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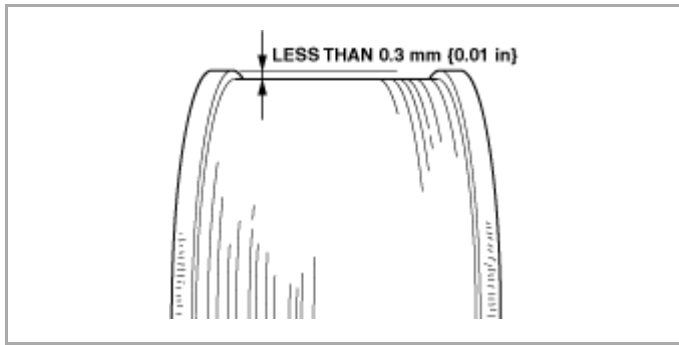
2004 MAZDA MX-5 / Miata OEM Service and Repair Workshop Manual

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Sample

STEP	INSPECTION		ACTION
1	<p>PURPOSE: INSPECT CONDITION OF RUBBER PART OF DRIVE BELT AUTO TENSIONER</p> <ul style="list-style-type: none"> • Is oil seeping out from the upper or lower side of the rubber part?  <p style="text-align: right; font-size: small;">am3zzw00020305</p>	Yes	Go to the next step
	No	The hydraulic pressure unit is normal therefore the inspection complete	
2	<p>PURPOSE: INSPECT CONDITION OF RUBBER PART OF DRIVE BELT AUTO TENSIONER</p> <ul style="list-style-type: none"> • Wipe off any dust or oil on the surface of the rubber part. • Visually inspect the rubber part for damage or separation. • Is the rubber part damaged? 	Yes	Replace drive belt auto tensioner because rubber part is damaged and there is oil leakage (See DRIVE BELT AUTO TENSIONER REMOVAL AND INSTALLATION [SKYACTIA G 2.5T]).
	No	Go to the next step	

Sample



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- If it is the maximum specification or more, replace the drive belt auto tensioner. (See [DRIVE BELT AUTO TENSIONER REMOVAL/INSTALLATION \[SKYACTIV-G 2.5T\]](#).)

Maximum height difference of pulley

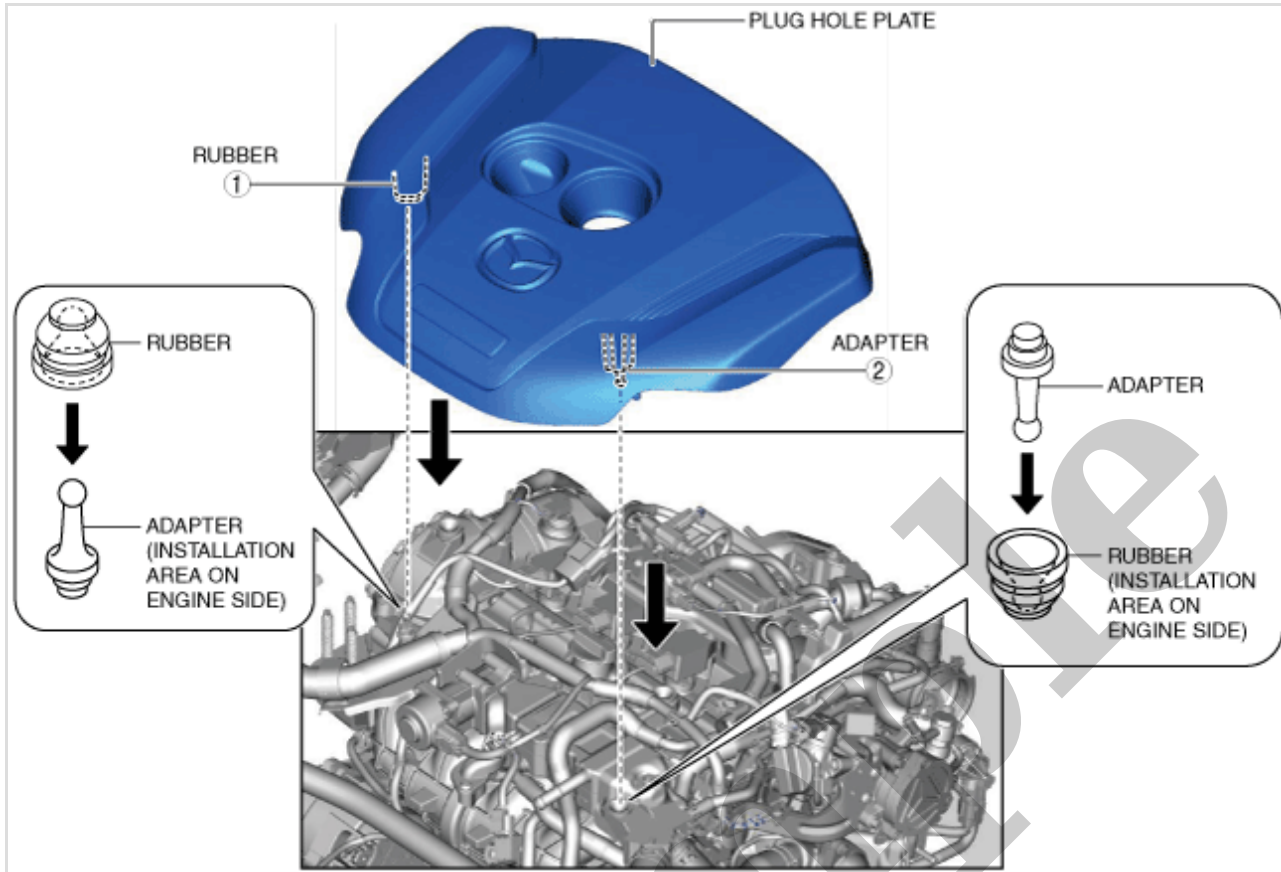
0.3 mm {0.01 in}

4. Install the generator drive belt. (See [DRIVE BELT REMOVAL/INSTALLATION \[SKYACTIV-G 2.5T\]](#).)

Sample

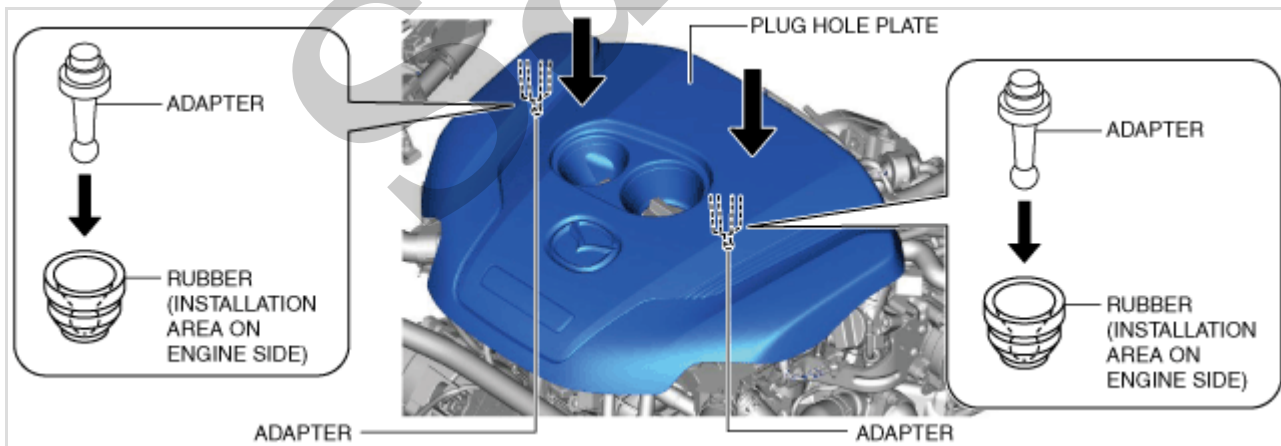
Installation

1. Press the plug hole plate in the order of the numbers shown in the figure and insert the rubber and adapters into the engine.

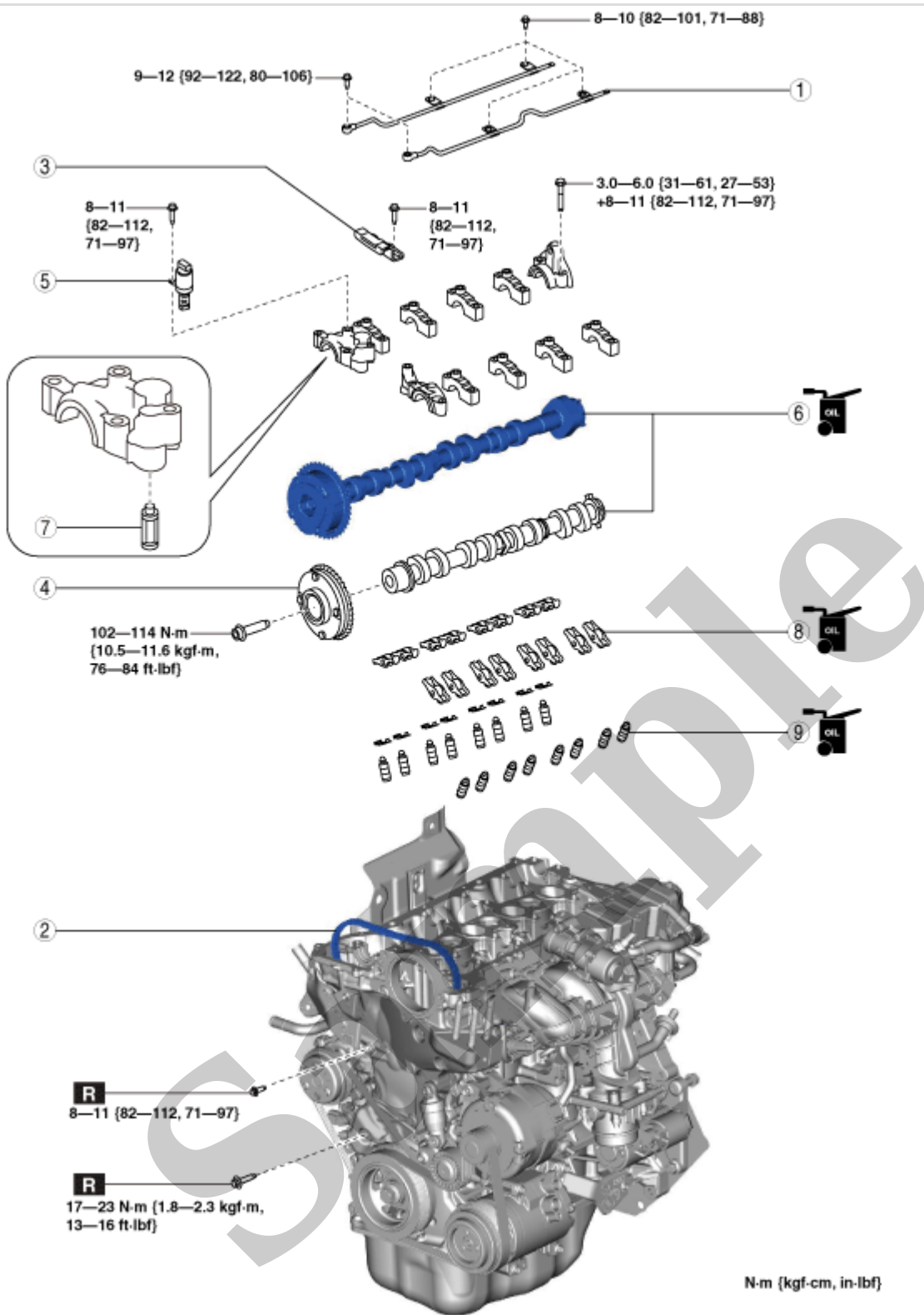


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2. While simultaneously pressing the areas indicated by the arrows on the plug hole plate, insert the adapters into the rubber on the engine.

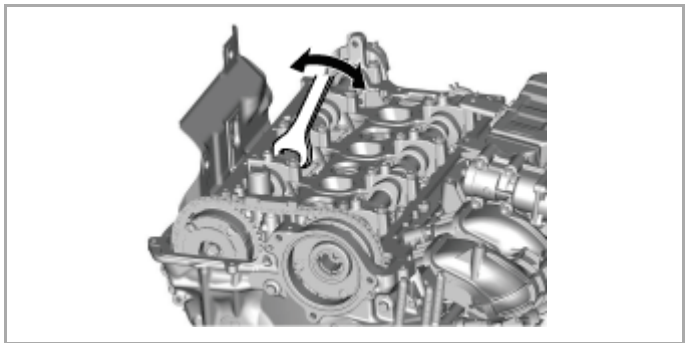


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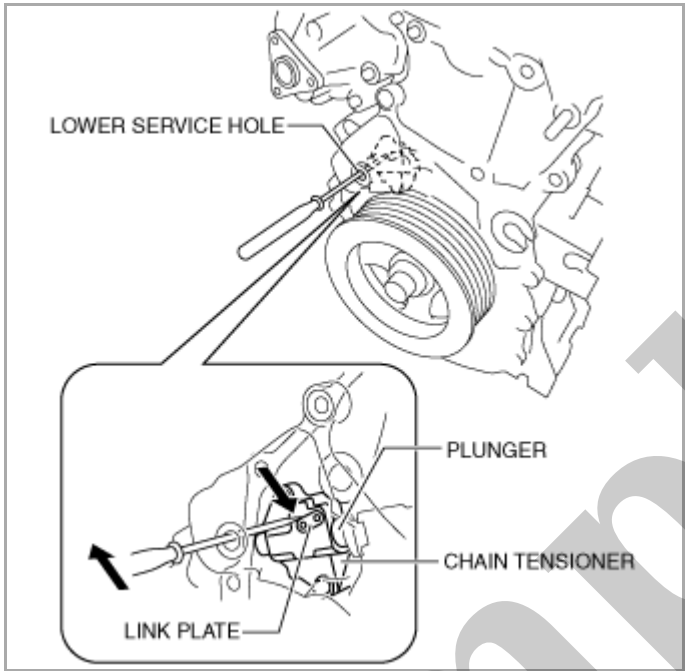


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1	Oil shower pipe (See Oil Shower Pipe Installation Note.)
2	Timing chain (See Timing Chain Removal Note.) (See Timing Chain Installation Note.)
3	Chain guide (No.1)
4	Electric variable valve timing actuator (See Electric Variable Valve Timing Actuator Removal Note.) (See Electric Variable Valve Timing Actuator Installation Note.)
5	OCV
6	Camshaft (See Camshaft Removal Note.) (See Camshaft Installation Note.)



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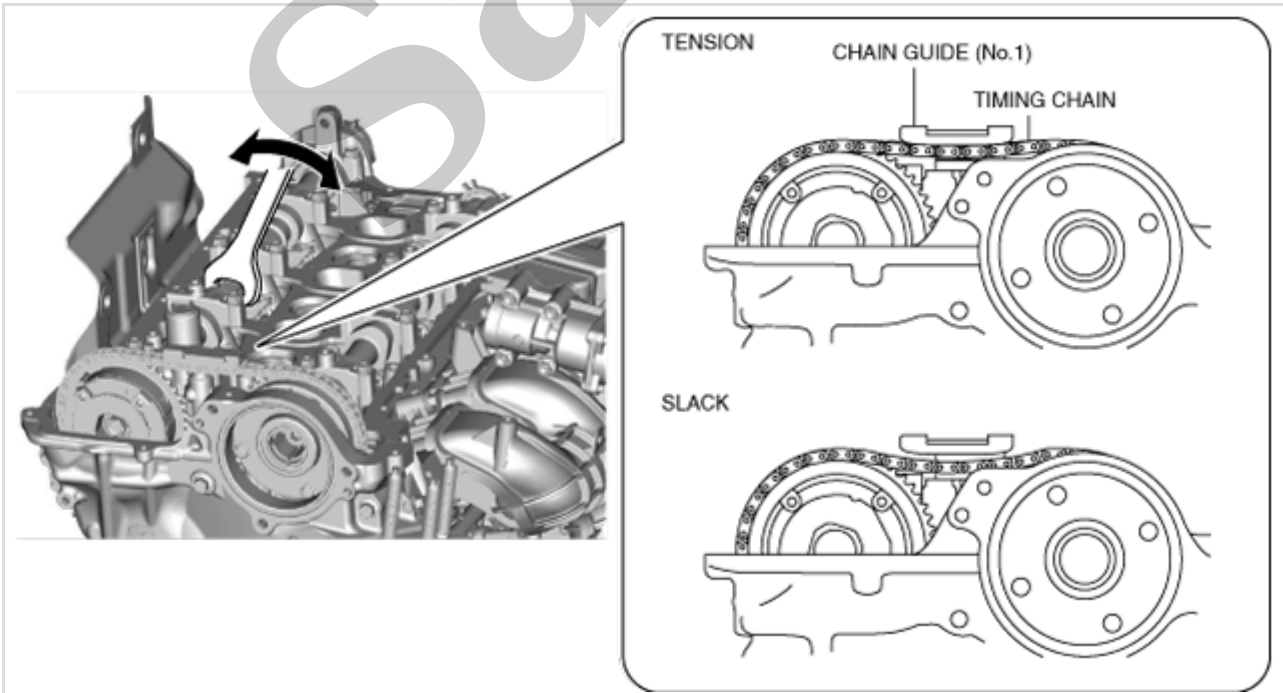


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Note

- When moving the exhaust camshaft back and forth, the timing chain pushes the plunger in the chain tensioner making it easier to operate the link plate.

(6) With the plunger lock released, rotate the exhaust camshaft clockwise until the timing chain loosens.



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(7) With the chain loosened, tighten the M6 bolt in the upper service hole so that the bolt is inserted approx. 5 mm (0.2 in) additionally to secure the tensioner arm.

Camshaft Removal Note

Caution

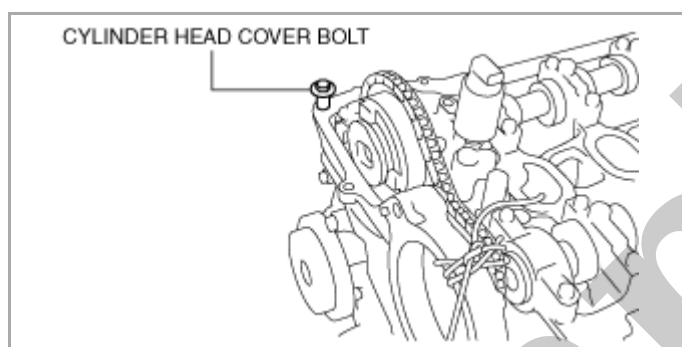
- Keep the timing chain pulled up during and after the work in which it has been set aside from the sprocket. If the chain falls down, it may disengage from the sprocket on the crankshaft side and deviate, leading to valve timing deviation.
- After servicing, always verify the valve timing.

Note

- Remove the exhaust camshaft and the hydraulic variable valve timing actuator as a single unit.

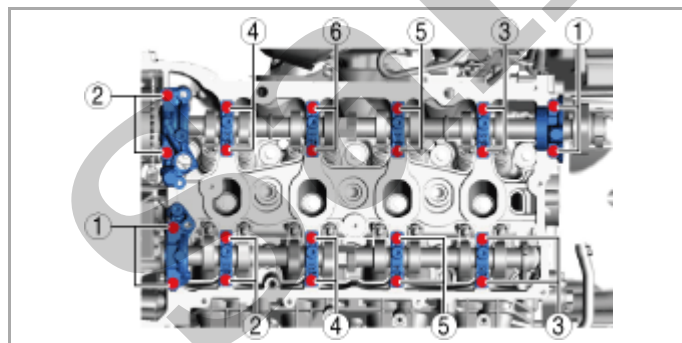
1. Leave the timing chain as it is, which was suspended after electric variable valve timing actuator removal.

2. Temporarily install the cylinder head cover bolt to the position shown in the figure to use it for suspending the timing chain.



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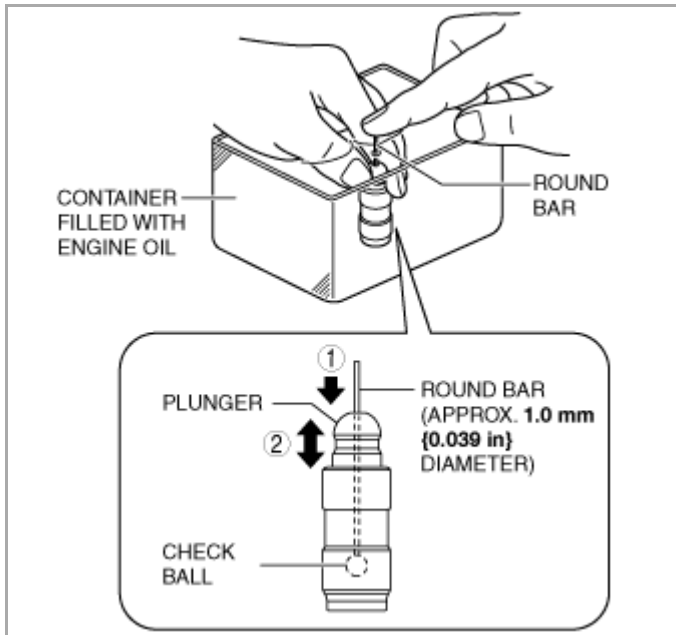
3. Loosen the camshaft cap bolts in two or three passes in the order shown in the figure, and remove the camshaft caps.



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4. Remove the intake camshaft.

5. While setting the timing chain aside, remove the hydraulic variable valve timing actuator and the exhaust camshaft as a single unit.

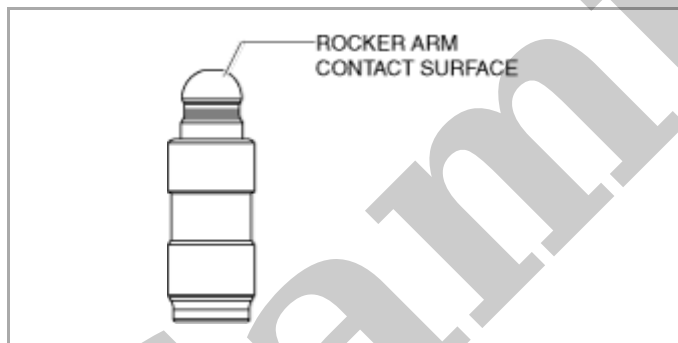


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(3) Press the end of the plunger in the oil and verify that there is no rebounding feel.

- If rebounding feel cannot be eliminated, replace the HLA.

2. Visually inspect the HLA surface where it contacts the rocker arm.



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- If there is any malfunction, replace the HLA.

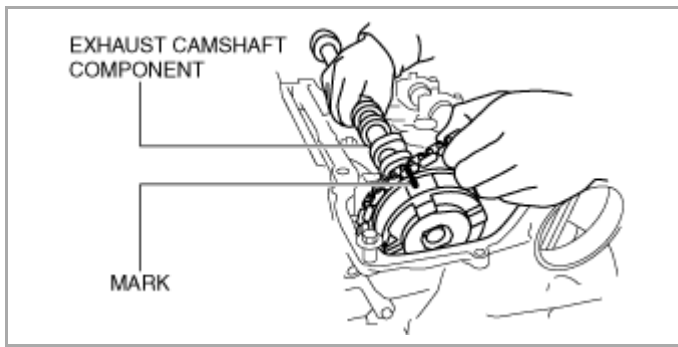
3. Assemble the HLAs to their original positions. (intake side)

4. Apply engine oil to the HLAs surface where it contacts the rocker arms. (exhaust side)

5. Assemble the HLAs using the following procedure: (exhaust side)

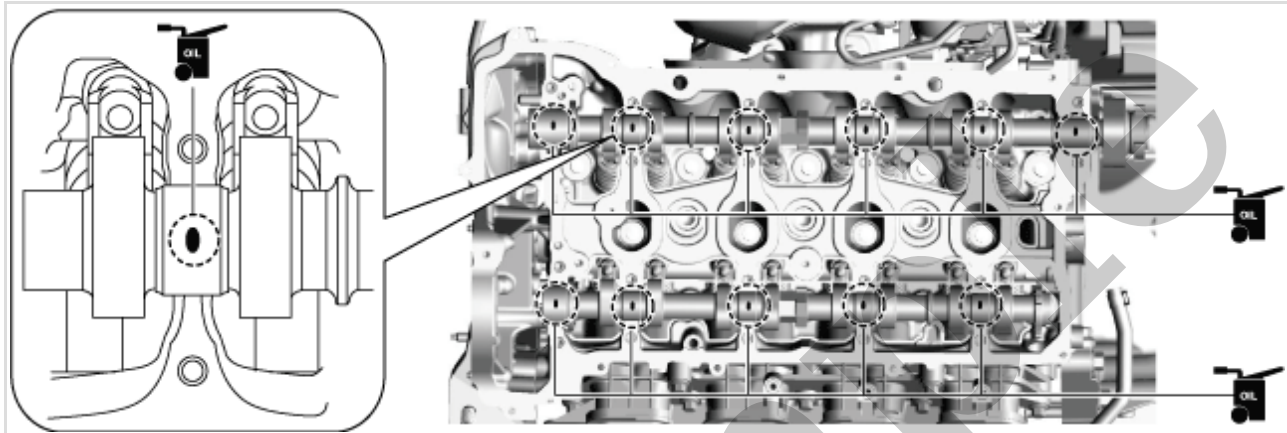
(1) Press the clip onto the rocker arm.

(2) Insert the HLA from the underside of the clip.



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6. Apply SAE 90 gear oil or equivalent, or engine oil to the central area of each journal on the camshaft.



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7. Apply SAE 90 gear oil or equivalent, or engine oil to the thrust surface of the front camshaft cap.

Note

- If oil is applied to the front journal thrust surface of each camshaft, oil should not be applied to the front camshaft cap.

8. Apply sealant (LOCTITE 962T, 518, 272 or equivalent) to the rear camshaft cap installation area on the exhaust side or the rear camshaft caps on the exhaust side of the cylinder head.

Note

- To prevent engine oil leakage, apply sealant to the rear camshaft cap installation area on the exhaust side or the rear camshaft caps on the exhaust side of the cylinder head, and seal the journal.