

Joined proposal India and EC to amend base documentEPPR-07-04e with respect to the test hierarchy in Test Type IV.

Amend the draft proposal as follows:

2.

Scope

Light two- and ~~three-~~wheeled vehicles equipped with a propulsion unit equipped with a PI engine complying with in accordance with table B.1.-1 a ~~positive ignition engine, cfr table B.1. 1~~

2. General scope test types III and IV with regard to the propulsion unit of light two and three-wheeled vehicles

	Vehicle with PI engines including hybrids									[Vehicles with CI engines including hybrids]		[Pure electric vehicle or vehicle propelled with compressed air (CA)]	[Hydrogen Fuel cell vehicle]
	Mono-fuel				[Bi-fuel]			[Flex-fuel]		[Flex-fuel]	[Mono-fuel]		
	Petrol	LPG	NG/Biomethane	H ₂	[Petrol]	[Petrol]	[Petrol]	[Petrol]	[NG/Biomethane]	[Diesel]	[Diesel]		
[LPG]					[NG/Biomethane]	[H ₂]	[Ethanol (E85)]	[H ₂ NG]	[Biodiesel]				
Type III test	Yes	Yes	Yes	Yes	[Yes]	[Yes]	[Yes]	[Yes]	[Yes]	[Yes]	[Yes]	[No]	[No]
Type IV test	Yes	No	No	No	[Yes (petrol only)]	[Yes (petrol only)]	[Yes (petrol only)]	[Yes (petrol only)]	[No]	[No]	[No]	[No]	[No]

Table B.1.-1: Scope with regard to propulsion unit

Supplement definition 3.16

3. Definitions

The following definitions shall apply:

[...]

3.16 'mono-fuel gaseous vehicle' means a vehicle that is designed primarily for permanent running on LPG or NG / bio methane or hydrogen, but may also have a petrol system for emergency purposes or starting only, where the petrol tank does not contains more than 2 litres in the case of a two-wheeled moped, a two-wheeled motorcycle [and a tricycle and 3 litres in the case of a three-wheeled moped and a motorcycle with sidecar].

B.3. Test type IV requirements: evaporative emissions

1. Introduction – evaporative and permeation emissions

- 1.1. To allow for the large variation of vehicle types and sizes and also to allow for the differing requirements from various regions, the evaporative emission test procedures shall be available as different classes. This ranges from the simplest [permeation test for a non-metallic fuel storage tank](#), requiring minimum equipment and effort, to a [more complex fuel storage and delivery system evaporative emission test procedure and finally to the most comprehensive whole vehicle evaporative emission test procedure](#) requiring [a chassis dynamometers](#) and a SHED [laboratory](#).
- 1.2. The test procedure in Annex B.3.1. sets out the procedure for testing the permeability of a non-metallic fuel storage tank.
- 1.3. The evaporative emission test procedures laid down in Annexes B.3.2. ~~and B.3.3.~~ set out [the test methods](#) for the determination of the loss of hydrocarbons by [evaporation-permeation](#) from the fuel [storage and supply](#) systems of [the](#) vehicles equipped with a propulsion [unit](#) type that uses volatile, liquid fuel.
- [1.4. The procedure laid down in Annex B.3.3. sets out the evaporative hydrocarbon emission determination requirements of the whole vehicle and it is therefore the most comprehensive test methodology.](#)

2. General requirements

- 2.1. The vehicle manufacturer shall prove [to the technical service and to the satisfaction of the approval authority] that the fuel storage and supply system are leak-tight.
- 2.2. The fuelling system tightness shall comply with the requirements referred to in ISO xx.xx:yyyy
- 2.3. The following three classes of [harmonised](#) type IV testing ~~shall be defined~~ [are listed in hierarchical order as follows](#):
 - ~~3.2.3.1.~~ Class A; the test procedure in Annex B.3.1 sets out the permeability test procedure of a non-metallic fuel storage [as a component](#);
 - 2.3.2. Class B; the test procedure in Annex B.3.2 sets out the permeation test procedures of the fuel storage [of](#) and supply [to the propulsion unit as a](#) systems.
 - 2.3.3. Class C;
The SHED test is described in Annex B.3.3. and sets out the evaporative emission test procedure for a [whole](#) vehicle:
- 2.4. Test hierarchy and obligations of contracting parties
Each class shall consist of one or more tests, which are listed in Table B.3.-1, together with the SHED type required for the tests, if any.

2.4.1.

Test <u>procedure</u>	Evaporative emissions class			SHED type
	A	B	C	
<u>Fuel storage</u> p Permeability test <u>of a non-metallic fuel storage tank as component</u>	✓			
<u>Fuel storage and supply system</u> P ermeation test <u>of the fuel storage and supply system</u>		✓		
SHED test <u>of the whole vehicle</u> , short diurnal test (fuel temp. change)			✓	S _{fv} ⁽¹⁾
SHED test <u>of the whole vehicle</u> , hot soak loss test			✓	S _{fv} ⁽¹⁾
Comments: (1) S _{fv} Fixed volume SHED SHED Sealed Housing for Evaporative Determination The fixed volume SHED is the minimum requirement. The tests may be carried out in a variable volume SHED.				

Table B.3.-1

- ~~2.4.2. A vehicle that has been tested in a class C evaporative emission test is exempted from the classes A and B evaporative emission test requirements. A fuel storage and supply system tested according to the class B evaporative emission test is exempted from the class A evaporative emission test type.~~
- ~~2.4.3. A contracting party may apply the class A, B or C evaporative emission test procedure in its territory, but is not obliged to accept:~~
- ~~2.4.3.1. Classes A and B evaporative emission test results if the contracting party applies class C evaporative emission test requirements in its territory;~~
- ~~2.4.3.2. Class A evaporative emission test results if the contracting party applies class B or C evaporative emission test requirements in its territory.~~
- ~~2.4.4. Class C evaporative emission test results shall be accepted by all contracting parties independent of the test class applicable in its territory.~~
- 2.4.2. A two-wheeled motorcycle, [a motorcycle with sidecar and a tricycle] shall be tested according to the class C evaporative emission test procedure.
- 2.4.3. For any other type of vehicle in the scope of this GTR, the Contracting Party may decide to apply one test procedure only from the three listed evaporative emission test procedure classes for the [approval] / [certification] of a vehicle, which are

laid down in point 2.3.

2.4.4.

The Contracting Parties shall accept test reports for the [approval] / [certification] of a vehicle according to the following table setting out the test hierarchy:

<u>Type IV test class mandated by the Contracting Party for the whole vehicle in its territory:</u>	<u>Compliance to type IV test class to be accepted by the Contracting Party for the whole vehicle:</u>
<u>A</u>	<u>A / B / C</u>
<u>B</u>	<u>B / C</u>
<u>C</u>	<u>C</u>

.... [points 3 to 7 remain unchanged]