

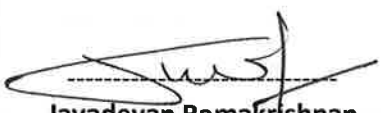




**DIMENSION BID**

WIRELINE INTERVENTION | PERFORATION SERVICES

# HAND TOOLS, POWERED TOOLS AND EQUIPMENTS DBSB-HSE-08

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HSE-MS	HAND TOOLS, POWERED TOOLS AND EQUIPMENTS	DBSB-HSE-08-00	
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## AMENDMENT RECORDS

This sheet will record all amendment of this Procedure. All particulars of the amendment shall be stated clearly. The HSE Department of Dimension Bid (M) Sdn. Bhd. (DBSB) shall be responsible for the maintenance and update of this record sheet.

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HSE-MS	HAND TOOLS, POWERED TOOLS AND EQUIPMENTS Hand Tools	DBSB-HSE-08-01	
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**Subject** Hand Tools

**Definition** A device for doing a particular job that does not use a motor, but is powered solely by the person who using it

**Hand Tool Safety**

- **Education**

Educate yourself and your employees on the proper use of hand tools that are used in your line of work. Never take chances, read the instruction and owner's manual.

- **Wear approved eye protection**

Industrial-quality eye protection should be worn at all times.

- **Wear proper clothing**

This varies depending on the type of hand tool working with. Work clothing should not be loose, baggy, or highly flammable. To protect against burns, wear clothing such as **coveralls, high-top shoes, leather aprons and leather gloves**. Remove all paper from pockets and wear **cuff less pants**.

When working with heavy metals wear **steel-toed shoes** with non-skid soles. Avoid wearing synthetic clothing because it has low flashpoints which can result in severe burns. **Do not wear jewelry**. It can get caught in moving parts or act as a conductor around electrical connections and components.

- **Protect your hair, scalp, and head**

Pull back long hair in a band or a cap to keep it from getting caught in tools. Be extremely careful with long hair when using a drill or drill press. When handling carpentry materials wear a hard hat or bump cap to protect your head.

- **Watch your fingers**

Take special care when hammering so that you strike the object, not your fingers.

- **Avoid horseplay**

Loud talking as well as pushing, running, and scuffling while working with hand tools can cause serious accidents. Be alert and work defensively.

- **Keep work area and tools clean**

Dirty, greasy, and oily tools and floors can cause accidents. Clean and put away all unneeded tools and materials. Clean up spills and scraps from the floor and equipment. Keep paths to exits clear. If conditions are dusty, use a respirator.

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- **Use tools properly**

Always use proper-sized tools and equipment for the job. Use each tool only for the job for which it was intended. Forcing a small tool to do the job of a large one may result in injury or tool damage. Never use a screw driver to see if electrical circuits are live/hot. Never use a machinist's hammer in place of a carpenter's hammer. Do not strike a hardened steel surface with a steel hammer because a small piece of steel may break off and injure someone.

Be sure wrenches fit properly. Never use pliers in place of a wrench. Never strike wrenches with hammers. Pull on wrenches, do not push. When sawing secure the material in the saw vise.

- **Keep cutting-edge tools sharp**

Dull cutting-edge tools are dangerous as they require excessive pressure and hammering to make them cut. When cutting always cut away from the body. Before using any cutting tool, remove nails or other objects that might destroy the tool's cutting edge.

- **Carry and store tools properly**

All sharp-edge tools and chisels should be carried with the cutting edge down. Never carry sharp tools in a pocket. Store all sharp-edge cutting tools with the sharp edges down.

- **Inspect tools before using**

Avoid using damaged tools. Tools that appear to be damaged or have broken handles should be marked unsafe. Do not use them until they have been repaired.

- **Grip tools firmly**

Hold hand tools securely so that they do not slip and hit someone. If you do wear gloves, make sure they fit securely and have a no slip surface.

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**Basic rules for properly using the hand tools**

- Do not continue to work if your safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
- Use tied off containers to keep tools from falling off of scaffolds and other elevated work platforms.
- Carry all sharp tools in a sheath or holster.
- Tag worn, damaged or defective tools "Out of Service" and do not use them.
- Do not use a tool if its handle has splinters, burrs, cracks, splits or if the head of the tool is loose.
- Do not use impact tools such as hammers, chisels, punches or steel stakes that have mushroomed heads.
- When handing a tool to another person, direct sharp points and cutting edges away from yourself and the other person.
- When using knives, shears or other cutting tools, cut in a direction away from your body.
- Do not chop at heights above your head when you are working with a hand axe.
- Do not carry sharp or pointed hand tools such as screwdrivers, scribes, aviation snips, scrapers, chisels or files in your pocket unless the tool or your pocket is sheathed.
- Do not perform "make-shift" repairs to tools.
- Do not use "cheaters" on load binders or "boomers".
- Do not carry tools in your hand when you are climbing. Carry tools in tool belts or hoist the tools to the work area using a hand line.
- Do not throw tools from one location to another, from one employee to another, from scaffolds or other elevated platforms.
- Transport hand tools only in tool boxes or tool belts. Do not carry tools in your clothing.

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#### **Knives / Sharp instrument**

- When handling knife blades and other cutting tools, direct sharp points and edges away from you.
- Cut in the direction away from your body when using knives.
- Use the knife that has been sharpened; do not use knives that have dull blades.
- Use knives for the operations for which they are named.
- Do not use knives that have broken or loose handles.
- Do not use knives as screwdrivers, pry bars, can openers or ice picks.
- Do not leave knives in sinks full of water.
- Do not pick up knives by their blades.
- Carry knives with their tips pointed towards the floor.
- Do not carry knives, scissors or other sharp tools in your pockets or an apron unless they are first placed in their sheath or holder.
- Do not attempt to catch a falling knife.
- Store knives in knife blocks or in sheaths after using them.
- Follow this procedure for picking up any bags that have sharp objects protruding from them: Grab the top of the bag above the tie-off, using both hands, and hold the bag away from your body.
- Do not submerge hot glass in cold water nor submerge cold glass in hot water.
- When opening cartons use the safety box cutters. Do not cut with the blade extended beyond the guard.
- Do not use honing steels that do not have disc guards.

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### Hammer

- Use a claw hammer for pulling nails.
- Do not strike nails or other objects with the "cheek" of the hammer.
- Do not strike a hardened steel surface, such as a cold chisel, with a claw hammer.
- Do not strike one hammer against another hammer.
- Do not use a hammer if your hands are oily, greasy or wet.
- Do not use a hammer as a wedge or a pry bar, or for pulling large spikes.
- Use only the sledge type hammer on a striking face wrench.

### Screwdriver

- Always match the size and type of screwdriver blade to fit the head of the screw.
- Do not hold the work piece against your body while using a screwdriver.
- Do not put your fingers near the blade of the screwdriver when tightening a screw.
- Use a drill, nail, or an awl to make a starting hole for screws.
- Do not force a screwdriver by using a hammer or pliers on it.
- Do not use a screwdriver as a punch, chisel, pry bar or nail puller.
- When you are performing electrical work, use the screwdriver that has the blue handle; this screwdriver is insulated.
- Do not carry a screwdriver in your pocket.
- Do not use a screwdriver if your hands are wet, oily or greasy.
- Do not use a screwdriver to test the charge of a battery.
- When using the spiral ratchet screwdriver, push down firmly and slowly.

### Wrenches

- Do not use wrenches that are bent, cracked or badly chipped or that have loose or broken handles.
- Do not slip a pipe over a single head wrench handle for increased leverage.
- Do not use a shim to make a wrench fit.
- Use a split box wrench on flare nuts.
- Do not use a wrench that has broken or battered points.
- Use a hammer on striking face wrenches.
- Discard any wrench that has spread, nicked or battered jaws or if the handle is bent.
- Use box or socket wrenches on hexagon nuts and bolts as a first choice, and open end wrenches as a second choice.

### Pliers

- Do not use pliers as a wrench or a hammer.
- Do not attempt to force pliers by using a hammer on them.
- Do not slip a pipe over the handles of pliers to increase leverage.
- When you are performing electrical work, use the pliers that have the blue rubber sleeves covering the handle; these pliers are insulated.
- Do not use pliers that are cracked, broken or sprung.

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- When using the diagonal cutting pliers, shield the loose pieces of cut material from flying into the air by using a cloth or your gloved hand.

#### Vises

- When clamping a long work piece in a vise, support the far end of the work piece by using an adjustable pipe stand, saw horse or box.
- Position the work piece in the vise so that the entire face of the jaw supports the work piece.
- Do not use a vise that has worn or broken jaw inserts, or has cracks or fractures in the body of the vise.
- Do not slip a pipe over the handle of a vise to gain extra leverage.

#### Clamps

- Do not use the C-clamp for hoisting materials.

Do not use the C-clamp as a permanent fastening device.

#### Tool Boxes/ Chests / Cabinets

- Use the handle when opening and closing a drawer or door of a tool box, chest, or cabinet.
- Tape over or file off sharp edges on tool boxes, chests or cabinets.
- Do not stand on tool boxes, chests or cabinets to gain extra height.
- Lock the wheels on large tool boxes, chests or cabinets to prevent them from rolling.
- Push large chests, cabinets and tool boxes; do not pull them.
- Do not open more than one drawer of a tool box at a time.
- Close and lock all drawers and doors before moving the tool chest to a new location.
- Do not use a tool box or chest as a workbench.
- Do not move a tool box, chest or cabinet if it has loose tools or parts on the top.



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## Subject

## Grinder

### General

These types of incidents involving grinders do not happen often, but when they do, the results can lead to serious injuries and even death. Besides grinding wheels disintegrating, other types of incidents involve kickbacks and entanglements with clothing and other materials.

### General Safety Rules

1. Keep the floor and work area clean. Store flammable and combustible materials a safe distance (e.g., a minimum of 35 feet) away from the grinding operation. Sparks can ignite debris and flammable vapors. In some cases, a hot work permit may be required.
2. Before working with a grinder, secure or remove loose clothing (i.e., snap, button, zip, tie, etc.) and confine long hair, scarves, ties, and dangling jewelry, which can be snagged by the grinder and wrap around the shaft quickly.
3. Always wear eye protection. At a minimum, goggles are required. Safety glasses with side shields are acceptable only when combined with a face shield. Other PPE may also be needed based on circumstances (e.g., respirator, hearing protectors, etc.).
4. Keep hands, fingers, and other body parts from coming into contact with the revolving wheel.
5. When installing a new wheel, observe all instructions provided by the manufacturer. Ensure the recommended speed (as posted on the wheel) is compatible with the grinder, and that the type of wheel is compatible with the material being ground. An improperly installed or incompatible wheel can break or explode and cause injury. All wheels must be sound (ring) tested before use. Grinding wheels should fit freely on the spindle and remain free under all grinding conditions. The spindle nut must be tightened enough to hold the wheel in place without distorting the flange. When a bushing is used in the wheel hole it should not exceed the width of the wheel and or contact the flanges.
6. Avoid grinding aluminum and steel on the same wheel to prevent residual aluminum particles from heating up and flying back at the operator when harder surfaces such as steel are being ground later
7. To avoid burring, loading, and uneven wear on the wheel, use the minimum pressure necessary and keep work in motion evenly across the face of wheel.
8. Never grind on the side of the wheel.

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## Type of Grinder

### A. Bench and Pedestal Grinder

- The grinder should be positioned by height and location to eliminate the need to overreach while grinding; and securely anchored.
- The transmission cover and outer wheel guard must be secured in the proper position prior to operation. In addition, adjustable guards must be properly secured before use. Do not make adjustments with the wheel in motion.
- Before starting the grinder, inspect the wheel to make sure it is not cracked or broken. Never use a wheel that has been dropped or received a heavy blow, even if there is no apparent damage. To minimize hazards from undetected defects or imbalance, stand to one side of the wheel until it has reached full speed. Do not begin grinding until the wheel has reached full speed.
- As the wheel wears down, readjust the tool rest and tongue guard. When you can no longer adjust them, replace the wheel. Visually inspect the wheel for cracks before mounting.
- All flanges must be maintained in good condition. When the bearing surfaces become worn, warped, sprung, or damaged they should be trued, refaced, or replaced, in accordance with manufacturer recommendations.

### B. Portable Hand Grinders

Guards must be in place and properly positioned such that sparks fly away from the operator.

The clearance between the wheel side and the guard shall not exceed one-sixteenth inch.

- Safety guards used on machines known as right angle head or vertical portable grinders shall have a maximum exposure angle of 180 deg., and the guard shall be located so as to be between the operator and the wheel during use. Adjustment of guard shall be such that pieces of an accidentally broken wheel will be deflected away from the operator.
- The maximum angular exposure of the grinding wheel periphery and sides for safety guards used on other portable grinding machines shall not exceed 180 deg. and the top half of the wheel shall be enclosed at all times

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- Before using the tool on a work piece, let it run for several minutes. Watch for flutter or excessive vibration that might be caused by poor installation or a poorly balanced wheel. Do not stand in the plane of rotation of the wheel as it accelerates to full operating speed.
- Never use a grinding wheel on an air sander. Pistol-grip, high speed air sanders operate at speeds exceeding the maximum-rated speeds for grinding wheels.
- Never clamp a hand-held grinder in a vise.
- Always engage the OFF switch and wait for the wheel to come to a complete stop before adjusting or removing the wheel or changing its work position or angle.

HSE-MS	HAND TOOLS, POWERED TOOLS AND EQUIPMENTS Ladder	DBSB-HSE-08-03	
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**Subject** Ladder

**Definitions** Ladders are commonly used to reach or to gain access to higher areas/levels and sometime from which to perform work.

**Scope** The scope of this procedure is limited to portable extension and step ladders.

**Ladder's Hazard** There are a number of hazards associated with ladder use that can cause accidents resulting in serious injuries. These potential injuries include:-

- Falling from ladders (especially when getting on/off or contact with electricity)
- Struck by objects or by ladder (falling ladder or when carrying ladders)
- Tripping over ladders
- Muscle strain from carrying heavy ladders

**Ladder Types** Selecting the proper ladder depends on the particular task at hand. Ladder types include:

- Straight
- Extension
- Sectional
- Hooked
- Trestle and extension trestle
- Platform (best choice if working from ladder)

**Safety Practice** Inspection and Maintenance. Ladders must be inspected regularly and kept in good condition at all times. Check each ladder for these unsafe conditions:

Always select the correct ladder for the job. Selecting the correct "size" and "type" of ladder is your first step to safety.

**Ladder set – up and use procedure** General ladder selection and safe use procedure (see figure 01):

**1. Ladder Selection**

- 1.1 Select the most appropriate type of ladder for the task to be performed
- 1.2 Select most appropriate material
- 1.3 Select proper ladder height

**2. Inspect ladder prior to use**

- 2.1 Before using a ladder, be sure to inspect it to ensure it is in good working condition and safe to use.
- 2.2 Inspect ladder for:
  - Defects such as broken or missing rungs, cleats, safety feet or rails.
  - Slippery substances on rungs
  - Stability

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### 3. Set up

- 3.1 Ensure the area at base and top of ladder is free/clear of obstructions
- 3.2 Check the work and surrounding areas for hazards such as overhead wires, slippery or uneven surfaces
- 3.3 Keep metal and wood ladders away from power lines and other live conductors

### 4. Safe climbing and use

- 4.1 Always face the ladder and keep your hips (center of gravity) between the rails
- 4.2 Maintain 3-point contact with ladders when climbing or descending ladders.

### 5. Storing and transporting ladders

- 5.1 Ladders should be supported to prevent sagging
- 5.2 Do not store items on top of ladders

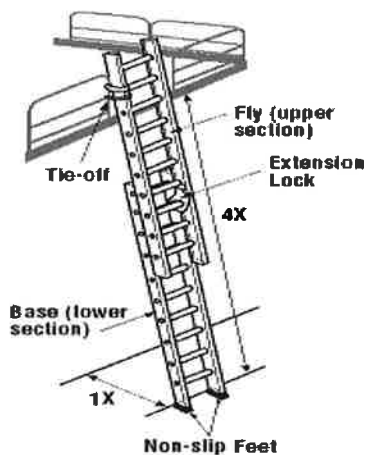


Figure No. 01: Safe practice ladder

HSE-MS	HAND TOOLS, POWERED TOOLS AND EQUIPMENTS Air Equipment (Tool and Hoses)	DBSB-HSE-08-04	
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**Subject**

**Air Equipment (Tools and Hoses)**

**Compressed air, hoses and connection**

1. Compressed air can be fatal if it enters a person's bloodstream. Serious injury may also occur from flying particles produced when blowing compressed air. Handle with care!
2. Use gloves when working directly with compressed air i.e.: blow gun etc. A face shield is recommended when there is a chance of flying debris.
3. Never block compressed air with your fingers, hands or any other part of your body.
4. Dimension Bid will not permit compressed air to be directed towards a worker:
  - a) For the purpose of cleaning clothing or personal protective equipment used by that worker; or
  - b) For any other purpose if the use of compressed air may cause dispersion into the air of contaminants that may be harmful to workers.
5. Air Pressure in the main lines is about 100 - 105 PSI. Use regulators to adjust the pressure for your application where reduced pressure is required.
6. If at all possible, avoid using compressed air for cleaning purposes of equipment, work tables etc... If compressed air must be used for cleaning, use a low pressure gun.
7. Air supply hoses should be checked for 'soft spots' or 'bubbles'; worn, damaged, or loose connections before using them on each shift. If hoses are found to be in an unsafe condition, they must be repaired before using them or they must be discarded.
8. The snap ring on the female connections should be working properly.
9. All clamps fastening a rubber air supply hose to its end must be of the "banded" type. Regular hose clamps are not allowed because they may cut the hose.
10. Checking and maintenance of the "on line oilers" must be done by the supervisor or his/her designate. "Oilers" which supply air tools should be set to drip one drop of oil every 30 seconds during air usage.
11. Know where your air supply hose is plugged into the main line and where the "turn-off" valve is for that connection. If a hose should break or a connection should come apart, disconnect the hose or turn off the air supply. Do not attempt to catch the flailing hose as injury is sure to occur.

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12. When using air supply hoses, be sure that they do not come into contact with any hot or sharp objects or placed where objects may fall on them. Air hoses which must be run underneath paint lines must be protected from falling objects with angle iron, etc.
13. Do not drive over air hoses with forklifts, etc.
14. Roll-up hoses when not in use and at the end of the shift.

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#### **Air tools**

1. Keep hands and all body parts away from rotating or moving parts of air tools.
2. Check your air tools before operating to make sure that:
  - a) The main body of the tool is not broken or cracked.
  - b) The trigger is not broken and operating freely.
  - c) If so equipped, the safety latch is in place and working properly.
  - d) If so equipped, the forward/reverse switch should be operating properly.
  - e) Arbors and lock nuts are in good working condition and the tool changing mechanism is working properly.
3. If possible connect to an air supply which has an on-line filter/lubricator on it. If this is not possible lubricate the air tool by putting a few drops of air tool lubricant into the air inlet of the tool at least once a shift.
4. Never exceed the manufacturers recommended air pressure rating for any air tool. This should be stated on the tool. If unsure, ask your supervisor.
5. Use only attachments which are rated at or higher than the rating of the tool, and which are designed for the operation which you are performing.
6. To prevent injury or damage make sure all attachments to the air tool, (sockets, bits, etc.) are attached to the tool in a secure and safe manner so they will not loosen and fly off when a tool is being used.
7. Never tie, tape or otherwise fasten the trigger or safety latch of an air tool in the "on" position.
8. When operating an air tool which generates flying particles, you must wear a face shield.
9. When using an air drill, do not apply "side" pressure on the bit. This is not a reaming tool.
10. Handle tools with care, do not drop them or leave them where damage to the tool may result.
11. Keep tools clean. Grease and oil on tools make them slippery and hard to control.
12. If tools do not work properly or are in an unsafe condition, do not use them. Tag them and contact your supervisor who will get them repaired.
13. Always return all tools to the designated storage area (tool box, cabinet, etc.).





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7. All power tools shall be in control of the operator.
8. All power tools shall be equipped with a constant pressure switch or control and may have a lock on control provided that turnoffs can be accomplished with a single motion of the same finger or fingers that turn it on.
9. All hand-held, gasoline-powered tools shall be equipped with a constant pressure throttle that will deactivate the power to the tool motion when the pressure is released.
10. All gasoline-powered tools shall be used in well-ventilated areas.
11. Hydraulic power tools shall be used only with approved fire-resistant fluids.
12. It is recommended that electric tools used outside have a ground fault interrupt connector (GFIC) device placed on the electrical cord.

**Employee Requirements.**

1. Employees shall wear the PPE specified by the equipment manufacturer, by federal, state, or local regulations, or by DB HSE procedures when operating power tools.
2. Employees shall review the operator's manual prior to initial use of a tool and review periodically as needed.
3. Employees shall not hoist or lower electric tools by their cords.