
Changes to legislation: There are outstanding changes not yet made to Regulation (EC) No 79/2009 of the European Parliament and of the Council. Any changes that have already been made to the legislation appear in the content and are referenced with annotations. (See end of Document for details) View outstanding changes

ANNEX VI

Requirements for the installation of hydrogen components and systems

1. The hydrogen system must be installed in such a way that it is protected against damage.

It must be isolated from heat sources in the vehicle.

2. The hydrogen container may only be removed for replacement with another hydrogen container, for the purpose of refuelling or for maintenance.

In the case of an internal combustion engine, the container must not be installed in the engine compartment of the vehicle.

It must be adequately protected against all kinds of corrosion.

3. Measures must be taken to prevent misfuelling of the vehicle and hydrogen leakage during refilling and to make sure that the removal of a removable hydrogen storage system is done safely.
4. The refuelling connection or receptacle must be secured against maladjustment and protected from dirt and water. The refuelling connection or receptacle must be integrated with a non-return valve or a valve with the same function. If the refuelling connection is not mounted directly on the container, the refuelling line must be secured by a non-return valve or a valve with the same function which is mounted directly on or within the container.
5. The hydrogen container must be mounted and fixed so that the specified accelerations can be absorbed without damage to the safety related parts when the hydrogen containers are full.
6. The hydrogen fuel supply lines must be secured with an automatic shut-off valve mounted directly on or within the container. The valve shall close if a malfunction of the hydrogen system so requires or any other event that results in the leakage of hydrogen occurs. When the propulsion system is switched off, the fuel supply from the container to the propulsion system must be switched off and remain closed until the system is required to operate.
7. In the event of an accident, the automatic shut-off valve mounted directly on or within the container shall interrupt the flow of gas from the container.
8. Hydrogen components, including any protective materials that form part of such components, must not project beyond the outline of the vehicle or protective structure. This does not apply to a hydrogen component which is adequately protected and no part of which is located outside this protective structure.
9. The hydrogen system must be installed in such a way that it is protected against damage so far as is reasonably practicable, such as damage due to moving vehicle components, impacts, grit, the loading or unloading of the vehicle or the shifting of loads.
10. Hydrogen components must not be located near the exhaust of an internal combustion engine or other heat source, unless such components are adequately shielded against heat.

Changes to legislation: There are outstanding changes not yet made to Regulation (EC) No 79/2009 of the European Parliament and of the Council. Any changes that have already been made to the legislation appear in the content and are referenced with annotations. (See end of Document for details) [View outstanding changes](#)

11. The ventilating or heating system for the passenger compartment and places where leakage or accumulation of hydrogen is possible must be designed so that hydrogen is not drawn into the vehicle.
12. In the event of an accident, it must be ensured so far as is reasonably practicable that the pressure relief device and the associated venting system remain capable of functioning. The venting system of the pressure relief device must be adequately protected against dirt and water.
13. The passenger compartment of the vehicle must be separated from the hydrogen system in order to avoid accumulation of hydrogen. It must be ensured that any fuel leaking from the container or its accessories does not escape to the passenger compartment of the vehicle.
14. Hydrogen components that could leak hydrogen within the passenger or luggage compartment or other non-ventilated compartment must be enclosed by a gas-tight housing or by an equivalent solution as specified in the implementing measures.
15. Electrically operated devices containing hydrogen must be insulated in such a manner that no current passes through hydrogen containing parts in order to prevent electric sparks in the case of a fracture.

Metallic components of the hydrogen system must have electrical continuity with the vehicle's earth.

16. Labels or other means of identification must be used to indicate to rescue services that the vehicle is powered by hydrogen and that liquid or compressed (gaseous) hydrogen is used.

Changes to legislation:

There are outstanding changes not yet made to Regulation (EC) No 79/2009 of the European Parliament and of the Council. Any changes that have already been made to the legislation appear in the content and are referenced with annotations.

[View outstanding changes](#)

Changes and effects yet to be applied to the whole legislation item and associated provisions

- Signature words omitted by [S.I. 2022/1273 reg. 52\(8\)](#)
- Art. 2(1) words substituted by [S.I. 2022/1273 reg. 52\(2\)](#)
- Art. 11(1)(a) words omitted by [S.I. 2022/1273 reg. 52\(4\)\(a\)\(iv\)](#)
- Art. 11(3)(a) words omitted by [S.I. 2022/1273 reg. 52\(4\)\(c\)\(iv\)](#)
- Art. 12(e) word omitted by [S.I. 2022/1273 reg. 52\(5\)\(b\)](#)