CIRCULAR LETTER

No. 313-08-746c

dated 30.06.2014

On the content and application of amendments to IACS Unified Requirement (UR) S27 (Rev.6 June 2013) "Strength Requirements for Fore Deck Fittings and Equipment"

Item of supervision:

air and ventilator pipes on the exposed decks

Implementation 01.07.2014

Valid: till Validity period extended till

Cancels /amends / supplements Circular Letter № dated -

Number of pages:

Amendments to be introduced in Section 1, Part VIII "Systems and Piping" of the Appendices:

Rules for the Classification and Construction of Sea-Going Ships, 2014 – 1 page

Technical Director - Head of Classification Directorate Vladimir I. Evenko

Amends

Section 1 of Part VIII "Systems and Piping" of the Rules for the Classification and Construction of Sea-Going Ships", ND No. 2-020101-077.

We hereby inform that amendments to IACS UR S27 (Rev.6 June 2013) "Strength Requirements for Fore Deck Fittings and Equipment" will come into force since 1 July 2014. Amendments to IACS UR S27 (Rev.6 June 2013) specify the requirements to calculation of the wave pressure value acting on air and ventilator pipes.

IACS UR S27 (Rev.6 June 2013) will be included in Section 1, Part VIII "Systems and Piping" of the Rules for the Classification and Construction of Sea-Going Ships" at their re-publication. Amendments are given in the Appendix to the Circular Letter.

The original IACS UR S27 (Rev.6 June 2013) is posted on the RS internal website in Section: Normative Documents Publication and Support Department / External Normative Documents / 1-0212-027-E-A1.

It is necessary to do the following:

- 1. Apply the requirements of the Appendix since 1 July 2014.
- 2. Bring the content of the Circular Letter to the notice of the RS surveyors, interested organizations and persons in the area of the RS Branch Offices' activity.

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DMS "THESIS":

122574 dated 17.06.14

AMENDMENTS TO BE INTRODUCED INTO THE RULES FOR THE CLASSIFICATION AND CONSTRUCTION OF SEA-GOING SHIPS, 2014

PART VIII. SYSTEMS AND PIPING

Para 1.4.6.3.1 shall be amended to read:

"1.4.6.3.1 The pressures p, in kN/m², acting on air pipes, ventilator pipes and their closing devices may be determined by the formula

$$p = 0.5 \rho V^2 C_d C_s C_p \tag{1.4.6.3.1}$$

where ρ = density of sea water (1,025 t/m³);

V = velocity of water over the fore deck, m/s;

V = 13.5 for $d \le 0.5d_1$;

$$V = 13.5 \sqrt{2(1 - \frac{d}{d_1})}$$
 for $0.5d_1 < d < d_1$;

d = distance from summer load waterline to exposed deck, in m;

 $d_1 = 0.1L$ or 22 m, whichever is the lesser, in m;

 C_d = shape coefficient taken equal to:

0,5 for pipes;

1,3 for air pipes or ventilator heads;

0,8 for air pipes or ventilator heads of cylindrical form with its axis in the vertical direction;

 C_s = slamming coefficient taken equal to 3,2;

 C_{ρ} = protection coefficient taken equal to:

0,7 for pipes and ventilator heads located immediately behind a breakwater or forecastle;

1,0 elsewhere and immediately behind a bulwark.".