

Application of Steels

Amended Rules

Rules for the Survey and Construction of Steel Ships Part C

Reason for Amendment

The Transportation Safety Board of Canada (TSB), in its report on the hull fractures of the 'Lake Carling' and her sister ship the 'Ziemia Gornoslaska' that occurred during winter in the Gulf of St. Lawrence, raised the issue of the application, or to be more accurate the lack of measured steel toughness requirements, for normal strength grade A steel. The TSB expressed concern that the current requirements for side shell plating given in IACS Unified Requirements S6 were not adequate. The TSB requested that IACS review the Unified Requirements S6.

In response, IACS adopted Unified Requirements S6(Rev.5) in September 2007. This included revisions that require the grade of steel used for the strength deck and continuous longitudinal members above strength deck is to be not less than grade B.

Therefore, this amendment has been introduced in order to incorporate IACS Unified Requirements S6(Rev.5) into the Rules.

Outline of Amendment

- (1) Regarding the minimum grade of mild steel for ships with length exceeding 150m and single strength deck, the requirements have been revised so that steel not less than grade B is to be used in the following cases:
 - (a) For ships with single side strakes without inner continuous longitudinal bulkhead(s) between bottom and the strength deck within cargo region.
 - (b) For ships with longitudinal strength members of strength deck plating within $0.4L$ amidships.
 - (c) For ships with continuous longitudinal strength members above strength deck within $0.4L$ amidships.
- (2) Regarding the minimum grade of mild steels for ships with ice strengthening, the requirements have been revised so that steel not less than grade B is to be used for shell strakes in way of ice strengthening area for plates.