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|  | Mathers Construction Team E.H.S Policy | Doc No. | 1.6 |
| | | Initial Issue: | |
| | | Revision Date: | 12/30/2021 |
| HAND AND POWER TOOLS/ MACHINERY GUARDING | | | |
| Prepared By: | Ashley L. Gauldin, E.H.S Director | Page: | 1 |

PURPOSE

Mathers Construction Team has established the Tool Safety policy to reduce the hazards associated with the use of hand and power tools and exposure at the point of operation. This policy details the requirements for using hand and power tools including, but not limited to, special types of power tools (abrasive wheel machinery, pneumatic and liquid-fuel tools, and powder-actuated tools). This policy also covers the guarding requirements for machinery.

GENERAL REQUIREMENTS

1. Employees who use hand and power tools in the workplace are responsible for:
 - Understanding the potential hazards associated with each type of tool; and
 - Following safety precautions to minimize those hazards.
2. Personal Protective Equipment (PPE) appropriate to the specific tool and the work task shall be worn. *Note: Loose clothing, jewelry, and long hair are dangerous near moving parts. The user shall adhere to the manufacturer's guidelines for the specific tool.
3. Tools and accessories shall be visually inspected for defects or damage before use.
4. Any defective or damaged tool shall be removed from service and either designated with a Do Not Use tag or disposed of immediately. Use of unsafe tools and equipment is strictly prohibited.
5. Each tool shall be used solely for its intended application and within its capabilities.
6. Tools and accessories shall be used, maintained, and stored in accordance with manufacturers' instructions.
7. All the manufacturer's safety guards and safety devices shall be in place and operational. Using a tool with these safety devices disabled is strictly prohibited.
8. Individuals who may be affected by the operation of power tools shall remain at a safe distance.
9. To reduce the possibility of being injured by a tool, work areas shall be kept clean and free of debris that could cause an employee to slip, trip or fall.
10. To reduce the possibility of being injured by poor body positioning and repetitive motion, employees must do the following:
 - maintaining good posture at work.
 - taking regular breaks from long or repetitive tasks – it's better to take smaller,

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- more frequent breaks than one long lunch break.
- trying breathing exercises if you're stressed.
- take a stretch break multiple times throughout the day.

HAND TOOLS


1. Wrenches (including adjustable, pipe-end and socket) must not be used when jaws are sprung to the point that slippage occurs.
2. Impact tools, such as hammers, wedges, and chisels, must be kept free of mushroomed heads.
3. All tools, company issued and personal, must be inspected daily for defects. All defective tools must be removed and tagged “DO NOT USE”.
4. ALWAYS use the proper tool for the job.
5. Proper PPE should be used when hand and/or power tools are in use

POWERED TOOLS

1. Power tools must always be equipped with manufacturer guarding or equivalent.
2. All manufacturer’s warnings and safe operating procedures for tools will be followed.
3. Never use electrical cords for hoisting or lowering tools.
4. Electric power tools must be industrial or heavy-duty grade, with approved double insulation wiring or be grounded. If the grounding pin is missing, tag the tool “DO NOT USE” and take it out of service until properly repaired.
5. All portable, power-driven circular saws must be equipped with guards above and below the base plate or shoe.
6. All pneumatically driven nailers, staplers and other similar equipment provided with automatic fastener feed, which operate at more than 100 psi, must have a safety device on the muzzle to prevent the tool from ejecting fasteners unless the muzzle is in contact with the work surface.
7. Compressed air must never be used for cleaning purposes.

*All compressed air hoses exceeding ½ inch diameter must have a safety device at the source of supply to reduce pressure in case of hose failure

ABRASIVE WHEEL MACHINERY


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1. Abrasive wheels shall be used only on machines equipped with safety guards.
*Exceptions: Safety guards are not required for wheels used for internal work; mounted wheels used in portable work (2 inches or less in diameter); wheels of the cone, plug, and threaded hole type where the work offers protection.
2. Pneumatic abrasive wheel machines shall be operated within the specified air pressure range.
3. Abrasive wheel machines shall be operated with the size of wheel shown on the tool.
4. Any new grinding wheel shall be run at least one minute before use, during which time no one shall stand in front of or in line with the wheel.
5. Work rests shall be kept adjusted closely to the wheel with a maximum opening of 1/8 inch to prevent work from being caught between the wheel and the rest. *The adjustment shall not be made while the wheel is in motion.*
6. All abrasive wheels shall be closely inspected and ring-tested before mounting to ensure that they are free from cracks and other defects.

POWDER-ACTUATED TOOLS

The use of powder-actuated tools comes with several hazards. The explosion exposure would be a fire and explosion hazard in a flammable atmosphere. The fastener travels at a velocity high enough to cause serious injury.

1. Only employees who have been trained in the operation of the tool in use shall be allowed to operate a powder-actuated tool.
2. The tool shall be tested each day before loading to see that safety devices are in proper working condition. The method of testing shall be in accordance with the manufacturer's recommended procedure.
3. Any tool found not in proper working order, or that develops a defect during use, shall be immediately removed from service, tagged "out of service" and not used until properly repaired.
4. The employee shall wear the appropriate PPE including a face shield.
5. Powder actuated tools shall not be loaded until just prior to the intended firing time.
6. Neither loaded nor empty tools are to be pointed at any person. Body parts shall be kept clear of the open barrel end.
7. Loaded tools shall not be left unattended.

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8. Fasteners shall not be driven into very hard or brittle materials including, but not limited to, cast iron, glazed tile, surface-hardened steel, glass block, live rock, face brick or hollow tile.
9. Driving into materials easily penetrated shall be avoided unless such materials are backed by a substance that will prevent the pin or fastener from passing completely through and creating a flying hazard on the other side.
10. No fastener shall be driven into an area of the material that is loose or separated from the original material. This would cause an unsatisfactory fastening.
11. Powder actuated tools shall not be used in an explosive or flammable atmosphere.
12. All tools shall be used with the correct shield, guard or attachment recommended by the manufacturer.
13. Powder-actuated tools used by employees shall meet all other applicable requirements of ANSI, A10.3-1970, Safety Requirements for Explosive-Actuated Fastening Tools.

MACHINERY GUARDING

Requirements for machine guards vary with the type of tool or machine. Consult the Safety Coordinator for specific requirements.

1. Manufacturer machine guards shall be maintained to protect the operator and other employees in the area from hazards such as those created by point of operation, ingoing nip points, rotating parts, and flying chips and sparks.
*Note: Examples of guarding methods include barrier guards, two-hand tripping devices, electronic safety devices, etc. Barrier guards may be used in lieu of point-specific guards where appropriate.