2. These pushrods were designed and engineered for use with JIMS® panhead and shovelhead tappets, #18522-53PG, 2459-1, 1029-53, and 1029-53B. Also stock style hydraulic units and some solid tappet kits.
3. If you are using these pushrods for JIMS® Tappets #18522-53PG or 2459-1, follow the adjustment instructions using the 32 threads per inch adjustment.
4. If you are using these pushrods for JIMS® Tappet Block Kit #1029-53B, follow the adjustment instruction also using 32 threads per inch adjustment.
   NOTE: This adjustment will make the pushrod tight which will bleed the hydraulic lifter. It can take 5-15 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 the tappet has bled off.
5. Recheck lock nut, close covers and install clips.
6. Repeat exact procedure on rear set.
7. Turn motor over several times to pump oil into the Powerglide® Tappets, until the oil light goes out, or until oil is returning to the oil tank.

**FOUR POSSIBLE REASONS THAT MAY KEEP NEW HYDRAULIC UNITS FROM WORKING PROPERLY**

1. **IMPROPER FIT**
   a) Not likely, each unit goes through two separate dimensional tests. The fit is checked twice, to within .00015" to .0002".
   b) Second, a hydraulic bleed down test is performed dry, then with 5 weight oil.
2. **MECHANICAL**
   a) Not adjusted properly, readjust per instruction sheet. For 2459-1, the hydraulic unit itself needs to be at .100" ± .010" below snap ring. For 1029-53B, the hydraulic unit itself needs to be .050" ± .010" below the snap ring. Some shovel models from 1978-80 have tappet blocks with oil drain holes too low. If running a higher lift cam than stock, and sometimes even stock, these blocks will allow oil pressure to bleed off from the tappets. This is most common in the front tappet block.
   b) A bent pushrod, loose valve guides, a broken valve spring, a valve hitting a piston, a valve hitting a valve, a loose rocker bushing, a rocker tip wearing at the valve stem, and a lifter roller hitting the tappet block will all cause a noisy valve train.
   c) Gear lash: If you did not change the cam at the time you installed new hydraulic units and had no gear lash, but a slight whine when motor was cold, it is safe to say you are OK in this area.
   d) Broken hydraulic valve spring which is not allowing valve to seal. If this is the case the hydraulic unit will not hold oil pressure. We have not seen this situation on any of JIMS® hydraulic units.

To check this, hold pushrod with your hand (with lifter on the heel of cam valve shut) and push down on pushrod. Hydraulic unit will feel spongy. Do not mistake this for no oil getting to tappet. If all tappets are spongy, this is no oil. If just one tappet is spongy that has been readjusted, but will not pump up, replace the tappet.
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. First concern: 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: Squareness of tappet block bore to cam lobe. JIMS® tappet blocks are machined to hold the bores perpendicular to the mounting flange within ±.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 ±.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.