



# RUSSIAN MARITIME REGISTER OF SHIPPING

CIRCULAR LETTER

No. 314-26-1047c

dated 12.10.2017

Re:

requirements for ships which are periodically grounded in operation (NAABSA ships)

Item of technical supervision:

sea-going ships under construction and in service

Implementation: from the date of signing

Valid: till -

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Cancels / amends / supplements Circular Letter No. - - dated -

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Appendices: amendments to the Rules for the Classification and Construction of Sea-Going Ships, 2017, ND No. 2-020101-095-E

Director General

K.G. Palnikov

Amends Rules for the Classification and Construction of Sea-Going Ships, 2017, ND No. 2-020101-095-E

We hereby inform that Part XVII "Distinguishing Marks and Descriptive Notations in the Class Notation Specifying Structural and Operational Particulars of Ships" of the Rules for the Classification and Construction of Sea-Going Ships, 2017, ND No. 2-020101-095-E will be amended with the requirements for ships which are periodically grounded in operation (**NAABSA** ships).

It is necessary to do the following:

- 1) Familiarize the surveyors of the RS Branch Offices and interested organizations in the area of the RS Branch Offices' activity with the content of the Circular Letter.
- 2) Apply provisions of the Circular Letter during the RS practical activity.

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**PART XVII. DISTINGUISHING MARKS AND DESCRIPTIVE NOTATIONS IN THE CLASS NOTATION SPECIFYING STRUCTURAL AND OPERATIONAL PARTICULARS OF SHIPS**

New **Section 11** shall be introduced reading as follows:

**11 REQUIREMENTS FOR SHIPS NOT ALWAYS AFLOAT BUT SAFELY AGROUND (NAABSA SHIPS)**

**11.1 GENERAL**

**11.1.1 Application.**

**11.1.1.1** The requirements of this Section apply to NAABSA ships (Not Always Afloat But Safely Aground) which may lie aground in safety with partial or full hull baring in places fit for grounding the ships.

**11.1.1.2** At the shipowner's request, one of the following distinguishing marks may be added to the character of classification of a ship complying with the requirements of this Section:

**.1 NAABSA1** – partial or full ship hull baring is permitted on plane homogeneous sand-and-shingle or sand-and-mud sea beds with no motion in calm water as harbours or sheltered areas.

**.2 NAABSA2** – in addition to NAABSA1 notation specified, motion and ship bow impact contact with sea bed at defined wave parameters are permitted.

**.3 NAABSA3** – in addition to NAABSA2 notation, hull baring of moored ship is permitted at specified distance from seashore line in rolling conditions with impact contact against the seabed in any point of the seabed.

**11.2 REQUIREMENTS FOR HULL STRUCTURE**

**11.2.1** Requirements for hull structures specified in this Section are in addition to the requirements of Part II "Hull".

**11.2.2 Symbols.**

The following symbols have been adopted in this Chapter:

$\Delta_N$  = design displacement of NAABSA ship equal to the maximum value at the beginning of baring or upon emersion from the ground, but in all cases not more than summer load line displacement, in t;

$L_{BN}$  = design length of ship's bottom along the keel line, in m;

$L_N$  = design length of bottom, in m, considering the bow (1) and stern (2) external structural strengthening of hull (refer to Fig. 11.2.2.1);

$\Delta d$  = change of midship mean draft relative to level  $d_N$  corresponding to design displacement  $\Delta_N$ , in m;

- $\psi_0$  = design trim angle of the ship, in deg. (positive nose-up trim);
- $\psi_N$  = design sea bed slope angle along the ship, in deg.;
- $\psi_S$  = operating trim angle of the ship, in deg.;
- $\psi_{ON}$  = ship trim angle due to grounding on the move, in deg.;
- $R_{ON}$  = initial bow response to ship grounding on the move, in kN;
- $R_N^m$  = static end (local) response for the ship, in kN;
- $R_N^n$  = static nominal (distributed) response for the ship, in kN;
- $M_N$  = ship hull bending moment considering the sea bed response, in kN·m;
- $N_N$  = ship hull shear force considering the sea bed response, in kN;
- $B_N$  = width of flat horizontal section of the bottom, in m;
- $\beta_k$  = deadrise angle, in deg.;
- $h_k$  = design height of external structural protection below the keel line, in m;
- $v_N$  = design forward speed of ship upon grounding, in knots;
- $h_N$  = design (allowable) wave height for NAABSA conditions, in m.

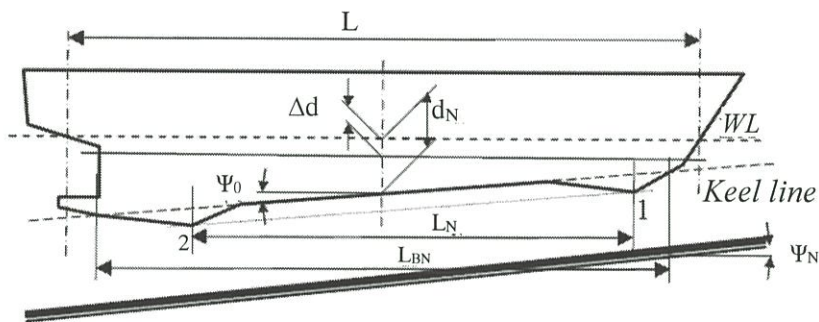


Fig. 11.2.2.1

In Fig. 11.2.2.1, the draft corresponding to design displacement is shown with a dotted line and the draft at hull bearing is shown with a solid line.

### 11.2.3 Requirements for hull shape.

**11.2.3.1** For typical transverse sections of NAABSA ships are specified in Fig. 11.2.3.1. In the area of impact contact with sea bed it is recommended to reduce the width of the flat horizontal part of the bottom and to increase the deadrise angle.