



RUSSIAN MARITIME REGISTER OF SHIPPING

URGENT RULE CHANGE NOTICE No. 431-03-2022 dated 09.07.2024

Entry-into-force date:

From the date of publication

Re: amendments to the Collection of the Rules for Containers (the Rules for the Manufacture of Containers), 2023, ND No. 2-090201-014

Specified requirements for:

dimensions of recesses near intermediate fittings of 1EEE и 1EE containers;
testing order of containers;
floor testing.

Instructions for application:

1. Bring the content of the Rule Change Notice to the attention of the RS surveyors, interested organizations and persons in the area of the RS Branch Offices' activity.
2. Apply the provisions of the Rule Change Notice in the Register practice upon the entry into force of the amendments*.

* The provisions of the Rule Change Notice shall not be applied for works performed under already concluded contracts (contract-requests) as of the date of publication of the amendments.

Director General

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PROPOSED AMMENDMENTS TO COLLECTION OF THE RULES FOR CONTAINERS, 2023

REVISION HISTORY

RULES FOR THE MANUFACTURE OF CONTAINERS

PART I. BASIC REQUIREMENTS

Item	Applied to	Description	Remarks
Para 2.3.5	Containers Design/manufacture	Requirements for dimensions of recesses near the intermediate fittings of 1EEE и 1EE containers have been specified	

PART II. GENERAL FREIGHT CONTAINERS

Item	Applied to	Description	Remarks
Para 3.1.4	Containers Design/manufacture/testing	Requirements for testing order of containers have been specified	
Chapter 3.9	Containers Design/manufacture/testing	Requirements for floor testing have been specified	

RULES FOR THE MANUFACTURE OF CONTAINERS

PART I. BASIC REQUIREMENTS

2. GENERAL TECHNICAL DATA

2.3 BASE STRUCTURE

Para 2.3.5 is amended as follows:

"2.3.5 1EEE and 1EE containers shall have recesses in the longitudinal members of the base structure directed from intermediate fittings towards corner fittings. These recesses shall extend vertically for not less than 76 mm above the plane of bottom faces of intermediate fittings, so as to permit full access to the outboard aperture of the intermediate fitting, shall extend longitudinally for not less than 254 mm from the centre of the bottom aperture in intermediate fittings directed towards corner fittings, 150 mm from the outboard surface in the intermediate fitting and shall extend laterally for not less than 154 mm inboard from the external side face of the intermediate fitting (refer to Fig. 2.3.5).

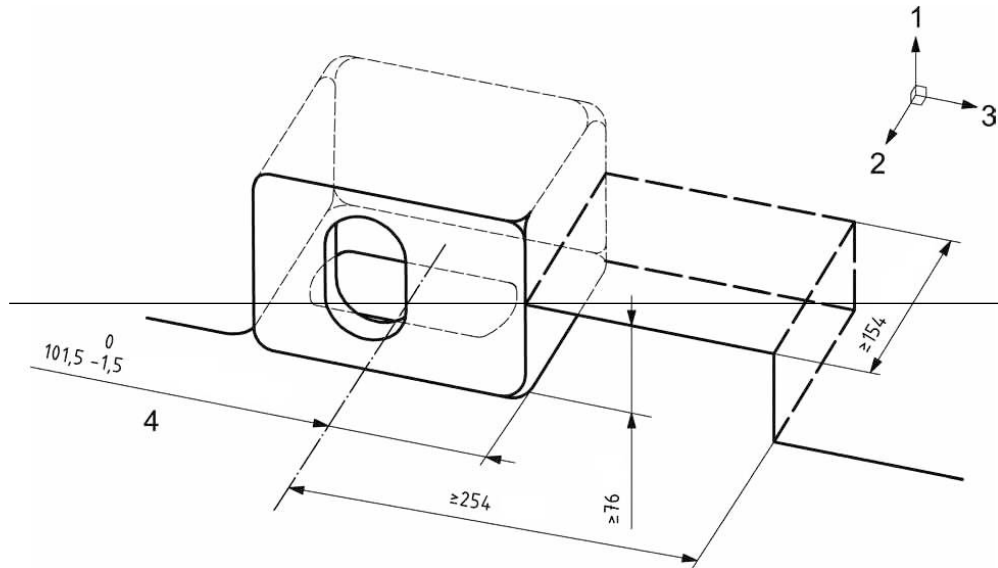


Fig. 2.3.5:

- 1 — top; 2 — outboard; 3 — end of container and corner fitting;
- 4 — axis of symmetry of the intermediate fitting bottom aperture

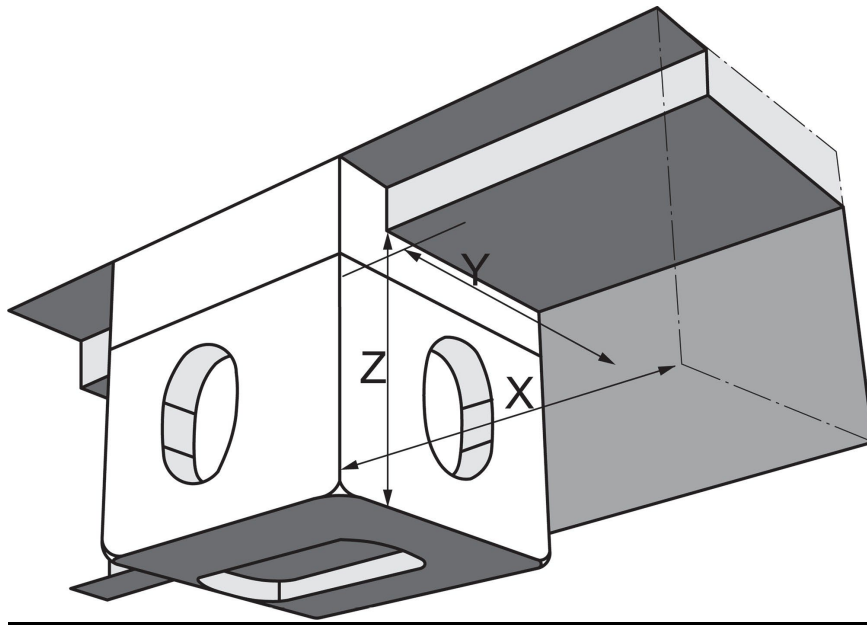


Fig. 2.3.5:

X – longitudinal (≥ 150 mm); Y – laterally (≥ 154 mm); Z – vertical (shall allow full access to the outboard aperture of the intermediate fitting)".

PART II. GENERAL FREIGHT CONTAINERS

3. TESTING

3.1 GENERAL

Para 3.1.4 is amended as follows:

"3.1.4 The order of tests is not mandatory, except that the test of floor strength under 3.9 shall be made first and the test of weathertightness under 3.15 shall be made last and be applied to each container.".

Chapter 3.9 is replaced by the following text:

"3.9 FLOOR STRENGTH

3.9.1 This test shall be carried out to prove the ability of a container floor (deck and base structure) to withstand the concentrated dynamic loading during cargo operations involving trucks or similar devices (refer to Fig. 3.9.1).

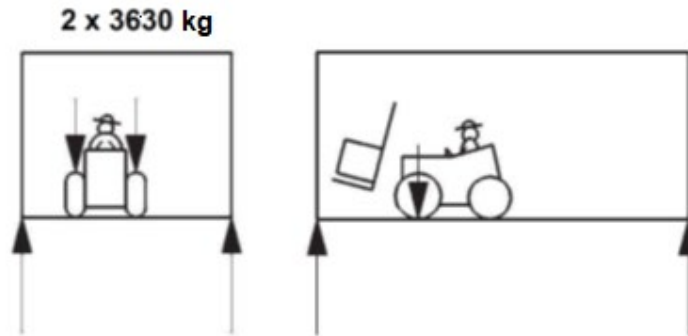


Fig. 3.9.1
Floor strength

3.9.2 The test shall be made with the container resting on four level supports under its four bottom corner fittings, with its base structure free to deflect. Access to the underside is required.

3.9.3 The test shall be performed using a test vehicle:

- .1 that is equipped with solid or pneumatic tyres;
- .2 that has an axle load of 7 260 kg (i.e. 3 630 kg on each of the two tyres);
- .3 where each wheel has a maximum contact area between the tyre and the flat continuous surface of the floor of 142 cm²;
- .4 where each tyre has a width of 180 mm (−0; +5).
- .5 where the length of contact with the floor of each tyre in the direction of travel shall not exceed:
 - .5.1 79 mm for a solid tyre with a flat surface;
 - .5.2 100 mm for a pneumatic tyre with a tread;
- .6 where the distance between wheel centres shall nominally be 760 mm;
- .7 where the width of the test load should not protrude beyond the outside faces of the wheels.

Note. For the purpose of compliance with the CSC, the axle load of the test vehicle may be assumed as 5460 kg.

3.9.4 The test vehicle shall be maneuvered slowly (at a maximum speed of 152 mm/s), in such a way that the entire floor area is covered. Care should be taken to avoid impact or other dynamic loads by starting, stopping, and rolling the test vehicle gently and slowly.

3.9.5 The test vehicle shall be maneuvered to cover the entire floor area for a total of 5 cycles, but the floor area close to gooseneck tunnel shall be covered for 3 times. One cycle is a complete pass into the container from the door to the front panel and from the front panel to the door and out of the container. The wheels of the test vehicle shall follow the same path on the inward and outward passes.

3.9.6 The test vehicle shall be repositioned outside the container between cycles to avoid imposing any dynamic loads on the container floor.

3.9.7 As the test vehicle rolls over the floor, the base structure shall be observed to trace any abnormal sounds indicating potential breakage.

3.9.8 Scope of testing.

3.9.8.1 All batches of production shall be tested. The first container of each production batch and one container randomly picked by the RS surveyor out of no more than 100 manufactured units shall be tested. The number of containers to be tested for the floor strength may be changed in agreement with the RS.

3.9.8.2 Testing shall continue until all 5 cycles are completed or until a failure is detected in any floor panel. If there are obvious signs of failure such as waves, bulges, or cracks that occur at any time during the test, prior to the completion of the fifth cycle, the container has failed the floor test, and the test shall be stopped.

3.9.9 Floor fail criteria.

3.9.9.1 For composite or laminated flooring, representing the majority of flooring materials to-date, at the end of the fifth cycle the floor shall be tapped using a hammer in search of hollow sounds indicating delamination between floor panel components. In addition, the attention shall be paid to other obvious signs of failure such as waviness and/or bulges on the outer plies, and cracks in the outer (usually lower) plies of the tested boards.

3.9.9.2 If tapping the floorboards produces a hollow sound but there are no obvious signs such as waviness, bulges, or cracks, the area shall be marked for removal and further inspection of the cross section.

3.9.10 Breakage.

3.9.10.1 Any breakage constitutes failure of the floor tested. Breakage is defined as follows:

.1 any delamination/ply separation resulting from the internal shearing of the veneer or failure of the adhesive including peeling of the surface plies such that the panel no longer acts as a single, composite structure;

.2 any visible cross-grain or transverse cracks;

.3 any mechanical properties alteration or permanent deformation for other materials.

3.9.10.2 In case of breakage detection, a second container from the same batch shall be fully tested for floor strength.

3.9.11 Deformation measurements shall be taken at several points on the base before, during and after the test. Fig. 3.9.11 shows the places for measuring deformations during testing.

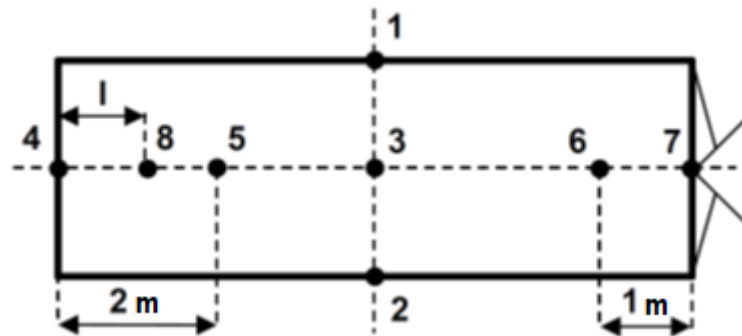


Fig. 3.9.11
Places for measuring deformations
l — 0,7...1,2 m (in the area of a gooseneck tunnel)

Upon completion of the test, the container shall show neither permanent deformation which will render it unsuitable for use nor abnormality which will render it unsuitable for use, and the dimensional requirements affecting handling, securing and interchange shall be satisfied."