



**Committee of Experts on the Transport of Dangerous Goods
and on the Globally Harmonized System of Classification
and Labelling of Chemicals****Sub-Committee of Experts on the Transport of Dangerous Goods****Forty ninth session**

Geneva, 27 June – 6 July 2016

Item 5 (b) of the provisional agenda

Transport of gases: miscellaneous**Insertion of references to ISO standards in 6.2.2****Transmitted by the International Organisation for Standardisation
(ISO)¹****Introduction**

1. The first proposal concerns two standards that are already referenced for UN welded cylinders and introduces them into the list of standards for UN pressure drums. A new standard is proposed for the sub-section on service equipment and the third proposal replaces an existing standard for periodic inspection and test with a new edition.

The titles of the standards are:

- ISO 4706:2008 Gas cylinders – Refillable welded steel cylinders – Test pressure 60 bar and below;
- ISO 18172-1:2007 Gas cylinders – Refillable welded stainless steel cylinders – Part 1: Test pressure 6 MPa and below;
- ISO 17871:2015 Gas cylinders — Quick-release cylinder valves — Specification and type testing;
- ISO 11623:2015 Gas cylinders – Composite construction – Periodic inspection and testing

The usual arrangements have been made with the secretariat to circulate PDF copies of

¹ In accordance with the programme of work of the Sub-Committee for 2015–2016 approved by the Committee at its seventh session (see ST/SG/AC.10/C.3/92, paragraph 95 and ST/SG/AC.10/42, para. 15).

these documents to the experts.

Proposal 1

2. Amend the beginning of the first sentence in 6.2.2.1.8 to read “The following standards ~~apply~~ ~~applies~~ for the design ...” and insert two new rows in the table after the entry for ISO 21172-1: 2015 as shown below.

ISO 4706: 2008	Gas cylinders – Refillable welded steel cylinders – Test pressure 60 bar and below;	Until further notice
ISO 18172-1:2007	Gas cylinders – Refillable welded stainless steel cylinders – Part 1: Test pressure 6 MPa and below	Until further notice

Justification for proposal 1

3. ISO 4706:2008 and ISO 18172:2007 both have scopes applying up to a water capacity of 500 litres. However, since they are currently listed only in 6.2.2.1.1 of the Model Regulations, their application for UN pressure receptacles is limited to 150 litres water capacity. These standards, unlike ISO 21172-1, which allows test pressures up to 300 bar, are limited to test pressures of up to 60 bar. Adding these standards increases the options for manufacturing UN pressure receptacles in the volume range of 150 to 500 litres water capacity and hence allows for economies to be realised for the smaller sizes of pressure drums, while still providing safe containment.

Proposal 2

4. In the table in 6.2.2.3 *Service equipment* insert a new final row reading as follows.

ISO 17871:2015	Gas cylinders – Quick-release cylinder valves – Specification and type testing	Until further notice
----------------	--	----------------------

Justification for proposal 2

5. This international standard in conjunction with ISO 10297:2014 and ISO 14246:2014 specifies design, type testing, marking and manufacturing tests, and examinations requirements for quick-release cylinder valves intended to be fitted to refillable transportable gas cylinders which convey non-toxic, non-oxidizing, and non-corrosive compressed or liquefied gases or extinguishing agents charged with compressed gases to be used for fire-extinguishing, explosion protection, and rescue applications.

6. The main application of such quick-release cylinder valves is in the fire-fighting industry. However, there are other applications such as to avalanche airbags, life raft inflation and similar applications. It is expected that there will be international transport of such valves and therefore the inclusion of such a valve type in the list of UN pressure receptacles is justified.

Proposal 3

7. In the table in 6.2.2.4 amend the entry for ISO 11623: 2002 and insert a new row for ISO 11623: 2015 as shown below. New text is shown underlined.

ISO 11623: 2002	Transportable gas cylinders – Periodic inspection and testing of composite cylinders	Until further notice <u>Until 31 December 2020</u>
<u>ISO 11623:2015</u>	<u>Gas cylinders – Composite construction – Periodic inspection and testing</u>	<u>Until further notice</u>

Justification for proposal 3

8. ISO 11623:2015 includes the following improvements:

- Updated terminology, particularly for the various types of composite cylinders;
- Updated normative references for steel and aluminium-alloy liner materials;
- Defects listed according to severity with an additional set of acceptance/rejection criteria;
- A new normative annex for the internal inspection of translucent composite cylinders;
- New photographs to provide sharper images of damage.

The standard transition period of four years for periodic inspection and testing standards is proposed.