TECHNICAL REPORT

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AMENDMENT 1
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Series 1 freight containers — Rationale for structural test criteria

AMENDMENT 1: Guidance on structural integrity

Conteneurs de la série 1 — Fondement des critères de résistance

AMENDEMENT 1: Lignes directrices pour l'intégrité de la structure

Reference number
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Foreword

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In exceptional circumstances, when a technical committee has collected data of a different kind from that which is normally published as an International Standard ("state of the art", for example), it may decide by a simple majority vote of its participating members to publish a Technical Report. A Technical Report is entirely informative in nature and does not have to be reviewed until the data it provides are considered to be no longer valid or useful.

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Amendment 1 to ISO/TR 15070:1996 was prepared by Technical Committee ISO/TC 104, *Freight containers*, Subcommittee SC 1, *General purpose containers*.

Series 1 freight containers — Rationale for structural test criteria

AMENDMENT 1: Guidance on structural integrity

Page 10, 4.8.2.1

In the first line of the first paragraph, replace “the ability of the floor” with “the ability of the whole surface of the floor”.

Page 13, after the content of 4.12.3

Add the following new text.

5 Prototype test criteria and sequence of tests

5.1 For 20 ft containers

See Table 2.

Table 2 — Prototype test criteria and sequence of tests for 20 ft containers

Sequence of tests	ISO test number	Test [a]	Dimensions check	Maximum allowable residual deformation mm
1		Dimensions check	To confirm that all dimensions are in accordance with ISO 668:1995	n/a
2	8	Floor strength: 7 260 kg		
2.1			Bottom side rails	3
2.2			Crossmembers	4
3	1	Stacking: 3 816 kN $1{,}8R - T$		
3.1			Corner post (horizontal dimensions)	2
3.2			Bottom side rails	3
3.3			Crossmembers	3

Table 2 (*continued*)

Sequence of tests	ISO test number	Test [a]	Dimensions check	Maximum allowable residual deformation mm
4	2	Lifting from top corner fittings: $2R - T$		
4.1			Bottom side rails	3
4.2			Crossmembers	3
5	3	Lifting from bottom corner fittings: $2R - T$		
5.1			Bottom side rails	3
5.2			Crossmembers	3
6	11	Lifting from fork-lift pockets: $1{,}6R - T$		
6.1			Bottom side rails	3
6.2			Crossmembers	3
7	4	Restraint (longitudinal)		
7.1			Vertically	3
7.2			Longitudinally	6
8	9	Rigidity (transverse)		
8.1			End frame [b,c] diagonally	10
9	10	Rigidity (longitudinal)		
9.1			Side frame at top fittings	6
10	5	End walls and doors		
10.1			Front end panel	7
10.2			Doors [b]	6
11	6	Strength of side walls		
11.1			Side panel	8
12	7	Strength of the roof		
12.1			Roof panel	4
15			After testing, maximum allowable residual deformation for crossmembers	7

NOTE 1 All dimensions are in accordance with ISO 668:1995.

NOTE 2 After testing, no dimensions are allowed to be outside the planes of the corner-castings.

[a] T is the tare of the container.

[b] Deformation should not affect security and door operation.

[c] These values do not apply for one door off operation.

5.2 For 40 ft containers

See Table 3.

Table 3 — Prototype test criteria and sequence of tests for 40 ft containers

Sequence of tests	ISO test number	Test [a]	Dimensions check	Maximum allowable residual deformation mm
1		Dimensions check	To confirm that all dimensions are in accordance with ISO 668:1995	n/a
2	8	Floor strength: 7 260 kg		
2.1			Bottom side rails	3
2.2			Crossmembers	4
2.3			Gooseneck	5
3	1	Stacking: 3 816 kN $1{,}8R - T$		
3.1			Corner post (horizontal dimensions)	2
3.2			Bottom side rails	3
3.3			Crossmembers	3
4	2	Lifting from top corner fittings: $2R - T$		
4.1			Bottom side rails	3
4.2			Crossmembers	3
5	3	Lifting from bottom corner fittings: $2R - T$		
5.1			Bottom side rails	3
5.2			Crossmembers	3
6	11	Lifting from fork-lift pockets: $1{,}6R - T$		
6.1			Bottom side rails	n/a
6.2			Crossmembers	n/a
7	4	Restraint (longitudinal)		
7.1			Vertically	4
7.2			Longitudinally	10

Table 3 (*continued*)

Sequence of tests	ISO test number	Test [a]	Dimensions check	Maximum allowable residual deformation mm
8	9	Rigidity (transverse)		
8.1			End frame [b,c] diagonally	10
9	10	Rigidity (longitudinal)		
9.1			Side frame at top fittings	9
10	5	End walls and doors		
10.1			Front end panel	7
10.2			Doors [b]	6
11	6	Strength of side walls		
11.1			Side panel	8
12	7	strength of the roof		
12.1			roof panel	4
14	13	Waterproofness [d]	all areas	n/a
15			After testing, maximum allowable residual deformation for crossmembers	6

NOTE 1 All dimensions are in accordance with ISO 668:1995.

NOTE 2 After testing, no dimensions are allowed to be outside the planes of the corner-castings.

[a] T is the tare of the container.

[b] Deformation should not affect security and door operation.

[c] These values do not apply for one door off operation.

[d] The container should allow no water ingress.

Pages 13 and 14

Change the numbering of Clause 5 and subclauses 5.1, 5.1.1, 5.1.2 and 5.2 to 6, 6.1, 6.1.1, 6.1.2 and 6.2, respectively.

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