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| **Department:** | **P/W Mechanic Shop** | **Area** | **Shop** |  |
| **Subject:** | **Metal Master SWP** | | |

**METAL MASTER**

**Warning:**

The use of this tool may be hazardous. The Metal Master is versatile tool. It is a high powered Hydraulic press capable of changing its implements for the fabricators use. Special safety precautions must be observed to reduce the risk of personal injury. It is important to fully understand and observe the safety precautions and procedures below. If not familiar with the use of this equipment, obtain practical instruction from a competent operator. Do not operate without thorough training or unless under the direct supervision of an instructor. Do not operate if safety devices are not in place.

**Purpose:**

The Metal Master is an electrical powered Hydraulic press capable of shearing, braking, notching, hole punching and pipe bending.

**Hazards:**

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| * Cuts | * Flying debris | * Electrocution | * Crush and pinch |

**PPE Required:**

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| * Safety face shield | * Hearing protection | * Leather gloves | * Safety footwear |

**Pre Set-Up:**

* Ensure lighting is adequate. Do not wear loose clothing.
* Make sure the emergency stop switch is off before making adjustments or changing implements.
* Use a saw horse roller if work piece is too long for implements.
* Ensure you’re wearing appropriate PPE.
* Ensure all locking adjustments are tight.
* Look over machine for any abnormalities, frayed cords broken bolts etc.
* Keep implements free of debris and scraps.
* Turn pivot handles of each implement to rotate implement around post to place under hydraulic cylinder.
* Ensure implement is firmly in pocket of the center of the machine before using.

**Procedure**

* Avoid awkward operations and hand positions where a sudden slip could cause a hand or arm to move into pinch points of machine.
* Make sure Press base table is clear of all scraps and debris.
* Start by making sure implement is settled securely is press base table.
* Turn emergency shut off switch clockwise and pull so it pops out to turn press on.
* Pull down on hydraulic control lever to lower cylinder which completes job of each implement.
* Once implement has completed job on work piece, lift up on hydraulic control lever to raise implement by raising cylinder.
* Push the emergency stop button in, turning off machine before removing work piece or changing implement.

20” Brake:

* Make sure machine is off.
* Turn pivot handle of tooling and swing to center of press base pocket.
* With gloved hands, lower guillotine off of cradle behind cylinder.
* Make sure implement is set to bend angles necessary.
* Keep arms and fingers away from brake points.
* Avoid awkward operations and hand positions where a sudden slip could cause a hand to move into braking points.
* Place work piece between brake points, holding one end if necessary.
* With your other hand, pull down on hydraulic control lever lowering upper half.
* Once the top half touches, remove hand from work piece to avoid a crush injury.
* Once work piece bend is completed, lift up on the hydraulic control raising upper half and cylinder.
* Press the emergency switch to turn off machine and remove work piece

12” Sheer:

* Make sure machine is off.
* Turn pivot handle of tooling and swing to center of press base pocket.
* With gloved hands, lower guillotine off of cradle behind cylinder.
* Keep arms and fingers away from cutting edges.
* Avoid awkward operations and hand positions where a sudden slip could cause a hand to move into cutting edges.
* Do not shear material over 3/8” thick-12”wide or ½” thick-8” wide.
* Place work piece between cutting edge points at marked cutting point of work piece, holding one end if necessary.
* Slide clamp on implement down onto the work piece.
* With your other hand, pull down on hydraulic control lever lowering upper half.
* Once the cutting edge touches the work piece, remove hand from work piece to avoid a crush injury.
* Once work piece cut is completed, lift up on the hydraulic control raising upper half and cylinder.
* Press the emergency switch to turn off machine and remove work piece

Punch:

* Make sure machine is off.
* Turn pivot handle of tooling and swing to center of press base pocket.
* With gloved hands, lower guillotine off of cradle behind cylinder.
* Make sure implement is set to hole size necessary.
* Spray punch and dye with yield or cutting fluid for a cleaner punch
* Keep arms and fingers away from punch points.
* Avoid awkward operations and hand positions where a sudden slip could cause a hand to move into punch points.
* Place guard shield in front of punch and dye
* Place marked work piece between punch points, holding one end if necessary.
* With your other hand, pull down on hydraulic control lever lowering upper half.
* Once the top half touches, remove hand from work piece to avoid a crush injury.
* Once work piece punch is completed, lift up on the hydraulic control raising punch and cylinder.
* Press the emergency switch to turn off machine and remove work piece

Pipe Bender:

* Make sure machine is off.
* Turn pivot handle of tooling and swing to center of press base pocket.
* With gloved hands, raise guillotine on to cradle behind cylinder.
* Make sure both halves of implement are set and in base, confirm proper implements set to bend angles necessary.
* Keep arms and fingers away from bend points.
* Avoid awkward operations and hand positions where a sudden slip could cause a hand to move into braking points.
* Place work piece between bend points, holding one end if necessary.
* With your other hand, pull down on hydraulic control lever lowering upper half.
* Once the top half touches, remove hand from work piece to avoid a crush injury.
* Both ends of work piece will raise.
* Once work piece bend is completed, lift up on the hydraulic control raising upper half and cylinder.
* Press the emergency switch to turn off machine and remove work piece

**Post Procedure/take Down:**

* Try to place implements back where they belong.
* Keep the work area clean for other people to use it.

**Summary:**

* Always wear appropriate PPE.
* Other implements are available to use but read instruction manual for proper set up and adjustments.
* Ensure Metal Master is in good working order before you use it.
* Always make sure the power is turned off changing the implement.
* Consult the supervisor if unsure of how to use.

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