



## Push Rod Assembly Tool Instructions

# PUSH ROD ASSEMBLY TOOL

16-9610-0

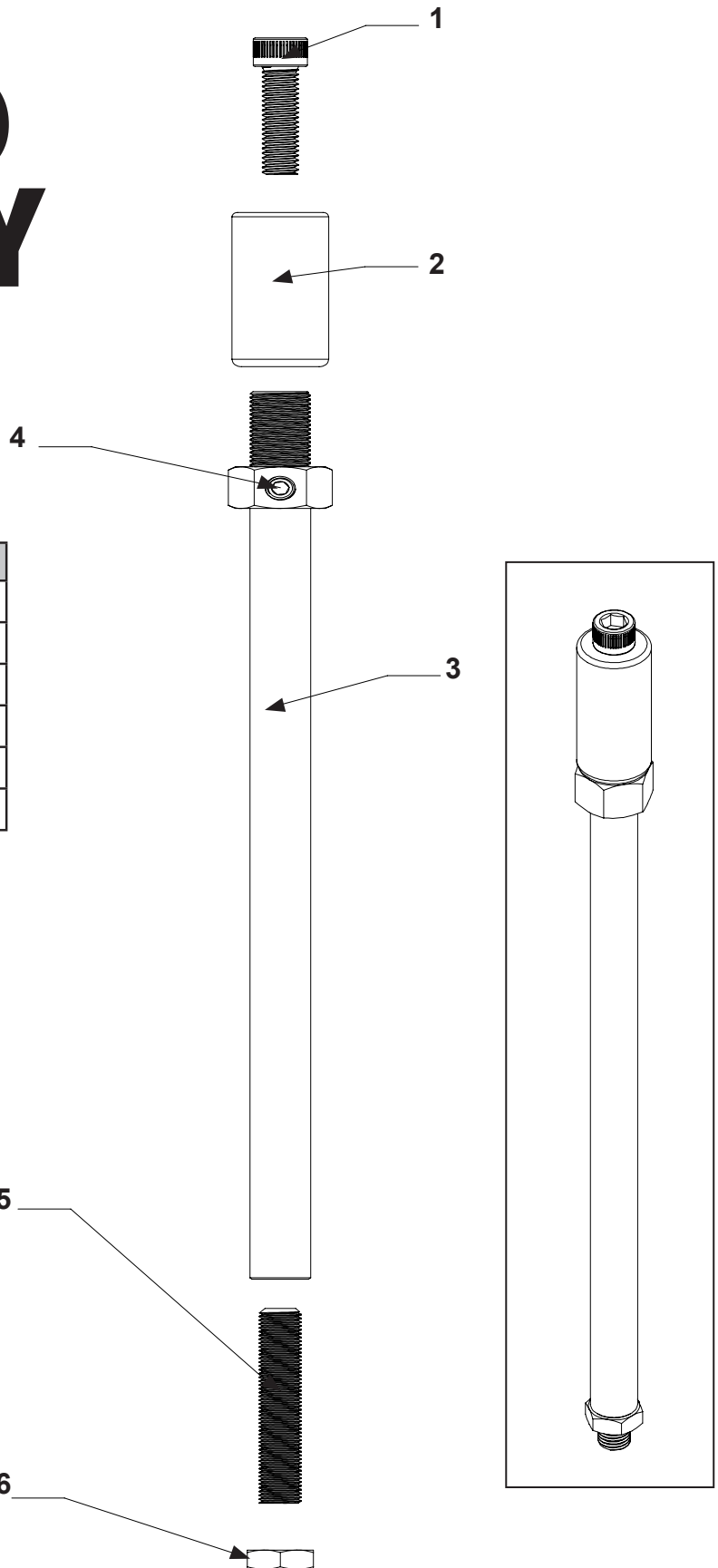
ITEM	QTY.	DESCRIPTION
1	1	PRESS CAP SCREW
2	1	TOP CAP
3	1	MAIN BODY
4	1	SMALL SET SCREW
5	1	BOTTOM ADJUSTMENT SCREW
6	1	JAM NUT

### Suggested Additional Tools:

- 16-9600-0 Push Rod Length Tool
- Good Ruler or Large Measuring Calipers
- Straight Edge, Square and Scribe
- Lathe, Pipe Cutter, Hack Saw or Cut Off Grinder
- Deburr Tools or Files
- Bench Vice or Large Wrench
- Allen Wrenches for Tool Adjustment



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Instructional Video



This Tool is designed to press the Tip into 3/8" Cut-To-Length Push Rods. It can also be used to help with cutting the Push Rods to consistent lengths.

EMPI also sells **16-9600-0 Push Rod Measuring Tool** to help determine the length of the Push Rod you will need to make when setting proper Valve Train Geometry for your engine.

This Tool can be used a few different ways depending on the other tools you may have access to. It works well with a lathe but can also be used with other hand tools. The use of a bench vice is recommended and will make this job much easier.

- **The Long Tube** section or **Main Body** of the Tool without the Top Cap, can be used to help hold the Push Rod for cutting.
- **The Bottom Set Screw** of the tool with the Jam Nut will set how far the Push Rod sits in the tube.
- **The Small Set Screw** on the side of the Tool is for holding the Push Rod in place inside the Tube.
- **The Top Cap** and **Cap Screw** are for pressing the Tip into the open end of the Push Rod.

Once you have the overall length you need, mark and cut the Push Rods. The length that you cut will need to account for the length of the tip that will be pressed in.

You can cut the Push Rods using a Pipe Cutter, Hacksaw or Cut Off Grinder. Always make sure the end is square and deburr the inside and outside before pressing in the tip.

This Tool works very well with the use of a **Lathe**, if you have access to one.

1. Slide the marked Push Rod into the Tube and adjust the Bottom Set Screw so the line you marked is just outside the Tube.
2. Lock the Jam Nut so that the adjustment doesn't move.
3. Tighten the Tool in the Lathe Chuck.
4. Use the Small Set Screw to hold the Push Rod in place, do not crank down on this screw which could mark up the side of the Push Rod.
5. Face off the remaining material to the line you marked.
6. Deburr the edges.
7. Keep this length as your Zero Mark for the remaining Push Rods.
8. Loosen the Small Set Screw and remove the first Push Rod.
9. You are now set to repeat this length on the remaining 7 Push Rods.

After all the Push Rods have been cut to length, lay them out and confirm they are all the same size.

**Now we are ready to press the Tips into the open ends of the Push Rods.**

1. Adjust the Bottom Set Screw so that the top of the Push Rod is further inside the Tube.
2. When you put the new Tip end inside the Tube, it should set in just far enough that it will press in straight.
3. Do not tighten the Small Set Screw this time.
4. Put the Tool in the vice or hold it with a large wrench.
5. Screw the Top Cap on the Tool.
6. Tighten the Top Cap Screw to press the tip into the Push Rod.
7. You will feel it bottom out and get tight when the Tip is fully pressed. Don't over tighten the screw when you feel it stop.
8. Remove the Top Cap of the Tool and confirm that the Tip is all the way down flush with no gap. If it's not pressed down all the way, do it again and apply additional pressure.
9. Do this 8 times and you are finished.