

Class Notations with respect to Structural Assessment based upon Direct Load Analysis

Amended Rules and Guidance

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

Reason for Amendment

The ClassNK Rules and Guidelines specify requirements regarding structural strength assessments based upon direct strength calculations as one type of criteria for the structural strength assessments. Since these requirements specify loads estimated from the service records of existing ships, ships of new structural configurations or of a size lacking sufficient records of service may need to be evaluated on a case-by-case basis taking the ships' particular characteristics into account.

Therefore, ClassNK established its "Guidelines for Direct Load Analysis and Strength Assessment" which specifies a strength assessment method which considers the detailed characteristics of individual ships based upon load and structural consistent analysis.

Accordingly, relevant requirements were amended to specify that where either yield strength assessments and buckling strength assessments, or fatigue strength assessments were carried out for the primary members in all cargo spaces in accordance with the "Guidelines for Direct Load Analysis and Strength Assessment", the class notation "PS-DA-DLA" or "PS-FA-DLA" was to be respectively affixed to the classification characters.

In addition, the requirements regarding the fatigue strength assessments of longitudinals were applied to tankers, ore carriers, bulk carriers, container carriers and ships for which the class notation "PS-FA" was affixed to classification characters in accordance with the ClassNK Rules. The same requirements, however, were also often commonly applied to ships carrying liquefied gases in bulk, even when the class notation "PS-FA" was not affixed to the classification characters.

Accordingly, relevant requirements were amended to add ships carrying liquefied gases in bulk and ships carrying dangerous chemicals in bulk as ships for which fatigue strength assessments of longitudinals were required because the former had sufficient records of application and the latter had a similar structural configuration to tankers.

Amended Requirements

Rules for the Survey and Construction of Steel Ships
Part A: 1.2.6
Guidance for the Survey and Construction of Steel Ships
Part C: C1.1.22, C1.1.23