РОССИЙСКИЙ МОРСКОЙ РЕГИСТР СУДОХОДСТВА

RULE CHANGE NOTICE	**No. 431-03-2053**	dated 30.07.2025

Entry-into-force date:
01.08.2025

Re: amendments to the Collection of Rules for Containers (General Regulations for the Technical Supervision of Containers; Rules for the Manufacture of Containers: Part I "Basic Requirements", Part II "General Freight Containers", Part III "Thermal Containers", Part IV "Tank containers", Part VI "Non-Pressurized Bulk Containers", Part VII "Offshore Containers", Rules for Technical Supervision during Manufacture of Containers, Materials and Products for Containers, Rules for Technical Supervision of Containers in Service, ND No. 2-090201-014.

The Revision History is given below.

Instructions on application:

1. Bring the content of the Notice to the notice of the RS surveyors, interested organizations and persons in the area of the RS Branch Offices' activity.

2. Apply the provisions of the Notice in the Register practical activity from the date of 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.

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AMENDMENTS TO THE COLLECTION OF RULES FOR CONTAINERS, VERSION 01.01.2025

REVISION HISTORY

GENERAL REGULATIONS FOR THE TECHNICAL SUPERVISION OF CONTAINERS

Item	Applicability	Description	Remarks
Para 1.1.1	Containers	New definitions have been introduced	
Para 2.1.2	Containers Manufacture	Requirements for branding on container have been excluded, new nomenclature codes have been introduced	
Table 2.1.3	Containers Products for containers	New nomenclature codes have been introduced	
Para 3.1.4	Technical documentation for containers, materials and products for containers	Specification regarding the submittal of documentation has been introduced	

RULES FOR THE MANUFACTURE OF CONTAINERS

PART I. BASIC REQUIREMENTS

Item	Applicability	Description	Remarks
Para 4.1.2	Containers Operation Marking	Marking of modernization/modification date on the CSC plate has been introduced	
Para 4.2.1.4	Containers Manufacture Marking	Application of tare mass on container has been specified	

Item	Applicability	Description	Remarks
Para 5.1.2.2 (deleted)	Containers Products for containers Corner fittings	Requirements for branding have been specified	
Para 5.1.3	Containers Products for containers Corner fittings	Figures showing designations of fitting elements have been replaced	

PART II. GENERAL FREIGHT CONTAINERS

Item	Applicability	Description	Remarks
Para 1.1.4	General freight containers Manufacture	Requirements for containers capable of carrying IMDG Code BK2 bulk cargo have been specified	
Paras 3.2.2 — 3.2.3	Containers Manufacture Tests	Description of lifting by upper corner fittings has been specified	
Paras 3.10.2 and 3.11.2	Containers Manufacture Tests	Requirements for the possibility of change in loading have been introduced	
Para 3.13.2	General freight containers Manufacture	Requirements for containers capable of carrying bulk cargo have been specified	

PART III. THERMAL CONTAINERS

Item	Applicability	Description	Remarks
Paras 1.3.1.4 – 1.3.1.6 (deleted), 1.4.2 (deleted), Chapter 2.8, Chapter 2.9 (deleted)	Thermal containers Products for containers Refrigerating and/or heat appliance	Requirements have been specified.	
Para 3.8.6.3	Thermal containers Products for containers Refrigerating and/or heat appliance	Editorial amendments have been made.	

PART IV. TANK CONTAINERS

Item	Applicability	Description	Remarks
Para 2.2.8	Tank containers Design	Formula for calculation of equivalent vessel thickness has been specified.	

PART VI. NON-PRESSURIZED DRY BULK CONTAINERS

Item	Applicability	Description	Remarks
PART VI	Non-pressurized bulk containers Manufacture	The Part has been completely revised to include the provisions of the ISO standards.	

PART VII. OFFSHORE CONTAINERS

Item	Applicability	Description	Remarks
Para 1.2.1	Offshore containers Manufacture	New definition has been introduced.	
Para 1.4.2 (deleted)	Offshore containers Design	Requirements for branding have been specified.	
Paras 3.1.6 — 3.1.9	Offshore containers Design	Requirements for equipment supports and protection have been specified.	
Para 7.5.2	Offshore containers Design	Requirements for marking on information plate have been specified.	
Para 9.5.5	Offshore containers Lifting device	Requirement for hardness of chain material has been introduced.	
Para 9.7.6	Offshore containers Lifting device	Requirements for marking have been specified.	

RULES FOR TECHNICAL SUPERVISION DURING MANUFACTURE OF CONTAINERS, MATERIALS AND PRODUCTS FOR CONTAINERS

Item	Applicability	Description	Remarks
Table 3.2.3	Thermal containers Products for containers Refrigerating and/or heat appliance	Requirements have been specified.	

Item	Applicability	Description	Remarks
Chapter 3.9	Tank containers Products for containers Tests	Description of strength test has been specified.	
Para 3.10.5 and Chapter 3.11	Thermal containers Products for containers Refrigerating and/or heat appliance	Requirements have been specified.	
Para 5.4.1	Container companies (manufacturers) Certification of welders	Phrasing of the requirement has been specified.	
Para 5.15.1.1	Containers Manufacture	Requirements for branding on fitting has been deleted.	

APPENDIX 2

TECHNICAL SUPERVISION DURING MANUFACTURE OF TANK CONTAINERS WITH FIBER-REINFORCED PLASTICS (FRP) SHELL

Item	Applicability	Description	Remarks
Paras 1.3.2.1, 1.3.2.2, 1.3.3.1, 1.3.3.2, 1.4.7.1 and 1.4.7.2	Portable tanks with FRP shell Manufacture	References to Part VIII "Portable Tanks with Fiber-reinforced Plastics Shell" of the Rules for the Manufacture of Containers have been specified.	

RULES FOR TECHNICAL SUPERVISION OF CONTAINERS IN SERVICE

Item	Applicability	Description	Remarks
Para 2.5.2.5	Organizations or firms operating within IMO Resolution MSC.380(94) to communicate the verified gross mass of containers	Requirement for quality management system has been introduced.	
Para 3.4.3.2	Tank containers Tests	Editorial amendments have been made.	
Para 3.5.5.2	Portable tanks with FRP shell Operation	References to Part VIII "Portable Tanks with Fiber-reinforced Plastics Shell" of the Rules for the Manufacture of Containers have been specified.	
Table 3.7.1	Offshore containers Operation	The requirements for surveys have been specified.	
Table 3.7.5	Offshore containers Lift devices Operation	Requirements for surveys have been specified.	
Paras 3.7.7.1.1 — 3.7.7.1.11, 3.7.7.2.3, 3.7.7.3	Offshore containers Lift devices Operation	Requirements for permissible damage have been specified.	
Para 4.1.2	Containers Modernization	Requirements for place of testing have been specified.	
Paras 4.3.5 and 4.3.7	Containers Operation	Requirements for permissible damage have been specified.	

Item	Applicability	Description	Remarks
Para 5.1.7	Offshore containers Lift devices Operation	Requirements for marking during survey have been specified.	

GENERAL REGULATIONS FOR THE TECHNICAL SUPERVISION OF CONTAINERS

1 GENERAL

1.1 DEFINITIONS, ABBREVIATIONS AND EXPLANATIONS

Para 1.1.1. The para is supplemented by the following new definitions (in alphabetical order in relation to the existing ones (for the Russian version)):

"Cargo space is container space bounded by the end and side walls, base and roof, when all apertures are closed.

Interface for external fumigation equipment is a point(s) at which the connection or disconnection of any external fumigation equipment to the container is made.

Dry bulk containers are a containment system (including any liner or any internal coating) intended for the carriage of solids in direct contact with the containment system. This definition does not apply to tare, intermediate bulk containers, large-size tare and portable tanks. The following types are distinguished:

bulk container (BK1 in accordance with the IMDG Code) is a bulk container with non-rigid covering and rigid side and end walls and bottom (including bottom of hopper-type containers);

bulk container (BK2 according to the IMDG Code) is a closed bulk container, with a rigid roof, side and end walls and bottom (including bottoms of the self-discharging type).

Closed bulk containers may be equipped with openings to allow for the exchange of vapors and gases with air and which prevent under normal conditions of transport the release of solid contents, as well as the penetration of splash water.

Dry bulk non-pressurized container of box type (closed) is a container capable of withstanding the loads resulting from filling, handling, transport motions and discharging of non-packaged dry bulk solids, having apertures for filling and discharging by gravity.

Dry bulk non-pressurized container of box type 1 is a container for tipping discharge by gravity having a parallelepiped cargo space, with a door opening at least in one end wall, which may also be used as a general freight container.

Dry bulk non-pressurized container of box type 2 is a container for tipping discharge by gravity having a parallele-piped cargo space, with door openings in either end or fitted with one or more access hatches. This container cannot be used as a general freight container.

Dry bulk non-pressurized container of hopper type is a container without door openings, having arrangements for horizontal or vertical discharge without tipping, which may not be used as a general freight container.

Modernization is a process of improving the design of a previously approved container, which does not change its type and/or purpose.

Modification is a process of changing the design of a previously approved container, which changes its type and/or purpose.

Openings for cargo discharging are openings provided in a container for the discharge of dry bulk solids.

Openings for cargo loading are openings provided in a container for the filling of dry bulk solids.

Bulk density is a ratio of mass per unit volume of a dry bulk solid measured when the dry bulk solid is in a loose or non-compacted condition.

Surge property is the tendency of some solids to start moving suddenly during discharge. This process can cause instability (nonuniform distribution) in the load".

Sift proof property for dry contents is the impermeability to dry contents including fine solid materials produced during transport.

Arching is a tendency of some bulk solids when transported in bulk to form an arch of material clinging to the roof of a bulk container in the shape of an arch especially during discharge.

Rat-holing is a tendency of some dry bulk solids to form enclosed air channels due to flows of air or other gases especially during discharge. This process can cause instability in the cargo.

Bridging is a tendency of some solids when transported in bulk to form a bridge of material clinging to a bulk container as if a bridge especially during discharge.

Dry bulk solids are assemblies of separate solid particles being in contact with one another which are capable of fluid flow (having a property of flowability).".

2 TECHNICAL SUPERVISION

2.1 GENERAL

Para 2.1.2 is amended as follows:

2.1.2 Containers subject to the RS technical supervision are given in the RS Nomenclature, Table. 2.1.2-1.

"Table 2.1.2-1

Code of item of technical supervision	Name of item of technical supervision	~~Branding~~
30000000MK	**Containers**	
30010000MK	General freight containers	~~К~~
30020000MK	Thermal containers	~~К~~
30030000MK	Tank containers	~~К~~
30030100MK	Tank containers with fiber-reinforced plastics shell	~~К~~
30040000MK	Platform containers	~~К~~
30040100MK	Platform-based containers	~~К~~
30050000MK	Non-pressurized bulk containers	~~К~~
30060000MK	Named-cargo containers	~~К~~
30070000	Offshore containers	~~К~~
30070000MK	Offshore containers (if covered by the requirements of International Codices and/or Conventions)	~~К~~
30080000	Auxiliary offshore containers	~~К~~
30080000MK	Auxiliary offshore containers (if covered by the requirements of International Codices and/or Conventions)	~~К~~
30100000MK	Open-top containers	~~К~~
30110000MK	Bulk tank containers	~~К~~
30120000MK	Containers capable of being folded	~~К~~

In addition, the following transport equipment subject to the RS technical supervision is given in the RS Nomenclature (refer to Table 2.1.2-2).

Table 2.1.2-2

Code of item of technical supervision	Name of item of technical supervision
60000000MK	**Transport equipment**
60000100MK	Portable tanks
60000200MK	Multiple-element gas containers (MEGC)

".

Table 2.1.3 is amended as follows (in accordance with the excerpt below, new product codes 50020423MK, 50020443MK, 50020454MK, 50020463MK, 50020470MK and 50020472MK are introduced):

"Table 2.1.3

Code of item of technical supervision	Name of item of technical supervision	Group of item of technical supervision (1 — 5)	Branding	Remarks
50020420МК	Frangible disks[1]:			
50020421МК	for tank containers UN ~~T1 — T22 and T50~~ T1 — T23	1	–	
50020422МК	for tank containers UN T75	2	–	
50020423МК	for tank containers UN T50	1	–	
50020430МК	Fusible elements[1]	1	–	
50020440МК	Pressure-relief (safety) valves[1]:			
50020441МК	for tank containers UN ~~T1 — T22 and T50~~ T1 — T23	2	–	+ СКК1
50020442МК	for tank containers UN T75	4	–	
50020443МК	for tank containers UN T50	2	–	+ СКК1
50020450МК	Vacuum valves[1]:			
50020451МК	for vacuum insulation	1	–	
50020452МК	for tank containers UN ~~T1 — T22 and T50~~ T1 — T23	2	–	+ СКК1
50020453МК	for tank containers UN T75	4	–	
50020454МК	for tank containers UN T50	2	–	+ СКК1
50020460МК	Stop valves[1]:			
50020461МК	for tank containers UN ~~T1 — T22 and T50~~ T1 — T23	2	–	+ СКК1
50020462МК	for tank containers UN T75	4	–	
50020463МК	for tank containers UN T50	2	–	+ СКК1
50020470МК	Control valves[1]:			
50020472МК	for tank containers UN T75	4	–	

".

3 TECHNICAL DOCUMENTATION

3.1 GENERAL

Para 3.1.4 is amended as follows:

"**3.1.4** The technical documentation submitted for consideration to the Register shall be drawn up in such a way, or shall supply such particulars, so as to afford clear evidence that the requirements of the Rules are met. The technical documentation shall be provided in the format of "one document – one pdf. file". When sending a notice of change to approved technical documentation, in the format of "one amended sheet – one pdf. file".".

RULES FOR THE MANUFACTURE OF CONTAINERS

PART I. BASIC REQUIREMENTS

4 MARKING

4.1 CSC PLATE

Para 4.1.2. The Note is supplemented with a new paragraph reading as follows:

"13. For containers having been subjected to modernization or modification requiring renewal of the approval certificate, the original date of manufacture shall be retained on the plate and information shall be indicated with the date of the modernization/modification. The date of modernization/modification may be indicated in the "Date manufactured" line in the format "Date manufactured: MM.YYYY / mod. MM.YYYY.".

4.2 MANDATORY MARKING

Para 4.2.1.4 is amended as follows:

"**4.2.1.4** gross mass and tare mass of the container ~~which correspond~~ in accordance with the RS-approved technical documentation, at that the gross mass shall correspond to that indicated on the CSC Plate~~, and the tare mass shall correspond to the actual mass obtained by weighing the prototype container, unless otherwise specified in the Rules~~;

N o t e . If, as a result of manufacture, a mass of the prototype is smaller than that theoretically calculated during design, the marking may be applied in accordance with the approved technical documentation, without making amendments. And vice versa, when a mass of the prototype is greater than that theoretically calculated during design (taking into account the tolerance), the technical documentation shall be amended accordingly.".

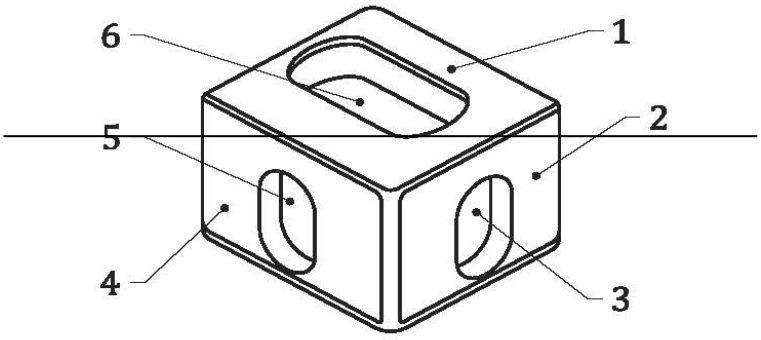
5 FITTINGS

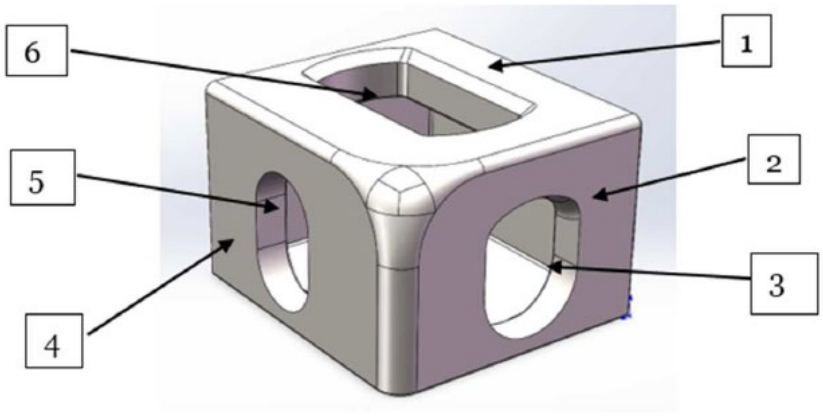
5.1 GENERAL

Para 5.1.2.2 is deleted

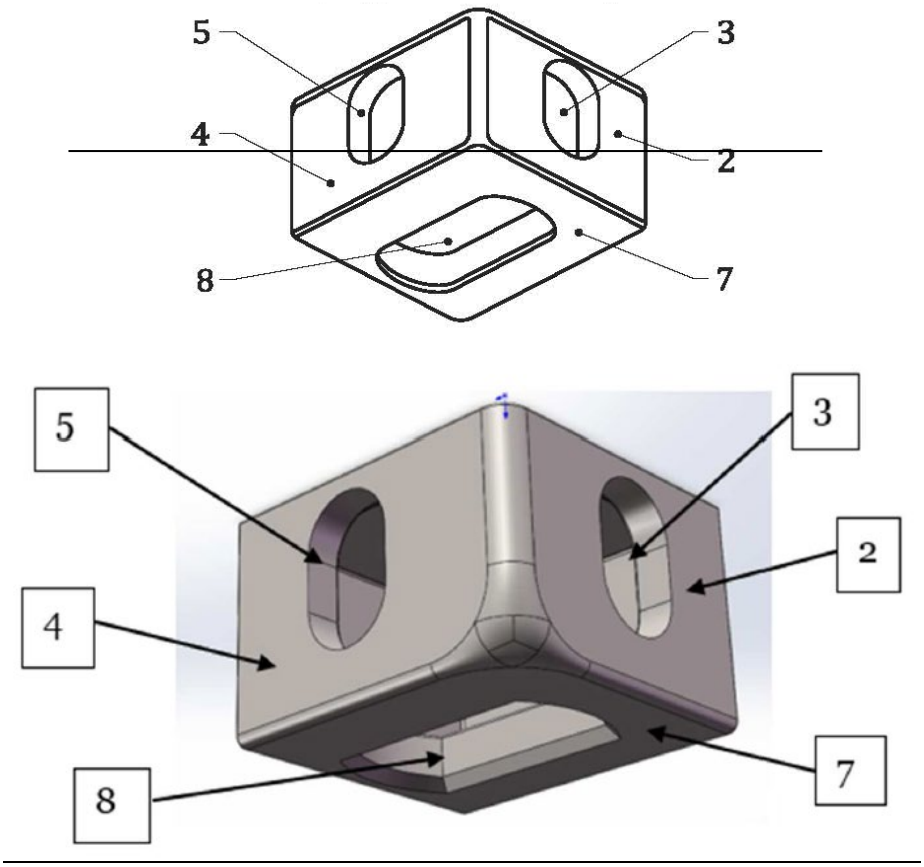
Para 5.1.3 is amended as follows:

"**5.1.3 Explanations.**
Fitting design elements are indicated in Fig. 5.1.3.





Upper corner fitting



Lower corner fitting

Fig. 5.1.3 Corner fittings
(*1* — top wall; *2* — outer end wall; *3* — end aperture; *4* — outer side wall; *5* — side aperture; *6, 8* — base aperture; *7* — bottom wall)".

PART II. GENERAL FREIGHT CONTAINERS

1 GENERAL

1.1 SCOPE OF APPLICATION

New para 1.1.4 is introduced reading as follows:

"**.1.4** The BK2 general freight containers in accordance with 6.9 of IMDG Code shall comply with the applicable requirements of Part VI “Non-Pressurized Bulk Containers.".

3 TESTING

3.2 LIFTING BY UPPER CORNER FITTINGS

Para 3.2.2 is amended as follows:

"**3.2.2** Internal loading in the container shall be uniformly distributed, with the combined mass of the test and container load having to be equal to $2R$.

~~The container shall have a uniformly distributed internal loading such that the combined mass of the test and container load is equal to $2R$.~~

3.2.3 The external forces applied to the container shall be such as to permit lifting a combined mass of $2R$ to be lifted, by the following methods:

for 1AAA, 1AA, 1A, 1AX, 1BBB, 1BB, 1B, 1BX, 1CCC, 1CC, 1C and 1CX containers, vertically ~~at~~ to ~~all~~ four upper fittings (refer to Fig. 3.2.3, *a*);

for 1D and 1DX containers, at to all four upper ~~corner~~ fittings so that the angle between each lifting device and the vertical is 30° (refer to Fig. 3.2.3, *b*);

for 1EEE and 1EE containers, the forces are applied twice: vertically ~~at~~ to four upper corner fittings and separately ~~at~~ to four upper intermediate fittings".

3.10 TRANSVERSE RACKING

Para 3.10.2. The **Notes** are amended as follows:

"Notes: 1. The 1EEE and 1EE containers shall be tested with loads applied according to Figs. 3.10.2-2 – 3.10.2-9.

2. Forces applied during the tests of containers designed for one door off operation shall be specified in the design.

3. The test load may be changed as agreed with RS.".

3.11 LONGITUDINAL RACKING

Para 3.11.2 Paragraph notes are amended as follows:

"Notes: 1. The 1EEE and 1EE containers shall be tested with loads applied according to Figs. 3.11.2-2 – 3.11.2-5.

2. The test load may be changed as agreed with RS.".

3.13 STRENGTH OF END WALLS

Para 3.13.2. After the second paragraph, a **Note** is introduced reading as follows:

"Note. General freight containers capable of transporting dry bulk solids shall be tested in accordance with 2.5.5, Part VI "Non-Pressurized Dry Bulk Containers".".

PART III. THERMAL CONTAINERS

1 GENERAL

1.3 TECHNICAL SUPERVISION

Paras 1.3.1.4 — **1.3.1.6** are deleted.

1.4 TECHNICAL DOCUMENTATION

Para 1.4.2 is deleted.

2 TECHNICAL REQUIREMENTS

Chapter 2.8 is replaced by the text reading as follows:

"2.8 REFRIGERATING PLANT

2.8.1 A refrigerating plant with a refrigerating compressor working on R134A or R404 refrigerants shall be installed on the container. The use of refrigerating plants of other designs or compressors working on other refrigerants is subject to special consideration by the Register in each particular case.

Toxic, flammable and aggressive refrigerants shall not be used in refrigerating plants of containers.".

Chapter 2.9 is deleted.

3 TESTING

3.8 CHECKING OF CONTAINER POWER CONSUMPTION AT DEFINED TEMPERATURES USING MECHANICAL REFRIGERATING UNIT

Para 3.8.6.3 is amended as follows**:**

"**.3** the conditions specified in ~~3.7.5~~ 3.6.5.".

PART IV. TANK CONTAINERS

2 TECHNICAL REQUIREMENTS

2.2 TANKS, SUPPORTS AND ATTACHMENTS

Para 2.2.8. Formula (2.2.8) is amended as follows:

"$e_1 = \frac{21{,}4 \times e_0}{1{,}8 * \sqrt[3]{R_m \times A_5}}$. (2.2.8)".

PART VI. NON-PRESSURIZED DRY BULK CONTAINERS

Part VI is replaced by the text reading as follows:

"PART VI. NON-PRESSURE DRY BULK CONTAINERS

1 GENERAL

1.1 APPLICATION

1.1.1 The requirements of this Part apply to containers for non-pressurized dry bulk cargoes which are filled into and discharged from the container by gravity or by any other means which creates no internal pressure or vacuum in the cargo space.

1.1.2 Non-pressurized dry bulk containers shall comply with requirements of Part I "Basic Requirements" and the requirements of this Part.

1.2 DEFINITIONS AND EXPLANATIONS

1.2.1 The definitions and explanations are given in 1.1 of the Regulations for the Technical Supervision of Containers.

1.3 TECHNICAL SUPERVISION

1.3.1 The types of containers in accordance with ISO 6346 to which the requirements of this Part apply are given in Table 1.3.1.

Table 1.3.1

Code	Container type	Type group code
B	Box type dry bulk container	BU
N	Hopper type dry bulk container	NH
	Dry bulk tank container	NN

1.4 TECHNICAL DOCUMENTATION

1.4.1 The scope of the technical documentation submitted for consideration as well as the forms for confirming the compliance of the technical documentation with the RS requirements, are specified in Table 1.4.1 and may be changed upon the agreement with RS.

Table 1.4.1

No.	Document name		Set[1]	Result of review[2]
1	Technical conditions or technical specification		I	A
2	Program of static tests of the prototype, if the tests will be carried out at the manufacturer's		II	A
3	Calculation of			
	.1	floor strength in accordance with 2.2	I	Ag
	.2	hopper type container for strength in accordance with 2.6.2 (including 2.6.3), by the finite element method or by another method that ensures the reliability of the results obtained	I	Ag
4	Assembly drawing of:			
	.1	container[3]	I	A
	.2	rear end wall	I	A
	.3	front end wall	I	A
	.4	side walls	I	A
	.5	base	I	A
	.7	roof	I	A
	.8	hatch	I	A
	.9	plates (CSC and CCC)	I	A
	.10	marking	I	A
	.11	cover (type of seams and corners) with a cable and its tips for imposing customs stamps and seals	I	A
5	Drawings indicating dimensions and used materials of (if this information is not on the assembly drawings):			
	.1	corner and intermediate posts	II	A
	.2	upper longitudinal, end and intermediate beams	II	A
	.3	lower longitudinal, end and intermediate beams	II	A
	.4	element to which the CCC requirements apply	II	A
	.5	floors (fastening, sealing, dimensions of plywood, boards and configuration of their edges)	II	A
	.6	doors with seals	II	A
	.7	door locks	II	A
	.8	arches for a cover	II	A

[1] In case of submission of technical documentation in parts, documents marked with the number (I) shall be submitted with the first part. Documents marked with the number (II) may be submitted with the second and subsequent parts. The scope of the technical documentation provided with the first part may be changed upon the agreement with RS.

[2] A — approved; Ag — agreed. If necessary, the documents may be approved and/or agreed subject to the implementation of the comments of the RS letter.

[3] RS may additionally request documents on the floor materials and antiseptic impregnation, coatings and sealing materials used.

Notes: 1. Documents specified in this table may not be provided upon the agreement with RS, if all necessary information is contained in other documents, included in the set of technical documentation.

2. Documents containing information on structural elements that are not applicable to a specific dry bulk non-pressurized container are not submitted to RS.

2 TECHNICAL REQUIREMENTS

2.1 GENERAL

2.1.1 Any closure in a container which, if unsecured, can lead to an unsafe situation, shall be provided with an adequate securing system. Each securing system shall have, in so far as is practicable, an external indication of the positive securement of that closure in the appropriate operating position.

In particular, doors and closures for openings for cargo loading or openings for cargo discharging shall be capable of being securely fastened in the open or closed position. The container closures shall be such that they remain effective during testing and operations and dynamic movement of the bulk solid due to its bulk density, drop height, the friability of the substance or to arching, bridging, rat-holing or any other similar effect.

2.1.2 Any removable roof or roof section (not including hatches of loading devices) shall be fitted with locking devices such that an observer at ground level can check that the roof of the container when container is on a rail or highway carrying vehicle is secured.

2.1.3 Liner.

2.1.3.1 If a liner is used to protect the container against spillage of cargo, it shall be made of suitable material. The liner shall not affect the material of the container components or the cargo being carried.

2.1.3.2 The operating temperature range of the liner shall match or exceed the operating temperature range of the container.

2.1.3.3 The strength of the material used to manufacture the liner and the design of the liner shall be consistent with the container capacity and its intended purpose.

2.1.3.4 The connecting elements of the liner shall withstand the pressure and impacts that may occur under normal operating and transport conditions. For ventilated containers, any liners shall not impair the operation of the ventilation devices.

2.2 FLOOR STRENGTH

2.2.1 The strength of the floor shall be proportionate to be carried and the impact that the cargo has on the floor during loading.

2.2.2 When loaded in the horizontal position by thrower, conveyor belt or similar devices through an opening in the end wall, the floor shall at least be capable of withstanding the impact of dry bulk cargo with area of particles of 250 mm^2 and a density of up to 1200 kg/m^3 delivered from a height of at least 2/3 of the internal height of the container and at a flow rate of 1500 kg/min.

2.2.3 When loaded in the vertical position through two or more roof mounted loading hatches or through an open roof, the floor shall at least be capable of withstanding the impact of dry bulk cargo with area of particles of 250 mm^2 and a density of up to 1200 kg/m^3 delivered from a height of 3 m and at a flow rate of 1000 kg/min through one loading hatch.

2.2.4 Where the bulk container is intended for the transport of substances with a bulk density higher than 1200 kg/m^3 and/or from a loading height of more than 3 m or with a substance with larger particle size, from a loading height of more than 3 m or with a substance with larger particle size shall be proportionately increased and approved by RS.

2.2.5 Locking devices necessary to retain the substances in the bulk containers shall remain effective during loading.

2.2.6 Dry bulk cargo consisting of large particles with a density exceeding 1200 kg/m^3 and/or having an angular shape may damage the floor structure if dropped from the roof height or higher. For such cargo, additional reinforcement of the floor and/or base structure may be required.

2.3 HATCHES AND OPENINGS

2.3.1 All openings shall be so designed that, when closed, they prevent leakage of cargo.

2.3.2 Openings for loading.

2.3.2.1 Containers shall have one or more openings for loading, whose design, number and location shall permit an even distribution of cargo in the cargo space. The recommended location of hatches is shown in Fig. 2.3.2.1-1 – 2.3.2.1.4.

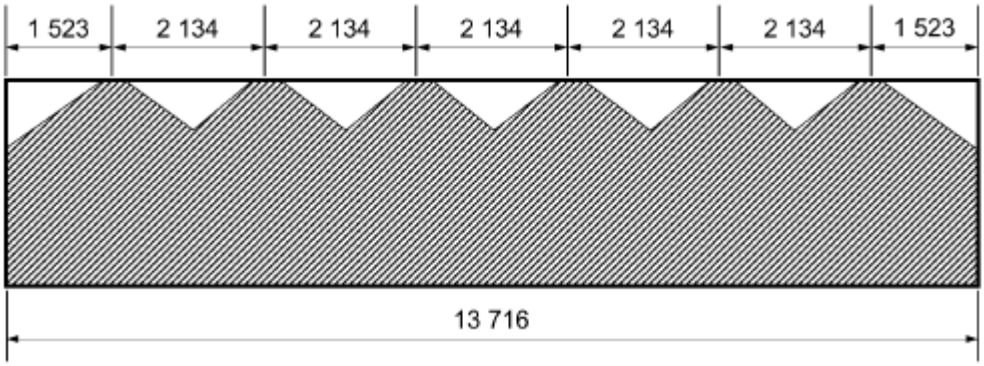


Fig. 2.3.2.1-1
Location of openings in containers 1EEE and 1EE

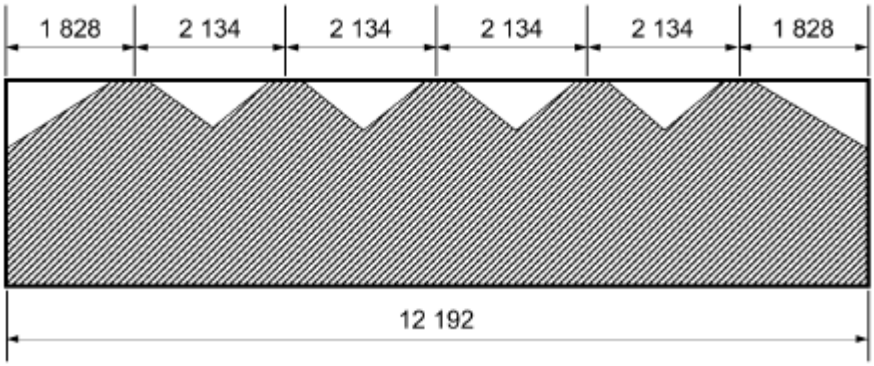


Fig. 2.3.2.1-2
Location of openings in containers 1AAA, 1AA, 1A and 1AX

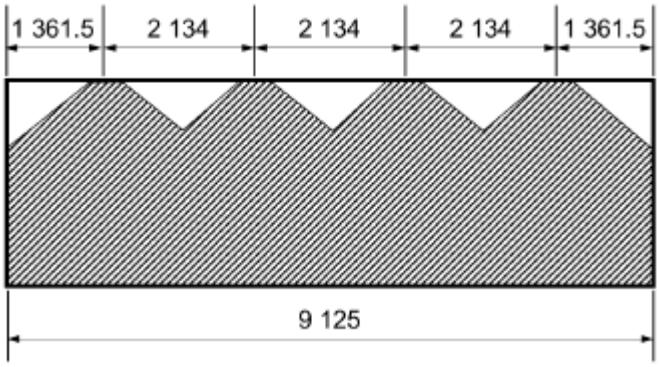


Fig. 2.3.2.1-3
Location of openings in containers 1BBB, 1BB, 1B and 1BX

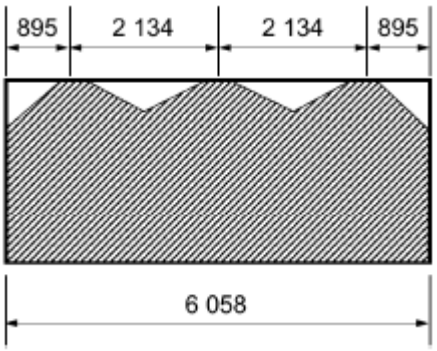


Fig. 2.3.2.1-4
Location of openings in containers 1CCC, 1CC, 1C and 1CX

2.3.3 Openings for discharging.

2.3.3.1 All containers shall be provided with at least one opening for discharging, designed and located in such a way as to allow complete discharging.

2.3.3.2 The opening(s) for gravity emptying by tilting the container shall have an area sufficient to achieve total discharge.

2.3.4 Door opening (box type containers).

2.3.4.1 The dimensions of the door opening shall comply with 2.2, Part II "General Freight Containers".

2.3.5 Inspection and maintenance openings (hopper type).

2.3.5.1 Hopper-type containers shall be provided with access hatches of at least 500 mm in diameter for the purpose of inspection, repair and other works.

N o t e . When opening(s) for loading or discharging conform to these requirements, the provision of dedicated inspection and maintenance opening(s) is not required.

2.4 ADDITIONAL STRUCTURES

2.4.1 Containers may be provided with fork lift pockets, grappler arm lifting areas, "gooseneck" tunnel, etc. in accordance with 2.6, Part I "Basic Requirements".

2.4.2 Walkways.

2.4.2.1 A width of the walkways shall be at least 460 mm.

2.4.2.2 Guardrails (if any) shall be installed in such a way that they are securely fixed during container transport, do not project beyond the planes running along the sides and ends of corner fittings and the requirements of 2.2.2, Part I "Basic requirements" are met. The guardrails shall be tested in accordance with the applicable provisions of EN 13374.

2.4.3 Ladders.

2.4.3.1 Ladder rungs shall have a minimum width of 300 mm. A distance between the rungs shall be 280 ─ 300 mm.

2.4.3.2 The upper surface of each rung shall be designed in such a way or have such a surface as to prevent slipping.

2.4.3.3 A hand-hold shall be fitted adjacent to the top of the ladder to allow for easier transition from ladder to walkway and vice-versa.

2.4.4 Service equipment for connection of fumigation equipment.

2.4.4.1 Service equipment for connection of external fumigation equipment may be provided on the container.

Service equipment shall be designed and installed in such a way as to prevent spillage of cargo.

2.4.5 Sanitation (where required).

2.4.5.1 Materials used in the construction of the container shall not have an adverse effect on dry bulk cargo.

2.4.5.2 The interior surface and the container structure shall be so constructed as to facilitate thorough cleaning, and the container materials shall not be functionally affected by cleaning methods normally used, such as wet steam cleaning and detergents.

2.4.5.3 The cargo space surface of the container shall have no cavities or voids that can become a potential source of harmful substance accumulation.

2.5 SPECIAL REQUIREMENTS FOR BOX TYPE CONTAINERS

2.5.1 The internal dimensions of containers with full length end doors and wall height shall be as large as possible, with a minimum internal width of 2330 mm.

2.5.2 Containers designated B1/BB in accordance with ISO 6346 shall be designed and constructed to meet the requirements of the test specified in 3.4.

2.5.3 Where openings are provided in end walls, the capability of these walls of withstanding the test specified in 3.2 shall not be impaired.

2.5.4 If the container is intended for discharging by tilting through rear doors and these doors are to be opened to facilitate discharge, the support grooves (reinforcement system in accordance with 2.6.6, Part I "Basic Requirements") used to support the false bulkhead shall be tested in accordance with 3.2.

2.5.5 The front end wall (solid or with openings for loading cargo) shall be tested with an internal load of 0,6Pg. The front end wall with an opening for discharging shall be tested with an internal load of 0,7Pg in accordance with 3.2.

2.5.6 No part of the side structure, under the test load applied to the side walls, shall deflect more than 40 mm beyond the plane formed by the side surfaces of the corner fittings.

2.5.7 Where the container is intended to be side discharged by tilting, the side wall shall be tested to simulate this action. Removable components such as roof arches or top hatches shall be removed prior to testing. The internal load shall be increased from 0,6Pg to 0,7Pg.

2.6 SPECIAL REQUIREMENTS FOR HOPPER CONTAINERS

2.6.1 The cargo shell shall be rigidly connected to the members of the container frame. Supports and attachments of the cargo body to the framework shall not cause dangerous local stress concentration in the structure.

2.6.2 The cargo shell, supports and attachments when loaded to the maximum allowable gross mass R, shall withstand the following statically applied forces:

.1 in the longitudinal direction of the cargo shell: twice the gross mass R multiplied by the acceleration due to gravity g $(2Rg)$.

.2 in the transverse direction of the cargo shell: the gross mass R multiplied by the acceleration due to gravity g (Rg).

.3 vertically downwards: twice the gross mass R multiplied by the acceleration of gravity g $(2Rg)$.

The loads corresponding to these forces may be considered to act individually; they shall be evenly distributed and act through the geometric center of the cargo body.

2.6.3 The following safety factors used for determining of allowable stress shall be provided at each of the above loadings:

for metals with a distinct yield plateau: safety factor of 1,5 with respect to the guaranteed minimum yield pointR_e;

for metals with a non-distinct yield plateau: safety factor of 1,5 with respect to the guaranteed conventional yield point $R_{p1,0}$ or steels of austenitic class or $R_{p0,2}$ for steels of other classes.

2.7 SPECIAL REQUIREMENTS FOR BULK CONTAINERS (DESIGNATED BK1 AND BK2 IN ACCORDANCE WITH THE IMDG CODE)

2.7.1 The container shall be siftproof (protection against spillage).

2.7.2 The service equipment of containers intended to be emptied by tilting shall be capable of supporting the total mass of the contents in the tilted position.

2.7.3 Sheeted containers (BK1) shall not be used for carriage by sea, except for UN 3077 not meeting the criteria of 2.9.3 of the IMDG Code carried on short international voyages.

2.7.4 For closed BK2 containers, the removable roof or roof section (including hatches of loading devices) shall comply with the requirements of 2.1.2.

2.7.5 Service equipment.

2.7.5.1 Filling and discharge devices shall be designed and located so that they are protected against detachment or damage during transport and handling. The filling and emptying

devices shall be protected against unintentional opening. Valves with lever-type closing arrangements shall be capable of being locked to prevent unintentional opening. The open/closed positions of these devices and the direction of closing shall be clearly indicated.

2.7.6 The seals of the openings shall be positioned in such a way as to avoid any damage during operation, filling and emptying of the container.

2.7.7 Where ventilation is required, the containers shall be provided with air exchange arrangements providing natural convection, for example by means of air vents, or by active elements (forced ventilation), for example, fans. The ventilation shall be designed in such a way as to prevent negative pressure in the container and the penetration of rain and splash water at all times.

Ventilation system components of containers intended for the carriage of flammable goods or goods emitting flammable gases or vapors shall be designed in such a way that they do not serve as a source of ignition.

2.7.8 The container shall be provided with additional marking in accordance with 4.2.2.

2.7.9 Operation.

2.7.9.1 The applicable requirements of 4.3 of the IMDG Code shall be met.

3 TESTING

3.1 GENERAL

3.1.1 The requirements of this Section apply to dry bulk containers of all dimensions, irrespective of their construction and materials involved.

3.1.2 To achieve the specified test loading, the container shall be loaded with suitable cargo. If the test load is not created or it is impossible to use the specified cargo, then the container may be filled with another cargo with additional loading to achieve it.

3.1.3 On completion of each test, the container shall show neither permanent deformation, damage nor abnormalities which may render it unsuitable for the designed purpose.

3.1.4 A list of container tests is given in Tables 3.1.6-1 – 3.1.6-3.

3.1.5 For BK2 containers, some tests shall be carried out simulating the cargo being transported, refer to Table 3.1.6-1. A list of tests may be changed as agreed with RS.

3.1.6 The scope of testing, values and method of load application may be changed upon agreement with RS depending on structural particulars of the container.

Table 3.1.6-1

All types of non-pressurized dry bulk containers		
Testing name	**Testing method**	
Lifting by upper corner fittings[1]	3.2	Part II "General Freight Containers"
Lifting by the lower corner fittings	3.3	
Lifting by fork lift pockets	3.4	
Lifting by grappler arms	3.5	
Additional lifting methods	3.6	
Stacking[1]	3.7	
Roof strength	3.8	
Transverse racking[1]	3.10	
Longitudinal racking	3.11	
Longitudinal restraint (static test)	3.12	
Weathertightness	3.15	
Checks	3.17	
Strength of walkways	3.2	Part IV "Tank Containers"
Strength of ladders	3.3	
[1] For BK2 containers, tests shall be performed with imitation cargo. If the container is intended to carry cargo with a diameter greater than 5 mm, the particle size of the imitation cargo (sand or other similar cargo) shall not exceed 3 mm. If the size of the cargo intended for transportation is not limited, tests shall be performed with fine powder.		

Table 3.1.6-2

Box type containers		
Testing name	**Testing method**	
Floor strength	3.9	Part II "General Freight Containers"
Strength of end walls[1]	3.13	
Strength of side walls[2]	3.14	
Strength of cargo securing devices	3.16	
Strength of end wall with fitted discharge hatch	3.2	
Floor strength of box type 2 containers with roof or end wall cargo loading openings and bottom-discharge containers	3.3	
Airtightness	3.4	
Bottom hatch operation test	3.5	
[1] Additionally refer to 2.5.5 [2] Additionally refer to 2.5.6 and 2.5.7		

Table 3.1.6-3

Hopper type containers	
Testing name	**Testing method**
Internal longitudinal restraint	3.6
Internal lateral restraint	3.7

3.2 STRENGTH OF END WALL WITH FITTED DISCHARGE HATCH

3.2.1 The test is carried out to confirm the capability of the container to withstand loads arising during tilting of the container at an angle of 45°.

3.2.2 The end wall equipped with an unloading hatch shall be subjected to an internal load of $0{,}7Pg$.

3.2.3 If the container is intended for discharging by tilting through rear doors and these doors are to be opened to facilitate discharge, the support grooves (reinforcement system in accordance with 2.6.6 of Part I "Basic Requirements") used to support the false bulkhead shall be tested with internal load of $0{,}7Pg$.

3.2.4 The internal load shall be uniformly distributed over the wall or bulkhead being tested and shall be applied in such a way as to enable free deflection of the wall or bulkhead.

3.2.5 Deformation measurements shall be taken at several points on the base before, during and after the test (refer to Fig. 3.2.5).

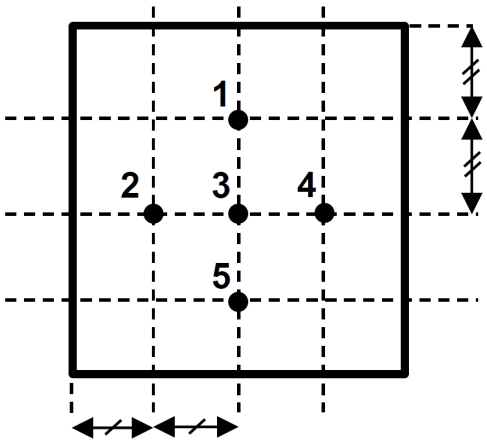


Fig. 3.2.5
Places for measuring deformations

3.3 FLOOR STRENGTH OF BOX TYPE 2 CONTAINERS WITH ROOF OR END WALL CARGO LOADING OPENINGS AND BOTTOM-DISCHARGE CONTAINERS

3.3.1 The test shall be carried out for box type 2 containers with loading openings in the roof or end wall and for bottom-unloading containers.

3.3.2 The test is carried out instead of the floor strength test (refer to 3.9 Part II "General Freight Containers") and intended to confirm the load-bearing capacity of the container under dynamic conditions.

3.3.3 Three test loads, each with a floor area measuring 1 m × 1 m and with a mass of 7,8 t Three test loads, each with a floor area measuring 1 m × 1 m and with a mass of

3.3.4 The test shall be made with the container resting on four level supports under its four lower corner fittings, with its base structure free to deflect. The test shall be carried out with the container supported on four supports located at the same level under each of the four lower corner fittings, so that the base of the container can deflect freely.

The container shall be subjected to the load for 5 min (refer to Fig. 3.3.4).

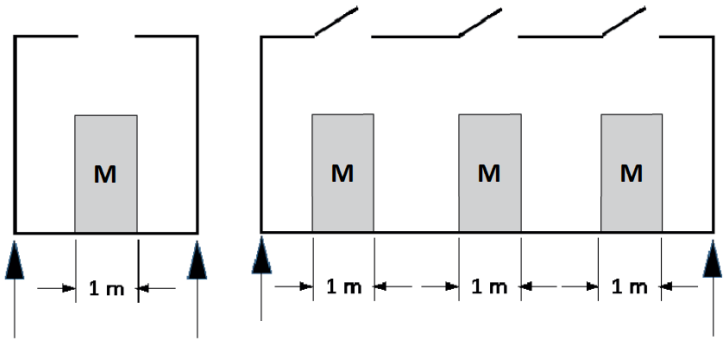


Fig. 3.3.4
Floor strength of box type 2 containers with roof or end wall cargo loading openings and for bottom-discharge containers M = 7.8 tons.

3.3.5 For containers with lower (bottom) hatch(es), the discharge hatch(es) shall be able to open and close freely upon completion of the test.

3.3.6 Deformation measurements shall be taken at several points on the base before, during and after the test (refer to Fig. 3.3.6).

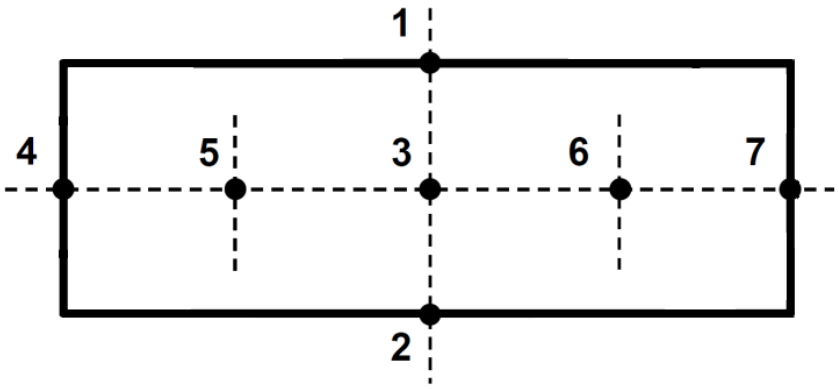


Fig. 3.3.6
Places for measuring deformations

3.4 AIRTIGHTNESS TEST

3.4.1 This test is applicable to containers B1/BB in accordance with ISO 6346. The test is carried out last, after the test for weather proofness (refer to 3.15, Part II "General Freight Containers").

3.4.2 The container shall be in operating condition. Doorways, manholes and other openings shall be closed in the normal manner.

3.4.3 Air shall be supplied to the container through a connection precluding air leakage. A pressure gauge shall be connected to the container itself. The measuring instruments used during the tests shall be verified by the competent authority and have accuracy classes in accordance with 5.11.1.4 of the Rules for Technical Supervision of Containers, Materials and Products for Containers.

3.4.4 A positive pressure equal to 250±10 Pa shall be produced in the container. The air supplied to the container shall maintain the said pressure. The air leakage from the container shall not exceed the values given in Table 3.4.4.

Table 3.4.4

Container size according to ISO 668	1EEE and 1EE	1AAA, 1AA, 1A and 1AX	1BBB, 1BB, 1B and 1BX	1CCC, 1CC, 1C and 1CX	1D and 1DX
Permissible air leakage, m³/h	32.5	30	25	20	15

3.5 BOTTOM HATCH OPERATION TEST

3.5.1 This test shall be carried out on bottom discharge type bulk containers to prove the bulk container's bottom discharge hatch(es) operation.

3.5.2 The container shall be loaded with cargo simulating actual operating conditions so that the combined mass of the container and test load is equal to 1,6R.

3.5.3 The lifting method (except for loading) is given in 3.2.2, Part II "General Freight Containers".

After lifting, the container shall be suspended for 5 min.

No spillage of cargo shall be permitted during the test.

3.5.4 On completion of the period of hold, the bottom discharge hatch(es) shall be opened and the cargo released, after which the hatch(es) will be closed again (refer to Figs .3.5.4-1 and 3.5.4-2).

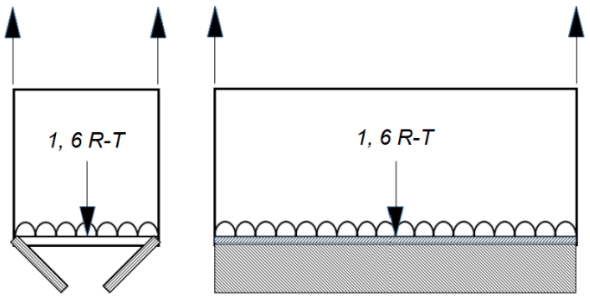


Fig. 3.5.4-1
Containers 1EEE, 1EE, 1AAA, 1AA, 1A, 1AX, 1BBB, 1BB, 1B, 1BX, 1CCC, 1CC, 1C and 1CX

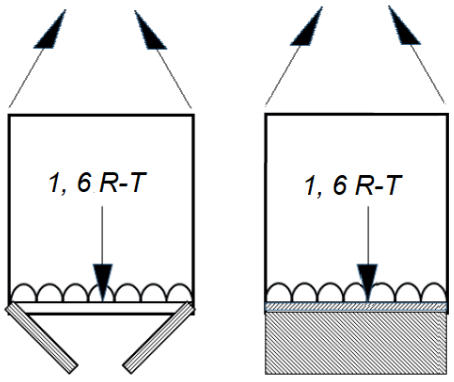


Fig. 3.5.4-2
Containers 1D, 1DX

3.5.5 On completion of the test, all contents of the container shall be released and the bottom hatch(es) shall be completely closed.

The discharged cargo shall not fall outside of the rectangle formed by the side and end walls.

3.5.6 On completion of the test, the discharge hatches shall freely open and close.

3.5.7 Deformation measurements shall be taken at several points on the base before, during and after the test (refer to Fig. 3.5.7).

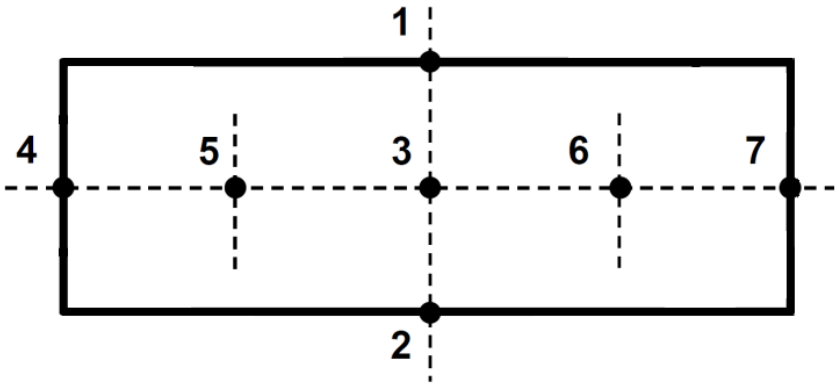


Fig. 3.5.7
Places for measuring deformations

3.6 INTERNAL LONGITUDINAL RESTRAINT

3.6.1 The tests are carried out to prove the ability of the container to withstand the effects of the inertia of the transported cargo resulting from longitudinal acceleration encountered during normal transport and handling operations.

Notes: 1. The internal longitudinal restraint test may be omitted if the dynamic tests in accordance with 3.6, Part IV "Tank Containers" have been carried out.

2. The effect of vertical acceleration is covered by the lifting tests by the upper and lower corner fittings in accordance with 3.2 and 3.3 of Part II "General Freight Containers".

3. The test is not required for containers without longitudinal frame members

3.6.2 The container shall be loaded so that the combined mass of the container and the test load is equal to R. Load $R - T$ shall be applied to the cargo space of the container.

3.6.3 The container shall be installed so that its longitudinal axis is vertical and maintained in this position for 5 min:

by securing through 2 bottom end corner fittings in such a way as to exclude vertical and horizontal displacement and through 2 opposite bottom end corner fittings in such a way as to exclude horizontal displacement (refer to Fig. 3.6.3-1). The deviation of the longitudinal axis from the vertical is allowed to be no more than 3° (procedure *a*);

on supports under four end corner fittings (refer to Fig. 3.6.3-2) (procedure *b*).

Alternative procedure *b* may be applied only for those types of containers where the hopper cargo space is rigidly connected only to the base structure of the container or where, in the opinion of RS, the container has satisfactorily passed a longitudinal restraint test (static test) (refer to 3.12, Part II "General Freight Containers") and a longitudinal racking test (refer to 3.11, Part II "General Freight Containers").

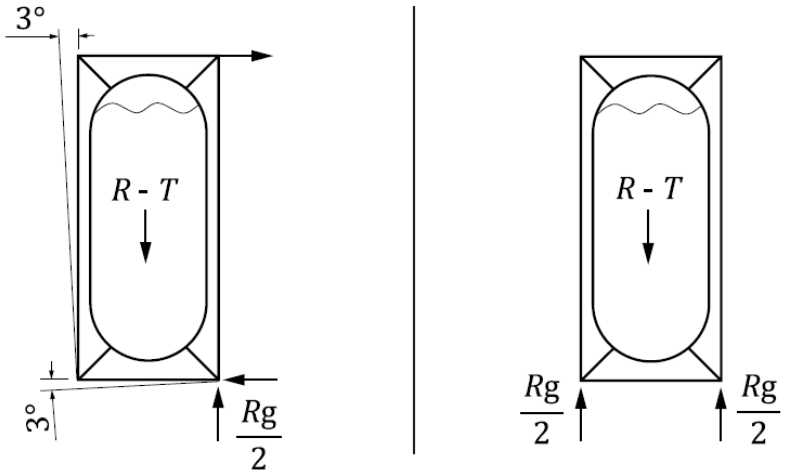


Fig. 3.6.3-1
Internal longitudinal restraint in accordance with 3.6.3 (procedure *a*)

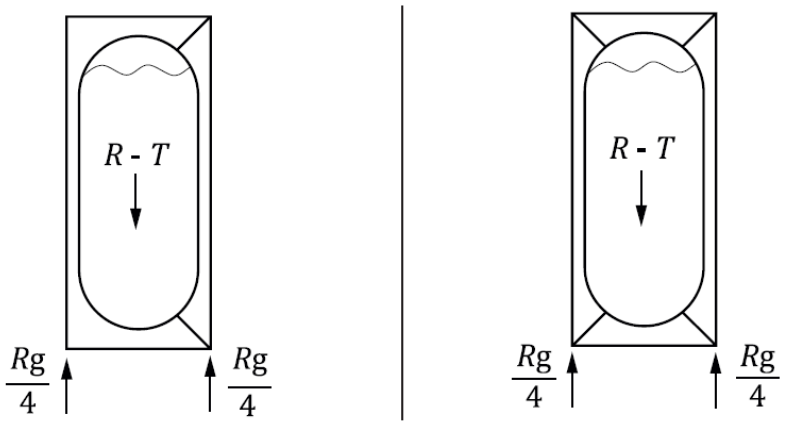


Fig. 3.6.3.2
Internal longitudinal restraint in accordance with 3.6.3 (procedure b)

3.6.4 Containers which are not structurally symmetrical shall have both ends tested.

3.6.5 No spillage of cargo shall be permitted during the test.

3.7 INTERNAL LATERAL RESTRAINT

3.7.1 The tests are carried out to prove the ability of the container to withstand the effects of the inertia of the transported cargo resulting from lateral acceleration encountered during normal transport and handling operations.

The deviation of the transverse axis from the vertical is allowed to be no more than 3°;

3.7.2 The container shall be loaded so that the combined mass of the container and the test load is equal to R. Load $R - T$ shall be applied to the cargo space of the container.

3.7.3 The container shall be positioned so that its transverse axis is located vertically and maintained in this position for 5 min:

by securing through 2 bottom side corner fittings in such a way as to exclude vertical and horizontal displacement and through 2 opposite bottom side corner fittings in such a way as to exclude horizontal displacement (refer to Fig. 3.7.3.1). The transverse axis may deviate from the vertical by no more than 3° (procedure *a*);

on supports under four side corner fittings (refer to Fig. 3.7.3-2) (procedure *b*).

Alternative procedure *b* may be applied only for those types of containers where the hopper cargo space is rigidly connected only to the base structure of the container or where, in the opinion of RS, the container has satisfactorily passed a longitudinal restraint test (static test) (refer to 3.12, Part II "General Freight Containers") and a lateral racking test (refer to 3.10, Part II "General Freight Containers").

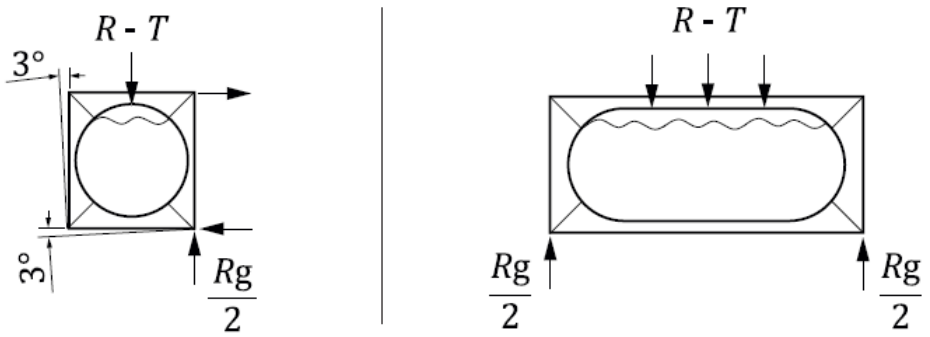


Fig. 3.7.3-1
Internal lateral restraint in accordance with 3.7.3 (procedure *a*)

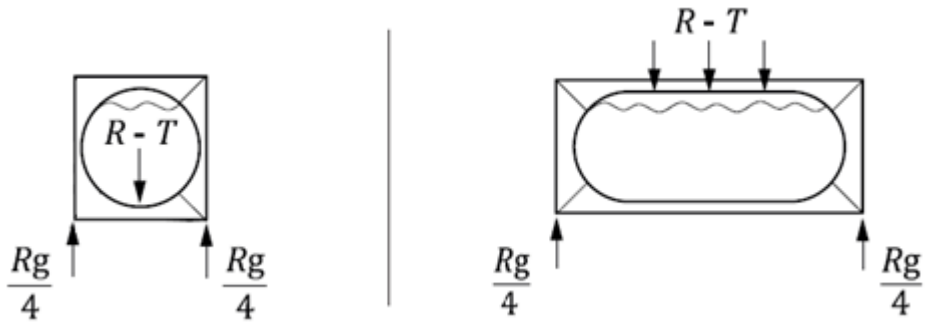


Fig. 3.7.3-2
Internal lateral restraint in accordance with 3.7.3 (procedure *b*)

3.7.4 During the test, no part of the side structure shall deflect more than 50 mm beyond the plane formed by the side surfaces of the corner fittings.

4 MARKING

4.1 MANDATORY MARKING

4.1.1 Containers shall be marked in accordance with the requirements set out in Section 4 of Part I "Basic Requirements".

4.2 ADDITIONAL MARKING

4.2.1 If considered necessary, a plate with operation instructions made so as to be fit for continuous use shall be attached to the container at a readily visible place, in immediate proximity to the discharge area. The instructions shall be written both in the national and the English languages.

4.2.2 Container BK1 and BK2.

4.2.2.1 The container shall be marked in accordance with the applicable requirements of 5.3 of the IMDG Code.

4.2.2.2 Marking in accordance with 2.7.5.1 shall be applied with paint or by means of a material with an adhesive layer. A height of the symbols is not less than 20 mm

4.2.2.3 Approval according to Chapter 6.9 of the IMDG Code.

4.2.2.3.1 The combined CSC and CCC plate or a separate plate shall have the approval number applied according to 6.9 of the IMDG Code assigned by RS. The symbols shall be at least 8 mm in height.

4.2.2.3.2 If the approval number according to 6.9 of the IMDG Code is applied on a separate plate, the requirements for this plate and the method of its attachment comply with 4.1.4 and 4.1.5, Part I "Basic Requirements".

4.2.2.3.3 For containers with a removable roof or removable roof section, next to the approval number it shall be additionally indicated "Approval BK2 according to 6.9 of the IMDG

Code is not valid with the roof (roof section) removed". The height of the symbols shall be at least 5 mm

4.2.2.3.4 The title and particulars of the CSC Plate shall be stamped into, embossed on, or indicated on its surface in any other permanent and legible way.".

PART VII. OFFSHORE CONTAINERS

1 GENERAL

1.4 TECHNICAL DOCUMENTATION

Para 1.2.1. The para is supplemented by the following new definition (placed in alphabetical order in relation to the existing ones in accordance with the Russian version):

" B a t c h is a specified number of items manufactured at one time or under one order".

Para 1.4.2 is deleted.

3 STRUCTURAL STRENGTH

3.1 GENERAL

Para 3.1.6 is replaced by the text reading as follows:

"**3.1.6 Equipment supports and protection.**

3.1.6.1 Supports for equipment with a total mass greater than or equal to 1000 kg in open frame containers (i.e. containers without walls and roof) are considered as a load-bearing structure and shall withstand the maximum dynamic load arising during lifting and transport at sea.

3.1.6.2 Supports for equipment with a mass of less than 1000 kg are ancillary structure. In justified cases, such supports may be considered by the RS as a load-bearing structure, taking into account the type of equipment, the type of supports and the risks associated with them, for example, in the event of a potential breakdown.

3.1.6.3 Bolted connections shall be provided with lock nuts or other suitable means to prevent loosening. In open frame containers, it is recommended to use additional fastenings or additional holders located around the perimeter of the equipment.

3.1.6.4 Protective beams and their connections to the supporting structure shall withstand the weight of the equipment or a local impact load of *0,15 Rg*, whichever is greater, acting horizontally and at the worst location.

Equivalent stresses shall not exceed R_{E} for steel. The value of permissible stresses for beams made of other material is the subject of separate consideration by the RS.

The maximum design deflection shall not exceed $l_n/250$, where l_n is the beam length, in mm.

3.1.6.5 The design loads shall be applied to the center of gravity of the equipment to determine the maximum and minimum reaction forces and moments on the supporting supports of the equipment and their connections.

3.1.6.6 The equipment support supports and their connections to the container shall be designed for a vertical load of $2{,}5\ m_{\mathrm{E}}g$, where m_{E} is the equipment weight, in kg.

The design horizontal load (heel or trim), equal to $\pm m_{\mathrm{E}}g$, shall also be taken into account, in combination with both the maximum and minimum design vertical load (lift), equal to $\pm 0{,}3\ m_{\mathrm{E}}g$.

3.1.6.7 Upon agreement with RS, instead of calculation, it is permissible to conduct tests of the container prototype, including checking the supports and protection of the equipment, with a model of the specified equipment weight.

3.1.6.8 Modification of the equipment load-bearing supports is a change in design and requires re-approval by RS.".

Para 3.1.7 is deleted. Paras **3.1.8 — 3.1.9** are renumbered **3.1.7 — 3.1.8** accordingly.

7 MARKING

7.5 PLATES

Para 7.5.2 is amended as follows:

"**7.5.2 Information plate.**
The format of a plate is shown in Fig. 7.5.2.

OFFSHORE CONTAINER DATE PLATE RS				
Manufacturer's serial number:	…			
Month and year of manufacture:	…			
Maximum gross mass excluding lifting set:	…	kg at	…	Degrees from vertical
Tare mass ~~excluding lifting set~~:	…	kg		
Payload:				
Container	…	kg		
~~Intermediate deck~~	~~…~~	~~kg~~		
RS Certificate No.:	…			
Design temperature:	…	°C		

Fig. 7.5.2
Information plate

N o t e . The name of the plate may be as follows: "OFFSHORE CONTAINER DATE PLATE RS/ISO 10855-1.".

The plate shall contain the following information:
.1 identification tag of the container handled in open seas, RS;
.2 serial number;
.3 month and year of manufacture;
.3.1 month and year of modernization/modification (if applicable) (example of lettering: Month and year of modification);
.4 maximum gross mass excluding lifting set at the design sling angle, in kg;
.5 tare mass excluding lifting set, in kg;
.6 payload ~~and intermediate deck payload (if applicable), in kg~~;
.6.1 payload and intermediate deck payload (if applicable) (example of lettering: Payload: Intermediate deck);
.7 number of the RS Type Approval Certificate for Offshore Container;
.8 minimum operating temperature of the container.".

9 LIFTING SET

9.5 MATERIALS

New para 9.5.5 is introduced reading as follows:

"**9.5.5** The hardness of the material of the chain and connecting links shall not exceed 38 HRC.".

9.7 MARKING

Para 9.7.6 is amended as follows:

"**9.7.6** The marking on the identification plate (type 1, refer to Fig. 9.7.6) shall include:

.1 RS abbreviation;

.2 number of slings; caliber of chain or diameter of rope slings, including optional top leg (where fitted);

N o t e . Where two 2-leg slings are selected to function as a 4-leg sling, both shall be marked as a 4-leg sling.

.3 manufacturer's mark;

.4 maximum sling angle to the vertical;

.5 working load limit of shackles ($WLLs$) in tonnes;

.6 working load limit of the lifting set (WLL_{off}),, which shall correspond to the maximum gross mass of the offshore container where a lifting set can be used with a set angle to the vertical.

N o t e . The value of the lifting set working load limit may vary from maximum gross mass of the offshore container, to which it is fitted;

.7 mass of the lifting set, kg (optional).

.8 Register certificate number ~~in the format XX.XXXXX.XXX~~;

.9 lifting set serial number;

.10 survey type mark (in compliance with the Rules for Technical Supervision of Containers in Service), mark of the survey body and the survey date in YYYY-MM ~~-DD format~~;

.11 identification numbers of shackles;

.12 additionally, upon the customer's request, the lifting set owner's name may be applied.

N o t e . If the lifting set complies with the requirements of ISO 10855-2 standard, the tag title can be: RS/ISO 10855-2.

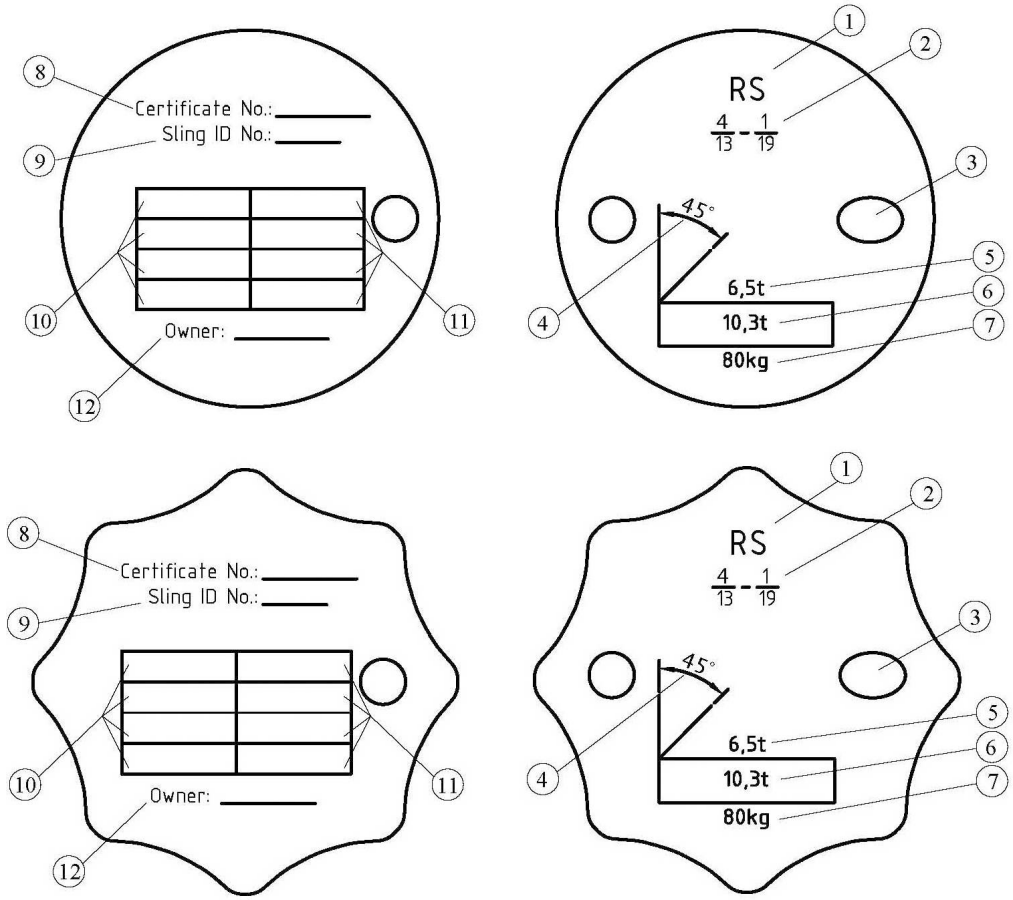


Fig. 9.7.6.
Example of identification plate (Type 1)

1 – RS abbreviation; 2 - number and thickness of legs (13 mm for main legs and 19 mm for additional ones); *3* – manufacturer's mark; *4* – maximum leg angle to the vertical; *5* – working load limit of shackles, in tonnes; *6* – working load limit of the lifting set(WLL_{off}); *7* – mass of the lifting set, in kg (optional); *8* – number of the Register certificate; *9* – the serial number of the lifting set; *10* – mark of the survey type, the mark of the survey body that conducted the survey and the survey date in MM-YYYY format~~.DD~~; *11* – identification numbers of shackles;
12 – name of lifting device owner

9.7.7 The identification plate marking (Type 2, refer to Fig. 9.7.7) shall include:

.1 RS abbreviation;

.2 QR code of the Register certificate;

.3 Register certificate number~~ in the format XX.XXXXX.XXX~~;

.4 lifting set serial number;

.5 survey type mark (in compliance with the Rules for Technical Supervision of Containers in Service), mark of the survey body and the survey date in YYYY-MM~~-DD format~~;

.6 identification numbers of shackles;

.7 additionally, upon the customer's request, the lifting set owner's name may be applied.

N o t e . If the lifting set complies with the requirements of ISO 10855-2 standard, the tag title can be: RS/ISO 10855-2.

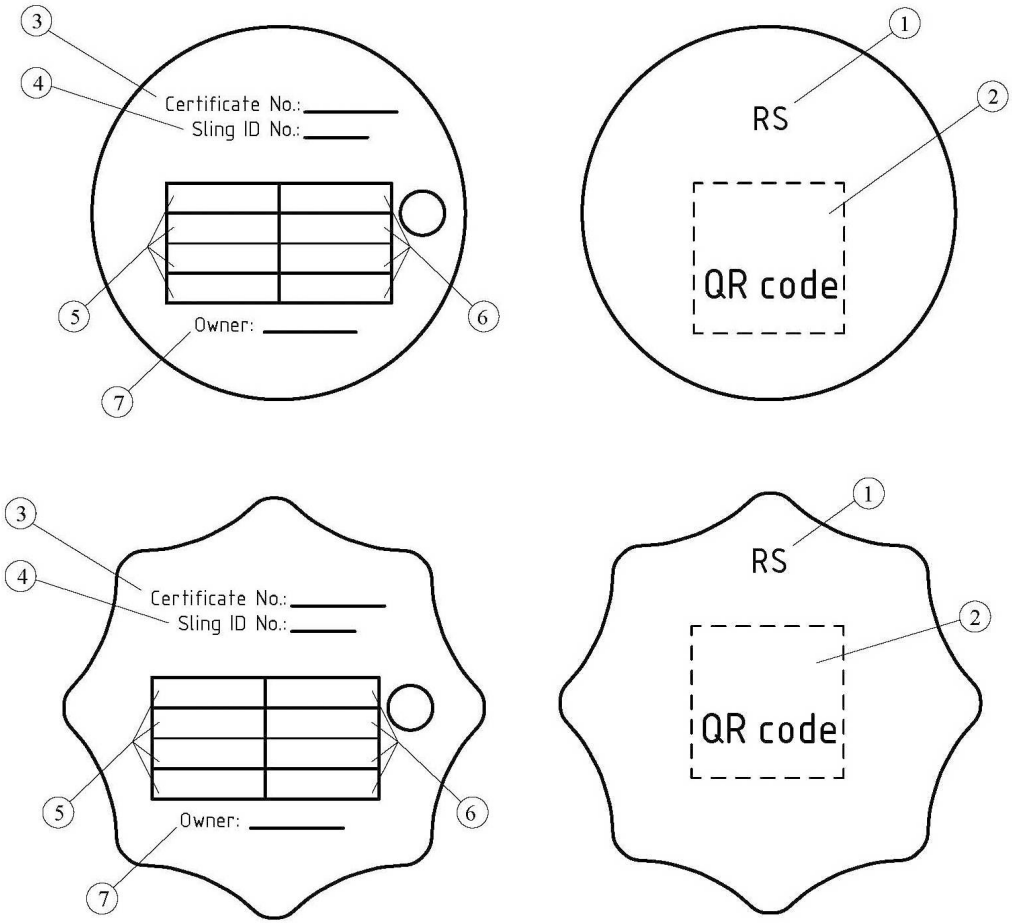


Fig. 9.7.7.
Example of identification plate (Type 2):

1 – abbreviation RS; *2* – QR code of the Register certificate; *3* – Register certificate number; *4* – factory serial number of the lifting device; *5* – inspection type mark, inspection body mark, and inspection date in the format YY.MM~~.DD~~; *6* – identification numbers of the brackets; *7* – name of the owner of the lifting device".

RULES FOR TECHNICAL SUPERVISION DURING MANUFACTURE OF CONTAINERS, MATERIALS AND PRODUCTS FOR CONTAINERS

3 TECHNICAL SUPERVISION DURING MANUFACTURE OF PRODUCTS

3.2 TECHNICAL SUPERVISION

Table 3.2.3. **Para 1.16** is deleted. The existing paras **1.17** and **1.18** are renumbered **1.16** and **1.17** accordingly.

Chapter 3.9 is replaced by the following text:

"**3.9 TESTING**

3.9.1 General.

3.9.1.1 Product tests shall be carried out by the Register approved test program.

3.9.2 Strength test, general provisions.

3.9.2.1 The strength test by pressure, which is specified in 3.7, Part IV "Tank Containers" of the Rules for the Manufacture of Containers, shall be witnessed by a RS surveyor, provided that:

all assembling, welding and weld inspecting operations are completed and accepted by the technical control body of the firm (manufacturer);

the product has been submitted for testing before shot blasting or other surface treatment;

components of the product have no insulation and other protective coatings;

component or product has been surveyed by the RS surveyor;

the devices intended for testing (for measuring instruments, etc.) have valid verification documents from the relevant competent authorities. devices intended for tests (instruments, etc.) have documents of the appropriate competent authorities.

3.9.2.2 Strength testing shall be carried out in compliance with the current provisions and instructions of the enterprise (manufacturer).

3.9.2.3 The temperature of the water and the ambient air shall be no lower than +5 °C. The difference in temperature between the water and the outside air shall prevent sweating.

3.8.2.4 Pressure gauges used in hydraulic tests shall have an accuracy class not lower than 2,5. Pressure gauges shall be calibrated.

3.9.2.5 The pressure during the test shall rise smoothly without water hammers.

3.9.2.6 During testing, no extraneous work shall be carried out that produces noise that interferes with testing. No other works accompanied by noise hindering the tests shall be performed during the hydraulic tests.

3.9.2.7 The pressure rises smoothly, without jerks, taking into account the following steps:

1. the working pressure for which the product is designed. The holding time is at least 5 min.

2. test pressure. The holding time is at least 30 min.

3. return to the working pressure for which the product is designed. The holding time is at least 5 min.

4. complete pressure relief.

3.9.2.8 If during the tests, knocks, booms are heard in the product, or defects affecting the strength thereof are detected, the test shall be interrupted and resumed anew only after correction of these defects.

When the product is held under the proof pressure, no pressure drop shall take place.

3.9.2.9 Based on the results of the product strength test, the RS inspector shall conduct an internal inspection of the product (if the product is accessible for inspection), during which the condition of the working surfaces, the absence of residual deformations and other defects are checked in accessible places.

Appearance of sweating and water drops on the welds shall not be permitted. Such welds shall be chipped out and welded anew. Correction of the weld defects by caulking, centre-punching or other mechanical methods shall not be permitted.

3.9.2.10 Products are considered to have passed the test pressure test if no leaks in the seams, cracks, local bulges, residual deformations or other signs of damage to the base material of the supporting structure or any connections are detected.

3.9.3 End frames.

3.9.3.1 End frames are tested by pulling on the upper corner fittings with a force of 1/2R applied to each fitting, with the lower fittings secured or taking into account the load secured from below to the lower corner fittings.

3.9.3.2 Number of end frames for testing is established by the Register upon agreement with the firm depending on stability of workmanship but not less than 10 % from the batch.

3.9.3.3 The products shall be considered as having passed the test, if cracks, residual deformations and other indication of any joint disturbances are not found.

3.9.4 Vessels of tank containers.

3.9.4.1 Tank container vessels are subjected to a strength test in accordance with 3.9.2.

N o t e . Upon agreement with RHO, it is permissible to replace water strength tests with pneumatic tests with NDT of welded joints using the acoustic emission method.

3.9.4.2 Each vessel is subject to testing.

3.9.5 Tank hatches, stop valves and pressure-relief (safety) valves.

3.9.5.1 Product bodies are subject to strength tests in accordance with 3.9.2.

3.9.5.2 The pressure-relief valves capacity is checked on their prototypes. Where a flame arresting mesh is available, inflammability of combustible mixture vapors at specified temperature shall be checked.

3.9.5.3 Number of serial products for testing is established by the Register upon agreement with the firm depending on stability of workmanship but not less than 10 % of the presented batch. If nonconformities are identified, each product is subject to testing.

3.9.5.4 Prototypes of stop valves and pressure-relief (safety) valves of tank containers UN T75 shall be subjected to functional tests at the minimum operating temperature in accordance with the RS-approved test program and procedure.

3.9.6 Lifting sets for offshore containers and their components.

3.9.6.1 Requirements for testing prototype and type-series lifting sets for offshore containers or their components (when approved separately) are specified in 9.6, Part VII "Offshore Containers" of the Rules for the Manufacture of Containers.".

3.10 MARKING AND BRANDING

Para 3.10.5 is deleted. The **existing paras 3.10.6** and **3.10.7** are renumbered **3.10.5** and **3.10.6**.

Chapter 3.11 is deleted. **Chapter 3.12** is renumbered **3.11**.

5 TECHNICAL SUPERVISION DURING MANUFACTURE OF CONTAINERS

5.4 QUALIFICATION OF PERSONNEL

The main text of **para 5.4.1** before **the Note** is amended as follows:

"**5.4.1** Welding of containers shall be performed by welders ~~who have passed the relevant tests in accordance with the RS procedures. Welders shall~~ certified in compl~~y~~iance with the requirements of 3.7.1, Part I "Basic Requirements" of the Rules for the Manufacture of Containers and the RS-approved technical documentation.".

5.15 BRANDING

Para 5.15.1.1 is deleted. **Paras 5.15.1.2** and **5.15.1.3** are renumbered **5.15.1.1** and **5.15.1.2** accordingly.

APPENDIX 2

TECHNICAL SUPERVISION DURING MANUFACTURE OF TANK CONTAINERS WITH FIBER-REINFORCED PLASTICS (FRP) SHELL

1 REQUIREMENTS FOR MANUFACTURE

Paras 1.3.2.1 and 1.3.2.2 is amended as follows:

"**1.3.2.1** The weight content of the fiber reinforcement shall be within a tolerance of +10 %...–0 % of the weight content specified in the process specification on shell manufacture. It is allowed to use the fiber reinforcement specified in ~~2.2.6.2~~ 2.3.8.2 Part VIII "~~Tank containers~~ Portable tanks with Fiber-Reinforced Plastics (FRP) Shell" of the Rules for the Manufacture of Containers.

1.3.2.2 It is allowed to use the resins specified in ~~2.2.6~~ 2.3.8 Part VIII "Tank Containers with Fiber Reinforced Plastics (FRP) Shell" of the Rules for the Manufacture of Containers. The use of pigment additives and dyes to the resin that are not specified in the technological instructions for the manufacture of the vessel is not permitted.".

Paras 1.3.3.1 and 1.3.3.2 are amended as follows:

"**1.3.3.1** Structural layers shall be wound according to the diagram specified in the process specification on shell manufacture. The shell winding diagram shall enable accommodation of loads as specified in ~~2.2.8, 2.2.9, 2.2.12 and 3.3.3~~ design cases 1 − 4 of Table 3.1.3 and 4.3.4,

Part VIII "~~Tank Containers~~ Portable Tanks Fiber-Reinforced Plastics (FRP) Shell" of the Rules for the Manufacture of Containers.

1.3.3.2 The tension of the fibers during winding shall be controlled in order to ensure uniform loading of the fibers in the structural layers of the vessel under the action of the loads specified in ~~2.2.8, 2.2.9, 2.2.12 and 3.3.3~~ design cases 1 – 4 of Table. 3.1.3 and 4.3.4, Part VIII "Tank Containers with Fiber-Reinforced Plastics (FRP) Shell" of the Rules for the Manufacture of Containers.".

Paras 1.4.7.1 and 1.4.7.2 are amended as follows:

"**1.4.7.1** Tests of representative sample shall be performed according to ~~3.2.2~~ 4.2.2, Part VIII "~~Tank Containers~~ Portable Tanks with Fiber-Reinforced Plastics (FRP) Shell" of the Rules for the Manufacture of Containers, except for tensile tests (refer to ~~3.2.2.3~~ 4.2.2.3). Witness sample may be used only when representative sample cannot be cut out of the shell.

1.4.7.2 When testing for creep in bending in accordance with ~~3.2.2.4~~ 4.2.2.4 of Part VIII "~~Tank containers~~ Portable Tanks with Fiber-Reinforced Plastics (FRP) Shell" of the Rules for the Manufacture of Containers, the test time may be reduced to 100 hours.".

RULES FOR TECHNICAL SUPERVISION OF CONTAINERS IN SERVICE

2 RECOGNITION AND AUDIT OF FIRMS

2.5 RECOGNITION OF ORGANIZATIONS OR FIRMS OPERATING WITHIN IMO RESOLUTION MSC.380(94) TO COMMUNICATE THE VERIFIED GROSS MASS OF CONTAINERS

New para 2.5.2.5 is introduced:

"**2.5.2.5** Quality Management System.

2.5.2.5.1 The firm shall establish, document, implement and maintain a quality management system that is capable of supporting and demonstrating continuous compliance with established requirements and ensuring the quality of work performed.

The quality management system shall, at least, include the following:

.1 quality management system documentation;

.2 internal audits and management reviews;

.3 control of documents and records;

.4 requirements for personnel and their competence;

.5 requirements for equipment and premises;

.6 measurement assurance and technical maintenance of equipment;

.7 requirements for submission of reporting results;

.8 requirements for engaging subcontractors;

.9 ensuring monitoring, review and evaluation of the QMS elements established by the manufacturer, check and control to ensure the compliance of works with the working procedures.

2.5.2.5.2 Availability and maintenance of the quality management system in compliance with the requirements of ISO 9001/GOST R ISO 9001 (current version) or the integrated system certified by an accredited certification body or in a voluntary certification system as well as capability to support and demonstrate the consistent fulfillment of the established requirements are deemed sufficient to meet the condition.

The Register reserves the right to audit the firm's quality management system certified in the voluntary certification system.".

3 PERIODICAL SURVEYS

3.4 SURVEY OF TANK CONTAINERS

The **first paragraph** of **para 3.4.3.2** is amended as follows:

"**3.4.3.2** Conducting of a shell strength tests (except for UN T75 tank container) by the pressure indicated on the nameplate with tank data, without removing insulation and protective coatings, in compliance with 3.7.4, Part IV "Tank containers" of the Rules for the Manufacture of Containers~~, without removing insulation and protective coatings~~;".

3.5 SURVEY OF TANK CONTAINERS WITH FIBER-REINFORCED PLASTICS

Para 3.5.5.2 is amended as follows:

"**3.5.5.2** Materials, used for the repair of polymer composite vessels shall comply with the requirements of ~~2.2.5 and 2.2.6~~ 2.3 of Part VIII "~~Tank containers~~ Portable Tanks with Fiber-Reinforced Plastics (FRP) Shell" of the Rules for the Manufacture of Containers.".

3.7 SURVEY OF OFFSHORE CONTAINERS

Table 3.7.1 is replaced by the following text:

"Table 3.7.1

Scope and frequency of offshore container surveys

Interval	Tests/survey			
	Lifting test[1]	Non-destructive testing of lifting eyes	Visual examination	Branding on inspection plate
Special surveys at interval not exceeding 12 months (1 year)	–[2]	–[2]	+	V or VN or T
Special surveys at interval not exceeding 48 months (4 years)	–[2]	+	+	VN or T
After major repairs or modifications[3]	+	+	+	T

[1] The procedure of lifting test of offshore containers shall be in accordance with 8.1, 8.2.1 and 8.2.2, Part VII "Offshore Containers" of the Rules for the Manufacture of Containers. No residual deformation preventing use of a container for its purpose shall remain after testing.
[2] RS may require other or additional checks, inspections and/or tests.
[3] The major repair or modernization means repair or modernization of members of container affecting its structural strength.

N o t e s : 1. V means the performance of visual examination only;
2. VN means the performance of visual examination and non-destructive testing;
3. T means the performance of visual examination, load test and non-destructive testing.

".

Table 3.7.5 is replaced by the following text:

"Table 3.7.5

The survey scope and frequency of the lifting sets of offshore containers

Interval	Applicable to	Tests/surveys			
		Load test	Non-destructive testing[1]	Visual examination	Branding of identification tag
Special surveys at interval not exceeding 12 months (1 year)	Complete lifting set	–	–	+	V
Special surveys at interval not exceeding 48 months (4 years)	Sling components and joining links	–	+[2]	+	VN or T
	Chain sling legs	–	+[2,3]	+	VN or T
	Shackles	–	–	+	–
	Wire legs	–	–	+	–
After major repairs or modifications	Chain lifting set	+[4]	+[4]	+	T

[1] The magnetic particle method is used for the non-destructive testing of the lifting set items but steel wire ropes.
[2] RS may require other or additional checks, inspections and/or tests.
[3] Non-destructive testing shall be carried out at end links of each leg +10 % of a leg length. The location of these 10 per cent shall be selected based on visual examination.
[4] In compliance with the applicable standards including EN 818-6.

N o t e s : 1. V means the performance of visual examination only.
2. VN means the performance of visual examination and non-destructive testing.
3. T means the performance of visual examination, load test and non-destructive testing.

"".

Paras 3.7.7.1.1 — **3.7.7.1.11** are replaced by the following text:

"**3.7.7.1** The following defects of wire rope slings are prohibited:

.1 the number of broken wires is 5% or more of the total number of wires in the rope at any point along its length equal to six diameters;

.2 the presence of three or more closely spaced broken wires;

.3 a strand is broken;

.4 breaks of outer wires 4 — 6 — 16 pcs. on a section of length 3d — 6d — 30d respectively;

.5 the availability of corrosion, particularly of the internal corrosion;

.6 reduction in rope diameter as a result of surface wear or corrosion by 7 % or more compared to the nominal value;

.7 reduction by 10 % of rope diameter from the nominal value, as a result of core damage (internal wear, crushing, rupture, etc.);

.8 increase in diameter by 7 %;

.9 deformation of thimbles or their wear with reducing the initial section by more than 15 %;

.10 more than one broken wire immediately adjacent to a compressed metal ferrule (pressed clamp/bush) or end fitting;

.11 for the compression clamp (sleeve):

.11.1 cracks, bends and kinks;

.11.2 displacement of the cable in the compression clamp (sleeve)

.11.3 wear more than 5 % of the nominal diameter;

.11.4 dents or grooves more than 5 % deep of the nominal diameter;".

Para 3.7.7.2.3 is amended as follows:

"**.3** extension of chain links for more than 3 % of the initial size (refer to Fig. 3.7.7.2.3-1) (the length is determined by measuring a chain part consisting of five links per every 2 m of the ling, the length of a leg part is equal to the production of a chain pitch to link number) and at reduction of the chain links diameter in placed of intersection/contact of the chain link due to wear above ~~10~~8 % (refer to Fig. 3.7.7.2.3-2);

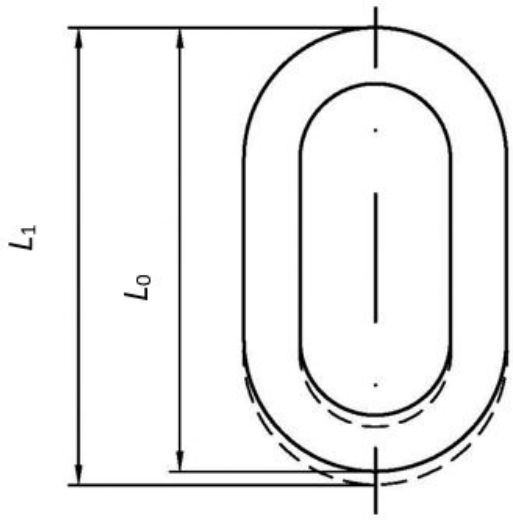


Fig. 3.7.7.2.3-1
Increase in chain link:
$L_1 \leq L_0 + 3\%L_0$
L_0 — initial link length, mm;
L_1 — increased link length, mm

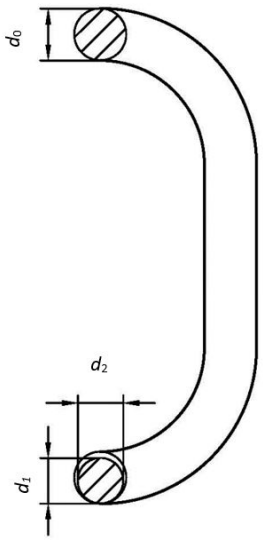


Fig. 3.7.7.2.3-2
Reduction in the cross-sectional diameter of a chain link: Reducing of a chain link diameter.
$\frac{d_1+d_2}{2} \geq 0{,}92d_0$; d_0 — initial diameter, mm; d_1, d_2 — actual cross-sectional diameters of a link measured in mutually perpendicular directions, mm".

Para 3.7.7.3 is amended as follows:

"**3.7.7.3** The following defects of shackles are prohibited:
.1 cracks and deformations;
.2 bending and excessive wear in the of a thimble contact point;
.3 lack of free rotation of a pin in the shackle~~.~~;
.4 no marking;
.5 wear of the shackle body by 10 % or more of the nominal diameter;
.6 wear of the shackle pin by 8 % or more of the nominal diameter;
.7 presence of play between the nut and the shackle pin;
.8 wear or lack of thread on the shackle pin;
.9 corrosion, heat discoloration.".

4 REPAIR AND MODERNIZATION

4.1 GENERAL

Para 4.1.2 is amended as follows:

"**4.1.2** Container modernization shall be conducted at the firm (manufacturer) or on the RS-inspected or recognized firms.
The possibility of conducting container modernization at the uninspected or unrecognized firms shall be determined by RS in each particular case.".

4.3 DAMAGE

Para 4.3.5 is replaced by the following text:

"**4.3.5** As criteria for defining the possibility of safe operation of damaged containers, the Register recommends to use those listed below:
.1 for all elements of the container the following are not permitted:
.1.1 notches, holes, dents, cracks or splits;
.1.2 corrosive wear up to through or deep corrosion;
.1.3 dents on the outer radius of rounding of beams;
.1.4 visible defects of weld;

.1.5 loosened bolting and other detachable connections.

N o t e . For offshore containers, RS may require non-destructive testing of the weld of the supporting structure if the dent or bend is located near a corner fitting, lifting eye or other connection of the supporting structure.

.2 for corner fittings:

.2.1 dimensions of corner fitting openings shall not exceed ISO tolerances;

.2.2 corner fitting shall have no cracks and notches and shall not be detached from structural elements of the container;

.2.3 deformations that reduce the amount of material in the supporting area of the twist lock are not allowed;

.2.4 any repair of the corner fitting, except for complete replacement, is not allowed.

.3 for corner posts (including intermediate posts with lifting eyes):

.3.1 depth of a single deformation shall not exceed 25 mm, irrespective of its length and location;

.3.2 with two or more indentations, none of these shall exceed 15 mm in depth; cracks, ruptures and punctures shall be repaired regardless of their size;

.3.3 deformation of corner posts shall not cause the external dimensions of the container change that could exceed ISO tolerance by more than 5 mm;

.3.4 deformation of the rear corner posts shall not render the doors inoperable and impair the watertight integrity;

.4 for top and bottom side rails and cross-members:

.4.1 top side rails and cross-members:

.4.1.1 deformations of top side rails and the front end rails (dents, bendings, etc.) shall not exceed 25 mm in depth;

.4.1.2 deformation of rear top cross-member shall not exceed 35 mm, render the doors inoperable and impair the watertight integrity;

.4.2 bottom side rails:

.4.2.1 deformations on the webs of side rails shall not exceed 50 mm in depth;

.4.3 lower cross-members:

.3.3.1 deformations on a web shall not exceed 50 mm in depth;

.4.3.2 deformation of the rear bottom rails shall not render the doors inoperable or impair the watertight integrity;

.4.3.3 deformation of the cross-member shall not cause the external dimensions of the container to change so as to exceed ISO tolerance by more than 5 mm;

.4.3.4 deformation shall not cause a change in length of diagonals between the corner fitting apertures to exceed the ISO tolerance;

.4.3.5 cracks, ruptures and punctures shall be repaired, irrespective of their size;

.5 for walls and roof:

.5.1 front and side walls:

.5.1.1 no deformation, such as dents, bends, etc. on a plane portion of the side and front wall where the marking shall be applied, or on internal or external corrugations, shall exceed 5 mm;

.5.1.2 any two deformations existing on the opposite walls and facing one another shall not cause the distance between the walls to decrease by more than 50 mm against the constructional dimension;

.5.1.3 no deformation involving the length or height of a wall shall lead to the reduction of internal dimensions by more than 50 mm;

.5.1.4 any deformation of the side walls shall not exceed ISO tolerance by more than 10 mm;

.5.1.5 any deformation of the front wall — by more than 5 mm;

.5.1.6 any deformation which may result in sharp edges liable to cause damage to cargo shall be eliminated;

.5.1.7 cracks and punctures, irrespective of their dimensions, shall be repaired;

.5.2 roof:

.5.2.1 deformation shall not exceed 35 mm in depth; no deformation involving the length or width of a roof shall lead to the reduction of internal dimensions by more than 50 mm;

.5.2.2 punctures, cracks, ruptures shall be repaired, irrespective of their dimensions;

.6 for floor decking:

.6.1 cracks and cleavings shall not exceed 15 mm in depth, irrespective of the damage length, or shall not exceed 5 mm when the damage width is more than 150 mm;

.6.2 difference in height between the faces of the adjoining boards shall not exceed 5 mm;

.6.3 any through holes, spallings of material, splittings shall be repaired;

.6.4 floor boardings shall be dry, clean and shall not emit specific odour;

.7 for bottom cross-members:

.7.1 no deformation on a web of cross-members, or on the top plate of fork lift pockets and gooseneck tunnel shall exceed 50 mm;

.7.2 deformations on a top flange shall not intrude more than 50 mm into the container;

.7.3 clearance between the top face plate of the cross-member and the floor boardings shall not exceed 10 mm;

.7.4 in no instance shall the deformations on the bottom flange of cross-members, fork lift pockets and gooseneck tunnel project below the plane 1 mm above the plane of the bottom faces of bottom corner fittings;

.7.5 any cracks, notches, ruptures shall be repaired;

.7.6 no deformation of fork lift pockets and gooseneck tunnel shall cause their dimensions to change so as to exceed ISO tolerances by more than 10 mm;

.8 for doors:

.8.1 no deformation of the door panel shall exceed 35 mm;

.8.2 no deformation shall render the doors inoperable and shall cause the ISO tolerance for external dimensions to be exceeded by more than 5 mm;

.8.3 doors shall not have cracks, punctures and other damages which may entail failure of the container waterproofness;

.9 for door lock:

.9.1 broken or notched cams, cam retainers, hinges, hinge bolts, door locking bars shall not be allowed;

.9.2 bent door locking bars and door locking handles preventing the door from being properly opened or closed, shall be repaired or replaced;

.10 marking on container:

.10.1 partial or complete lack of marking shall not be allowed;

.10.2 markings shall be legible;

.10.3 stickers shall not peel off or become torn off;

.10.4 markings shall be in English.

.11 plates:

.11.1 partial or complete lack of plates shall not be allowed;

.11.2 Symbols on the plate shall be legible;

.11.3 Loose or rusty rivets are not allowed.

.12 Paint coating:

.12.1 Paint shall not cause contamination and/or damage to the cargo;

.12.2 flaky rust or blisters are not allowed.

N o t e . The Register may approve the use of other international or national regulations and guidelines based on the CSC and CCC provisions and submitted by the owners of containers, repair firms or surveying companies. The criteria determining the safe operation of dry fright containers and related to their framework apply to the frame of tank containers.".

Paras 4.3.7 — 4.3.10 are replaced by the following text:

"**4.3.7** In addition to the requirements of 4.3.5, RS recommends to use the following criteria defining possibility of safe use of offshore containers:

.1 lifting eyes:

.1.1 thinning by 7 % or more in thickness is not allowed;

.1.2 rounding of the lifting eye opening by 8 % or more (increase in the diameter of the opening in the lifting eye measured at a distance of 10% of the total thickness of the eye from the outer edges of the eye) is not allowed;

.1.3 bending or deflecting is not allowed;

4.3.8 Upon completion of the repair, containers with the CCC plates shall comply with requirements of the Rules for the Approval of Containers for the Transport of Goods Under Customs Seals.

4.3.9 Materials used for repairing containers shall have characteristics equivalent to those of the materials used for the manufacture of containers or exceeding them. Material used for repairing shells of tank containers shall have a document confirming technical supervision of the Register.

4.3.10 Tank container shells shall be repaired keeping due consideration to calculation standards for pressure vessels used for the design of the tank container.

4.3.11 Welding of container elements shall be performed in accordance with the requirements of 3.7.1, Part I "Basic Requirements" of the Rules for the Manufacture of Containers.".

5 MARKING AND BRANDING

5.1 GENERAL

Para 5.1.7 is amended as follows:

"**5.1.7** According to the results of the lifting sets of offshore containers survey, the Register brand of approved type shall be put in the first column of the identification plate of the lifting set (refer to 9.7.6 and 9.7.7, Part VII "Offshore Containers" of the Rules for the Manufacture of Containers), and the date of the survey conducted in format YY.MM~~.DD~~ and the marks according to Table 3.7.5 shall be specified.".