



**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-eighth session**

Geneva, 30 November – 9 December 2015

Item 5 (b) of the provisional agenda

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

1. These proposals concern the introduction of two revised ISO standards and one new ISO standard into section 6.2.2. The titles are:

ISO 11118:2015 Gas cylinders Non-refillable metallic gas cylinders – Specification and test methods;

ISO 11120:2015 Gas cylinders – Refillable seamless steel tubes of water capacity between 150 l and 3000 l – Design, construction and testing; and

ISO 21172-1:2015 Gas cylinders – Welded steel pressure drums up to 3 000 litres capacity for the transport of gases – Design and construction – Part 1: Capacities up to 1 000 litres

The usual arrangements have been made with the secretariat to circulate PDF copies of these documents to the experts.

¹ Conformément au programme de travail du Sous-Comité pour la période 2015-2016 tel qu'approuvé par le Comité à sa septième session (voir ST/SG/AC.10/C.3/92, par. 95, et ST/SG/AC.10/42, par. 15).

Proposal 1

2. In the table in 6.2.2.1.1, amend the entry for ISO 11118: 1999 as shown below and insert a new row for ISO 11118: 2015. New text is underlined.

ISO 11118: 1999	Gas cylinders – Non-refillable metallic gas cylinders – Specification and test methods	Until further notice <u>Until 31 December 2020</u>
<u>ISO 11118: 2015</u>	<u>Gas cylinders – Non-refillable metallic gas cylinders – Specification and test methods</u>	Until further notice

In the table in 6.2.2.3, amend the entry for ISO 13340:2001 as shown below.

ISO 13340: 2001	Transportable gas cylinders – Cylinder valves for non-refillables cylinders – Specification and prototype testing	Until further notice <u>Until 31 December 2020</u>
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Justification for Proposal 1

3. ISO 11118:2015 updates the 1999 issue by excluding use with dissolved gases, aligning the burst pressure requirement with the United States of America standard DOT 39 for non-refillable cylinders, clarifying and adding to the requirements for obtaining the necessary metallurgical properties and aligning the marking with UN requirements. Also, the applicable valve standard ISO 13340:2001 has been incorporated into this cylinder standard. This necessitates setting an end date for manufacture according to the valve standard as shown above. The transition period for both standards is proposed as four years, instead of the usual six years. The reason for this is that integrating the two standards into one will be a significant step forward in safety. It will ensure that the valve to cylinder interface is type approved on the actual cylinder to valve combination; until now, this test was in the valve standard and so it only tested a combination believed to be representative of the cylinders to be used with the valve. ISO 13340 and this new standard require that the valve prevents refilling of the cylinder. Integrating the valve standard into the cylinder standard also eliminates the possibility of an ordinary refillable valve being fitted to a non-refillable cylinder which was conformity assessed without the valve.

Proposal 2

4. In the table in 6.2.2.1.2 amend the entry for ISO 11120: 1999 and insert a new row for ISO 11120: 2015 as shown below. New text is shown underlined

ISO 11120: 1999	Gas cylinders – Refillable seamless steel tubes for compressed gas transport, of water capacity between 150 l and 3 000 l – Design, construction and testing <i>NOTE: The note concerning the F factor in section 7.1 of this standard shall not be applied for UN tubes.</i>	Until further notice <u>Until 31 December 2022</u>
<u>ISO 11120: 2015</u>	<u>Gas cylinders – Refillable seamless steel tubes of water capacity between 150 l and 3 000 l – Design, construction and testing</u>	Until further notice

Justification for Proposal 2

5. ISO 11120:2015 has the following improvements:
- Liquefied gases are included in the scope;
 - Ultrasonic inspection of the base tubing before the manufacturing process is mandatory;
 - The permissible levels of phosphorus and sulphur in the steel have been reduced and nickel chrome molybdenum steel is permitted;
 - A type approval procedure has been added; and
 - The requirements for embrittling gases have been revised.

The standard six-year transition period is proposed.

Proposal 3

6. Following paragraph 6.2.2.1.7 insert the following new paragraph 6.2.2.1.8.

6.2.2.1.8 The following standard applies for the design, construction and initial inspection and test of UN pressure drums, except that inspection requirements related to the conformity assessment system and approval shall be in accordance with 6.2.2.5:

Reference	Title	Applicable for Manufacture
ISO 21172-1:2015	Gas cylinders – Welded steel pressure drums up to 3 000 litres capacity for the transport of gases – Design and construction – Part 1: Capacities up to 1 000 litres	Until further notice

Justification for Proposal 3

7. Pressure drums are one of the four types of pressure receptacle specified in P200, but until now, there has been no ISO standard covering their design construction and testing. Thus, this proposal fills a long-standing gap in the range of UN pressure receptacles. 16 countries including Australia, Brazil, Canada, China, France, Germany, India, Japan, Republic of Korea, South Africa, United Kingdom and United States of America approved this standard. There were no votes of disapproval and the 10 abstentions can be explained by the unavailability of relevant expertise in those ISO members.