CATERPILLAR®

Service Repair Manual

Models

312D Excavator

Model: 312D EXCAVATOR LRK

Configuration: 312D Excavator LRK00001-UP (MACHINE) POWERED BY C4.2 Engine

Disassembly and Assembly

C4.2 Engine for Caterpillar Built Machines

Media Number - KENR8105-04 Publication Date -01/06/2013

Date Updated -12/06/2013

i02746415

Valve Mechanism Cover Base - Remove and Install

SMCS - 1120-010

Removal Procedure

Start By:

- a. Remove the valve mechanism cover. Refer to Disassembly and Assembly, "Valve Mechanism Cover Remove and Install".
- b. Remove the fuel injection lines. Refer to Disassembly and Assembly, "Fuel Injection Lines Remove".

NOTICE

Keep all parts clean from contaminants.

Contaminants may cause rapid wear and shortened component life.

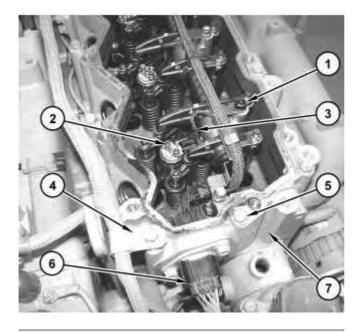


Illustration 1 g01375577

- 1. Remove clips (4).
- 2. Disconnect harness assembly (6).
- 3. Loosen nuts (2) and disconnect harness assembly (3).
- 4. Repeat Step 3 for the remaining electronic unit injectors.
- 5. Remove bolts (1).
- 6. Remove bolts (5). Remove valve mechanism cover base (7) and the gasket.

Installation Procedure

NOTICE

Keep all parts clean from contaminants.

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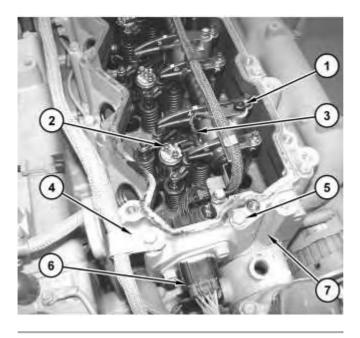


Illustration 2 g01375577

- 1. Install a new gasket and position valve mechanism cover base (7). Install bolts (5).
- 2. Install bolts (1). Tighten bolts (1) to a torque of 18 ± 2 N·m (13 ± 1 lb ft).
- 3. Connect harness assembly (3) and tighten nuts (2).
- 4. Repeat Step 3 for the remaining electronic unit injectors.
- 5. Connect harness assembly (6).
- 6. Install clips (4).

End By:

- a. Install the fuel injection lines. Refer to Disassembly and Assembly, "Fuel Injection Lines Install".
- b. Install the valve mechanism cover. Refer to Disassembly and Assembly, "Valve Mechanism Cover Remove and Install".

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Disassembly and Assembly

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Publication Date -01/06/2013

Date Updated -12/06/2013

i02746912

Rocker Shaft and Pushrod - Remove

SMCS - 1102-011; 1208-011

Removal Procedure

Start By:

a. Remove the valve mechanism cover. Refer to Disassembly and Assembly, "Valve Mechanism Cover - Remove and Install".

NOTICE

Keep all parts clean from contaminants.

Contaminants may cause rapid wear and shortened component life.

Note: The fuel injection lines do not need to be removed in order to remove the rocker shaft and pushrods.

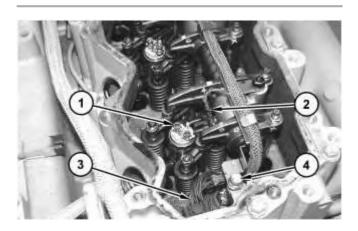


Illustration 1 g01375828

- 1. Loosen nuts (1) and disconnect harness assembly (2).
- 2. Repeat Step 13 for the remaining electronic unit injectors.
- 3. Disconnect harness assembly (3).
- 4. Remove bolts (4) and remove harness assembly (3).

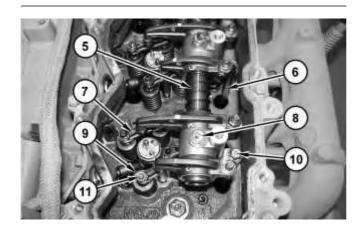


Illustration 2

g01375847

- 5. Loosen nut (9). Loosen adjusting screw (11) by approximately one revolution.
- 6. Repeat Step 5 for the remaining rocker arms.
- 7. Loosen bolts (10). **Do not remove bolts (10) at this time.**
- 8. Loosen bolts (8). Do not remove bolts (8) at this time.
- 9. Remove bolts (10).
- 10. Remove bolts (8).
- 11. Remove rocker shaft assembly (5).
- 12. Remove pushrods (6).
- 13. Remove bridges (7) and the caps.

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Publication Date -01/06/2013

Date Updated -12/06/2013

i02746773

Rocker Shaft - Disassemble

SMCS - 1102-015

Disassembly Procedure

Table 1

Required Tools			
Tool	Part Number	Part Description	Qty
A	1P-1859	Retaining Ring Pliers	1
В	1P-0510	Driver Gp	1

Start By:

a. Remove the rocker shaft and the pushrods. Refer to Disassembly and Assembly, "Rocker Shaft and Pushrods - Remove".

NOTICE

Keep all parts clean from contaminants.

Contaminants may cause rapid wear and shortened component life.

Note: Cleanliness is an important factor. Before you begin the disassembly procedure, the exterior of the components should be thoroughly cleaned. This will help to prevent dirt from entering the internal mechanism. Precision components can be damaged by contaminants or by dirt. Perform disassembly procedures on a clean work surface. Keep components covered and protected at all times.

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