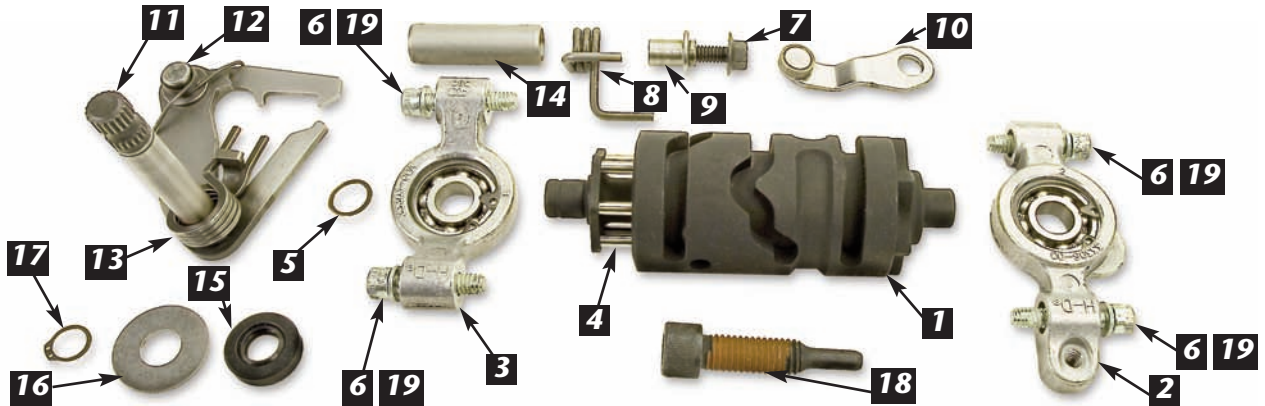




A Division of Thiessen Products, Inc.

# INSTRUCTION SHEET FOR TOOL No.8070

## EARLY TO LATE 5 SPEED SHIFTER UPGRADE KIT



No. 8070 Use on all Big Twin Shovel and Evo 5-speed models 1980 to 1999 FXST and 1980 to 2000 FXD, and FL.

Make an early model motorcycle shift smooth and positive with the 5-speeds latest in technology. This kit includes a JIMS newly designed shift drum and lever assembly which has a built in anti-over shift feature.

**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 your understanding the application and use of repair equipment, components, methods and concepts. Each and every step these parts are 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 YOUR SAFETY, INJURY, DAMAGE OR THE QUALITY OF YOUR WORK!**

### JIMS TOOLS NEEDED TO PERFORM THIS SERVICE:

1. See JIMS catalog for a complete listing of tools needed for removing and installing all transmission components.
2. H-D® or Clymer service manual for appropriate year and model motorcycle you will be repairing, also H-D parts book for the same year and model.
3. 2001 H-D service manual.
4. JIMS Tool No.1664 Shifter Shaft Sleeve Tool.

**Note:** Inspect all gears, shafts, bearing, and bearing journals to be in good serviceable condition before installing this kit.

**Warning:** Disconnect the negative ground cable at the battery.

### COMPONENTS SUPPLIED IN THIS KIT:

1. After removing the gear set, you can leave the main drive gear installed in case if you have determined it and the main case bearing are in serviceable condition.
2. Remove and install shifter shaft case sleeve No.7514 per JIMS instruction sheet No.1664-IS and by using JIMS tool No.1664.
3. Install new No.12045 shifter shaft case seal.

### PARTS AVAILABLE SEPARATELY

No.	Qty.	Description	Part No.
1	1	SHIFT DRUM	8080
2	1	RIGHT PILLOW BLOCK	33304-00
3	1	LEFT PILLOW BLOCK	33301-00A
4	6	SHIFT DRUM DOWEL PIN	8356
5	1	SHIFT DRUM RETAINER	11342
6	4	SCREW, SHCS 1/4-20" x 1-1/4"	2135
7	1	SCREW, DETENT ARM	33376-00
8	1	SPRING, DETENT ARM	33374-00
9	1	SLEEVE, DETENT ARM SPRING	33375-00A
10	1	DETENT FOLLOWER ASSEMBLY	33364-00A
11	1	SHIFTER LEVER	8324
12	1	SPRING, RATCHET ARM	34977-02A
13	1	SPRING, CENTERING SHIFT LEVER	34064-00C
14	1	SLEEVE, SHIFTER SHAFT	7514
15	1	SEAL, SHIFTER SHAFT	12045
16	1	WASHER	6497HW
17	1	RETAINER, SHIFTER SHAFT	11150
18	1	CENTERING SCREW	34978-00A
19	4	WASHER, PILLOW BLOCK SCREW	1215
20	1	INSTRUCTION SHEET	8070-IS

*Performance Parts For Harley-Davidson Motorcycles*



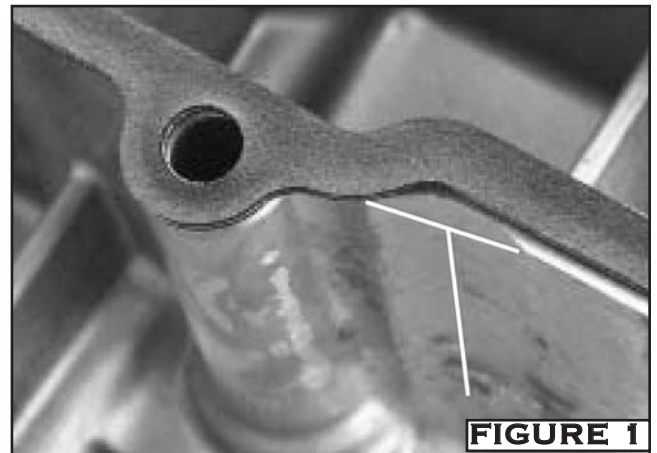
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## INSTRUCTION SHEET FOR TOOL No.8070

INSTRUCTIONS FOR PREPARING THE TRANSMISSION TOP COVER TO CLEAR THE NEW SHIFTING LEVER WHEN INSTALLING JIMS SHIFTER UPGRADE KIT INTO ANY 1990-99 BIG TWINS AND 1999-2000 T/C FLHT, FXR & FXD MODELS:

**NOTE: 2000-Present FXST and 2001-Present FLHT & FXD models do not need modifying.**

1. Place new top cover gasket JIMS® No.34904-86 on the trans top cover flange.
2. Use 4 of your top cover screws to hold gasket in place by slipping screws thru the gasket and into the top cover.
3. Mark the inside exposed portion of the flange as shown in *Figure 1*. The material to be removed is .060 wide by 1.80 Deep. Remove top cover screws and gasket.
4. With a die grinder tool, remove the casting rib until it is the same height as the adjacent surface area. Clean the top cover of all loose material, including screw holes as shown in *Figure 1*.
5. With shifter assembly installed in transmission; Install top cover with gasket using only 2 screws (so cover can move if shifter arm is making contact with top cover).
6. While watching to see if the top cover moves forward, shift the transmission into first gear firmly holding the shift lever down. If there is no forward movement of the top cover, then the modification is complete. If any forward movement (of top cover) is observed, then more of the casting rib must be removed. Repeat Step 4 as necessary.



**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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