

PROPOSAL FOR DRAFT AMENDMENTS TO REGULATION No. 110

This document has been prepared in order to insert a new specific component “fuel rail” in the Regulation No. 110.

PROPOSAL:

Paragraph 2.2., insert new item (x), to read:

- "2.2. ...
(v) pressure relief device (PRD) (pressure triggered),
(x) fuel rail."

Insert a new paragraph 2.28., to read:

"2.28. **"Fuel rail"** means the pipe or duct that connects the fuel injection devices."

Paragraphs 6.4. to 6.11., amend the table to read:

"

Paragraph	Component	Annex
...
6.9.	Filling unit or receptacle	4F
6.10.	Gas flow adjuster and gas/air mixer, injector or fuel rail	4G
6.11.	Electronic control unit	4H

"

Insert a new paragraph 17.3.2.7., to read:

"17.3.2.7. Fuel rail."

Annex 1A, insert new items 1.2.4.5.17. to 1.2.4.5.17.6., to read:

- "1.2.4.5.17. **Fuel rail:** yes/no 1/
1.2.4.5.17.1. Make(s):
1.2.4.5.17.2. Type(s):
1.2.4.5.17.3. Description:
1.2.4.5.17.4. Working pressure: 2/..... kPa
1.2.4.5.17.5. Material:
1.2.4.5.17.6. Operating temperatures: 2/..... °C"

Annex 1B, insert new items 1.2.4.5.17. to 1.2.4.5.17.5., to read:

- "1.2.4.5.17. **Fuel rail:** yes/no 1/
1.2.4.5.17.1. Make(s):
1.2.4.5.17.2. Type(s):
1.2.4.5.17.3. Working pressure: 2/..... kPa
1.2.4.5.17.4. Material:"

1.2.4.5.17.5. Operating temperatures: 2/..... °C"

Items 1.2.4.5.17. to 1.2.4.5.17.5. (former), renumber as items 1.2.4.5.18. to 1.2.4.5.18.5.

Annex 2B, item 1., amend to read:

"1. CNG component considered:

....

PRD (pressure triggered) 2/

Fuel rail 2/"

Annex 2B, Addendum,

Insert new items 1.20. to 1.20.2., to read:

"1.20. **Fuel rail(s)**

1.20.1. Working pressure(s): 2/.....MPa

1.20.2. Material:"

Annex 4G, amend to read:

**"PROVISIONS REGARDING THE APPROVAL OF GAS FLOW ADJUSTER AND GAS/AIR MIXER,
GAS INJECTOR OR FUEL RAIL**

1. The purpose of this annex is to determine the provisions regarding the approval of the gas flow adjuster and gas/air mixer, gas injector **or fuel rail**.

2. Gas/air mixer, gas injector **or fuel rail**.

2.1. The material constituting the gas/air mixer, gas injector **or fuel rail** which is in contact with CNG shall be compatible with the CNG. In order to verify this compatibility, the procedure specified in Annex 5D shall be used.

2.2. The gas/air mixer, gas injector **or fuel rail** shall conform to the requirements of Class 1 or 2 components, according to their Classification.

2.3. Test pressures

2.3.1. The gas/air mixer, gas injector **or fuel rail** of Class 2 shall withstand a pressure twice the working pressure.

2.3.1.1. The gas/air mixer, gas injector **or fuel rail** of Class 2 shall be free from leakage at a pressure twice the working pressure.

2.3.2. The gas/air mixer, gas injector **or fuel rail** of Class 1 and Class 2 shall be so designed to operate at temperatures as specified in Annex 5O.

2.4."

JUSTIFICATION

Fuel rail is one of the most used gas components of LPG and CNG systems with gas injection. The ECE Regulation No. 67.01 considers the fuel rail as specific component which is subject to type approval. However, ECE Regulation No. 110.00 does not include the term "fuel rail", even though this single component (regardless of fuel injectors) is being approved and inaccurately formally marked (e.g. as "injector" etc.).

This proposal intends to align the above cited disproportion.
