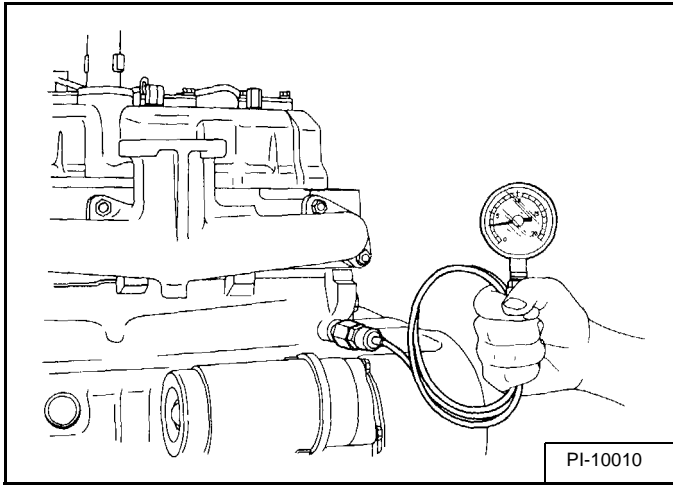


LUBRICATION SYSTEM (CONT'D)

Engine Oil Pressure - Testing

Remove the oil pressure sender.

Figure 70-60-12



Install a pressure gauge **[Figure 70-60-12]**.

Start the engine and run until it is at operating temperature.

If the oil pressure is less than the allowable limit, check the following items:

- * Engine Oil Level Low
- * Oil Pump Defective
- * Oil Galley Plugged
- * Oil Strainer Plugged
- * Excessive Clearance at the Rod & Main Bearings
- * Oil Pump Relief Valve Stuck

At Idle Speed Allowable Limit	7 PSI (0,50 bar)
At Rated Speed	28-64 PSI (1,96-4,41 bar)
Allowable Limit	21 PSI (1,47 bar)

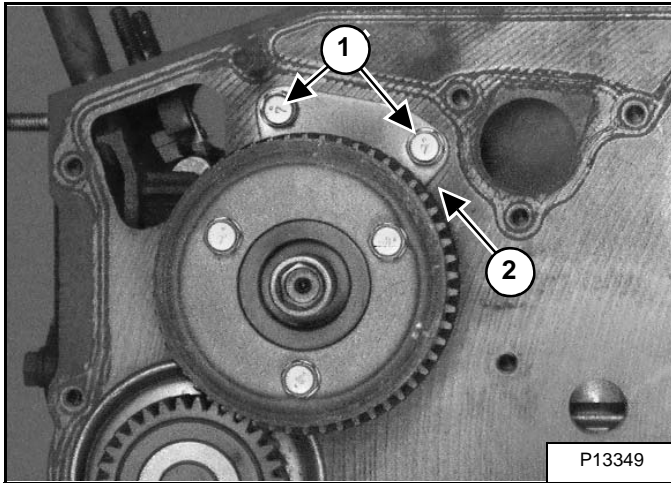
FUEL SYSTEM

Fuel Camshaft Removal And Installation

Remove the timing gearcase cover. (See Timing Gearcase Cover Removal And Installation on Page 70-100-1.)

Remove the idler gear. (See Idler Gear And Shaft Removal And Installation on Page 70-100-3.)

Figure 70-70-1

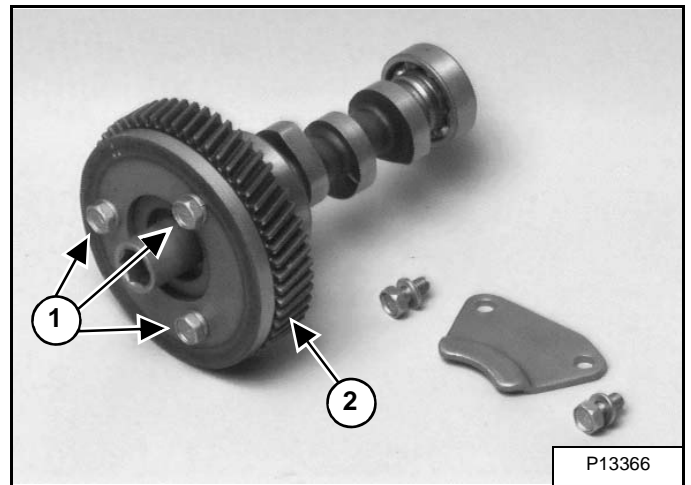


Remove the two mounting bolts (Item 1) and remove the injection pump shaft stop (Item 2) [Figure 70-70-1].

Installation: Tighten the mounting bolts to 89-100 in.-lb. (9,8-11,3 N•m) torque.

Remove the injection pump shaft from the block.

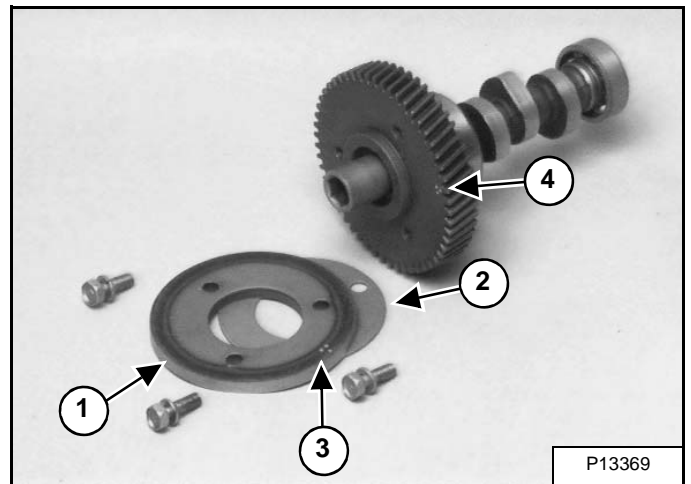
Figure 70-70-2



Remove the three mounting bolts (Item 1) from the injection pump gear (Item 2) [Figure 70-70-2].

Installation: Tighten the mounting bolts to 89-100 in.-lb. (9,8-11,3 mm) torque.

Figure 70-70-3



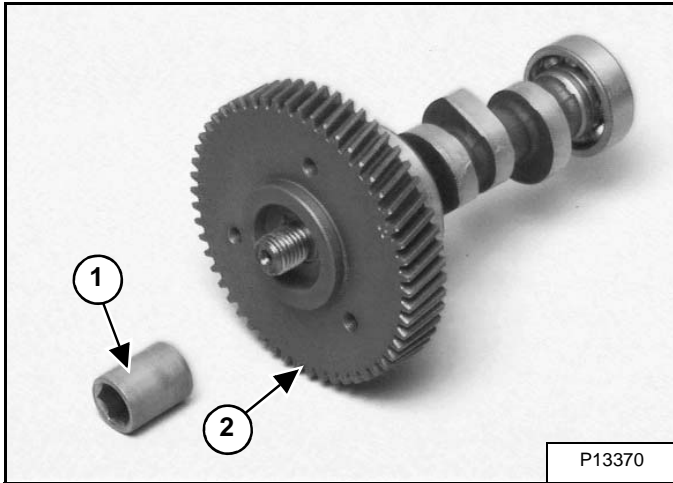
Remove the fuel cam (Item 1) and the cam washer (Item 2) [Figure 70-70-3] from the injection pump shaft gear.

Installation: When installing the injection pump shaft and washer to the injection pump shaft gear align the timing marks (Item 3) on the injection pump shaft with the timing marks (Item 4) [Figure 70-70-3] on the injection pump shaft gear.

FUEL SYSTEM (CONT'D)

Fuel Camshaft Shaft Removal And Installation (Cont'd)

Figure 70-70-4

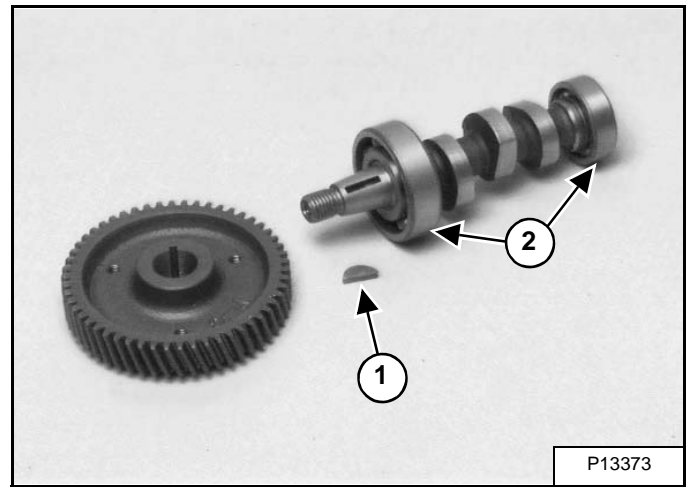


Remove the nut (Item 1) [Figure 70-70-4] from the injection pump shaft.

Installation: Tighten the nut to 43-51 ft.-lb. (58,3-69,2 N•m) torque.

Remove the injection pump gear (Item 2) [Figure 70-70-4] from the injection pump shaft.

Figure 70-70-5



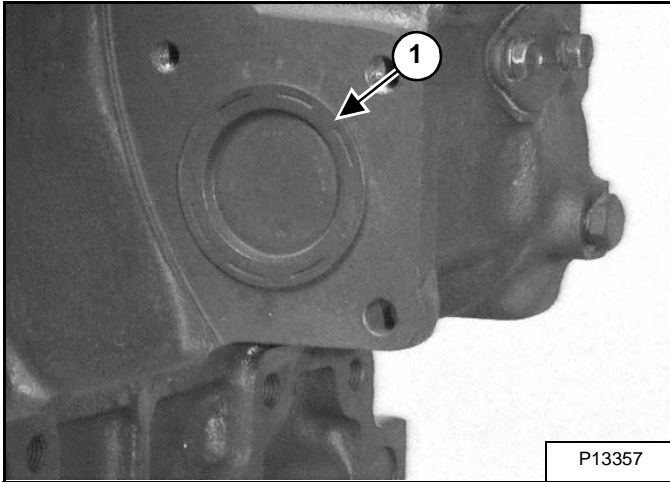
Check the key (Item 1) [Figure 70-70-5] and the keyways in the gear and on the shaft for wear and replace if needed.

Check the bearings (Item 2) [Figure 70-70-5] for wear and replace as needed.

FUEL SYSTEM (CONT'D)

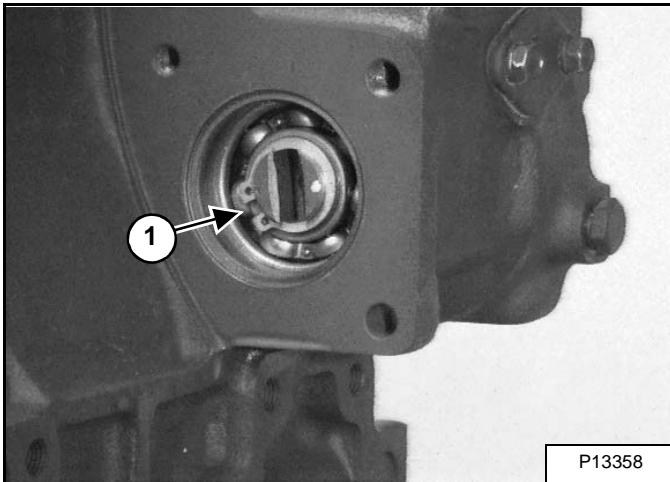
Governor Shaft Removal And Installation

Figure 70-70-6



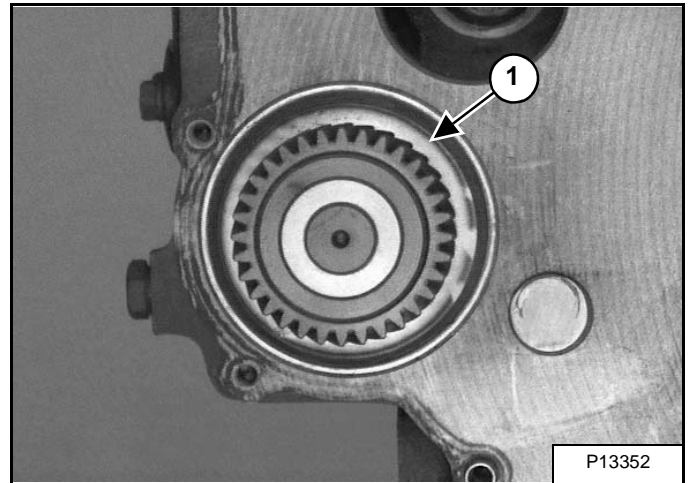
Remove the fuel camshaft plug (Item 1) [Figure 70-70-6] from the block.

Figure 70-70-7



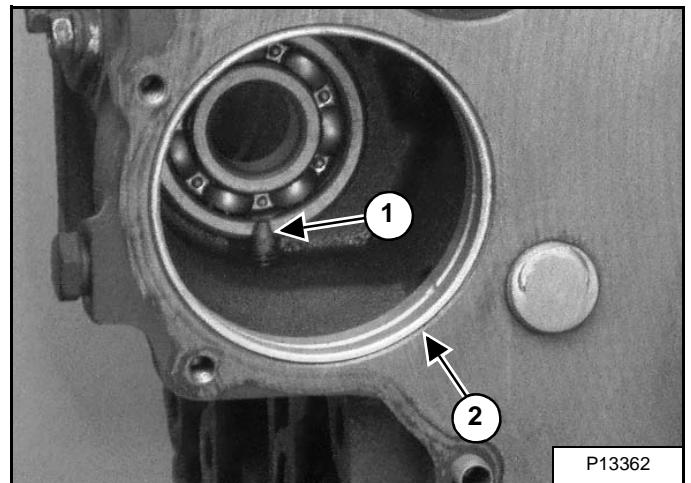
Remove the snap ring (Item 1) [Figure 70-70-7] from the governor shaft.

Figure 70-70-8



Remove the governor shaft assembly (Item 1) [Figure 70-70-8] from the front of the block.

Figure 70-70-9



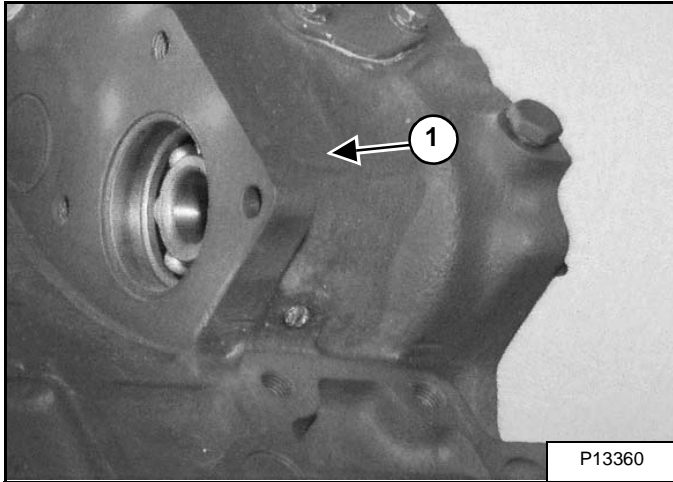
NOTE: The set screw (Item 1) [Figure 70-70-9] must be removed to remove the rear governor shaft bearing.

Check the governor gear bushing (Item 2) [Figure 70-70-9] and replace if needed.

FUEL SYSTEM (CONT'D)

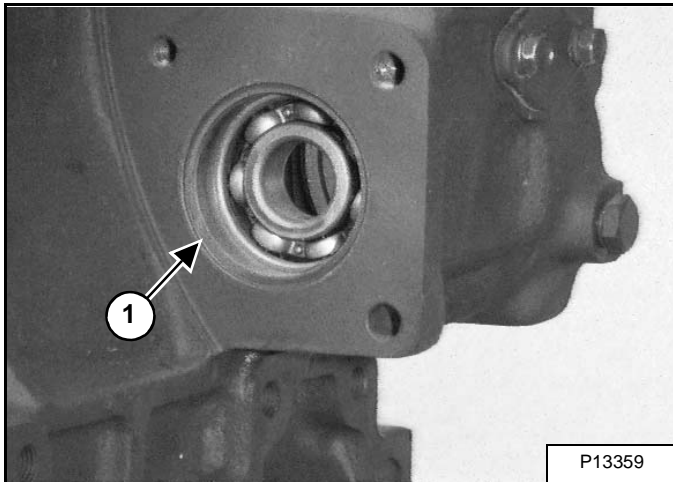
Governor Shaft Removal And Installation (Cont'd)

Figure 70-70-10



Remove the set screw (Item 1) [Figure 70-70-10] from the block.

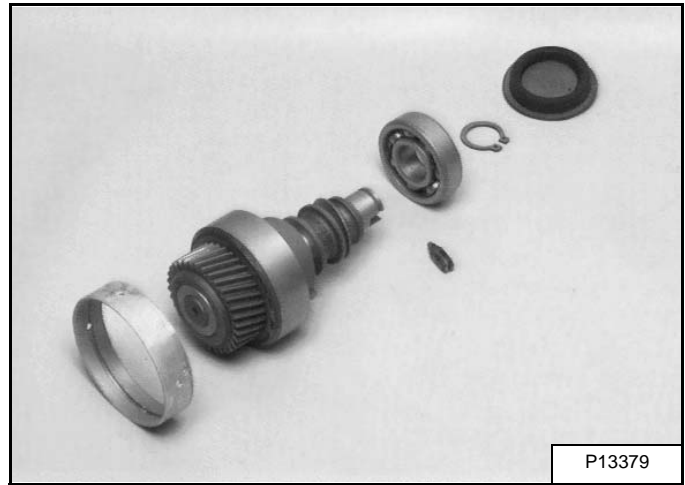
Figure 70-70-11



Remove the rear bearing (Item 1) [Figure 70-70-11].

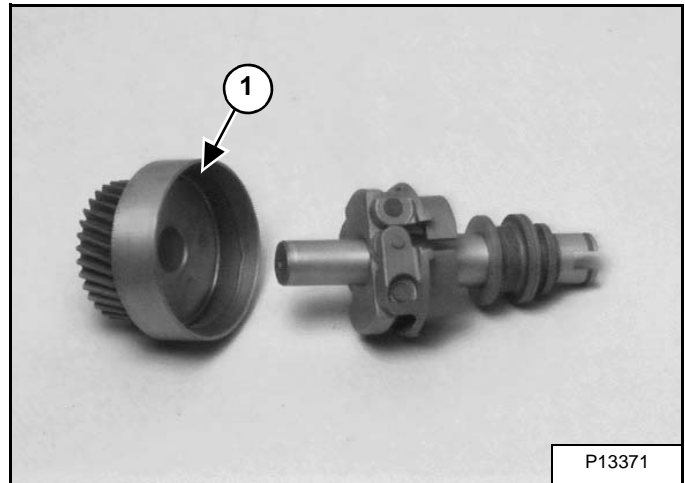
NOTE: The bearing must be driven out toward the front of the block.

Figure 70-70-12



Check the parts from the governor shaft for wear and replace if needed [Figure 70-70-12].

Figure 70-70-13

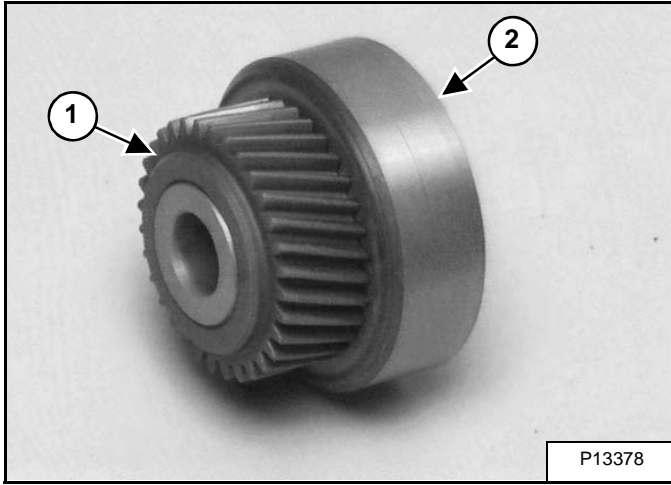


Remove the governor gear holder and governor gear (Item 1) [Figure 70-70-13] from the governor shaft.

FUEL SYSTEM (CONT'D)

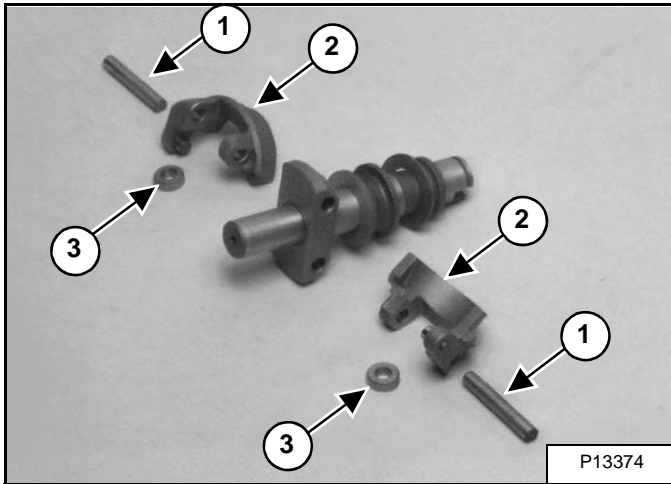
Governor Shaft Removal And Installation (Cont'd)

Figure 70-70-14



Remove the governor gear (Item 1) from the gear holder (Item 2) [Figure 70-70-14].

Figure 70-70-15

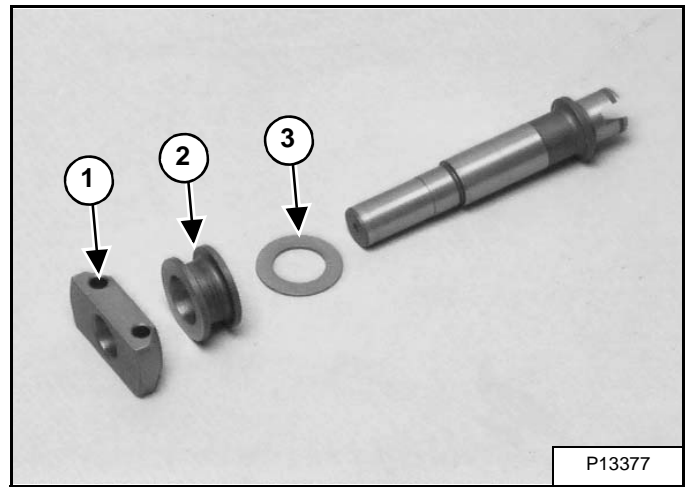


Remove the governor weight shafts (Item 1) from the governor weights (Item 2) [Figure 70-70-15].

Remove the governor weights.

Remove the rollers (Item 3) [Figure 70-70-15] from the governor weights.

Figure 70-70-16



Remove the governor weight holder (Item 1) [Figure 70-70-16] from governor shaft.

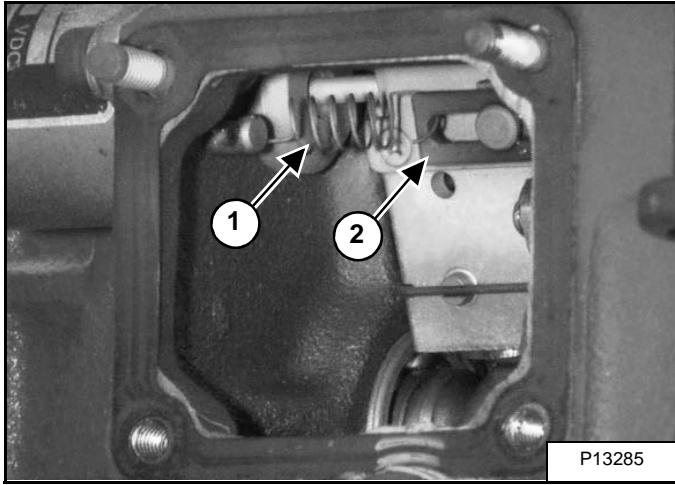
Remove the governor sleeve (Item 2) and thrust washer (Item 3) [Figure 70-70-16] from governor shaft.

Check all parts and replace if needed.

FUEL SYSTEM (CONT'D)

Governor Fork Lever Removal And Installation

Figure 70-70-17

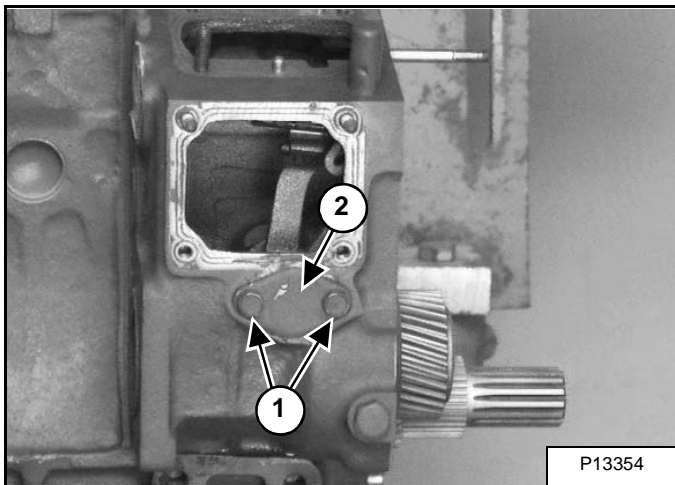


Remove the speed control plate. (See Removal And Installation on Page 70-20-1.)

Remove the fuel injection pump. (See Fuel Injection Pump Removal And Installation on Page 70-70-9.)

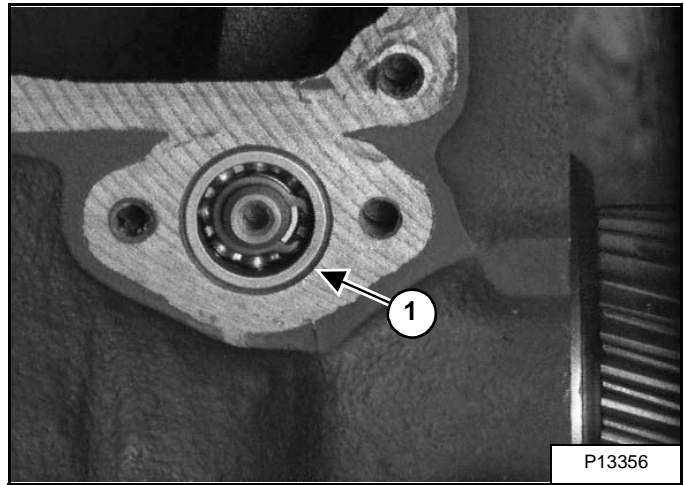
Remove the start spring (Item 1) from the fork compensation lever (Item 2) [Figure 70-70-17].

Figure 70-70-18



Remove the two mounting bolts (Item 1) from fork lever shaft cover (Item 2) [Figure 70-70-18].

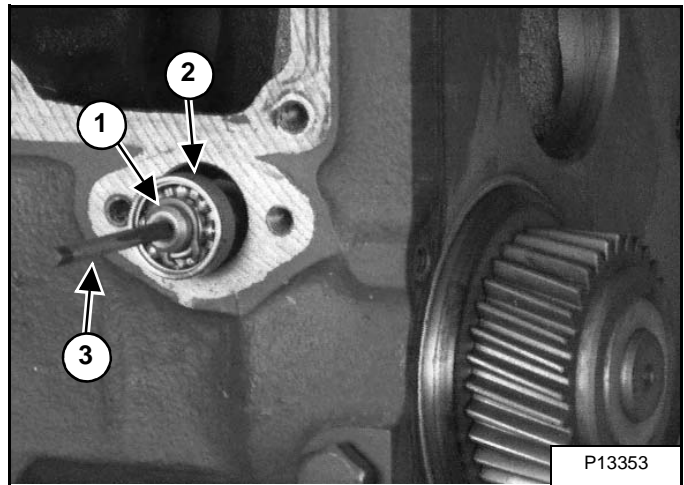
Figure 70-70-19



Remove the fork lever cover and gasket from the block.

Remove the governor fork lever collar (Item 1) [Figure 70-70-19] from the block.

Figure 70-70-20



Remove the governor fork lever shaft (Item 1) and outer bearing (Item 2), using a metric tap (Item 3) [Figure 70-70-20] screwed into the threads of the fork lever shaft for leverage.

Remove the fork compensating lever and fork lever from the block.