

UN Regulation No. 67 (LPG vehicles)

Draft proposal for Supplement x to the xx series of amendments

I. PROPOSAL

Insert new paragraphs from 2.21. to 2.23.2., to read:

"2.21. *"Type of multivalve"* means a multivalve which doesn't differ in respect to the following characteristics:

- a) the set of accessories,
- b) the material of the body,
- c) the dimensions of the body in the part responsible for proper operation of sealing between container and multivalve,
- d) the design and the material of PRV,
- e) the design and the material of fusible plug (if used),
- f) the location of PRV and fusible plug (temperature triggered) in relation to the axis of container boss (in case the valve opening direction of LPG propagation should remain unchanged),
- g) the design and the materials of other components or parts that may have a negative influence on the course of the bonfire test - if applicable,
- h) the design and the material of 80% stop valve.

2.21.1. *"Version of multivalve"* means a multivalve which are adopted for operate in different types of containers. Adaptation may concern of 80% stop valve, PRV piping inside of container, and other components if Technical Services responsible for conducting approval tests, considering that it is strictly necessary and does not deteriorate of safety of operation.

2.22. *"Type of PRV"* means PRV which doesn't differ in respect to the design and the material of PRV.

2.22.1. *"Version of PRV"* means PRV which are adopted for operating in different types of containers. Adaptation may concern of PRV piping inside of container, and other if technical unit considers that it is strictly necessary and does not deteriorate of safety of operation.

2.23. *"Fusible plug"* (temperature triggered) means the device to allow release LPG from the container in the case of fire.

2.23.1. *"Type of fusible plug"* means fusible plug which doesn't differ in respect to the design and the material.

2.23.2. *"Version of fusible plug"* means fusible plug which are adopted for operating in different types of containers if Technical Services responsible for conducting approval tests consider that it is strictly necessary and does not deteriorate safety of operation."

Annex 3, re-insert paragraphs 7. and 7.1., to read:

"7. Provisions regarding the approval of the fusible plug.

7.1. Definition: see paragraph 2.23. of this Regulation."

II. JUSTIFICATION

INTRODUCTION

This proposal concerns amendments to the UN Regulation No. 67 with regard to the area of definition of the LPG container type approved accessories. This correction is intended to facilitate the coordination of the approval of the LPG container and its approved accessories.

The proposal does not introduce any changes in technical requirements or changes in the test methodology. The proposed changes are intended to prevent the possibility of improper selection of accessories for the tank, which could arise due to lack of clear provisions of type-approval certificates issued for accessories fitted to the container.

PROBLEM DESCRIPTION

According to the UN Regulation No. 67 approval of the LPG container and its accessories are separate and independent type approval procedures. Thus, for each component there is issued an individual type-approval certificate.

However in the case of bonfire test, the LPG container type-approval process requires to check the behaviour of the container together with its accessories. The function of accessories is to empty the container fast enough to limit the maximum pressure and in this way to protect the container wall from bursting.

Approval of a set of accessories that can be fixed to the container is confirmed by the bonfire test positive results. This assures that the equipment has been properly selected for the LPG container size and construction. After this test it is possible to create a list of type approved accessories for specified container (Regulation No. 67, Annex 10, para 2.6).

Due to technical progress design of the container accessories is constantly changing. Therefore, research is carried out and new extensions of type-approvals are granted. The lack of type definition with respect to accessories creates possibility for introduction any technical changes to the previously approved products within the same type approval.

Therefore, it is acceptable to change the design of the components responsible for the safety of the container (PRV and thermal fuse) **after its approval as container accessories**. In formal terms, everything is under control. The new version of the accessories should not be installed to the container until there is introduced into the list of approved accessories of container.

The manufacturer is obliged to mark the product with the type approval number, but isn't obligate to mark it with the number of extension (Regulation No. 67, para 4.1). This means that holding in the hand a component approved according to Regulation No. 67 you can't be sure of the actual extension of approval.

Moreover, the same type of component may represent two or more devices of fundamentally different construction. They may also be approved as a two versions of the same type. The manufacturer is obliged to mark the product with the type and type approval number, but not with the version (Regulation No. 67, para 4.1).

By presenting these proposals we have intentions to specify clearly the limits of construction changes carried out in the framework of one type of approved devices, especially for the modifications, which are relevant for the approval of LPG container.