



TECHNICAL INFORMATION SHEET 12 - Revision 2: 2015

HANDLE GAS CYLINDERS SAFELY
Information for customers handling gas cylinders

Manual handling is one of the most common causes of injury at work and causes over a third of all workplace injuries, which include work related Musculoskeletal Disorders (MSDs) such as upper and lower limb pain/disorders, joint and repetitive strain injuries. Gas cylinders are generally heavy and are relatively unstable due to the base diameter to height ratio. Large cylinders can weigh over 100 kg when full and being tall and thin they are easily toppled over. This document has been produced to help users of large gas cylinders handle them in a safe manner.

This leaflet should be read in conjunction with BCGA Guidance Note 3, BCGA TIS 8 and TIS 17.



Cylinders are heavy and should be handled with care. Cylinders should not be dropped or subjected to impact when being moved or used.

Always apply safe manual handling principles when handling cylinders. To handle cylinders safely you will need specific training in safe handling techniques. For guidance on manual handling gas cylinders refer to BCGA GN 3 and TIS 17.



Assess the risk before lifting or moving the cylinder

Before handling or using gas cylinders you must understand the properties and hazards of the gas.

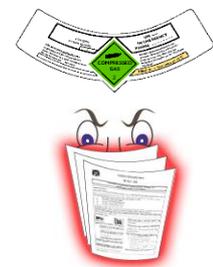
Read the cylinder label to correctly identify the gas. Gas suppliers use a variety of colour schemes on their cylinders and therefore colour should not be used to identify the contents.

The properties and hazards associated with the gas are given in the safety data sheet so take time out to read it. If in doubt ask the gas supplier for advice.

If there are 5 or more employees in your organisation, the law requires that a formal manual handling risk assessment be undertaken and the significant findings recorded. This will identify the specific precautions to take when moving the cylinders in your workplace.

- Ensure that you know the weight of the cylinder being handled.
- Check how far and over what type of surface the cylinder is to be moved. You should clear away any obstructions and debris on the route. Ensure that you know where you want to put the cylinder before you start to move it.
- Whenever possible use mechanical handling aids to move the cylinder, via Fork Lift Trucks, pallets, stillages, etc. For short distances use a suitable cylinder trolley. For distances < 5 m churning may be appropriate (refer to Section 7).
- Wet or cold cylinders are even more difficult to handle as they affect your ability to hold the cylinder securely.

BE aware of your limitations. Ask yourself if you have the ability and technique to move the cylinder safely – if not, **SEEK HELP.**



3

Always use appropriate personal protective equipment

Refer to the safety data sheet. Feet, hands and eyes should be protected when handling or using cylinders. Wear safety boots / shoes, metatarsal protection is recommended, many injuries to the foot affect the metatarsal (instep) bone. Gloves should be suitable for handling activities.



4

Do not move the cylinder with the valve open

Always close the valve before moving or transporting. When the cylinder is empty or you have finished with it, please close the valve and return it to the supplier.

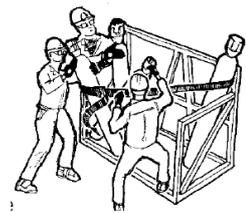


5

If cylinders are leaning over in their pallet or storage bay

Do not attempt to straighten them by yourself. Get help and make sure that you know what everyone is to do to avoid trapping each other's fingers or being hit by a falling cylinder.

Always make sure that cylinder restraints are securely fastened after moving cylinders.



6

Avoid injury by using the correct lifting method when raising a large cylinder from the horizontal position

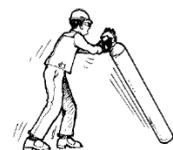
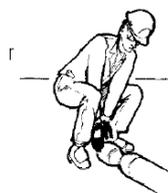
Foot position: hip width apart with one slightly in front of the other, astride the valve end of the cylinder.

Bend the knees to lower your body. This will enable your thigh muscles to do most of the lifting.

Ensure that the valve guard is secure then take a firm grip using both hands. Only lift using the guard if it has been designed for this purpose, otherwise grip the cylinder neck.

Keep your back straight throughout its length. This does not mean it has to be vertical. Doing this will help to prevent a slipped disc. Pull your chin in so that your back is locked in a straight line and look in front rather than at the ground.

Lift decisively with a smooth non-jerking motion. It is done initially by straightening the legs then following through with the arms at the same time walking forward until the cylinder is upright.



7

When the cylinder is upright do not leave it free standing, but move it to a safe storage area

The 'churning' method requires the use of both hands. One supports the cylinder whilst the other rotates the cylinder (away from the body). It requires the cylinder to be tilted slightly (again away from the body). The method takes some practice and should only be attempted on a firm, even surface.



8

NEVER ATTEMPT TO STOP A FALLING CYLINDER – GET OUT OF THE WAY!

Thank you for reading and following this guidance, it will help to ensure your safety.



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