

“GAS CYLINDERS”

The following paragraph is taken from a recent report published by the Accident Prevention Bureau and gives a brief account of a disaster which occurred in a plant.

“Last week another industry in our city had an explosion which killed three men and injured 30 others. It involved the explosion of a single oxygen bottle. No one can imagine a single oxygen bottle doing this much damage, but it did. The top of the bottle was found high in one of the plant’s structures, the bottom buried deep in the ground, and the center portion disintegrated in the form of shrapnel-blowing arms, legs, and even a head off.” Not a very pleasant thought, is it?

Under certain conditions, the oxygen cylinder, along with other types of compressed gas cylinders, can become destructive and lethal bombs. Even though an oxygen cylinder has steel walls approximately one-quarter inch thick, dropping the cylinder, hitting it with heavy or sharp tools, or striking an electric arc on it can cause the cylinder to explode violently, causing serious injury and death.

It is important to remember that when you handle cylinder gases, you know the contents of each cylinder. Sometimes, different manufacturers package the same gas in different colored cylinders. Therefore, the label is the only reliable guide in determining what the cylinder actually contains.

The label also identifies the hazards associated with the gas and the precautions to be taken. If a label is missing or is illegible, immediately notify your supervisor so that the supplier may be contacted.

When we think of our periodic or everyday use of cylinder gases, the environment into which the cylinder is placed must be given special consideration. Cylinders never should be stored near an actual or potential source of heat or where they will be exposed to extremes of weather. Neither should cylinders be stored in areas where they may become part of an electric circuit or where heavy moving objects could strike or fall on them. Use of any spark-producing electrical tools in flammable cylinder storage areas is prohibited. And of course, smoking and open flames are prohibited.

When cylinders are empty, the valves should be closed. All accessories originally shipped with them should be attached and returned in the same manner as they were received. Mark the cylinder “empty”, and place it away from full cylinders to await pickup.

Remember, accidents don’t just happen. Proper care and information can reduce the probability of their occurrence, enabling us to continue enjoying the many benefits of compressed gases in various applications.