



## Instruction Sheet For #1029-53B (Power Glide)



### "Power Glide™" Tappet Block Kit

Use on Pan Big Twin 1953-65  
Use on Shovel Big Twin 1966-84

Please read all instructions thoroughly before starting this job.

1. Remove tappets and tappet blocks per H.D.® Service Manual.
2. Remove all old gasket material and keep all foreign material out of tappet block holes. If you were using the stock hydraulic units you can use the same pushrods. If you were using solid tappets you need hydraulic style pushrods, for Shovel motors use JIMS®

No.2369 or H.D.® No.17904-66, or equivalent - for Panhead motors use JIMS® No.2404 or H.D.® No.17905-53B or equivalent.

3. Wash pushrods and pushrod covers, install new seals.
4. \*Check for correct thread pitch and style of tappet screws pertaining to year of application. Tappet blocks can be countersunk for early style screws.
5. Note: These blocks are designed to accommodate a gross valve lift of .550 at the valve, this is about .385 at the cam. You will need at least .035 roller to block clearance with any cam being used. To check for this do the following: With a tappet in rear block, no base gasket, one tappet at a time, Cam lobe for the one that you are checking at the highest point of lift. Slide the assembly into the motor (Note: if the tappet block flange does not touch the motor case during this trial assembly, remove material as needed to give the necessary .035" of up and down tappet movement) With the assembly still in motor snug with JIMS® tool #33443-84 to about 30 in./lb. (Note: Use JIMS® tool #33443-84 only if your case has 1/4-20 threads.) Now check again for .035" free movement. Do the same for the other tappets. If more clearance is needed remove the least amount of material from the tappet blocks as needed. (Note: make sure to remove any burrs after modifying the blocks, wash and air dry.) Also check tappet to tappet clearance on cams with small base circles.
6. Apply a light film of motor oil or sealer to both sides of gasket, install on blocks. Apply assembly lube to tappets and rollers. Slip tappets into blocks, you can hold tappets in place with your fingers or a rubber band works well.
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. 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.
8. This is a good time to clean the tappet filter. See H.D.® Service Manual.
9. Locate the front pushrod and covers first. Apply assembly lube to top and bottom ends and threads of

**"FROM THE TRACK... TO THE STREET!"**

555 Dawson Drive, Camarillo, CA 93012 • Phone 805-482-6913 • Fax 805-482-7422



pushrods. (Note: longest pushrod is for the front exhaust tappet) With the front exhaust cam at the lowest point adjust pushrod with thumb and finger just until you eliminate all up and down movement.

10. Extend the pushrod adjuster:

*7 wrench flats if your pushrods have 24 threads per inch.*

*10 wrench flats if your pushrods have 32 threads per inch.*

*13 wrench flats if your pushrods have 40 threads per inch.*

This is about .050 from the snap ring down for all of the adjustments.

## 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 very 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 lock nut, close covers and install clips. Repeat exact procedure on other pushrods. Turn motor over several times to pump oil into the Power Glide™ Tappet or until the oil light goes out, or until oil is returning to the oil tank.

**CAUTION:** Use motorcycle oil 50w, 60w, or 20-50w at best (see item e below)

The following is sometimes mistaken for noisy tappets:

- A. The most common being the clearance between cam gears and pinion gear (referred to as gear lash). If you did not change the cams at the time of installing this kit and had no gear lash but a slight whine when motor was cold it is safe to say you are OK in this area.
- B. Rocker arm end play .004" to .010" is good.
- C. Oil pressure at normal operating temperature about 2000 r.p.m. should be 12-35 p.s.i..
- D. Check valve to guide clearance.
- E. If using 50w or 60w oil you may have ticking noise at cold start. This is normal.

Pushrod Adjustments			
Threads per inch	Wrench Flats	Total Travel Distance	Approximate Turns
24	7	.049	1.2
32	10	.052	1.6
40	13	.052	1.6

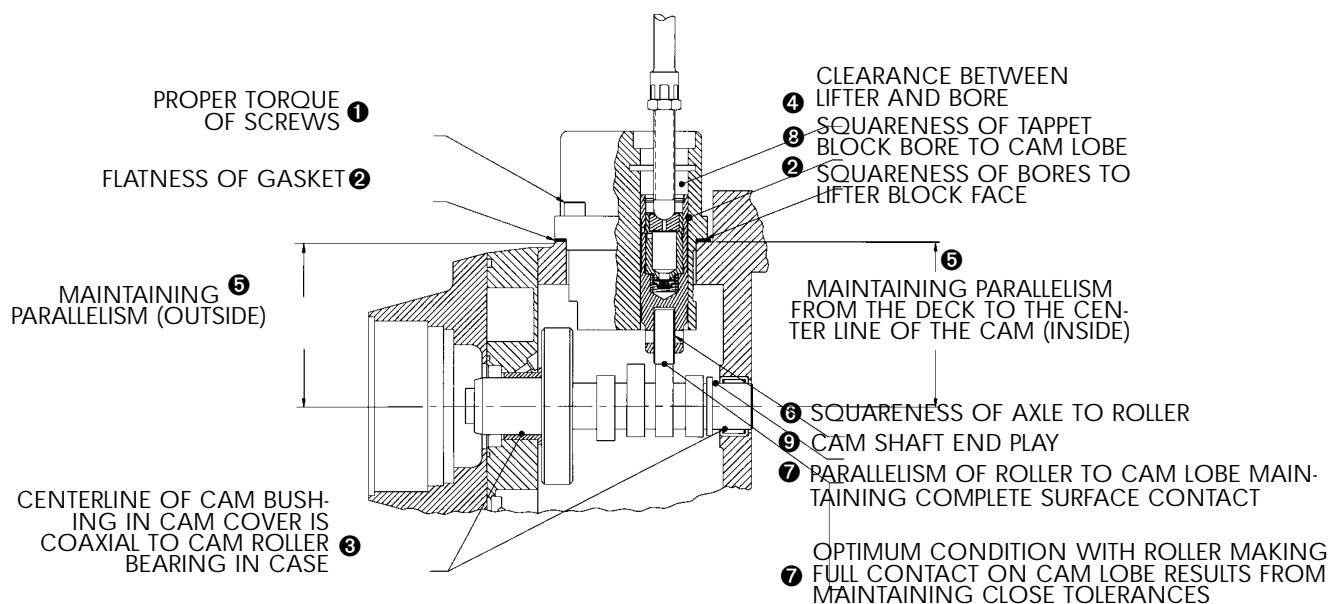
Popular Pushrods		
Andrews	28	
Andrews	32	
Crane	24	Time Savers
Crane	32	
H.D.	32	
S & S	32	
Rivera	40	Taper Lite

***"FROM THE TRACK... TO THE STREET!"***

555 Dawson Drive, Camarillo, CA 93012 • Phone 805-482-6913 • Fax 805-482-7422

# Tappets

Applies to  
Big Twin and XL



## Congratulations

You and your Harley® have just taken the first steps towards owning the finest precision designed and engineered valve train components known to the Harley-Davidson® market. JIMS® tappets, tappet blocks and cam covers surpass the stock requirements and demands of the present and future Harley-Davidson® motorcycle.

To achieve the best life possible from this tappet (or any other valve train part) you must be aware of some very important issues.

1. Clean! Clean! Clean! You must use the best possible oil and oil filter available for your Harley-Davidson®. Use only motorcycle or air cooled type engine oil. No Substitutes!
2. If these tappets are being installed in a motor that has had motor problems, or was rebuilt, wash out oil tank, oil feed lines and motor.
3. If these tappets are replacing a previous tappet and cam problem, please make sure you know what caused the problem in the first place.
4. The first area of concern is that the tappet roller must seat flat on cam. JIMS® tappets are square from the tappet body to the axle bore within .0002". If the roller is not seated flat on the cam, it will fail within a short period of time.
5. Second concern: The same holds true for the tappet blocks. JIMS® tappet blocks are machined to hold the bores perpendicular to the mounting flange within  $\pm .0002$  of an inch.
6. The next important concern is alignment of the cam itself. First, the cam will be, or should be, parallel from the two bearing journals to the lobes within  $\pm .0002$ , (this is just the cam). With the cam installed in the motor this can be a lot different. For this reason, JIMS® has a precision machined cam cover to hold your cam to within .0002" of cam centerline.

As you can see from some of the examples there are a lot of possible reasons for your valve train to have a shortened life. For this reason JIMS® is continuously helping you achieve the longest possible life for your valve train.

### WARRANTY

All JIMS® parts are guaranteed to the original purchaser to be free of manufacturing defects in materials and workmanship for a period of six (6) months from the date of purchase. Merchandise that fails to conform to these conditions will be repaired or replaced at JIMS® option if the parts are returned to us by the dealer (purchaser) within the six (6) month warranty period or within ten (10) days thereafter.

In the event warranty service is required, the original purchaser must call or write JIMS® immediately with the problem. Some problems can be rectified by a telephone call and need no further course of action. A part suspected of being defective must not be replaced by a dealer without prior authorization from JIMS®. If it is deemed necessary for JIMS® to make an evaluation to determine whether the part is defective, it must be packaged properly to prevent further damage and be returned prepaid to JIMS® with a copy of the original invoice of purchase and a detailed letter outlining the nature of the problem, how the part was used and the circumstances at the time of failure. If after an evaluation has been made by JIMS® and the part was found to be defective, repair, replacement or credit will be granted.

### ADDITIONAL WARRANTY PROVISIONS

- 1.) JIMS® shall have no obligation in the event a JIMS® part is modified by any other person or organization.
- 2.) JIMS® shall have no obligation if a JIMS® part becomes defective in whole or in part as a result of improper installation, improper maintenance, improper use, abnormal operation, or any other misuse or mistreatment of the part.
- 3.) JIMS® shall not be liable for any consequential or incidental damages resulting from the failure of a JIMS® part, the breach of any warranties, the failure to deliver, delay in delivery, delivery in nonconforming condition, or for any other breach of contract or duty between JIMS® and a customer.
- 4.) JIMS® parts are designed exclusively for use in Harley-Davidson® Motorcycles. JIMS® shall have no warranty or liability obligation if a JIMS® part is used in any other application.

**"FROM THE TRACK... TO THE STREET!"**

555 Dawson Drive, Camarillo, CA 93012 • Phone 805-482-6913 • Fax 805-482-7422