



4859 Convair Drive
Carson City, NV 89706
Phone (775) 884-2292
Fax (775) 884-3363

INSTALLATION INSTRUCTIONS

Please follow these instructions to ensure the proper operation of your T & D MACHINE PRODUCTS Ford/Dart/TFS 302 Rocker Arm Assembly.

1. DETERMINE CORRECT STAND HEIGHT

Install the rocker stands on the cylinder head using the 7/16-14, 12 point attaching bolts. The stands are marked with the part number on the lower right-hand corner. The stands should be placed on the head so that the part numbers face the valve stem.

Note:

The Ford production 289/302 heads must have the stud holes drilled and re-tapped with 7/16-14 NC Threads.

Dart 302 heads must have the pushrod holes opened up to provide proper pushrod clearance.

For TFS "R" heads, the pedestals must be machined to provide a flat surface for the stand to sit on. Tip the head in the 'Y' Axis (Short way on the head) until the rocker pad is level. Then cut the pads equally until they are all cleaned up and same height to the deck surface in the 'X' axis. (Long way on the head)

Remove a rocker arm from one of the shafts and place that shaft on a stand. Take the shaft height gage supplied with the kit and place it on the valve stem as shown in Figure 1.

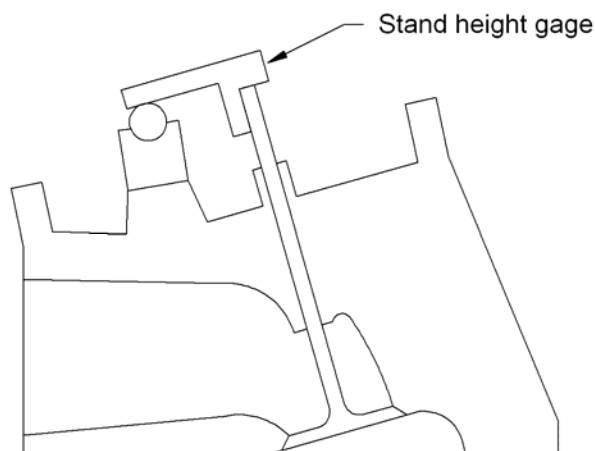


Figure 1

The gage should contact the top of the valve and the rocker shaft as shown in Figure 1 for optimum rocker geometry.

If the gage contacts the shaft before touching the top of the valve stem, as shown in Figure 2, remove a corresponding amount of material from the stud bosses on the cylinder head. This will lower the rocker stand on the cylinder head

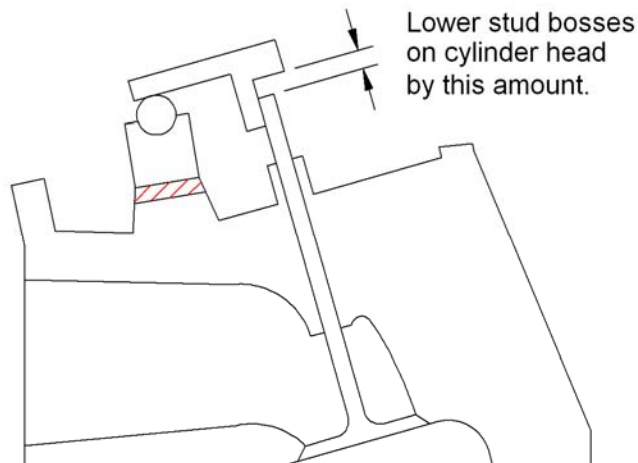


Figure 2

If the gage contacts the top of the valve stem and does not touch the rocker shaft, as shown in Figure 3, add a corresponding amount of shims between the stand and the cylinder head. This will raise the rocker stand and shaft to the correct height.

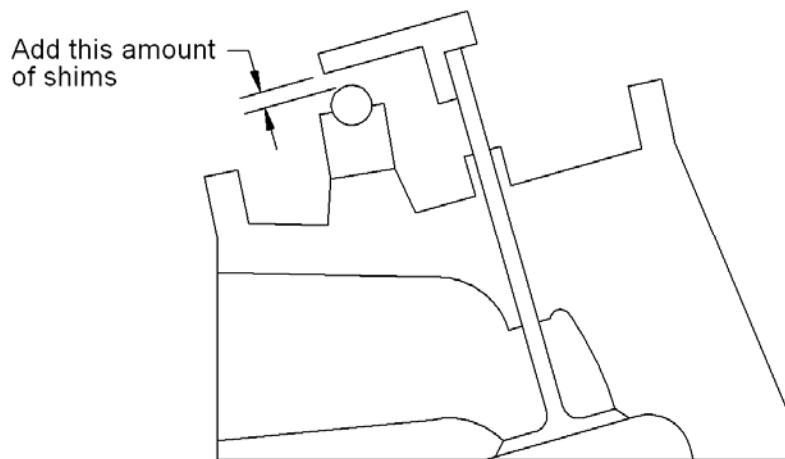


Figure 3

2. DETERMINE CORRECT PUSHROD LENGTH

Place the pushrod length checker into the lifter and install the rocker arm assembly. Be sure the cam is rotated to the base circle. Seat the bottom of the adjuster screw up against the recess in the rocker arm and turn the adjuster screw clockwise on full turn down. This is the initial adjuster position. Adjust the pushrod length tool to the proper length, remove from the engine, and measure its overall length.

The rocker arm should not be operated with the adjuster screw more than one turn up or down, from the initial adjuster position. Doing so can cut off the flow of oil to the rocker arm.

3. FINAL ASSEMBLY

After the stand heights have been set, place a pair of rockers back on the stand to assure good rocker to valve alignment and torque the stand attaching bolts to 55/65 ft-lbs.

When the stands are tightened down, place the rocker arm and shaft assemblies on the stands and tighten the shaft hold down nuts to 25 ft-lbs. After all of the rockers have been tightened down, set valve lash and torque the adjuster screw jam nut to 5/20 ft-lbs.

CAUTION:

Each T&D Rocker Arm Assembly is supplied with the proper length fasteners to secure the rocker stand to the cylinder head. Bolt holes may not be tapped deep enough to accept the fasteners supplied. Each attaching bolt should reach maximum thread penetration without bottoming in the hole. Make sure that the hold down bolts will go to the proper depth in every hole by threading a hold down bolt into each hole until it bottoms on the last thread. Check the clearance between the underside of the bolt head and the cylinder head mounting surface. The clearance should not be greater than 0.100". If the clearance is greater than 0.100", you will need to tap the hole deeper or get a shorter hold down bolt.