

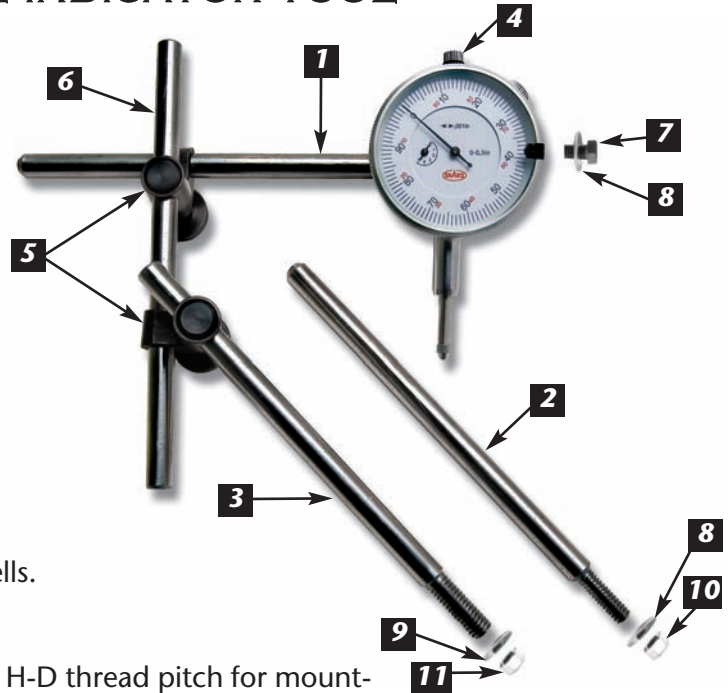


A Division of Thiessen Products, Inc.

INSTRUCTION SHEET FOR TOOL #940

END PLAY GAUGE INDICATOR TOOL

PARTS AVAILABLE SEPARATELY			
NO.	QTY	DESCRIPTION	PART NO.
1	1	I. D. THREADED ROD	940-1
2	1	1/4-20 THREADED ROD	940-2
3	1	5/16-18 THREADED ROD	940-3
4	1	INDICATOR GAUGE	940-4
5	2	SWIVEL CLAMP	940-5
6	1	ROD, NON - THREADED	940-6
7	1	SCREW, 1/4-20X5/8 SHCS	8362
8	2	WASHER, 1/4	1683
9	1	WASHER, 5/16	2014
10	1	NUT 1/4-20	2017
11	1	NUT 5/16-18	1222
12	1	INSTRUCTION SHEET	940-IS



No. 940 - Use on all Big Twins, Sportsters, and Buells.

This indicator tool kit was designed with the special H-D thread pitch for mounting to the cases for checking end play on engines or transmissions. Threads provided in both a 1/4-20 and 5/16-18 are on the end mounting rod. One example is shown in **Fig 8**. Now you have a 360-degree indicator mount that can be used in any position for checking cam end play, rocker end play, breather gear end play, flywheel run out, mainshaft, starter gear run out and, also shift drum end play. If mounted with the 5/16-18 threaded mounts you can mount to the primary side of the engine to check flywheel end play. The tool applications are only limited to your imagination.

**NOTE: PLEASE READ ALL INSTRUCTIONS COMPLETELY BEFORE PERFORMING ANY WORK!
IF YOU DO NOT KNOW WHAT YOU ARE DOING, DO NOT DO IT!**

No information in this instruction sheet pertaining to motorcycle repair is represented as foolproof or even altogether safe. Even something safe, done incorrectly or incompletely can and will backfire. You and only you are responsible for the safety of your repair work and for understanding the application and use of repair equipment, components, methods and concepts.

Each and every step this tool is designed to do must be carefully and systematically performed safely by you. All information listed in this instruction sheet has been tested, re-tested and used daily in JIMS® Research and Development Department.

ALWAYS WEAR SAFETY GLASSES OR OTHER FACE AND EYE PROTECTION SUCH AS FULL FACE SHIELD. JIMS® IS NOT RESPONSIBLE FOR DAMAGE, INJURY, OR YOUR WORK. JIMS® IS NOT RESPONSIBLE FOR THE QUALITY AND SAFETY OF YOUR WORK.

CAUTION: WEAR SAFETY GLASSES OVER YOUR EYES.
SEE JIMS® CATALOG FOR HUNDREDS OF TOP QUALITY PROFESSIONAL TOOLS.
THE LAST TOOLS YOU WILL EVER NEED TO BUY.

Performance Parts For Harley-Davidson Motorcycles



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Perform all work per H-D® service manual for appropriate year and model for the motorcycle you will be repairing. See JIMS® catalog for a complete listing of all engine and transmission tools.

TOOLS NEEDED TO PERFORM THIS SERVICE:

H-D® service manual for the year and model you will be repairing

Warning: *Disconnect the negative ground cable at the battery or Maxi-fuse as indicated in service manual.*

Note: *Below you'll find just one of many examples of how to use JIMS® End Play Gauge Tool. Use this tool No. 940 and a service manual to check end play and run out dimensions. This is done by installing this tool to a stationary housing for example a cam cover, or primary cover's threaded mounting holes. You can check flywheel end play from gear shaft (pinion shaft) right side. Follow your service manual for the cam chest components, to gain access to the end of gear shaft.*

1. Apply a small amount of clean oil or lube to the ¼" threads of tool shaft No.940-2. Install the ¼" nut to the threaded end of shaft No.940-2. followed by flat washer No. 1683.

See Fig 1.

2. Thread the above shaft assembly into any of the lower cam cover mounting holes. After you have hand threaded above shaft in about 4 threads, tighten nut to about 5 lbs of torque.

See Fig 2.

Note: *Do not force tool into case threads. If tool assembly will not thread into the cam cover-mounting hole by hand, don't force it. You will need to check the case's threads for being contaminated with some type of debris. Clean as needed to install tool by hand only.*

3. Next install one of the two swivel clamps No. 940-5 over installed shaft, with mounting hole to the outside (away from cases). Do not tighten swivel clamp. **See Fig 3.**



FIG 1

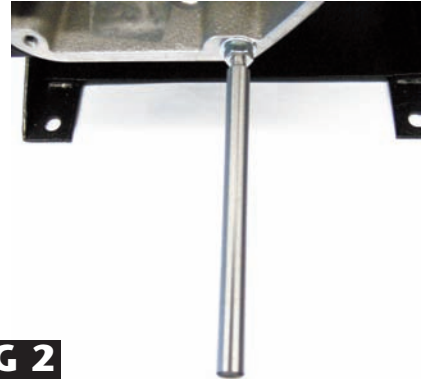


FIG 2

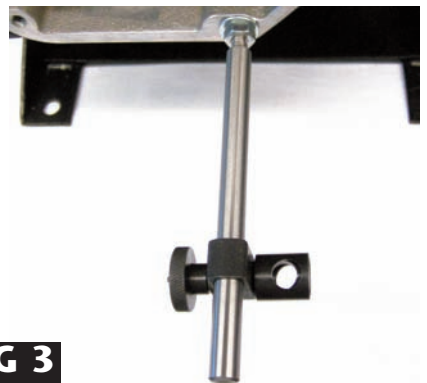


FIG 3

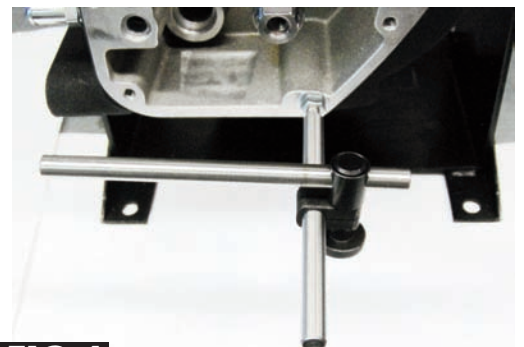


FIG 4

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4. Place shaft No.940-6 into the open hole of the last installed swivel clamp. Next snug wheel nut just enough to keep shaft from falling out. **See Fig 4.**
5. Install the other swivel clamp No.940-5 over the installed shaft No.940-6 with mounting hole to the outside (away from cases). Do not tighten wheel nut. **See Fig 5.**
6. Place shaft No.940-1 (with the female threads up) into the open hole of the last installed swivel clamp mount. Snug wheel nut just enough to keep shaft from falling out and to hold the weight of the dial Indicator. **See Fig 6.**
7. With screw No.8362 and washer No.1683 placed through the mounting hole on the backside of dial Indicator No.940-4 thread screw with washer into the end of mounted shaft No 940-1, and Torque to 44" in-lbs. **See Fig 7.**
8. With both wheel nuts backed off, tighten just the amount needed to position the dial Indicator by pulling, twisting and swiveling it so the tip of dial Indicator is placed against the end surface of gear shaft (pinion shaft).

Note: You will need to load the tip onto the shaft so the dial Indicator's needle can make one complete revolution. Next lock down both wheel nuts to hold the dial indicator to this position on the end of gear shaft. **See Fig 8.**

The above instructions can be applied to any other end play or run out test by just mounting it over the components you wish to check. Other use examples are wheel bearing, transmission shaft, sprocket shaft, swing arm runout, and many more.

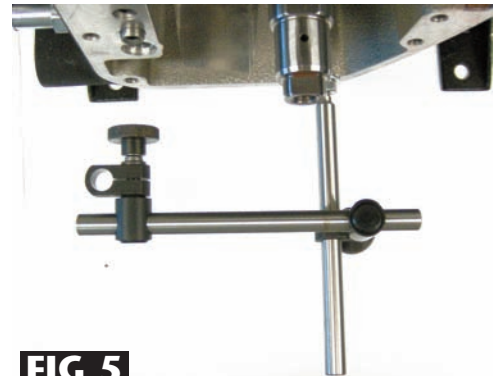


FIG 5

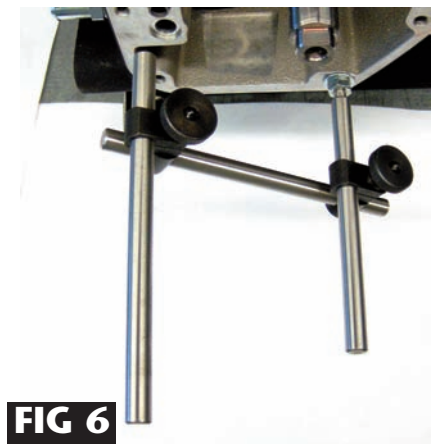


FIG 6

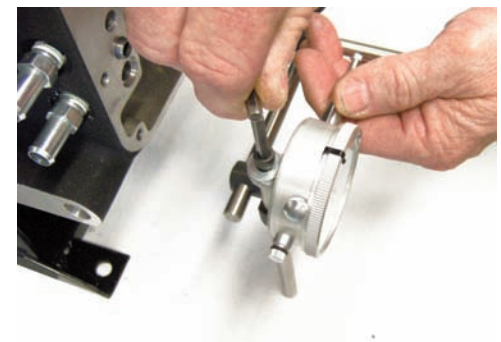


FIG 7

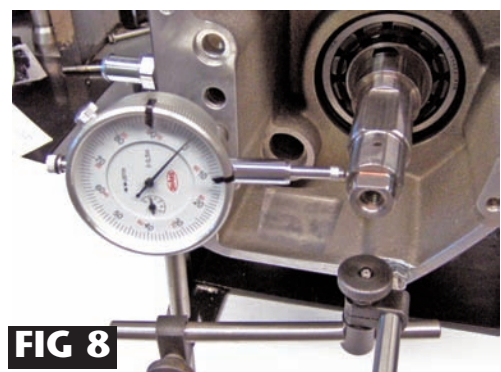


FIG 8

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