1 July 2020

## Agreement

Concerning the Adoption of Harmonized Technical United Nations Regulations for Wheeled Vehicles, Equipment and Parts which can be Fitted and/or be Used on Wheeled Vehicles and the Conditions for Reciprocal Recognition of Approvals Granted on the Basis of these United Nations Regulations\*

(Revision 3, including the amendments which entered into force on 14 September 2017)

Addendum 66 – UN Regulation No. 67

**Revision 5 - Amendment 2** 

Supplement 2 to 02 series of amendments – Date of entry into force: 29 May 2020

## Uniform provisions concerning the approval of:

- I. Specific equipment of vehicles of category M and N using liquefied petroleum gases in their propulsion system
- II. Vehicles of category M and N fitted with specific equipment for the use of liquefied petroleum gases in their propulsion system with regard to the installation of such equipment

This document is meant purely as documentation tool. The authentic and legal binding text is: ECE/TRANS/WP.29/2019/98 (as amended by paragraph 70 of the report ECE/TRANS/WP.29/1149).



## UNITED NATIONS

Agreement concerning the Adoption of Uniform Conditions of Approval and Reciprocal Recognition of Approval for Motor Vehicle Equipment and Parts, done at Geneva on 20 March 1958 (original version); Agreement concerning the Adoption of Uniform Technical Prescriptions for Wheeled Vehicles, Equipment and Parts which can be Fitted and/or be Used on Wheeled Vehicles and the Conditions for Reciprocal Recognition of Approvals Granted on the Basis of these Prescriptions, done at Geneva on 5 October 1995 (Revision 2).









<sup>\*</sup> Former titles of the Agreement:

Add a new paragraph 11.6. (transitional provisions), to read:

"11.6. As from 1 September 2022, Contracting Parties applying this Regulation may refuse the sale of a type of component which does not meet the requirements of the 02 series of amendments to this Regulation, unless the component is intended as a replacement for fitting on vehicles in use."

Annex 3

Paragraph 3., amend to read:

"3. Pressure relief valve (discharge valve) and components connecting the pressure relief valve with the gaseous phase inside the LPG container"

Paragraph 3.6., amend to read (inserting also a reference to existing footnote\*\*):

"3.6. Applicable test procedures:

Overpressure test Annex 16, para. 4.

...

Temperature cycle Annex 16, para. 16.\*\*

Test on non-metallic material inside a container Annex 16, para. 18.\*\*"

Paragraph 7., amend to read:

"7. Provisions regarding the approval of the pressure relief device (fuse) and components connecting the pressure relief device with the gaseous phase inside the LPG container."

Paragraph 7.6., amend to read (inserting also a new reference to existing footnote\*\*):

"7.6. Test procedures to be applied:

Overpressure test Annex 16, para. 4.

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Temperature cycles Annex 16, para. 16.\*\*

Test on non-metallic material inside a container Annex 16, para. 18.\*\*"

Annex 16, insert new paragraphs 18. to 18.3.2., to read:

"18. Test on non-metallic material inside a container

All components connecting the pressure relief valve and/or the pressure relief device with the gaseous phase in the LPG container shall be tested using the following procedure.

The tests shall be carried out on two samples, "a" and "b":

Sample "a" shall be aged according to paragraph 18.1.1. or 18.1.2.

The aged sample "a" shall undergo the vibration test according to paragraph 18.2.

The virgin sample "b" shall be used as a reference for the flow test according to paragraph 18.3.

- 18.1. Ageing tests on sample "a"
- 18.1.1. Ageing procedure 1 (component disassembled)
- 18.1.1.1 Disassemble, using instructions from the manufacturer, all non-metallic materials from the component in contact with the liquid LPG.
- 18.1.1.2. Age the non-metallic materials using the test description of Annex 16, paragraph 11.1.
- 18.1.1.3. Check compliance to Annex 16, paragraph 11.2.
- 18.1.1.4. Reassemble the aged non-metallic materials to the component using the instructions from the manufacturer.

- 18.1.2. Ageing procedure 2 (entire component)
- 18.1.2.1. Expose the entire component to n-Pentane according to Annex 16, paragraph 11.1.
- 18.1.2.2. Check compliance to Annex 16, paragraph 11.2.
- 18.2. Vibration test on aged sample "a"
- 18.2.1. Perform on the aged sample the vibration test in Annex 16, paragraph 10.5., procedures A or B. The sample shall comply with the test requirements in Annex 16, paragraph 10.5., procedure A or B.
- 18.3. Flow test with dummy tank to compare sample "a" and reference sample "b"
- 18.3.1. Perform for both samples the flow test according to paragraph 6.15.8.3. of this Regulation.
- 18.3.2. Requirements:

Both aged and non-aged samples "a" and "b" shall comply with the flow requirements as per paragraph 6.15.8.3. of this Regulation.

The non-metallic material of the samples "a" and "b" shall show no cracks, deformation or any visual damage."