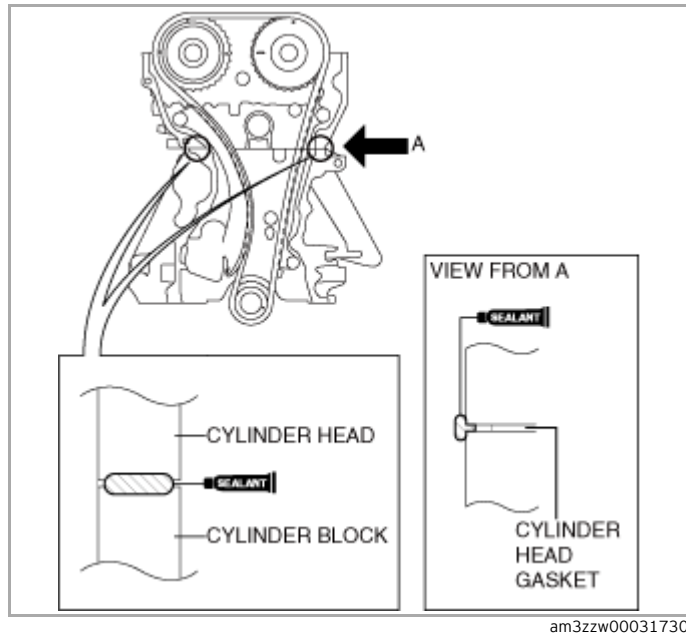


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2005 MAZDA Mazda speed MX-5 / Miata OEM Service and Repair Workshop Manual

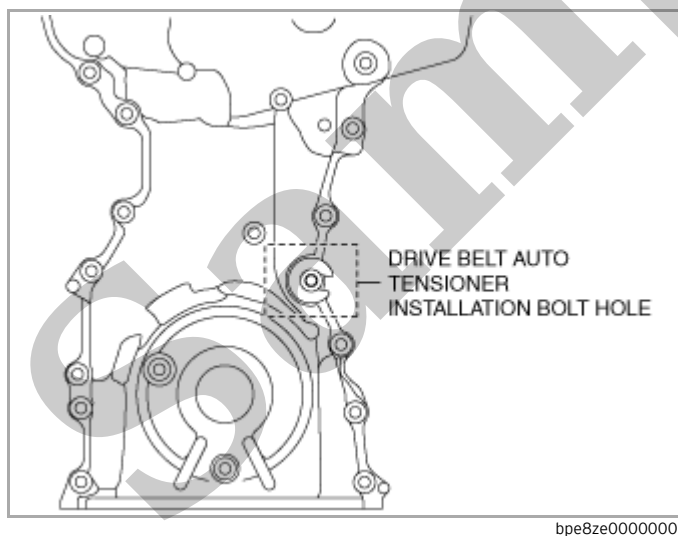
[Go to manual page](#)



8. Install the engine front cover to the engine.

Note

- Temporarily install an appropriate bolt to the drive belt auto tensioner installation bolt hole to prevent:
 - A silicone sealant adhesion malfunction in the drive belt auto tensioner installation bolt hole.
 - A bolt mis-installation due to silicone sealant hardening.



9. Prepare an appropriate M8 x 1.25 bolt (length 40 mm {1.6 in}).

Caution

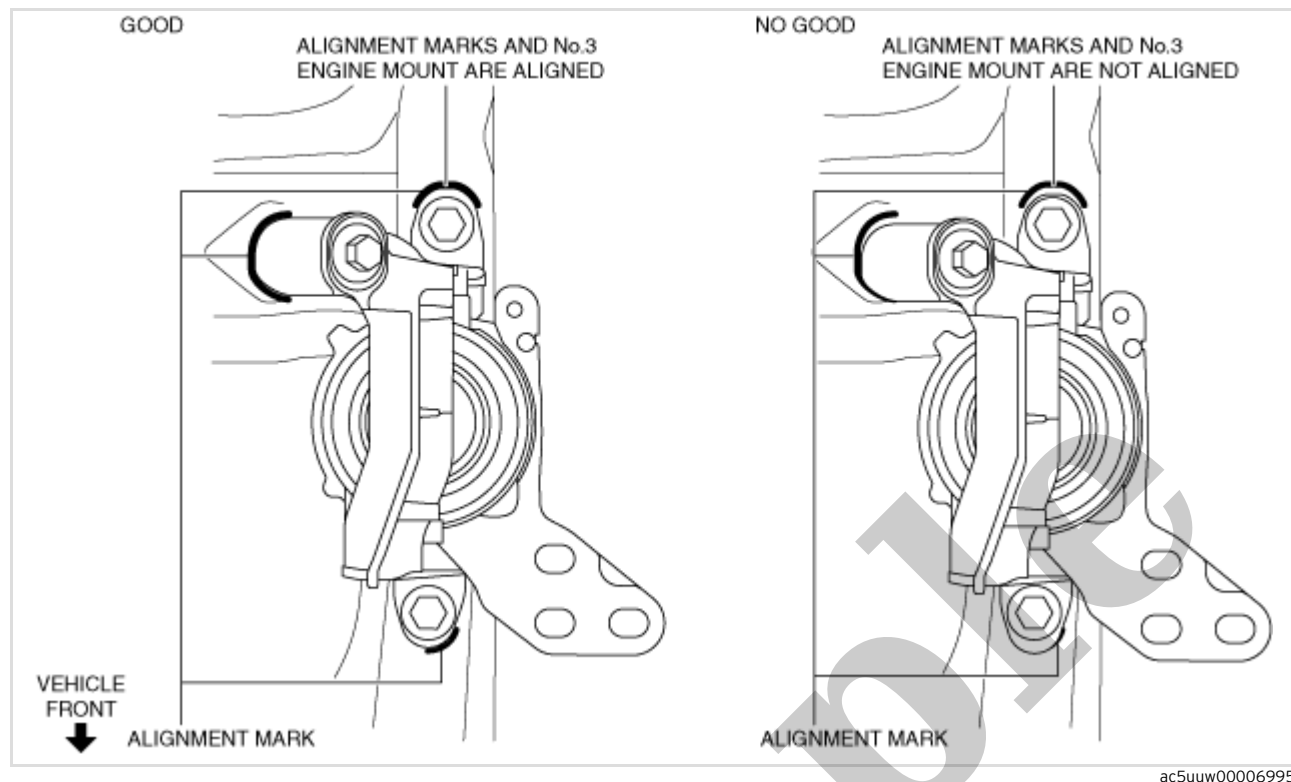
- For the number 10 bolt of the tightening order, install the bolts with new washer.

10. Tighten the engine front cover installation bolts in the order shown in the figure.

- When replacing the No.3 engine mount, place a mark at the same position as the one placed before removal.

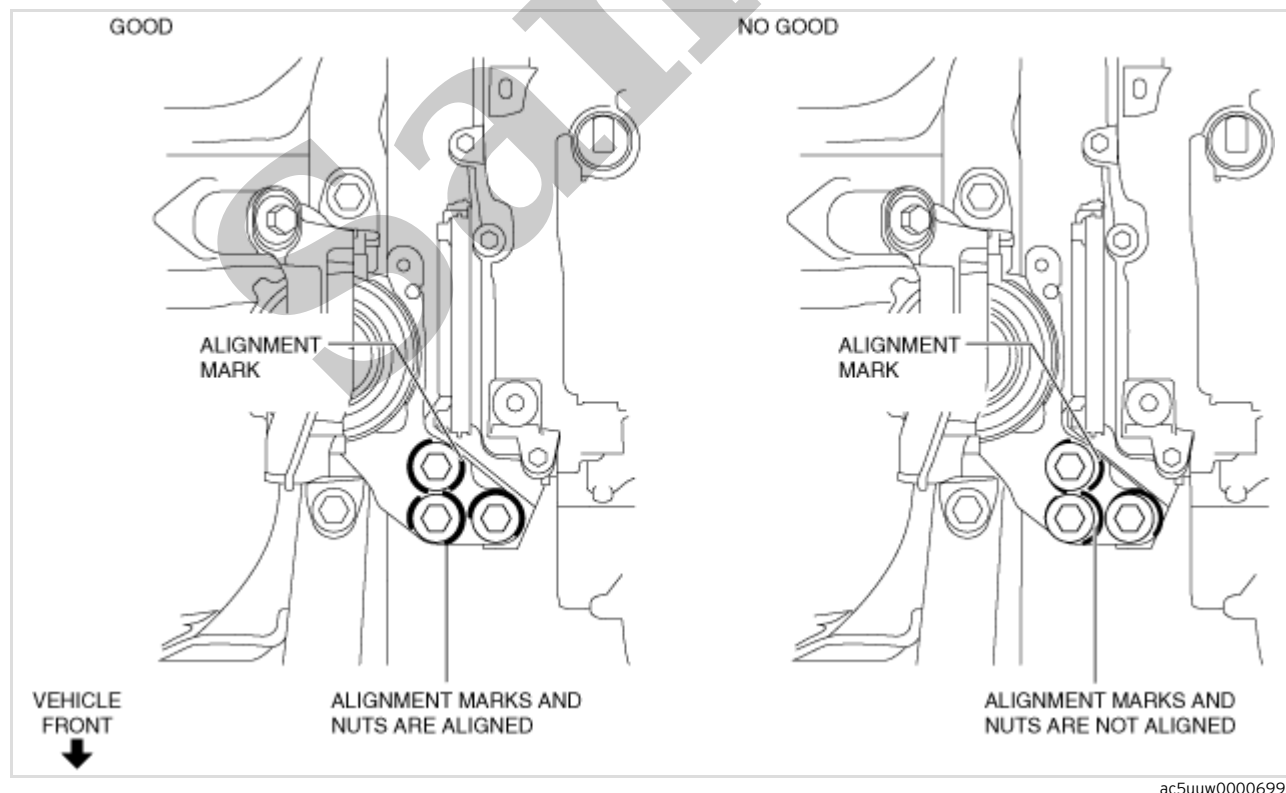
1. Temporarily tighten the No.3 engine mount installation bolts and nuts using the following procedure:

(1) Align the alignment marks on the body side and No.3 engine mount, and temporarily tighten the bolts shown in the figure.



(2) Temporarily tighten the nuts shown in the figure while aligning the alignment marks of the No.3 engine mount and nuts.

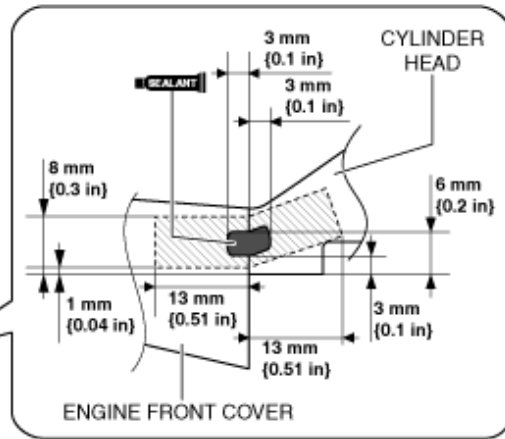
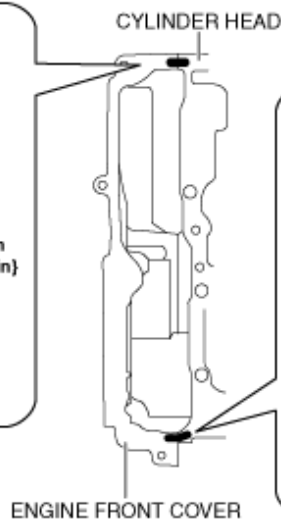
- If the alignment marks are not aligned, align the alignment marks while slightly moving the engine and temporarily tighten the nuts.



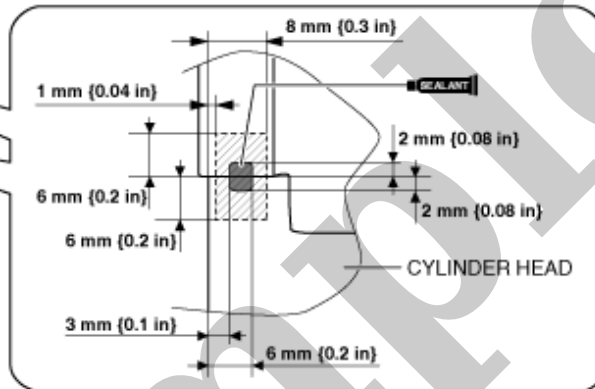
2. Tighten the No.3 engine mount installation bolts and nuts in the order shown in the figure.

Technical drawing of the front cover assembly showing dimensions in mm and inches:

- SEALANT
- CYLINDER HEAD
- 1 mm {0.04 in}
- 3 mm {0.1 in}
- 3 mm {0.1 in}
- 3 mm {0.1 in}
- 8 mm {0.3 in}
- 13 mm {0.51 in}
- 13 mm {0.51 in}
- 6 mm {0.2 in}
- ENGINE FRONT COVER



EXHAUST-SIDE REAR CAMSHAFT CAP



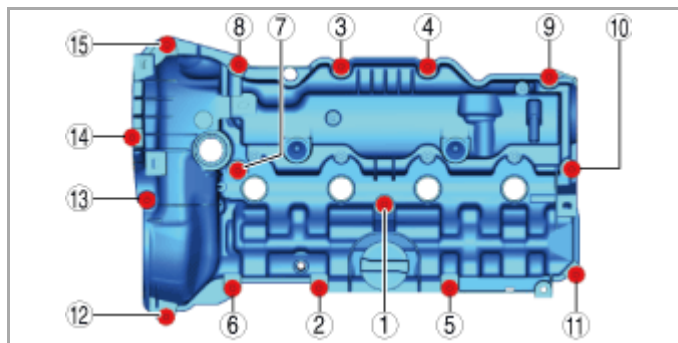
Thickness

2-6 mm {0.1-0.2 in}

3. Install the cylinder head cover.

4. Temporarily tighten the cylinder head cover bolts.

5.Tighten the cylinder head cover bolts in the order shown in the figure.



6. Measure the tightening torque again and verify that it is 6.0 N·m {61 kgf·cm, 53 in·lbf} or more.

DRIVE BELT INSPECTION [SKYACTIV-G 2.5 (WITH CYLINDER DEACTIVATION)]

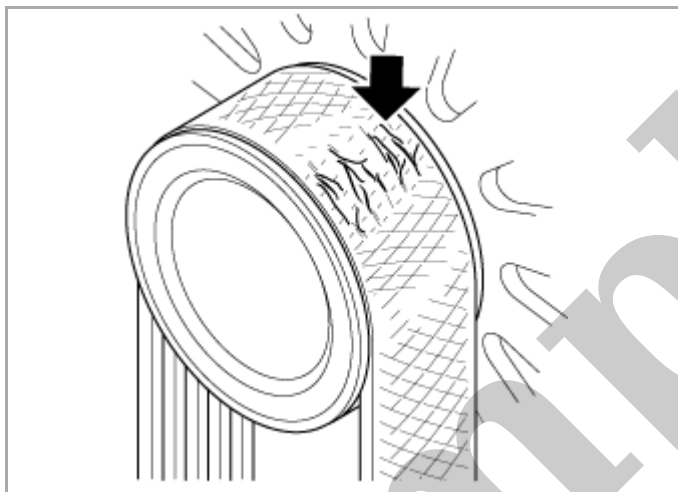
SM2897232

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Generator Drive Belt

Note

- The generator drive belt deflection/tension inspection is not necessary with the adoption of the drive belt auto tensioner.
- The generator drive belt does not have to be replaced because fraying of the generator drive belt does not affect the performance.



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1. Visually inspect or feel that there is no wear, damage, or cracking on the inside and sides of the entire belt.

DRIVE BELT REMOVAL/INSTALLATION [SKYACTIV-G 2.5 (WITH CYLINDER DEACTIVATION)]

SM2897233

id0110s880160

Warning

- A hot engine can cause severe burns. Turn off the engine and wait until it is cool before servicing.

Note

- Remove/install the drive belt from the underside of the vehicle.

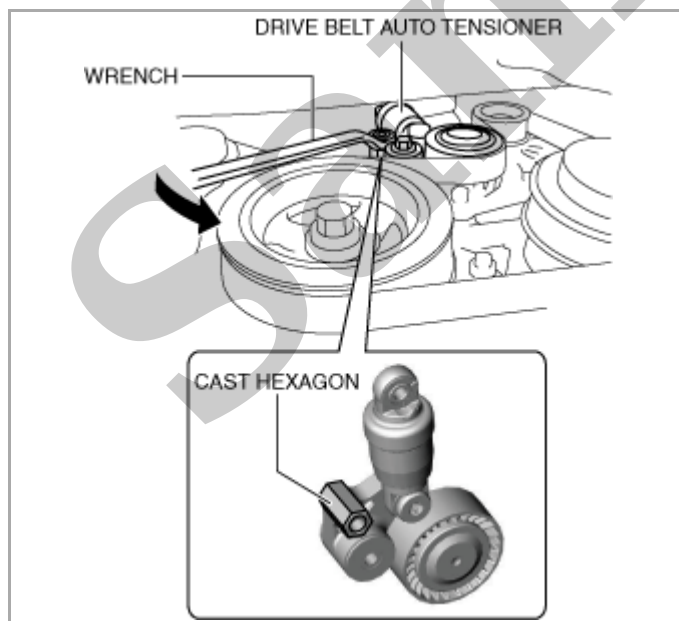
Generator Drive Belt Removal/Installation

Caution

- To prevent damage to the drive belt auto tensioner, do not apply excessive torque after the tensioner moves full-stroke.

1.Remove the front splash shield (RH). (See [SPLASH SHIELD REMOVAL/INSTALLATION](#).)

2.Insert a wrench onto the cast hexagon on the drive belt auto tensioner and release the tension by slowly turning in the direction shown in the figure.



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3.Remove the generator drive belt.

4.Install the generator drive belt.

5.Rotate the crankshaft pulley clockwise approx. halfway and verify that the generator drive belt is installed correctly.

4. After drive belt installation, rotate the crankshaft pulley clockwise approx. halfway and verify that the water pump drive belt is installed correctly.

- If the rib of the drive belt and the groove of the pulley are not aligned, remove the drive belt and re-install it.

5. Install the generator drive belt. (See [Generator Drive Belt Removal/Installation.](#))

Sample

STEP	INSPECTION		ACTION
3	<p>PURPOSE: INSPECT CONDITION OF HYDRAULIC PRESSURE UNIT OF DRIVE BELT AUTO TENSIONER</p> <ul style="list-style-type: none">• Insert a wrench into the hexagonal area of the drive belt auto tensioner.• Apply force to the wrench and force the drive belt auto tensioner to stroke.• Does the resistance increase when the drive belt auto tensioner compresses, and decrease when it expands?	Yes	Verify the condition of the drive belt assembly. If the condition is normal, then go to the next step.
		No	<p>Resistance is high in the up and down direction.</p> <ul style="list-style-type: none">• Replace the drive belt auto tensioner due to hydraulic pressure unit damage or rotational axis damage.• (See DRIVEN BELT AUTO TENSIONER REMOVAL AND INSTALLATION [SKYACTIA G 2.5 (W/CYLINDER DEACTIVATION)].) <p>Resistance is low in the up and down direction.</p> <ul style="list-style-type: none">• Replace the drive belt auto tensioner due to oil leakage or functional part damage.• (See DRIVEN BELT AUTO TENSIONER REMOVAL AND INSTALLATION [SKYACTIA G 2.5 (W/CYLINDER DEACTIVATION)].)

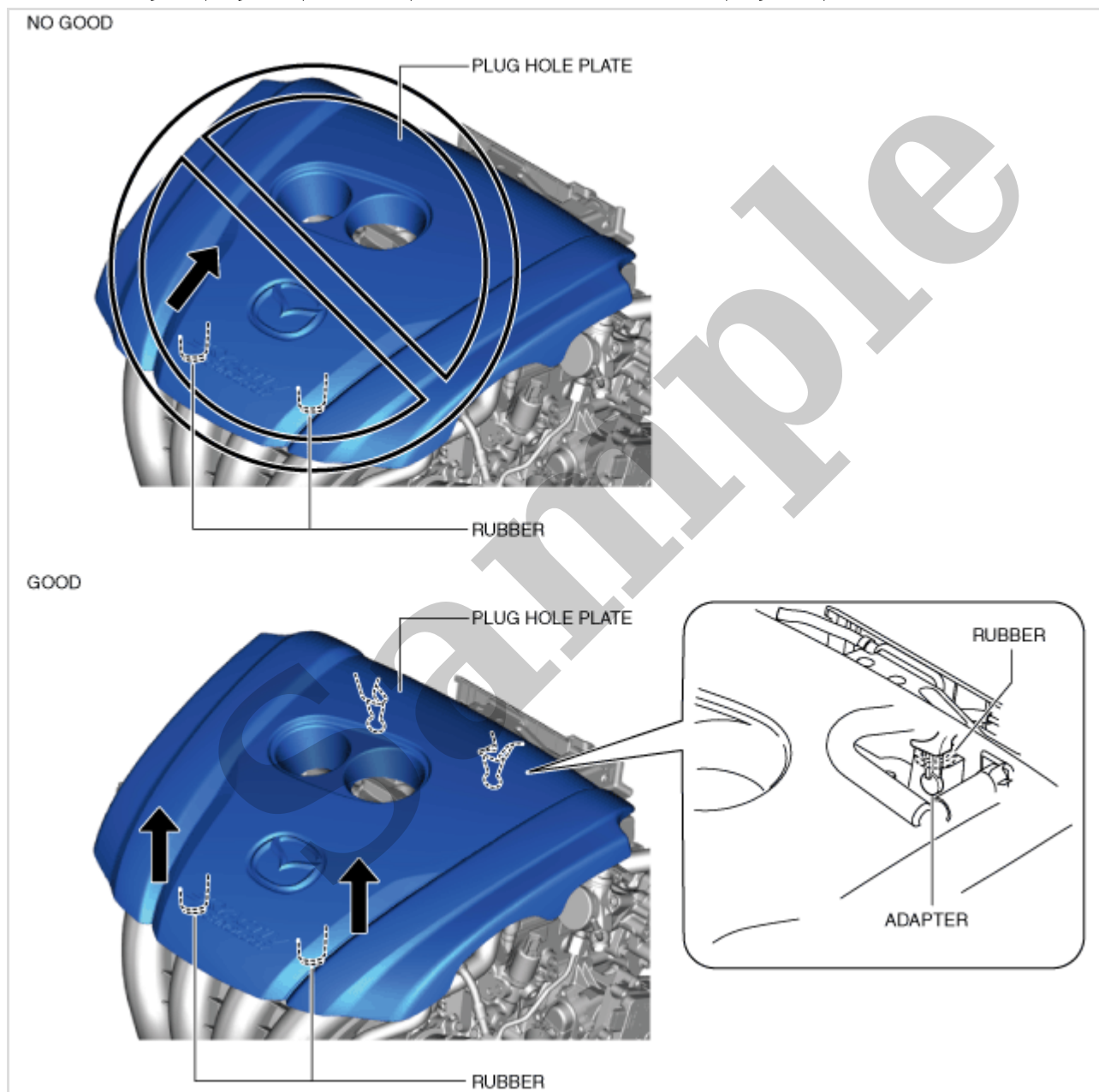
PLUG HOLE PLATE REMOVAL/INSTALLATION [SKYACTIV-G 2.5 (WITH CYLINDER DEACTIVATION)]

SM2897235

id0110s880390

Caution

- If the rubber on only one side of the plug hole plate front is lifted up, it could damage the rear adapters shown in the figure. When removing the plug hole plate, lift up the rubber at the front of the plug hole plate at the same time.



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Removal

1. Pull up the front part of the plug hole plate at the same time and remove the rubber from the adapter on the engine side.

HYDRAULIC LASH ADJUSTER (HLA) REMOVAL/INSTALLATION [SKYACTIV-G 2.5 (WITH CYLINDER DEACTIVATION)]

SM2897236

id0110s880410

Replacement Part

Blind plug
Quantity: 2
Location of use: Engine front cover

Oil and Chemical Type

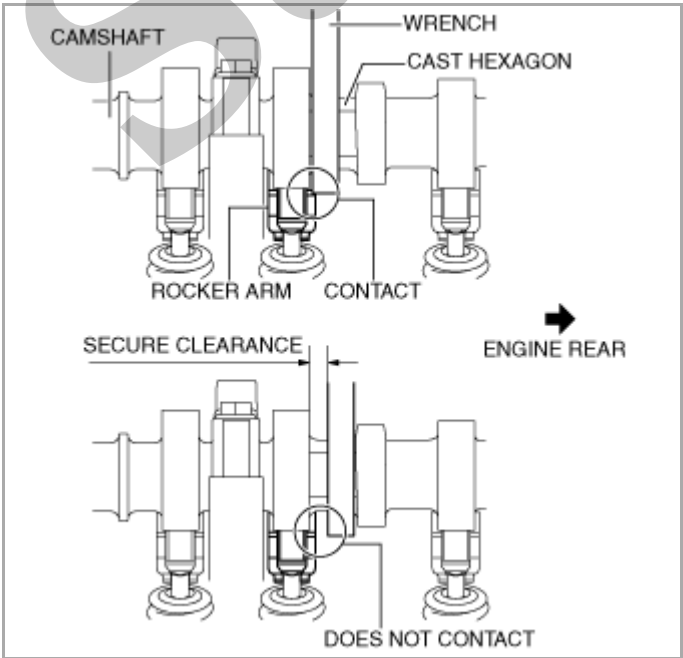
Engine oil	Gear oil	Sealant
Type: Recommended oil	Type: SAE 90 gear oil or equivalent	Type: LOCTITE 962T, 518, 272 or equivalent

Warning

- A hot engine can cause severe burns. Turn off the engine and wait until it is cool before servicing.

Caution

- If the camshaft is rotated with the timing chain removed and the piston at the top dead center position, the valve may contact the piston and the engine could be damaged. When rotating the camshaft with the timing chain removed, rotate it after lowering the piston from the top dead center position.
- When rotating the camshaft using a wrench on the cast hexagon, the wrench may contact the rocker arm and damage the rocker arm. To prevent damage to the rocker arm when holding the camshaft on the cast hexagon, use a wrench on the rear side of the engine as shown in the figure to secure a clearance between the cam.



am3uuw00008968

Note