates used in the hull structures of such ships continue getting thicker.

In order to alleviate such concerns, a new type of steel called YP47 (High tensile steel with a minimum yield stress of 460 N/mm²) has been developed, and such steel plates have come to be used to longitudinal structural members in the upper deck region of ultra large container carriers increasingly.

In response to this, IACS held discussions on requirements related to hull structures, materials and welding for longitudinal structural members in the upper deck region of container carriers which use YP47 steel plates. As a result, IACS Unified Requirement W31 was adopted in January 2013.

Accordingly, relevant requirements were amended based on the UR W31.

Now, requirements related to materials and welding contained in UR W31 were specified in Part M of the Rules for the Survey and Construction of Steel Ships and relevant Guidance separately from requirements related to hull structures.

Outline of Amendment

- (1) Specified material coefficient for YP47 steel plates.
- (2) Specified that jigs used during the welding and construction are to be removed or appropriately treated once such welding work has been completed.
- (3) Specified that torsional strength assessments conducted using methods deemed appropriate by the Society may be required for container carriers.
- (4) Specified requirements related to the fatigue strength of the hatch side coamings, upper decks, and forward hold hatch corners, etc. of container carriers.