IOWA STATE UNIVERSITY

OF SCIENCE AND TECHNOLOGY

Pipe and Bolt Threading Machine

Description	Compact Pipe and Bolt Threading Machine
Size / Horse power	Up to 2" Pipe and Bolts / 1/2 HP
Power source	115 volt through power cord
Uses	Cutting, Threading, and Reaming of Pipe and Bolt Material

Safety Precautions

Hazards		
Flying debris (potential eye damage)		
Electrical shock		
Amputation		
Entanglement of hair or clothing		
Training		
Shop Safety Fundamentals		
Site Specific Training		
Protective Equipment		
Safety glasses		
Hearing protection		
Avoid loose fitting clothing		
Tie back long hair		



Foot Control

Switch

Operation

Startup

- 1. Put on PPE listed above
- 2. Ensure work area is clean and free of obstacles
- 3. Make necessary adjustments for safe operation
- 4. Inspect the tool for damage or obstructions to operation
- 5. Ensure workpiece is securely fastened/tightened down
- 6. Depress and hold down the foot switch and select Forward (FOR) or Reverse (REV) to turn on the machine
- 7. Begin work
- 8. Keep hands clear of all moving parts

Cutting Pipe

- 1. Swing reamer and die head to UP position.
- 2. Move pipe cutter DOWN onto pipe and move carriage with handwheel to line up cutter wheel with mark on pipe.
- 3. Tighten cutter feed screw handle on pipe keeping wheel aligned with the pipe.
- 4. Flip the directional switch to FOR (Forward).
- 5. Grasp the pipe cutter's feedscrew handle with both hands and depress and hold down the foot switch with the left foot.
- 6. Tighten the feedscrew handle slowly and continuously until the pipe is cut. Do not force the cutter into the workpiece.
- 7. Release the foot switch and remove your foot from the housing and swing pipe cutter back to the UP position.

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Reaming Pipe

- 1. Move reamer arm into DOWN position
- 2. Check the directional switch to insure it is in the FOR (Forward) position. Depress and hold the foot switch down with left foot
- 3. Position reamer into pipe and complete reaming by exerting pressure on handwheel
- 4. Retract reamer and return reamer to UP position
- 5. Release foot switch and remove your foot from the housing

Threading Pipe or Rod

- 1. Install die set. Refer to die installation procedure located in the Owner's Manual
- 2. Swing cutter and reamer to UP position
- 3. Swing die head to DOWN position with throwout lever set to CLOSE position
- 4. Check directional switch to insure it is in the FOR (Forward) position. Depress and hold the foot switch down with left foot
- 5. Turn carriage handwheel to bring dies against end of pipe. Slight pressure on handwheel will start dies
- 6. Turn carriage handwheel to back die head off pipe
- 7. Swing die head back to UP position

Removing Pipe from Machine

- 1. Use repeated and forceful clockwise spins of the speed chuck handwheel at the front of the machine to release the workpiece from the speed chuck jaws
- 2. If necessary, loosen the rear centering device using a clockwise rotation of the handwheel at the rear of the machine
- 3. Slide the workpiece out of the machine, keeping a firm grip on the workpiece as it clears

Installation of Dies

1. Refer to Owner's Manual for directions on installing dies

Shutdown

- 1. Release the foot switch and remove your foot from the housing and turn the power switch to OFF
- 2. Allow the machine to come to a complete stop before removing workpiece

Maintenance

Storage	Must be kept indoors or well covered in rainy weather.
Accessories	Adjusting key
Care	1. Do not use tool if switch does not turn it ON or OFF.
	2. Disconnect the plug from the power source before making any adjustments,
	changing accessories, or storing the tool.
	3. Check for misalignment or binding of moving parts, breakage of parts, and any
	other condition that may affect the tool's operation. If damaged, have the tool serviced before using.
	 Use only accessories that are recommended by the manufacturer for your model.
	5. Keep handles dry and clean; free from oil and grease.
	Check motor brushes every 6 months. Replace when worn to less than $\frac{1}{2}$."