

CORRIGENDA No. 1

This Part of the Rules includes the requirements of the following international Organisations:

International Maritime Organization (IMO)

Conventions: International Convention for the Safety of Life at Sea 1974 (SOLAS 1974), Ch. XIV, as adopted by resolution MSC.386(94)

Codes: International Code for Ships Operating in Polar Waters (Polar Code), as adopted by resolutions MSC.385(94) and MEPC.264(68)

Circulars: MSC/Circ.504, MSC.1/Circ.1519

International Association of Classification Societies (IACS)

Unified Requirements (UR):

I1 (Rev.2, 2016), I2 (Rev.4, 2019), I3 (Rev. 2, **corr. 1, Dec. 2024**), S6 (Rev.9, Corr.2, Nov 2021)

Other requirements:

Finnish-Swedish Ice Class Rules, 2017

Guidelines for the Application of the Finnish - Swedish Ice Class Rules, 8 January 2019

Section 6 – **MACHINERY INSTALLATIONS**, item 6.5.3.9 should be read as follows:

6.5.3.9 Number of ice loads

...

where the immersion function f is:

$$f = \frac{h_0 - H_{ice}}{D/2} - 1 \quad [\text{Equation 18}]$$

If h_0 is not known, $h_0 = D/2$.

The propulsion machinery type factor, k_3 , is 1 for fixed propulsors and 1.2 for azimuthing propulsors.

For icebreakers, the above stated number of load cycles N_{ice} shall be multiplied by a factor of 3.

...

Section 6 – **MACHINERY INSTALLATIONS**, sub-item 6.5.6.3.2 should be read as follows:

6.5.6.3.2 Frequency domain excitation

For frequency domain calculations the following torque excitation may be used. The excitation has been derived so that the time domain half sine impact sequences have been assumed to be continuous and the Fourier series components for blade order and twice the blade order components have been derived. The frequency domain analysis is generally considered as conservative compared to the time domain simulation provided there is a first blade order resonance in the considered speed range.

$$Q_{F(\varphi)} = Q_{max} \cdot (C_{q0} + C_{q1} \cdot \sin(Z \cdot E_0 \cdot \varphi + \alpha_1) + C_{q2} \cdot \sin(2 \cdot Z \cdot E_0 \cdot \varphi + \alpha_2)) \quad [\text{kNm}] \quad [\text{Equation 34}]$$

where :

C_{q0} = mean torque component

C_{q1} = first blade order excitation amplitude

C_{q2} = second blade order excitation amplitude

E_0 = number of ice blocks in contact

φ = angle of rotation

$\alpha_{1,2}$ = phase angle of excitation component

Z = number of blades

...