Model: CP-433E VIBRATORY COMPACTOR ASN

Configuration: CS/CP-433E Vibratory Compactor ASN00001-UP (MACHINE) POWERED BY 3054C Engine

### **Disassembly and Assembly** 3054C Engines for Caterpillar Built Machines

Media Number -SENR5069-18

Publication Date -01/05/2015

Date Updated -19/09/2018

i02298802

# **Cylinder Head - Install**

**SMCS** - 1100-012

## **Installation Procedure**

Table 1

Required Tools					
Tool	Part Number	Part Description	Qty		
A	9U-6238	Guide Bolt	2		
В	8T-3052	Degree Wheel	1		
C	-	Red Rubber Grease	-		

### **NOTICE**

Keep all parts clean from contaminants.

Contaminants may cause rapid wear and shortened component life.

**Note:** Thoroughly clean the top of the cylinder block and the bottom of the cylinder head. Ensure that there is no debris in the cylinder bores, the coolant passages, and the lubricant passages.

**Note:** Thoroughly clean the hole in the cylinder head for the gas that is ventilated from the crankcase. Ensure that the hole is not restricted by debris and/or oil deposits.

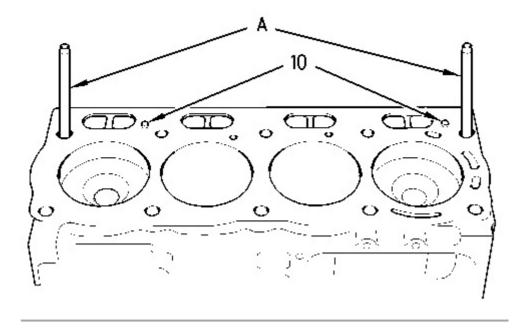


Illustration 1 g00951564

1. Install the cylinder head gasket on the dowels (10) on top of the cylinder block.

**Note:** Do not use any sealant or compound on the cylinder head gasket.

- 2. Install the Tooling (A) in the cylinder block.
- 3. Use a suitable lifting device to install the cylinder head. The weight of the cylinder head is approximately 57 kg (126 lb).

**Note:** Ensure that the cylinder head is positioned on dowels (10). Take care not to damage the machined surfaces of the cylinder head during installation.

4. Remove the Tooling (A).

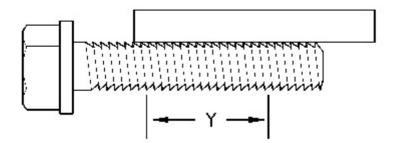


Illustration 2 g00951563

5. Clean the threads of the setscrews that secure the cylinder head. Inspect the threads of the setscrews that secure the cylinder head.

**Note:** Do not use the setscrews if there is any visual reduction in the diameter of the threads (Y) that has not been engaged with the cylinder block. Use a straight edge to check the bolts.

6. Apply clean engine oil to the threads and the shoulder of the setscrews that secure the cylinder head before installation.

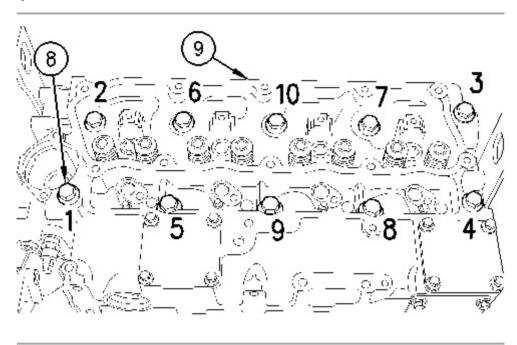


Illustration 3 g00951484

7. Install the setscrews (8) in cylinder head (9).

**Note:** The short setscrews are installed in holes that are marked 2, 5, 6, 7, 8, 9, and 10.

**Note:** The long setscrews are installed in holes that are marked 1, 3, and 4.

- 8. Tighten the setscrews in numerical order to a torque of 50 N·m (37 lb ft). Refer to Illustration 3.
- 9. Tighten the setscrews in numerical order to a torque of 100 N·m (74 lb ft). Refer to Illustration 3.

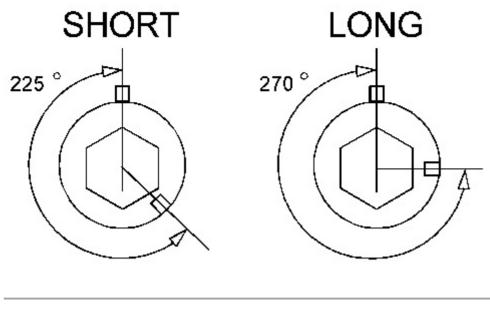


Illustration 4 g01151296

10. Use the Tooling (B) to achieve the correct final torque.

**Note:** If the Tooling (B) is not available, place an index mark on each setscrew.

- 11. Tighten the setscrews in numerical order. Refer to Illustration 3.
  - a. Turn the short setscrews (2, 5, 6, 7, 8, 9, and 10) for an additional 225 degrees.
  - b. Turn the long setscrews (1, 3, and 4) for an additional 270 degrees.

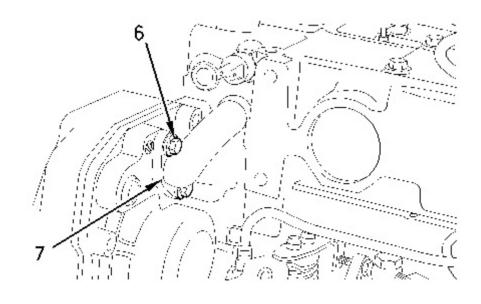


Illustration 5 g00954953

12. Install new O-ring seals on the bypass tube (7). Apply Tooling (C) to the O-ring seals. Install the bypass tube in the cylinder head. Install the setscrews (6).

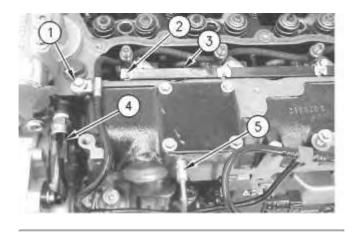


Illustration 6 g00951472

- 13. Connect the tube assembly (5) to the cylinder head.
- 14. Connect the harness assembly (4) to the coolant temperature sensor.
- 15. Install bolt (1) and the fuel line to the cylinder head.
- 16. Fill the cooling system with coolant. Fill the lubrication system with engine oil.

**Note:** Refer to Operation and Maintenance Manual, "Refill Capacities" for the cooling system capacity and the lubrication system capacity of the engine.

#### End By:

- a. Install the glow plugs. Refer to Disassembly and Assembly Manual, "Glow Plugs Remove and Install".
- b. Install the rocker shaft and the pushrods. Refer to Disassembly and Assembly, "Rocker Shaft and Pushrod Install".
- c. Install the exhaust manifold. Refer to Disassembly and Assembly, "Exhaust Manifold Remove and Install".
- d. Install the fuel injection Nozzles. Refer to Disassembly and Assembly Manual, "Fuel Injection Nozzles Install".
- e. Install the pipe for the boost control.
- f. Install the fuel priming pump. Refer to Disassembly and Assembly Manual, "Fuel Priming Pump and Fuel Filter Base Remove and Install".
- g. Install the hose from the integral air inlet to the air filter. Refer to the OEM information for further details.
- h. Refill the engine with coolant and engine oil. Refer to the Operation and Maintenance Manual for the correct procedure, the quantities, the coolant specification, and the specification for the engine oil.

Model: CP-433E VIBRATORY COMPACTOR ASN

Configuration: CS/CP-433E Vibratory Compactor ASN00001-UP (MACHINE) POWERED BY 3054C Engine

# Disassembly and Assembly

**3054C Engines for Caterpillar Built Machines** 

Media Number -SENR5069-18

Publication Date -01/05/2015

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i02333592

# **Lifter Group - Remove and Install**

SMCS - 1209-010

## **Removal Procedure**

Table 1

Required Tools					
Tool	Part Number	Part Description	Qty		
A	1U-7262	Telescoping Magnet	1		

### **Start By:**

a. Remove the camshaft. Refer to Disassembly and Assembly, "Camshaft - Remove and Install".

### **NOTICE**

Keep all parts clean from contaminants.

Contaminants may cause rapid wear and shortened component life.

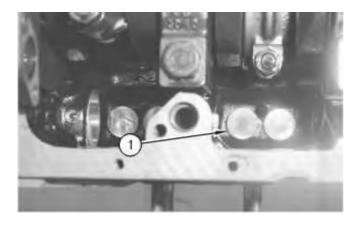


Illustration 1 g00540954

1. Use Tooling (A) to remove lifters (1).

**Note:** Place an identification mark on the lifters for installation purposes.

## **Installation Procedure**

Table 2

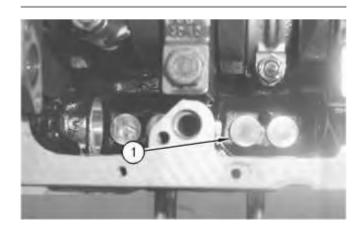
Required Tools					
Tool	Part Number	Part Description	Qty		
A	1U-7262	Telescoping Magnet	1		

## **NOTICE**

Keep all parts clean from contaminants.

Contaminants may cause rapid wear and shortened component life.

1. Lubricate the lifters with clean oil before installing the lifters in the cylinder block.



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