
Gulfof**Mexico**



Operations: HSE

Hand and Power Tools Safe Work Practice

AMENDMENT RECORD

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1 Purpose / Scope

The purpose of this Safe Work Practice (SWP) is to establish minimum requirements to safely work with hand and power tools within the Gulf of Mexico Region.

Contractor owned tools shall be managed by the Contractor and shall meet or exceed the principles and standards defined by this safe work practice.

2 Key Responsibilities

2.1 Operating Supervisors

- A. Ensure that hand and power tools are used for the application for which they are intended via site visits / observations.

2.2 Workforce

- A. Ensure that hand and power tools under his or her control are in safe condition to the extent that this can be determined by visual inspection.
- B. Report any broken, damaged, homemade or modified tools to Operating Supervisor and tag "out of service".
- C. Be competent to operate the tool in a safe manner according to manufacturer's instructions.
- D. Complete required tool manufacturer training if applicable.

3 General Requirements

Although hand and power tools are a common part of our day-to-day activities they may pose serious hazards, which can result in injuries and even fatalities to personnel and damage to environment and equipment.

3.1 Selection

- A. The right tool is being used for the job (per manufacturer intended purpose) and within the design limitations.
- B. Modified or homemade tools shall not be used.
- C. Hazards have been assessed for tools and sufficient controls are in place and workforce is aware of the hazards caused by faulty or improperly used tools.
- D. Electrical connections for tools must be suitable for the type of tool and the working conditions (wet, dusty, flammable vapors).
- E. Ergonomic (including vibration) risks have been taken into consideration.

1. Choose a tool with the proper weight for the job (Don't use a heavy hammer for a job where a light one will do).
2. Avoid tools that dig into the palm of the hand.
3. Choose tools that minimize repetitions (ex. To cut down repetitions with a saw, use one with an aggressive tooth design).
4. When dealing with certain types of tools and equipment with vibration, there is a risk of developing Hand Arm Vibration Syndrome (HAVS). Prolonged, regular and frequent use of tools and equipment transmitting vibration can cause damage to hand and arm tissue. The risk of HAVS shall be identified by risk assessment and necessary controls (i.e. worker rotation, vibration gloves, etc) shall be put in place to eliminate, control, or mitigate the vibration hazard if feasible. If these mitigations are not possible the following factors should be considered when working with tools transmitting vibrations:
 - Control the variety of tools
 - Consider the environmental and ergonomic conditions of work
 - Reduce the frequency of use utilizing manufacturer recommendations and the American Conference of Governmental Industrial Hygienists (ACGIH) recommendations in the table below.

Table 1 ACGIH Recommendations for Total Daily Exposure Duration

Threshold Limit Values for Exposure of the Hand to Vibration in Either X _h , Y _h , Z _h Directions ^a	
Total Daily Exposure Duration ^b	Values of the Dominant, ^c Frequency-Weighted, Root Mean Square, Component Acceleration Which Shall Not be Exceeded ^d
	m/s ²
4 to less than 8 hours	4
2 to less than 4 hours	6
1 to less than 2 hours	8
Less than 1 hour	12

a. Directions of axes in the three-dimensional system

b. Total time vibration enters the hand per day, whether continuously or intermittently.

c. Usually one axis of vibration is dominant over the remaining two axes.

d. Values normally provided by the manufacturer. **For questions or concerns, please contact the Health and IH Team.**

3.2 Inspection

- A. Tools are inspected daily before use and are kept clean and in good repair.
- B. Damaged, defective, or worn tools are tagged and removed from service.
- C. Periodic checks are made for tightness of bolts, nuts, and screws.
- D. The cords of electrically-operated tools are in good condition.

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- E. Portable tools have a constant pressure switch (dead man switch) that will shut off the power when pressure is released.
 - F. Guards and protection devices are suitable for their purpose, are intact, and unmodified from manufacturers guidance.
 - G. Tools shall be either double insulated or have three-prong plugs with grounded extension cords and receptacles.
 - H. Impact tools such as wedges, pins and chisels shall be kept free of mushroomed heads.

3.3 Use

- A. Appropriate personal protective equipment (PPE) as determined by the risk assessment, with assistance from the Facility [PPE Matrix](#), is worn when using the tool.
- B. Manufacturer's instructions shall be followed when using tools.
- C. Any tool that has the potential to become a dropped object shall be secured. This includes tools carried on stairways, catwalks, within 6 feet of handrails, over grating or across decks that have the potential to fall. This includes the use of properly rated and secured tool bags, tool belts, lanyards, back packs, or equivalent devices to prevent objects from being dropped.
- D. Powered tools shall never be carried by the hose or cord. Hoses and cords shall be kept away from sharp edges, heat, and oil.
- E. Small lifting containers shall be used for lifting or lowering tools to or from heights (example closed top tool bags).
- F. Portable electric tools are grounded or of the double insulated type.
- G. Powered hand tools that incorporate a locking mechanism on the control switch or trigger shall allow for a spring-loaded release of the lock by depressing the control switch or trigger itself. A separate positive on/off switch is prohibited.
- H. Tools are well balanced and don't force the hand or wrist into awkward positions.
- I. If a tool is not being actively used or not in use for an extended period of time, the power to the hand tool shall be disconnected at the power source.

3.4 Maintenance

- A. Maintenance of powered tools shall be done in accordance with the manufacturer's instructions and the [BP GoM Generic Maintenance Plan E15-000 Portable Electric Tools \(2030-T2-MT-PN-0126\)](#).
- B. Powered tools must be disconnected from the source of power before servicing.

3.5 Storage

- A. Tools shall be stored according to manufacturer's guidance so that the temperature, lighting, ventilation, humidity and other conditions are adequate.

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- B. Faulty, modified, and homemade tools shall be tagged and stored in a specially designated area with limited access until properly disposed of.
 - C. Tools shall not be left in overhead work areas creating a hazard to personnel and equipment below.
 - D. Tools shall be stored in such a manner that sharp edges do not protrude out of tool cribs or bins or damage other tools.

4 Specific Requirements

4.1 Cutting Devices

The use of individual knives and multi-purpose tools (such as a 'Leatherman®') are prohibited and will not be allowed offshore or at shore-based facilities. Alternative cutting devices will be made available for tasks requiring cutting. Refer to [Appendix A](#) for **ACCEPTABLE** type of materials that may require cutting (table is not all inclusive) and [Appendix B](#) for example alternative cutting devices suitable for the task. Therefore, if a material to be cut is not similar to those listed in [Appendix A](#), the person conducting the task shall discuss and risk assess an appropriate alternative cutting device with facility supervision for a one time use. Refer to [Appendix C](#) for a display of **NONACCEPTABLE** cutting devices that increase hand/finger injury risk.

Exceptions to this include:

1. Specialist cutting devices, such as Klein electrician cutting tools, may be used by qualified electricians if a risk assessment has been conducted.
2. Specialist cutting devices for insulation may be used if a risk assessment has been conducted.
3. Cooks may use knives in conjunction with cut resistant gloves(s) for food preparation.
4. Steak/butter knives supplied in the galley for everyone on the platform are permitted to be used during meal times.
5. Divers will be permitted to carry knives during diving operations. Diving knives must remain in a gear bag when diving operations are not on-going.

4.2 Pneumatic Tools

- A. Tool shall be securely attached to the compressed air hose by the use of a wire, a retaining pin, or self-locking quick connect.
- B. Adjustments shall not be made to tools until air pressure is no longer being supplied to the hose or tool and any stored energy is released.
- C. Tool shall not be hoisted, lowered, or carried by the hose.
- D. Pneumatic impact tools shall have safety clips or retainers for tool bits.
- E. Manufacturer's guidelines shall be followed for safe operating pressures.
- F. Air hoses shall be located so they do not present a tripping hazard.

- G. Trigger shall not be locked in case the tool needs to be stopped quickly.
- H. Airline hose section connections shall be pinned together to prevent against separation.

5 Definitions

Term	Definition
Dead Man Switch	Switches that shut off power to the tool when the switch is released. Drills, saws, mowers, hedge trimmers, and other portable tools have dead man switches.
Hand Tools	Tools that are powered by human force; include axes, screwdrivers, files/rasps, saws, hammer, chisels, wrenches, cutting devices, etc. The main hazards of using hand tools are represented by misuse and improper maintenance of the tool.
Pneumatic Tools	Tools that are powered by air such as air wrenches, air grinders, spray guns and air fasteners.
Powered Tools	Tools which use one of the following sources of power - electricity, air, gasoline, diesel, or explosives. The main hazards of handling of powered tools include electrocution, cutting, entanglement, flying objects, impact by tool attachments, noise, vibration, etc. Types of powered tools include grinders, powered abrasive wheels, drills, saws, chippers, hammers, sanders, jacks, etc.

6 Key Documents / Tools / References

- [OSHA 1910.241](#)
- [OSHA 1910.243](#)
- [OSHA 1926 Subpart I \(1926.300 - 1926.307\)](#)
- [OSHA Publication No. 3080 - Hand and Power Tools](#)
- [BP GoM Generic Maintenance Plan E15-000 Portable Electric Tools \(2030-T2-MT-PN-0126\)](#)

Appendix A: Example Alternative Cutting Devices

Materials	Utility Scissors	Handi-Cut Pliers	Long Snip Pliers	Sheet Metal Cutters	Wire Cutters	Tubing Cutters	Utility Knife with automatic self-retracting blade	F200 Safety Knife	Wire Strippers
Cardboard Boxes							✓	✓	
Banding Material		✓	✓	✓	✓		✓		
Plastic	✓	✓	✓		✓		✓		
Rope - Small Diameter	✓	✓	✓				✓		
Rope - Large Diameter		✓					✓		
Rubber Hoses	✓	✓	✓				✓		
Sack Material	✓	✓	✓						
Sheet Metal				✓					
Tie Wraps	✓	✓	✓		✓		✓		
Tubing - Metal						✓			
Tubing - PVC	✓	✓	✓			✓			
Wire	✓	✓	✓		✓				✓

Appendix B: Example of Acceptable Alternative Cutting Devices

		
<p style="text-align: center;">1. Utility Scissors</p>	<p style="text-align: center;">2. Hand-Cut Pliers</p>	<p style="text-align: center;">3. Long Snip Pliers</p>
		
<p style="text-align: center;">4. Sheet Metal Cutters</p>	<p style="text-align: center;">5. Wire Cutters</p>	<p style="text-align: center;">6. Tubing Cutters</p>
		
<p style="text-align: center;">7. Utility Knife w/ automatic self-retracting blade</p>	<p style="text-align: center;">8. F200 Safety Knife</p>	<p style="text-align: center;">9. Wire Strippers</p>

Appendix C: Example of Non-acceptable Alternative Cutting Devices

		
1. Multi-purpose Tool	2. Pocket Knife	3. Pocket Knife - 2
		
4. Box Cutter	5. Fixed Blade Utility Knife	6. Folding Pocket Cutters
		
7. Non Retracting Box Cutter	8. Multi - Purpose Knife	