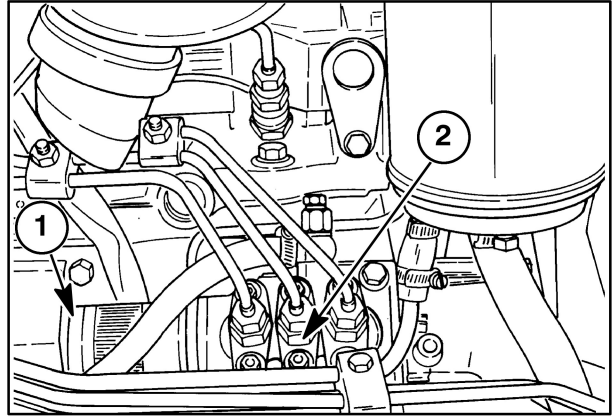


**FUEL SHUTOFF SOLENOID**

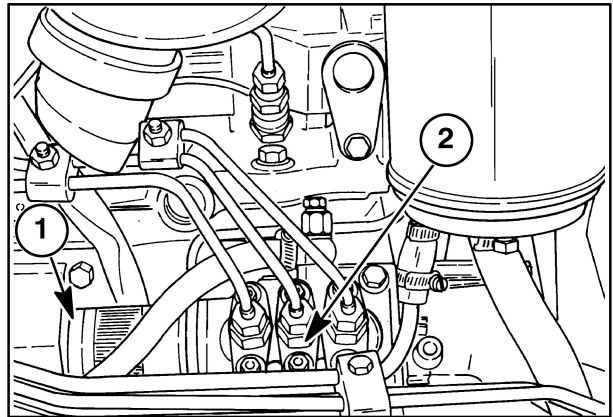
The fuel shutoff solenoid, 1, is located on the right side of the engine, threaded into the rear of the fuel injection pump, 2. The fuel shutoff solenoid contains a spring-loaded plunger that pushes the injection pump control rack to the closed (shut-off) position when the solenoid is not energized. When the key switch is turned to the "ACC/RUN" or "START" position, the safety stop relay closes completing the circuit that energizes the solenoid. This retracts the plunger from the injection pump, and the injection pump control rack moves into the position that allows the engine to start.



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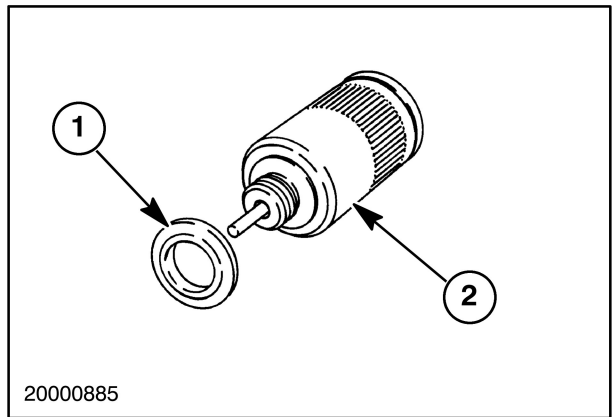
**Removal**

1. Disconnect the negative (-) battery cable from the battery.
2. Disconnect the wiring harness lead from the fuel shutoff solenoid, 1.
3. Using a pair of pliers, carefully remove the fuel shutoff solenoid, 1, from the fuel injection pump, 2.



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4. Remove and discard the sealing washer, 1, which seals the solenoid, 2, to the fuel injection pump.

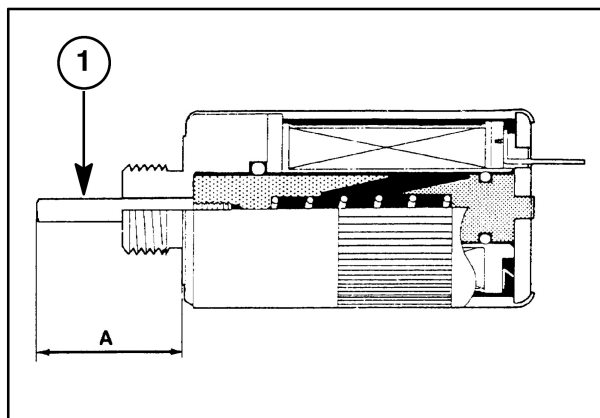


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**Testing**

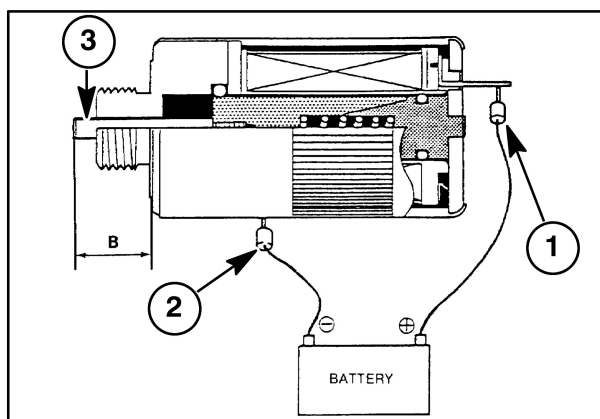
1. Using a suitable measuring device, measure the actuating pin, 1, protrusion distance, "A", on the solenoid. The distance should measure between 25.5 - 26.4 mm (1.004 - 1.040 in.). If the distance is not within these specifications, the solenoid is defective and needs replaced.



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**NOTE:** When connecting the 12-volt power supply to the solenoid body, be sure paint is the removed from the body. Otherwise, the power will not be transferred to the solenoid.

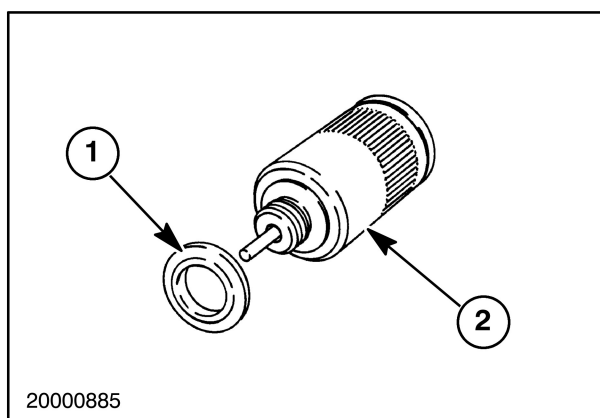
2. Use jumper wires to connect the positive (+) terminal of a 12-volt power supply to the solenoid lead, 1. Connect the negative terminal of the 12-volt power supply to the solenoid body, 2. The plunger should retract into the solenoid body.
3. Using a suitable measuring device, measure the actuating pin, 1, protrusion distance, "B" on the solenoid. The distance should measure between 11.5 - 14.5 mm (0.453 - 0.571 in.). If the distance is not within these specifications or the plunger does not retract, the solenoid is defective and needs replaced.



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**Installation**

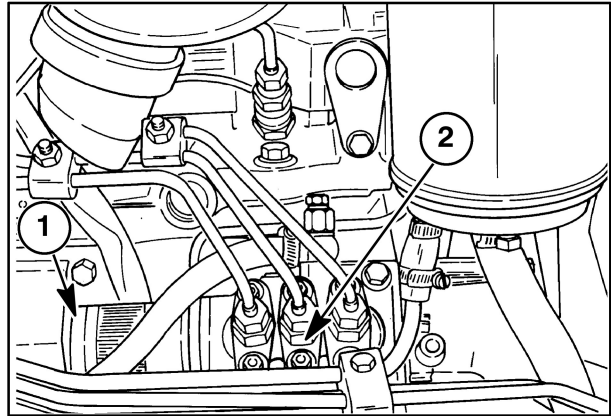
1. Install a new sealing washer, 1, on the solenoid, 2.



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2. Thread the fuel shutoff solenoid, 1, into the fuel injection pump, 2. Use pliers to tighten the solenoid into the injection pump.
3. Connect the wiring harness lead, 3, into the fuel shutoff solenoid, 1.
4. Connect the negative (-) battery cable to the battery.



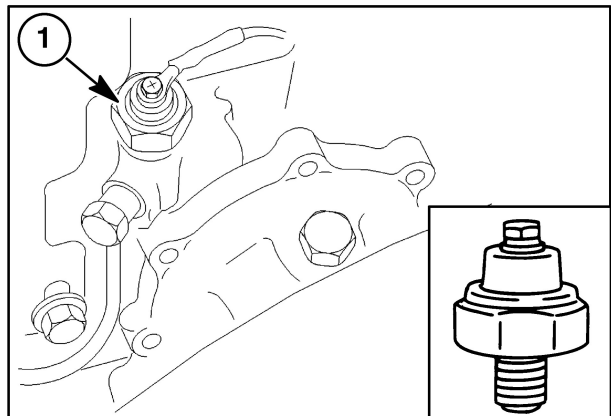
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**Op. 55 414**

**ENGINE OIL PRESSURE SWITCH**

The oil pressure sender, 1, is located on the top front side of the engine. The switch opens under normal oil pressure (above 6 PSI) and closes when oil pressure is low (below 6 PSI) to complete the ground circuit of the oil pressure warning light.

When the ground circuit is completed, the oil pressure warning light illuminates on the instrument panel when the key switch is turned to the "ON" position and goes out when the engine is started. If the light does not go out after the engine has started, first check the engine oil level. If oil level is correct, check for a malfunctioning sender or engine oil pump.



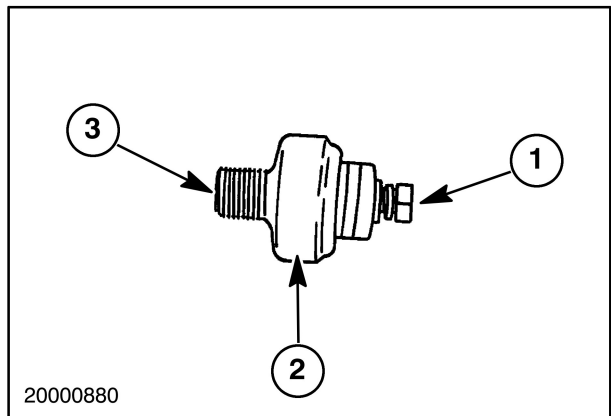
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**Testing**

1. Using an ohmmeter, touch one test lead to the pressure switch terminal, 1, and the other test lead to the switch body, 2.
2. Observe the ohmmeter. There should be little or no resistance, indicating continuity in the switch. If there is no continuity, the switch is defective and needs replaced.

**NOTE:** The following test is not a calibrated test. The purpose of the test is to see if the switch opens at pressure.

1. While the test leads are connected to the switch, pressurize the switch oil pressure port, 3, with low pressure (10-30 psi) compressed air.
2. Observe the ohmmeter. While air pressure is being supplied to the oil pressure port, the ohmmeter should indicate high resistance, or no continuity. If there is continuity, the switch is defective and needs replaced.



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**CAUTION**

**Do not use high pressure compressed air for the following test, otherwise damage may occur to the oil pressure switch.**