



**FORD OIL PUMP PICKUP
P/N 24516 AND 24519**

INSTRUCTIONS

PART LIST

- (1) 24516 or 24519 Oil Pump Pickup
- (1) 24500119 Gasket, Ford
- (1) 38191100 7/16-14 & 20, 3/8-24 x 4.9" Long Main Cap Stud
- (1) 0706019 3/8-24 Serrated Face Flange Nut
- (2) 38300100 Washers, 7/16" Chrome Moly Steel
- (1) 38191400 Flange Nut 7/16-20

This oil pump pickup may be used by itself or in combination with Moroso's Windage Tray P/N 22930 or Stud Girdle P/N 22928 with a 9" deep oil pan.

The following instructions will assist you on the installations.

IMPORTANT: Thoroughly clean the pickup and any new parts being installed.

Section I Oil Pump Pickup Only

- 1) Drain engine oil; remove the engine oil pan; existing oil pump pickup and old gaskets.
- 2) Remove the #3 passenger side main cap bolt and replace it with the supplied 7/16-14 & 20 stud. Thread the stud into the engine block until it bottoms out and torque to 10 ft-lbs. (Ref: fig 1)
- 3) Install the 7/16-20 Flange Nut and torque to factory main cap specifications.
- 4) Place (1) 7/16" washer over the new installed stud and nut. Place the pickup bracket onto the stud with the remaining 7/16" washer and loosely fasten the 3/8-24 serrated face nut
- 5) Install the gasket to the pump face and re-install the screws. Torque the screws to factory specifications. Go back and torque the serrated nut securing the pickup bracket to the stud at 35 ft-lbs.
- 6) Check pickup. Put clay or putty on four corners of the pickup screen and install gaskets. Place oil pan on engine and secure tightly. Remove the oil pan and measure the height of the crushed clay/putty. The recommended proper clearance should be 1/4" to 1/2". If necessary make adjustments.
- 7) Install gasket/gaskets and sealant as recommended by the factory.
- 8) Re-install the oil pan and torque screws per factory specifications.
- 9) Add and check for proper oil level.

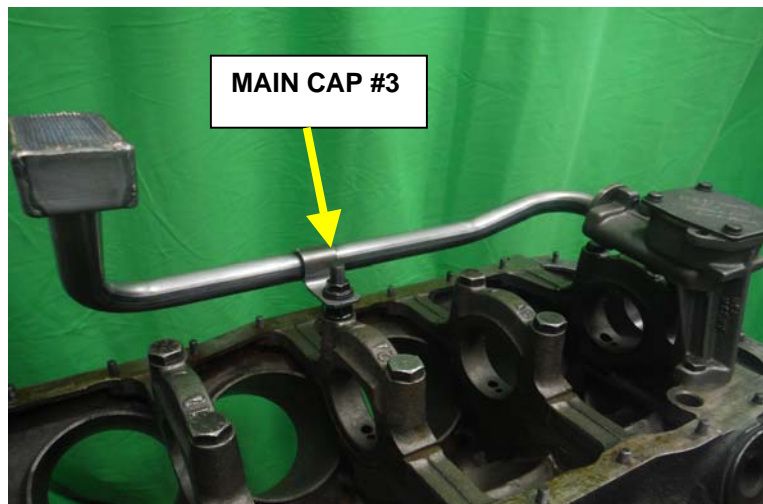


FIG 1

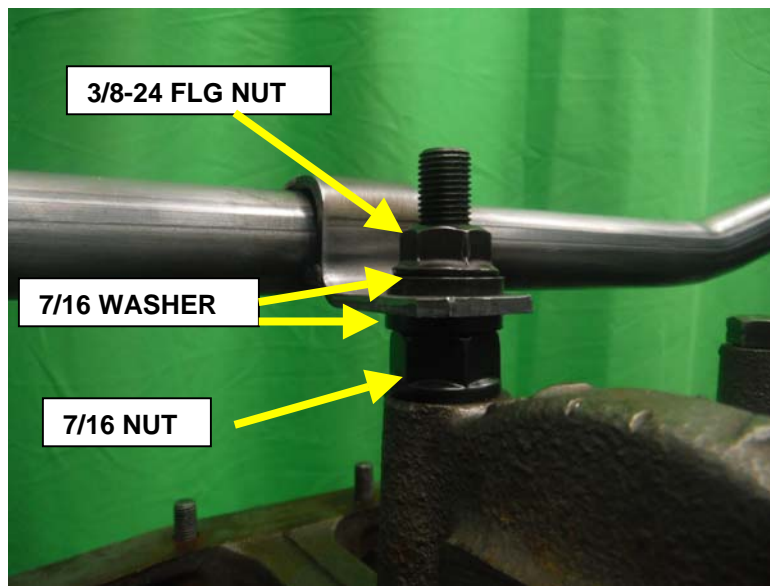


FIG 2

Section II Oil Pump Pickup with Windage Tray P/N 22930

Requires Moroso Stud Kit P/N 38191

Follow instructions in Section I, 1) thru 3)

4) Remove the #2 and #4 main cap screws only if working with the engine inverted on an engine stand. Otherwise remove (1) main cap screw at a time and replace it with the new stud. Torque the new studs to 10 ft-lbs to bottom out in the engine block. Install the nut and lightly tighten to prevent the cap from falling off. (Ref. fig 3).

5) Torque the (4) new main cap studs to factory specifications. The pickup stud already should be torqued.

6) Place (1) 7/16 washer from the supplied oil pump pickup over the installed pickup stud (ref. main cap #3) Install the oil pump pickup, windage tray, followed by (5) 7/16" washers and (5) 3/8-24 serrated face flanged nuts secured loose. (Ref fig 4)

7) Install the oil pump gasket and (2) screws mounting the oil pump pickup flange to the oil pump.

8) Torque the (5) 3/8-24 flanged nuts on the studs to 35 ft-lbs.

9) Check rotating assembly for sufficient clearance and recheck oil pump pickup height as instructed in Section I, 6).

10) To complete installation; see **Section I, 7), 8) and 9)**.

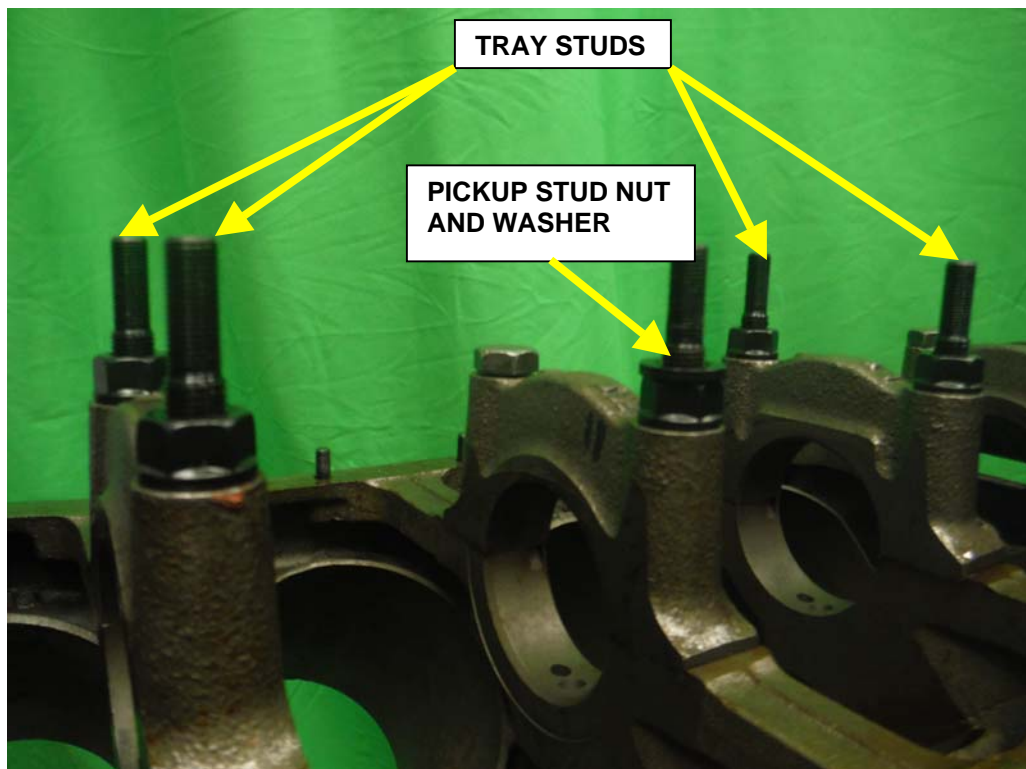


FIG 3



FIG 4

Section III Oil Pump Pickup with Main Cap Girdle Moroso P/N 22923

- 1) Drain engine oil, remove the engine oil pan and existing oil pump and pickup.
- 2) With engine inverted as shown (fig 5) on an engine stand remove all (10) main cap screws.
CAUTION: With the engine in the vehicle support the crankshaft and main caps especially with a gear drive camshaft, before removing all (10) main cap screws to prevent the main caps from falling off.
- 3) Install all the main cap studs without the Girdle and check the distance from under the head of the screw to the main cap. This dimension should be a maximum of .400", to prevent the new main cap screw from bottoming out before it tightens the Girdle and the main cap. If this dimension is not achieved, you may have to tap the screw holes deeper or shorten the new bolts slightly.
- 4) Remove all the main cap screws upon verification, and install the Main Cap Girdle, washers, with main cap screws except the one utilizing the pickup bracket. **NOTE** The screw under the oil pump body **will not clear most oil pumps with the washer**, (Ref fig. 6) therefore you can choose to grind relief from the oil pump or not use the washer for that one screw.
- 5) Temporary re-install the oil pump and pickup and only snug the mounting screws. Install the washer and screw to secure the oil pump pickup to the girdle.
- 6) Remove the oil pump to torque all (10) main cap screws per factory specifications.
- 7) Re-install the oil pump mounting screws to the block and pickup flange with gasket in place with screws. Torque these screws to the factory specifications.
- 8) Rotate the assembly over and check Crank, Rods and Rod Bolts to Girdle clearance. If interference occurs, mark area and remove the Girdle from assembly to perform any rework. Thoroughly clean the girdle before re-installing. Repeat this process until you have at least .100" clearance between the Main Cap Girdle and Rotating Assembly.
- 9) To complete installation; **see Section I, 7), 8), and 9).**

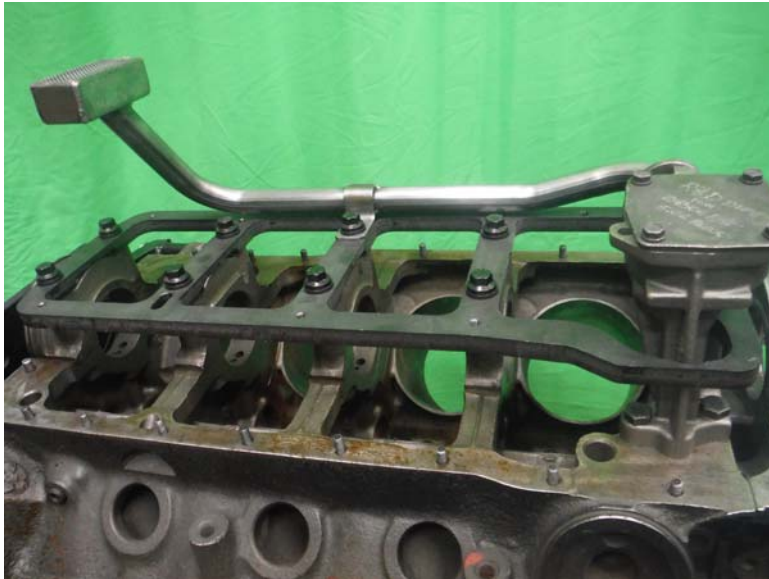


FIG 5

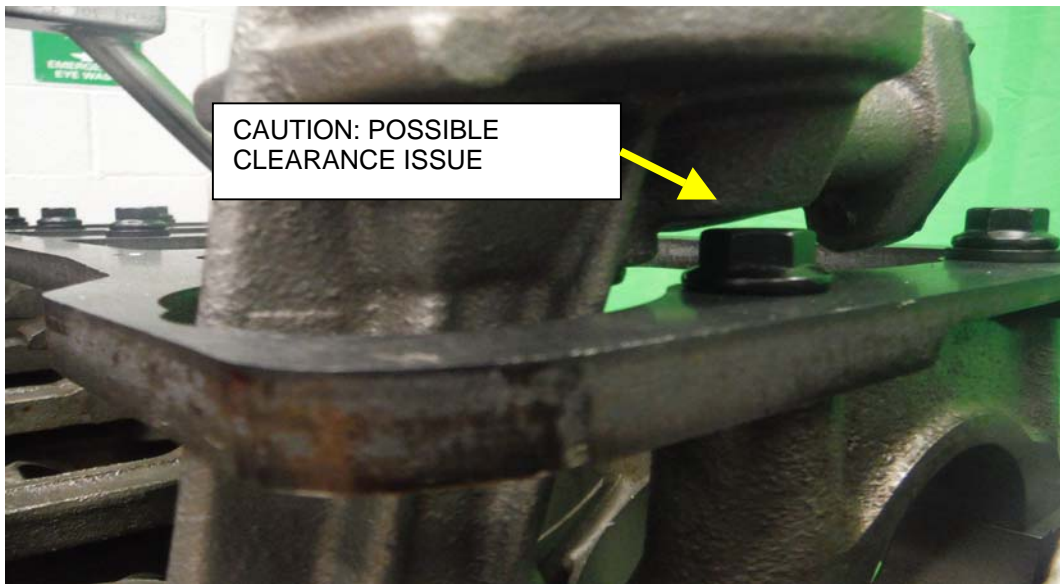


FIG 6

Thank you for using MOROSO PERFORMANCE PRODUCTS