

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.
- (f) **Compatibility with heat exchange fluids of non-metallic parts: Applicable, if the Class of the components consists out of material in contact with the heat exchange fluid."**

Annex 5Q, Figure 1-2, amend to read (also inserting a new row):

"Figure 1-2 Tests applicable to specific classes of components (excluding **CNG cylinders and LNG tank**)

Test	Class 0	Class 1	Class 2	Class 3	Class 4	Class 5	Class 6	Annex
Overpressure or strength	X	X	X	X	O	X	X	5A
External leakage	X	X	X	X	O	X	X	5B
Internal leakage	A	A	A	A	O	A	A	5C
Durability tests	A	A	A	A	O	A	A	5L
CNG/LNG compatibility	A	A	A	A	A	A	A	5D
Corrosion resistance	X	X	X	X	X	A	X	5E
Resistance to dry heat	A	A	A	A	A	A	A	5F
Ozone ageing	A	A	A	A	A	A	A	5G
Burst/destructive tests	X	O	O	O	O	A	X	5M
Temperature cycle	A	A	A	A	O	A	A	5H
Pressure cycle	X	O	O	O	O	A	X	5I
Vibration resistance	A	A	A	A	O	A	A	5N
Operating temperatures	X	X	X	X	X	X	X	5O
LNG low temperature	O	O	O	O	O	X	O	5P
Compatibility with heat exchange fluids of non-metallic parts	A	A	A	A	A	A	A	5Q
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II. Justifications

1. Currently, the test requirement "Compatibility with heat exchange fluids of non-metallic parts" Annex 5Q is part of UN Regulation No. 110. In Annex 4D, the wording "Compatibility with heat exchange fluids" is used but there is no reference to the applicable tests.
 2. In Annex 4I, the component "LNG heat exchanger – vaporizer" consist out of material in contact with the heat exchange fluid. Therefore, reference to this Annex 5Q should be made.
 3. Also in the general overview Figure 1-2, with all tests from Annex 5, and Table 5.1 in Annex 5 does not have any reference to the mentioned test, already present in the current revision of UN Regulation No. 110.
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