STEEL WORKS, BLAST FURNACES,

& ROLLING AND FINISHING MILLS

NAICS Code

324199 All Other Petroleum and Coal Products Mfg.

331110 Iron and Steel Mills & Ferroalloy Mfg.

Section 9

SAFETY RULES, POLICIES, AND PROCEDURES

The safety rules contained on these pages have been prepared to protect you in your daily work. Employees are to follow these rules, review them often and use good common sense in carrying out assigned duties.

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All Employees

Lifting Procedures

1. Plan the move before lifting; ensure that you have an unobstructed pathway.

2. Test the weight of the load before lifting by pushing the load along its resting surface.

3. If the load is too heavy or bulky, use lifting and carrying aids such as hand trucks, dollies, pallet jacks and carts, or get assistance from a co-worker.

4. If assistance is required to perform a lift, coordinate, and communicate your movements with those of your co-worker.

5. Position your feet 6 to 12 inches apart with one foot slightly in front of the other.

6. Face the load.

7. Bend at the knees, not at the back.

8. Keep your back straight.

9. Have a firm grip on the object using your hands and fingers. Use handles when they are present.

10. Hold the object as close to your body as possible.

11. While keeping the weight of the load in your legs, stand to an erect position.

12. Perform lifting movements smoothly and gradually; do not jerk the load.

13. If you must change direction while lifting or carrying the load, pivot your feet and turn your entire body. Do not twist at the waist.

14. Set down objects in the same manner as you picked them up, except in reverse.

15. Do not lift an object from the floor to a level above your waist in one motion. Set the load down on a table or bench and then adjust your grip before lifting it higher.

16. Never lift anything if your hands are greasy or wet.

17. Wear protective gloves when lifting objects that have sharp corners or jagged edges.

Ladders and Step Ladders

1. Read and follow the manufacturer's instructions label affixed to the ladder if you are unsure how to use the ladder.

2. Do not use ladders that have loose rungs, cracked or split side rails, missing rubber footpads, or are otherwise visibly damaged.

3. Keep ladder rungs clean and free of grease. Remove buildup of material such as dirt or mud.

4. Do not place ladders in a passageway or doorway without posting warning signs or cones or roping off the area so that pedestrian traffic will be diverted away from the ladder. Lock the doorway that you are blocking and post signs that will detour traffic away from your work.

5. Allow only one person on the ladder at a time.

6. Face the ladder when climbing up or down it.

7. Maintain a three-point contact by always keeping both hands and one foot or both feet and one hand on the ladder when climbing up or down the ladder.

8. When performing work from a ladder, face the ladder and do not lean backward or sideways from the ladder.

9. Do not stand on tables, chairs, boxes, or other improvised climbing devices to reach high places. Use the ladder or step stool.

10. Do not stand on the top two rungs of any ladder.

11. Do not stand on a ladder that wobbles, or that leans to the left or right of center.

12. When using a straight or extension ladder, extend the top of the ladder at least 3 feet above the edge of the landing.

13. Secure the ladder in place by having another employee hold it if it cannot be tied to the structure.

14. Do not move a rolling ladder while someone is on it.

15. Do not place ladders on barrels, boxes, loose bricks, buckets, concrete blocks, or other unstable bases.

16. Do not carry items in your hands while climbing up or down a ladder.

17. Do not try to "walk" a ladder by rocking it. Climb down the ladder, and then move it.

18. Do not use a ladder as a horizontal platform.

Hazardous Materials

1. Follow the instructions on the label and in the corresponding Safety Data Sheet (SDS) for each chemical product you will be using in your workplace.

2. Use personal protective clothing or equipment such as goggles, face shield, neoprene gloves, rubber boots, shoe covers and rubber aprons when using chemicals labeled "Flammable", "Corrosive", and “Caustic" or "Poisonous".

3. Do not use protective clothing or equipment that has split seams, pin holes, cuts, tears, or other visible signs of damage.

4. Before using the chemical exhaust hood, flip the fan motor switch to the "On" position.

5. Do not use chemicals from unlabeled containers or unmarked cylinders.

6. Do not perform "hot work", such as welding, metal grinding or other spark producing operations, within 50 feet of containers labeled "Flammable" or "Combustible".

7. Do not drag containers labeled "Flammable."

8. Do not store chemical containers labeled "Oxidizer" with containers labeled "Corrosive,” “Caustic" or "Poison".

Lockout/Tagout

NOTE: Devices such as padlocks shall be provided for locking out the source of power at the main disconnect switch. Before any maintenance, inspection, cleaning, adjusting or servicing of equipment (hydraulic, electrical, mechanical or air) that requires entrance into or close contact with the machinery or equipment, the main power disconnect switch or valve, or both, controlling the source of power or flow of material, shall be locked-out or blocked off with a padlock, blank flange or similar device.

1. Do not perform any maintenance, inspection, cleaning, adjusting, or servicing of any equipment without following the company's lockout / tagout program.

2. If required to work on powered equipment (hydraulic, electrical, air, etc.) you must always have your personal padlock with your name on it and personal key on your person.

3. Disconnect and padlock all machine power disconnects in the off position before removing guards for the purpose of working "ON" or "IN" the machinery or approaching its unguarded parts. (NOTE: When more than one employee is working on a single piece of equipment, each employee must use his own padlock along with lockout tongs to lock out the equipment. When the work is completed, he must remove only his lock.

4. Do not commence equipment repair or maintenance work until you have verified that the tagged/locked out switch or control cannot be overridden or bypassed.

5. Replace all guards before removing personal padlocks from the control.

6. Do not use or remove another employee's protective locks. Do not remove a lock from equipment unless you placed it there.

Respiratory Protection

1. Do not perform operations requiring respirators, unless you have been approved, fitted, and trained for the use of respirators in the company's respiratory protection program.

2. Inspect respirators for cracked or worn parts before and after each use and after cleaning.

3. Do not work in an area that requires the use of respiratory equipment if you fail to obtain a tight seal between the respirator and your face.

4. Do not wear a respirator if facial hair prevents a tight seal between the respirator and your face.

5. Clean and sanitize respiratory equipment according to the manufacturer recommendations after each use.

6. Store respiratory equipment in a clean and sanitary location.

Hearing Protection

1. Wear hearing protectors in work areas posted "Hearing Protection Required".

2. Inspect the hearing protectors for cleanliness before and after each use.

3. Store hearing protectors in a clean and sanitary location.

Housekeeping

1. Do not place materials such as boxes or trash in walkways and passageways.

2. Sweep up shavings from around equipment such as drill presses, planers, or grinders by using a broom and a dustpan.

3. Mop up water around drinking fountains or drink dispensing machines immediately.

4. Do not store or leave items on stairways.

5. Do not block or obstruct stairwells, exits or accesses to safety and emergency equipment such as fire extinguishers or fire alarms.

6. Do not block the walking surfaces of elevated working platforms, such as scaffolds, with tools or materials that are not being used.

7. Straighten or remove rugs and mats that do not lie flat on the floor.

8. Remove protruding nails or bend them down into the lumber by using a claw hammer.

9. Return tools to their storage places after using them.

10. Do not use gasoline for cleaning purposes.

11. Use caution signs or cones to barricade slippery areas such as freshly mopped floors.

FORKLIFT SAFETY RULES

General Rules

1. Only employer authorized personnel may operate forklifts.

2. Do not exceed the lift capacity of the forklift. Read the lift capacity plate on the forklift if you are unsure.

3. Follow the manufacturer's guidelines concerning changes in the lift capacity before adding an attachment to a forklift.

4. Lift the load an inch or two to test for stability. If the rear wheels are not in firm contact with the floor, take a lighter load or use a forklift with a higher lift capacity.

5. Do not raise or lower a load while you are in route. Wait until you are in the loading area and have stopped before raising or lowering the load.

6. After picking up a load, adjust the forks so that the load is tilted slightly backward for added stability.

7. Drive with the load at a ground clearance height of 4-6 inches at the tips and 2 inches at the heels to clear most uneven surfaces and debris.

8. Drive at a walking pace and apply brakes slowly to stop when driving on slippery surfaces such as icy or wet floors.

9. Approach railroad tracks at a 45° angle.

10. Do not drive over objects in your pathway.

11. Do not drive into an area with a ceiling height that is lower than the height of the mast or overhead guard.

12. Steer wide when making turns.

13. Do not drive up to anyone standing or working in front of a fixed object such as a wall.

14. Do not drive along the edge of an unguarded elevated surface such as a loading dock or staging platform.

15. Obey all traffic rules and signs.

16. Sound horn when approaching blind corners, doorways, or aisles to alert other operators and pedestrians.

17. Do not exceed a safe working speed of five miles per hour and slow down in congested areas.

18. Stay a minimum distance of three fork truck lengths from other operating mobile equipment.

19. Drive in reverse and use a signal person when the load blocks your vision.

20. Look in the direction that you are driving; proceed when you have a clear path.

21. Do not use bare forks as a man-lift platform.

22. Do not drive the forklift while people are on the attached aerial lift platform.

23. Drive loaded forklifts forward up ramps.

24. Raise the forks an additional two inches to avoid hitting or scraping the ramp surface as you approach the ramp.

25. Drive loaded forklifts in reverse when driving down a ramp.

26. Drive unloaded forklifts in reverse when going up a ramp and forward when going down a ramp.

27. Do not attempt to turn around on a ramp.

28. Do not use the "Reverse" to brake.

29. Lower the forks completely, turn off the engine and set the parking brake before leaving your forklift.

Pre-Use Inspection

Do not use forklift if any of the following conditions exist:

1. The mast has broken or cracked weld-points.

2. The roller tracks are not greased, or the chains are not free to travel.

3. Forks are unequally spaced, or cracks exist along the blade or at the heels.

4. Hydraulic fluid levels are below manufacturer's recommend levels.

5. Hydraulic line and fitting have excessive wear or are crimped.

6. Fluid is leaking from the lift or the tilt cylinders.

7. The hardware on the cylinders is loose.

8. Tires are excessively worn, split, or have missing tire material.

9. Air-filled tires are not filled to the operating pressure indicated on the tire.

10. Batteries have cracks or holes, uncapped cells, frayed cables, broken cable insulation, loose connections, or clogged vent caps.

Starting the Forklift

1. Apply the foot brake and shift gears to neutral before turning the key.

Picking up a Load

1. "Square up" on the center of the load and approach it straight on with the forks in the travel position.

2. Stop when the tips of your forks are about a foot from the load.

3. Level the forks and slowly drive forward until the load is resting against the backrest of the mast.

4. Lift the load high enough to clear whatever is under it.

5. Back up about one foot, then slowly and evenly tilt the mast backward to stabilize the load.

Putting a Load Down

1. "Square up" and stop about one foot from desired location.

2. Level the forks and drive to the loading spot.

3. Slowly lower the load to the floor.

4. Tilt the forks slightly forward so that you do not hook the load.

5. When the path behind you is clear of obstructions, back straight out until the forks have cleared the pallet.

Stacking One Load on Top of Another

1. Stop about one foot away from the loading area and lift the mast high enough to clear the top of the stack.

2. Slowly move forward until the load is squarely over the top of the stack.

3. Level the forks and lower the mast until the forks no longer support the load.

4. Look over both shoulders for obstructions and back straight out if the path is clear.

Loading Docks

1. Keep the forklift clear of the dock edge while vehicles are backing up to the dock.

2. Do not begin loading or unloading until the supply truck has come to a complete stop, the engine has been turned off, the wheels have been chocked and the dock lock has been engaged.

3. Use wheel chocks to prevent railroad cars from moving during unloading or loading.

4. Attach the bridge or dock plate before driving the forklift into the truck or railroad car.

5. Do not drive the forklift into a truck bed that has soft or loose decking or other unstable flooring.

6. Drive straight across the bridge plates when entering or exiting the trailer.

7. Use dock lights or headlights when working in a dark trailer.

Gasoline/Diesel Fueled Forklifts

1. Never use anything with an open flame (such as lighters or lanterns) to check the fuel level in the tank.

2. Do not fuel forklifts while the engine is running.

3. Do not operate a forklift with a leak in the fuel system.

4. Use care when filling fuel tanks to avoid overfilling and spilling fuel.

5. Replace fuel tank cap before restarting engine.

6. Use only approved safety cans when storing or transporting fuel.

Propane Fueled Forklifts

1. Do not refuel forklifts with permanently mounted propane containers inside the building.

2. Do not park forklifts in areas of excessive heat or sources of ignition such as heaters, furnaces, or welding areas.

3. Check tanks to ensure there are no sharp dents or gouges that could weaken the vessel.

4. Do not throw, drag, drop, or roll the propane cylinder.

5. Check fuel lines for damage, such as cuts, dry rot, chafing, or exposure to manifold heat.

6. Wear protective gloves, such as leather or cotton when changing propane tanks.

7. After installing a full cylinder, check fittings for leaks with a soap solution. Do not check cylinder for leaks with an open flame or with bare hands.

8. Make sure locating pin is intact and that it properly secures the tank to the forklift.

9. Close the propane tank service valve if the tank is kept on the forklift overnight.

10. Inspect quick-disconnect coupling for any signs of visible damage, deterioration, dirt, or debris and for damaged or missing flexible seals.

11. Inspect threads to ensure they are not flattened or gouged.

12. Open the fuel control valve fully, then turn it toward the closed position 1/4 to 1/2 turn before starting the forklift.

13. Store propane tanks in a location where they will not be exposed to high temperature rise, physical damage, or tampering.

14. Do not smoke when handling or changing propane fuel tanks.

Battery Operated Forklifts

1. Do not lay tools or metal parts on top of a battery.

2. Turn battery chargers off prior to connecting the cables to the battery posts.

3. Position the fork truck so that the battery is aligned with the rollers, or the hoist used for moving the battery and engage the fork truck brake before removing the battery and placing it onto the charging rack.

4. Set the brakes on the lift truck prior to connecting the charging cables to the battery on the lift truck.

5. Return charging cables to their designated location as soon as battery charging is complete.

6. Do not smoke in the battery charging areas.

7. Manually flip the fan motor to the "On" position before operating the battery charger.

Compressed Gas Cylinders

Storage and Handling

1. Do not handle oxygen cylinders if your gloves are greasy or oily.

2. Store all compressed gas cylinders in the upright position.

3. Keep all cylinders not in use capped and secured with safety chain.

4. Do not lift compressed gas cylinders by the valve protection cap.

5. Do not store compressed gas cylinders in areas where they can encounter chemicals labeled "Corrosive".

6. Place cylinders on the cradle, sling board, pallet, or compressed gas cylinder basket to hoist them.

7. Do not place compressed gas cylinders against electrical panels or live electrical cords where the cylinder can become part of the circuit.

8. Do not hoist or transport cylinders by means of magnets or choker slings.

9. Do not store oxygen cylinders near fuel gas cylinders such as propane or acetylene, or near combustible material such as oil or grease.

Use of Compressed Gas Cylinders

1. Do not use dented, cracked, or other visibly damaged cylinders.

2. Use an open ended or adjustable wrench only when connecting or disconnecting regulators and fittings.

3. Close the cylinder valve when work is finished, when the cylinder is empty or at any time the cylinder is moved.

4. Stand to the side of the regulator when opening the valve.

5. If a cylinder is leaking around a valve or a fuse plug, move it to an outside area away from where work is performed, and tag it to indicate the defect.

6. Do not use compressed gas to clean yourself, equipment, or your work area.

7. Do not remove the valve wrench from acetylene cylinders while the cylinder is being used.

8. Open cylinder valves slowly. Open the valves fully when the compressed gas cylinder is being used to eliminate leakage around the cylinder valve stem.

Oxyacetylene Welding

1. Do not use oxygen cylinders in areas where oils or any combustible liquids such as diesel fuel or motor fuel are present.

2. Turn the valve on the torch clockwise to turn off the gas before putting down the welding or cutting torch.

3. Never allow pressure to remain in the hoses over night:

a. Turn the valve knobs located at the base of the torch handle, clockwise, to close the valves.

b. Turn the valve knobs on the oxygen and acetylene cylinders, clockwise, to close the valves on these cylinders.

c. Reduce the pressure on the regulator diaphragms by pulling back on the T- handles, out from the regulator, until the T-handles turn easily; do not completely back the T-handles out from the regulator.

d. Turn the valve knobs at the base of the torch, counterclockwise, to open the valves; leave the valves open for only two seconds, then turn the valve knobs clockwise to close the valves again. If you do not observe a drop in pressure on the regulator gages, repeat steps a.- b.

4. If the cylinder has been transported in a horizontal position, do not use it until it has been stored upright for two hours.

5. Use the red hose for gas fuel and the green hose for oxygen.

6. Do not use worn or cracked hoses.

7. Do not use oil, grease, or other lubricants on the regulator.

8. "Blow Out" hoses before attaching the torch.

9. "Blow Out" the cylinder valve before attaching or reattaching a hose to the cylinder.

10. Do not use a cigarette lighter to ignite torches; use friction lighters only.

11. Do not change electrodes using your bare hands; use the dry rubber gloves.

12. "Bleed" oxygen and fuel lines at the end of the work shift.

13. Use the welding cart that has a safety chain or cable when transporting cylinders used for welding.

Portable Welding Equipment

1. Welder’s gloves are required for all welders when using welding equipment.

2. Do not perform welding tasks while wearing wet cotton gloves or wet leather gloves.

3. Do not use the welding apparatus if the power cord is cut, frayed, split or otherwise visibly damaged or modified.

4. When replacing power plugs and cords of the welding apparatus, always check to ensure that the ground wire is connected.

5. Wear the welding helmet or welding goggles during welding operations.

Hoists

1. Do not use load hooks that are cracked, bent, or broken.

2. Do not exceed the rated load capacity of the hoist as specified by the manufacturer.

3. Do not hoist loads over people.

HAND TOOL SAFETY

General Rules

1. Do not continue to work if your safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.

2. Carry all sharp tools in sheath or holsters.

3. Tag worn, damaged or defective tools "Out of Service" and do not use them.

4. Do not use a tool if the handle surface has splinters, burrs, cracks, or splits.

5. Do not use impact tools such as hammers, chisels, punches, or steel stakes that have mushroomed heads.

6. When handing a tool to another person, direct sharp points and cutting edges away from yourself and the other person.

7. Do not carry sharp or pointed hand tools such as screwdrivers, scribes, chisels, or files in your pocket unless the tool or your pocket is sheathed.

8. Do not perform "make-shift" repairs to tools.

9. Do not throw tools from one location to another or from one employee to another.

10. Wear safety glasses, goggles or face shield when operating sanders, saws, planers, etc.

Files/Rasps

1. Do not use a file as a pry bar, hammer, screwdriver, or chisel.

2. When using a file or a rasp, grasp the handle in one hand and the toe of the file in the other.

3. Do not hammer on a file.

Chisels

1. Use a chisel that has been sharpened; do not use a chisel that has a dull cutting edge.

2. Hold a chisel by using a tool holder if possible.

3. Clamp small work pieces in the vise and chip towards the stationary jaw when you are working with a chisel.

Hammers

1. Use a claw hammer for pulling nails and for driving nails.

2. Do not strike nails or other objects with the "cheek" of the hammer.

3. Do not strike one hammer against another hammer.

4. Do not use a hammer if your hands are oily, greasy, or wet.

Saws

1. Keep control of saws by releasing downward pressure at the end of the stroke.

2. Do not use an adjustable blade saw, such as a hacksaw, if the blade is not taut.

3. Do not use a saw that has a dull blade.

4. Oil saw blades after each use of the saw.

5. Keep your hands and fingers away from the saw blade while you are using the saw.

6. Do not carry a saw by the blade.

7. When using the hand saw, hold the work piece firmly against the worktable.

Screwdrivers

1. Always match the size and type of screwdriver blade to fit the head of the screw.

2. Do not hold the work piece against your body while using a screwdriver.

3. Do not put your fingers near the blade of the screwdriver when tightening a screw.

4. Use a drill, nail, or an awl to make a starting hole for screws.

5. Do not force a screwdriver by using a hammer or pliers on it.

6. Do not use a screwdriver as a punch, chisel, pry bar or nail puller.

7. Do not use a screwdriver to test the charge of a battery.

8. When using the spiral ratchet screwdriver, push down firmly and slowly.

Wrenches

1. Do not use wrenches that are bent, cracked, or badly chipped or that have loose or broken handles.

2. Do not slip a pipe over a single head wrench handle for increased leverage.

3. Do not use a shim to make a wrench fit.

4. Use a split box wrench on flare nuts.

5. Do not use a wrench that has broken or battered points.

6. Discard any wrench that has spread, nicked, or battered jaws or if the handle is bent.

7. Use box or socket wrenches on hexagon nuts and bolts as a first choice, and open-ended wrench as a second choice.

Pliers

1. Do not use pliers as a wrench or a hammer.

2. Do not attempt to force pliers by using a hammer on them.

3. Do not slip a pipe over the handles of pliers to increase leverage.

4. Do not use pliers that are cracked, broken, or sprung.

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

Vises

1. When clamping a long work piece in a vise, support the far end of the work piece by using an adjustable pipe stand, sawhorse, or box.

2. Position the work piece in the vise so that the entire face of the jaw supports the work piece.

3. Do not use a vise that has worn or broken jaw inserts or has cracks or fractures in the body of the vise.

4. Do not slip a pipe over the handle of a vise to gain extra leverage.

Clamps

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

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

Snips

1. Wear your safety glasses or safety goggles when using snips to cut materials.

2. Wear your work gloves when cutting materials with snips.

3. Do not use straight cut snips to cut curves.

4. Keep the blade aligned by tightening the nut and bolt on the snips.

5. Do not use snips as a hammer, screwdriver, or pry bar.

6. Use the locking clip on the snips after you have finished using them.

Grinders

1. Prior to installing a new grinding wheel, inspect the wheel for cracks or other visible damage; tap the wheel gently with a plastic screwdriver handle to detect cracks that are not visible. If the wheel has a dead sound rather than a ring sound, do not use the wheel.

2. Do not use grinding wheels that have chips, cracks, or grooves.

3. Do not use the grinding wheel if it wobbles. Tag it "Out of Service".

4. Adjust the tongue guard so that it is no more than 1/4 inch from the grinding wheel.

5. Adjust the tool rest so that it is no more than l/8 inch from the grinding wheel.

6. Do not use a bench grinder if it is not firmly anchored to the workbench or other secure platform.

7. Do not install a grinding wheel whose labeled RPM speed is lower than the rated speed of the grinder.

8. Do not clamp a portable grinder in a vise to use it as a bench grinder.

9. Stand to one side of the plane of a rotating grinding wheel during the first few seconds of operation.

10. Grind on the side of the wheel only when it is made for side grinding.

11. Turn the grinding wheel "off" when you have finished working with it and remain at the machine until it has completely stopped.

Drill Press

1. Replace the belt and pulley guards before starting the press and after adjusting or repairs to the press.

2. Make sure the press table is locked into place and the depth adjustment is set before turning on the power.

3. Remove the chuck key before turning on the power.

4. Clamp small pieces of stock to be drilled in the drill vise or to the workbench.

5. Do not wear rings, wristwatches or gloves when working around the whirling auger bit.

6. Turn off the power and wait until the machine has come to a complete stop before reaching for the piece of stock.

7. Keep the drill press and the area around the drill press clear of metal cuttings or lubricants.

Metal Foundry, Production Personnel

1. When pouring molten metal from the Induction Furnace (Melting Pot) into the ladle, then the ladle into the mold, you must wear a face shield, heat resistant coat, gauntlet type gloves and leggings.

2. Do not overfill ladles with molten metal, leave approximately one (1) inch of space from the full capacity of the ladle.

3. Do not transport molten metal until you have checked to be sure that your passageway is clear and free from obstructions.

Metal Foundry, Pattern Shop Personnel

Band Saw

1. Do not use the saw unless all portions of the saw blade and the wheels of the saw are guarded.

2. Do not operate the saw if the in-running feed roll is not guarded.

3. Do not use the saw if the tension control device is not operating.

4. Adjustments to the machine shall not be made until the machine is at a "dead" stop.

5. Set the upper blade guide one-quarter (1/4) inch or less above the material to be cut.

Belt Sander

1. Align the sanding belt for proper tracking before plugging it into the power source.

2. Visually inspect the dust bag for tears, holes, or other defects. Do not use the sander if any of the conditions are present.

3. Secure loose material to a flat surface before sanding.

4. Do not place the sander on the material to be sanded before starting the sander.

5. When the job is completed, do not set the sander down until it has come to a complete stop.

Circular Saw

1. Do not operate the saw unless all guards are in place.

2. Do not use the saw if the retractable guard does not return automatically to cover the blade after each cut.

3. Do not start the cut until the saw has reached full speed.

4. Advance the saw slowly and in a straight line. Do not twist or turn the saw.

5. Stop cutting immediately if the blade binds or the machine or material begins to smoke.

6. Unplug the machine when changing blades or adjusting.

Disc Sander

1. Turn the switch to the "off" position before connecting the sander to the power source.

2. Put all guards securely in place before connecting the sander to the power source.

3. Inspect the back-up pad and disc to ensure that they are securely fastened.

4. Inspect the grinding disc for defects such as cracks, breaks, or grooves. Do not use if any of the conditions are present.

5. Do not install a sanding disc whose labeled RPM speed is lower than the rated speed of the sander.

6. When starting the sander, hold it away from your person in a protected place, such as under a workbench, until you have determined that it is operating safely.

7. After use, wait until the disc has fully stopped rotating and place the sander on its back or on a rubber stand. Disconnect it from the power source.

8. Do not hold small pieces of material in your hand to sand.

After use, wait until the disc has fully stopped rotating and place the sander on its back or on a rubber stand. Disconnect it from the power source.

9. Do not overload the sander by pushing it down onto the work piece. Allow the weight of the sander to supply the pressure.

Scroll (Jig) Saw

1. Do not use the saw unless the table is firmly secured, and it is in true alignment with the saw blade.

2. All belts, pulleys, shafts, and gears must be guarded before using the saw.

3. Tighten the blade securely in the lower chuck and adjust it in-line with the blade support, if “knocking " is heard, readjust the tension.

4. Firmly hold the stock and feed it at a moderate rate of speed into the blade.

5. Keep fingers and hands away from the path of the blade.

6. Turn off the machine and wait until it has completely stopped before removing scraps.

Miter Box Saw (Motorized)

1. Do not use the saw unless the hood completely encloses the upper half of the saw blade, the arbor end and all the points of operation. The hood must cover the lower portion of the blade in all positions.

2. Hold the material firmly against both the table and the fence.

Planer

1. Do not use the planer unless the cutting head and feed roll guards are in place.

2. Do not use stock that has loose knots or other defects.

3. Do not surface a piece of stock smaller than 10 inches or the distance between the rollers plus 2 inches.

4. Always stand to one side of the planer when it is in use.

5. Only adjust when the machine is at a "dead" stop.

Rolling (Cutting) Mill Personnel

1. All belts, guards, shafts, and gears must be guarded before operating any machinery.

2. Stand Clear of the in-line uncoiled while lengths of steel are feeding into the slitting heads.

3. Wear protective gloves, safety glasses, goggles, or face shield when handling coils or lengths of steel.

Obtained from Toolboxtopics.com, Steel Works, Blast Furnaces, https://www.toolboxtopics.com/menu\_programs.html (Accessed August 14, 2024).