

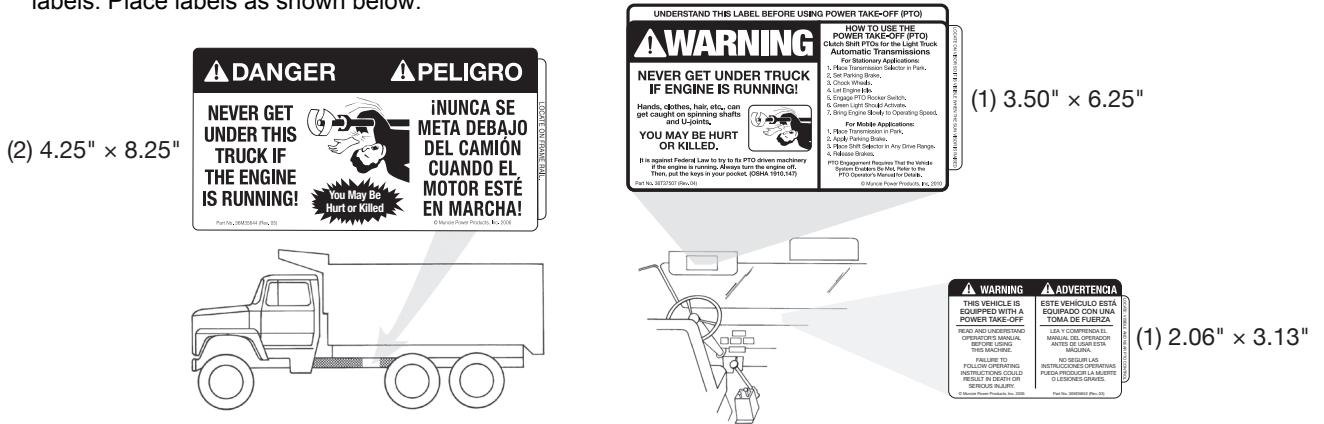


# P89 SERIES FOR DETROIT DT12

REQUIRES DEALER PTO PREP OPTION CODE:

362-822 – DRIVELINE OUTPUT APPLICATIONS    362-825 – HYDRAULIC PUMP DRIVE  
 These codes allow PTO application clearance from exhaust and after treatment on chassis.

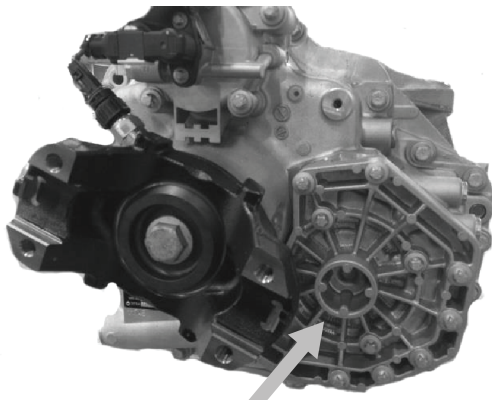
1. **Label Placement** - The PTO ships with 4 WARNING LABELS. Make sure mounting surfaces are clean before placing labels. Place labels as shown below.



2. Place truck in neutral and start engine. Listen to engine and transmission. Any transmission gear noise may be more noticeable after PTO is installed.

**STOP ENGINE. NEVER GO UNDER VEHICLE WITH ENGINE RUNNING!**

Find PTO opening on transmission. **CAUTION hot oil may flow from the PTO opening.** Remove the cover. Examine the pump at the opening. You will be installing the new thrust plate provided with the transmission kit.



REMOVE TRANSMISSION COVER

PUMP THRUST PLATE    PIN LOCATION

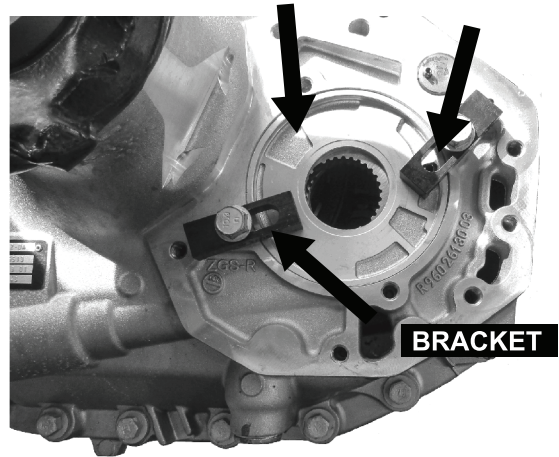


PLATE TRANSMISSION SIDE

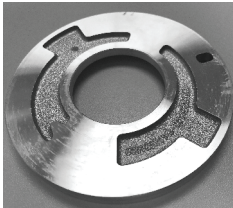
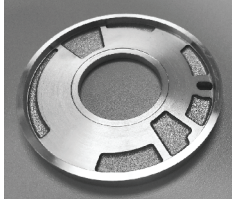
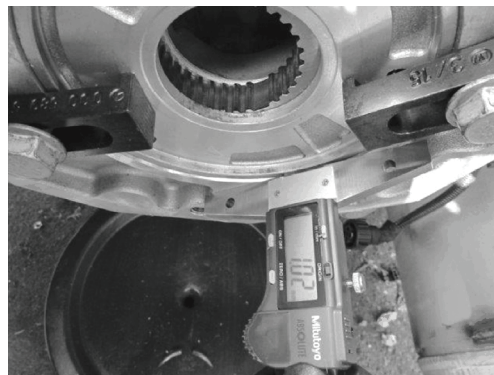


PLATE PTO SIDE



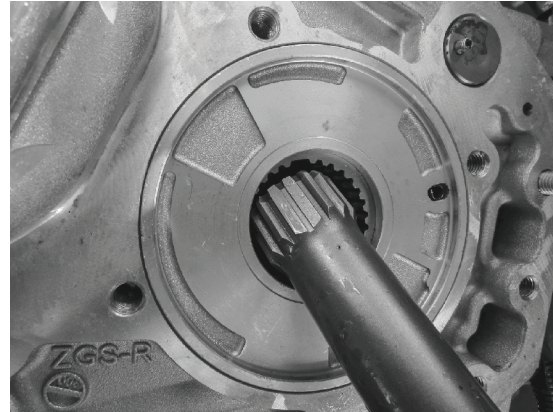
Pump Thrust Plate is found in the Transmission Shaft Kit 601K kits for your specific transmission model.

3. Clean the mating surfaces of the transmission and PTO housing. Install two Strip Clamps, Dealer tool W 000 589 59 63 00, on the transmission, to close any gaps between the thrust plate and pump housing. Torque to 10 Nm (88.5 lb.in.)

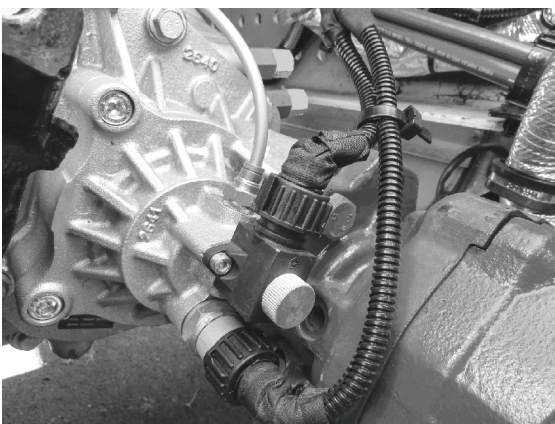
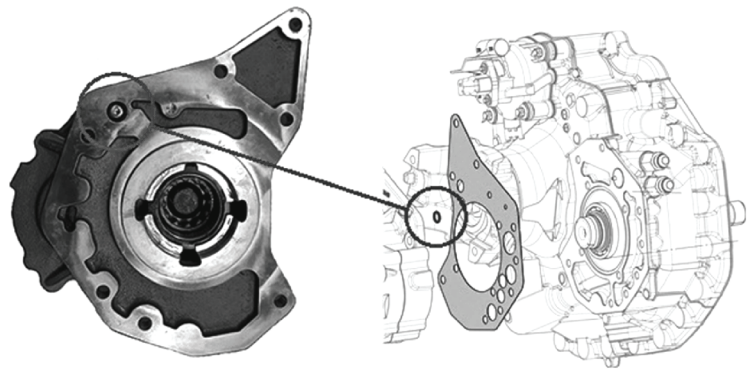
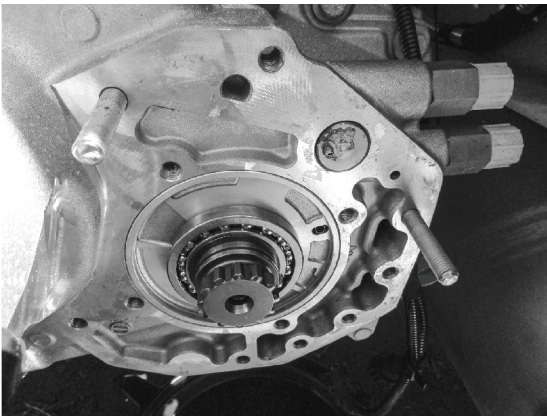


4. Check the depth at the top and bottom of the oil pump pocket, where the shim is supported by the transmission housing.

5. Measure and record the gap between of the raised edge of the oil pump thrust plate and the surface of the transmission housing. There must be 0.0 to 0.08 mm (0.0 to 0.0031 in.) gap, between the transmission housing and the surface of the thrust plate. If the measured value is 0.0 mm (0.0 in.), confirm the thrust plate is not protruding from the pocket by measuring from the plate edge to the transmission housing.
6. Remove the thrust plate and pump assembly. The shim is between the transmission housing and the back of the pump.



7. Measure the original shim thickness and add or subtract the gap measurement to find the shim size that would make the gap 0.0 mm (0.0 in.).



8. Install the pump housing and shim, into the transmission housing.
9. Install the oil pump hub and rotor, confirming the dots on both are visible.
10. Install the thrust plate.  
If a new shim was required, install the clamps and recheck the thrust plate gap.
11. Install the oil pump drive shaft.
12. Install the O-Ring into its position on the face of the PTO and the gasket into position on the transmission.

13. Apply some transmission oil to the outer bearing race, on the pump driveshaft, and the bearing pocket in the PTO.
14. Install the PTO assembly using the 7 cap screws provided with the PTO. Torque the PTO fasteners to 50 Nm (37 lbft.).
15. Connect and secure the air and electrical harnesses to the PTO.
16. Fill the transmission with oil, with the level even to the bottom of the fill plug.
17. Fit a new fill plug seal, and torque the fill plug to 60 Nm (44 lb.ft.).



A Member of the Interpump Group

IN17-02 (Rev. 12-24)

201 East Jackson Street, Muncie, Indiana 47305  
800-367-7867 • Fax: 765-284-6991 • info@munciepower.com

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