

Task Force 2 – Receptacles

Recommendation for Part I: Statement of technical rationale and justification

E. Rationale for paragraph 5

2. Vehicle fuel system requirements and safety needs

(a) In-use requirements

<Proposal>

(i) The fuelling receptacle rationale for paragraphs 5.2.1.1

76. The fuelling receptacle shall be designed to ensure that the fuelling pressure is appropriate for the vehicle storage system. Examples of receptacle designs can be found in ISO 17268 and SAE J2600. A label shall be affixed close to the fuelling receptacle to inform the fueller/driver/owner of the type of fuel (liquid or gaseous hydrogen), NWP, and date for removal of the storage containers from service. Contracting parties may specify additional labelling requirements.

<GTR13 Original>

(i) Fuelling receptacle rationale for paragraphs 5.2.1.1

76. The vehicle fuelling receptacle should be designed to ensure that the fuelling pressure is appropriate for the vehicle storage system. Examples of receptacle designs can be found in ISO 17268, SAE J2600 and SAE J2799. A label shall be affixed close to the fuelling receptacle to inform the fueller/driver/owner of the type of fuel (liquid or gaseous hydrogen), NWP, and date for removal of storage containers from service. Contracting parties may specify additional labelling requirements.

Recommendation for Part II: Text of the regulation

5. Performance requirements

5.2 Vehicle fuel system

5.2.1.1 Fuelling receptacle requirements

(figure xx: Annex B of ISO 17268, figure yy: Annex F of DIS 17268)

<Proposal>

5.2.1.1.1 The fuelling receptacle shall prevent reverse flow to the atmosphere. Test procedure is by visual inspection. The geometry of the fuelling receptacle shall be designed as specified in figure xx and yy. **Alternatively, another design can be chosen if the receptacle geometry**

design provides, at a minimum, the same level of safety and interoperability as the design shown in ISO 17268. In that case it shall also be ensured, e.g., by additional means, that fueling with a higher NWP nozzle cannot be made with lower NWP receptacle designs.

5.2.1.1.2 A label shall be affixed close to the fuelling receptacle; for instance inside a refilling hatch, showing the following information: fuel type, NWP, date of removal from service of containers.

5.2.1.1.3 The receptacle shall be protected from tampering and the ingress of dirt and water (e.g. installed in a compartment which can be locked). Test procedure is by visual inspection.

5.2.1.1.4 The fuelling receptacle shall not be mounted within the external energy absorbing elements of the vehicle (e.g. bumper) and shall not be installed in the passenger compartment, luggage compartment and other places where hydrogen gas could accumulate and where ventilation is not sufficient. Test procedure is by visual inspection.

Regarding the “ISO 17268-2019” to “ISO 17268.” Our understanding is that the GTR13 must reference ISO documents with a year or version. Can someone confirm?

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5.2.1.1.1 A compressed hydrogen fuelling receptacle shall prevent reverse flow to the atmosphere. Test Procedure is visual inspection.

5.2.1.1.2 Fuelling receptacle label A label shall be affixed close to the fuelling receptacle; for instance inside a refilling hatch, showing the following information: fuel type, NWP, date of removal from service of containers.

5.2.1.1.3 The fuelling receptacle shall be mounted on the vehicle to ensure positive locking of the fuelling nozzle. The receptacle shall be protected from tampering and the ingress of dirt and water (e.g. installed in a compartment which can be locked). Test procedure is by visual inspection.

5.2.1.1.4 The fuelling receptacle shall not be mounted within the external energy absorbing elements of the vehicle (e.g. bumper) and shall not be installed in the passenger compartment, luggage compartment and other places where hydrogen gas could accumulate and where ventilation is not sufficient. Test procedure is by visual inspection.