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TECHNICAL INFORMATION SHEET 38 - 2017

MOVING GAS CYLINDERS AND BUNDLES WITHIN THE WORKPLACE

The user is responsible for the safe handling and use of a gas cylinder and its contents. A risk assessment should always be carried out prior to any movement, handling or lifting of cylinders taking place. All movement of cylinders or bundles shall be thoroughly planned, assessed, controlled and executed by a person(s) that is competent. This leaflet provides information on the different methods available to safely move cylinders and bundles over suitable surfaces.

For guidance on manual handling and associated risk assessment refer to BCGA Guidance Note 3, *Safe cylinder handling and the application of the manual handling operations regulations to gas cylinders*.

MOVING GAS CYLINDERS

When moving cylinders individuals should be aware of their own physical capabilities. The options for moving cylinders are:

- Manual handling by carrying – this is limited to movement of small size cylinders over short distances;
- Manual handling by rolling on the base (churning) – this is limited to short (< 5 m) distances, for a single cylinder only;
- Manual handling using an appropriate cylinder trolley – for any distance;
- Mechanical handling using a fork lift truck – where the cylinder is secured within a suitable container, such as a pallet or cradle.

MOVING PALLETISED GAS CYLINDERS

To move multiple cylinders they shall be secured on or within a suitable frame, such as a pallet or cradle. The options which are available are:

- Manual handling using an appropriate manually operated pallet truck – for short distances;
- Manual handling using a power assisted pallet truck;
- Mechanical handling using a fork lift truck.

The same principle applies to the movement of bundles. A bundle will typically be designed for movement by fork lift truck and will have built in fork pockets for this purpose.

SUSPENSION LIFTING OF GAS CYLINDERS

Do not use ropes, chains, or slings wrapped around the cylinder body, valve or valve guard to lift individual cylinders. Do not use magnets or scissor clamps. This is because cylinder walls and valves may be damaged, and valve guards which are designed to protect the valve may become detached.

To undertake suspension lifting of gas cylinders it is recommended that individual cylinders are secured within appropriate lifting frames, cradles, platforms or trolleys that are suitable for the combined load. Care shall be taken to ensure lifting accessories are not trapped or snagged on the valve or valve guard.

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SUSPENSION LIFTING OF BUNDLES

A bundle comprises of several cylinders which are assembled together inside a single frame (cage) by the gas supplier and which are interconnected by a gas manifold.

Do not suspension lift bundles unless you have confirmed with your gas supplier that they are suitable for suspension lifting. Not all bundles are designed to be suspension lifted, many may only be lifted by fork lift truck using fork pockets.

If a bundle is not designed to be suspension lifted it may be loaded by fork lift truck into a cradle frame which is designed for lifting.

WARNING: Some bundles may have lifting fittings which are only designed to lift the (empty) frame or sub-assemblies, for example a manifold cover.

Where bundles **are** designed for suspension lifting:

- The bundle will have **integral permanently attached** lifting fittings, for example, pad-eyes or lifting eyes, which are designed to take the full weight of the load during a lift.

  HSE L113, *Safe use of lifting equipment. Lifting Operations and Lifting Equipment Regulations 1998. Approved Code of Practice and guidance*, Clause 119, states that permanent fittings "*... are part of the load and not part of the lifting equipment*". Therefore a bundle fitted with integral permanently attached lifting fittings does not require LOLER lifting equipment certification as it is classified as a load.

- Lifting accessories shall only be attached to the integral permanently attached lifting fittings;

  All lifting accessories (for example, screw in eye bolts, shackles, slings etc.) shall comply with, and be certified in accordance with *The Lifting Operations and Lifting Equipment Regulations* (LOLER).

- Ensure that any lifting task is thoroughly planned, assessed, controlled and executed by a competent person(s).

For further information refer to the European Industrial Gases Association (EIGA) SI 25, *Crane transport of cylinder packages.*

REFERENCES

1) SI 1998 No. 2307, *The Lifting Operations and Lifting Equipment Regulations 1998 (LOLER*).
2) HSE L113, *Safe use of lifting equipment. Lifting Operations and Lifting Equipment Regulations 1998. Approved Code of Practice and guidance*.
3) EIGA Safety Information 25, *Crane transport of cylinder packages.*
4) BCGA GN 3, *Safe cylinder handling and the application of the manual handling operations regulations to gas cylinders.*

For more information

Health and Safety Executive (HSE)	www.hse.gov.uk
European Industrial Gases Association (EIGA)	www.eiga.eu
British Compressed Gases Association (BCGA)	www.bcga.co.uk