

Welding of Corrugated Bulkheads and Relevant Structures

Amended Rules and Guidance

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

Reason for Amendment

Crack damage in way of welded parts between the corners of corrugated bulkheads and inner bottom plating is typical for the kind of damage suffered by the corrugated bulkheads of chemical tankers. According to an investigation of the damage records of chemical tankers, it was found that such crack damage accounts for a little over 60 % of all damage occurred within cargo tank areas. Therefore, it is quite obvious that the prevention of such cracks would lead to a large decrease in the damage occurring in chemical tankers.

Accordingly, based on the results of investigations into the type of welding and supporting structures of corrugated bulkheads adopted by damaged ships and non-damaged ships, relevant requirements were amended in order to prevent crack damage in way of welded parts between the corners of corrugated bulkheads and inner bottom plating.

Outline of Amendment

- (1) The requirements for the welding between corrugate bulkheads and inner bottom plates, upper deck plating and the top or bottom plates of stools have been amended.
- (2) The requirements for the supporting structures of corrugated bulkheads have been amended
- (3) The requirements for stools, in cases where stools are installed at the upper or lower parts of corrugated bulkheads, have been added.
- (4) The requirements for the treatment of the liquid cargo that has a specific gravity of more than 1.0 have been added.