

SWING/PULL CLAMP

Max. Capacity: Model #100288 - 2850 lbs. Clamping Force (with 2" lg. arm) at 5,000 PSI

Model #100289 - 565 lbs. Clamping Force (with 1-1/2" lg. arm) at 5,000 PSI

SAFETY PRECAUTIONS



WARNING

To help avoid personal injury:

- The buyer of this product must be responsible for safety. This product is only a component of a larger system that is designed, purchased, or manufactured by the buyer. The buyer is responsible for the design of structurally adequate hydraulic fluid passages and connections.
- All hardware must be tightened using the proper tools and procedures before applying hydraulic pressure.
- Do not exceed the rated capacity of the swing/pull clamp.
- Mount the swing/pull clamp only by the mounting holes in the top flange using four 5/16 cap screws in the 100288 clamp or four #10 cap screws in the 100289 clamp.

SWING CLAMP OPERATION

The swing clamp arm is adjustable to any position in a 360° circle. Once positioned, it will swing 90° in either direction or pull straight down. All units are assembled at the factory for a right-hand swing (CW rotation). When the swing is completed, 1/2" (100288) and 3/8" 100289 of downward clamping travel is provided. **IMPORTANT: Clamping of the workpiece must be completed within the final 1/2" (100288) or 3/8" (100289) of stroke.** If required a clamping bolt (3/8-16 UNC [for 100288] or 1/4-20 UNC [for 100289] X desired length) can be assembled to the swing camp arm. See Figure 1.

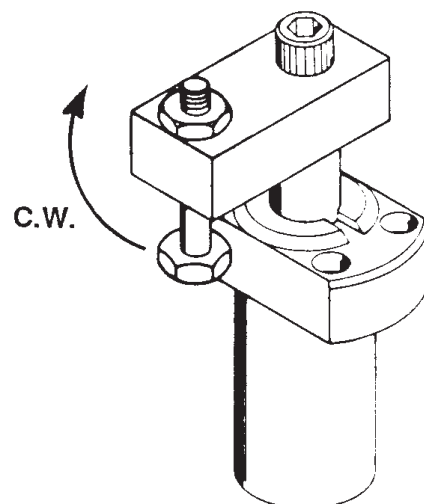


FIGURE 1

IMPORTANT:

To help prevent equipment damage,

- Do not remove or attempt to adjust the set screw sealed into the wall of the cylinder body. Any tampering with this screw voids warranty on this product. Contact Power Team Technical Services Department for service information.
- A metering valve is provided to protect the clamp from damage caused by pressure spikes and flows that exceed the rating of the clamp. Do not remove the metering valve.
- Do not restrict the arm as it swings.
- The clamping of the workpiece must be completed within the final 1/2" (100288) or 3/8" (100289) of stroke on right-hand, left-hand and straight pull options.
- There must be clearance between the arm and the cylinder when this unit is in the clamped position to ensure that full force is applied to the workpiece.
- Always provide venting in a fixture near or below the base of the clamp. For example: Vent blind holes in the fixture to allow proper return of the clamp. Do not allow coolant to accumulate around the bottom cap of the clamp.

Changing the Position of the Swing/Pull Clamp Arm

1. Place the arm of the swing/pull clamp in a vise. Loosen the cap screw located on top of the arm. See Figure 2.
2. Adjust the position of the swing/pull clamp arm as desired. Place the arm in the vise again, and torque the cap screw to 100 ft. lbs. for the 100288 clamp or 200 in. lbs. for the 100289 clamp.

IMPORTANT:

To help prevent equipment damage:

- Do not place the cylinder in a vise.
- Do not apply torque to the rod when loosening or torquing the cap screw located on top of the arm.
- The arm must be torqued before the unit is placed in operation.
- Do not remove or attempt to adjust the set screw sealed into the wall of the cylinder body. Any tampering with this screw voids warranty on this product. Contact Power Team Technical Services Department for service information.

Changing the Direction of Travel of the Swing/Pull Clamp Arm

(Refer to Parts List #100744 for 100288 or #100759 for 100289 for their order of assembly)

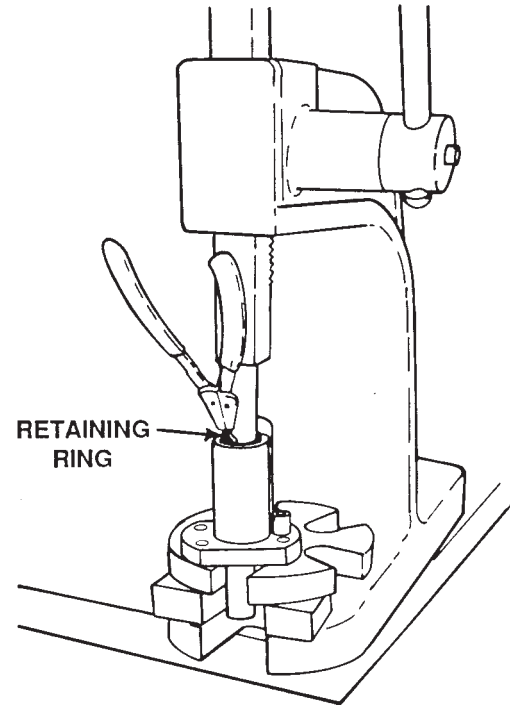
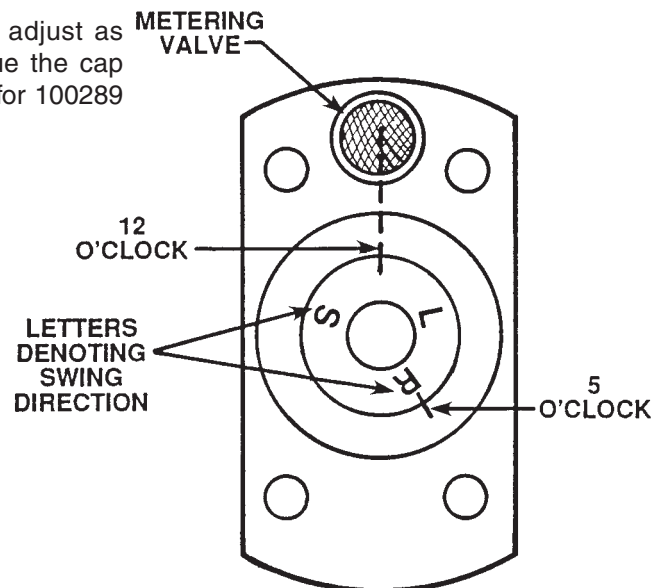
1. Place the arm of the swing/pull clamp in a vise, and loosen the cap screw located on top of the arm. Remove the arm of the swing/pull clamp. See Figure 2.



FIGURE 2

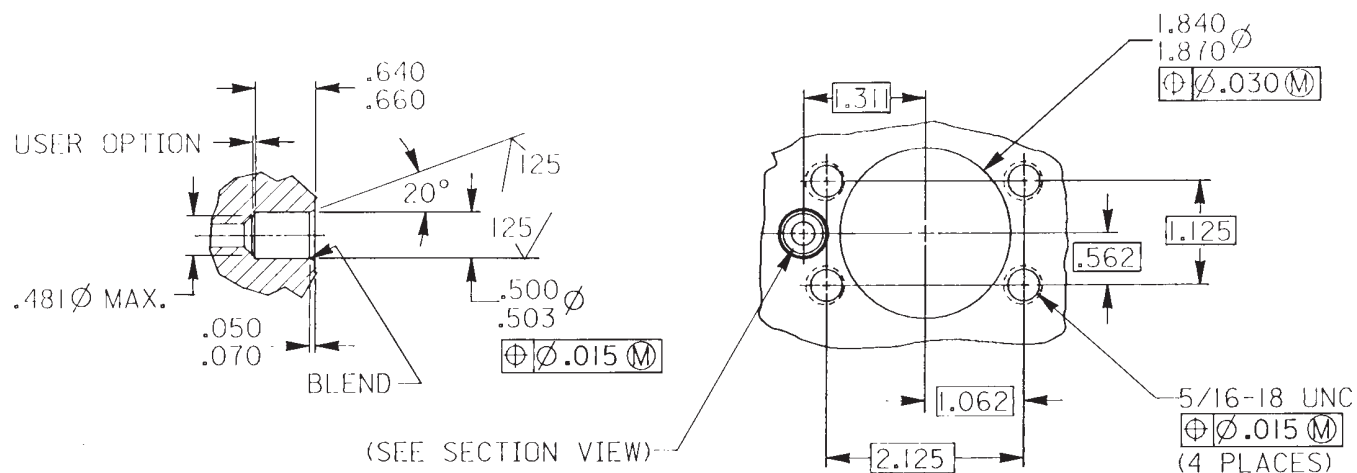
**WARNING**

- Spring tension exerts high pressure against the bottom cap of the cylinder. To help avoid personal injury, **SLOWLY** release spring tension with an arbor press. See Figure 3.
2. Place the cylinder in an arbor press, and remove the retaining ring from the bottom of the cylinder. See Figure 3.
 3. Remove the bottom cap, thrust bearing, washers and the internal springs from the cylinder.
 4. Push the rod back into the body until the guide ball disengages from the guide path. Do not remove the rod from the cylinder.
IMPORTANT: Do not use a hammer to jar the rod loose, and do not damage the rod. Do not remove or attempt to adjust the set screw sealed into the wall of the cylinder body. Any tampering with this screw voids warranty on this product. Contact Power Team Technical Services Department for service information.
 5. View the cylinder from the bottom with the metering valve up, and align the letter (marking the direction of swing; i.e. L = left, R = right, S = straight [no swing]) to an approximately five o'clock position with the metering valve viewed as twelve O'clock. See Figure 4.
 6. Turn the rod slightly left and right while pushing it into the cylinder body until the ball inside engages the rod guide path. Push the rod completely up into the cylinder body and reassemble.
 7. Assemble the swing/pull clamp arm onto the rod, and adjust as necessary. Place the arm in the vise again, and torque the cap screw to 100 ft. lbs. for the 100288 clamp or 200 in. lbs. for 100289 clamp.

**FIGURE 3****FIGURE 4**

INSTALLATION INSTRUCTIONS

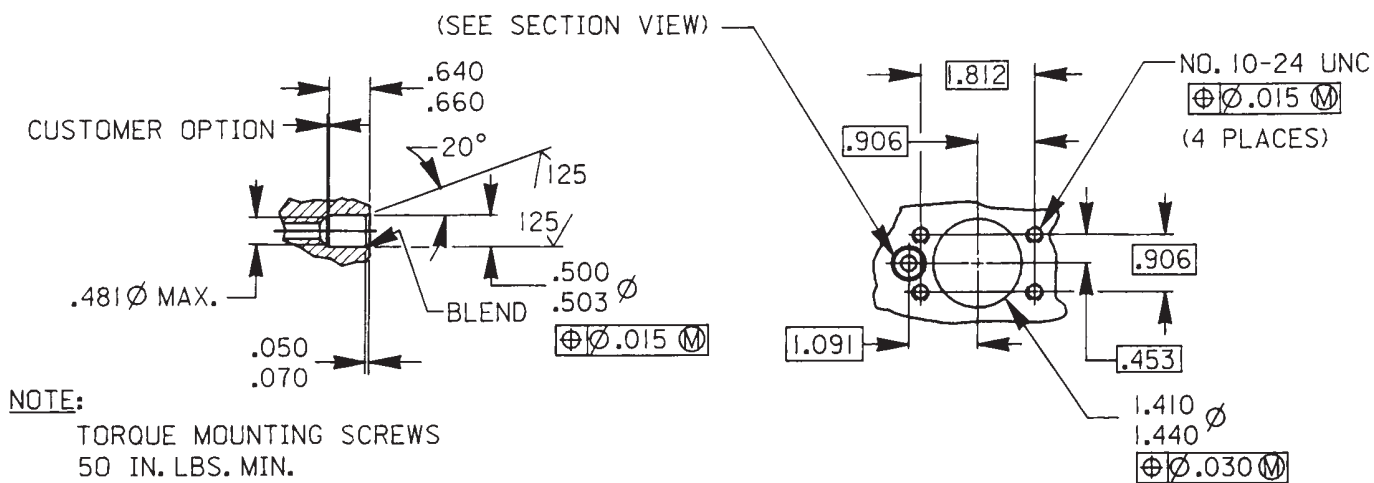
#100288



NOTE:

TORQUE MOUNTING SCREWS
200 IN. LBS. MIN.

#100289



NOTE:

TORQUE MOUNTING SCREWS
50 IN. LBS. MIN.