



A Division of Thiessen Products, Inc.

INSTRUCTION SHEET FOR #765 & #766 TAPPET PUMP & TEST STAND

Tappet test tool will help speed up installation of tappets in the engine by pumping up the hydraulic unit with oil prior to installing into the engine case. Stand will also test used tappets for proper function prior to reinstalling and will also check for excessive O.D. wear which can cause a tappet to not pump up and thus not hold hydraulic pressure.

Note: This tool only fits the standard size Twin Cam tappets. For standard size Evolution tappets order optional No. 766 adapter.

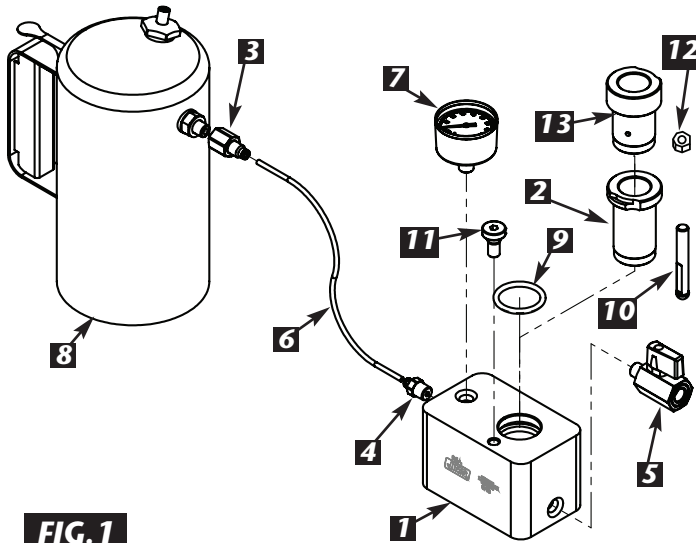


FIG. 1

APPLICATION AND PARTS CHART			
NO.	QTY.	DESCRIPTION	PART NO.
1	1	MAIN BODY	765-1
2	1	TWIN CAM ADAPTER	765-2
3	1	TUBE FITTING	765-3
4	1	TUBE FITTING	765-4
5	1	BALL VALVE	765-5
6	1	NYLON TUBE	765-6
7	1	0-100 GAUGE	765-7
8	1	PRESSURE TANK	765-8
9	1	O-RING	765-9
10	1	PUMP-UP RAM	2400-1
11	1	ALLEN LOCK SCREW	1691-29
12	1	NUT	1218
13	1	EVO TAPPET ADAPTER (OPTIONAL)	766
14	1	INSTRUCTION SHEET	765-IS

REQUIRED TOOLS AND SUPPLIES TO OPERATE THIS TOOL:

- 1 - Drill press
- 1 - Qt H-D Motor oil or equivalent
- 1 - Full sized cake pan or equivalent to contain oil when performing test.
- 1 - Safety glasses or face shield

**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 you 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.

Performance Parts For Harley-Davidson Motorcycles



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SET UP FOR TESTING:

Refer to **Fig 1** for assembly of tool.

1. Un-screw cap on the top of pressure tank No.765-8 and fill with a 1/2 Qt. of H-D 20W50 motor oil or equivalent. Install top cap back on tank and tighten.
2. Fill the pressure tank No.765-8 with compressed air to about 100 LBS through the Schrader air valve on the top cap.
3. Slide the nylon tube No.765-6 into fitting No.765-3 on the side of pressure tank. Once inserted it should lock into position.
4. Do a clean up on the drill press for tappet testing. Remove all metal chips from previous usage on the table top and drill chuck.

PERFORMING A TAPPET TEST:

1. Place your cake pan on your drill press. Then place the main body assembly and pressure tank in pan. Next insert the No.2400-1 Pump Up Ram with nut No.1218 (thread end) into the chuck of the drill press. Nut should sit against chuck face.
2. Then align tools main body tappet hole with the Pump up Ram (round end) in the drill chuck.

FOR TESTING STANDARD SIZE TWIN CAM TAPPET:

3. Insert No.765-2 Twin Cam adapter into the top of the main body, No.765-1 hole.

Note: When inserting adapter you will need to rotate it around to the relieved area on the shoulder to clear the Allen lock screw No.1691-29. Then turn clock-wise to position correctly for test. This will hold the adapter in place during testing.

4. Open the ball valve No. 765-5 and lightly lube O.D. of the tappet and insert into the hole of the Twin Cam adapter No.765-2. After installed close No. 765-5 ball valve.

FOR TESTING STANDARD SIZE EVOLUTION TAPPET:

Note: Before performing a Evo tappet test you will have to remove the No. 765-2 Twin Cam adapter by turning the top counterclockwise. This will release the adapter from the lock screw.

5. Place your tappet inside Evolution adapter, No.766 from the non-shouldered side of the adapter with the top of tappet end. Roller end should hang out the bottom of the adapter. **See Fig 3** Open the ball valve No. 765-5 and insert adapter with lubed O.D. of the tappet into the top of the main body, No.765-1 tappet hole. After installed close No. 765-5 ball valve.

Note: When inserting the adapter you will need to rotate it around to the relieved area on the shoulder to clear the Allen lock screw, No.1691-29.

PERFORMING PUMP UP:

1. First you will need to prepare for the test by setting the pan with tool and tank on the drill press table. Line up the drill chuck loaded with the tool pump up ram No. 2400-1. **See Fig. 2**
2. Push down on the tank lever and hold it. You will see the oil cover the top of the lifter. At this time begin pumping up and down using the press handle. Watch the gauge at the same time. It should register at 80lbs. Release the tank lever. The lifter will bleed off within a few seconds. This is normal as long as you register at 80lbs. If you have a lifter that will not stay up long enough to get a gauge reading then you need to replace the lifter. To remove Evo or Twin Cam tappets open the ball valve. If your removing a Evo tappet you will need to also remove the adapter with tappet from the main body by turning it counterclockwise and lift upward.

Note: After you've pumped up your lifter you may have 1/32" to 1/16" play between the snap ring and the tappet seat. This is normal as long as you got at least a 80 pound reading.

3. After test remove tappet in reverse procedure of installing. Open ball valve body for next tappet being tested.

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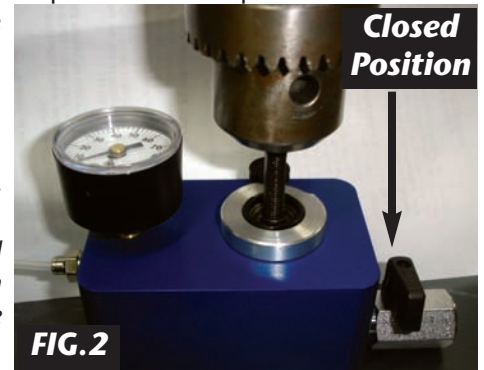


FIG. 2



FIG. 3