

Hand and Power Tools Quiz



QUESTION

Provide examples of differences between PPE suggested use for hands tools and PPE suggested use for safe power tool use. What are they'

ANSWER

1. Eye protection, such as safety glasses or goggles, is especially important when using power tools. The speed at which drills, saws, grinders, sanders and routers operate can propel small particles much faster and farther than hand tools. Certain power tools may require using a face shield, in addition to safety glasses or goggles.
2. Cut-resistant gloves are not designed for, or capable of providing protection against a moving blade or bit. Anti-vibration gloves minimize the vibration created by hammerdrills and rotary hammerdrills.
3. Safety shoes with a nonslip, electrically insulated sole and a protective toe cap will provide protection against dropped objects and misdirected electricity.
4. The higher sound levels generated by some power tools, may require the use of earplugs or earmuffs. Power sanding and grinding operations may require the use of a particulate respirator.
5. Proper attire is also important while using power tools. Tie back or cover long hair and don't wear loose or torn clothing. Because of this potential, loose jewelry should be avoided as well.

WHY IS IT RIGHT

5 KEY HAND AND POWER SAFETY PROTOCOLS

Tool Assessment

Take stock of the types of tasks, jobs, and operations that require the use of hand or power tools. Are these available and in good working condition' Are workers using the right tools for the work they are performing' Do they need a different tool' Would a power tool lessen the repetitiveness or force needed to do the job'

Hazard Assessment

Conduct a hazard assessment wherever hand or power tools are used. Each hazard assessment will identify hazards, recommend controls, and provide guidance on appropriate personal protective equipment (PPE) selections when a hazard can't be eliminated.

Hazard Controls

Remove or eliminate the hazard whenever possible. Ensure power tools are fitted with guards and safety switches. Provide PPE to protect against flying objects, dust, or and enforce its use. Use caution with gloves and prohibit their use when using powered equipment if there's a chance the glove could get caught.

Establish Inspection Procedures

All tools should be inspected before use. Check hand tools for cracks dings and chips. Don't use damaged tools. Generally, hand tools cannot be repaired and should be thrown away. Power tools should only be repaired by someone trained and qualified to make repairs.

Establish Maintenance and Safe Storage Requirements

Tools must be kept clean, sharp, and well-maintained to be used safely and effectively. Set up areas where tools will be protected from the elements and damage from other tools and equipment.

OPERATIONAL RECOMMENDATIONS

- Clean tools after use.
- Clean metal surfaces with an approved solution and scrape away any soil and dirt.' Completely dry the tool with a towel or rag before it is placed in storage.
- Don't place tools directly on the ground for storage.
- Place small hand and power tools on shelving. Store short-handled tools in a plastic bin or box.
- Tie together long-handled tools in a bin or hang them on the wall.
- Power tools should have all surfaces cleaned and completely dry before storage.
- Ensure employees have been trained and fully understand operations and maintenance procedures and safe tool use.
- Provide employees with the right PPE and train them how to use and care for it.
- Educate workers on the dangers of loose or baggy clothing, long hair, and jewelry.

WHY IS EVERYTHING ELSE WRONG

HAZARDS / DANGERS OF HAND TOOLS

Hand tools are tools that are powered manually. Hand tools include anything from axes to wrenches. The greatest hazards posed by hand tools result from misuse and improper maintenance.

Examples include the following:

- If a chisel is used as a screwdriver, the tip of the chisel may break and

fly off, hitting the user or other employees.

- If a wooden handle on a tool, such as a hammer or an axe, is loose, splintered, or cracked, the head of the tool may fly off and strike the user or other employees.
- If the jaws of a wrench are sprung, the wrench might slip.
- If impact tools such as chisels, wedges, or drift pins have mushroomed heads, the heads might shatter on impact, sending sharp fragments flying toward the user or other employees.

The employer is responsible for the safe condition of tools and equipment used by employees. Employers shall not issue or permit the use of unsafe hand tools. Employees should be trained in the proper use and handling of tools and equipment.

Employees, when using saw blades, knives, or other tools, should direct the tools away from aisle areas and away from other employees working in close proximity. Knives and scissors must be sharp; dull tools can cause more hazards than sharp ones. Cracked saw blades must be removed from service.

Wrenches must not be used when jaws are sprung to the point that slippage occurs. Impact tools such as drift pins, wedges, and chisels must be kept free of mushroomed heads. The wooden handles of tools must not be splintered.

Iron or steel hand tools may produce sparks that can be an ignition source around flammable substances. Where this hazard exists, spark-resistant tools made of non-ferrous materials should be used where flammable gases, highly volatile liquids, and other explosive substances are stored or used.

HAZARDS / DANGERS OF POWER TOOLS

Appropriate personal protective equipment such as safety goggles and gloves must be worn to protect against hazards that may be encountered while using hand tools.

Workplace floors shall be kept as clean and dry as possible to prevent accidental slips with or around dangerous hand tools.

Power tools must be fitted with guards and safety switches; they are extremely hazardous when used improperly. The types of power tools are determined by their power source: electric, pneumatic, liquid fuel, hydraulic, and powder-actuated.

To prevent hazards associated with the use of power tools, workers should observe the following general precautions:

- Never carry a tool by the cord or hose.
- Never yank the cord or the hose to disconnect it from the receptacle.
- Keep cords and hoses away from heat, oil, and sharp edges.
- Disconnect tools when not using them, before servicing and cleaning them, and when changing accessories such as blades, bits, and cutters.
- Keep all people not involved with the work at a safe distance from the work area.
- Secure work with clamps or a vise, freeing both hands to operate the tool.
- Avoid accidental starting. Do not hold fingers on the switch button while carrying a plugged-in tool.

- Maintain tools with care; keep them sharp and clean for best performance.
- Follow instructions in the user's manual for lubricating and changing accessories.
- Be sure to keep good footing and maintain good balance when operating power tools.
- Wear proper apparel for the task. Loose clothing, ties, or jewelry can become caught in moving parts.
- Remove all damaged portable electric tools from use and tag them: "Do Not Use."