

Previous Screen

< Product: GEN SET ENGINE
 Model: 3408 GEN SET ENGINE 78Z
 Configuration: 3408B Generator Set 78Z01144-04866

Disassembly and Assembly 3408 & 3412 GENERATOR SET ENGINES

Media Number -SENR2565-00

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Fuel Injection Pump Housing And Governor

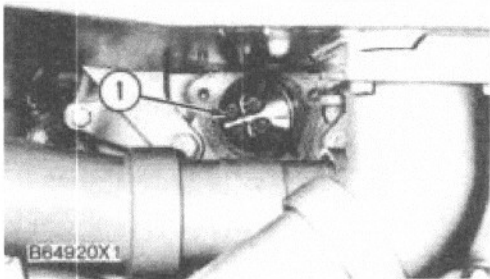
SMCS - 1268-11; 1268-12

Remove Fuel Injection Pump Housing And Governor

Tools Needed		A
6V2156	Link Bracket	2

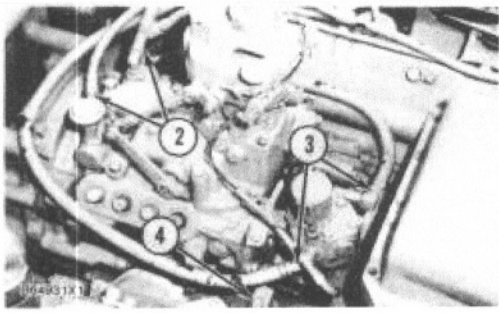
START BY:

a) remove fuel injection lines



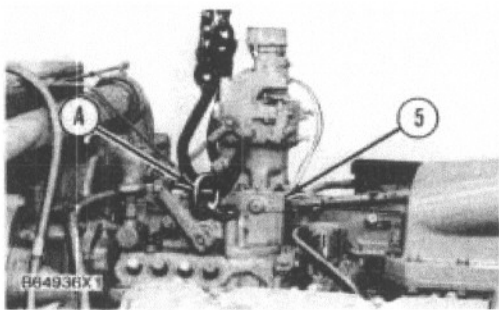
NOTE: The removal and installation of fuel injection pump housings on all 3408 and 3412 Generator Sets are similar so only one will be shown.

1. Remove the cover in front of the automatic timing advance. Remove four bolts (1) that hold the automatic timing advance to the fuel injection pump housing.



2. Disconnect two fuel lines (2) and two fuel lines (3) from the fuel transfer pump.

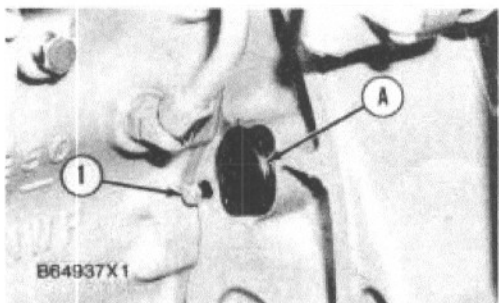
3. Remove brackets (4) from both sides of the fuel injection pump housing. Remove the bolts that hold the fuel injection pump housing to the cylinder block.



4. Install tooling (A). Remove fuel injection pump housing and governor (5) from the engine. The weight of the fuel injection pump housing and governor for a 3408 Generator Set is approximately 50 kg (110 lb.). The weight of a fuel injection pump housing for a 3412 Generator Set is approximately 57 kg (125 lb.).

Install Fuel Injection Pump Housing And Governor

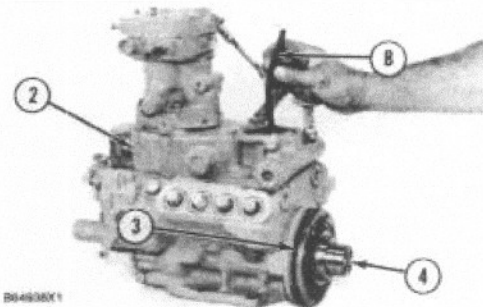
Tools Needed		A	B	C
9S9082	Engine Turning Tool	1		
5P9697	Timing Pin		1	
6V2156	Link Bracket			2



1. Remove the cover and the plug from the flywheel housing and install tool (A). Turn tooling (A) in a clockwise direction until the flywheel moves approximately 30°.
2. Turn tool (A) in a counterclockwise direction until timing bolt (1) can be installed in the flywheel.

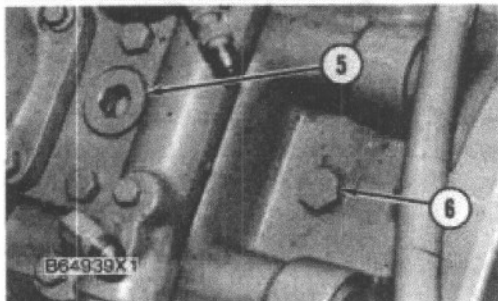
NOTE: Timing bolt (1) is one of the bolts that holds the cover in position on the flywheel housing.

NOTE: Use the following method to make sure the No. 1 cylinder is at top dead center (TDC) on the compression stroke. Remove the valve cover over the No. 1 cylinder. If the rocker arms for the intake and exhaust valves are free to move, the No. 1 cylinder is at top dead center (TDC) on the compression stroke. Install the valve cover.



NOTE: Step 3 is for fuel injection pump housings that hold a Woodward PSG governor.

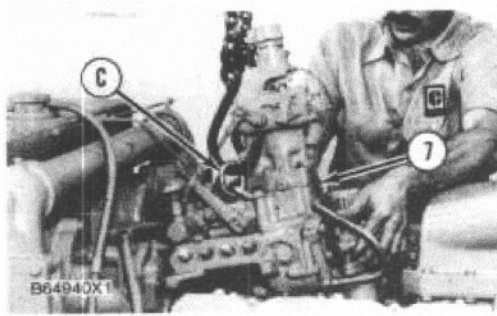
3. Remove the cover from the top of drive group (2). Turn camshaft (4) until tool (B) can be installed in the groove (slot) in the camshaft.
4. Make sure O-ring seal (3) is in position on the front of the fuel injection pump housing. Put clean engine oil on the seal.



Typical Example

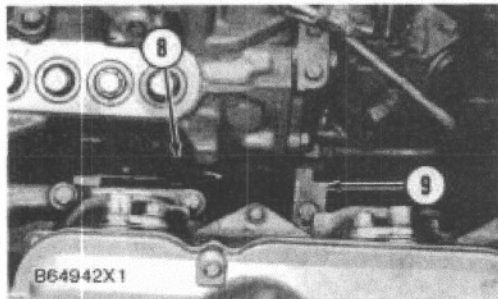
NOTE: Step 5 is for fuel injection pump housings that have a dashpot governor.

5. On 3408 Generator Sets with dashpot governors, remove plug (5) and install tool (B). On 3412 Generator sets, remove plug (6) and install tool (B).



6. Install tooling (C) to the fuel injection pump housing and governor. Install fuel injection pump housing and governor (7) on the engine. The weight of the fuel injection pump housing and governor for a 3408 Generator Set is approximately 50 kg (110 lb.). The weight of a fuel injection pump housing and governor for a 3412 Generator Set is approximately 57 kg (125 lb.).

NOTE: Make sure the camshaft on the fuel injection pump housing is in position in the automatic timing advance.

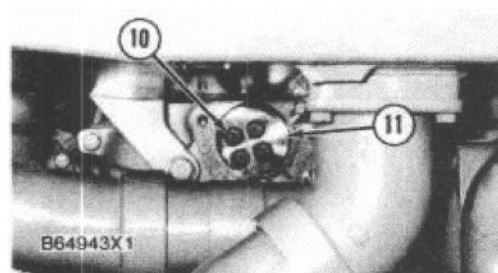


7. Install four bolts (8) that hold the fuel injection pump housing in position on the cylinder block.

8. Put clean engine oil on the threads of the bolts that hold brackets (9) on the cylinder head. Install brackets (9). Tighten the bolts finger tight.

NOTE: There is a bracket (9) on each side of the fuel injection pump housing.

9. Tighten the bolt that holds bracket (9) to the fuel injection pump housing to a torque of 45 ± 7 N·m (33 ± 5 lb.ft.). Tighten the bolts that hold brackets (9) to the cylinder head to a torque of 45 ± 7 N·m (33 ± 5 lb.ft.).

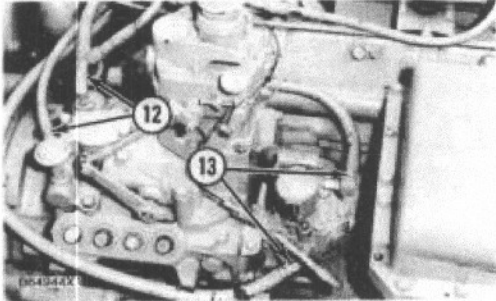


10. Install retainer (11) and bolts (10). Tighten bolts (10) to a torque of 27 N·m (20 lb.ft.). Tighten bolts (10) again to a final torque of 136 ± 7 N·m (100 ± 5 lb.ft.).

11. Remove the timing bolt from the flywheel housing and tool (B) from the fuel injection pump housing. Turn the flywheel two complete revolutions with tool (A) and install the timing bolt in the flywheel housing and tool (B) in the fuel injection pump housing. If both the timing bolt and tool (B) can be installed, the engine has the correct timing.

12. If the timing bolt and tool (B) can not be installed, repeat Steps 2, 3, 5, 10 and 11.

13. Install the front cover on the automatic timing advance housing.



14. Connect fuel lines (12) and (13).

END BY:

a) install fuel injection lines