



***CARRIAGE OF GAS CYLINDERS
BY ROAD IN CARS, VANS
AND OTHER VEHICLES***

GUIDANCE FOR DRIVERS AT WORK

1996

The Carriage of Dangerous Goods by Road
Regulations 1996

The Carriage of Dangerous Goods (Classification, Packaging
and Labelling) and Use of Transportable Pressure Receptacles
Regulations 1996

The Carriage of Dangerous Goods by Road (Driver Training)
Regulations 1996



INTRODUCTION

This leaflet provides a brief summary of the duties of operators and drivers at work under legislation specific to the carriage of gas cylinders in vehicles and reference must be made, as appropriate, to the actual Regulations.

In the text which follows, the terms “Operator”, “Consignor” and “Consignee” have specific meanings:

“Operator” means the person who, having a place of business in Great Britain, has the management of the vehicle transporting the cylinders. This will normally be the haulier who operates the vehicle.

“Consignor” means the person who, having a place of business in Great Britain, consigns, whether as principal or agent for another, cylinders for carriage. In many cases, this will be a gas company, but will be the customer who collects his own cylinders.

“Consignee” means the person to whom the cylinders are consigned. This will usually be the customer, but could be a gas company when customers transport cylinders back to the supplier.

SOME QUESTIONS AND ANSWERS ON THE CARRIAGE OF GAS CYLINDERS

Q.1 What is the relevant legislation?

The Carriage of Dangerous Goods by Road Regulations 1996 (CDG Road).

This includes most of the important requirements which affect the transport of cylinders.

The Carriage of Dangerous Goods (Classification, Packaging and Labelling) and Use of Transportable Pressure Receptacles Regulations 1996 (CDGCPL2).

This contains the rules concerning the way in which the gases industry must classify gases and label cylinders for transport and use. It also contains the rules applying to the design, construction and maintenance of cylinders. Note the technical term “Transportable Pressure

The Carriage of Dangerous Goods by Road (Driver Training) Regulations 1996 (DTR2).

This updates the existing rules about driver training to bring them into line with the new CDG Road Regulations.

Q.2 Do I have to comply?



The most important question is how to decide if a particular load is within the scope of CDG Road. To establish this, it is necessary to follow the table given as Appendix 1, Part 2. Gas suppliers will be able to assist with this if necessary. Even if the load does not fall within the scope of CDG Road, much of the safety advice is still relevant.

Q.3 I am above the limits in Appendix 1, Part 2. What must I do as Operator?

(1) Information

You must ensure that the driver has in his possession at the start of the journey:

- # The designation of the Products, as in the Approved Carriage List*.
- # The classification of the products, as in the Approved Carriage List*.
- # The UN Number(s).
- # The Transport Category, see Appendix 1, Part 1.
- # The number and contents of the cylinders, including product volume or mass, or the totals in each Transport Category.
- # The name and address of Consignor and Consignee (if known).
- # A “Consignor’s Declaration” that the goods are permitted for carriage, fit for carriage and properly labelled.

All the above should be provided by the Consignor, typically a gas company, but if you are also the Consignor as well as the Operator, you must provide it. The gas supplier should be able to help - remember though that if you are a customer collecting your own cylinders, the law regards you as the Consignor.

The following information is your responsibility as Operator:

- Details of the total mass or volume of Dangerous Goods.
- Emergency Information with clear instructions for driver and for emergency services (Tremcards or Data Sheets will provide this).
- Emergency Information relating to goods not being carried must be secured out of sight.
- All the information (except the Emergency Information) must be kept by you for at least 3 months after the journey.

* The Approved Carriage List (Second Edition 1996), published by the Health & Safety Commission, is available from HSE Books (Tel: 01787 881165 Fax: 1787 313995) and other bookshops under reference ISBN 0-7176-1223-6.

See Q.4.



(2) Vehicle Marking

You must display an orange plate at the front and rear of the vehicle.
If no dangerous goods are being carried, you must not display the plates.

(3) Equipment

You must carry the following:

- Any emergency equipment specified for the use of the driver in the Emergency Information.
- 2kg fire extinguisher to fight engine and cab fires.
- 6kg fire extinguisher to fight fires in the tyres, brakes or load. (This can be a 2kg extinguisher if the vehicle GVW is less than 3.5 tonnes).
- If carrying toxic gases, suitable respiratory protective equipment for escape.

Q.4 I am carrying cylinders but below the limits in Appendix 1, Part 2. Need I do anything?

Yes, you must ensure that the Consignor gives you all the information in the section above indicated by the symbol #. If you are also the Consignor, e.g. you are collecting cylinders, you must make sure the driver is given the information.

Q.5 What about driver training?

If you are subject to the Regulations under Appendix 1, Part 2, you must ensure that:

- Drivers are trained in the hazards of the products and necessary emergency actions.
- Drivers understand their duties under the Health & Safety at Work Act.
- Drivers know about the requirements of CDG Road.
- If the vehicle is above 3.5 tonnes GVW, the driver must possess a suitable Vocational Training Certificate.
- All the training must be formally recorded on file.



Q.6 *Any other duties?*

- No passengers without the Operator's authorisation.
- No smoking during loading/off-loading.
- Engine to be stopped during loading/off-loading, unless it is necessary for the actual process.
- All cylinders must be properly secured. Those cylinders which can be loaded horizontally must be either parallel to the vehicle's axis or at right angles to it.

Q.7 *Any controls on parking?*

If the load being carried is more than 10 times the limits given in Appendix 1, Part 2, then parking restrictions apply. Vehicles carrying such loads must only park when under the supervision of a competent person over the age of 18, or in a secure place.

Q.8 *What type of vehicle should be used for carriage of gas cylinders?*

The vehicle used for carriage must be properly designed, of adequate strength, good construction and properly maintained, thus making it suitable for its purpose.

All cylinders must be secured to prevent movement.

The use of open vehicles is always recommended, but small quantities of cylinders can be carried in closed vehicles if proper precautions are taken.

Closed vehicles regularly used for transport of gas cylinders should be designed to prevent a build-up of hazardous atmosphere (flammable, toxic, oxidising or asphyxiant) in the event of cylinder leakage. This can be achieved by provision of adequate high and low level vents to encourage a free flow of air through the load compartment. Ideally, cylinders should be carried in a separate load compartment from the driver.

Carriage in a closed vehicle not having a purpose-built, separate ventilated load compartment should be undertaken with the vehicle windows open to provide improved ventilation.

Toxic gas cylinders must not be carried in a closed vehicle unless specifically designed for the purpose.

Gas cylinders should not be left on vehicles longer than is required to make the journey and should be removed as soon as possible once the destination is reached.



SAFETY

1. Wear safety footwear, gloves and eye protection when handling cylinders.
2. Do not remove or deface labels provided by the supplier for the identification of cylinder contents.
3. Do not drop cylinders or throw them into the vehicle.
4. Secure cylinders properly and ensure they do not project beyond the sides or ends of the vehicle.
5. Cylinder valves must be closed whilst in transit and any connected equipment depressurised.
6. When carrying flammable gas (LPG, Hydrogen, Acetylene, etc.) or oxygen in cylinders, do not smoke or expose cylinders to sources of ignition.
7. Protect carbon dioxide cylinders from direct sunlight and all cylinders from heat.
8. LPG cylinders should be carried in the vertical position with valves uppermost.
9. If at any time a cylinder is suspected of leaking, park the vehicle in a safe place and contact the supplier for advice.
10. If you are involved in a road accident, advise the emergency services that cylinders are being carried, and show them any information relating to the products on the vehicle, e.g. Tremcard or Safety Data Sheets.
11. Return empty cylinders to the supplier as soon as possible.



1. Gases are classified in the new CDG Road regulations as belonging to the following Transport Categories, which must be quoted by the Consignor (see Q.3):

Toxic gases:	Transport Category 1.
Flammable gases:	Transport Category 2.
Non-flammable, non-toxic gases:	Transport Category 3.

Examples of gases categorised in this way are:

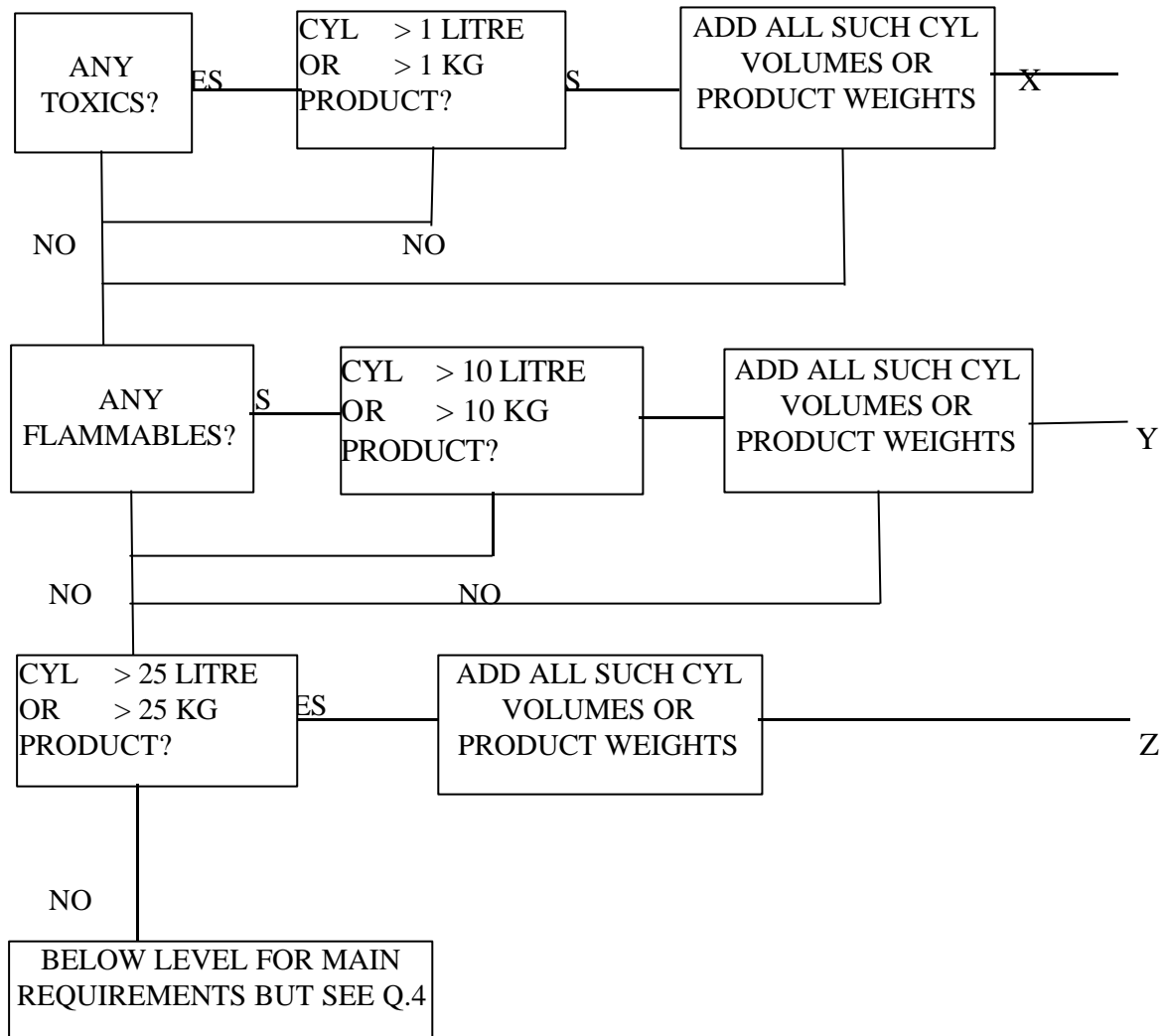
Transport Category 1 : Chlorine, Sulphur Dioxide, Ammonia, Hydrogen Sulphide.

Transport Category 2 : Hydrogen, Methane, LPG, Acetylene.

Transport Category 3 : Oxygen, Nitrogen, Argon, Carbon Dioxide.

For gas mixtures involving gases from a single category, classification is in line with that category. Those mixtures including gases from more than one category involve assessment of each individual mixture - this will normally be provided by the gas supplier.

2. To decide whether CDG Road applies, follow the chart below:



If X is not zero, add X + Y + Z for load. If >20, Regulations apply.

If X is zero, but Y is not, add Y + Z for load. If >200, Regulations apply.

If X and Y are both zero, but Z >500, Regulations apply.

N.B. (a) For acetylene, the cylinder contents = mass of gas plus solvent (acetone).

(b) In the chart above, reference to “litre” means litres of water capacity of a cylinder containing compressed gas, i.e. its volume. Reference to “kg” means kilograms of product in a cylinder containing gas in a liquefied form such as lpg or CO₂.



This leaflet may be freely reproduced in its entirety except for advertising, endorsement or sale purposes. The information it contains was current at 1 September 1996. Please acknowledge the source as BCGA.

BCGA has produced the text of this leaflet to assist vehicle operators and cannot accept responsibility for any errors.

BRITISH COMPRESSED GASES ASSOCIATION

14 Tollgate, Eastleigh, Hampshire, SO53 3TG

Tel: 00-44-(0)23-8064-1488 Fax: 00-44-(0)23-8064-1477

www.bcgga.co.uk