

Midland Engineering Co., Inc. Safety Management System			Doc No:	POWTOOL
			Initial Issue Date	12/14/15
			Revision Date:	Initial Version
Chapter 18-Hand & Power Tools			Revision No.	0
			Next Review Date:	
Preparation: Safety Mgr	Authority: President	Issuing Dept: Safety	Page:	Page 1 of 5

PURPOSE

The purpose is to provide guidelines for the safe use of hand and power tools.

SCOPE

This procedure applies to all operations within Midland Engineering Co., Inc.

REFERENCES

29 CFR 1910.241 to 1910.244
29 CFR 1926.300 to 1926.305

SAFE WORK PRACTICES

- All hand and/or power tools used on the job shall be maintained in safe condition.
- Use hand and power tools only for the purpose for which they were designed.
- All hand and power tools will be inspected prior to use. Worn or broken tools must be tagged "Do Not Use" and repaired or replaced.
- Always use appropriate safety equipment.
- Store tools that are not in use. Proper storage includes toolboxes, tool racks, and cabinets.
- Do not leave tools on overhead work areas where they may fall and strike someone below.
- Do not carry a sharp or pointed tool in pockets or belts unless the point or edge is protected with a cover.
- Follow all manufacturer's instructions regarding the safe storage, operation, and maintenance of hand and power tools.

Midland Engineering Co., Inc. Safety Management System			Doc No:	POWTOOL
			Initial Issue Date	12/14/15
Chapter 18-Hand & Power Tools			Revision Date:	Initial Version
			Revision No.	0
			Next Review Date:	
Preparation: Safety Mgr	Authority: President	Issuing Dept: Safety	Page:	Page 2 of 5

Safe Work Practices Continued

- Do not use a power tool unless you have been trained on how to use it properly and safely.
- All guards must be in place before operating a power tool.
- Appropriate eye protection must be worn.
- Do not wear loose fitting clothing or jewelry when using power tools.
- Disconnect the tool before changing blades, bits, etc. Remove chuck keys, etc. before using a power tool.
- Disconnect power tools from the power source by pulling out the plug—do not pull on the power cord.
- Make sure that tools are either double insulated, or have three prong plugs with grounded extension cords and receptacles.
- Keep your finger off the trigger and make sure the switch is “off” before plugging in a tool.
- Do not use electric tools that have worn or damaged plugs or cords.
- Secure small pieces of work with a clamp, or in a vise.
- When using power tools, keep the work area free of any trip hazards, or slippery conditions.
- Never use compressed air to blow off yourself, equipment, or clothing; use a brush.
- All tools identified as unsafe will be tagged or marked “Do Not Use”. Tagged tools will be taken off site immediately for repair.

Midland Engineering Co., Inc. Safety Management System			Doc No:	POWTOOL
			Initial Issue Date	12/14/15
			Revision Date:	Initial Version
Chapter 18-Hand & Power Tools			Revision No.	0
			Next Review Date:	
Preparation: Safety Mgr	Authority: President	Issuing Dept: Safety	Page:	Page 3 of 5

GUARDS

All moving parts of power tools need to be safeguarded. Moving parts are, but not limited to, belts, gears, shafts, pulleys, sprockets, spindles, drums, fly wheels, chains, or other reciprocating, rotating, or moving parts of equipment. These types of parts must be guarded if exposed or contact is a possibility. Guards should be provided to protect the operator and others from the point of operation, nip points, rotating parts, and flying chips.

Safety guards must never be removed when a tool is being used. For example, portable circular saws and grinders must be equipped with guards. An upper guard must cover the entire blade. A retractable lower guard must cover the cutting edge, except when it makes contact with the work material. The lower guard must automatically return to the covering position when the tool is withdrawn from the work. Additionally, the guard may not be manipulated in manner that compromises its integrity. Guarding shall meet the requirements of ANSI B15.1.

Anytime an adapter is used to accommodate a two-hole receptacle, the adapter wire must be attached to a known ground. The third prong should never be removed from the plug.

DOUBLE INSULATED TOOLS

Double insulated tools are protected in two ways:

- Normal insulation on the wires inside.
- A housing that cannot conduct electricity to the operator in the event of a malfunction.

Midland Engineering Co., Inc. Safety Management System			Doc No:	POWTOOL
			Initial Issue Date	12/14/15
			Revision Date:	Initial Version
Chapter 18-Hand & Power Tools			Revision No.	0
			Next Review Date:	
Preparation: Safety Mgr	Authority: President	Issuing Dept: Safety	Page:	Page 4 of 5

POWERED ABRASIVE WHEEL TOOLS

- Abrasive grinding, cutting, polishing, and wire buffing wheels present special safety problems because they may throw fragments.
- Before an abrasive wheel is mounted it should be inspected and sound or ring tested to be sure that it is free of cracks or defects. Tap the wheel with a non-metallic instrument. If it sounds cracked or dead, it could fly apart. A good wheel will give a clear metallic tone or ring.
- Be sure the wheel fits freely on the spindle. The spindle nut should be tight but, the flanges should not be distorted.
- Due to the possibility of a wheel disintegrating (exploding) during start-up, the employee should never stand directly in front of the wheel as it accelerates to full operating speed.
- Portable grinding tools need to be equipped with safety guards to protect employees not only from the moving wheel surface, but also from flying fragments in case of breakage. In addition, when using a powered grinder always use eye protection, turn off the power when not in use, and never clamp a hand-held grinder in a vise.

Midland Engineering Co., Inc. Safety Management System			Doc No:	POWTOOL
			Initial Issue Date	12/14/15
			Revision Date:	Initial Version
Chapter 18-Hand & Power Tools			Revision No.	0
			Next Review Date:	
Preparation: Safety Mgr	Authority: President	Issuing Dept: Safety	Page:	Page 5 of 5

PNEUMATIC TOOLS

- Pneumatic tools are powered by compressed air. Examples are, but not limited to, chippers, drills, hammers, and sanders.
- Getting hit by one of the tools attachments or by a fastener is one of the main hazards.
- Eye and face protection is required for employees working with pneumatic tools.
- Proper hearing protection is required when using pneumatic tools.
- Pneumatic power tools must be securely attached to the compressed air hose.
- Do not make adjustments to pneumatic tools until you are sure that no air pressure is being supplied to the hose or tool.
- Do not hoist, lower, or carry a tool by the hose.
- Follow the manufacturer's guidelines for safe operating procedures.
- Locate all air hoses so they do not present a tripping hazard.

PERSONAL PROTECTIVE EQUIPMENT (PPE) – Reference PPE Program

Midland Engineering Co., Inc. will provide all personal protective equipment that is required to conduct the work in a safe manner. Appropriate, company approved personal protective equipment is required wherever and whenever there is a potential for exposure, either real or assumed, to hazardous working conditions, or where a hazardous condition exists and a need is indicated for using such equipment. Potential hazards include, but are not limited to: falling, flying, abrasive, and splashing objects, or exposed to harmful dust, fumes, mists vapors, or gases.