



## Shaft Rocker Arm System Installation

Thank you for choosing COMP Cams® products; we are proud to be your manufacturer of choice. Please read this instruction sheet carefully before beginning installation and also take a moment to review the included limited warranty information.

If there are any questions or problems during the installation, please do not hesitate to contact the toll free CAM HELP® line at 1-800-999-0853, 7 a.m. to 8 p.m. CST Monday through Friday.

### Shaft Rocker Arm Preparation and Installation:

**Step 1:** The rocker arm roller tips must be immersed in oil for a minimum of 3 hours to allow full lubricant penetration of the roller tip and axle. A household ice tray works well for this purpose. **Please note that it is absolutely critical that all shaft rocker components be thoroughly pre-oiled prior to use.**

**Step 2:** Thoroughly inspect both cylinder heads to ensure that they are free of any obstructions that may prevent the rocker stands from bolting down evenly.

**Step 3:** After removing the old rocker arm studs from the cylinder heads, inspect all rocker stud bolt holes to ensure that the threads have not been damaged during removal of the studs. Running a thread chaser through all of the holes will guarantee clean threads and a secure mounting point for your new COMP shaft rocker system.

**Step 4:** Prior to torquing any of the rocker stand bolts, verify that all rocker stand bolts can be threaded completely through the rocker shafts and into the rocker arm stud holes. Any bolt that does not thread all the way into the stud hole should be shortened using a bench grinder. Be sure to clean up the threaded bolt ends with a thread chaser after grinding.

**Step 5:** Determine correct rocker stand height using the supplied shaft height gauge (the long leg of the gauge should rest against the shaft, and the short leg should rest against the valve stem). If the gauge does not contact the rocker shaft, shims should be added under the rocker stand to raise the shaft until it touches the gauge. **Note that the gauge is manufactured for .650" of valve lift (small block) or .750" of valve lift (big block).** For more valve lift than provided for by the gauge, the shaft height should be *lowered* by half the difference between gauge lift and actual lift. For less lift, the stand height should be *raised* by half the difference between gauge lift and actual lift. (i.e. for a big block with .850" of valve lift, the rocker shafts should be .050" lower than the gauge. For a big block with .700" of valve lift, the rocker stands should be .025" higher than the gauge.)

**Step 6:** Torque the 7/16 stand bolts to 45 lbs/ft. Bolts that thread into an intake runner should be coated with a good thread sealant such as Loctite®.

**Step 7:** Install the rocker arms onto the rocker arm shaft with a shim on either side of the rocker, and place a lock ring on the outside of each shim. The shims prevent side pressure from damaging the shaft bearings. Install the 5/16" torx head bolts through the rocker shafts into the rocker stands, and torque them to 25 lbs/ft.

**Step 8:** Place a few drops of oil on the valve lash adjuster threads prior to installation in each rocker arm. Tighten the adjuster by hand until bottomed out. Back the adjuster out 1 turn, and thread the adjuster nut onto the adjuster. Tighten the adjuster nut to 45 lbs/ft to seat the adjuster. **Note that it is absolutely critical that the adjuster is**

**backed out one full turn prior to torquing the adjuster nut. Failure to do so will result in damage to the adjuster and rocker arm.**

**Step 9:** Once the valve lash adjuster has been seated, loosen the adjuster nut and set the adjuster for valve lash. Retighten the adjuster nut to 35 ft/lbs. **Do not run the rocker arm with the adjuster bottomed out, as doing so will result in damage to the rocker arm and other engine components.**

**Step 10:** Place the tip of an oil can against the oiling hole in the adjuster, and pump the handle until oil comes out of the oil passage behind the rocker arm roller tip.

### **Post Installation Maintenance:**

The synchronized oil system must be inspected periodically for obstructions that may prevent proper rocker arm oiling.

After the valve has been adjusted to camshaft specifications, verify that the 12 pt adjuster nut has been torqued to 35 lbs/ft. **Failure to do may result in severe engine damage if the adjuster nut should come loose while the engine is running.**

**\*Do not re-tap the 7/16" adjuster hole with any type of tap other than a 7/16"-20 roll forming tap (Union-Butterfield # 1310209 or similar), as doing so will damage the rocker arm beyond repair.**

### **Limited Warranty**

Competition Cams, Inc. warrants that all of its products are free from defects in material and workmanship, and against excessive wear for a period of (1) one year from the date of purchase. This **limited warranty** shall cover the original purchaser.

**Competition Cams, Inc.'s obligation under this warranty is limited to the repair or replacement of its product.** To make a warranty claim, the part must be returned within (1) one year of purchase to the address listed below, freight prepaid. Items covered under warranty will be returned to you freight collect.

**It is the responsibility of the installer to ensure that all of the components are correct before installation. We assume no liability for any errors made in tolerances, component selection, or installation.**

**There is absolutely no warranty on the following:**

- A) Any parts used in racing applications**
- B) Any product that has been physically altered, improperly installed or maintained;**
- C) Any product used in improper applications, abused, or not used in conjunction with the proper parts.**

**There are no implied warranties of merchantability or fitness for a particular purpose.** There are no warranties, which extend beyond the description of the face hereof. Competition Cams, Inc. will not be responsible for incidental and consequential damages, property damage or personal injury damages to the extent permitted by law. Where required by law, implied warranties or merchantability and fitness are limited for a term of (1) one year from the date of original purchase.

This warranty gives you specific legal rights and you may also have other legal rights, which vary from state to state.



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