

PROPOSAL FOR A CORRIGENDUM TO REGULATION NO. 110

“Specific components for CNG”

Transmitted by the expert from ENGVA

A. PROPOSAL.

ANNEX 3.

Annex 3 should be amended in order to take account of the final version of International Standard ISO 11439:2000 (2000-09-15) “Gas cylinders-High pressure cylinders for on-board storage of natural gas as a fuel for automotive vehicles”.

Paragraph 17.10.2; amend to read:

Vehicles with more than one fuel system shall have a fuel selection system to ensure that no more than one fuel at the same time is supplied to the engine during more than 5 seconds. “Dual-fuel” vehicles, using the introduction of diesel as a ‘pilot’ fuel to ignite the air/gas mixture are allowed.

B JUSTIFICATION OF A.

Annex 3.

It is essential that the accepted ISO standard and Regulation no. 110 are consistent.

Paragraph 17.10.2.

The way the present draft is written it would exclude vehicles using dual fuel systems. Dual fuel technology uses diesel and natural gas mixed in varying amounts and is an established and proven technology, supported with continuous development over the past two decades. Typically the replacement of diesel fuel by natural gas is in the order of 60 to 80 % or more, reducing the levels of pollution associated with diesel vehicles. The engine’s original diesel cycle and compression ratio are retained (as opposed to being converted to an Otto cycle engine) making the conversion relatively easy and economical but using less expensive, cleaner burning natural gas. Because dual fuel engines operate interchangeably on natural gas and diesel, they provide fuel flexibility in the event a natural gas fuelling supply is unavailable.

C. OTHER CORRECTIONS.

1) At several places the text speaks of *gas/air mixer (carburettor or injector(s))*.
A carburettor is a mixing device operating such that the air flow through it automatically sucks in the gas.

An injector is not a mixer; it is only introducing gas into the combustion air (central/multipoint in the manifold or directly in the cylinder).

It is not allowed to use the same expression (gas/air mixer) for two different functions.

It is proposed to use *gas supply device* instead of *gas/air mixer*.

The pages refer to the 'word' version of TRANS/WP.29/704.

Page 3: 2.2 f; replace by *gas supply device (carburettor or injector(s))*.

Page 7: 2.17; replace by 2.17 "Gas supply device".

2.17.1 "Carburettor": device by which a gas/air mixture is prepared by the suction effect of air.

2.17.2 "Injector": device by which gas is introduced into the combustion air by overpressure.

Page 11: 6.10; replace by *Gas flow adjuster and carburettor or injector*.

Page 17: 17.3.1.9; replace by *Gas supply device (carburettor or injector(s))*.

Page 24: 1.2.4.5.3; replace by *Carburettor: yes/no*

Page 25: 1.2.4.5.5; replace by *Injector(s): yes/no*

Page 29: 1.2.4.5.3; replace by *Carburettor: yes/no*

Page 30: 1.2.4.5.5; replace by *Injector(s): yes/no*

Page 35: 1.; replace *Gas/air mixer (injector(s))* by *Carburettor 2/*

Page 35: 1.; replace *Gas/air mixer (carburettor)* by *Injector(s) 2/*

Page 38: 1.13; replace *Gas/air mixer (injector(s))* by *Carburettor*

Page 38: 1.14; replace *Gas/air mixer (carburettor)* by *Injector(s)/*

Page 128; replace *gas/air mixer* by *carburettor (8 times)*.

2) Page 9: 4.3 (e); replace *weight* by *mass*.

Page 16: 17.1.7.1; replace *17.1.8* by *17.1.7*.

Page 17: 17.1.7.2; replace *17.1.8.1* by *17.1.7.1*.

Page 20: 17.5.5.5; add the following text:

In this circumstances a leak may be accepted not exceeding 100 cm³ per hour.

Page 63: Table 6.3; Column CNG-1, change *450* into *45*.

Page 84: A.10; replace *cc/hr* by *cm³/h*.

Page 121: 3.5.3.2 et 3.5.3.3: the sentences *No leakage is allowed* which means an infinitive test duration must be replaced by: *The leakage through the wall of the hose shall not exceed 95 cm³ per metre of hose per 24 h* (see also Page 116: 2.5.1.3).

3) Translation errors in the French text (“pdf” version).

Page 5: 2.3.1; GNC – 4 instead of CNG – 4.

Page 5: 2.5; add the word “combinés” at the end (soit indépendants, soit combinés).

Page 6: 2.9; Exchange “soupape de contrôle” or “soupape antiretour” by “clapet antiretour” and also at each place where the expression is used.

Page 33: 1.2.4.5.15; GNC instead of CNG.

Page 39: At the end of the 3rd line of the 1st paragraph: GNC instead of GNCL; at the 4th line : règlement 110 instead of 67.

Page 40: GNC instead of GPL.

Page 69: GNC instead of CNG.

Page 84: 11.1; “ ne dépassant pas 6mm de hauteur” remove “ne...pas”.

Page 116: 2 lines before the bottom of the page: GNC instead of CNG.

Page 150: last line; read “Les lettres CNG (and not GNC) doivent être centrées”.
