



Loss Prevention Topic



Shop Safety Rules and Practices

Safety in your wood shop, auto body shop, welding shop, or agriculture shop is of the utmost importance. The instructor and the students should be familiar with the following general shop safety rules even before entering the shop. These should be implemented as a minimum standard for your shop then specifically tailored for your arrangement and operation.

Personal Safety and Protection

- Eye protection must be worn at all times.
- Only closed-toe shoes may be worn.
- A dust mask should be worn when performing grinding or other operations that may generate fine airborne particles.
- Wear a short-sleeved shirt or roll up long sleeves above the elbow (Do NOT wear long, puffy or fuzzy shirts or sweaters).
- Remove all dangling wrist jewelry before operating any of the machines and all long hair should be kept up above your shoulders to prevent entanglement.
- Use a shop vacuum to remove chips, sawdust, etc. from machines – (do NOT use your hands).
- Gloves must not be worn around most machine tools, although their use is permissible when using cutting tools such as the table, band, or miter saws.
- When lifting heavy objects, lift with legs, keeping back straight.
- Respect the machines and what they can (and can't) do – never, ever use the machines for anything other than what they were designed to do, and never tamper, alter, or play with the equipment!
- "Horseplay" should never be allowed in the shop!
- If an injury occurs, no matter how minor, report it to the instructor immediately.

General Shop Hazards

- Never use compressed air to blow debris away from a machine or person.
- Keep the floor clear of stock and tools, and clean spilled oils or coolants.
- Know where the fire extinguisher is kept and how to use it.

Shop Safety Rules and Practices - continued

General Shop Hazards - continued

- Always mechanically or electrically lock machine to zero mechanical state when making adjustments. A formal lock-out tag-out program should be utilized and in place.
- Make sure that all emergency stop switches are functional and can only be re-started after activation by key, to which only the instructor should have access.
- Applying paint, lacquer, or stain should be done in a well ventilated room with all electrical devices meeting NEC standards.
- An U.L. listed or F.M. approved storage cabinet should be provided for the containment of all flammable/combustible liquids. The cabinet should be conspicuously labeled "FLAMMABLE, KEEP FIRE AWAY".
 - No more than one day's supply should be located outside of this approved storage area.
- All compressed gas cylinders should be stored in a secured upright position. Oxygen cylinders in storage should be separated from fuel gas cylinders or combustible materials, by a minimum distance of 20 feet or by a non-combustible barrier at least five feet high having a fire resistance rating of not less than one-half hour.
- When in use, compressed gas cylinders shall be equipped with connections (flash arrestors or "flashbacks") complying with the American National Standard Compressed Gas Cylinder Valve Outlet and Inlet Connections, ANSI B57.1-1965. A flashback is the burning-back of the flame into the blowpipe or the ignition of an explosive mixture in one of the gas lines.

Machine Hazards

- Before using a machine, think about what you are going to do before doing it.
- All pedestal-style machinery (i.e. drill presses) should be bolted to the floor, or otherwise secured, to prevent a tip-over. This type of machinery is top-heavy, and should be secured, to prevent a possible injury, or property damage.
- Go over the following safety checklist before operating a machine:
 - ◆ Am I familiar with the operation of this machine?
 - ◆ What are the potential hazards involved with using this machine?
 - ◆ Are all safety guards in place?
 - ◆ Are my procedures safe?
 - ◆ Am I doing something that I probably should not do?
 - ◆ Have I made all the proper adjustments and tightened all locking mechanisms?
 - ◆ Is the work piece secured properly?
 - ◆ Do I have proper safety equipment?
 - ◆ Do I know how to turn off the machine quickly if necessary?
 - ◆ Do I think about safety in everything I do?

Shop Safety Rules and Practices - continued

Machine Shop Etiquette

- Clean up the shop after every use!
- Vacuum or sweep the floor and machines of all wood, plastic, or metal debris.
- Return all machine tools and accessories to their storage locations.
- Return all hand tools and equipment to locked cabinets or storage locations.
- Be sure the ventilator and all electrical equipment are turned off when you leave.
- Turn out the lights and lock the door to the shop when you leave.

Note: No student should be allowed to work with any machines in the shop without the presence of an instructor.

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