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| **Department:** | **P/W Mechanic Shop** | **Area** | **Shop** |  |
| **Subject:** | **Battery Charger SWP** |

**Bench Grinders**

**Warning:**

The use of this tool may be hazardous. The Bench grinder is a high-speed, fast-Rotating two sided tool so special safety precautions must be observed to reduce the risk of personal injury and fire. 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 Bench grinder is an electrically powered, two sided, stationary, high speed rotating stone capable of grinding most metals, mainly steel of many sizes and angles using different types of abrasive wheels. The Bench grinder will grind the work piece to proper sizes and angles. It can be used on most materials such as stainless and mild steel and aluminum depending on the stone used on the tool.

**Hazards:**

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| --- | --- | --- | --- | --- |
| * Cuts and evulsions
 | * Fire and sparks
 | * Burns and heat
 | * Flying debris
 | * Entanglement
 |

**PPE Required:**

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| * Safety face shield or glasses.
 | * Safety footwear
 | * Spark resistant clothing
 |
| * Approved hearing protection
 | * Leather gloves
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**Pre Set-Up:**

* Ensure lighting is adequate.
* Do not wear loose clothing.
* Make sure there are no flammables around grinder
* Make sure the stone guard is set at proper angle to protect your eyes.
* Make sure the stone is 3/16” to inside edge of rest.
* Make sure you’re wearing appropriate PPE.

To replace the grinding stone:

* Unplug grinder from wall.
* Make sure rotation has stopped, push and hold lock pin to hold stone.
* Use appropriate wrench to loosen and remove arbour lock bolt.
* Replace stone with proper grade and size.
* Make sure nut is faced the right way depending on the application stone.
* Screw on the nut and tighten it firmly with the matching wrench.
* Remove finger from lock pin.
* Plug back into wall

**Procedure**

* **Keep arms, arms and fingers away from stone**.
* **Be sure to wear gloves as metal can become hot very quick**.
* Avoid awkward operations and hand positions where a sudden slip could cause a hand to move into the stone.
* Start the grinder by pressing the switch to on.
* **Firmly push the work piece down on the rest and slowly apply it to the stone**.
* Be prepared to have sparks.
* **While grinding, do not lift work piece off the rest. It will cause the work piece to catch the stone and possibly cause injury.**
* **Try and keep the work piece 90 degrees to the grinding stone or it might catch and pull it from your hands**.
* Remove work piece from rest first pulling it away from stone.
* Turn off Grinder and do not leave grinder till it stops rotating.

**Post Procedure/take Down:**

* Keep the work area clean for other people to use it.

**Summary:**

* **Always wear appropriate PPE**.
* Always make sure the saw is **unplugged** before changing the stone.
* Consult the supervisor if unsure of how to use.

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