Hand & Power Tool Awareness

- This presentation is designed to give a general understanding of the requirements associated with using “Hand & Power Tools”.
- This presentation is a company training awareness toolbox and is applicable to all employees, it is designed to give all employees an understanding of the need for protection and awareness associated with using hand & power tools.
- Please be advised that specific procedures surrounding the use of hand & power tools may be applicable at client sites that you work on and these should be followed whilst working on those sites.

General Safety Precautions

- All hand tools, powered or otherwise must be checked prior to use to ensure they are fit for use / purpose on a daily basis.
- In addition to this all power tools must be tested and fitted with a tag showing its test date / date re-test is required. Equipment without a current test tag must not be used.
- If a hazardous situation is encountered, it should be brought to the attention of the proper individual immediately.
- Appropriate personal protective equipment should be worn due to hazards that may be encountered while using portable power tools and hand tools.
- Floors should be kept as clean and dry as possible to prevent accidental slips with or around dangerous hand tools.

Hand Tool Misuse

- The greatest hazards posed by hand tools result from misuse and improper maintenance.
- Some examples:
  - Using a screwdriver as a chisel may cause the tip of the screwdriver to break and fly, 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 another worker.
  - A wrench must not be used if its jaws are sprung, because it might slip.
  - Impact tools such as chisels, wedges, or drift pins are unsafe if they have mushroomed heads. The heads might shatter on impact, sending sharp fragments flying.

Hazards of Power Tools

- All hazards involved in the use of power tools can be prevented by following five basic safety rules:
  - Keep all tools in good condition with regular maintenance.
  - Use the right tool for the job.
  - Examine each tool for damage before use.
  - Operate according to the manufacturer's instructions.
  - Provide and use the proper protective equipment.

General Safety Guidelines for Power Tools

- The following information offers general safety guidelines for power tools
- Individual manufacturers' tool owner/operator manuals, shipped with tools and accessories, are recommended as a final source for proper procedures for specific tool use.
- Know the power tool.
  - Operators must read and understand the owner's manual.
  - Labels affixed or included in the shipping container must be read and understood.
- Ensure all portable electric equipment is connected to an RCD prior to use.
- Avoid dangerous environments. Do not use power tools in a damp, wet and/or explosive atmosphere -- fumes, dust or flammable materials.

General Safety Guidelines for Power Tools

- Be aware of all power lines and electrical circuits, water pipes, and other mechanical hazards in your work area, particularly those below the work surface, hidden from the operator's view, that may be contacted.
- Do not wear loose clothing, dangling objects or jewelry, oversize gloves that may catch on rotating equipment and Long hair must be restrained.
- The following general precautions should be observed by power tool users:
- 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 in use, before servicing, and when changing accessories such as blades, bits and cutters.
- Ensure all guards are in place, is a guard is missing or damaged do not use the piece of equipment, tag it out of order and remove from service.

General Safety Guidelines for Power Tools

- All observers should be kept at a safe distance away from the work area.
- Secure work with clamps or a vise, freeing both hands to operate the tool.
- Avoid accidental starting. Workers should not hold a finger on the switch button while carrying a plugged-in tool.
- Tools should be maintained with care. They should be kept sharp and clean for the best performance. Follow instructions in the user's manual for lubricating and changing accessories.
- Be sure to keep good footing and maintain good balance.
- The proper apparel should be worn. Loose clothing, ties, or jewelry can become caught in moving parts.
- All portable electric tools that are damaged shall be removed from use and tagged "Do Not Use."

General Safety Precautions-Electric Tools

- These general practices should be followed when using electric tools:
  - Electric tools should be operated within their design limitations.
  - Gloves, if kept clear of rotating parts, and safety footwear are recommended during use of electric tools.
  - When not in use, tools should be stored in a dry place.
  - Electric tools should not be used in damp or wet locations.
  - Work areas should be well lighted.
  - Double eye protection when working with grinding equipment and compressed air equipment.

Portable Drills

- Available in a variety of types and capacities, portable power drills are undoubtedly the most used power tools.
- Because of their handiness and application to a wide range of jobs, drills often receive heavy use.
- For this reason, you'll need to check with care your drill's capacity limitations and accessory recommendations.
- Battery operated tools are commonly used on work sites, these should be treated in the same way as mains power operated equipment i.e. fit for purpose, in good working order etc.

Portable Drill Safety Precautions

- Check carefully for loose power cord connections and frays or damage to the cord. Replace damaged tool and extension cords immediately.
- Be sure the chuck is tightly secured to the spindle. This is especially important on reversible type drills.
- Tighten the bit securely as prescribed by the owner/operator's manual.
- If using a Key type chuck the key must be removed from the chuck before starting the drill. A flying key can be an injury-inflicting missile.

Portable Drill Safety Precautions

- Check auxiliary handles, if part of the tool. Be sure they are securely installed. Always use the auxiliary drill handle when provided. It gives you more control of the drill, especially if stalled conditions occur. Grasp the drill firmly by insulated surfaces.
- Always hold or brace the tool securely. Brace against stationary objects for maximum control.
- Don't force a drill. Apply enough pressure to keep the drill bit cutting smoothly. If the drill slows down, relieve the pressure. Forcing the drill can cause the motor to overheat, damage the bit and reduce operator control.