

Economic Commission for Europe

Inland Transport Committee

Working Party on the Transport of Dangerous Goods

26 September 2023

Joint Meeting of the RID Committee of Experts and the
Working Party on the Transport of Dangerous Goods

Geneva, 19–27 September 2023

Item 5 (b) of the provisional agenda:

**Proposals for amendments to RID/ADR/ADN:
new proposals**

Proposal for amendment to packing instruction P200 in 4.1.4.1 of RID/ADR to permit the interval between the periodic inspection of LPG cylinders manufactured according EN 14140 to be extended from 10 to 15 years

Transmitted by Liquid Gas Europe

Summary

Executive summary:	Transitional measure 1.6.2.9 allows the competent authority (authorities) of the country (countries) where the periodic inspection and the carriage takes place to permit a period of 15 years between periodic inspections for EN 14140 LPG cylinders manufactured before the 1st January 2015. However 4.1.4.1 P200 (12) (1.3) does not currently list EN 14140 as a standard to which the period between periodic inspections may be consider to be extended from 10 to 15 years for cylinders manufactured from the 1st January 2015.
Action to be taken	Informal exchange of views on the inclusion of EN 14140 in 4.1.4.1 P200 (12) (1.3), ready for the preparation of a formal detailed proposal for the Spring session.
Related documents:	ECE/TRANS/WP.15/AC.1/2023/45, informal document INF.14 of the Autumn 2023 Joint Meeting

Background

1. The current edition of the ADR contains a transitional measure in paragraph 1.6.2.9, applicable to pressure receptacles and receptacles for Class 2, as follows: “The provisions of packing instruction P200 (10), special packing provision v of 4.1.4.1 applicable until 31 December 2010 may be applied by Contracting Parties to ADR to cylinders constructed before 1 January 2015.”

2. Therefore, the wording of the ADR 2009 applies to transitional measure 1.6.2.9. In the ADR 2009, the provisions of packing instruction 4.1.4.1 P200 (10), special packing provision ‘v’ are as follows:

“v: *The interval between inspections for steel cylinders may be extended to 15 years:*

(a) *With the agreement of the competent authority (authorities) of the country (countries) where the periodic inspection and the carriage take place; and*

(b) *In accordance with the requirements of a technical code or a standard recognised by the competent authority, or standard EN 1440:1996 “Transportable refillable welded cylinders for liquified petroleum gas (LPG) – Periodic requalification”.*

3. EN 14140 was first referenced in the ADR 2005 and is referenced in the ADR 2009 chapter 6.2.4 (both EN 14140:2003 and EN 14140:2003+A1:2006). EN 14140 is currently referenced in the ADR 2023 chapter 6.2.4 (latest version EN 14140:2014+AC:2015), but only cylinders manufactured before the 1st of January 2015 are allowed to have their periodic inspection interval extended to 15 years.

4. The standard EN 14140 was developed by CEN TC286, the same group of experts that developed EN 1442 (Transportable refillable welded steel cylinders for LPG - Design and construction). EN 14140 provides an equivalent level of safety and quality to those cylinders designed and manufactured in accordance with EN 1442. EN 14140 was first published in 2003 and has been subjected to several improvements by amendments, corrigenda and revisions, resulting in EN 14140:2014 + AC:2015, which is referenced in the ADR 2023.

5. A significant number of EN 14140 cylinders have entered service since 2009, with only those manufactured before the 1st of January 2015 allowed to be marked P15Y. A high number of EN 14140 cylinders manufactured between 2003 and 2008 have been allowed to have a 15-year period between periodic inspections and no safety issues have been recorded.

6. The current standard for inspection before, during and after filling is EN 1439:2021 (required by the ADR 4.1.4.1 P200 (12), 2, 2.1). EN 1439 requires that before cylinders are accepted for filling that they are inspected for bulges, dents, cuts, gouges, cracks, lamination, isolated corrosion pits, area corrosion, general corrosion, chain pitting or line or channel corrosion, crevice corrosion and other damage. There are specific requirements to check the foot-ring area for damage and corrosion. All external surfaces of the cylinder inspected during the periodic inspection are also inspected at the time of filling. Cylinders that are rejected at the time of filling due to the defects listed above are either scrapped or undergo rectification works before they can be returned to service.

7. Cylinder wall thicknesses are only checked at the time of their periodic inspection if damage or corrosion has occurred. The wall thickness of cylinders is not measured at the time of filling, as any corrosion must be rectified before the cylinder can be filled.

8. LPG of a quality mandated by 4.1.4.1 P200 (12) (2.5) does not cause internal corrosion in steel cylinders.

Draft proposal

9. Amend P200 (12) (1.3) in 4.1.4.1 as follows (new text is shown in bold, underlined):
“1.3 Cylinders manufactured since 1 January 1999 shall have been manufactured in conformity with the following standards:

- EN 1442; or
- **EN 14140; or**
- EN 13222-1; or
- Annex I, parts 1 to 3 to Council Directive 84/527/EEC

as applicable according to the table in 6.2.4.

Other cylinders manufactured before 1 January 2009 in conformity with ADR in accordance with a technical code accepted by the national competent authority may be accepted for a 15 year interval, if they are of equivalent safety to the provisions of ADR as applicable at the time of application ”.

10. If the Joint Meeting adopts the proposal within square brackets Liquid Gas Europe will submit a formal paper for the March 2024 session.