

Cylinder Handling

Working safely with Gas Cylinders

Cylinders are heavy and awkward to handle. Frequent lifting and handling can cause back injuries and upper limb disorders. According to HSE (HSE INDB390 rev2), 51% of welders suffered 1 period of sickness over a two year period taking time off for muscle or joint & tender disorders (MSD Musculoskeletal Disorders). Other potential injuries include broken toes, trapped hands, leg and chest injuries.



Ensure all employees involved in handling cylinders are trained in safe handling techniques.



A robust risk assessment should be established. Employees should understand the properties and hazard of the gas and review the risk every time they handle a cylinder: weight of cylinder, surface conditions and distance of route and environmental factors (cold, wet cylinders are more difficult to handle). When possible use mechanical aid to assist in handling.



Use the correct lifting method.

- 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 strong thigh muscles to do most of the lifting.
- Firm grip: ensure the guard is secure then take a firm grip using both hands.
- Straight back - keep your back straight throughout its length. This does not mean it has to be vertical. Doing this will prevent a slipped disc.
- Pull the chin in. By pulling the chin in, the back is locked in a straight line.
- Lift decisively. This is done initially by straightening the legs then following through with the arms, at the same time walking forward until the cylinder is upright.



Use appropriate PPE - stout gloves and footwear with metatarsal protection. Ensure PPE is in good condition.



Always close the valve and disconnect any regulators before moving a cylinder.



Never attempt to straighten leaning cylinders on your own – get help. Constant vigilance is required when moving cylinders by hand to ensure that hands are not caught or trapped. Floor condition is also a contributing factor to this type of accident as it causes the cylinder to move unexpectedly, so good housekeeping is essential. Excessive speed is a cause of many trapped-hand incidents. Some cylinders have a slightly more rounded base profile. These cylinders are relatively unstable compared to other cylinders. Extra care should be taken when handling them.



Never leave a cylinder free standing or turn your back on it. Move the cylinder to a safe area and ensure that restraints are securely fastened.



Never attempt to stop a falling cylinder – move away quickly and safely.



Do not drop or subject a cylinder to impact.

For more information please refer to www.bcg.co.uk

See the Bigger Picture with Maxx[®] weld process gases
www.airproducts.co.uk/maxx