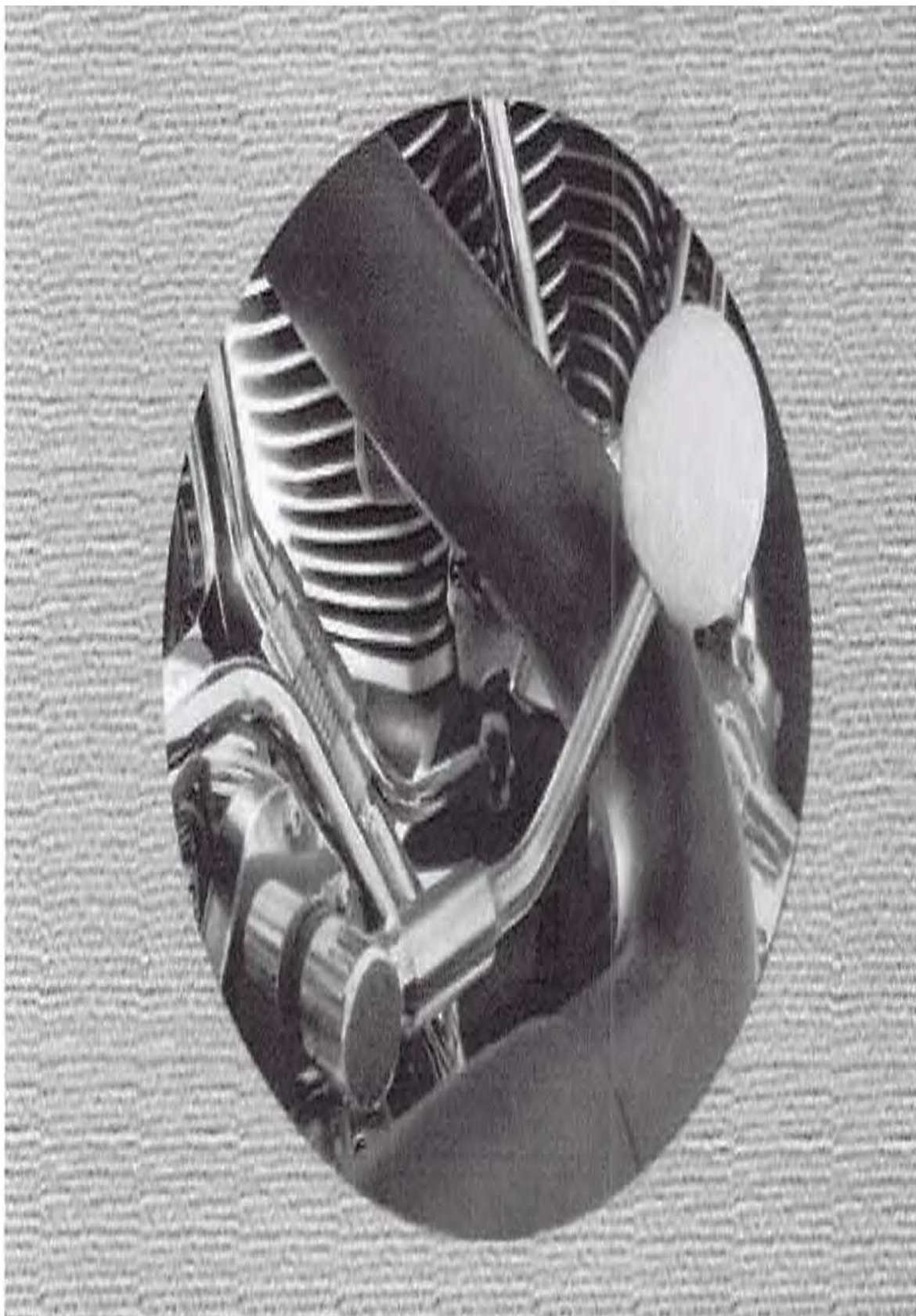


VT No. 17-0295 5 Speed Reverse Gear Kit



Here you will find all the information you need to install your new reverse gear kit with its safety shut off system in case of engaging gear while in reverse.

Parts List:

- 1 Reverse Gear Body
- 2 Gear
- 1 Pushrod
- 1 Relay
- 1 Wiring
- 2 Gaskets
- 1 Set of Ear Plugs
- 2 Allen Bolts for the Gear Plate
- 6 Allen Bolts
- 1 Exhaust Spacer
- 2 Tools

IMPORTANT NOTICE

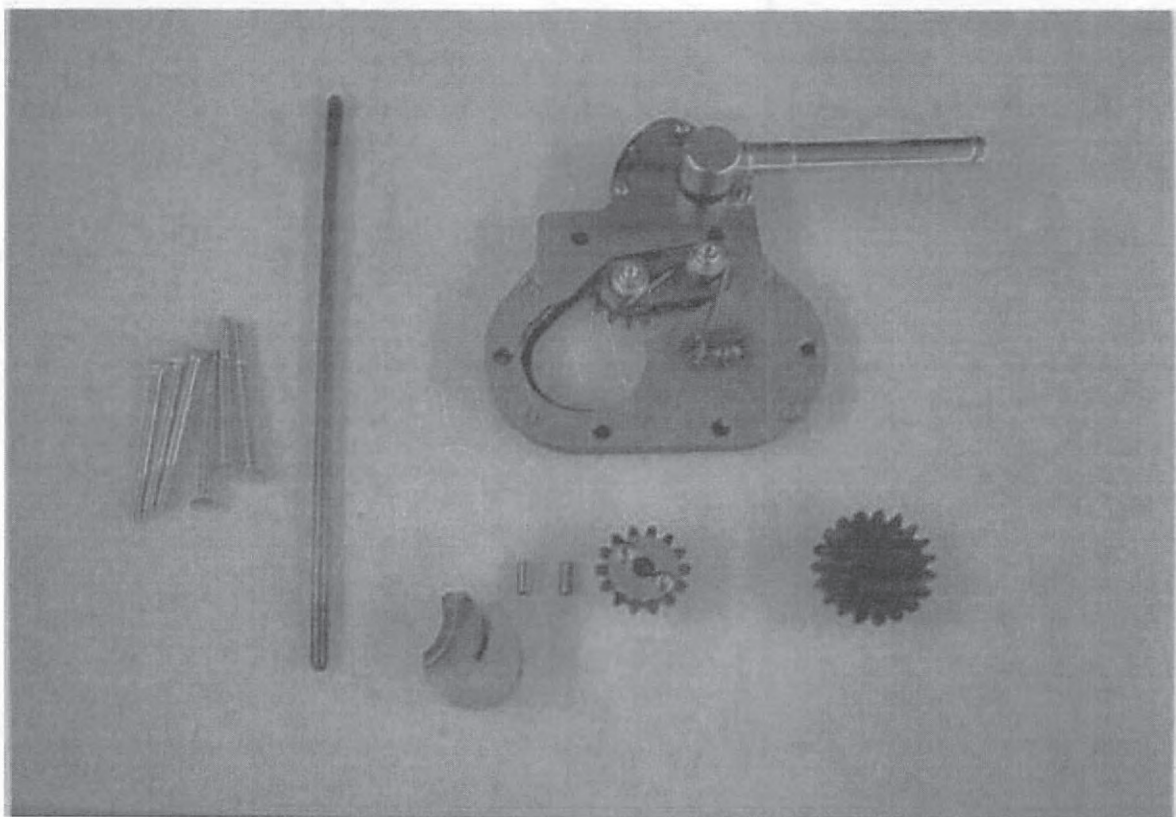
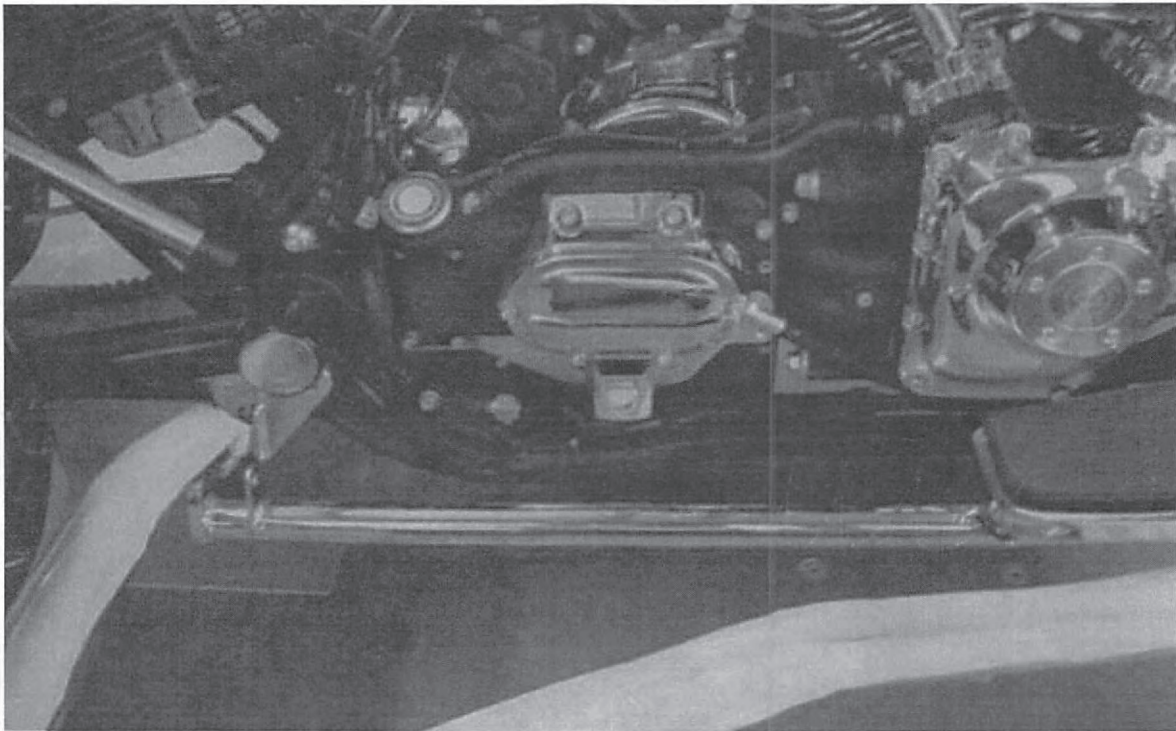
For the installation of the 17-0295 reverse gear, the following is required.

- * Loctite red
- * Loctite blue
- * For the milling procedure, air tools are a must.

Do not attempt without air tools!!

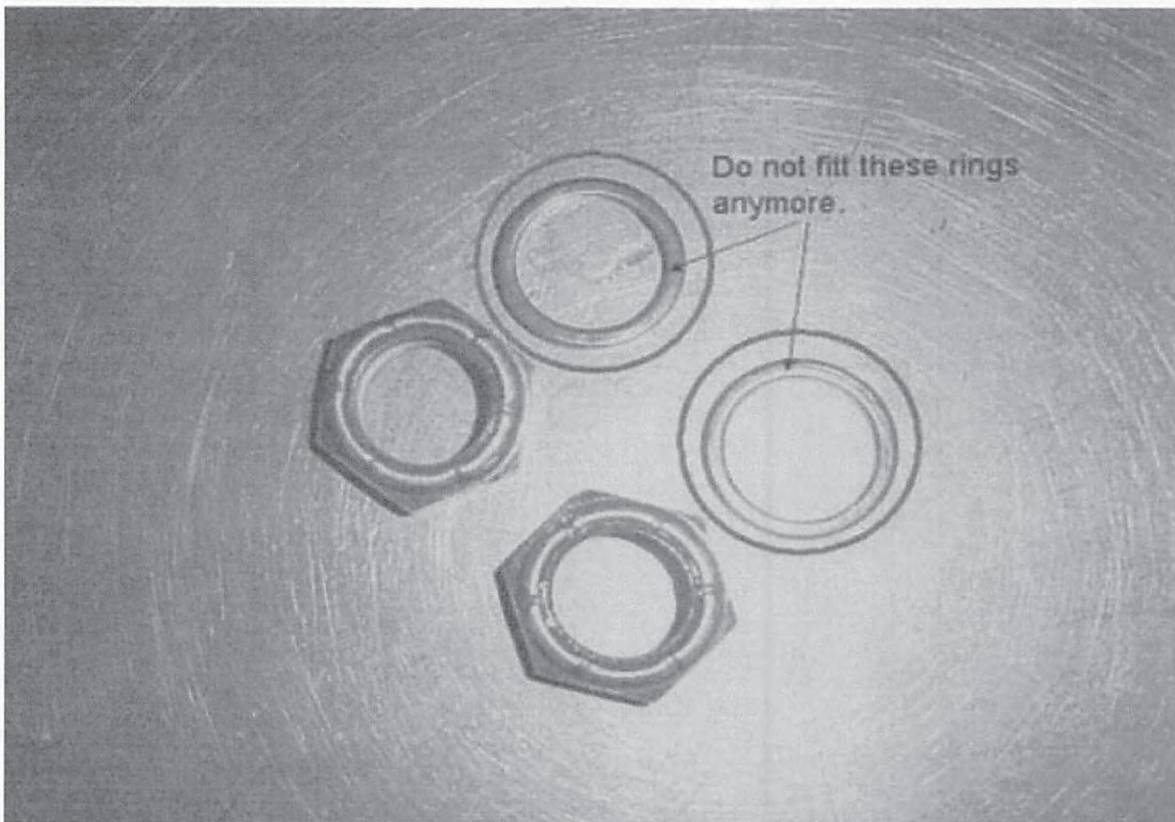
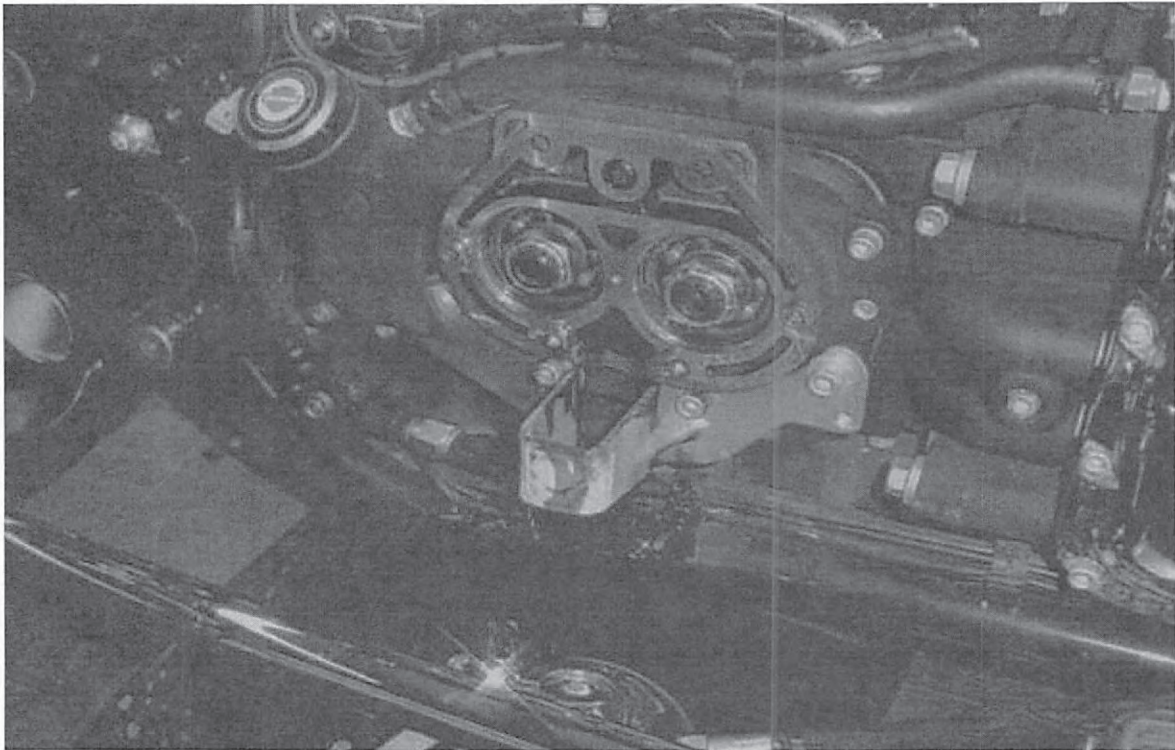
*In some cases, the slinger diameter might have to be reduced for smooth operation.

* Do not attach the relay directly to the motorcycle frame; find a wiring loom to attach it to.

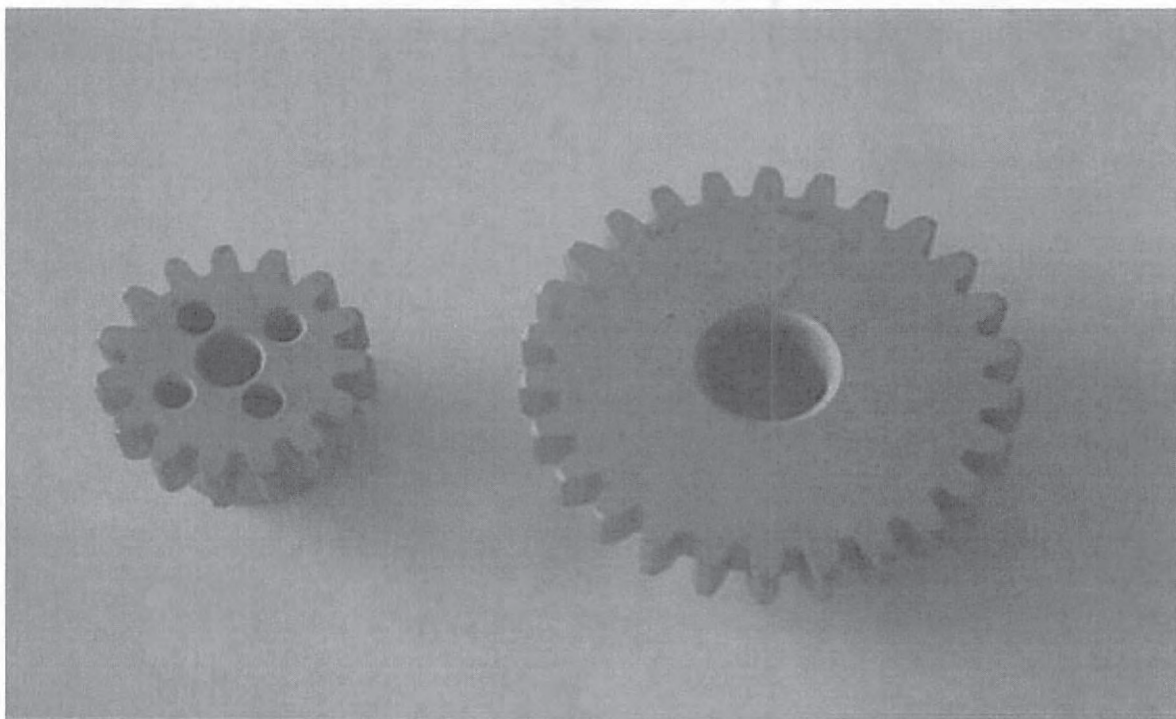
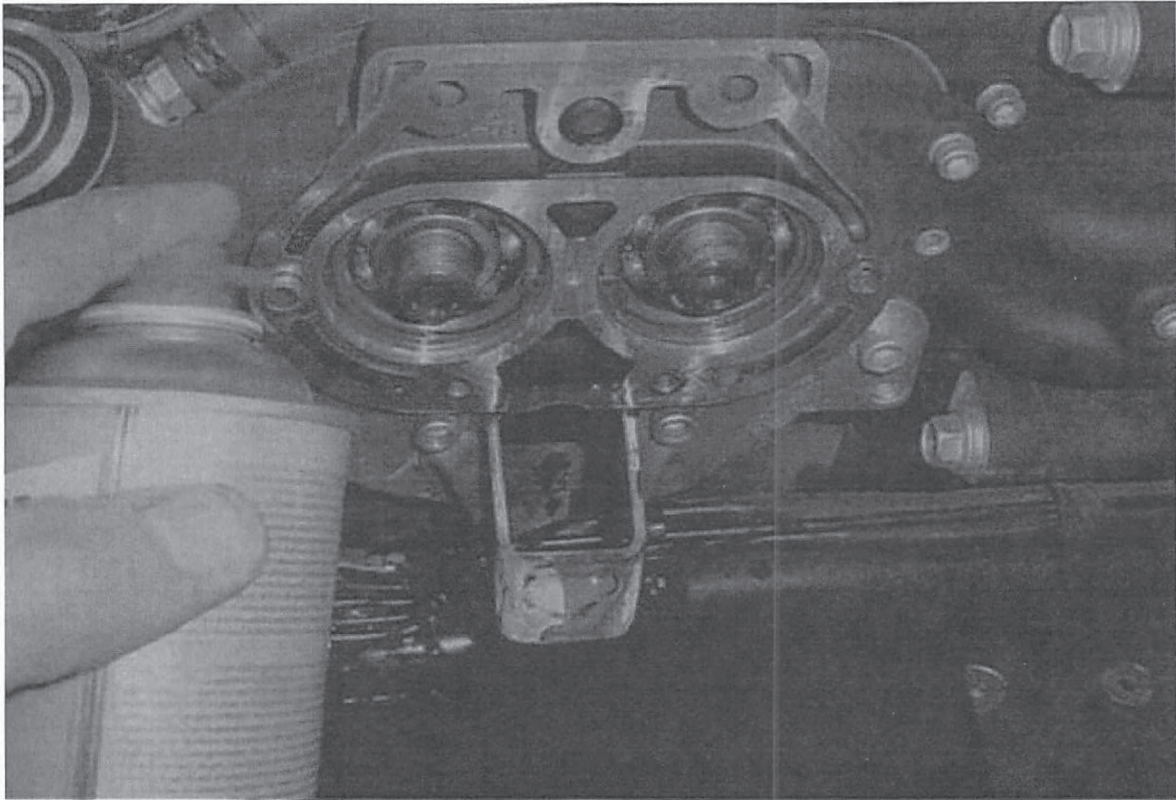


Step 1: Make sure the items in the above picture are included in the box.

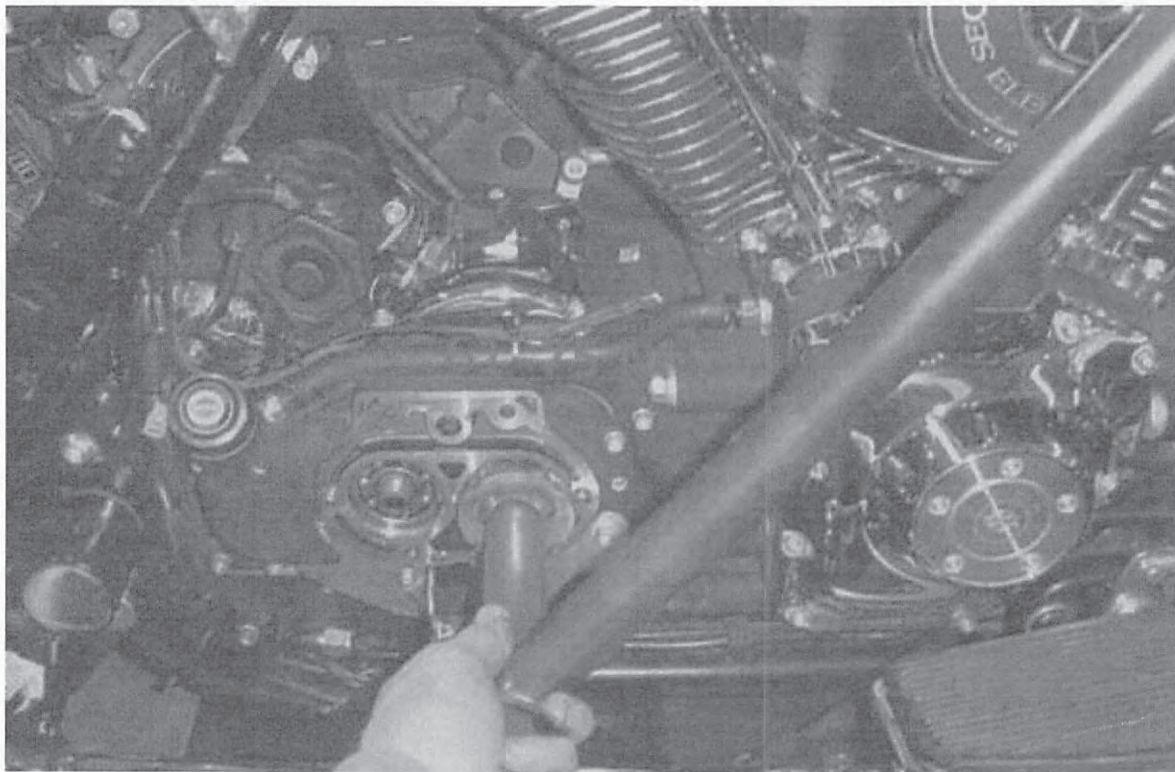
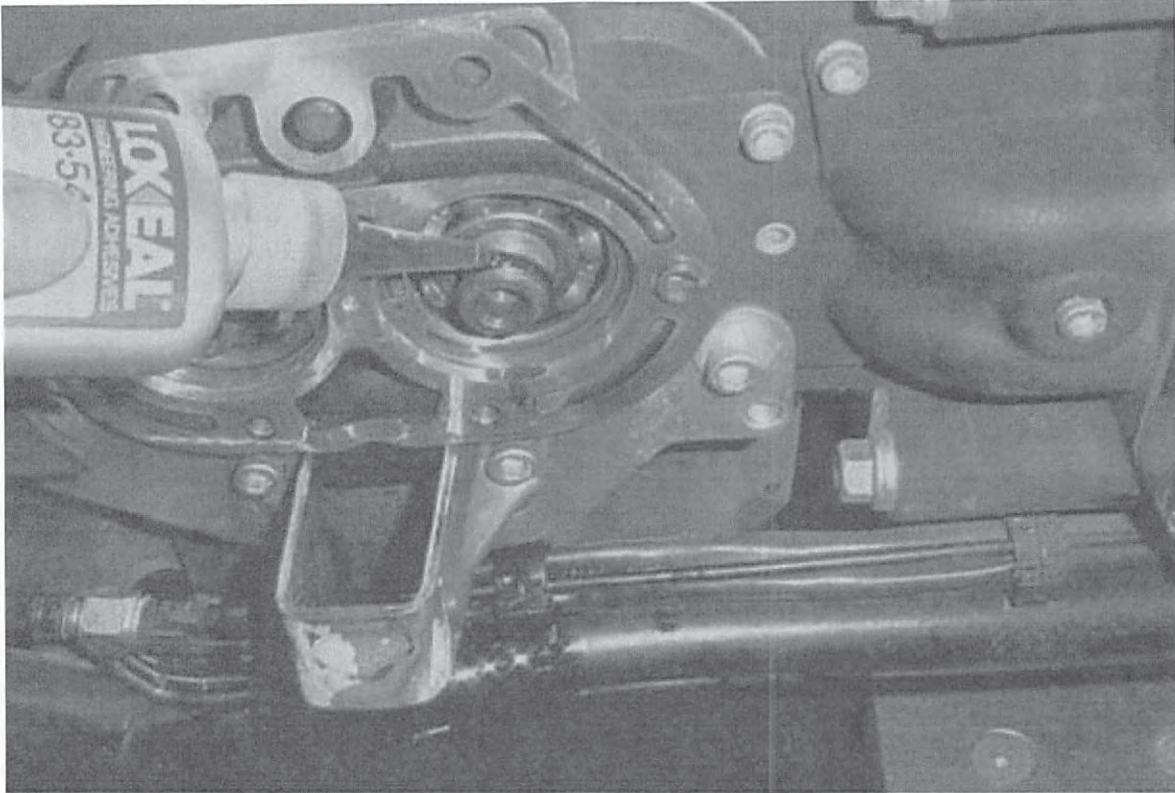
Step 2: As shown in the above picture take of the complete exhaust system and drain transmission fluid. Wind in the clutch cable adjuster till there is no pressure in the clutch lever. Refer to HD manual on how to proceed with the above.



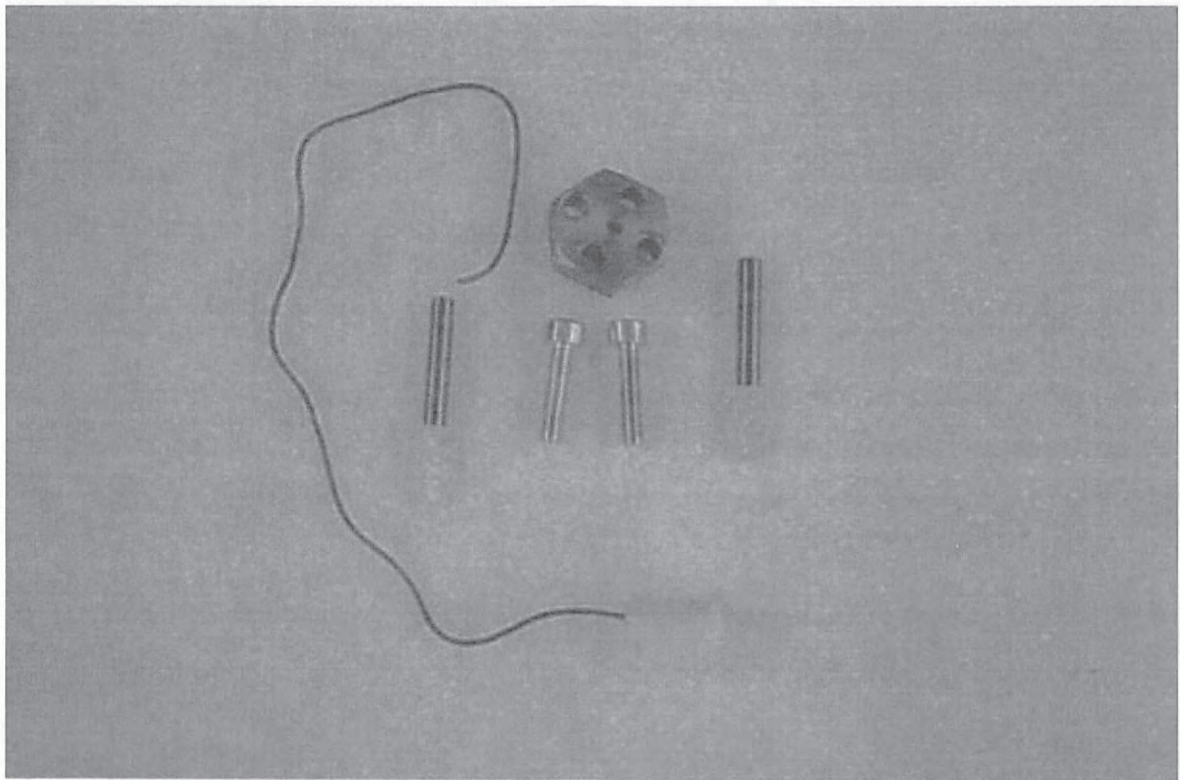
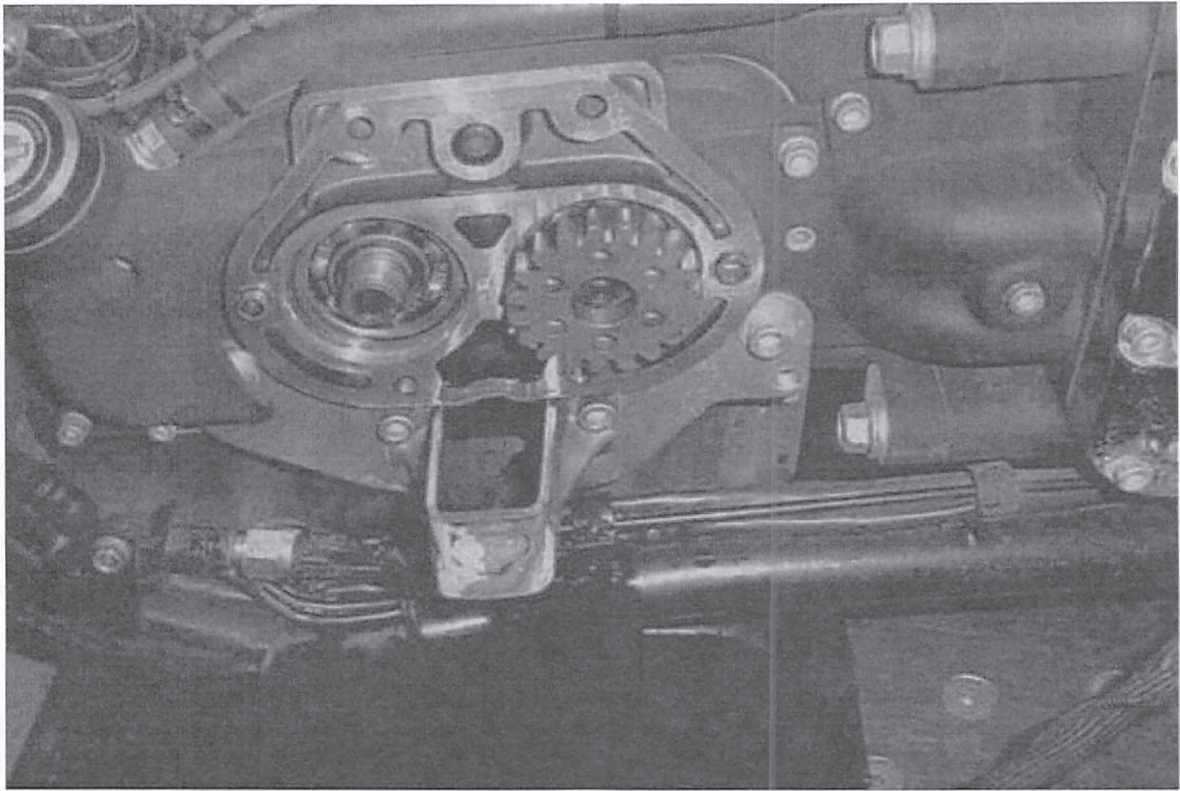
Step 3: Take off right side transmission cover.
Step 4: Take off the 2 nuts and washers and discard.

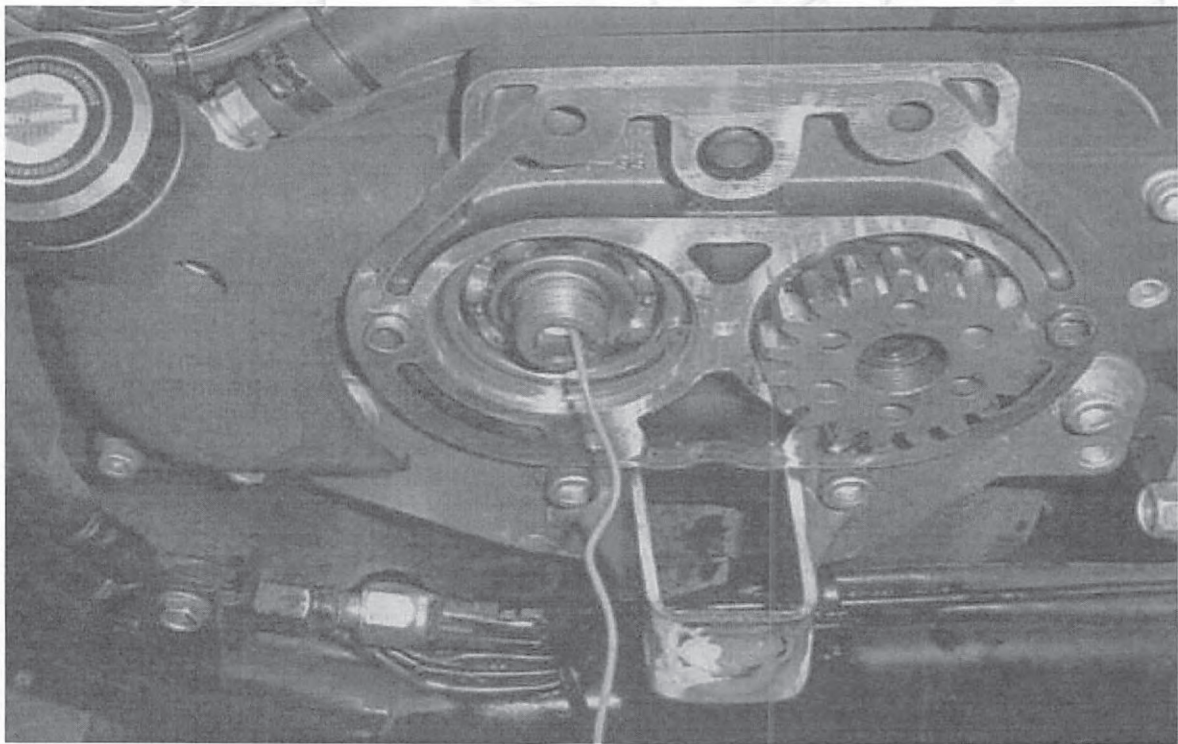
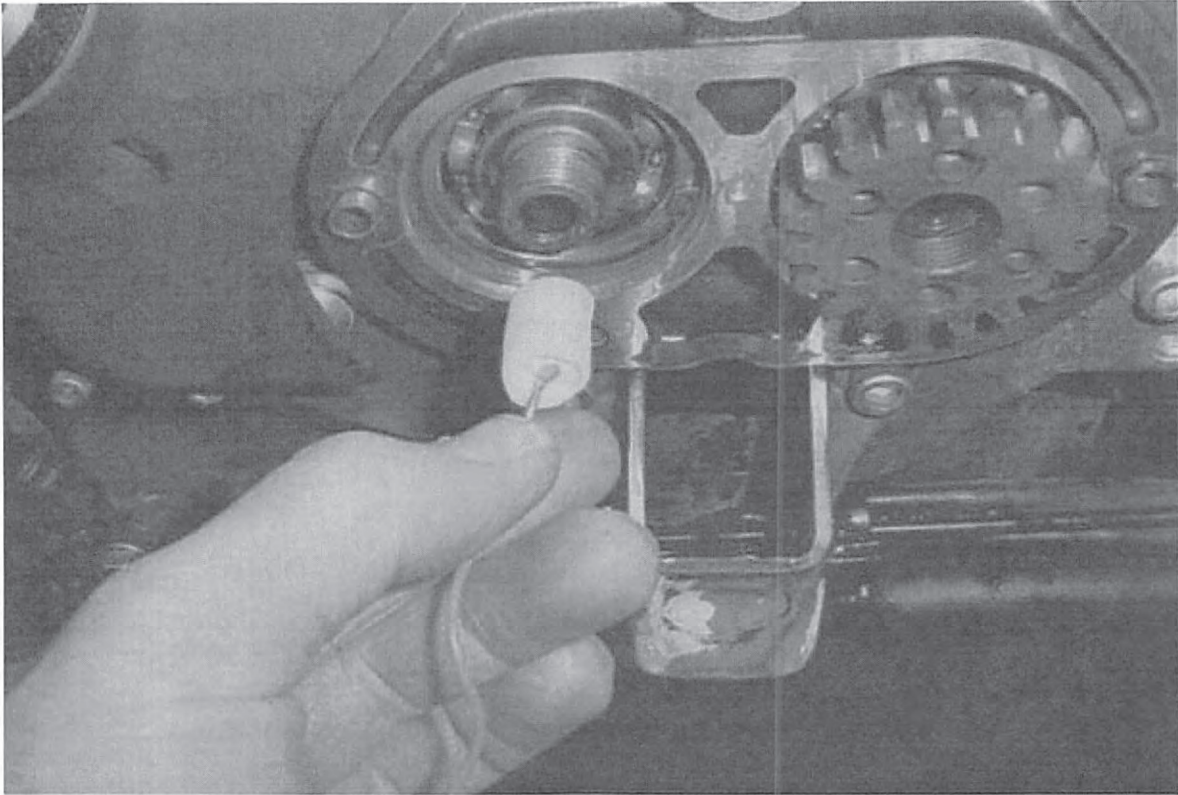


Step 5: Use brake cleaner spray to clean thoroughly the shaft and counter shaft.

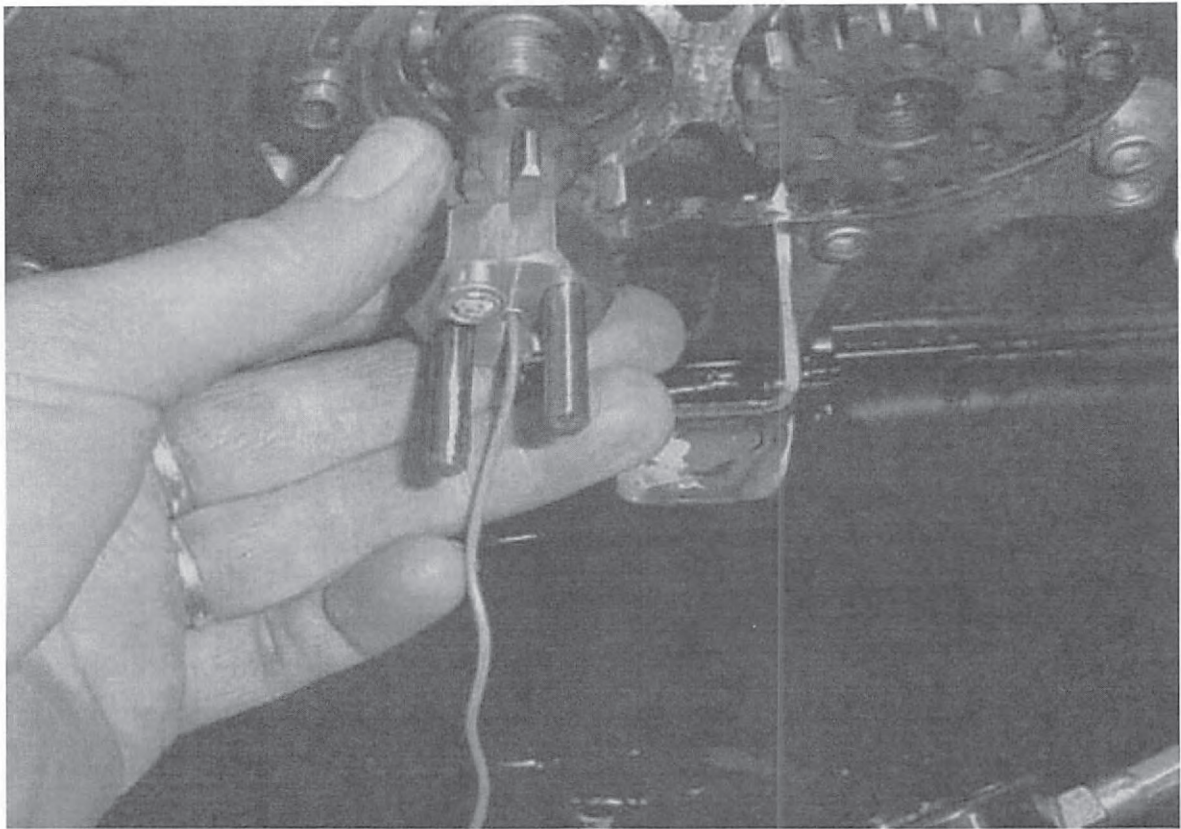


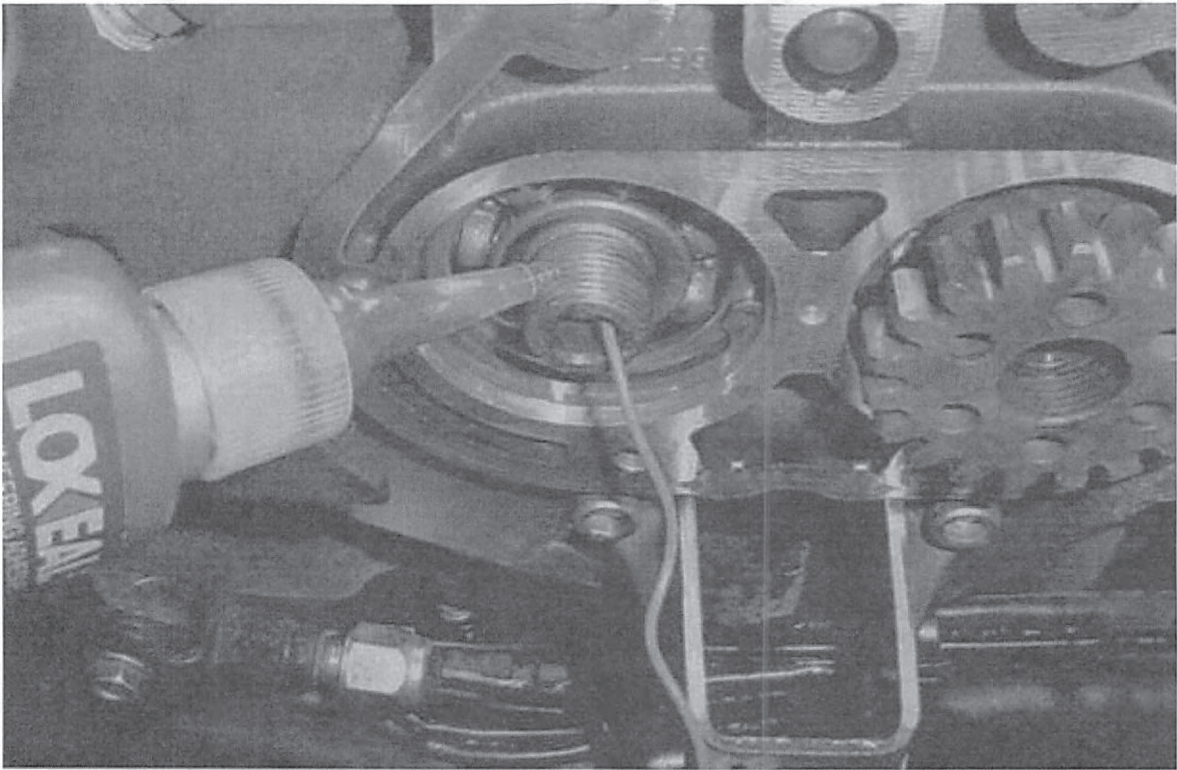
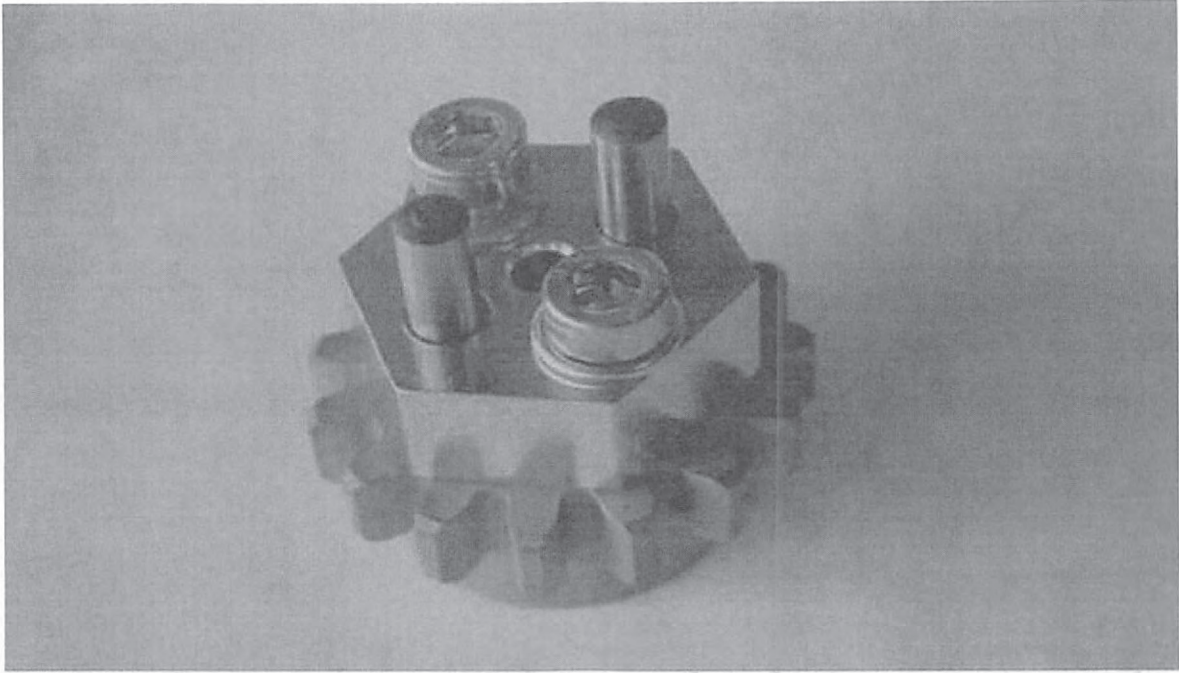
Step 6: Use threadlocker as shown in picture above, mount the large size gear to the counter shaft. Use the tool supplied and tighten up using a torque wrench to 45.75 ft.lb (61.75 Nm)

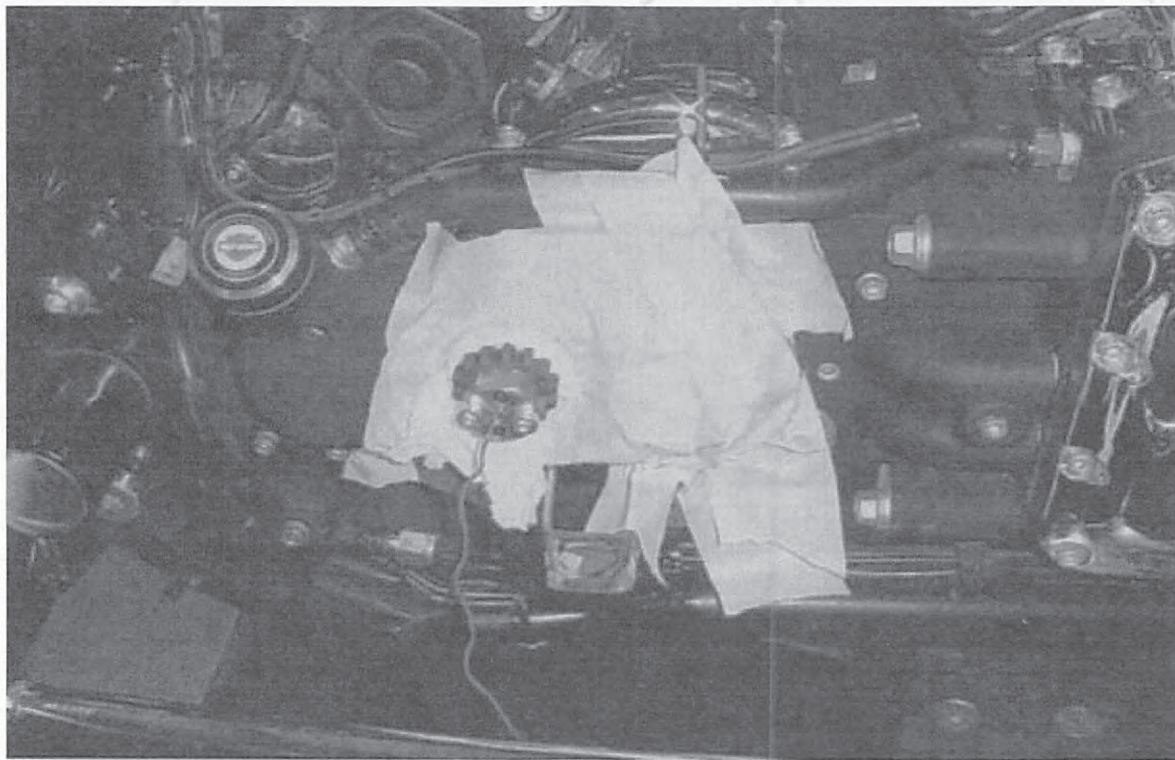
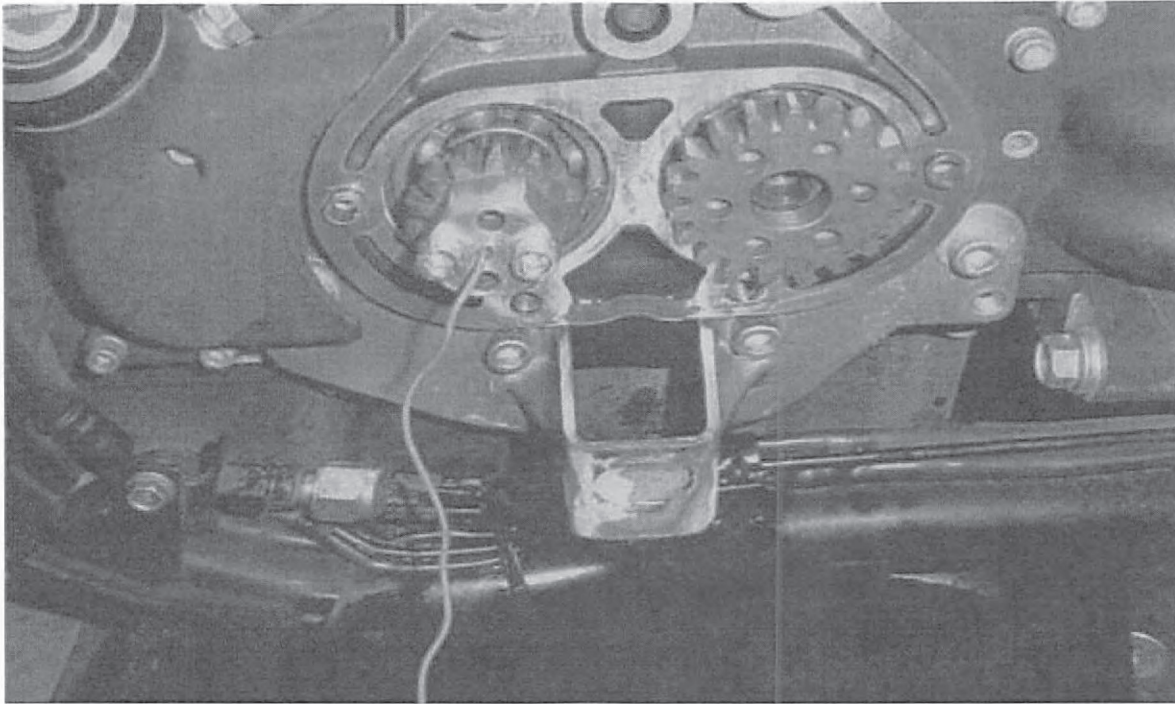




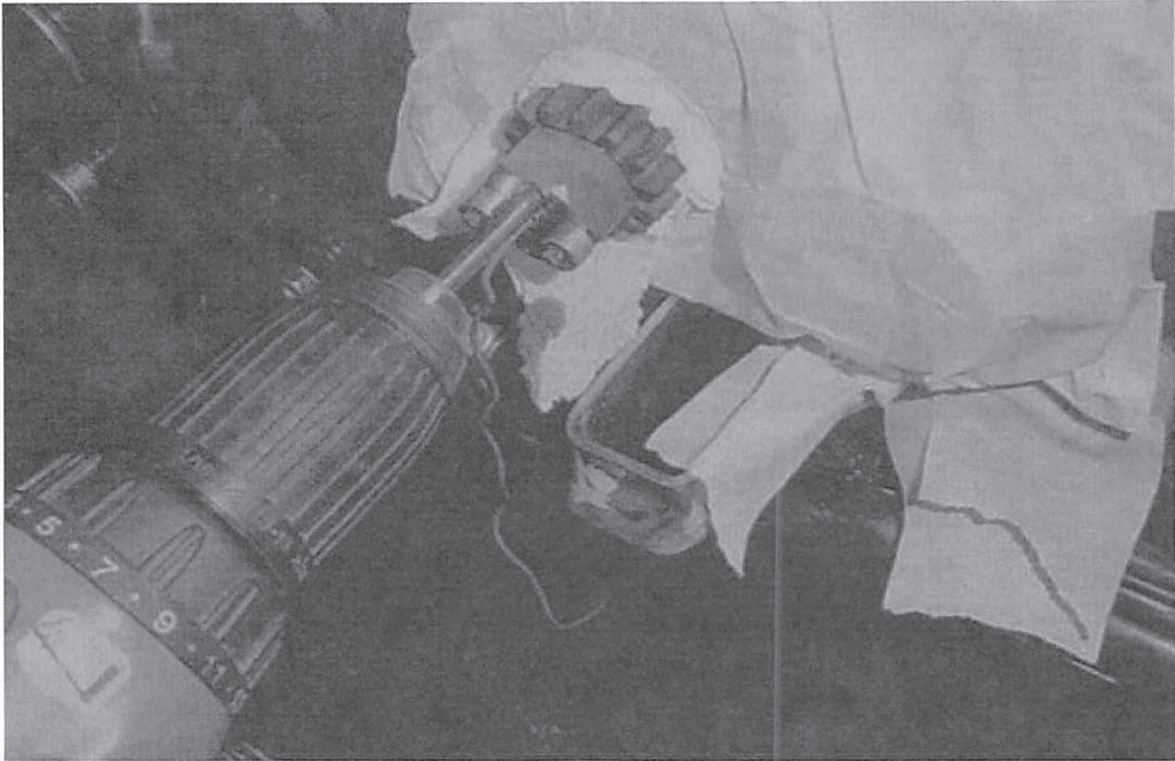
Step 7: Plug in the earplug supplied with the kit into the main shaft (in order to prevent debris entering the transmission).



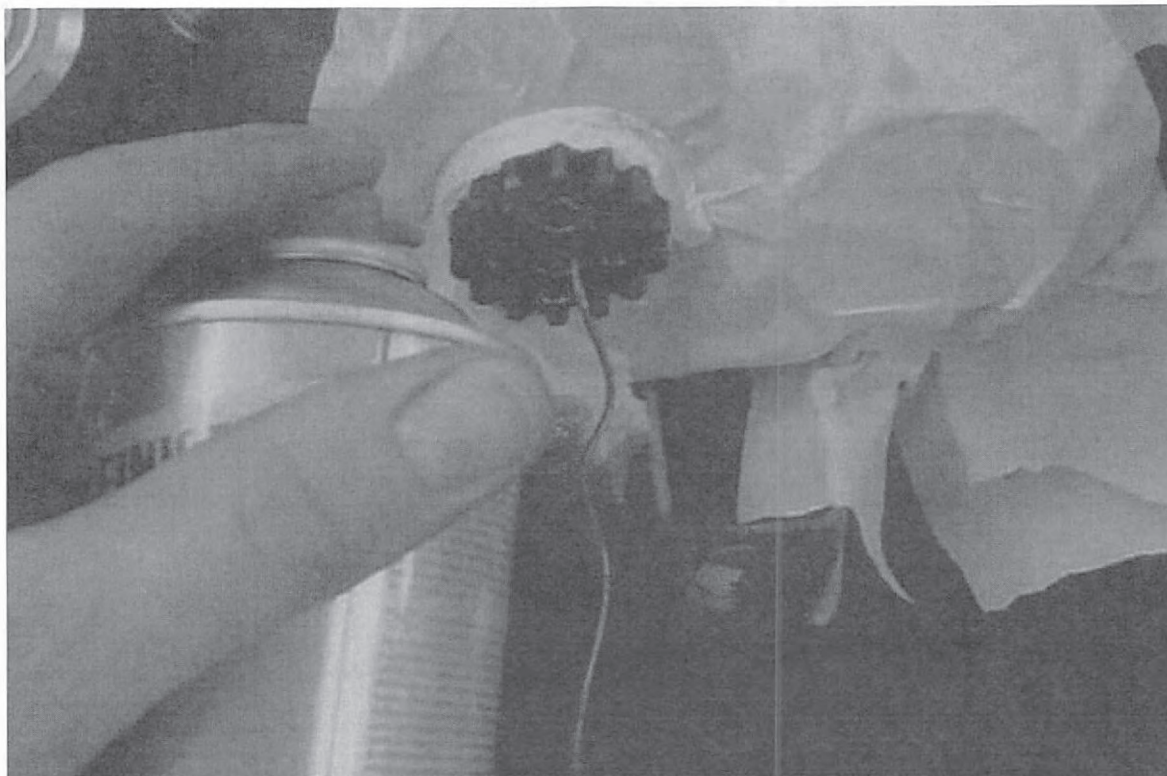




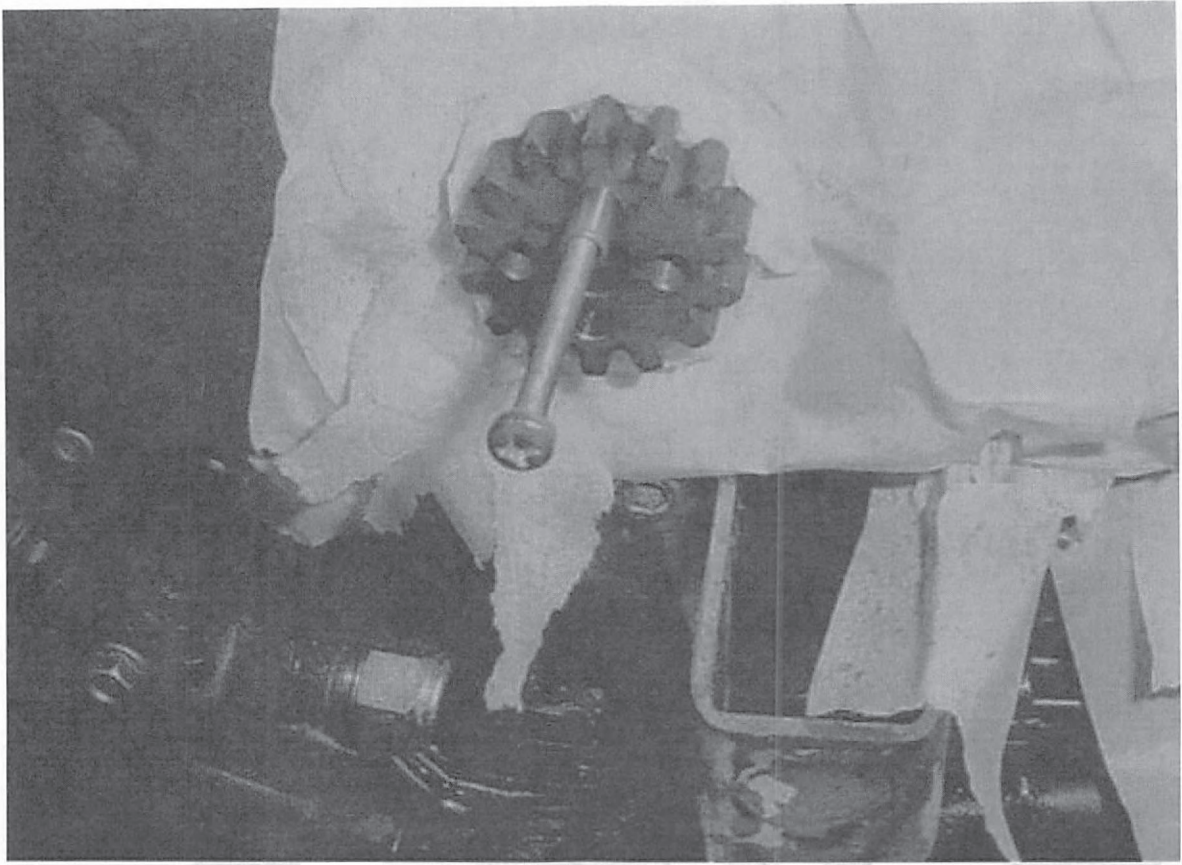
Step 8: Mount the tool to the small gear as shown in the picture using the screws supplied with the kit. Apply red threadlocker to the main shaft, mount the gear using the tool supplied and tighten up using a torque wrench to 45.75 ft.lb (61.75 Nm)

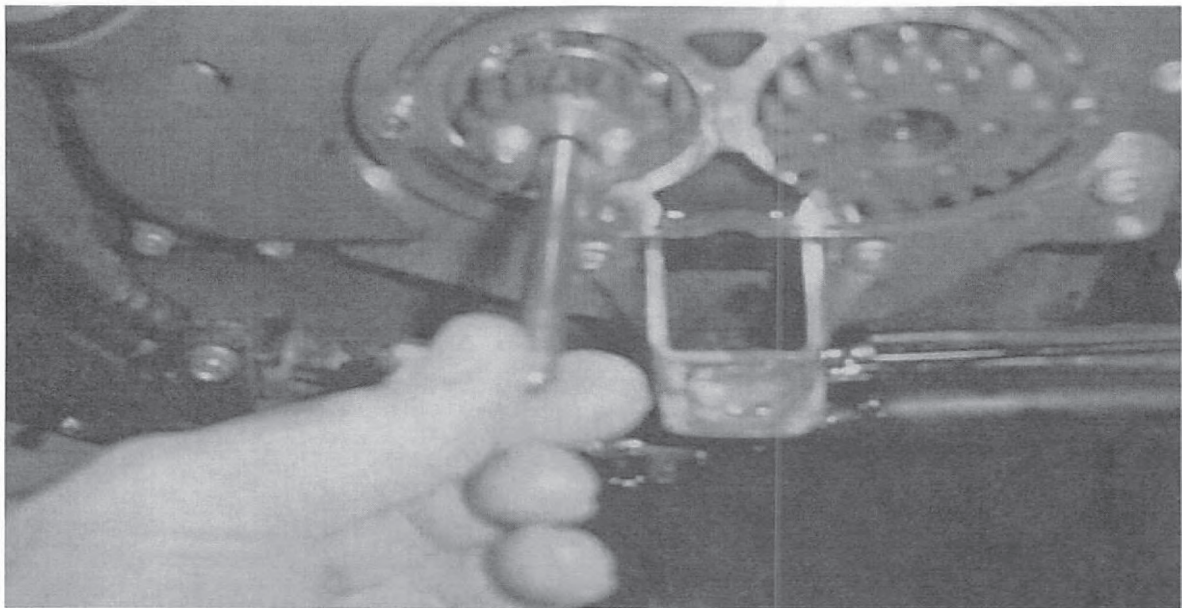
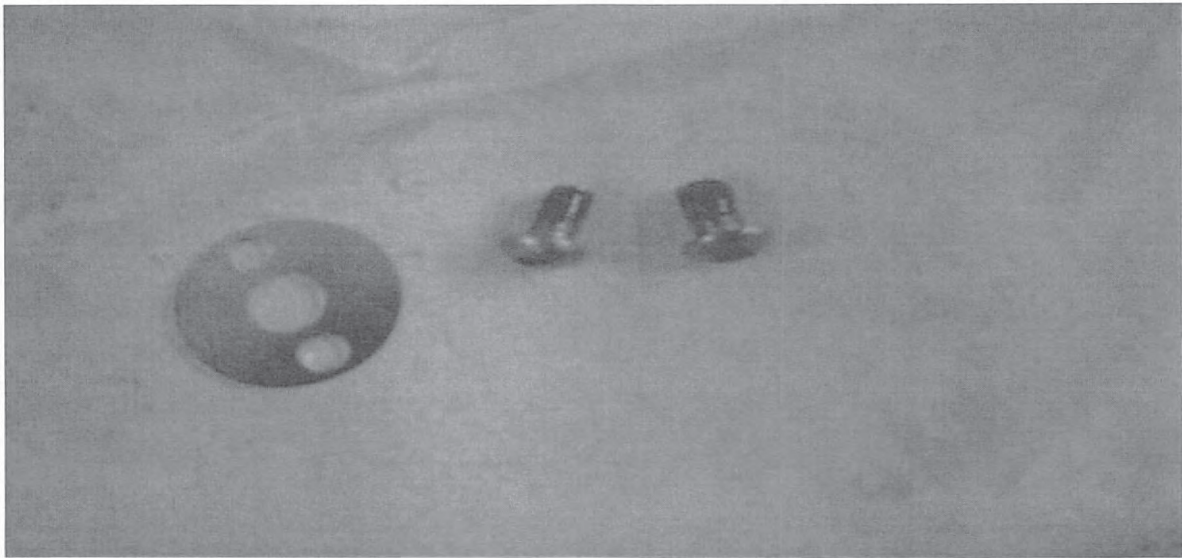


Step 9: Cover the transmission with paper tape to prevent debris from entering the transmission.
Step 10: Using the milling bit supplied in the kit, mill through the shaft to 20mm depth or 0.78".
After completion clean thoroughly.



Step 11: Take off the tool from the small gear and check that the right depth is obtained. Insert the hollow pins supplied with the kit, into the gear holes with the sleeve. The pins must be flush with the gear's surface. If a small amount of the pin is still above the surface of the gear, grind it off gently.
(Screw in the picture above is not supplied with the kit, it demonstrates the method of removal of the pins if necessary)

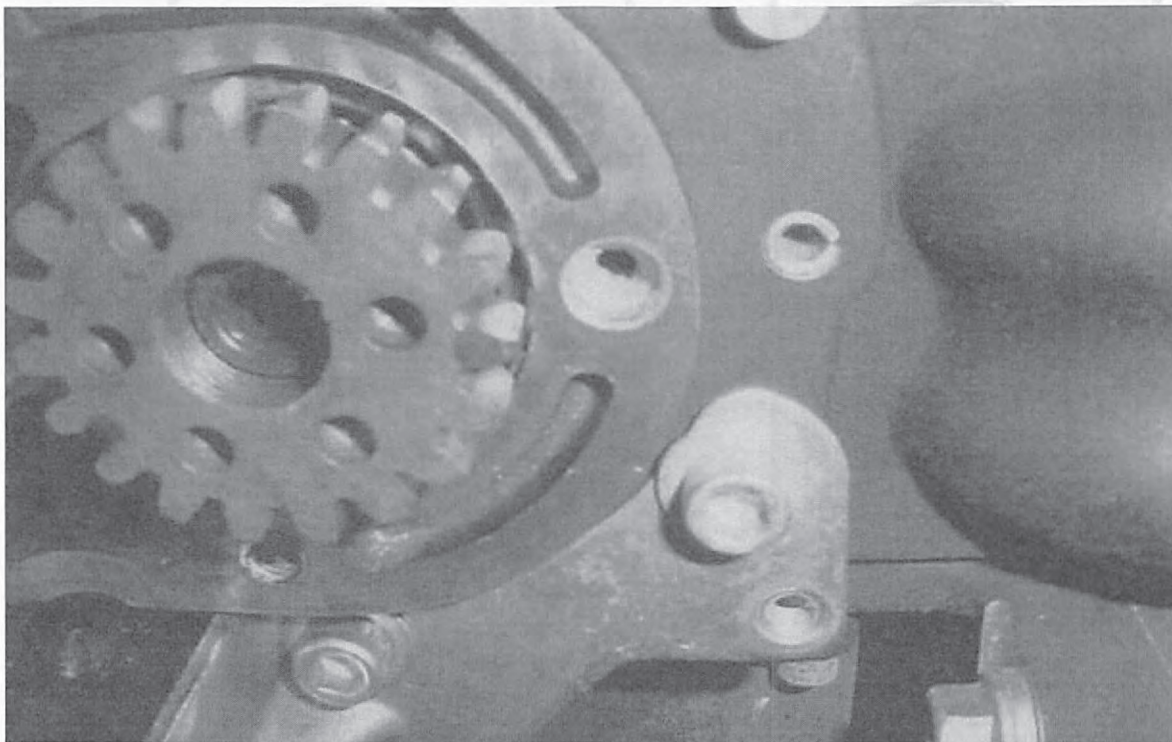
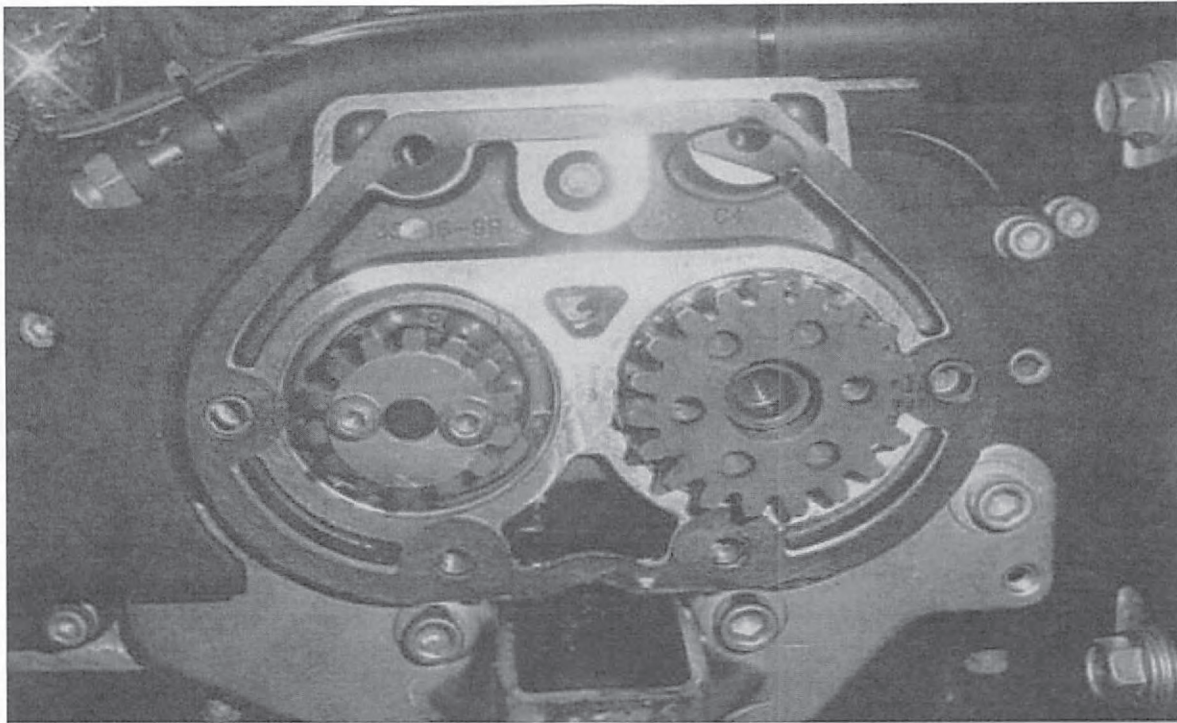




Step 12: Pull out the stock rod, using a small magnet.
Discard the stock rod.

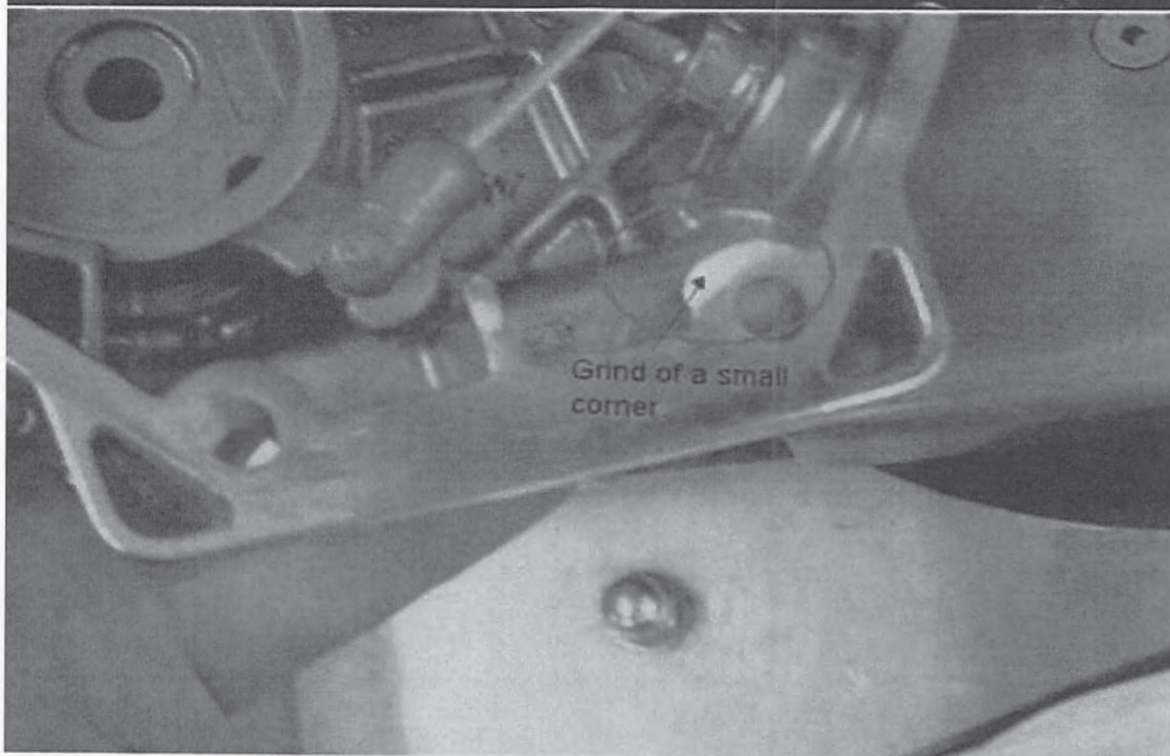
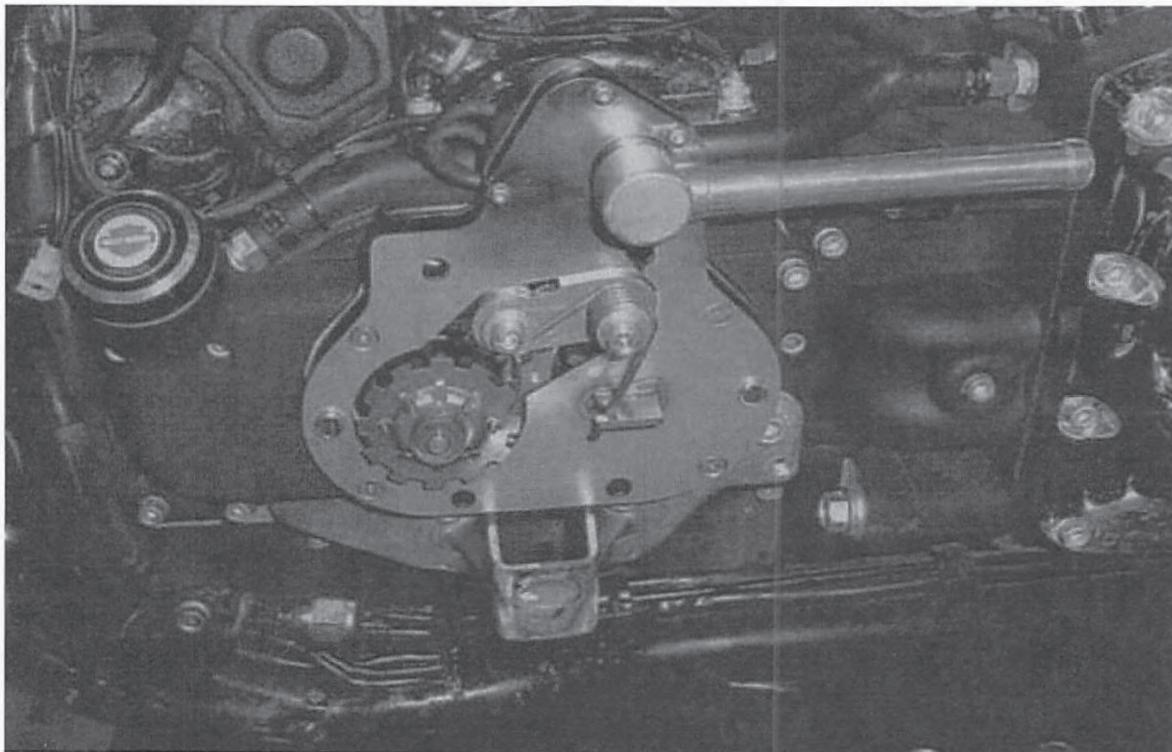
Step 13: Mount washer and the 2 screws shown in the picture
above to the small gear using blue threadlocker.

Step 14: slide in the new rod supplied with the kit



Step 15: Cut off a small portion of the gasket as shown in picture above.

Step 16: Make sure the holes for the alignment pins are clean, if necessary use a drill bit $\frac{3}{8}$ to allow the pins to go in smoothly.

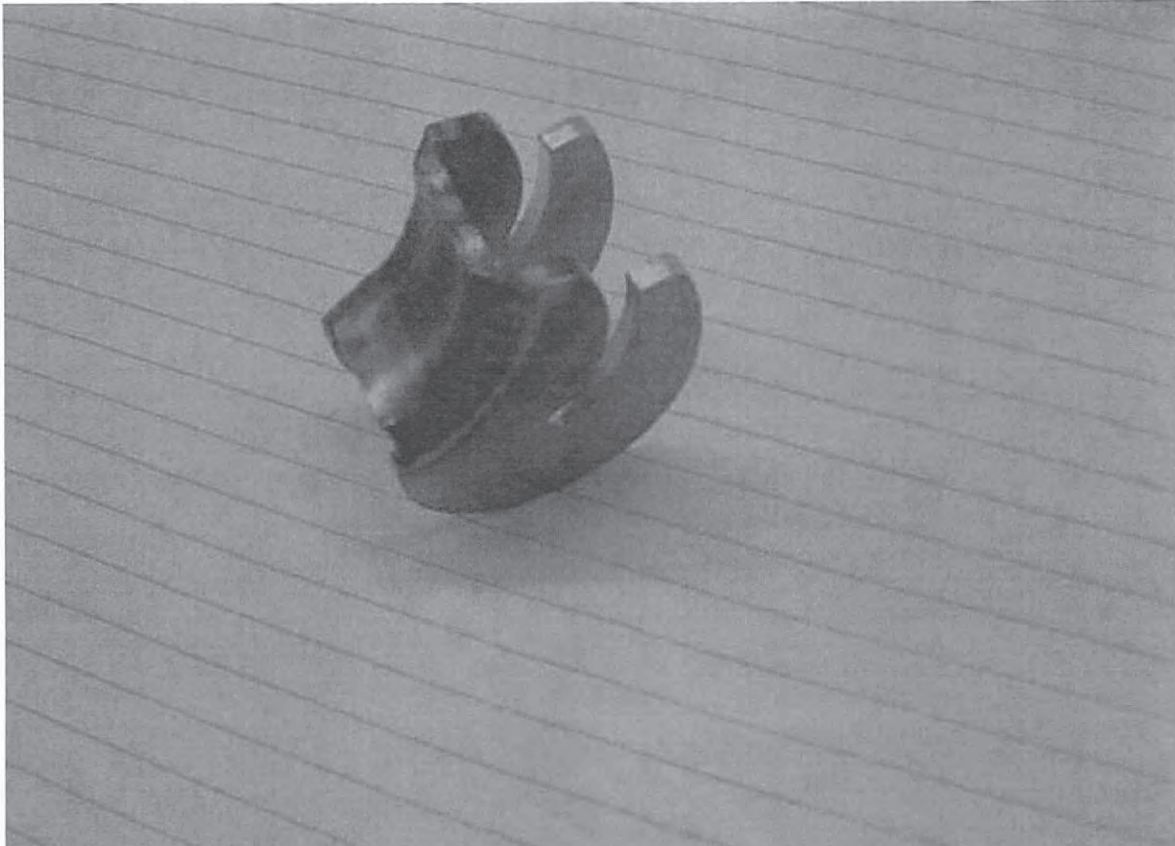


Step 17: Mount the gasket and reverse gear body.

Step 18: Grind of the corner of the cover as shown in picture, just enough to clear the spring of the reverse gear.

Step 19: Slide the slinger into the shaft, if by any chance the slinger would not slide in, grind off slightly the slinger shaft.

Note: on the slinger shaft you will find a flat spot, this must be aligned with the screws mounted on the gear's surface.



Exhaust Clamp Spacer

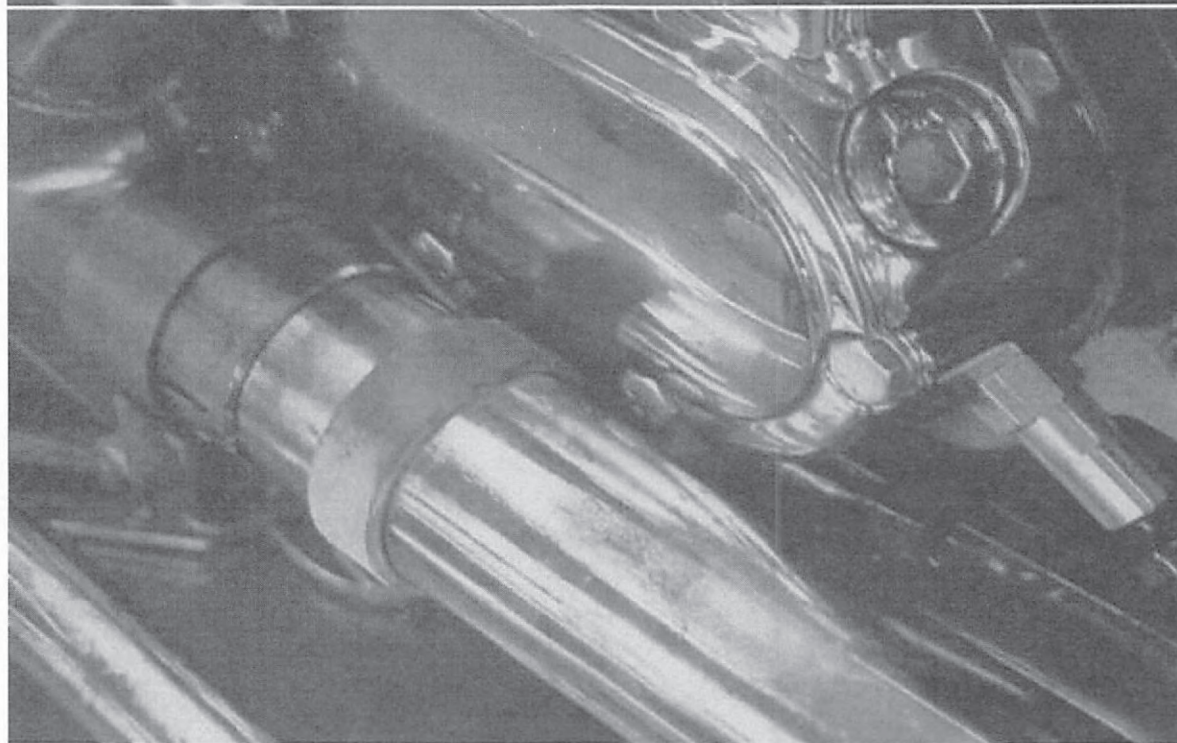
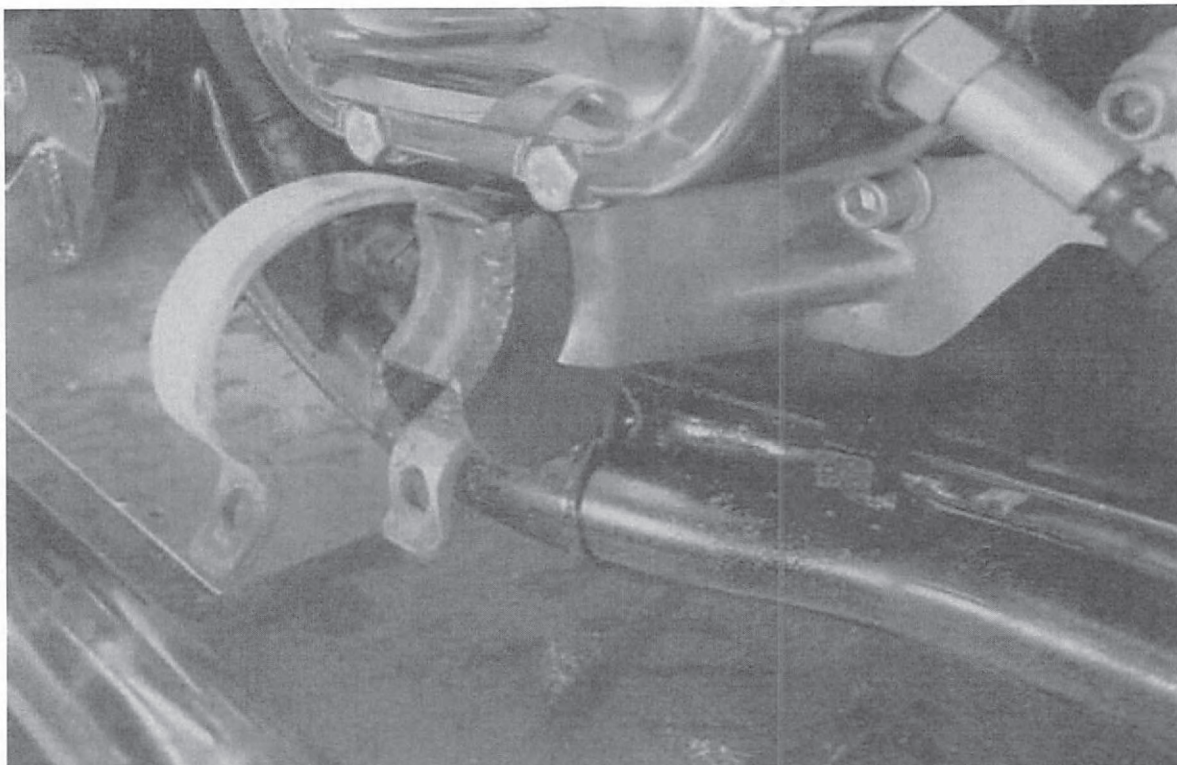
Step 20: Mount the gasket

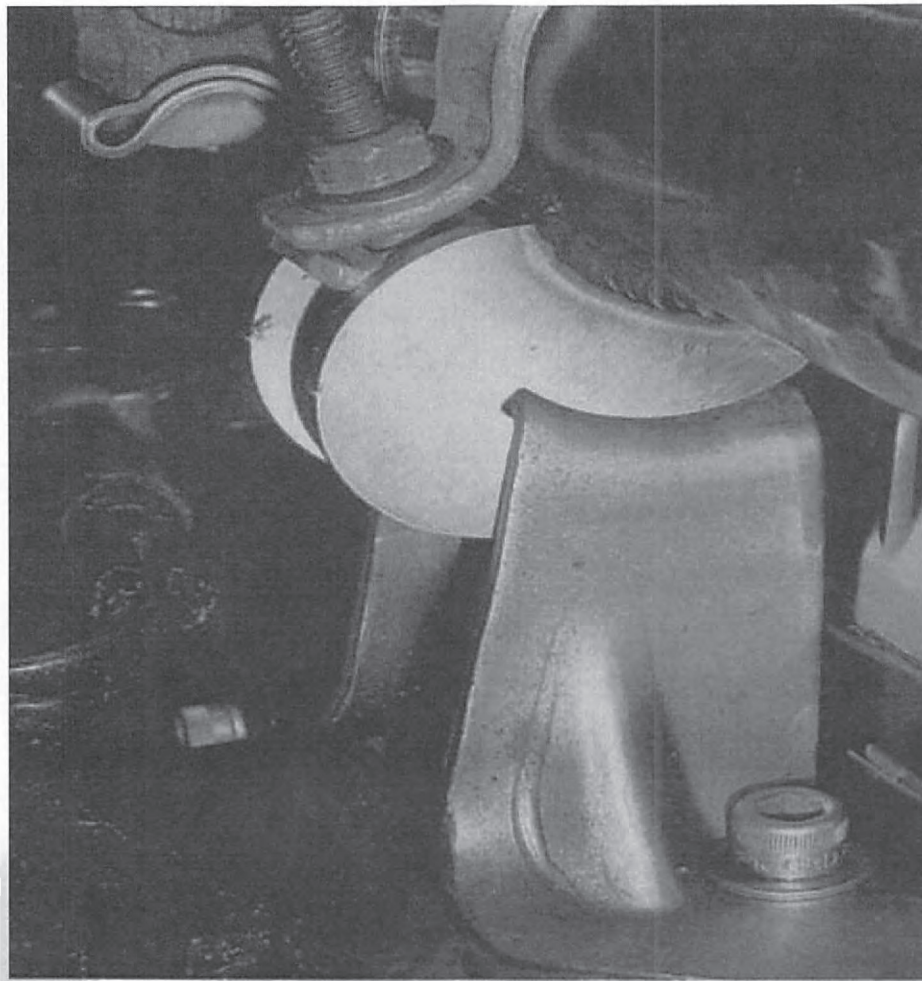
Step 21: Mount the transmission cover, and fasten the screws supplied with the kit and tighten the screws to HD specs. (refer to HD manual)

Step 22: Mount the exhaust bracket.

Step 23: Re install the complete exhaust (refer to HD manual)

Note: Make sure the transmission drain plug is installed. Fill the transmission with transmission fluid (refer to HD manual). For quantity of fluid, use the dipstick to determine the fluid level.





Exhaust Clamp Spacer Installed

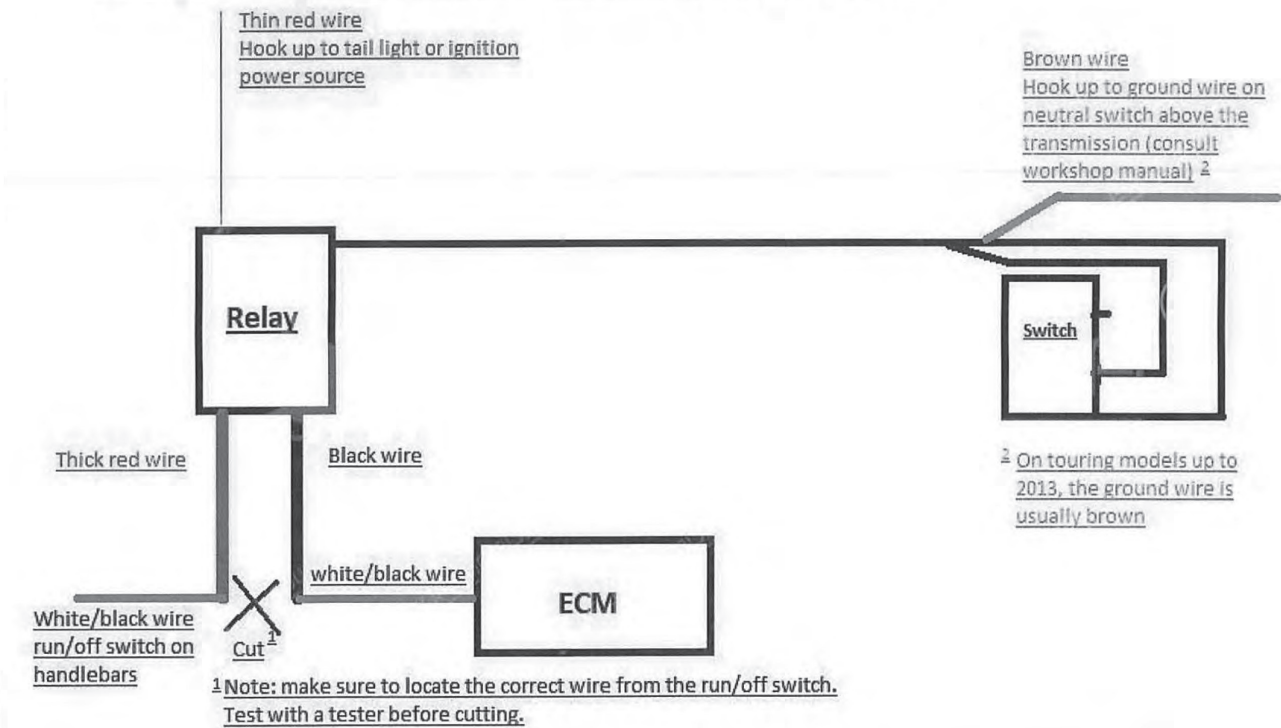
Step 24: Clutch adjustment.
Please adjust the clutch at the cable and the clutch adjuster screw by removing the clutch inspection cover from the primary chain case cover (refer to HD manual)

Note: our preferred adjustment for the clutch adjuster screw is $\frac{3}{4}$ of a turn.

Step 25 Wiring

Note:

Always consult your workshop manual to verify the wire colors



Operation of 17-0295 Reverse Gear

Make sure your engine is warm prior operating reverse gear.

- Transmission must be in neutral
- Pull in the clutch,
- Pull up the reverse gear lever without hesitation,
- release the clutch lever carefully
- twist the throttle to move in reverse.

A Note on how to operate the reverse gear smoothly:

- Transmission must be in neutral
- Pull in the clutch and engage first gear

Keep the clutch lever pulled in put the transmission in neutral and immediately pull up the reverse gear lever,

Release the clutch lever gradually, twist the throttle and move in reverse carefully.

Warning:

- Engaging the reverse gear while the engine is revving high may cause damage to the reverse gear!
- Do not use the reverse gear as a parking brake
- **V-Twin is not responsible for any damages due to misuse or wrong installation**