

## Compressed Gas Cylinders

A workman was unloading cylinders from a delivery truck. On one cylinder the valve was not protected by a cover. The workman rolled this cylinder to the hydraulic tailgate lift. Just as he stepped onto the tailgate, the cylinder slipped from his grasp and fell. The valve struck the ground and broke off. The full cylinder shot up like a rocket and smashed the workman's face. The cylinder was found a quarter of a mile away from the job! The workman died a few hours later in a hospital.

Most of us know what the various compressed gas cylinders are used for on the job, but how many of us realize that the gases stored in those cylinders are under pressure—from 250 psi to 2200 psi? These pressures make the cylinders dangerous, not only from a fire standpoint, but from a handling standpoint. If they're not handled and stored properly, you are looking at a bomb or a rocket.

### Keep in Mind

- Always store compressed gas cylinders in a secure upright position.
- Always store with caps over the valves.
- Never store two different types of gases closely together.
- Never tamper with any safety devices on the valve or cylinder.
- Always open valves slowly.
- Avoid storing cylinders in areas of high temperatures (shade works).
- Never use cylinders for rollers or sawhorses.
- Never attempt to repair valves or regulators.
- Separate full cylinders from empty ones.
- Never transfer gases from one cylinder to another.
- Keep a fire extinguisher nearby when handling or working with compressed gas cylinders.
- When in use, keep cylinders secured to a cart designed for that use.
- Remove empty cylinders from the work area.
- Never expose gases to oil or grease.

### Before Moving Cylinders

Check the protective valve cover. The cap should be in place and secure. Never use this cover to lift the cylinder. Be sure the valve is closed. (Also, be sure the valves are closed when work is finished or cylinders are empty.)

Never move cylinders when regulators are attached unless the cylinders are secured in a cylinder truck. Otherwise, remove the regulator and put on a protective valve cap.

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Regulators have a nasty habit of breaking off if they are bumped hard. If cylinders are frozen together during cold weather, the safest way to thaw them loose without damaging them is to use warm (not boiling) water. Never use pry bars for this job.

### **When Moving Cylinders**

Move cylinders by slightly tilting them, then rolling them on the bottom edges. Take care not to let them drop or strike other cylinders or objects.

Never use choker slings or magnets to hoist cylinders, since the chance of the cylinder failing is great. Hoist cylinders by using a cradle or pallet, making sure the cylinders are secure before the hoist.

The workman we mentioned earlier probably didn't have a firm grip on the cylinder when it slipped. Perhaps his hands or gloves were greasy or oily. This mistake cost him his life. Don't make the same mistake. Keep a firm grip on cylinders all of the time.

### **Protecting Cylinders**

If cylinders are close to welding or cutting operations, place a fire resistant shield between the cylinders and these operations. In that way sparks, hot slag or flames won't be able to reach them.

To keep standing cylinders from being knocked over, chain or tie them to a column or to something else that's secure. This goes for both full and empty cylinders. Even an empty cylinder can cause a lot of damage if it falls on you.

Take the same precautions when handling empty cylinders that you would with full ones. The reason? A cylinder you may think is empty could be full. And the excuse "I didn't know it was loaded" is a poor one.

When using different types of gas, segregate cylinders containing one kind of gas from another.

### **Remember**

The improper use of compressed gas cylinders is a common safety violation. Most people think cylinders are safe, but they are only safe when treated properly. To insure that they don't become a hazard, follow the basic rules we just discussed.

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