

1940. No. 72.

WHEREAS the Ministry of Home Affairs, in exercise of the powers vested in the Ministry under and by virtue of the Locomotives on Highways Act, 1896, the Government of Ireland Act, 1920, and the Motor Vehicles and Road Traffic Acts (Northern Ireland), 1926 to 1934, made Regulations entitled The Motor Cars (Use and Construction) Regulations, 1934 (hereinafter referred to as "the principal regulations"):

AND WHEREAS it is expedient to amend the principal regulations in manner hereinafter appearing:

NOW, THEREFORE, the Ministry of Home Affairs, in exercise of the powers vested in the Ministry by the Motor Vehicles and Road Traffic Acts (Northern Ireland), 1926 to 1934, and of all other powers in this behalf thereunto enabling the Ministry, hereby makes the following Regulations amending the principal regulations, that is to say:—

1.—Article 3 of the principal regulations shall have effect as if—

Gas Cylinder

(i) the following definitions were substituted for the corresponding definitions contained therein:—

"Gas Cylinder" means a container fitted to a motor car or a trailer and intended for the storage of compressed gas for the purpose of the propulsion of the vehicle or the drawing vehicle as the case may be.

Pipe Line.

"Pipe Line" means all pipes connecting a gas container or containers—

(a) to the engine or the mixing device for the supply of a mixture of gas and air to the engine, and

(b) to the filling point on the vehicle, and

(ii) the following additional definitions were inserted therein:—

Gas.

"Gas" means any fuel that is wholly gaseous at 60° Fahrenheit under a pressure of 30 inches of mercury.

Gas Equipment.

"Gas Equipment" means a container or containers for holding, or plant and materials for producing gas.

Gas Trailer.

"Gas trailer" means a trailer used solely for the carriage of gas equipment for the purpose of the propulsion of the drawing vehicle.

Gas Containe .

"Gas container" means a container fitted to a motor car or a trailer and intended for the storage of gas for the purpose of the propulsion of the vehicle or the drawing vehicle as the case may be.

“ Compressed gas ” means gaseous fuel under a pressure exceeding 15 lbs. per square inch above atmospheric pressure. Compressed Gas.

“ Pressure pipe line ” means any part of a pipe line intended for the conveyance of compressed gas. Pressure Pipe Line.

2.—Article 49 of the principal regulations shall be read and have effect as though the following were added thereto as a proviso :—

“ Provided that in the case of a trailer drawn by a motor tractor or heavy motor car which is propelled by gas, the sum of the weights transmitted to the road surface by all the wheels of the trailer and the drawing vehicle may equal but shall not exceed 23 tons.”

3.—The following article shall be substituted for article 50 of the principal regulations :—

“ 50.—In the case of a heavy motor car the weight transmitted to the road surface by any one wheel where no other wheel is in the same line transversely shall not exceed 4 tons, the weight so transmitted by any two wheels in line transversely shall not exceed 8 tons, and the sum of the weights so transmitted by all the wheels shall not exceed, in the case of a vehicle with not more than four wheels, 12 tons, in the case of a vehicle with more than four wheels but not more than six wheels, 19 tons, and in the case of a vehicle with more than six wheels, 22 tons : Laden weight of heavy motor car.

Provided that in the case of a heavy motor car carrying gas equipment for the purpose of its propulsion—

- (i) the sum of the weights transmitted to the road surface by all the wheels of the vehicle may equal but shall not exceed—
  - (a) in the case of a vehicle with not more than four wheels,  $12\frac{3}{4}$  tons,
  - (b) in the case of a vehicle with more than four but not more than six wheels, 20 tons, and
  - (c) in the case of a vehicle with more than six wheels, 23 tons ; and
- (ii) the weight transmitted to the road surface by any two wheels in line transversely may equal but shall not exceed  $8\frac{3}{4}$  tons.

4.—Article 51 of the principal regulations shall be read and have effect as though the following were added thereto as an additional proviso :—

“ Provided further that in the case of a two-wheeled trailer forming part of an articulated vehicle carrying gas equipment for the purpose of its propulsion, the weight transmitted to the road surface by the wheels of the trailer may equal but shall not exceed  $8\frac{3}{4}$  tons if all the wheels of the articulated vehicle are equipped with pneumatic tyres and the total weight transmitted to the road surface by all the wheels of the articulated vehicle does not exceed 20 tons.”

5.—Article 61 of the principal regulations shall be read and have effect as though the following were added thereto as an additional proviso :—

“ Provided further that this Regulation shall not apply in the case of a motor car which is propelled by gas produced in a plant carried on the motor car or on a trailer drawn by the motor car.”

6.—Article 68 of the principal regulations shall be read and have effect as though the following words were added thereto :—

“ other than a gas trailer.”

7.—The following shall be substituted for Part III of the principal regulations :—

### PART III.

#### *Equipment of Vehicles propelled by gas.*

Gas  
Container.

“ 73.—Every gas cylinder or container shall—

- (1) be securely attached to the vehicle in such manner as not to be liable to displacement or damage due to vibration or other cause ; and
- (2) be so placed or insulated as not to be adversely affected by the heat from the exhaust system.

Pipe Line.

“ 74.—(1) Every pipe line shall be supported in such manner as to be protected from excessive vibration and strain.

(2) No part of a pipe line shall be in such a position that it may be subject to undue heat from the exhaust system.

(3) Every pressure pipe line shall be made of steel solid drawn.

(4) The maximum unsupported length of a pressure pipe line shall not exceed 3 feet.

Unions.

“ 75.—(1) Every union shall be so constructed and fitted that it will—

- (a) not be liable to work loose or develop leakage when in use ; and

(b) be readily accessible for inspection and adjustment:

(2) No union on a pressure pipe line or on a gas cylinder shall contain a joint other than a metal to metal joint.

“ 76.—Every reducing valve shall be—

Reducing  
Valve.

(1) so fitted as to be readily accessible; and

(2) so constructed that there can be no escape of gas when the engine is not running.

“ 77.—(1) Every valve or cock intended to be subjected to a pressure exceeding 100 lbs. per square inch shall be of forged steel, or of brass or bronze complying with the Specification contained in the Second Schedule to these Regulations.

Valves and  
Cocks.

(2) A valve or cock shall be fitted to the pipe line to enable the supply of gas from the container or containers to the mixing device to be shut off, and in the case of a pressure pipe line shall be situated between the reducing valve and the container or containers and such valve or cock shall be readily visible and accessible from the outside of the vehicle.

(3) In the case of a pressure pipe line a notice indicating the position and method of operation of the valve or cock referred to in paragraph (2) hereof shall be affixed in a conspicuous position on the outside of the vehicle carrying the gas container or containers.

“ 78.—Every pressure gauge connected to a pressure pipe line shall be so constructed as not to be liable to deterioration under the action of the particular gases employed and shall be so constructed and fitted that—

Pressure  
Gauges.

(1) in the event of failure of such pressure gauge no gas can escape into any part of the vehicle;

(2) it is not possible owing to leakage of gas into the casing of the pressure gauge for pressure to increase therein to such extent as to be liable to cause a breakage of glass thereof; and

(3) in the event of failure of such pressure gauge the supply of gas thereto may be readily cut off.

“ 79.—(1) Every connection for charging a gas container shall be outside the vehicle and in the case of a public service vehicle no such connection shall be within two feet of any entrance or exit.

Charging  
connections

(2) An efficient shut-off valve shall be fitted as near as practicable to the filling-point:

Provided that in cases where compressed gas is not used a cock or an efficient non-return valve may be fitted in lieu thereof.

(3) Where compressed gas is used an additional emergency shut-off valve shall be fitted adjacent to the valve referred to in paragraph (2) hereof.

(4) A cap shall be fitted to the gas filling point on the vehicle and where compressed gas is used this cap shall be made of steel with a metal to metal joint.

**Trailers.**

“ 80.—(1) Where a trailer is used for the carriage of a gas cylinder, a reducing valve shall be fitted on the trailer.

(2) No pipe used for conveying gas from a trailer to the engine of a vehicle shall contain compressed gas.

“ 81.—Every part of a gas container propulsion system shall be—

**Construction,  
etc. of  
system.**

(1) so placed or protected as not to be exposed to accidental damage, and shall be soundly and properly constructed of suitable and well-finished materials capable of withstanding the loads and stresses likely to be met with in operation, and shall be maintained in an efficient, safe and clean condition; and

(2) so designed and constructed that leakage of gas is not likely to occur under normal working conditions, whether or not the engine is running.”

8.—The principal regulations shall have effect as though the following were added thereto as a second schedule :—

SECOND SCHEDULE.

SPECIFICATION FOR BRASS OR BRONZE VALVES.

*Manufacture of Valves.*

1.—The stamping or pressing from which each valve is manufactured shall be made from bars produced by (a) extrusion, (b) rolling, (c) forging, (d) extrusion and drawing, or (e) rolling and drawing.

*Heat Treatment.*

2.—Each stamping or pressing shall be heat treated so as to produce an equiaxed microstructure in the material.

*Freedom from Defects.*

3.—All stampings or pressings and the bars from which they are made shall be free from cracks, laminations, hard spots, segregated materials and variations in composition.

*Tensile Test.*

4.—Tensile tests shall be made on samples of stamps or pressings taken at random from any consignment. The result of the tensile test shall conform to the following conditions :—

Yield Stress—Not less than 15 tons per square inch.

Ultimate Tensile Stress—Not less than 30 tons per square inch.

Elongation on 2 inch gauge length—Not less than 25 per cent.

*Note*—When the gauge length is less than 2 inches the required elongation shall be proportionately reduced.

The fractured test piece shall be free from piping and other defects (see paragraph 3).

9.—These Regulations may be cited as “The Motor Cars (Use and Construction) (Amendment) Regulations, 1940,” and shall be construed as one with the principal regulations.

Sealed with the Official Seal of the Ministry of Home Affairs  
for Northern Ireland this 19th day of July, One Thousand  
Nine Hundred and Forty, in the presence of

(L.S.)

G. W. Brownell,  
Assistant Secretary.

### Public Service Vehicles: Construction.

REGULATIONS, DATED 19TH DAY OF JULY, 1940, MADE BY THE  
MINISTRY OF HOME AFFAIRS UNDER PART II OF THE MOTOR  
VEHICLES (TRAFFIC AND REGULATION) ACT (NORTHERN IRELAND),  
1926.

1940. No. 70.

WHEREAS the Ministry of Home Affairs, in pursuance of the provisions of Part II of the Motor Vehicles (Traffic and Regulation) Act (Northern Ireland), 1926, made Regulations entitled the Public Service Vehicles (Construction) Regulations, 1932 (hereinafter referred to as “the principal regulations”).

AND WHEREAS it is expedient that the principal regulations should be amended in manner hereinafter appearing :

NOW, THEREFORE, the Ministry of Home Affairs, in exercise of the powers vested in the Ministry by the Motor Vehicles (Traffic and Regulation) Act (Northern Ireland), 1926, and of all other powers in that behalf thereunto enabling the Ministry, hereby makes the following Regulations amending the principal regulations, that is to say :—

1.—The following paragraph shall be substituted for paragraph 2 in Part I of the Schedule to the principal regulations :—

“ 2.—Weight. (1) Subject as hereinafter provided in subparagraph (2) hereof.

(a) The sum of all the weights transmitted to the road surface by all the wheels :—

(i) of a four-wheeled vehicle shall not exceed  $9\frac{1}{2}$  tons in the case of a single-decked vehicle, or 11 tons in the case of a double-decked vehicle;