

Product: EXCAVATOR

Model: 320C EXCAVATOR HBC

Configuration: 320C Excavators HBC00001-UP (MACHINE) POWERED BY 3066 Engine

## **Disassembly and Assembly 3064 and 3066 Engines for Caterpillar Built Machines**

Media Number -SEN5553-10

Publication Date -01/05/2012

Date Updated -15/05/2012

i01565021

# **Fuel Injection Lines - Remove and Install**

SMCS - 1252-010

## **Removal Procedure**

### **Start By:**

- A. Remove the fuel filter base. Refer to Disassembly and Assembly, "Fuel Filter Base - Remove and Install".

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### **NOTICE**

**Keep all parts clean from contaminants.**

**Contaminants may cause rapid wear and shortened component life.**

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### **NOTICE**

**Care must be taken to ensure that fluids are contained during performance of inspection, maintenance, testing, adjusting and repair of the product. Be prepared to collect the fluid with suitable containers before opening any compartment or disassembling any component containing fluids.**

**Refer to Special Publication, NENG2500, "Caterpillar Tools and Shop Products Guide" for tools and supplies suitable to collect and contain fluids on Caterpillar products.**

**Dispose of all fluids according to local regulations and mandates.**

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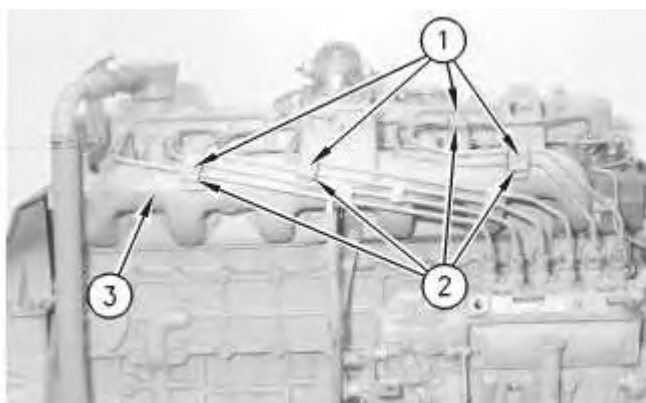


Illustration 1

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The 3066 Engine is shown.

1. Remove the bolts (1), the washers, and the clamps (2), which secure the fuel lines to the inlet manifold (3) .

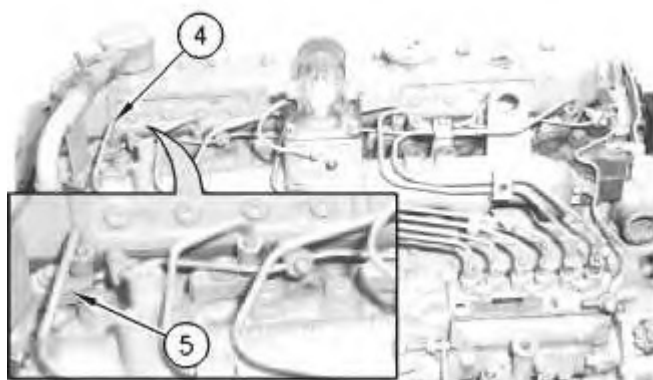


Illustration 2

g00606310

2. Disconnect the fuel injection lines (4) from the fuel injection nozzles (5) .

**Note:** Cap all openings or plug all openings immediately in order to prevent contamination of the fuel system.

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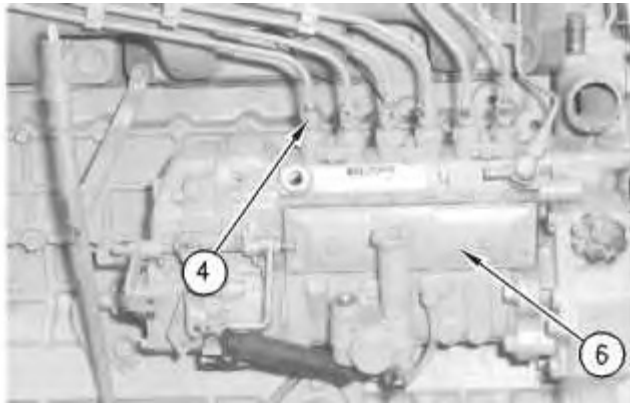


Illustration 3

g00606314

Fuel injection pump for a 3066 Engine

3. Disconnect the end of the fuel injection lines (4) from the fuel injection pump (6) .

**Note:** Cap all openings or plug all openings immediately in order to prevent contamination of the fuel system.

4. Remove the fuel injection lines (4) from the engine.

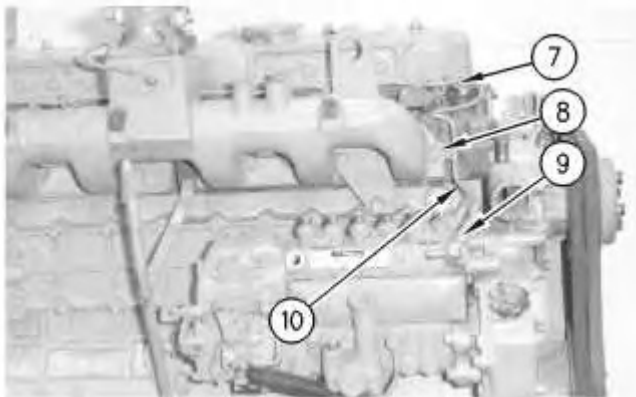


Illustration 4

g00606317

5. Loosen the acorn nuts (7), which secure the fuel return line to the fuel injection nozzles.
6. Remove one bolt (8) and the washer from the clamp that secures the fuel return line to the intake manifold.

**Note:** The clamp will remain with the fuel return line, when the fuel return line is removed from the engine.

7. Disconnect fitting (9). Remove fuel return line (10) from the engine.

**Note:** Cap all openings or plug all openings immediately in order to prevent contamination of the fuel system.

# Installation Procedure

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## NOTICE

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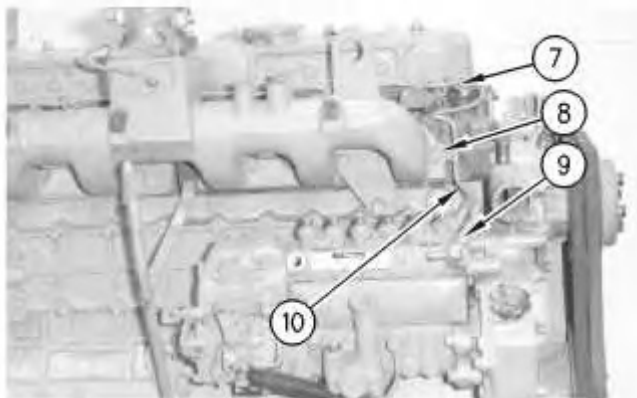
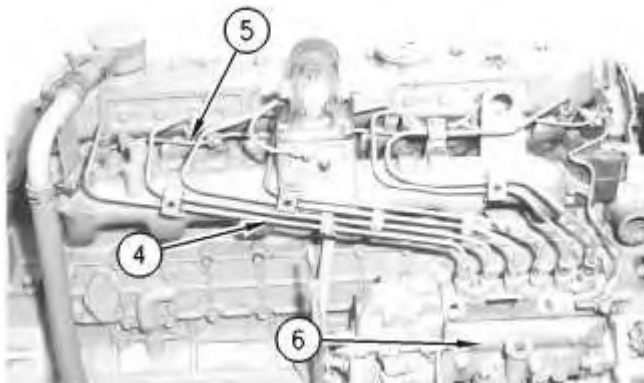


Illustration 5

g00606317

1. Place the fuel return line (10) in position on the engine. Connect fitting (9) of the fuel return line to the fuel injection pump.
2. Install the washer and bolt (8) through the clamp in order to secure the fuel return line to the inlet manifold.
3. Install the fuel return line (10) to the fuel injection nozzles. Secure the fuel return line to the fuel injection nozzle with acorn nuts (7) .



## Fuel injection pump for a 3066 Engine

4. Place the fuel injection lines (4) on the engine.
5. Connect the fuel injection lines (4) to the fuel injection pump (6) .
6. Connect the fuel injection lines (4) to the fuel injection nozzles (5) .

**Note:** The fuel lines (4) should be connected at the fuel injection nozzle (5) and at the fuel injection pump (6) before tightening the nuts for the fuel injection line.

7. Tighten the nuts for the fuel injection line to a torque of 25 N·m (18 lb ft).

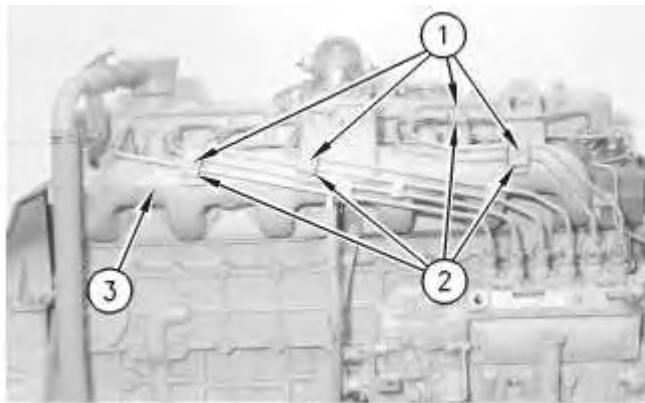


Illustration 7

g00606301

## Fuel lines for a 3066 Engine

8. Install the clamps (2), the washers, and the bolts (1), which secure the fuel lines to the inlet manifold (3) .

**End By:** Install the fuel filter base. Refer to Disassembly and Assembly, "Fuel Filter Base - Remove and Install".

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i01151321

## Fuel Injection Nozzles - Remove

SMCS - 1254-011

## Removal Procedure

Table 1

Required Tools			
Tool	Part Number	Part Description	Qty
A	1U-7600	Slide Hammer Puller	1
B	9U-6278	Adapter	1

### Start By:

- Remove the fuel injection lines. Refer to Disassembly and Assembly, "Fuel Injection Lines - Remove and Install".

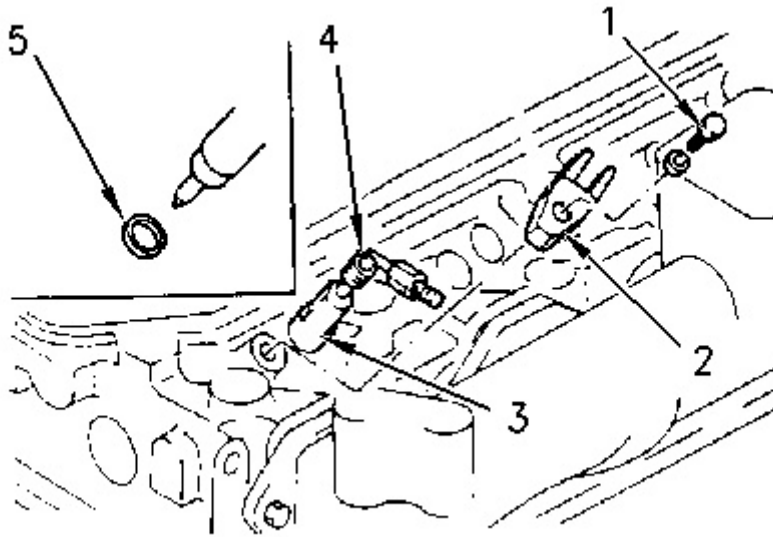
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### NOTICE

**Keep all parts clean from contaminants.**

**Contaminants may cause rapid wear and shortened component life.**

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Illustration 1

g00652319

1. Remove bolt (1) and the washer that secures the clamp (2) to the cylinder head assembly.
2. Remove the clamp (2) that secures the fuel injection nozzle (3) in position in the cylinder head assembly.

**Note:** Put caps or plugs on all openings immediately in order to prevent contamination in the fuel system.

**Note:** Mark the clamp for later installation.

3. Install Tool (B) (not shown) to the fuel injection nozzle.

**Note:** Tool (B) is installed at the connection (4) for the fuel injection lines.

4. Connect Tool (A) (not shown) to Tool (B) in order to carefully remove fuel injection nozzle (3) .

**Note:** Align the centerline of Tool (A) with the extended centerline of fuel injection nozzle (3). This procedure will help prevent distortion of the fuel injection nozzle which can cause the fuel injection nozzle to bend or break.

5. Remove the seat washer from the fuel injection nozzle.
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# Fuel Injection Nozzles - Install

SMCS - 1254-012

## Installation Procedure

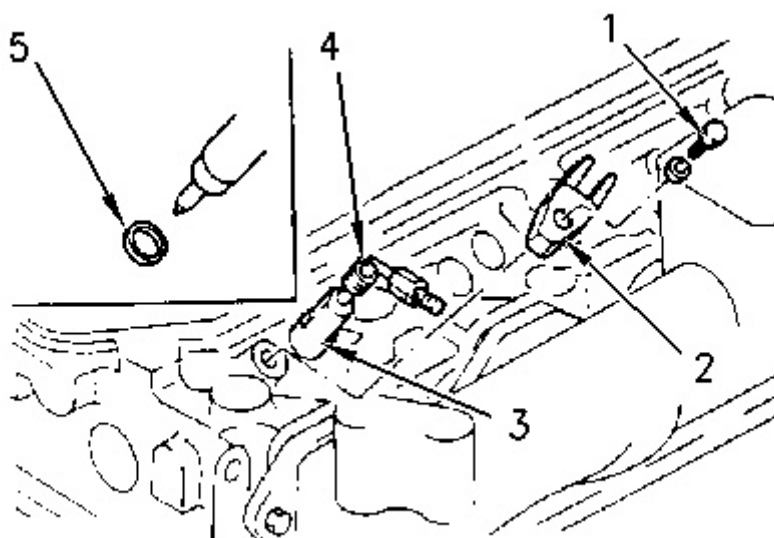
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### NOTICE

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Illustration 1

g00652319



1. Install a new seat washer (5) .
2. Install fuel injection nozzle (3).
3. Install clamp (2), the washer, and bolt (1) that secures the fuel injection nozzle to the cylinder head assembly.
4. Tighten bolt (1), that secures the fuel injection nozzle, to a torque of 22 N·m (16 lb ft).

**End By:** Install the fuel injection lines. Refer to Disassembly and Assembly, "Fuel Injection Lines - Remove and Install".

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