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**INLAND TRANSPORT COMMITTEE**

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Item 4.2.50. of the provisional agenda

**PROPOSAL FOR SUPPLEMENT 6 TO REGULATION No. 110**

(Specific components for CNG)

Submitted by the Working Party on Pollution and Energy (GRPE)

Note: The text reproduced below was adopted by GRPE at its fifty-second session. It is based on document ECE/TRANS/WP.29/GRPE/2006/11, as amended by paragraph 37 of the report. It is transmitted to WP.29 and AC.1 for consideration and vote (ECE/TRANS/WP.29/GRPE/52, para. 37).

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<http://www.unece.org/trans/main/welcwp29.htm>

Annex 5, paragraph 2., amend to read:

"2. Applicable test procedures:

In table 5.1 below the applicable test procedures dependent on the classification are shown.

Table 5.1

Test	Class0	Class 1	Class 2	Class 3	Class 4	Paragraph
Overpressure or strength	X	X	X	X	O	5A
External leakage	X	X	X	X	O	5B
Internal leakage	A	A	A	A	O	5C
Durability tests	A	A	A	A	O	5L
CNG compatibility	A	A	A	A	A	5D
Corrosion resistance	X	X	X	X	X	5E
Resistance to dry heat	A	A	A	A	A	5F
Ozone ageing	A	A	A	A	A	5G
Burst/destructive tests	X	O	O	O	O	5M
Temperature cycle	A	A	A	A	O	5H
Pressure cycle	X	O	O	O	O	5I
Vibration resistance	A	A	A	A	O	5N
Operating temperatures	X	X	X	X	X	5O

X = Applicable

O = Not applicable

A = As applicable

Remarks:

- (a) Internal leakage: Applicable if the Class of the component consists of internal valve seats that are normally closed during engine "OFF" condition.
- (b) Durability test: Applicable if the Class of the component consists of integral parts that will move repeatedly during engine operation.
- (c) CNG compatibility, resistance to dry heat, ozone ageing: Applicable if the class of the component consists of synthetic / non-metallic parts.
- (d) Temperature cyclic test: Applicable if the class of the component consists of synthetic / non-metallic parts.
- (e) Vibration resistance test: Applicable if the Class of the component consists of integral parts that will move repeatedly during engine operation.

The materials used for the components shall have written specifications .....

Annex 5A, paragraph 1., amend to read:

"OVER PRESSURE TEST (STRENGTH TEST)

1. A CNG containing component shall withstand without any visible evidence of rupture or permanent distortion a hydraulic pressure of 1.5-2 times the maximum working pressure during minimal 3 minutes at room temperature with the outlet of the high-pressure part plugged. Water or any other suitable hydraulic fluid may be used as a test medium."

Annex 5E, amend to read:

"CORROSION RESISTANCE TEST

Test procedures:

1. A metal CNG containing component shall comply with the leakage tests mentioned in annexes 5B and 5C and after having been submitted to 144 hours salt spray test according to ISO 15500-2, with all connections closed.
2. A copper or brass CNG containing component shall comply with ....."

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