

SMCS - 1102

SENR74100049

## Remove Rocker Shaft Assembly

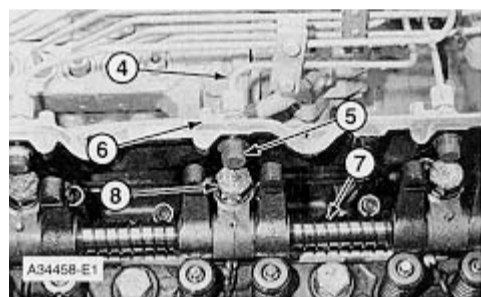
Tools Needed		A	B
FT1322	Lever Assembly	1	
5P0144	Socket		1

Start By:

a. remove valve covers

Tools Needed		A	B
FT1322	Lever Assembly	1	
5P0144	Socket		1

1. Remove fuel line (2) with Tool (B). Put protective caps on all fuel openings.
2. Make a separation between rocker arm (1) and the push rod with Tool (A). Put identification on each valve bridge as to its location. Remove valve bridges (3).

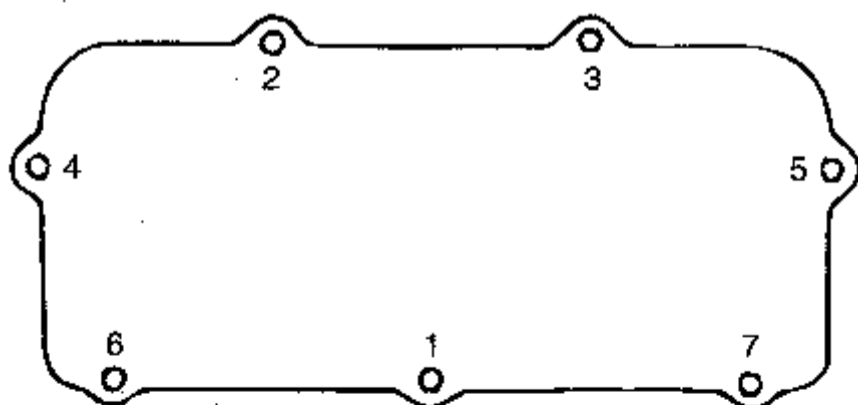


3. Disconnect fuel lines (4) from fuel line adapters (5). Remove locks (6). Remove adapters (5).
4. Remove bolts (8) that hold the rocker shaft assembly (7) to the cylinder head. Remove rocker shaft assembly (7).

## Install Rocker Shaft Assembly

Tools Needed		A	B
FT1322	Lever Assembly	1	
5P0144	Socket		1

Tools Needed		A	B
FT1322	Lever Assembly	1	
5P0144	Socket		1

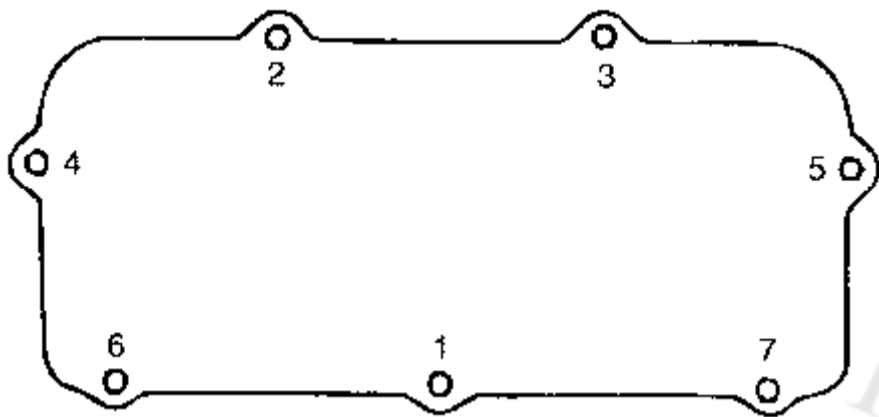


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1. Put rocker shaft assembly (2) into position on the head.
2. Put clean engine oil on the threads of bolts (1) and install the bolts to hold rocker shaft assembly. Tighten the bolts as follows:
  - a. Tighten bolts 1 through 6 in number sequence shown to a torque of **270 ± 25 N·m (200 ± 20 lb ft)**.

b. Tighten bolts 1 through 6 in number sequence again to a torque of **447 ± 20 N·m (330 ± 15 lb ft)**.

c. Tighten bolts 1 through 6 in number sequence shown again to a torque of **447 ± 20 N·m (330 ± 15 lb ft)**.



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3. Put clean engine oil on the O-ring for adapter (5). Install adapters (5) and locks.

4. Connect fuel lines (3) to adapters (5). Tighten fuel line nuts to **40 ± 7 N·m (30 ± 5 lb ft)** with Tool (B).

5. Put clean engine oil on the valve bridge dowels. Install valve bridges (7) in their correct locations on the cylinder head.

**NOTE:** Adjustment of the bridge is necessary only if valve grinding or other reconditioning of the cylinder head has been done. See Bridge Adjustment in Testing and Adjusting for this procedure.

6. Put clean engine oil on the valve bridges. Make connection between the rocker arms (4) and push rods with Tool (A).

7. Make an adjustment of the valve to have a clearance of **.038 mm (.015 in)** for intake and **0.76 mm (.030 in)** for exhaust. See Valve Clearance Setting in Testing and Adjusting.

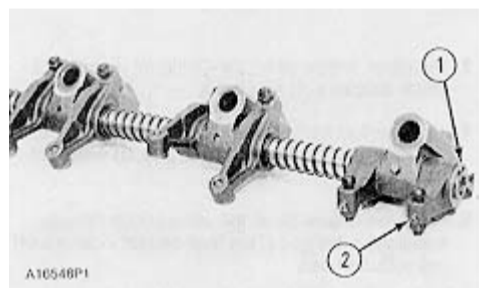
8. Install the fuel line to fuel valves (6). Tighten the fuel line nuts to **40 ± 7 N·m (30 ± 5 lb ft)** with Tool (B).

## Disassemble Rocker Shaft Assembly

Tools Needed		A
5P0944	Puller Group	1

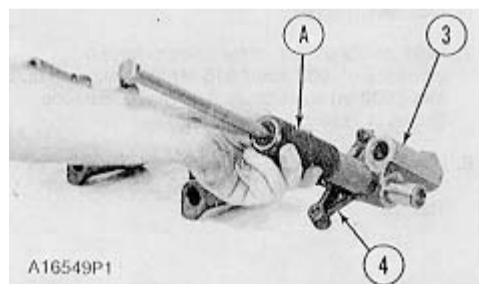
Start By:

a. remove rocker shaft assembly



1. Remove retainer (1) from the shaft.

2. Remove the washers and rocker arm (2).



3. Use Tool (A) to remove the pin that holds the bracket (3) to the rocker arm shaft.

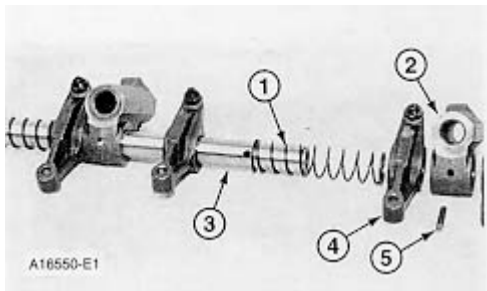
4. Remove bracket (3), rocker arm (4) and the spring.

5. Remove the remainder of the rocker arms.

**NOTE:** The center brackets do not have pins.

## Assemble Rocker Shaft Assembly

**NOTE:** Make sure all parts of the rocker shaft assembly are clean before installation.



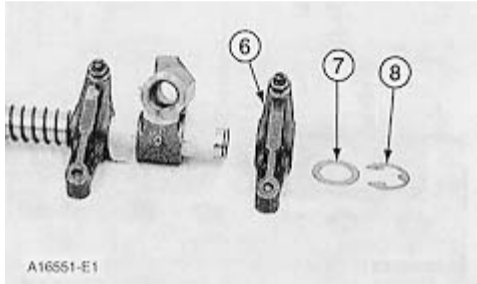
1. Put clean engine oil on shaft (3).

2. Install the center springs, rocker arms and bracket.

3. Install spring (1), rocker arm (4) and bracket (2).

4. Put tape around the shaft on each side of bracket (2) as shown. Put the hole in bracket (2) in alignment with the hole in shaft (3). Put a mark on each piece of tape in alignment with the hole in bracket (2).

5. Install pin (5) until it is extended **8.6 mm (.34 in)** above the surface of bracket (2). Make sure pin (5) is in alignment with the marks on tape before pin is installed. Remove the tape.



6. Install rocker arm (6), washers (7) and retainer (8).

**NOTE:** Install enough washers until the end play on each end of the shaft is **0.12 to 1.01 mm (.005 to .040 in)**.

End By:

a. install rocker shaft assembly

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2022/11/30

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