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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  
ISO/TR 15070:1996/Amd.1:2005(E)

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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*.

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# 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 <sup>a</sup>	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 <sup>a</sup>	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 <sup>b,c</sup> 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 <sup>b</sup>	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.				
<sup>a</sup> $T$ is the tare of the container.				
<sup>b</sup> Deformation should not affect security and door operation.				
<sup>c</sup> 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 <sup>a</sup>	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 <sup>a</sup>	Dimensions check	Maximum allowable residual deformation mm
8	9	Rigidity (transverse)		
8.1			End frame <sup>b,c</sup> 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 <sup>b</sup>	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 <sup>d</sup>	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.

<sup>a</sup> *T* is the tare of the container.

<sup>b</sup> Deformation should not affect security and door operation.

<sup>c</sup> These values do not apply for one door off operation.

<sup>d</sup> 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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