Resolution A.737(18)

Adopted on 4 November 1993

AMENDMENTS TO THE INTERNATIONAL CONVENTION FOR SAFE CONTAINERS (CSC), 1972

THE ASSEMBLY

RECALLING article IX of the International Convention for Safe Containers (CSC), 1972, on the procedure for amending any part of the Convention,

HAVING CONSIDERED the amendments to the International Convention for Safe Containers (CSC), 1972, adopted by the Maritime Safety Committee at its sixty-first session and communicated to all Contracting Parties in accordance with paragraph 2(a) of article IX of that Convention,

1. ADOPTS, in accordance with paragraph 2(b) of article IX of the International Convention for Safe Containers (CSC), 1972, the amendments to the Convention and its annexes set out in the annex to the present resolution;

2. NOTES that, in accordance with paragraph 2(c) of article IX of the Convention, the said amendments shall enter into force 12 months after the date on which they are accepted by two thirds of the Contracting Parties;

3. REQUESTS the Secretary-General, in conformity with paragraph 2(b) of article IX of the Convention, to communicate the said amendments to all Contracting Parties for their acceptance.

Annex

AMENDMENTS TO THE INTERNATIONAL CONVENTION FOR SAFE CONTAINERS (CSC), 1972

1 Paragraphs 14 to 16 of article 11 (Definitions) are amended to read:

"14 Maximum operating gross mass or Rating or R means the maximum allowable sum of the mass of the container and its cargo. The letter R is expressed in units of mass. Where the annexes are based on gravitational forces derived from this value, that force, which is an inertial force, is indicated as Rg.

15 Tare means the mass of the empty container, including permanently affixed ancillary equipment.

16 Maximum permissible payload or P means the difference between maximum operating gross mass or rating and tare. The letter P Is expressed in units of mass. Where the annexes are based on the gravitational forces derived from this value, that force, which is an inertial force, is indicated as Pg."

New paragraphs 17 to 19 are added as follows

"17 The word load, when used to describe a physical quantity to which units may be ascribed signifies mass.

18 The word loading, for example, as in Internal loading, signifies force.

19 The letter 9 means the standard acceleration of gravity; g equals 9.8 m/s2."

2 Annex 1, subparagraph 1 (b) of regulation 1 is amended to read:

"(b) On each container, all maximum gross mass markings shall be consistent with the maximum gross mass information on the Safely Approval Plate."

Subparagraph 2(a) is amended to read:

"(a) The plate shall contain the following information in at least the English or French language":

"CSC SAFETY APPROVAL"

Country of approval and approval reference

Date (month and year) of manufacture

Manufacturer's identification number of the container or, in the case of existing containers for which that number is unknown, the number allotted by the Administration

Maximum operating gross mass (kg and Ibs)

Allowable stacking load for 1.8g (kg and Ibs)

Transverse racking test force (newtons)"

A new paragraph 5 is added as follows:

"5 A container, the construction of which was completed prior to .... *, may retain the Safety Approval Plate as permitted by the convention prior to that date as long as no structural modifications occur to that container."

3 Annex 1, subparagraphs 1 (c) and 1 (e) of regulation 9 are amended to read:

"(c) maximum operating gross mass capability;"

"(e) allowable stacking load for 1.8g (kg and Ibs); and"

4 Annex 1, subparagraphs (c) and (e) of regulation 10 are amended to read:

"(c) maximum operating gross mass capability;"

"(e) allowable stacking load for 1.8g (kg and Ibs); and"

* Date of entry into force of the amendments.

5 Annex 1, the fourth, fifth and sixth lines of the model of the Safety Approval Plate reproduced in the appendix are amended to read:

"MAXIMUM OPERATING CROSS MASS.........kg............lbs

ALLOWABLE STACKING LOAD FOR 1.8g..............kg............lbs

TRANSVERSE RACKING TEST FORCE...........newtons"

6 Annex 1, items 4 to 8 of the appendix are amended to read

"4 Maximum operating gross mass (kg and Ibs).

5 Allowable stacking load for 1.8g (k8 and Ibs)

6 Transverse racking test force (newtons).

7 End-wall strength to be indicated on plate only if end-walls are designed to withstand a force of less or greater than 0.4 times the Gravitational force by maximum permissible payload, I.e.0.4pg.

8 Side-wall strength to be indicated on plate only If the side-walls are designed to withstand a force of less or greater than 0.6 times the gravitational force by maximum permissible payload, i.e. 0.6 Pg."

7 The first sentence of the Introduction to annex 11 (Structural safes requirements and tests) Is amended to read:

"In setting the requirements of this annex, it is implicit that, in all phases of the operation of containers, the forces as a result of motion, location, stacking and gravitational effect of the loaded container and external forces will not exceed the design strength of the container."

8 Annex 11, section 1(A) - Lifting from corner fittings - the text concerning test loadings and applied forces is amended to read:

"TEST LOAD AND APPLIED FORCES

Internal load:

A uniformly distributed load such that the sum of the mass of container and test load is equal to If. In the case of a tank-container, when the test load of the internal load plus the tare is less than If, a supplementary load, distributed over the length of the tank, is to be added to the container.

Externally applied forces:

Such as to lift the sum of a mass of 2R in the manner prescribed (under the heading TEST PROCEDURES)."

9 Annex II, section 1(B) - Lifting by any other additional methods - is amended to read:

"TEST LOAD AND APPLIED FORCES

Internal load:

A Uniformly distributed load Such that the sum of the mass of container and test load is equal to 1.25R.

Externally applied forces:

Such as to lift the sum of a mass of 1.25R in the manner prescribed (under the heading TEST PROCEDURES).

Internal load:

A uniformly distributed load such that the sum of the mass of container and test load is equal to 1.25R. In the case of a tank-container, when the test load of the internal load plus the tare is less than 1.25R, a supplementary load, distributed over the length of the tank, is to be added to the container.

Externally applied forces:

Such as to lift the sum of a mass of 1.25R in the manner prescribed (under the heading TEST PROCEDURES).

TEST PROCEDURES

(i) Lifting from fork-lift pockets:

The contained shall be placed on bars which are in the same horizontal plane, one bar being centred within each fork-lift pocket which is used for lifting the loaded container The bars shall be of the same width as the forks intended to be used in the handling, and shall project into the fork-lift pocket 75%, of the length of the fork-lift pocket.

(ii) Lifting from grappler-arm positions:

The container shall be placed on pads in the same horizontal plane, one under each grappler-arm position. These pads shall be of the same sizes as the lifting area of tar grappler arms intended to be used.

(iii) Other methods:

Where containers are designed to be lifted in the loaded condition by any method no mentioned in (A) or (B)(i) and (ii) they shall also be tested with the internal load and externally applied forces representative of the acceleration conditions appropriate to that method."

10 Annex 11, paragraphs 1 and 2 of section 2 - STACKING - are amended to read:

"1 For conditions of international transport where the maximum vertical acceleration varies significantly from 1.8g and when the container is reliably and effectively limited to such conditions of transport, the stacking load may be varied by the appropriate ratio of acceleration.

2 On successful completion of this test, the container may be rated for the allowable superimposed static stacking load, which should be indicated on the Safely Approval Plate against the heading ALLOWABLE STACKING LOAD FOR 1.8g (kg and Ibs)."

11 Annex II, section 2 - STACKING - the text concerning test loadings and applied forces is amended to read:

"TEST LOAD AND APPLIED FORCES

Internal load:

A uniformly distributed load such that the sum of the mass of container and test load is equal to 1.8f Tank-containers may be tested in the tare condition.

Externally applied forces:

Such as to subject each of the four top corner fittings to a vertical downward force equal to 0.25 x 1.8 x the gravitational force of the allowable superimposed static stacking load."

12 Annex 11, section 3 - CONCENTRATED LOADS - is amended to read:

"TEST LOAD AND APPLIED FORCES   TEST PROCEDURES

(a) On roof

Internal load:

None.

Externally applied forces:

A concentrated gravitational force of 300 kg (660 lbs) uniformly distributed over an area of 600mm x 300mm(24in x 12in).

The externally applied forces shall be applied vertically downwards to the outer surface of the weakest area of the roof of the container.

(b) On floor

Internal load:

Two concentrated loads each of 2,730 kg (6,000 lbs) and each added to the container poor within a contact area of 142 cm2 (22 sq in). Externally applied forces: None."

The test should be made with the container resting on four level supports under its lour bottom corners in such a manner trial the base structure of the container is free to deflect.
A testing device loaded to a mass ol 5,460 kg (12,000 Ib5) that Is, 2,730 kg (6,000 Ibs) on each of two surfaces] having, when loaded, a total contact area of 284 cm2 (44 sq in) [that is,142 cm2 (22 sq in) on each surface], the surface width being 180 mm (7 in) spaced 760 mm (30 in) apart, centre to centre, should be manoeuvred over the entire floor area of the container

13 Annex II, the heading and subheading of section 4- TRANSVERSE RACKING - are amended to read respectively:

"TEST LOAD AND APPLIED FORCES" and "Internal load:"

14 Annex II, section 5 - LONGITUDINAL RESTRAINT (STATIC TEST) - the text concerning test loadings and applied forces is amended to read

"TEST LOAD AND APPLIED FORCES

Internal load:

A uniformly distributed load, such that the sum of the mass of a container and test load is equal to the maximum operating gross mass or rating f. In the case of a tank-container, when the mass of the internal load plus the tare is less than the maximum gross mass or rating, R, a supplementary load is to be added to the container

Externally applied forces:

Such as to subject each side of the container to longitudinal compressive and tensile forces of magnitude Rg, that is, a combined force of 2 Rg on the base of the container as a whole."

15 Annex II, the first paragraph of section 6 - END-WALLS - is amended to read:

"The end-walls should be capable of withstanding a force of not less than 0.4 times the force equal to gravitational force by maximum permissible payload. If, however, the end-walls are designed to withstand a force of less or greater than 0.4 times the gravitational force by maximum permissible payload, such a strength factor shall be indicated on the Safely Approval Plate in accordance with annex I, regulation 1 ."

16 Annex II, section 6- END-WALLS - the text concerning test loadings and applied forces is amended to read :

"TEST LOAD AND APPLIED FORCES

Internal load:

Such as to subject the inside of an end-wall to a uniformly distributed force of 0.4Pg or such other force for which the container may be designed.

Externally applied forces:

None."

17 Annex 11, the first paragraph of section 7 - SIDE-WALLS - is amended to read:

"The side-walls should be capable of withstanding a force of not less than 0.6 times the force equal to the gravitational force by maximum permissible payload. If, however, the side-walls are designed to withstand a force of less or greater than 0.6 times the gravitational force by maximum permissible payload, such a strength factor shall be Indicated on the Safety Approval Plate in accordance with annex I, regulation 1 ."

18 Annex II, section 7-SIDE-WALLS - the text concerning test loadings and applied forces is amended to read :

"TEST LOAD AND APPLIED FORCES

Internal load :

Such as to subject the inside of a side-wall to a uniformly distributed force of 0.6Pg or such other force for which the container may be designed.

Externally applied forces:

None."

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