Phase 1 Mechanical ROA Module Title: Machine Shop Safety Module No: MS4

Presentation Title: Machine Shop Safety



Safety on the Job

- Develop safe work habits "SSOW"
- Be neat, tidy and dress for job being performed
- Develop responsibility for personal safety and safety of fellow workers
- Think and work safely at all times

Safety in the Shop

Divided into two broad categories

- Practices that will prevent injury to workers
- Practices that will prevent damage to machines and equipment
- Other considerations
 - Personal grooming
 - Proper housekeeping
 - Safe work practices
 - Fire prevention

Personal Grooming When Working in Machine Shop

Always wear approved safety glasses

- Plain safety glasses with side shields
- Plastic safety goggles
- Face shields



Personal Grooming When Working in Machine Shop

Never wear loose clothing

- Short sleeves or rolled up
- Material hard and smooth (not loose fitting)
- Remove or tuck in all neckties
- Always ensure overalls are worn and fit correctly
- Remove wrist watches, ear-rings, noserings, and bracelets

Personal Grooming When Working in Machine Shop

- Never wear gloves around rotating spindles
- Long hair must be protected by hair net or cap
- Safety footwear must be worn at all times

Housekeeping

- Stop machine before cleaning it
- Keep machine and hand tools clean
- Use brush and not cloth to remove chips
- Use cloth to clean oily surfaces
- Do not place tools and materials on machine table

Note: Good housekeeping will never compromise safety or efficiency!

Housekeeping

- Keep floor free from oil and grease
- Sweep up metal chips on floor frequently
- Never place tools or materials on floor close to machine
- Return bar stock to storage rack after cutting
- Never use compressed air to remove chips from machine

- Do NOT operate any machine before understanding its operation
- Before operating a machine, check that safety devices are in place and working
- Disconnect power and lock it off at switch box when making repairs to machine

- Make certain that cutting tool and work piece are properly mounted
- Keep hands away from moving parts
- Always stop machine before measuring, cleaning, or making any adjustments

- Never use rag near moving parts
- Never have more than one person operate machine at same time
- Get first aid immediately for any injury
- Remove all burrs and sharp edges with file before handling any work piece

Do not life heavy or difficult to handle objects by yourself

- Use safe lifting practices
 - Assume squatting position (knees bent, back straight)
 - Grasp work piece firmly
 - Lift object by straightening legs (back straight)

- Be sure work is clamped securely to table Make sure bolts placed closer to workpiece than clamping blocks
- Never start machine until sure that cutting tool and machine parts will clear workpiece
- Always turn a safety shoulder when turning a shaft
- Use proper wrench for job Safer to pull on wrench than push it

Fire Prevention

 Always dispose of oily rags in proper metal containers

 Be sure to isolate all electrical equipment after use

 Know location and operation of every fire extinguisher

Fire Prevention

Know location of nearest fire exit from building

- Know location of nearest fire-alarm box and its operating procedure
- Always leave the work area in a clean tidy state disposing of any waste materials

General Safety

Always:

- ✓ Use Common Sense
- ✓ If in Doubt Ask!
- ✓ Use PPE Replace Damaged PPE
- ✓ Use Correct Tools for the Job
- ✓ Quarantine Worn / Damaged Tools
- ✓ Keep Walkways and Machines Clean

General Safety

Never:

- ✓ Wear Rings And Watches Etc
- ✓ Keep Sharp Tools in Overall Pockets
- √ Remove / Circumvent Guards
- ✓ Touch Revolving Cutters Etc.
- ✓ Wash Hands In Coolant
- ✓ Engage in Horseplay
- ✓ Leave a machinery unattended