



Instruction Sheet For Part #2411

Super "Powerglide™" Kit (Shovel head)



- ✓ Shovel "Powerglide™" Tappet Block Kits are capable of the highest rpm a Harley® can safely turn, at a valve lift of .700" and with the right valve springs, valves, cam, oil, etc.
- ✓ Shovel motors can have all the hydraulic benefits of the late EVO style hydraulic system by installing JIMS® Shovel "Powerglide™" Hydraulic Tappets.
- ✓ These kits will eliminate the total oil loss of the stock hydraulic units, No. 17920-53A.
- ✓ Billet Shovel Tappet Blocks with "Powerglide™" Hydraulic Tappets.
- ✓ Comes complete with instructions.
- ✓ Tappet block gaskets included.

These tappet blocks supersede lifter block No.'s 18603-80A, 18610-76A and tappet No.'s 18522-53A. Fits Shovel Big Twins 1953 through 1984. Use 1/4"-20

screws, JIMS® No.1205, from late 1976 through 1984. Use 1/4"-24 screws, JIMS® No.2406, from 1953 through early 1976. These blocks are designed to accommodate a gross valve lift of .550" at the valves, leaving a clearance of .035" roller to block freeplay (Please note, if using a cam with a higher lift, a simple modification is all that is needed).

All JIMS® Billet Polished Tappet Blocks are made from 7075-T651 aluminum with a tensile strength of 83,000 psi, which is double the amount of 6061-T6 aluminum and almost triple the amount of cast aluminum tappet blocks. These tappet blocks are machined to the center line of the cam and hold to $\pm .002"$. Also, the bores are held perpendicular to the mounting flange to $\pm .0002"$.

At last JIMS® has designed and engineered a completely new block kit for shovel motors, stock or performance application. This new kit has an upgraded pushrod seat at a 3/8" diameter and a 5/8" lower seat. Lowering the pushrod seat will help reduce the severe tappet pushrod angle, making JIMS® new kit as close to an EVO tappet as possible. Kit comes with four Big Axle Tappets with new pushrod seat, one 1029-53F front 7075-T651 tappet block polished, one 1029-53R rear 7075-T651 tappet block polished, pushrods, two tappet block gaskets and complete instruction sheet.

Please read all instructions before starting this job.

1. Refer to H.D.® Service Manual for specifications and to remove tappets and tappet blocks.
2. Remove all old gasket material and keep all foreign material out of tappet block holes.
3. Wash pushrod covers and install new seals.
4. JIMS® "Powerglide™" Tappets are assembled with a small amount of oil to ease in the adjustment. This way you will not have to bleed down the tappet at the time of final adjustment.
6. Apply JIMS® Assembly Lube, No. 1226, to tappets and rollers. Slip tappets into blocks and install blocks.
7. With both blocks in place on case, install JIMS® Tool #33443-84. (If your case has 1/4-20 mounting holes, lube tool and screw into the tappet screw hole to center block into case.) Tighten to 30 in/lb. Install the other block the same way. Remove tool and install last lubed screw and finish torquing to 120 in/lb in a criss-cross pattern at 30 in/lb increments.
8. This is a good time to clean the tappet screen.
9. Locate the front pushrod and covers first. Apply JIMS® Assembly Lube, No. 1226, to top and bottom ends and threads of pushrods. (Note: Front and rear exhaust pushrods are the longest.) With the front exhaust cam at the lowest point, adjust pushrod with thumb and finger just until you eliminate all up-and-down free movement. (NOTE: Do not take up more than the free play of pushrods)
10. Extend pushrod adjuster 9 wrench flats or 1 1/2 turns. To do this hold screw with a 1/4" open end wrench, while turning pushrod with a 1/2" open end wrench until you have completed the adjustment. Tighten locknut to pushrod with two open end 1/2" wrench.

IMPORTANT NOTE: This adjustment will make the pushrod tight, which will bleed the hydraulic lifter. It will take 10-15 minutes or longer to bleed off. It is important that the engine is not rotated while pushrods are tight. The pushrod will spin with your fingers after it has bled off properly. Tighten lock nut. Recheck, close cover and install clips. Repeat exact procedure on other pushrods. Turn motor over several times to pump oil into the "Powerglide(tm)" Tappet until the oil light goes out, or until oil is returning to the oil tank.

CAUTION: Wear safety glasses. Excessive force may damage parts and tool. See JIMS® catalog for over 100 other top quality professional tools. The last tools you will ever need to buy.

"From The Track... To The Street!"

555 Dawson Drive, Camarillo, CA 93012 • Phone 805-482-6913 • Fax 805-482-7422 • www.jimsusa.com



Instruction Sheet For Tool #2400

Powerglide™ Upgrade Kit

This kit was designed to change the Standard Shovel Powerglide Tappets no.2459-1, 2460-1, 2461-1 and 18522-53PG to accept our No.2400 pushrods.



1. Although the pushrod seats may be changed without removing the tappets from the tappet blocks, JIMS suggests to remove the tappets for inspection and cleaning. Check all rollers. If bad replace with JIMS Big Axle Tappets No.2459-1, No.2460-1, or 2461-1.
2. Once the tappets are removed and inspected, remove the retaining rings that hold the pushrod seats in. Remove old pushrod seats and install new seats supplied with kit.
3. Install tappets in blocks with oil holes facing each other in the blocks.
4. JIMS® Power Glide tappets are assembled with a small amount of oil to ease in the adjustment. This way you will not have to bleed down the tappet at the time of final adjustment.
5. Apply assembly lube to tappets and rollers. Slip tappets into blocks and install blocks.
6. With both blocks in place on case, install JIMS® Tool #33443-84 if your case has 1/4-20 mounting holes. Lube tool and screw into the tappet screw hole to center block into case. Tighten to 30in/lb. Apply lube to the other three screws and torque to 30 in/lb. Install the other block the same way. Remove tool and install last lubed screw and finish torquing to 120 in/lb in a criss-cross pattern at 30 in/lb increments.
7. This is a good time to clean the tappet screen.
8. Locate the front pushrod (laser indicated front or rear on part) and covers first. Apply assembly lube to top and bottom ends and threads of pushrods. (Note: Front and rear exhaust pushrods are the longest.) With the front intake tappet at the lowest point on cam, adjust pushrod with thumb and finger just until you eliminate all up-and-down movement.
9. Extend pushrod adjuster 9 wrench flats or 1 1/2 full turns. Tighten lock nut.
10. Recheck lock nut, close covers and install clips.
11. Repeat exact procedure on the other 3 (Note: make sure tappets are at the lowest point for adjustments.)
12. Turn motor over several times until oil pumps into the powerglide tappets, or until the oil light goes out, or until oil is returning to the oil tank.

IMPORTANT NOTE:

This adjustment will make the pushrod tight, which will bleed the hydraulic lifter. It will take 10-15 minutes or longer to bleed off. It is important that the engine is not rotated while pushrods are tight. The pushrod will spin with your fingers after it has bled off properly. Tighten lock nut, recheck, close cover and install clips. Repeat exact procedure on other pushrods. Turn motor over several times to pump oil into the power glide tappet until the oil light goes out, or until oil is returning to the oil tank.

CAUTION: Wear safety glasses. Excessive force may damage parts and tool. See JIMS® catalog for over 100 other top quality professional tools. The last tools you will ever need to buy.

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