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Guidance for Private Ownership and Filling of 'Freestanding' Liquefied Petroleum Gas (LPG) Cylinders

Scope

This information sheet gives general safety guidance for private ownership of LPG cylinders relating to operation and filling. If the cylinder is used for commercial purposes, then please note that additional Regulations apply.

Introduction

LPG (propane) is potentially hazardous and the filling of cylinders can be a high risk activity which is governed by law to protect you and others. It is important that you fully understand the implications of owning an LPG cylinder.

The majority of LPG cylinders in service in the UK are traditional, welded steel cylinders.

Most cylinders are owned by and remain the property of the gas supplier whose name is printed/ marked on the cylinder. These cylinders are filled by weight and must ONLY be filled in a dedicated filling plant by the gas supplier or their authorised filling contractor. It is unlawful for anyone else (either a company or private persons) to fill these cylinders.

Customer-owned freestanding LPG cylinders have been available for a number of years and are generally sold to private persons who have responsibilities for their cylinder. This includes, but is not limited to, cylinders sold directly to caravan and leisure home owners which are usually filled by the user/ owner of the cylinder. These cylinders are filled by volume and fitted with automatic overfill protection on the valve. This automatically stops the filling at the correct level. The maximum fill is 80% of the cylinder's marked water capacity. This is to allow for expansion of the LPG in the event of a temperature increase.

Do not attempt to fill a cylinder without automatic overfill protection on the valve. An overfilled cylinder is potentially dangerous and may result in serious damage to life and/or property.

If in doubt whether your cylinder contains automatic overfill protection, do not fill the cylinder and contact the supplier immediately.

Recommendations

It is recommended that you follow the manufacturer's instructions and the advice contained in this "User Information Sheet. Before filling the cylinder you should establish the following:

- Ensure the cylinder to be filled is manufactured to a suitable standard and is specifically designed for use with propane;
- The cylinder is specifically designed to be filled by the user and has automatic overfill protection;
- The cylinder is in good condition and within its test period (see Further Consideration overleaf);
- The cylinder is correctly labelled (see Cylinder Labelling overleaf);

Before filling, check that:

- The filling centre or station allows the filling of freestanding customer owned LPG cylinders;
- The cylinder and valve(s) are not damaged or corroded;
- The area around the filling point is clear of potential hazards;
- The cylinder is stable and upright with the valve(s) at the top;
- The automatic overfill protection is working.

During filling, take the following precautions:

- Wear gloves and eye protection to protect against cold burns (see LPG Properties overleaf);
- Check there are no leaks;
- Ensure the cylinder valve is closed before disconnecting the filling gun.

After filling, ensure that:

- The cylinder is not overfilled;
- There are no obvious signs of leaks and that a plug/cover is fitted to the valve connection;
- Ensure the cylinder is always kept upright with the valve at the top during transportation, whilst using the cylinder and in storage.

Further Consideration

- At periods not exceeding 10 years, refillable LPG cylinders must be re qualified and then permanently marked (stamped, engraved or etched) by an approved inspection body;
- Owners of LPG cylinders are recommended to have valid Public Liability Insurance.
- The filling of freestanding cylinders is at the discretion of the filling centre or station, as they have additional regulatory duties;
- In the event of a leak or overfill do not place the LPG cylinder in a vehicle, but follow the procedure laid down by the filling centre or station.

LPG Cylinder Safety

- Always read the filling, operating and emergency instructions available from the manufacturer, filling centre or station. If you have any doubts or questions, put safety first and contact the manufacturer;
- Remember full cylinders are heavier than the marked tare weight, lift carefully or use a trolley. A full cylinder will weigh about twice the gas contents weight displayed on the cylinder;
- When a cylinder is not connected always keep the valve closed and replace the cap/plug in its outlet connection (even when empty);
- Do transport, store and use cylinders and cartridges with their valve uppermost;
- Do make sure the cylinders are properly secured and are kept upright in use;



- Do treat cylinders with care to ensure they don't get damaged;
- Do use cylinders in accordance with the manufacturer's instructions;
- Do keep all cylinders in a safe, well-ventilated place, away from escape routes and stairs.
- Do store cylinders in the open air, away from sources of combustible material, potential ignition and excessive heat;
- Do keep the area where cylinders are located outdoors free from rubbish and excessive build-up of vegetation; e.g. trees, bushes, undergrowth and weeds;
- Do check your vehicle insurance allows the carriage of LPG cylinders.

Cylinder Labelling

The Law states that 'Refillable pressure receptacles shall be marked clearly and legibly with certification, operational and manufacturing marks'.

As a minimum cylinders must display:

- Danger warning symbol;
- UN Number for Propane (UN 1978) – for cylinders up to 60 litres water capacity minimum height 6 mm;
- Date of original or last periodic inspection, with an inspection body identification number;
- Tare weight and date (year) when next periodic inspection is due.



LPG Properties

- LPG is stored in the cylinder under pressure and has properties that make it a potential hazard for you. Any leakage will result in a highly flammable atmosphere.
- One litre of liquid released to the atmosphere will give 270 litres of flammable vapour.
- If liquid leaks this expands into vapour and also cools down; if this comes in contact with the skin it can result in a "cold burn". Although with properly maintained equipment this should be rare it is recommended that anyone filling a User Refillable Cylinder should wear suitable gloves and eye protection during the filling operation.

Outside the UK

The self-filling of LPG cylinders by members of the public is not permitted in some countries. Please check before travelling.

Filling connections vary between European countries. It is worth checking on the type of connection in your destination country, and whether your cylinder can be filled.

Disposal of Cylinders

If information is not provided by the manufacturer then visit the LGUK website: www.liquidgasuk.org for guidance on how to safely dispose of your cylinder at the end of its life.

Liquid Gas UK

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