

SCHEDULE 12

VEHICLES PROPELLED BY COMPRESSED NATURAL GAS SYSTEMS

Gas containers

2.—(1) This paragraph applies to any container for gas which is fitted to a motor vehicle or a trailer and which is intended for the storage of natural gas for the purpose of the propulsion of the vehicle or of the towing vehicle, as the case may be.

(2) Before its first use on a vehicle, every gas container must be pressure tested by an accredited testing laboratory at a pressure of 1.5 times the working pressure of the gas container.

(3) The pressure test must be carried out in accordance with the procedure set out in paragraph 4.7 of BS 5430 : Part I : 1990 or, where an equivalent procedure has been specified by the manufacturer, in accordance with that procedure.

3.—(1) The owner of any vehicle (or, if it is in the possession of a different person, that person) must ensure that any gas container used on that vehicle is subject to a periodic test by an accredited testing laboratory every three years, or with such greater frequency as the manufacturer specifies.

(2) The periodic test must include—

- (a) the pressure test specified in paragraph 2, and
- (b) an internal and external visual inspection carried out in accordance with paragraph 4.4.2 and 4.4.3 of BS 5430 : Part I : 1990 or, where an equivalent procedure has been specified by the manufacturer, in accordance with that procedure.

(3) Nothing in sub-paragraph (1) affects the obligation imposed by regulation 100 of the Construction and Use Regulations.

4.—(1) A gas container must—

- (a) be suitable to be fitted to the vehicle to which it is fitted and be constructed from suitable materials;
- (b) be capable of containing natural gas operating at a working pressure of 200 bar settled at 15°C with a maximum filling pressure of 260 bar;
- (c) be free from any visible damage or defect and not have been the subject of any alteration or repair subsequent to its manufacture;
- (d) be fitted with a manually operable isolation valve and a pressure relief device (but may in addition be fitted with an electrically operable isolation valve);
- (e) be used for no more than 30 years from the date of manufacture; and
- (f) be marked as follows in characters which, unless otherwise stated, are not less than 6mm high—
 - (i) “CNG ONLY” in letters at least 25mm high;
 - (ii) the date of manufacture;
 - (iii) “DO NOT USE AFTER ” in characters at least 25mm high, and specifying the month and year of expiry;
 - (iv) the design pressure at a temperature of 15°C;
 - (v) the month and year of the original pressure test carried out in accordance with paragraph 2, together with the identity of the testing station;

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- (vi) the month and year of any subsequent periodic pressure test carried out in accordance with paragraph 3, together with the identity of the testing station; and
- (vii) the design life of the gas container if less than 30 years.

(2) Where a gas container contains a mark from a previous pressure test carried out in accordance with paragraph 2 or 3, any additional test mark required by sub-paragraph (1)(f) must be placed adjacent to the previous test mark.

(3) Any gas container crumple zone must be so mounted that—

- (a) the effectiveness of any vehicle crumple zone is not impaired;
- (b) it is securely attached to the vehicle by suitable mountings that will protect the gas container from displacement or damage due to vibration or other cause;
- (c) the gas container and its mountings do not weaken the vehicle's structure or affect the vehicle's stability;
- (d) it is placed in such a position that the risk of impact damage to the gas container and its isolation valve is, as far as is practicable, reduced and it is placed or shielded so that the effects of any impact are, as far as is practicable, reduced;
- (e) it is placed in such a position or so shielded that the risk of damage from flying debris is minimised;
- (f) it is placed in such a position or so insulated or shielded that the effects of any source of heat are minimised;
- (g) it is suitably protected from external corrosion and abrasion; and
- (h) except as stated in sub-paragraph (4), any leaking or vented gas will be directed safely to the atmosphere preventing, as far as is practicable, the possibility of its entering the engine, passenger, driver or living compartments.

(4) Where a gas container is to be located in the driver, passenger or living compartment or in the vehicle boot, or in any space which is not so ventilated as to prevent the accumulation of gas, the valves, connections and pipework must be enclosed in order to contain any gas leakage, either by—

- (a) placing the gas container and its fittings within a durable enclosure which is sealed so that it is gas tight to the compartment, vehicle boot or space, as the case may be, and which is provided with permanent direct ventilation to the outside of the vehicle; or
- (b) enclosing the neck and fittings of the gas container within a durable envelope which is gas tight to the compartment, vehicle boot or space, as the case may be, and which is provided with permanent direct ventilation to the outside of the vehicle.

(5) Any enclosure or envelope required for the purposes of sub-paragraph (4) must not contain any source of ignition.

(6) Any ventilation opening required under sub-paragraph (4) must—

- (a) have a free area of not less than 600mm²; and
- (b) be terminated away from any openings into any vehicle compartment. away from any source of ignition and in a position where it is not liable to blockage.

(7) Any pressure relief device contained within any enclosure must have a separate, dedicated vent line which may pass within the enclosure vent.

(8) In relation to every gas container, there must be provided (either on the gas container itself or in documents which are readily available) information concerning—

- (a) any particular installation requirements;
- (b) details of any pressure relief devices fitted or required to be fitted to the gas container;
- (c) recommended inspection intervals (which must not be more than 3 years); and

(d) any recommended inspection procedure.