

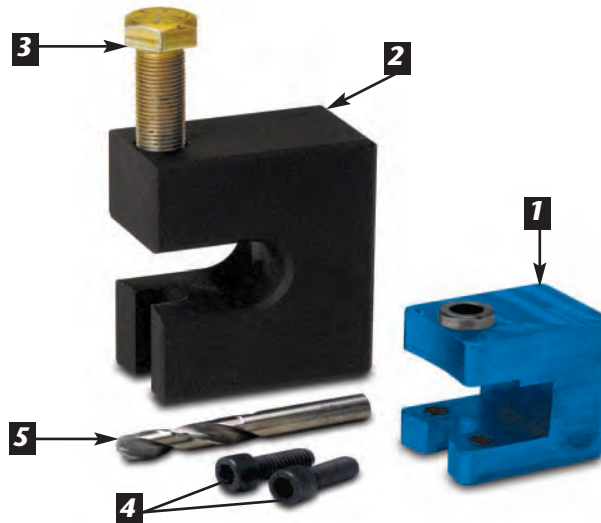


## INSTRUCTION SHEET FOR TOOL #965

### STARTER RING RIVET DRILL FIXTURE TOOL

USE ON 1990-2006 FL, FXST, & 1990 – 2005 FXR, & FXD

USE TO REMOVE THE STARTER RING GEAR RIVETED ON THE CLUTCH DRUM ASSEMBLY



#### PARTS AVAILABLE SEPARATELY

No.	Qty.	Description	JIMS Part No.
1	1	Drill Fixture	965-1
2	1	Rivet remover fixture	965-2
3	1	Rivet remover screw	965-3
4	2	Screw	2405
5	1	Drill	2223

**NOTE: PLEASE READ ALL INSTRUCTIONS COMPLETELY 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 that 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. EXCESSIVE FORCE MAY DAMAGE PARTS!  
SEE JIMS® CATALOG FOR HUNDREDS OF TOP QUALITY PROFESSIONAL TOOLS.  
THE LAST TOOLS YOU WILL EVER NEED TO BUY.**

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### Jim's Tools needed to perform this service

See Jim's catalog for a complete listing of all Primary Chain Locker Tool and all other Primary and Transmission Tools

### Other Hand Tools needed to perform this service

- 1) 3/4" Wrench, for primary drain bolt most early models or T-40 Torx wrench, found on the primary drain screw most late models.
- 2) 3/16" Allen wrench, for primary cover screws most all years.
- 3) 9/16" Socket for primary adjuster most early models and 1/2" socket most late models also 8" wire tie.
- 4) 3/4" Socket to remove front compensating nut (Bolt) on most late models.
- 5) 1-3/16" Socket to remove clutch hub nut, all models.
- 6) Ft-lb torque wrench 3/8" drive, use to hold tool to drum.
- 7) 13/16" socket 3/8" drive use to push out rivets.
- 8) 1/4" Allen wrench use to hold tool to drum.

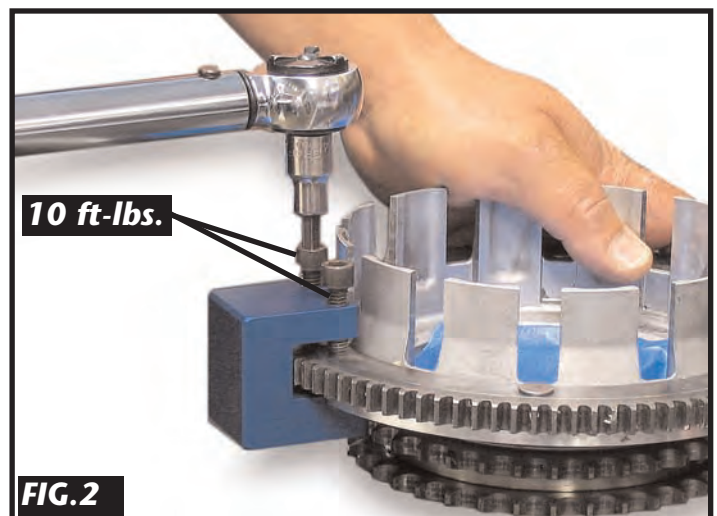
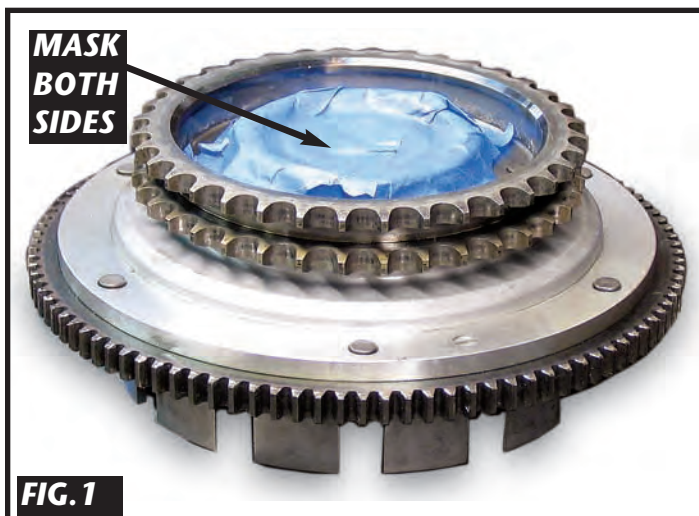
### Removal Procedures

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

1) Remove clutch drum, per H-D service manual for appropriate year and model for the motorcycle you will be repairing. Place clutch drum on a clean flat none marring surface, with the backside facing up. If you will be removing the inner hub from clutch drum, do so now per H-D service manual.

**Note:** Before doing any drilling you will need to mask off any and all places chips can or will get into. Mask off both sides of the clutch drum bearing. **See Fig. 1.**

2) Place drill fixture No.965-1 on the clutch drum as shown in **Fig.2**. Position the fixture tool No.965-1, centered over one of the rivets holding the starter ring. Lube two No.2405, 1/4" Allen screw threads and install finger tight. Now tighten screws and torque to 10 ft-lbs. **See Fig 2.**



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**FIG.3**

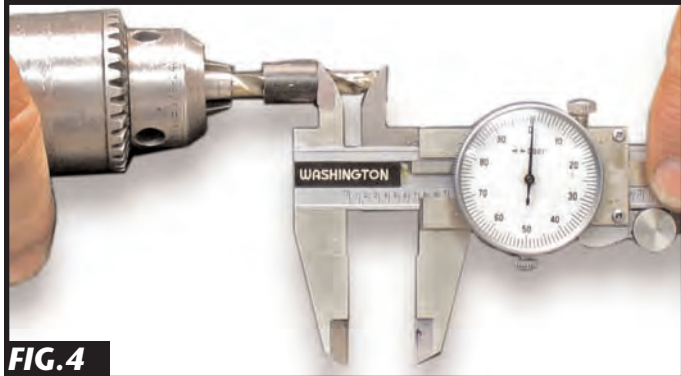
3) Chuck tool drill bit No.2223 into a hand drill, or drill press. Apply a small amount of cutting oil (a little engine oil is ok) then drill rivet at about 300 rpm. **See Fig 5.**

**Note:** You will be drilling into each rivet head to a depth of .100". This will relieve most of the pressure from crimping of the rivets. **See Fig 3.**

**Note:** You can mark your drill bit with a piece of tape or rubber hose to indicate when you have drilled to .100 deep into all rivets. **See Fig 4.**

**Caution:** ALWAYS WEAR SAFETY GLASSES OR OTHER FACE AND EYE PROTECTION SUCH AS FULL FACE SHIELD WHEN DRILLING.

After all rivet heads have been drilled remove the drill fixture tool No. 965-1 from the clutch drum. Clean and remove all chips from face of drum. Next from the same side you drilled the rivets on, install the rivet remover tool No. 965-2. You will need to secure the tool in a decent vice and use a support block to stabilize the drum across from the Rivet your removing.



**FIG.4**

**See Fig 6.**

Apply a small amount of lube to I.D.threads of the No.965-2 remover fixture and O.D.of threads on the rivet remover screw No.965-3 Also apply to the rivet to be removed. With your 13/16" socket tighten remover screw No. 965-3 until rivet is pushed from drum. Repeat steps 5 and 6 until all rivets have been removed along with old starter ring.

**See Fig 6.**

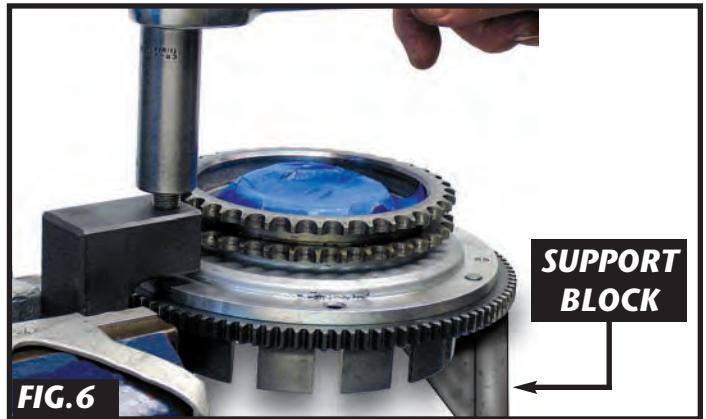
Slowly remove all masking making sure no chips get in

places they should not be.  
Install new starter ring per ring instruction sheet.

**Note:** If for any reason you should find it necessary to change the harden tip on the Rivet remover screw No.965-3 then order P/N: 373 dowel pin. There is a 1/8" thru hole in pusher screw for removing the old pin. Use a 1/8" punch from the hole in the top of screw.



**FIG.5**



**FIG.6**

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