



# Service Repair Manual

## **Models**

# 5080 FRONT SHOVEL

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Product: FRONT SHOVEL

Model: 5080 FRONT SHOVEL 8SL

Configuration: 5080 Excavator 8SL00001-UP (MACHINE) POWERED BY 3406B Engine

## Disassembly and Assembly 3406C DIESEL ENGINES FOR CATERPILLAR BUILT MACHINES

Media Number -SEN6409-02

Publication Date -01/07/2006

Date Updated -19/05/2015

SEN64090025

### Fuel Injection Nozzles & Adapters

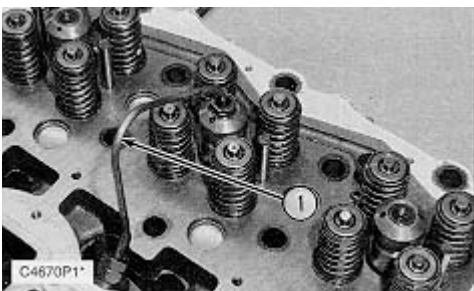
SMCS - 1106-010; 1254

### Remove & Install Fuel Injection Nozzles & Adapters

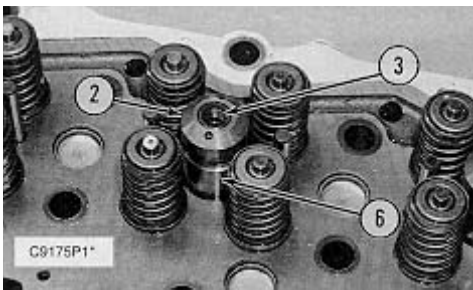
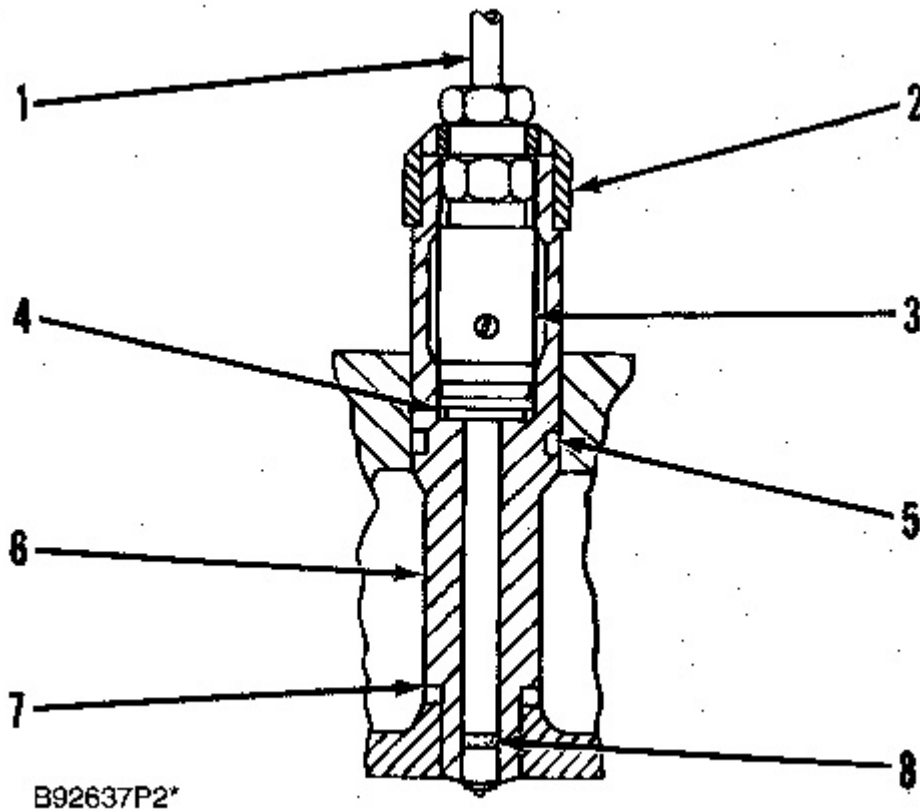
Tools Needed		A	B	C	D	E	F
5P0144	Socket	1					
8T3139	Spanner Wrench		1				
8T3198	Tube			1			
8T3199	Screw			1			
6V6983	Adapter			1			
1B4206	Nut			1			
8T3201	Wrench				1		
6V4089	Reamer					1	
6V4979	Carbon Stop Seal Tool*						1

Start By:

a. remove valve covers



1. Use Tool (A) and disconnect fuel line (1) at each end. Remove the fuel line from the engine.



2. Use Tool (B) and remove retainer (2) from the adapter.

3. Remove the fuel injection nozzles with Tool (C) as follows:

a. Install the **6V6983 Adapter** and the **8T3199 Screw** into nozzle assembly (3).

b. Install the **8T3198 Tube** over the **8T3199 Screw**.

c. Use the **1B4206 Nut** on the **8T3199 Screw** to pull the fuel injection nozzle (3).

4. Remove compression seal (4) and carbon dam seal (8) from fuel injection nozzle (3).

5. Use Tool (D) and remove adapter (6) from the cylinder head.

6. Remove gasket (7) and seal (5) from adapter (6).

**NOTE:** The following steps are for the installation of the fuel injection nozzles and adapters.

7. Use Tool (E) to clean the bore in adapter (6). Use an open end wrench or tap driver to turn Tool (E).
8. Inspect seal (5) for damage or wear. Replace the seal if necessary.
9. Put washer (7) and seal (5) in position on adapter (6).
10. Put liquid soap in the bores of the cylinder head and on seals (5) in the adapters.
11. Put **5P3931 Anti-Seize Compound** on the threads of adapter (6) and install the adapter in the cylinder head assembly.
12. Use Tool (D) and tighten the adapter to a torque of **205 ± 14 N·m (150 ± 10 lb ft)**.

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## NOTICE

**Make sure the correct compression seal washer (4) is used when the nozzle assembly is installed in the adapter. Only copper washers are to be used with this adapter.**

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13. Install compression seal washer (4) and use Tool (F) to install carbon dam seal (8) on the fuel injection nozzle.
14. Put fuel injection nozzle (3) in position in the adapter and install retainer (2).
15. Use Tool (B) to tighten retainer (2) to a torque of **48 ± 7 N·m (35 ± 5 lb ft)**.
16. Install fuel line (1). Tighten the nuts on the fuel line with Tool (A) to a torque of **40 ± 7 N·m (30 ± 5 lb ft)**.

End By:

- a. install valve covers

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Media Number -SEN6409-02

Publication Date -01/07/2006

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SEN64090026

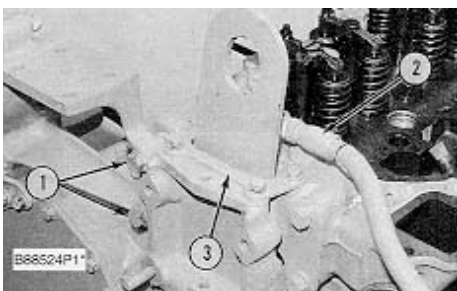
### Cylinder Head Assembly

SMCS - 1100-011; 1100-012

### Remove Cylinder Head Assembly

Start By:

- a. remove rocker shaft assemblies and push rods
- b. remove water temperature regulator
- c. remove aftercooler housing
- d. remove fuel injection lines
- e. remove exhaust manifold



Typical Example

1. Remove bolts (1) from the alternator bracket.
2. Remove the bolts that hold plate (3) and remove the plate.
3. Disconnect water line (2) from the air compressor.

**NOTE:** Turn the water line tee toward the lifting bracket in order to provide clearance to remove the head bolt.

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