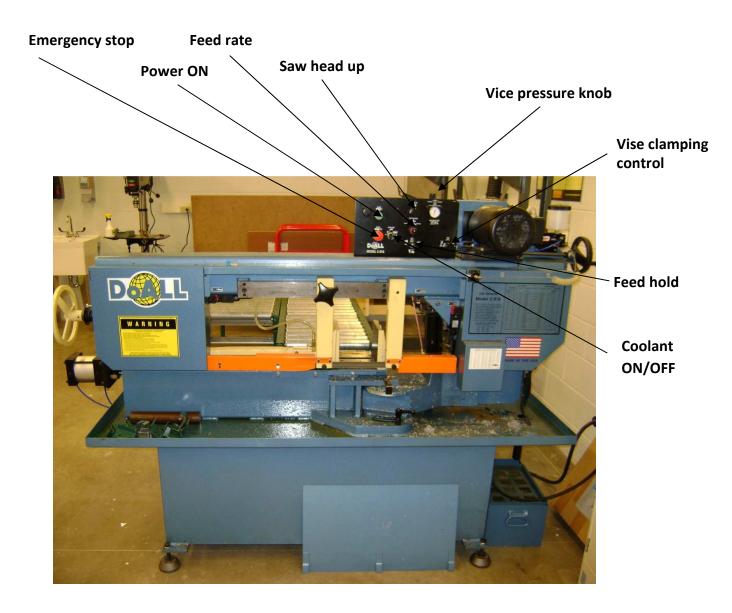
Do-All Horizontal Band Saw



PPE Required: Safety Glasses

Prohibited Clothing: gloves, loose clothing, neckties, jewelry

Machine Access Level: Supervised Only

Materials Allowed: Metals, plastics, composites
Note: For all other materials see the AFL supervisor!

Version 2 3/24/11

Armstrong Hall of Engineering Artisan and Fabrication Laboratories (AFL) Safety and Operational Procedure

Do-All Horizontal Band Saw

Operating Procedure

1. Machine Safety Inspection and Work Area Check-Out

- A. **PPE:** Make sure you are wearing the proper PPE and not wearing any equipment listed on the first page that could get caught in the saw.
- B. **Machine Warning Signs:** Make sure you read and follow the machine warning signs that are attached to the machine. If you have any questions, ASK!!
- C. **Work Area:** Make sure the work area is clean and the work area around the machine is free and clear of debris and personnel.

2. Work Supervision

A. This machine requires supervision by an AFL employee. A Supervisor or TA will assist you in the set-up and operation of the machine. You may not operate this machine without supervision.

3. Machine Adjustment

- A. Note: The machine adjustment is to be done with the machine OFF!
- B. Coolant tank: Make sure the coolant tank is full and the coolant valve is loose and ready to open.
- C. **Blade condition:** Make sure the blade is in good condition and is not missing large gaps of teeth. If it is not in good condition report it to the AFL supervisor.
- D. **Tighten the blade:** Make sure the blade is tight. The blade tension bolt MUST touch the large washer to assure the tightness of the blade.
- E. **Adjust down feed:** Adjust the down feed correctly. The TA will assist you with this step. Too much pressure will damage the blade. Too little could work harden your material. Bouncing will break off saw teeth.
- F. **Support the work:** Make sure the work is supported on both ends. The stock you are cutting from needs support as well as the piece you are cutting off. Do NOT let the end you are cutting off fall on the floor or your foot!
- G. **Clamp the part:** The part MUST be clamped in the vise. You may NOT use your hand to hold the part! Also, check the jaw clamping pressure before you cut. The TA will assist you with this step.
- H. **Identify the machine controls:** Identify the red stop button and the green start button. These controls start and stop the band saw.

4. Machine Operation

- A. **Turn the machine on:** Check with the TA that it is safe to turn on the machine, and push the green start button when instructed to do so.
- B. Turn on the coolant: Loosen the coolant valve. Use coolant!
- C. Safely cut the part: Go slow! Always keep hands and fingers away from the blade. Going slow assures the blade will not impact the material too fast causing damage to the blade and or part. Ask the TA for help.
- D. **Turn the machine off:** when finished sawing, push the red stop button to shut the machine off. Let the saw come to a stop and lower to horizontal position. Do not leave saw in upright position. Never touch a moving blade.
- E. **Take the part out:** Saw cutting generates **HEAT**. Be careful and check before picking up your part.

5. Clean Up

- A. **Disassemble work set-up:** Disassemble any clamps used in the cutting operation. Return all parts to their proper location and the appearance of the saw to how it looked when you started.
- B. Clean up the area: Clean up all messes (for example: use a shop vacuum to clean up any additional saw dust) and return all tools, etc. The TA will check that the area is clean before you can sign-out of the AFL.

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