

## ENGINE INFORMATION (CONT'D)

### Engine Removal And Installation



P-90328

#### AVOID DEATH

- Disconnecting or loosening any hydraulic tubeline, hose, fitting, component or a part failure can cause lift arms to drop.
- Keep out of this area when lift arms are raised unless supported by an approved lift arm support. Replace if damaged.

D-1009-0409



Never work on a machine with the lift arms up unless the lift arms are secured by an approved lift arm support device. Failure to use an approved lift arm support device can allow the lift arms or attachment to fall and cause injury or death.

W-2059-0598

Put jackstands under the rear corners of the loader.

Raise the lift arms and install an approved lift arm support device. (See Installing on Page 10-20-1.)

Raise the operator cab. (See Raising on Page 10-30-2.)

Drain the hydraulic reservoir. (See Removing And Replacing Hydraulic Fluid on Page 10-120-2.)

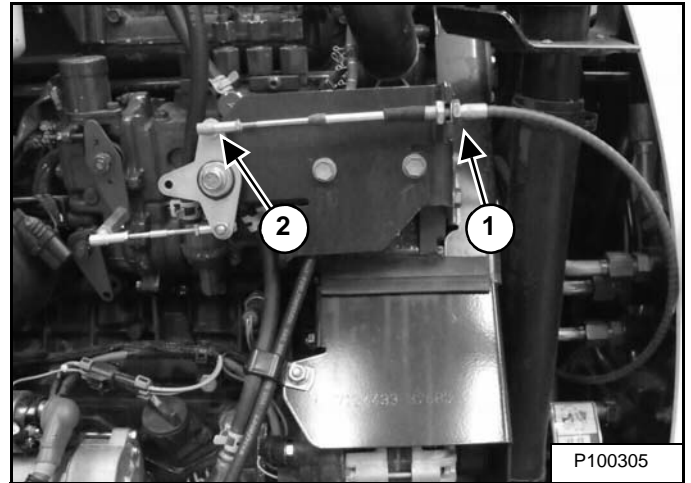
Remove the battery from the loader. (See Removal And Installation on Page 60-20-1.)

Drain the engine coolant from the cooling system. (See Removing And Replacing Coolant on Page 10-90-3.)

**NOTE:** If compressor is being removed for engine removal it is not necessary to remove the A/C hoses. Remove the mounting bolts and belt and reposition the compressor.

Remove the muffler. (See Removal And Installation on Page 70-30-1.)

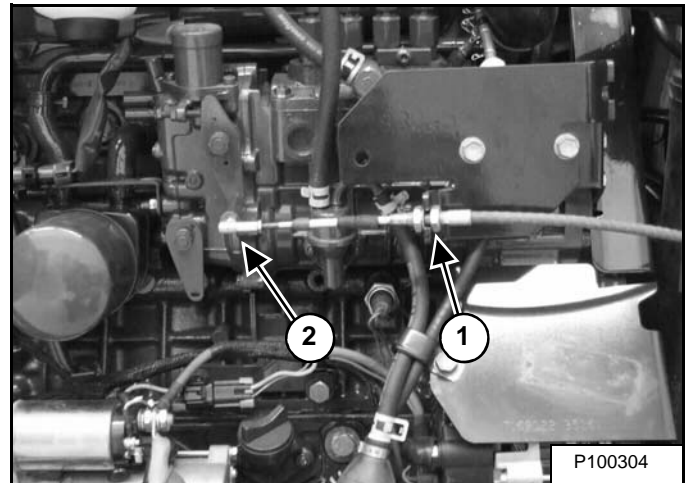
Figure 70-10-2



(SJC Controls Equipped)

Loosen the engine speed control cable adjustment nuts (Item 1) and remove the engine speed control cable from the ball pivot (Item 2). [Figure 70-10-2].

Figure 70-10-3



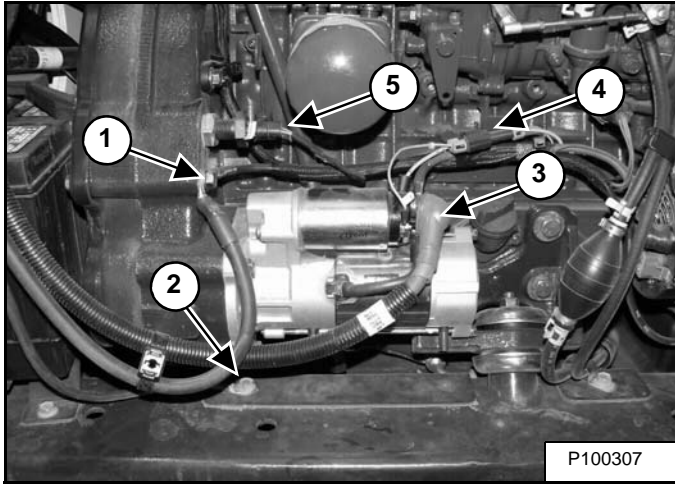
(Manual Controls Equipped)

Loosen the engine speed control cable adjustment nuts (Item 1) and remove the engine speed control cable from the ball pivot (Item 2) [Figure 70-10-3].

## ENGINE INFORMATION (CONT'D)

### Engine Removal And Installation (Cont'd)

Figure 70-10-4



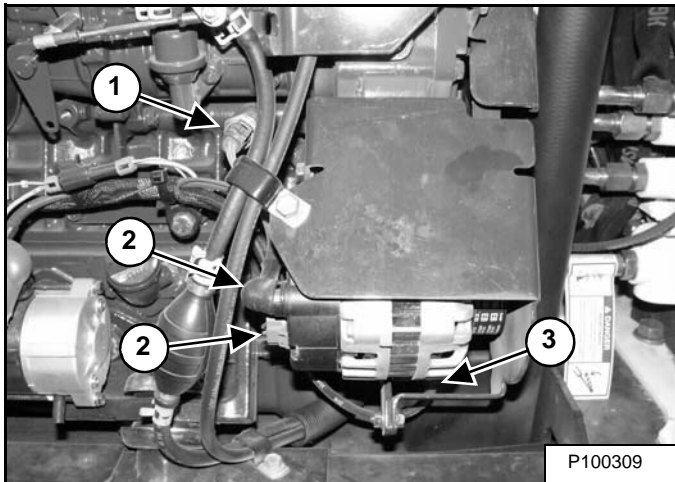
Disconnect engine ground cable (Item 1) and chassis ground cable (Item 2) [Figure 70-10-4].

Disconnect the engine starter positive cable (Item 3) [Figure 70-10-4].

Disconnect the starter wiring harness connector (Item 4) [Figure 70-10-4].

Disconnect flywheel rpm sensor (Item 5) [Figure 70-10-4].

Figure 70-10-5

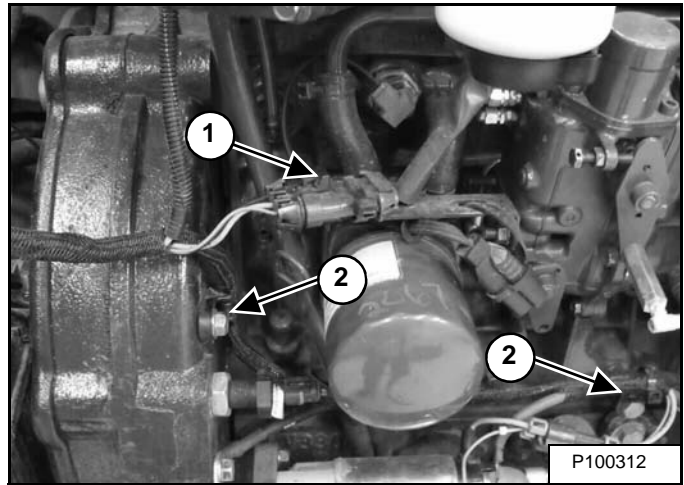


Disconnect engine oil pressure sender connector (Item 1) [Figure 70-10-5].

Disconnect the alternator wiring (Item 2) [Figure 70-10-5].

Disconnect the engine ground cable (Item 3) [Figure 70-10-5].

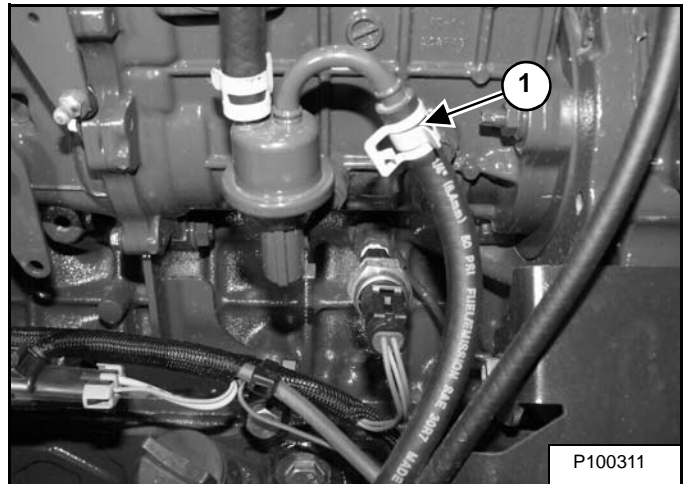
Figure 70-10-6



Disconnect fuel shut-off solenoid connector (Item 1) [Figure 70-10-6].

Remove the bolts for the wiring harness hold down clamps (Item 2) [Figure 70-10-6].

Figure 70-10-7



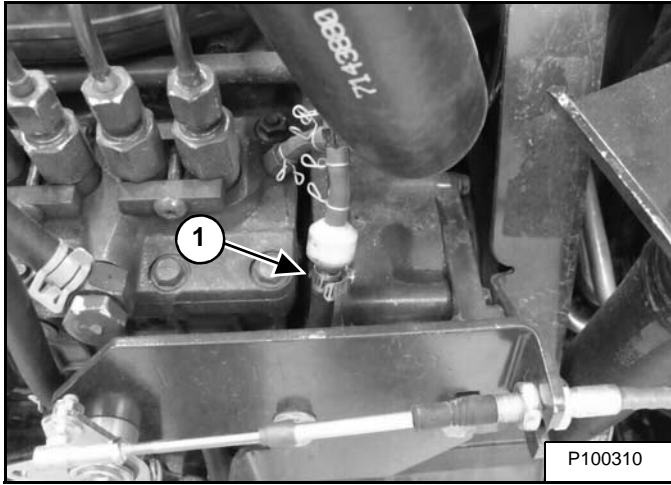
Disconnect fuel line (Item 1) [Figure 70-10-7] for lift pump and plug.

Throttle cable bracket removed for photo clarity.

## ENGINE INFORMATION (CONT'D)

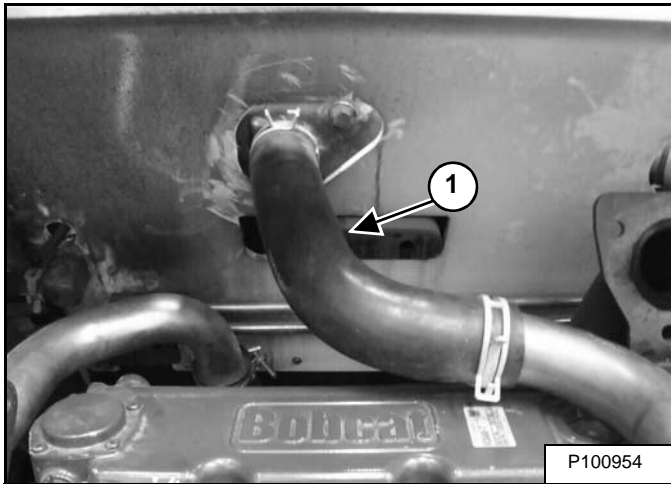
### Engine Removal And Installation (Cont'd)

Figure 70-10-8



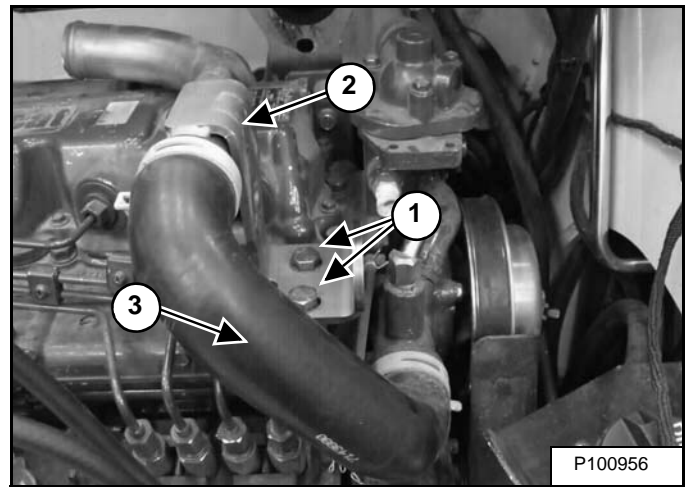
Disconnect and plug fuel return line (Item 1) [Figure 70-10-8].

Figure 70-10-9



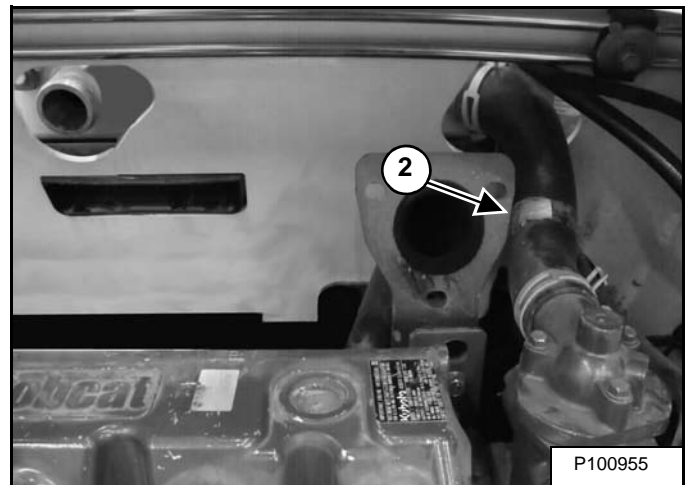
Disconnect radiator hose (Item 1) [Figure 70-10-9].

Figure 70-10-10



Remove the two bolts (Item 1), coolant tube assembly (Item 2) and hose (Item 3) [Figure 70-10-10].

Figure 70-10-11



Disconnect radiator hose (Item 1) [Figure 70-10-11] from the thermostat housing.