

Worksite: \_\_\_\_\_ Instructor: \_\_\_\_\_ Date/Time: \_\_\_\_\_

## Topic C242: Compressor Safety

**Introduction:** Due to the high pressures attained, if not used carefully, pneumatic power (compressed air) may become a serious workplace hazard. A wide variety of tools and equipment are powered by compressed air such as jack hammers, rock drills, nail guns, staplers, and an assortment of air wrenches. At the heart of the pneumatic system is the air compressor. Air compressor pumps and motors have been manufactured for many years under rigid design, performance and limitation standards.

### OSHA Requirements for Compressed Air Equipment Safety:

**Every air receiver** must be equipped with a pressure indicator gauge with one or more spring loaded safety valves.

Pressure gauges must be located so as to be readily visible.

The pressure relief safety valves may not exceed the rated working pressure of the air receiving tank.

No valve of any type may be placed between the safety valve and the air receiver.

Test all safety valves at frequent intervals to determine proper operating condition.

The air receiver tank must be rated equal to or higher than original equipment.

Replace damaged pressure gauges or pressure relief valves with the compatible equipment before using the compressor.

Do not use compressed air to pressurize barrels, pipes, or other containers not designed or intended as pressure vessels.

If an air receiver is equipped with a quick connect/release fitting, make sure the lock collar is fully engaged when hose is connected. When the hose is released from the fitting, firmly grasp the hose close to the fitting before releasing the lock collar.

Before servicing a compressor, disconnect it from the power source and bleed the pressure from the tank.

Pulleys and belts on compressor motors and pumps must be properly guarded.

If using a gas or diesel fueled compressor, engine must be shut off before refueling.

If an electric powered compressor, check power cord for cuts and abrasions, replace damaged components before use.

**Remove from service** a compressed air storage tank that is dented, deeply gouged, or badly rusted.  
**Do not use air compressor** to clean yourself.

### General rules required by OSHA for using Pneumatic Powered Tools are as follows:

Appropriate Personal Protective Equipment must be worn at all times when using compressed air tools and equipment.

Secure pneumatic powered tools to the hose by positive means to prevent the tool from becoming accidentally disconnected

Safety clips or retainers must be securely installed and maintained on pneumatic impact (percussion) tools to prevent attachments from being accidentally expelled.

Pneumatic powered nailers, staplers, and similar equipment with automatic feed, that operate at over 100 psi must have a safety device on the muzzle to prevent the tool from cycling and ejecting fasteners, unless the muzzle is in contact with the work surface.

Reduce pressure to less than 30 psi to clean. This does not apply to concrete forms, mill scale, and similar cleaning.

The manufacturer's safe operating pressure for hoses, pipes, valves, filters, and other fittings must not be exceeded.

**Air receiving tanks** must be installed so that all drains, hand-holes, and man-holes are easily accessible. Under no circumstances may a compressed air storage tank be buried underground or located in an inaccessible location. A drain pipe and valve must be installed at the lowest point of any air receiver to provide for the frequent and complete removal of accumulated oil and water.

**Conclusion:** The risk of injury increases if the safety rules are ignored for the sake of speed, convenience, or economy. Carefully observe the above guidelines and regulations for safe pneumatic powered operations.

**Employee Attendance:** (Names or signatures of personnel who are attending this meeting)

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*These guidelines do not supersede local, state, or federal regulations and must not be construed as a substitute for, or legal interpretation of, any OSHA regulations.*