(114th GRSG, 9–13 April 2018, Agenda item 6)

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# REPORT 1st meeting of the GRSG Task Force on "Gas-fueled vehicle regulations"

Venue: TÜV Rheinland HQ, Cologne

Chairman: Stefan Behrning (D) and Rolf Gerlach (D)

Secretariat: Helge Asmussen (D)
Dates: 06-07 Februray, 2018

### <u>1.</u> Participants:

see attachment

## 2. Welcome and Introduction

The chairman welcomed the delegates to the first meeting of the task group, and clarified the reason for and the targets of the task force. In addition, a secretary was chosen.

# 3. Approval of the agenda

The agenda was adopted and confirmed by the delegates without amendments.

# 4. <u>List of Documents:</u>

Task Force "Gas-fueled vehicle regulations"
ECE/TRANS/WP.29/GRSG/2017/16
ECE/TRANS/WP.29/GRSG/2017/17
ECE/TRANS/WP.29/GRSG/2017/29
GRSG-113-03
GRSG-113-18
GRSG-113-20

#### 6. Target of the meeting

The target of the meeting was to define essential periodic inspection requirements to be respected when installing gaseous fuel components into a vehicle, and to clarify the material requirements for components inside the LPG tank.

## 7. **Regulation No. 67 topics** [First day of the meeting: 06<sup>th</sup> February 18]

#### 7.1. Components inside the LPG tank – hose for multivalve

Before starting consideration, the content of the following documents was summarized briefly:

ECE/TRANS/WP.29/GRSG/2017/16 (German proposal – multivalve) GRSG-113-18 (OICA proposal – multivalve)

The following aspects were mentioned in the discussion as possible reasons for malfunction of the pressure release valve (PRV) and the pressure release device (PRD):

- As a result of the flow velocity the pressure inside the hose will decrease while the fluid pressure outside the hose will stays unchanged when PRV and PRD open. A hose not supported (for instance by a spring) may collapse due to the pressure difference.
- Due to a way of installation only providing support to the hose end connected to PRV and PRD but leaving the other hose end unsupported, vibrations may cause mechanical stress to the hose.
- The question was raised, if additions like compressor-oil, additives and odorisation agents to be found in LPG at the filling stations have to be taken into account when defining the requirements of a LPG compatibility test.

The expert from The Netherlands volunteered to suggest a test procedure taking into account the aspects above. The proposal will be provided to the members of the task force for further discussion. Transitional Provisions will be suggested in line with the provisions suggested regarding the protective housing.

Germany is going to hand in a new informal document in order to suggested GRSG new stipulations and transitional provisions for consideration. That new informal document is going to replace document ECE/TRANS/WP.29/GRSG/2017/16.

If agreement can be achieved in due time, aspects regarding hose material (7.1.) and aspects regarding protective housing (7.2.) are going to be combined in one informal document.

#### 7.2. Protective housing

Before starting consideration, the content of the following documents was summarized briefly:

ECE/TRANS/WP.29/GRSG/2017/16 (German proposal – protective housing) GRSG-113-18 (OICA proposal – protective housing)

Consensus was achieved that a complete inspection of all outer surfaces of the container (or the containers) without exhaustive dismantling is not possible. To increase visibility of the container/s

and other components is the best way to improve the decision making opportunities regarding the question if a more throughout inspection is needed.

It was generally agreed that corrosion is not starting in the area of the container covered by support straps.

An essential aspect of the proposal (new paragraph 17.1.6.1. below) is the distinction of **dismantling tools** and **devices helping to achieve better visibility** of container sections difficult to inspect. It was agreed that only a necessity to use dismantling tools, is not in line with the stipulations of EU Directive 2014/45/EU and Rule No. 2 of the 1997 Agreement.

I addition it was agreed that it is necessary to introduce a new series of amendments and to allow transitional provisions in the way mentioned in section 8 of this report regarding CNG container housings.

The task force agreed that the following paragraphs shall be submitted to GRSG for discussion. The representatives of ITA Automotive Service Association e. V. pointed out the need, to discuss and agree the proposals with their national partners.

#### Consent was achieved regarding the following wording:

Insert a new paragraph 17.1.6.1. to read:

"17.1.6.1. Notwithstanding the provisions of paragraph 17.1.6., it shall be possible to make an external inspection (e.g. for Periodic Technical Inspection) of the LPG-container and its accessories, when located outside the vehicle, with visual aids, e.g. lamps, mirrors or endoscopes, according to the specifications of the manufacturer, without the use of tools to dismantle."

Insert new transitional provisions to read:

- "22.6. As from the official date of entry into force of the 02 series of amendments, no Contracting Party applying this UN Regulation shall refuse to grant or refuse to accept UN type-approvals under this UN Regulation as amended by the 02 series of amendments.
- 22.7. As from 1 September [2020], Contracting Parties applying this UN Regulation shall not be obliged to accept UN type-approvals to the preceding series of amendments, first issued after 1 September [2020].
- 22.8. Until 1 September [2021], Contracting Parties applying this UN Regulation shall accept UN type-approvals to the preceding series of amendments, first issued before 1 September [2020].
- 22.9. As from 1 September [2021], Contracting Parties applying this UN Regulation shall not be obliged to accept type-approvals issued to the preceding series of amendments to this Regulation.

- 22.10. Notwithstanding paragraph 22.9., Contracting Parties applying the UN Regulation shall continue to accept UN type-approvals of the equipment/parts issued according to the preceding series of amendments to the UN Regulation.
- 22.11. Notwithstanding paragraph 22.9., Contracting Parties applying the UN Regulation shall continue to accept UN type-approvals issued according to the preceding series of amendments to the UN Regulation, for the vehicles/vehicle systems which are not affected by the changes introduced by the 02 series of amendments.
- 22.12. Contracting Parties applying this UN Regulation shall not refuse to grant UN typeapprovals according to any preceding series of amendments to this UN Regulation or extensions thereof."

Germany is going to hand in a new informal document in order to suggested GRSG new stipulations and transitional provisions for consideration. That new informal document is going to replace document ECE/TRANS/WP.29/GRSG/2017/16.

If agreement can be achieved in due time aspects regarding hose material (7.1.) and protective housing (7.2.) are going to be combined to one informal document.

## **<u>8.</u> Regulation No. 110 topic** [Second day of the meeting: 07<sup>th</sup> February 18]

#### Protective housing

Before starting consideration, the content of following documents was summarized briefly:

ECE/TRANS/WP.29/GRSG/2017/17 (German proposal protective housing)
ECE/TRANS/WP.29/GRSG/2017/29 (Italian proposal ogive protective covers at cylinder end)
GRSG-113-03 (NGV Global Information on CNG protective housing)
GRSG-113-20 (OICA proposal on periodical requalification)

Consensus was achieved that a complete inspection of all outer surfaces of the container (or the containers) without exhaustive dismantling is not possible. To increase visibility of the container/s and other components is the best way to improve the decision making opportunities regarding the question if a more throughout inspection is needed.

It was generally agreed that corrosion is not starting in the area of the container covered by support straps.

An essential aspect of the proposal (new paragraph 18.1.6.1. below) is the distinction of **dismantling tools** and **devices helping to achieve better visibility** of container sections difficult to inspect. It was agreed that only a necessity to use dismantling tools, is not in line with the stipulations of EU Directive 2014/45/EU and Rule No. 2 of the 1997 Agreement.

I addition it was agreed that it is necessary to introduce a new series of amendments and to allow transitional provisions.

It was discussed if a transitional provision allowing a Contracting Party or a regional organization of Contracting Parties like the European Union to denying first entry into service of old versions of protective housings shall be added. This aspect was not followed up.

The task force agreed that the following paragraphs shall be submitted to GRSG for discussion. The representatives of ITA Automotive Service Association e. V. pointed out the need, to discuss and agree the proposals with their national partners.

General consent (excluding the expert from Italy) was achieved regarding the following wording:

Add new paragraph 18.1.6.1.

"18.1.6.1. Notwithstanding the provisions of paragraph 18.1.6., it shall be possible to make an external inspection (e.g. for Periodic Technical Inspection) of the CNG container or LNG tank and their accessories, when located outside the vehicle, with visual aids, e.g. lamps, mirrors or endoscopes, according to the specifications of the manufacturer, without the use of tools to dismantle."

Insert new transitional provisions to read:

- "24.15. As from the official date of entry into force of the 03 series of amendments, no Contracting Party applying this UN Regulation shall refuse to grant or refuse to accept UN type-approvals under this UN Regulation as amended by the 03 series of amendments.
- 24.16. As from 1 September [2020], Contracting Parties applying this UN Regulation shall not be obliged to accept UN type-approvals to the preceding series of amendments, first issued after 1 September [2020].
- 24.17. Until 1 September [2021], Contracting Parties applying this UN Regulation shall accept UN type-approvals to the preceding series of amendments, first issued before 1 September [2020].
- 24.18. As from 1 September [2021], Contracting Parties applying this UN Regulation shall not be obliged to accept type-approvals issued to the preceding series of amendments to this Regulation.
- 24.19. Notwithstanding paragraph 22.9., Contracting Parties applying the UN Regulation shall continue to accept UN type-approvals of the equipment/parts issued according to the preceding series of amendments to the UN Regulation.
- 24.20. Notwithstanding paragraph 22.9., Contracting Parties applying the UN Regulation shall continue to accept UN type-approvals issued according to the preceding series of amendments to the UN Regulation, for the vehicles/vehicle systems which are not affected by the changes introduced by the 03 series of amendments.
- 24.21. Contracting Parties applying this UN Regulation shall not refuse to grant UN typeapprovals according to any preceding series of amendments to this UN Regulation or extensions thereof."

Germany is going to hand in a new informal document in order to suggested GRSG new stipulations and transitional provisions for consideration. That new informal document is going to replace document ECE/TRANS/WP.29/GRSG/2017/17.

## 9. Next meeting

No further meeting planned at the moment.