



Job Name: _____ Job Site Location: _____

Date: _____ Start Time: _____ Finish Time: _____ Foreman/Supervisor: _____

Topic 242: Compressor Safety

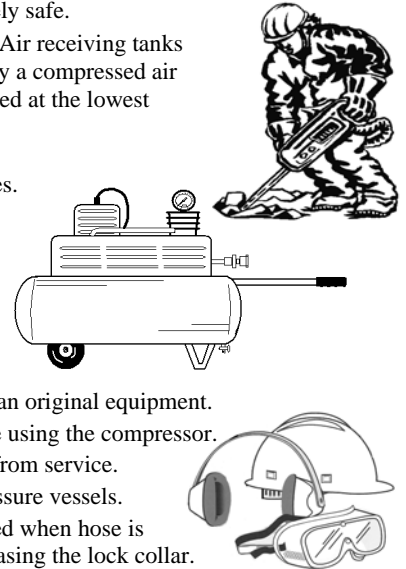
Introduction: Air under pressure is a powerful force that speeds up job progress and helps to increase profits. Pneumatic powered (compressed air) tools and equipment are an important element in many production operations. However, if not used carefully, air power may become a hazard in the workplace. A wide variety of tools and equipment are powered by compressed air such as jack-hammers, rock drills, nail guns and staplers, and an assortment of air wrenches, to name a few. 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 and are therefore relatively safe.

Air receivers (the storage tanks for compressed air) may become a hazard unless used and maintained properly. 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.

OSHA Requirements for Compressed Air Equipment Safety

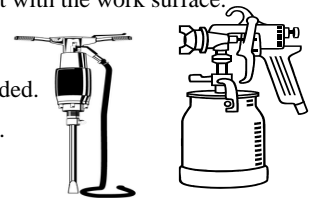
Every air receiver must be equipped with a pressure indicator gauge with one or more spring loaded safety valves.

- **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.
- **Safety valves, pressure gauges, regulators,** and other controlling devices must be designed and installed so that they cannot be easily rendered inoperative by any means, including weather elements.
- **All safety valves** must be tested at frequent intervals to determine proper operating condition.
- **Never install compressors** on an unrated air tank. The air receiver tank must be rated equal to or higher than original equipment.
- **If pressure gauges or pressure relief valves are damaged,** replace them with compatible equipment before using the compressor.
- **If a compressed air storage tank** is dented, deeply gouged, or badly rusted, compressor must be removed from service.
- **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. (Use appropriate LOTO)
- **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, if the cord, plug, or any components are damaged, replace before use.



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.
- **Pneumatic powered tools** must be secured to the hose by some 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.
- **All pneumatically powered nailers, staplers,** or other similar equipment with automatic feed, that operate at over 100 psi at the tool, 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.
- **Compressed air must not be used** to clean except where pressure is reduced to less than 30 psi. The 30 psi rule does not apply to concrete forms, mill scale, and similar cleaning purposes.
- **The manufacturer's safe operating pressure** for hoses, pipes, valves, filters, and other fittings must not be exceeded.



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.

Work Site Review

Work-Site Hazards and Safety Suggestions: _____

Personnel Safety Violations: _____

Employee Signatures: _____ (My signature attests and verifies my understanding of and agreement to comply with, all company safety policies and regulations, and that I have not suffered, experienced, or sustained any recent job-related injury or illness.)

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