

CODES OF SAFE PRACTICES – MECHANICS

Personal Protective Equipment Safety Rules

- A. **Eye injuries are the most common occurrence in this industry.** Wear safety glasses with side shields or goggles with the designation Z-87.1 on the frame. When working with liquids, use goggles.
- B. **Wear foot protection such as steel-toed boots and head protection.** Whenever a car is lifted on the hydraulic hoist, parts can fall. Bump caps can shield against falling objects and prevent head bumps against the undercarriage.
- C. **Wear gloves whenever possible.** Mechanics routinely handle hot, sharp metal, often dripping with chemicals. When handling chemicals, refer to the Material Safety Data Sheet (MSDS) to determine proper hand protection. Routine handling of solvents, oil, fiberglass, coolants and other irritants with bare hands can cause skin problems.
- D. **Wear disposable earplugs when noise is loud due to engine, compressor and impact tool noises.**

Fire Safety Rules

- A. **Multipurpose ABC fire extinguishers should be available throughout the shop.**
- B. **For small fires use the PASS method.** Pull the pin, aim, squeeze the handle and sweep at the base of the fire.
- C. **Annually have the fire extinguishers serviced and checked by a certified vendor.** Perform monthly inspections of the fire extinguisher to ensure that units are fully charged. Remove unit from service if the dial indicates partial charge.
- D. **Gasoline is an extremely flammable liquid.** Never smoke or operate anything that may cause a spark (such as communicators, radios or cellular phones) close to gasoline vapors or liquid.

Jump-Starting Car Battery Safety Rules

- A. **Wear a pair of splash-proof goggles with the designation Z-87.1 on the frame.** Use acid resistant gloves and apron. Sulfuric acid is contained in the battery fluid. Keep baking soda on hand to neutralize acid spills.
- B. **Never smoke or operate anything that may cause a spark when working on a battery.** Batteries contain hydrogen and oxygen, both flammable and explosive gases. The gases may ignite and cause the battery to explode.
- C. **Use a pair of jumper cables that are rust and corrosion free and have no exposed wires.** Never use electrical tape to cover exposed wires.
- D. **Do not discard used batteries in a garbage dumpster or leave it in a parking lot.** Dispose properly as a hazardous waste.
- E. **Keep metal tools and jewelry away from the battery.**

- F. **Never touch both terminals (+-) at the same time.**

Compressed Air Safety Rules

- A. **All pipes, hoses, and fitting must have a rating of the maximum pressure of the compressor.** Compressed air pipelines should be identified (psi) as to maximum working pressure.
- B. **Air supply shutoff valves should be located (as near as possible) at the point-of-operation.**
- C. **Air hoses should be kept free of grease and oil to reduce the possibility of deterioration.**
- D. **Hoses should not be strung across floors or aisles where they are a trip or fall hazard.** When possible, air supply hoses should be suspended overhead.
- E. **Hose ends must be secured to prevent whipping if an accidental cut or break occurs.**
- F. **Pneumatic impact tools, such as riveting guns, should never be pointed at a person.**
- G. **Before a pneumatic tool is disconnected, unless it has quick disconnect plugs, the air supply must be turned off and the tool bled of residual pressure.**
- H. **Compressed air must not be used under any circumstances to clean dirt and dust from clothing or off a person's skin.** Shop air used for cleaning should be regulated to 15 psi unless equipped with diffuser nozzles to provide less pressure.
- I. **Personnel using compressed air for cleaning equipment must wear goggles, face shields or other eye protection.**
- J. **Static electricity can be generated through the use of pneumatic tools.** This type of equipment must be grounded or bonded if it is used where fuel, flammable vapors or explosive atmospheres are present.

Mechanical Lifting Rules

- A. **Check the load rating on the mobile hydraulic lift to determine if it is properly rated.** Securely attach the load before it is lifted.
- B. **Persons should not work under suspended loads unless the load is properly supported, for example by weight bearing vehicle stands.**

Lifting Rules

It is just as important to keep your body in shape for the task as it is any other tool you use for other jobs. You can injure yourself just as easily lifting light objects as you can lifting heavier ones if you don't lift properly and your "tool" is not in shape for the job. Lifting is a thinking person's job.

- A. **Before you lift something, prepare yourself and plan the move.** Make sure you are limber and physically fit enough to do the task safely. Daily exercises will keep your body ready for lifting and help you feel better. Size up the load to make sure you can handle it safely. If you think the load is too bulky or too heavy, ask someone to help you or try to break it up into smaller, more manageable loads. Use a hand truck or dolly if necessary. Plan your route and make sure the path is clear of trip, slip, and fall hazards.

- B. **Use proper body mechanics when lifting.** Stand close to the object with your feet about shoulder width apart. Squat down, bending at the hips and knees. Keep your back straight. As you grip the load, arch your lower back inward by pulling your shoulders back and sticking your chest out with chin tucked in. Be sure to keep the load close to your body. When you set the load down, squat down, bending at the hips and knees, keeping your lower back arched in.
- C. **Turn, don't twist.** Twisting is not the thing to do. Instead of twisting, turn your whole body in the direction that you want to go. Twisting when carrying a load puts a lot of undo stress on your back.
- D. **Push, don't pull.** Whenever you have to move something that's on a cart, a dolly, or a hand truck, push the load. Pushing puts less strain on your back.
- E. **Don't store heavy objects higher than your waist.** If heavy objects aren't stored higher than your waist than you won't have to lift them higher than your waist. Lifting objects overhead puts a lot of undue stress on your back. It's one of the surest ways to injure your back.
- F. **Lift like a pro and avoid the pain.** Learning how to lift and carry safely is one of the most important things you can do for your back. It's not hard to put these suggestions to use, and the payoffs will be well worth the time and effort you put into it.

Machinery Safety Rules

- A. **Manufacturers supply manuals with machinery.** Read the manuals and become completely familiar with the equipment before using it, paying particular attention to the potential hazards of each piece of machinery. Keep the manuals handy for future reference. Have an experienced operator provide instructions and a demonstration of the equipment before you use it.
- B. **Learn safeguarding techniques for each machine.** Become familiar with the purpose and nature of each required guard, and how to inspect and use the guards. Do not remove the guards without the approval of the maintenance supervisor.
- C. **Prepare the equipment and yourself for work.** Thoroughly inspect the equipment prior to using it (most equipment manuals have inspection checklists). Make sure all the factory installed safety devices are operating properly, and don't use the equipment if they are not. Immediately report all equipment faults to your supervisor.
- D. **Review the Personal Protective Equipment (PPE) required for safe use of each machine.** Become familiar with and wear the protective clothing provided by your supervisor and recommended by the equipment manufacturer.
- E. **Be aware of the non-mechanical hazards.** Recognize other potential hazards; they include noise (wear hearing protection if recommended), possible chemical splashing, sparking and excessive heat.
- F. **Keep the area in and around the machine neat and well lit.** Poor housekeeping and lighting are factors in a number of machine injuries. Any limitations to vision or mobility are potentially dangerous.
- G. **Do not wear loose fitting clothes or jewelry.** Long hair also needs to be confined.
- H. **Follow lockout/tagout procedures when performing maintenance.** Review the procedures with your supervisor before disconnecting the machine from its source of power. Stay in control of that source of power – through either a lock or tag – while working on the machine.

Storeroom Safety Rules

An overcrowded, unorganized storeroom is an accident about to happen. A neat, clean storeroom can greatly reduce the potential for accidents.

- A. **Store chemicals safely.** All chemical containers must be properly labeled. Store chemicals according to instructions on container labels. Be aware of where the MSDS are kept for all the chemicals you use. Store flammable materials in a properly vented flammable liquids cabinet away from sources of ignition like hot water heaters.
- B. **Store your tools safely.** Each tool should have its place in the storeroom. The tools should only be stored after inspecting them for safety hazards and cleaning them. Check electrical tools for frayed wires and defective plugs. Make sure the ground plug is in place. Cords should be neatly wrapped and secured on the tool. Keep extension cords in good repair.
- C. **Weight can be a safety hazard.** Heavier items should be stored on the lower shelves at about knee to shoulder height. Be careful not to overload shelves.
- D. **Electrical/water heater rooms are not storerooms.** Rooms with electrical panels are not designed as storerooms. However, if electrical rooms must be used for storage, make sure there is clear area at least 36" from electrical panels. Electrical rooms must be free of all liquids. A water heater is a source of ignition. Don't store flammable materials in rooms with water heaters.
- E. **Keep it neat.** Keep at least one aisle of your storage areas open at all times. Protruding nails, and torn or sharp corners can cause serious cuts and bruises. Remove or pad them. Be alert to the careless actions of others.