

OXY-ACETYLENE CUTTING

The rules about personal protective equipment and fires and explosions that govern welding also apply to oxy-acetylene cutting. Eye protection is mandatory for all employees using the torch. Do not use the torch in explosive atmospheres or around combustible materials. Do not cut into an empty drum that previously contained flammable gases or liquid unless it has been cleaned. Other rules relating to the use of high-pressure gas bottles include:

1. Before starting a torch project, the employee shall inspect the equipment. The hoses, valves, couplings, and tip connections shall be checked for damage and leaks.
2. During transportation, storage, or when in use, a compressed gas cylinder must always be secured in an upright position. This is especially important for acetylene bottles, because the acetone in them can corrode the valve assembly if laid on its side.
3. Full or empty gas cylinders not in use shall have their valves shut and the valve protection cap screwed on.
4. Never use high pressure compressed oxygen in a cylinder for ventilation, comfort cooling, blowing dust from clothing, or cleaning your work area. Pure oxygen greatly enhances the combustibility of any fuel and accelerates the burning process. Also, take extra caution with oxygen bottles to see that the valve assembly on top is not damaged by equipment or a fall. The very high pressure of the escaping oxygen in the cylinder will propel it like a torpedo and destroy most anything in its path.
5. When lifting cylinders with a rig, never wrap a choker or sling directly on the cylinder. Always secure them in a cart, cradle, sling board, etc., for hoisting. Also, do not use the valve protection cap for hoisting.
6. Oxygen cylinders must have their valve opened all the way for use. Acetylene valves, however, must be opened not more than 1½ turns so they can be quickly turned off in an emergency. Valves that utilize a T wrench must have the T wrench in place when in use.
7. Torches will be lit by strikers or friction lighters, not with matches, cigarettes, or from hot work.

10 BASIC RULES FOR OXY-ACETYLENE WELDING

1. Blow out cylinder valve before you connect the regulator.
2. Release the adjusting screw on the regulator before opening the cylinder valve.
3. Stand to one side of regulator before you open the cylinder valve.
4. Open cylinder valve slowly.
5. Do not use or compress acetylene in a free state at pressures more than 15 psig.
6. Purge your acetylene and oxygen passages individually before lighting the torch.
7. Light the acetylene before opening the oxygen on the torch.
8. Never use oil or grease on regulators, tips, etc., in contact with oxygen.
9. Do not use oxygen as a substitute for air.
10. Keep your work area clear of anything that will burn.

Date