



Service Repair Manual

Models

329D L and 329D LN Excavator

Previous Screen

Product: EXCAVATOR

Model: 329D LN EXCAVATOR SCY

Configuration: 329D L & 329D LN Excavator SCY00001-UP (MACHINE) POWERED BY C7 Engine

Disassembly and Assembly

C7

Engines for Caterpillar Built Machines

Media Number -REN9218-13

Publication Date -01/06/2014

Date Updated -04/06/2014

i02228289

Inlet and Exhaust Valves - Remove and Install

SMCS - 1105-010

Removal Procedure

Table 1

Required Tools			
Tool	Part Number	Part Description	Qty
A	5S-1330	Valve Spring Compressor	1

Start By:

- a. Remove the cylinder head assembly. Refer to Disassembly and Assembly, "Cylinder Head - Remove".

NOTICE

Keep all parts clean from contaminants.

Contaminants may cause rapid wear and shortened component life.

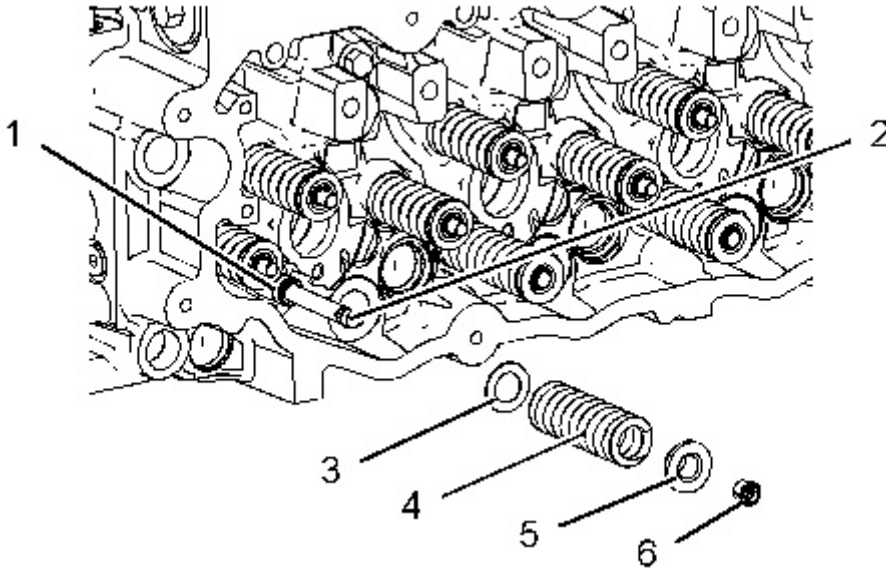


Illustration 1

g01127720

⚠ WARNING

The valve spring keepers can be thrown from the valve when the valve spring compressor is released. Ensure that the valve spring keepers are properly installed on the valve stem. To help prevent personal injury, keep away from the front of the valve spring keepers and valve springs during the installation of the valves.

Note: The following components of the exhaust valves are different from the components of the inlet valves: spring retainer (5), valve spring (4) and valve (2).

1. Use Tooling (A) to compress valve spring (4). Remove retainer locks (6).
2. Remove Tooling (A). Remove spring retainer (5), valve spring (4), and washer (3).
3. Remove valve seal (1) and valve (2).

Installation Procedure

Table 2

Required Tools			
Tool	Part Number	Part Description	Qty
A	5S-1330	Valve Spring Compressor	1

NOTICE

<https://www.ebooklibonline.com>

Hello dear friend!

Thank you very much for reading.

Enter the link into your browser.

The full manual is available for immediate download.

<https://www.ebooklibonline.com>

Keep all parts clean from contaminants.

Contaminants may cause rapid wear and shortened component life.

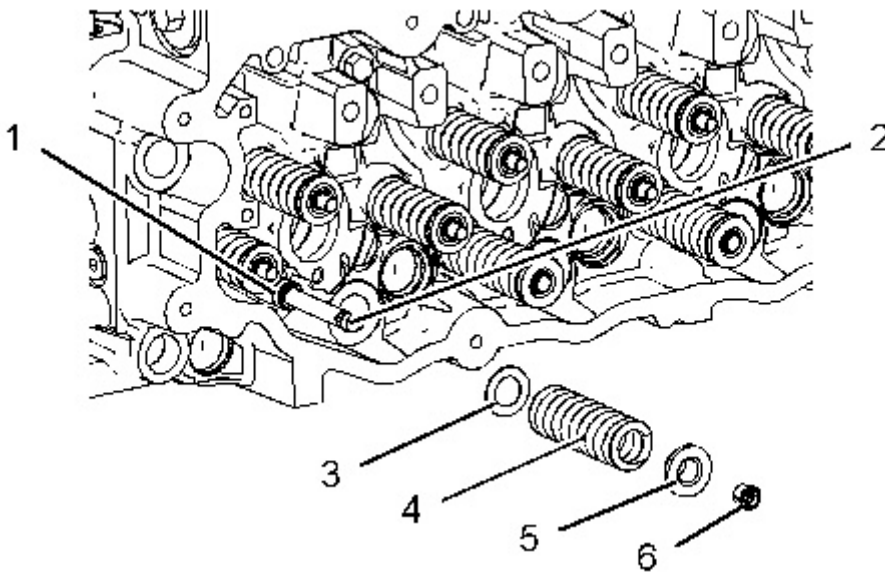


Illustration 2

g01127720

⚠ WARNING

Improper assembly of parts that are spring loaded can cause bodily injury.

To prevent possible injury, follow the established assembly procedure and wear protective equipment.

1. Lubricate valve (2) with clean engine oil. Install valve (2) in the cylinder head assembly. Install new valve seal (1) against the valve guide.
2. Place the following items on the valve stem: washer (3), valve spring (4) and spring retainer (5).

Note: A small amount of grease can be used to hold the retainer locks in position during installation.

3. Use Tooling (A) to compress valve spring (4). Install retainer locks (6).

End By:

- a. Install the cylinder head assembly. Refer to Disassembly and Assembly, "Cylinder Head - Install".

[Copyright 1993 - 2020 Caterpillar Inc.](#)

Thu Apr 23 13:20:05 UTC+0800 2020

[All Rights Reserved.](#)

[Private Network For SIS Licensees.](#)

Previous Screen

Product: EXCAVATOR

Model: 329D LN EXCAVATOR SCY

Configuration: 329D L & 329D LN Excavator SCY00001-UP (MACHINE) POWERED BY C7 Engine

Disassembly and Assembly

C7

Engines for Caterpillar Built Machines

Media Number -REN9218-13

Publication Date -01/06/2014

Date Updated -04/06/2014

i06201017

Inlet and Exhaust Valve Guides - Remove and Install

SMCS - 1104-010

Removal Procedure

Table 1

Required Tools			
Tool	Part Number	Part Description	Qty
A	1U-7793	Valve Guide Driver	1
B	9U-6895	Valve Guide Driver	1

Start By:

- A. Remove the inlet and exhaust valves. Refer to Disassembly and Assembly, "Inlet and Exhaust Valves - Remove and Install".

NOTICE

Keep all parts clean from contaminants.

Contaminants may cause rapid wear and shortened component life.

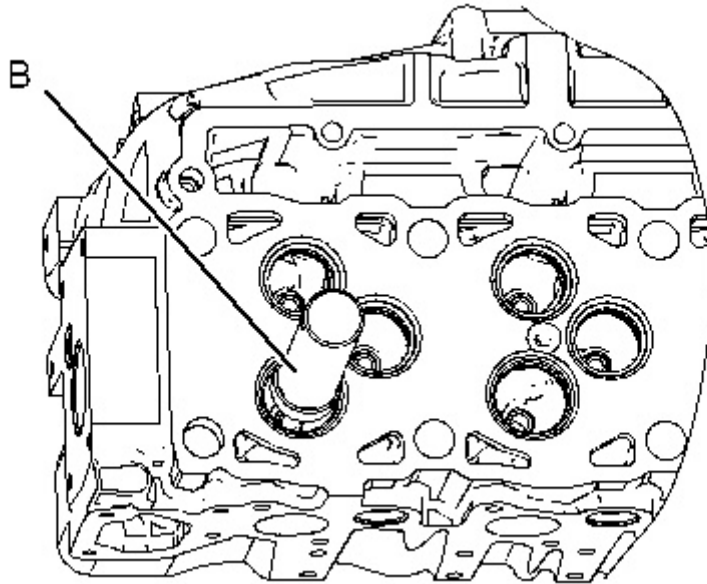


Illustration 1

g01124395

1. Use Tooling (A) to remove the inlet valve guides from the cylinder head assembly. Use Tooling (B) to remove the exhaust valve guides from the cylinder head assembly.

Installation Procedure

Table 2

Required Tools			
Tool	Part Number	Part Description	Qty
A	1U-7793	Valve Guide Driver	1
B	9U-6895	Valve Guide Driver	1
C	1U-7792	Guide Collar	1
D	149-4008	Guide Collar	1

NOTICE

Keep all parts clean from contaminants.

Contaminants may cause rapid wear and shortened component life.

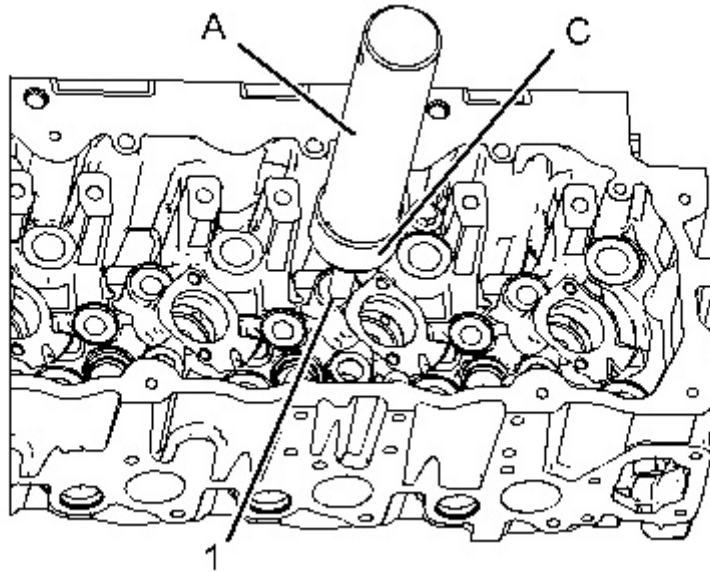


Illustration 2

g01124397

Note: Position the valve guides and tap on the top of the valve guides in order to start the valve guides into the cylinder head assembly.

1. Use Tooling (A) and Tooling (C) to install inlet valve guides (1) . Install inlet valve guides (1) until the protrusion is 23.0 ± 0.50 mm (0.90 ± 0.020 inch) above the cylinder head assembly.
2. Use Tooling (B) and Tooling (D) to install the exhaust valve guides. Install the exhaust valve guides until the protrusion is 24.05 ± 0.5 mm (1.0 ± 0.02 inch) above the cylinder head assembly.

End By: Install the inlet and exhaust valves. Refer to Disassembly and Assembly, "Inlet and Exhaust Valves - Remove and Install".

Previous Screen

Product: EXCAVATOR

Model: 329D LN EXCAVATOR SCY

Configuration: 329D L & 329D LN Excavator SCY00001-UP (MACHINE) POWERED BY C7 Engine

Disassembly and Assembly

C7

Engines for Caterpillar Built Machines

Media Number -REN9218-13

Publication Date -01/06/2014

Date Updated -04/06/2014

i02954230

Inlet and Exhaust Valve Seat Inserts - Remove and Install

SMCS - 1103-010

Removal Procedure

Table 1

Required Tools			
Tool	Part Number	Part Description	Qty
A ⁽¹⁾	6V-4194	Valve Seat Extractor ⁽²⁾	1
	165-5647	Valve Seat Extractor ⁽³⁾	1
	6V-4804	Handle	1
	6V-4192	Shaft	1
	6V-4199	Lifting Bracket	1

⁽¹⁾ Part of the **166-7441** Valve Seat Extractor Tool Group

⁽²⁾ Use for removal of the exhaust valve seats

⁽³⁾ Use for removal of the inlet valve seats

Start By:

- a. Remove the inlet and exhaust valves. Refer to Disassembly and Assembly, "Inlet and Exhaust Valves - Remove and Install".

NOTICE

Keep all parts clean from contaminants.

Contaminants may cause rapid wear and shortened component life.

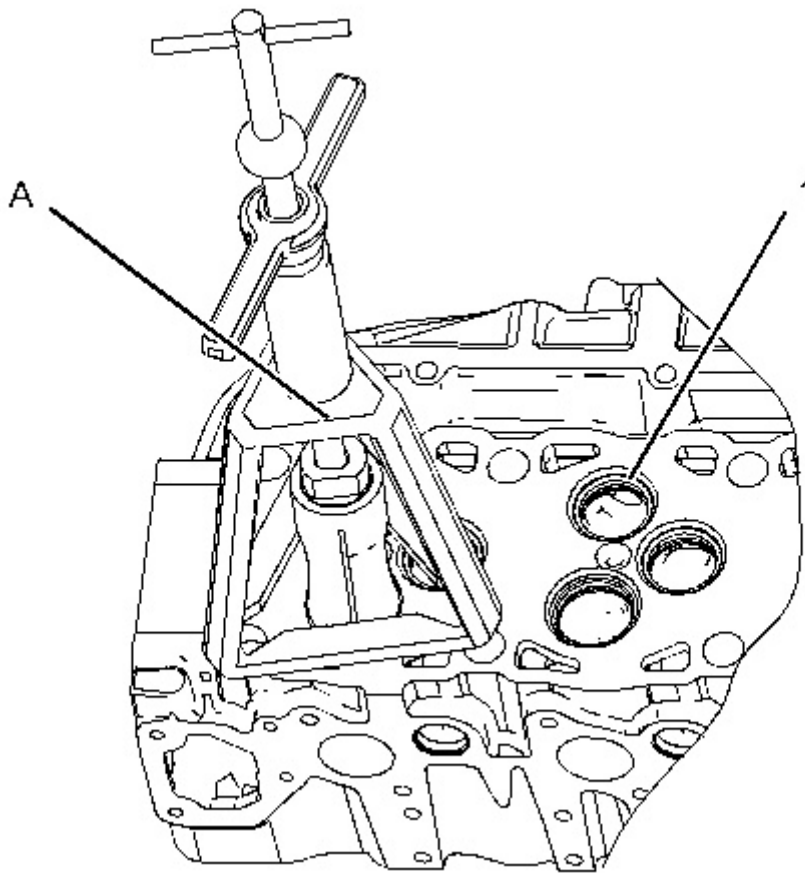


Illustration 1

g01124436

1. Use Tooling (A) to remove valve seat inserts (1).

Installation Procedure

Table 2

Required Tools			
Tool	Part Number	Part Description	Qty
B	149-6115	Installer	1
	133-9306	Valve Guide	1

NOTICE

Keep all parts clean from contaminants.

Contaminants may cause rapid wear and shortened component life.

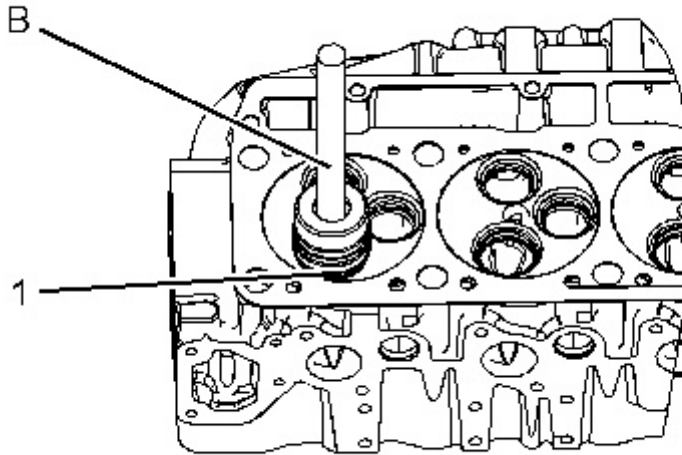


Illustration 2

g01475612

1. Lower the temperature of new valve seat inserts (1).
2. Use Tooling (B) and a suitable press to install the new valve seat inserts in the cylinder head.

Note: Do not machine the prefinished valve seat inserts in order to correct the valve stem projection. An excessive valve stem projection indicates that the valve seat insert is not seated or material was not cleaned from the bottom of the counterbore.

End By:

- a. Install the inlet valves and exhaust valves. Refer to Disassembly and Assembly, "Inlet and Exhaust Valves - Remove and Install".

[Previous Screen](#)

Product: EXCAVATOR

Model: 329D LN EXCAVATOR SCY

Configuration: 329D L & 329D LN Excavator SCY00001-UP (MACHINE) POWERED BY C7 Engine

Disassembly and Assembly

C7

Engines for Caterpillar Built Machines

Media Number -REN9218-13

Publication Date -01/06/2014

Date Updated -04/06/2014

i02301129

Engine Oil Filter Base and Oil Cooler - Remove

SMCS - 1306-011; 1378-012

Removal Procedure

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.

NOTICE

Keep all parts clean from contaminants.

Contaminants may cause rapid wear and shortened component life.

Remote Mounted Engine Oil Filter Base

Table 1

Required Tools			
Tool	Part Number	Part Description	Qty
A	185-3630	Strap Wrench As	1

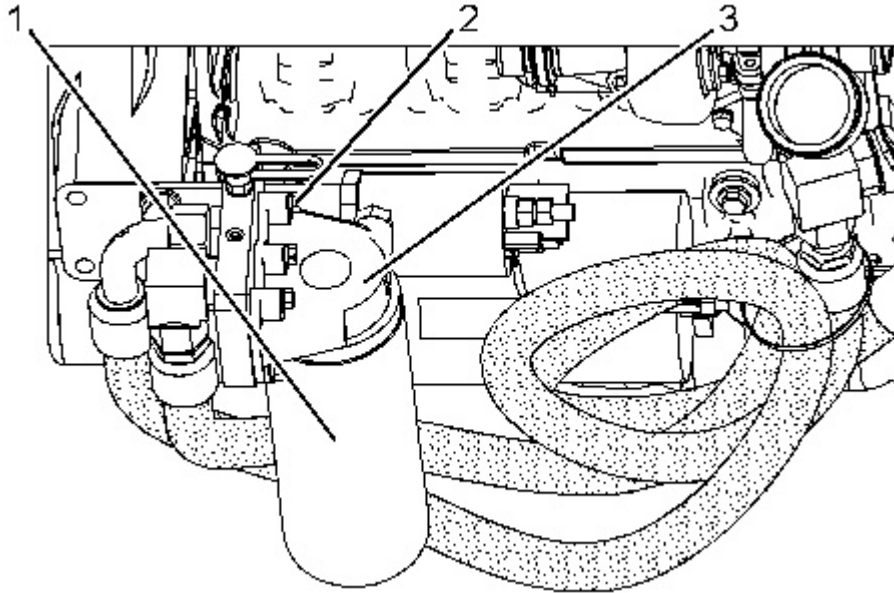


Illustration 1

g01152338

1. Use Tooling (A) to remove engine oil filter (1) .
2. Remove bolts (2) and engine oil filter base (3) .

Engine Mounted Engine Oil Filter Base

1. Drain the coolant from the cooling system into a suitable container for storage or disposal. Refer to Operation and Maintenance Manual, "Cooling System Coolant - Change".

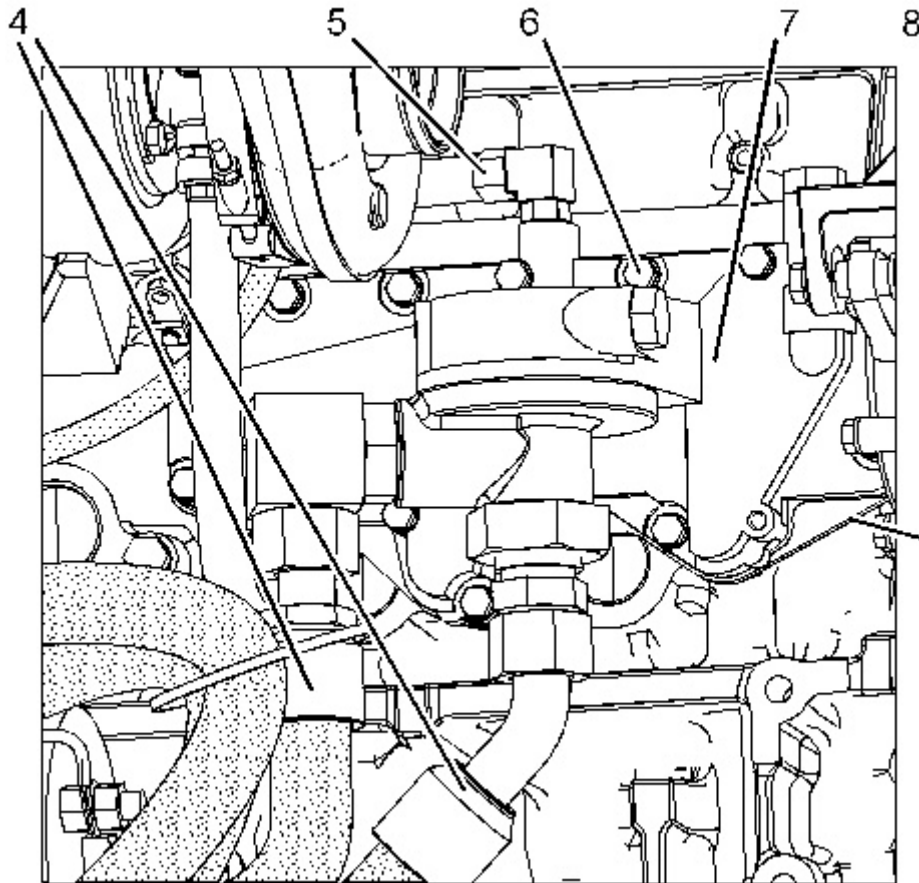


Illustration 2

g01152340

2. Disconnect hose assemblies (4) .
3. Disconnect hose assembly (5) .
4. Remove bolts (6) and engine oil filter base (7) .
5. Remove oil cooler (8) and the gasket from the engine.

[Previous Screen](#)

Product: EXCAVATOR

Model: 329D LN EXCAVATOR SCY

Configuration: 329D L & 329D LN Excavator SCY00001-UP (MACHINE) POWERED BY C7 Engine

Disassembly and Assembly

C7

Engines for Caterpillar Built Machines

Media Number -REN9218-13

Publication Date -01/06/2014

Date Updated -04/06/2014

i02301168

Engine Oil Filter Base - Disassemble

SMCS - 1306-015

Disassembly Procedure

Start By:

- A. Remove the engine oil filter base and the oil cooler. Refer to Disassembly and Assembly, "Engine Oil Filter Base and Oil Cooler - Remove".

NOTICE

Keep all parts clean from contaminants.

Contaminants may cause rapid wear and shortened component life.

Remote Mounted Engine Oil Filter Base

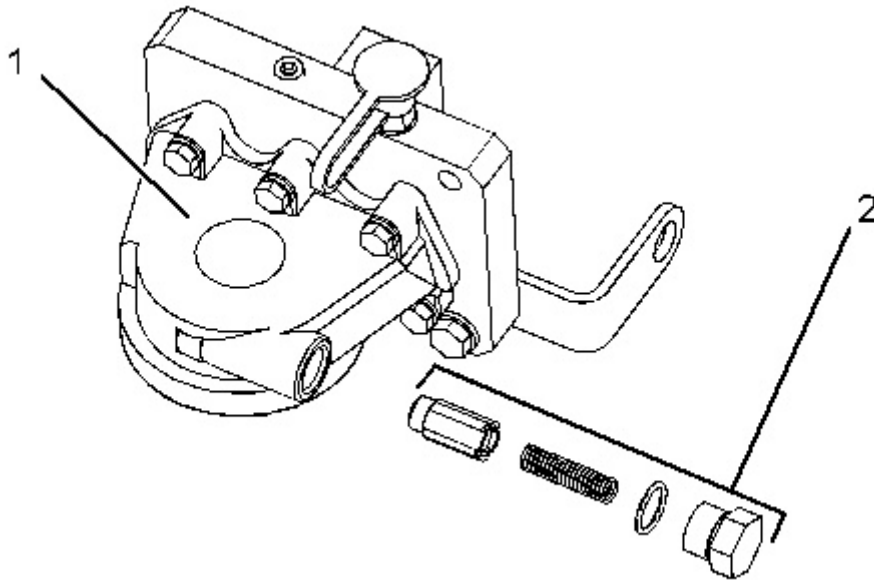


Illustration 1

g01152353

WARNING

Personal injury can result from being struck by parts propelled by a released spring force.

Make sure to wear all necessary protective equipment.

Follow the recommended procedure and use all recommended tooling to release the spring force.

1. Remove oil filter bypass valve (2) from engine oil filter base (1) .

Engine Mounted Engine Oil Filter Base

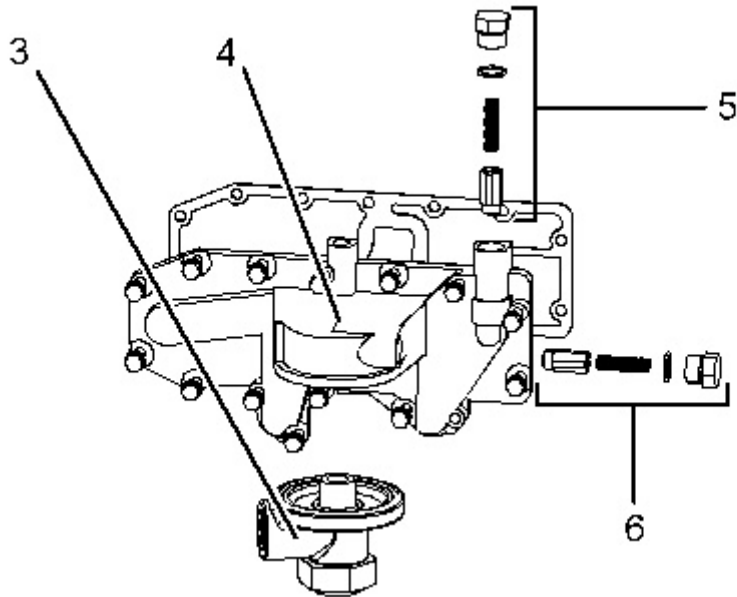


Illustration 2

g01152356

⚠ WARNING

Personal injury can result from being struck by parts propelled by a released spring force.

Make sure to wear all necessary protective equipment.

Follow the recommended procedure and use all recommended tooling to release the spring force.

1. Remove adapter (3) and the O-ring seals from engine oil filter base (4) .
2. Remove oil filter bypass valve (5) and oil filter bypass valve (6) .

[Previous Screen](#)

Product: EXCAVATOR

Model: 329D LN EXCAVATOR SCY

Configuration: 329D L & 329D LN Excavator SCY00001-UP (MACHINE) POWERED BY C7 Engine

Disassembly and Assembly

C7

Engines for Caterpillar Built Machines

Media Number -REN9218-13

Publication Date -01/06/2014

Date Updated -04/06/2014

i02301184

Engine Oil Filter Base - Assemble

SMCS - 1306-016

Assembly Procedure

NOTICE

Keep all parts clean from contaminants.

Contaminants may cause rapid wear and shortened component life.

Engine Mounted Engine Oil Filter Base

Table 1

Required Tools			
Tool	Part Number	Part Description	Qty
A	155-0695	Thread Lock Compound	1

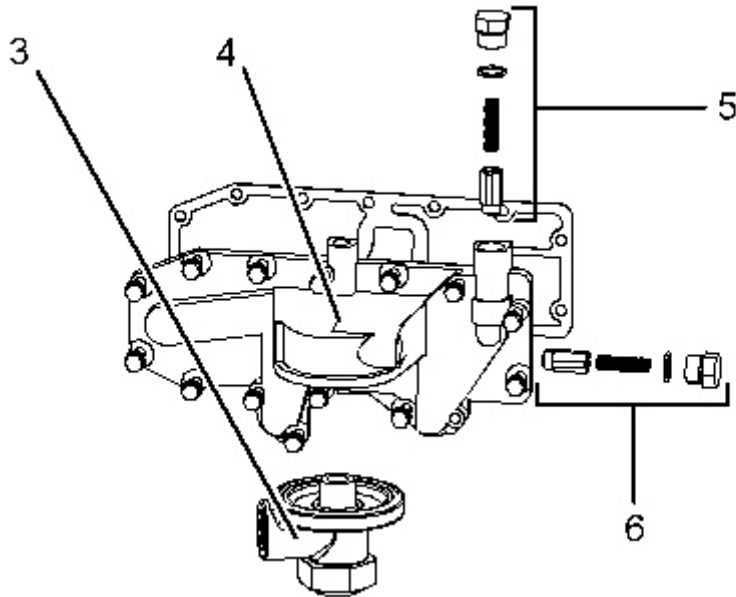


Illustration 1

g01152356

WARNING

Improper assembly of parts that are spring loaded can cause bodily injury.

To prevent possible injury, follow the established assembly procedure and wear protective equipment.

1. Install oil filter bypass valve (6) and oil filter bypass valve (5) in engine oil filter base (4) .
2. Apply Tooling (A) to the threads of adapter (3). Install the O-ring seals and adapter (3). Tighten adapter (3) to a torque of $150 \pm 20 \text{ N}\cdot\text{m}$ ($110 \pm 15 \text{ lb ft}$).

Remote Mounted Engine Oil Filter Base

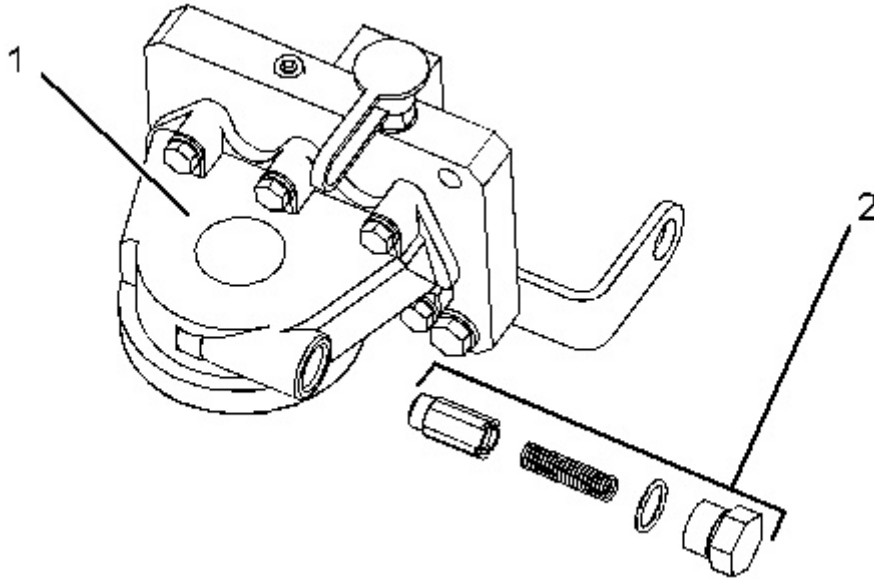


Illustration 2

g01152353

⚠ WARNING

Improper assembly of parts that are spring loaded can cause bodily injury.

To prevent possible injury, follow the established assembly procedure and wear protective equipment.

1. Install oil filter bypass valve (2) in engine oil filter base (1) .

End By: Install the engine oil filter base and the oil cooler. Refer to Disassembly and Assembly, "Engine Oil Filter Base and Oil Cooler - Install".

[Previous Screen](#)

Product: EXCAVATOR

Model: 329D LN EXCAVATOR SCY

Configuration: 329D L & 329D LN Excavator SCY00001-UP (MACHINE) POWERED BY C7 Engine

Disassembly and Assembly

C7

Engines for Caterpillar Built Machines

Media Number -REN9218-13

Publication Date -01/06/2014

Date Updated -04/06/2014

i02301151

Engine Oil Filter Base and Oil Cooler - Install

SMCS - 1306-012; 1378-012

Installation Procedure

NOTICE

Keep all parts clean from contaminants.

Contaminants may cause rapid wear and shortened component life.

Engine Mounted Engine Oil Filter Base

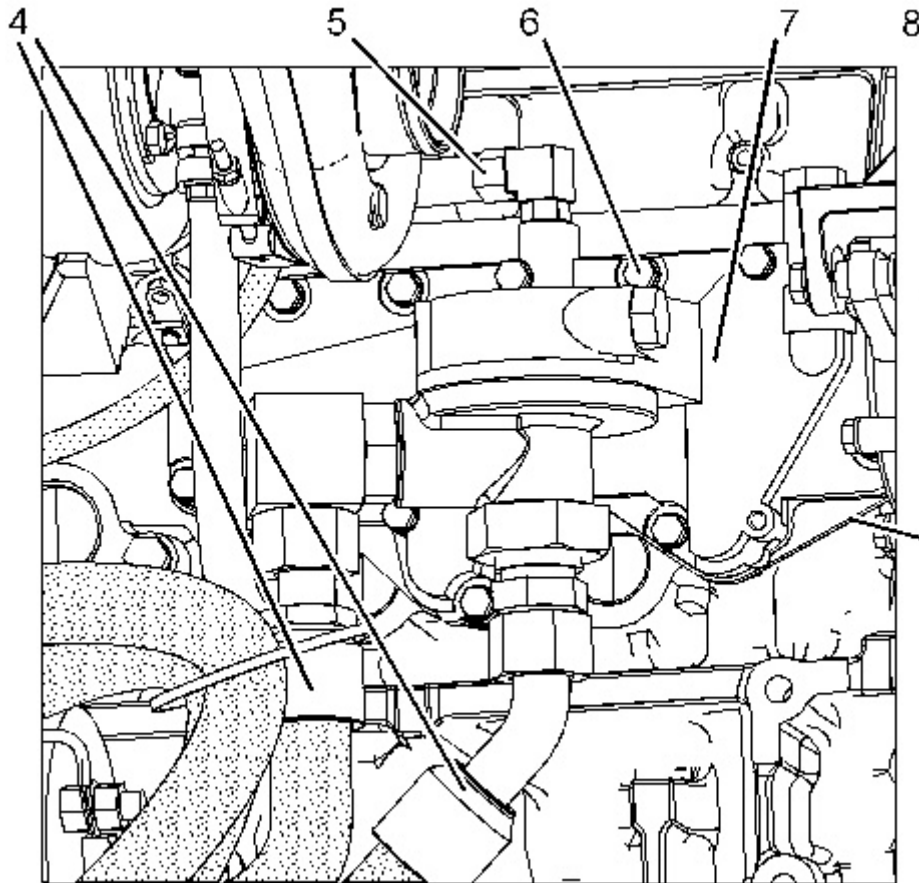


Illustration 1

g01152340

1. Position the gasket and oil cooler (8) on the engine.
2. Install engine oil filter base (7) and bolts (6) .
3. Connect hose assembly (5) .
4. Connect hose assemblies (4) .
5. Fill the cooling system. Refer to Operation and Maintenance Manual, "Cooling System Coolant - Change".

Remote Mounted Engine Oil Filter Base

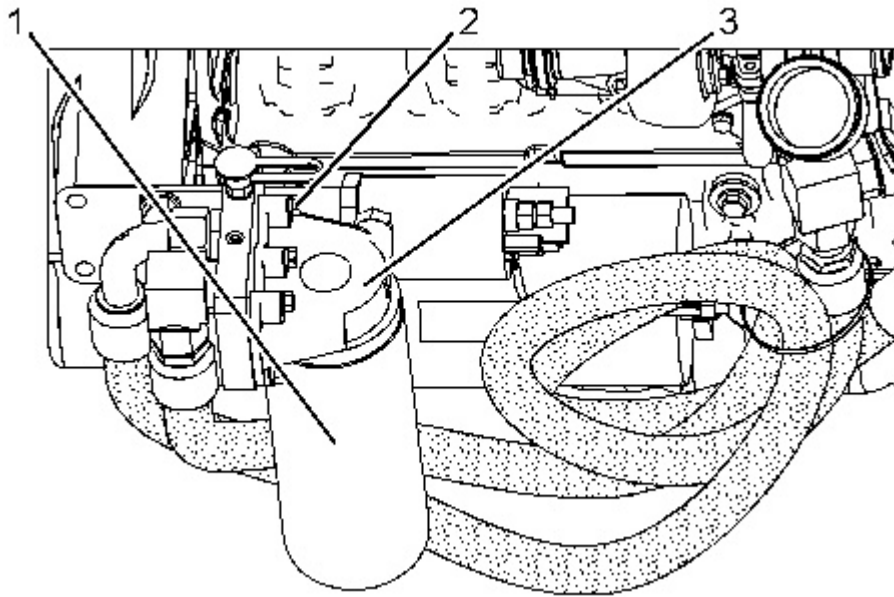


Illustration 2

g01152338

1. Position engine oil filter base (3) and install bolts (2) .
2. Install engine oil filter (1) .

[Previous Screen](#)

Product: EXCAVATOR

Model: 329D LN EXCAVATOR SCY

Configuration: 329D L & 329D LN Excavator SCY00001-UP (MACHINE) POWERED BY C7 Engine

Disassembly and Assembly

C7

Engines for Caterpillar Built Machines

Media Number -REN9218-13

Publication Date -01/06/2014

Date Updated -04/06/2014

i02301238

Engine Oil Pump - Remove

SMCS - 1304-011

Removal Procedure

Start By:

- A. Remove the engine oil pan. Refer to Disassembly and Assembly, "Engine Oil Pan - Remove and Install".

NOTICE

Keep all parts clean from contaminants.

Contaminants may cause rapid wear and shortened component life.



Suggest:

If the above button click is invalid.

Please download this document

first, and then click the above link

to download the complete manual.

Thank you so much for reading

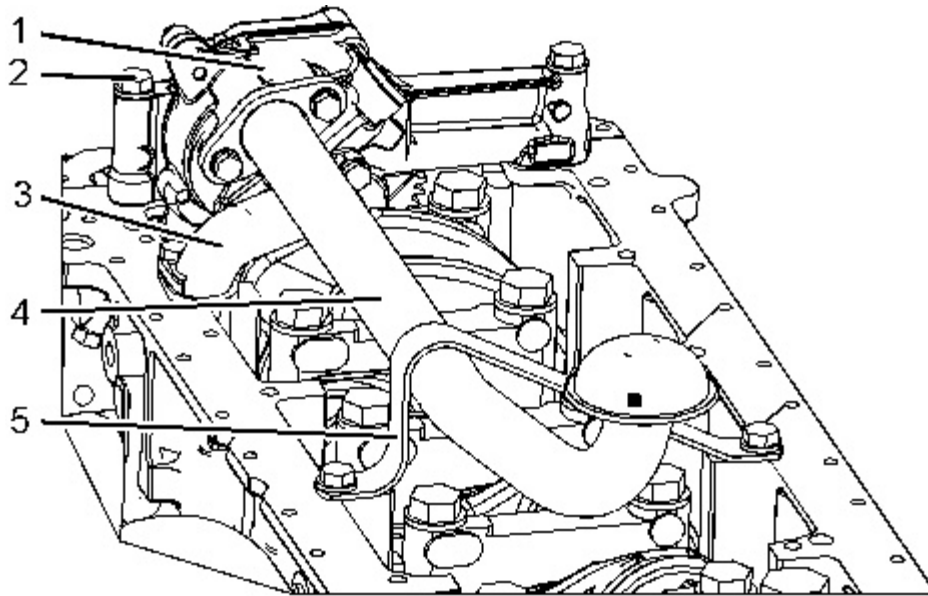


Illustration 1

g01152440

1. Remove bracket (5) .
2. Remove pickup tube (4) and the gasket from engine oil pump (1) .
3. Remove outlet elbow (3) and the O-ring seals from engine oil pump (1) .
4. Remove bolts (2) and engine oil pump (1) .

<https://www.ebooklibonline.com>

Hello dear friend!

Thank you very much for reading.

Enter the link into your browser.

The full manual is available for immediate download.

<https://www.ebooklibonline.com>