

If something breaks

please let us know ASAP on the talk site

*and*

post on the tool that is out of order.

## BLACKSMITH CHECKOUT

- 1) Safety Question 1: "What are the three biggest safety issues in the smithy?"
  - a) everything is hot
  - b) eye protection; scale, and chips
  - c) hard tools vs soft tools
- 2) Safety Question 2: "What do you do if the power goes out / fan stops working?"
  - a) "Close tank."
- 3) What to Wear
  - a) non-synthetic cloth (synthetics melt!)
  - b) leather or canvas footwear
  - c) if you wear gloves, what should you never do?
    - i) Get them wet. wet gloves can fill with steam when they get hot
    - ii) bonus answer: Use the grinders
- 4) Forge
  - a) observe member startup/shutdown the small forge, use instructions posted on the forge
  - b) remind member that the forge needs to get hot (run at 5 psi) and then should be turned down to conserve fuel
  - c) talk about the large forge, point out instructions
  - d) observe member "changing tanks" i.e. remove and reattach fitting to the tank
  - e) if tanks are out, let us know on the talk site
- 5) Anvils
  - a) Question: "What is the worst sin you can commit against an Anvil?"
  - b) Answer: "Hitting it with a hammer or other hard tool."
  - c) Question: "How do we avoid damaging the Anvils and tools?"
  - d) Answer: "Use a cut plate."
- 6) Vices:
  - a) Question: "What are the differences between post vices vs other vices?"
  - b) Answer: "Material in a post vice can be struck because they are designed to handle stress."
- 7) Grinders
  - a) Question: "How do you properly use the disk and belt grinders?"
  - b) Answers:
    - i) "Turn on the machine and allow it to come up to speed. Press (do not jam) materials into the grinding surface. Beware of heat buildup (quench if

needed). Don't hold material such that it wears a groove in the disk or cut the belt!"

- ii) Do not wear gloves (they can get caught and pull you into the disk/belt). If the piece is getting hot too often (i.e., it's small) consider holding it with a pair of pliers, tongs, or vice grips.
- iii) Mind the Gap! If the grinder has a table/shelf, be careful when grinding thin material to ensure that the material does not become lodged between the shelf and the sanding surface. Aside from being **dangerous**, you will damage the machine.

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## WELDING CHECKOUT

### 1) Safety

a) Question: "What safety gear is required in the welding area and under what conditions?"

b) Answers:

- i) hoods with welders to protect from flash
- ii) long sleeve shirt/jacket and gloves when welding to protect from UV burns
- iii) goggles and hearing protection when using grinders
- iv) gloves and/or pliers when material is hot
- v) all clothing and footwear must be non-synthetic (i.e., natural fiber cloth or leather) or non-flammable.

### 2) MIG Welder

a) How does the MIG welder work?

- i) tanks
- ii) wire speed setting
- iii) power setting

b) tank (argon 25% / CO2 75%)

c) observe member using welder

- i) open tank
- ii) turn on
- iii) lookup settings (either inside the case or from the printout behind the table)
- iv) set wire speed and power
- v) run a bead
- vi) turn off
- vii) close tank
- viii) return cables to the cart

d) if the wire runs out / is low, let us know on the talk site

### 3) Angle Grinder

a) observe member changing disk - make sure that they know how the difference between thin and thick disks and how to install the front hold down nut correctly.

b) go over how to remove disk if stuck. particularly with wire brush

c) Question: "What should you watch out for when using angle grinders?"

- i) Answer: "That my work is secured. That I am not going to cut the cord or table. That I know where my sparks will be going. That I don't have clothing, hair, or cords that will get caught."

d) observe member using grinder safely

- i) talk about how grabby wire brushes can be.

e) observe member returning the grinder to the shelf, including coiling cord.

