

# Calculation Formulae for Azimuthing Thruster Ice Impact Loads

## Amended Rules and Guidance

Rules for the Survey and Construction of Steel Ships Part I

Guidance for the Survey and Construction of Steel Ships Part I

## Reason for Amendment

Requirements for ships intended to be registered as ice class vessels for navigation of the Northern Baltic in compliance with the Finnish-Swedish Ice Class Rules (FSICR) are specified in Chapter 8, Part I of Rules for the Survey and Construction of Steel Ships.

The requirements of the latest version of the FSICR ("2017 FSICR") have been already incorporated into the NK Rules. Since some parts of these requirements related to the parameters used for calculating the ice impact loads acting on azimuthing thrusters were not clearly defined, the Society contacted the Finnish Transport and Communications Agency, which is responsible for the FSICR, and asked for clarification.

Accordingly, relevant requirements were amended based on the response received from the Finnish Transport and Communications Agency regarding these parameters.

## Outline of Amendment

The main contents of this amendment are as follows:

- (1) Added a definition for the parameter "A" which is used in the formulae for calculating the ice impact loads applying to azimuthing thrusters.
- (2) Added specific examples of the methods which can be used to calculate parameter "A".

## Amended Requirements

Rules for the Survey and Construction of Steel Ships

Part I: 8.6.5

Guidance for the Survey and Construction of Steel Ships

Part I: I8.6.5