RUDDER
Main Modifications

Version 1.5i (June 2021)

BV Rules for Steel Ships NR467

- BV Rules for Steel Ships, Editions January + July 2021, are now included.
  - l_c : geometrical parameter of cone coupling   (PtB Ch9 Sec1 Fig.4)
  - c   : taper of cone coupling   (PtB Ch9 Sec1 [5.2.3])

BV Rules for Yachts NR500

- BV Rules for Yachts, Edition June 2021, are now included.

BV Rules for Inland Navigation Vessels NR217

- BV Rules for Inland Navigation Vessels, Edition June 2021, are now included.
  - IN, IN(x)   : range of navigation   (PtA Ch1 Sec3 [12.2])
  - k_1 : material factor for aluminum   (PtB Ch7 Sec1 [1.4.2])
  - C_R : rudder force   (PtB Ch7 Sec1 [2.1.2])
  - t_P : thickness of coupling flange   (PtB Ch7 Sec1 [4.1.4])
  - l_c : geometrical parameter of cone coupling   (PtB Ch7 Sec1 Fig. 2)
  - c   : taper of cone coupling   (PtB Ch7 Sec1 [4.2.3])
  - p_{perm} : permissible surface pressure   (PtB Ch7 Sec1 [4.3.2])
  - Δ_1 : push-up length   (PtB Ch7 Sec1 [4.3.3])
  - Minimum value of 2 mm for push-up length has been deleted   (PtB Ch7 Sec1 [4.3.3])
  - t_F : rudder blade plate thickness   (PtB Ch7 Sec1 [6.2.1])
  - t_B : blade thickness   (PtB Ch7 Sec1 [6.5.2])

Bug corrections

- Removal of $t_P = 0.25 d_1$ for BV Rules for Steel Ships NR467
- Correction of allowable stresses for rudder blade on semi-spade rudders for BV Rules for Steel Ships NR467

Version 1.5h (July 1st, 2019)

BV Rules for Steel Ships NR467

- BV Rules for Steel Ships, Edition July 2019, are now included.
  - Cone coupling : permissible surface pressure in cone p_{perm} (PtB Ch9 Sec1 [5.3.2])
  - Cone coupling : outer diameter of the gudgeon d_E (PtB Ch9 Sec1 [5.3.2])
  - Cone coupling : push-up length upper bound Δ_1 (PtB Ch9 Sec1 [5.3.3])
    (with and without hydraulic arrangement)
  - Cone coupling : no minimum value for Δ_0, Δ_1 (PtB Ch9 Sec1 [5.3.3])
  - Pintles : p_{perm} and Δ_1 are also updated accordingly

BV Rules for Inland Navigation Vessels NR217

- BV Rules for Inland Navigation Vessels, Edition February 2019, are now included.

- Horizontal flange coupling: thickness of the coupling flange t_P (PtB Ch7 Sec1 [4.1.4])
- Cone couplings   : push-up pressure p_{req} (PtB Ch7 Sec1 [4.3.2])
- Cone couplings   : push-up length Δ_E (PtB Ch7 Sec1 [4.3.3])
- Cone couplings   : lower stock end > contact length t_i (PtB Ch7 Sec1 [4.3.4])
- Cone couplings   : couplings with key (a_s, a_k, Δ_E...)   (PtB Ch7 Sec1 [4.3.6])
- Rudder stock bearing   : minimum thickness of liners/bushes (PtB Ch7 Sec1 [5.2.5])
- Pintles   : $p_{req,}$ Δ_E (PtB Ch7 Sec1 [5.4.5])
- Single plate rudders   : blade thickness t_B (PtB Ch7 Sec1 [6.5.2])

Enhancement

- Horn calculation for the case of 2-conjugate elastic supports
- t_i input for pintles

Bug corrections

- Inertia J10 given by users of the blade for rudder type 5

Older versions

For information on older versions, do not hesitate to contact us at:

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