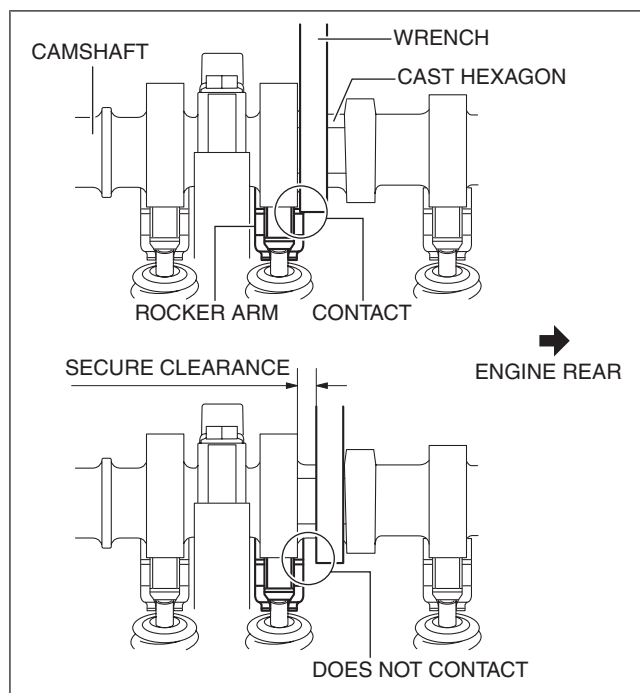


TIMING CHAIN DISASSEMBLY

id011000505500

Caution

- 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 the wrench at engine rear side as shown in the figure to secure a clearance between the cam.

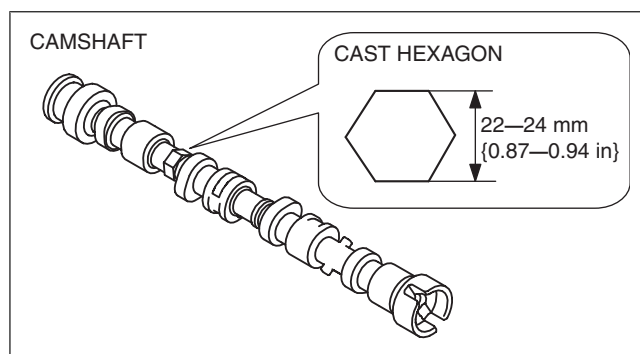


am3uuw00008837

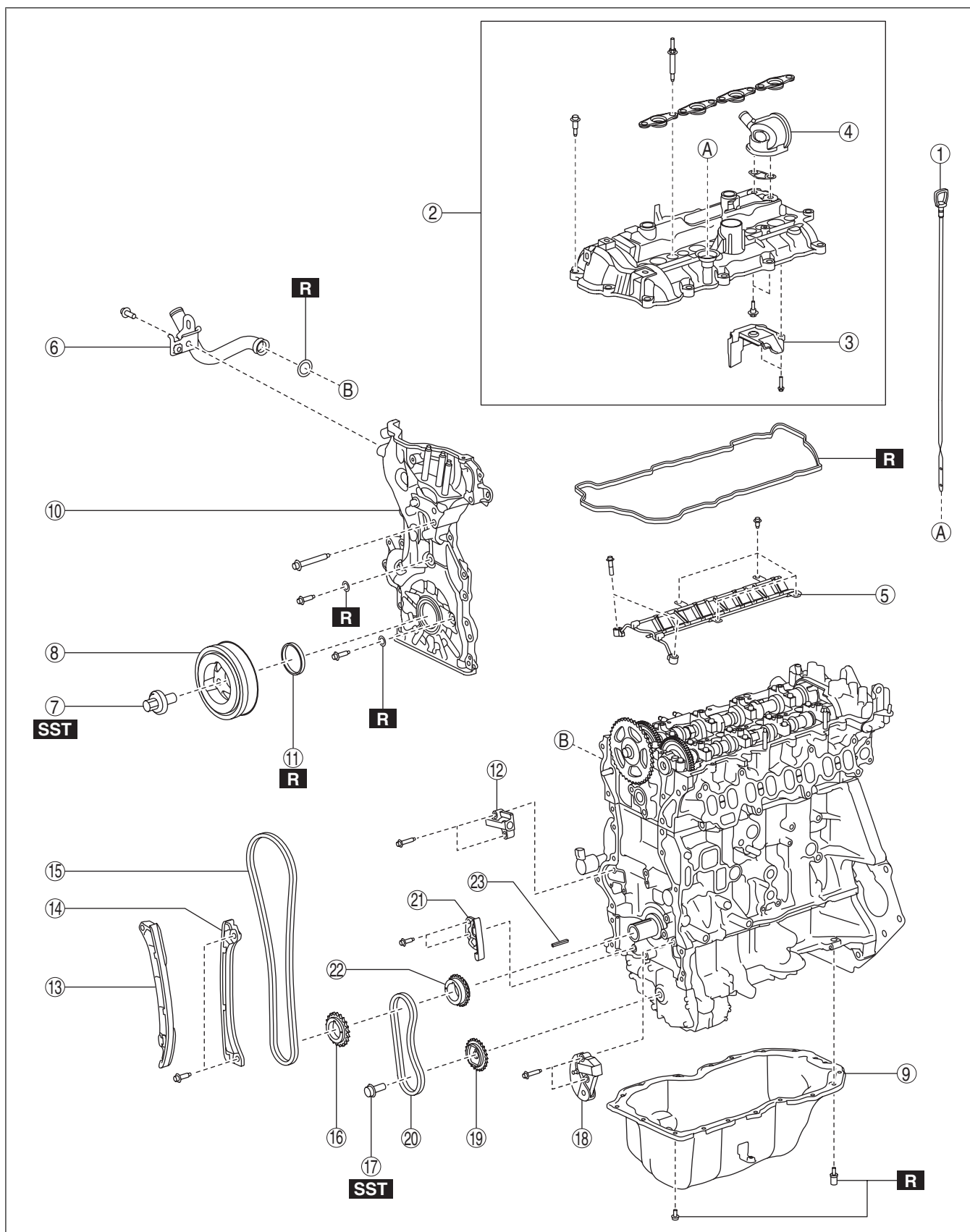
Note

- Width at the cast hexagon of the camshaft is 22—24 mm {0.87—0.94 in}.

- Disassemble in the order indicated in the table.



ac5wzw00004961



beshe00000054

1	Dipstick
2	Cylinder head cover
3	Oil baffle plate
4	Pressure regulator valve
5	Oil shower pipe
6	Water pipe

7	Crankshaft pulley lock bolt (See Crankshaft Pulley Lock Bolt Disassembly Note.)
8	Crankshaft pulley
9	Oil pan (See Oil Pan Disassembly Note.)

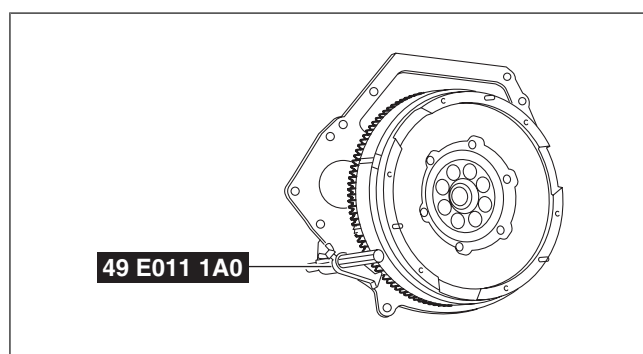
10	Engine front cover (See Engine Front Cover Disassembly Note.)
11	Front oil seal (See Front Oil Seal Disassembly Note.)
12	Timing chain tensioner (See Timing Chain Disassembly Note.)
13	Timing chain tensioner arm (See Timing Chain Disassembly Note.)
14	Timing chain guide (See Timing Chain Disassembly Note.)
15	Timing chain (See Timing Chain Disassembly Note.)
16	Crankshaft sprocket (See Timing Chain Disassembly Note.)

17	Oil pump driven sprocket installation bolt (See Oil Pump Chain Disassembly Note.)
18	Oil pump chain tensioner (See Oil Pump Chain Disassembly Note.)
19	Oil pump driven sprocket (See Oil Pump Chain Disassembly Note.)
20	Oil pump chain (See Oil Pump Chain Disassembly Note.)
21	Oil pump chain guide
22	Oil pump drive sprocket
23	Key

Crankshaft Pulley Lock Bolt Disassembly Note

1. Hold the crankshaft using the SST.

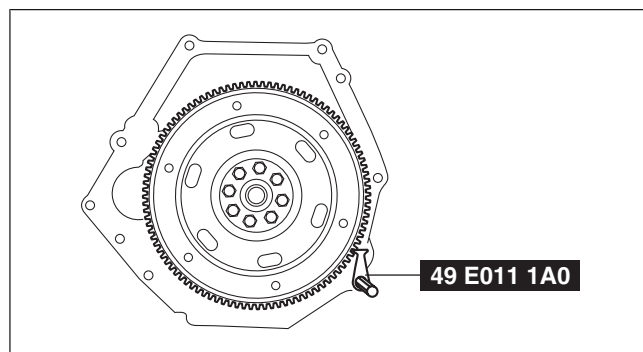
MTX



bes2ze00000071

ATX

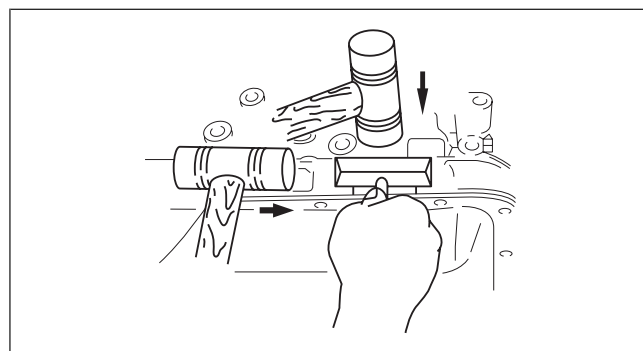
2. Remove the crankshaft pulley lock bolt.



bes2ze00000072

Oil Pan Disassembly Note

1. Remove the oil pan using a separator tool.



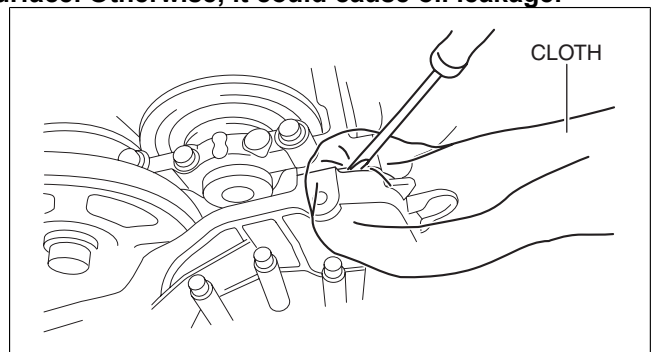
adejiw00003946

Engine Front Cover Disassembly Note

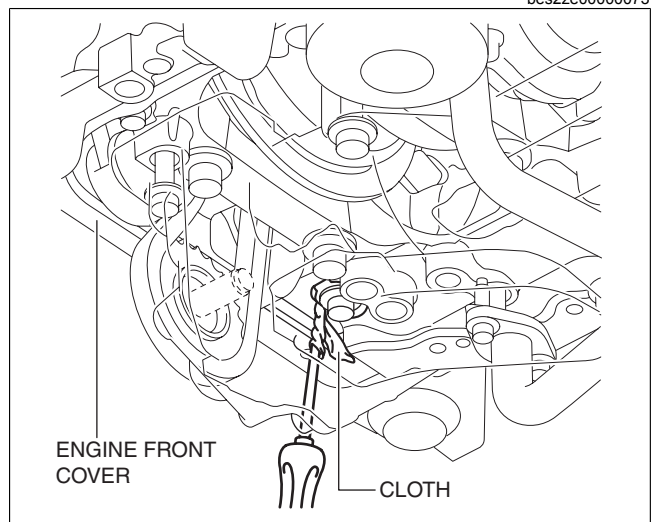
1. Remove the engine front cover installation bolts.
2. Using a screwdriver wrapped in a cloth, peel the sealant away a little at a time, and remove the engine front cover.

Caution

- Do not apply excessive force to the screwdriver. Otherwise, the engine front cover could be damaged.
- Be careful not to scratch or damage the seal surface. Otherwise, it could cause oil leakage.



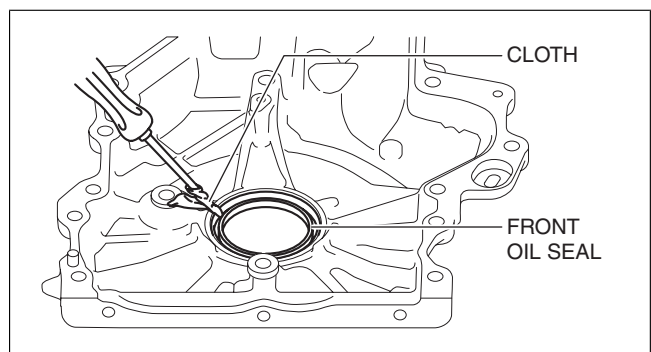
bes2ze00000073



bes2ze00000074

Front Oil Seal Disassembly Note

1. Remove the oil seal using a flathead screwdriver with the tip protected by a clean cloth.

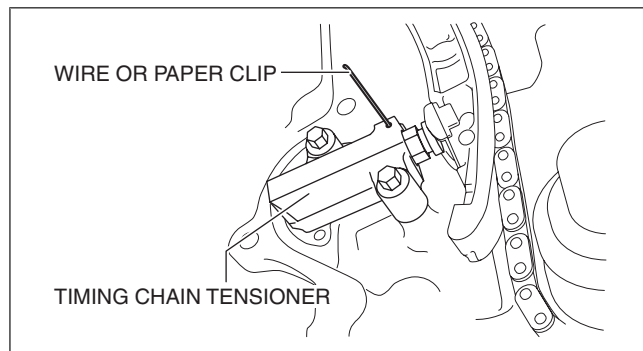


bes2ze00000075

Timing Chain Disassembly Note

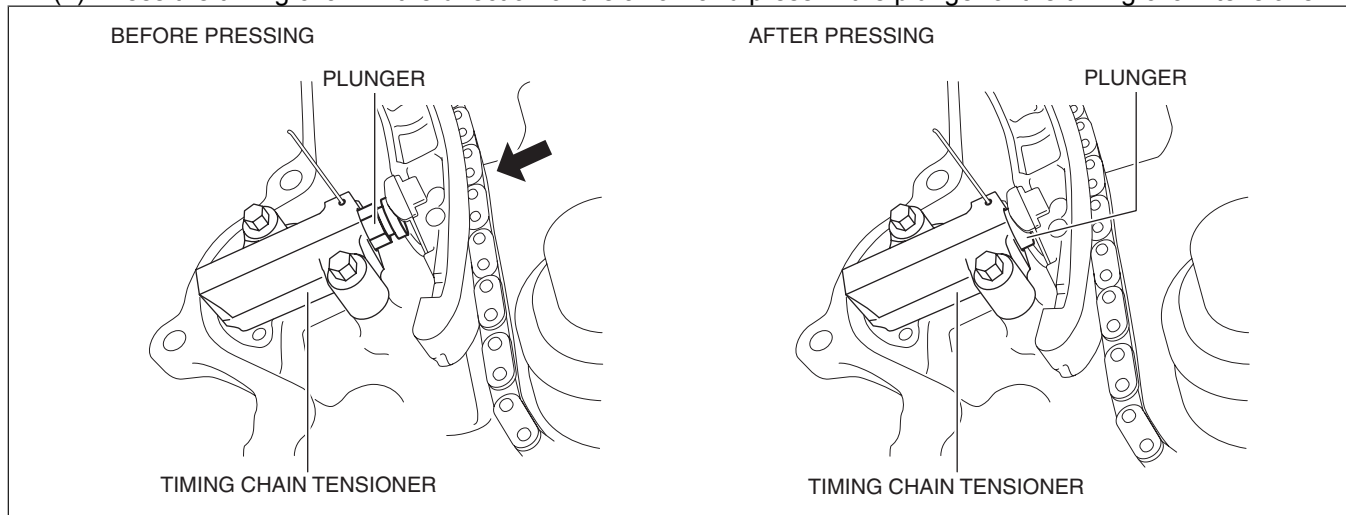
1. Loosen the timing chain tensioner using the following procedure:

- (1) Insert a wire with an approx. diameter of **1.4 mm {0.055 in}** or a paper clip into the body hole of the timing chain tensioner.



bes2ze00000076

- (2) Press the timing chain in the direction of the arrow and press in the plunger of the timing chain tensioner.



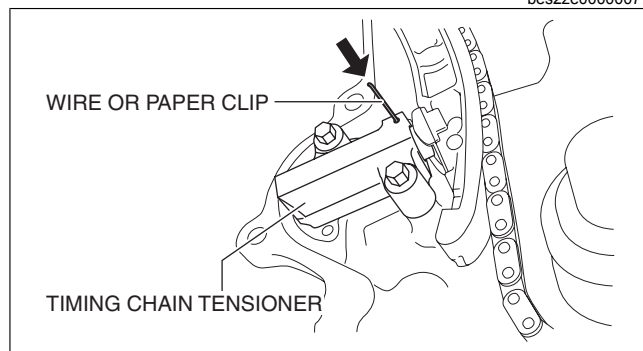
bes2ze00000077

- (3) Press the wire or paper clip set in Step 1 further with the plunger pressed.

Note

- The wire or paper clip secures the plunger, and the tension can be released.

2. Remove the timing chain tensioner and timing chain tensioner arm.
3. Remove the timing chain guide.
4. Remove the timing chain and crankshaft sprocket as a single unit.

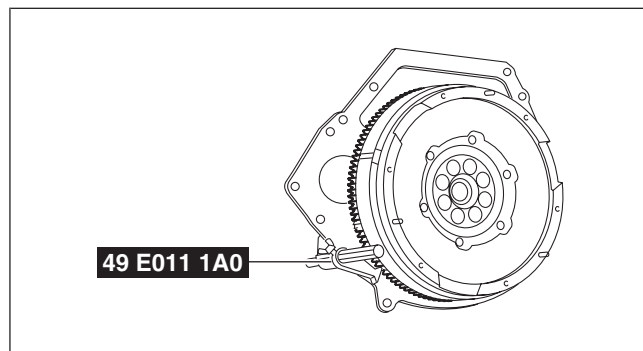


bes2ze00000078

Oil Pump Chain Disassembly Note

1. Hold the crankshaft using the SST.

MTX



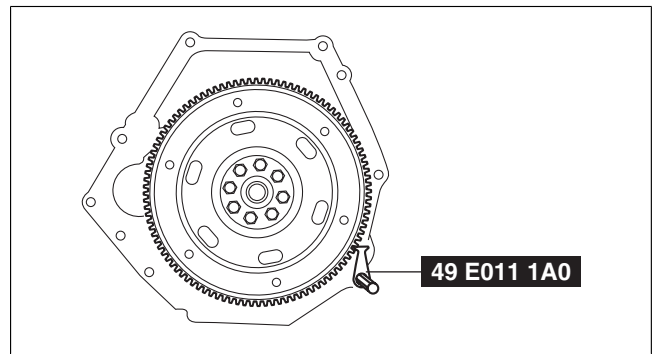
bes2ze00000071

ATX

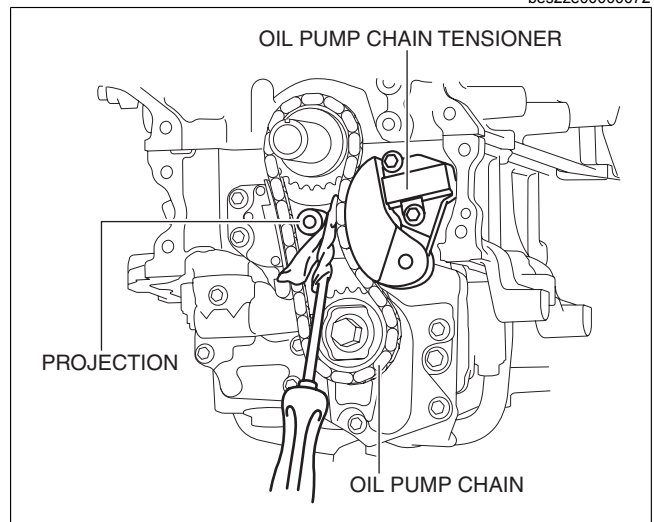
2. Slightly loosen the oil pump driven sprocket installation bolt.

Note

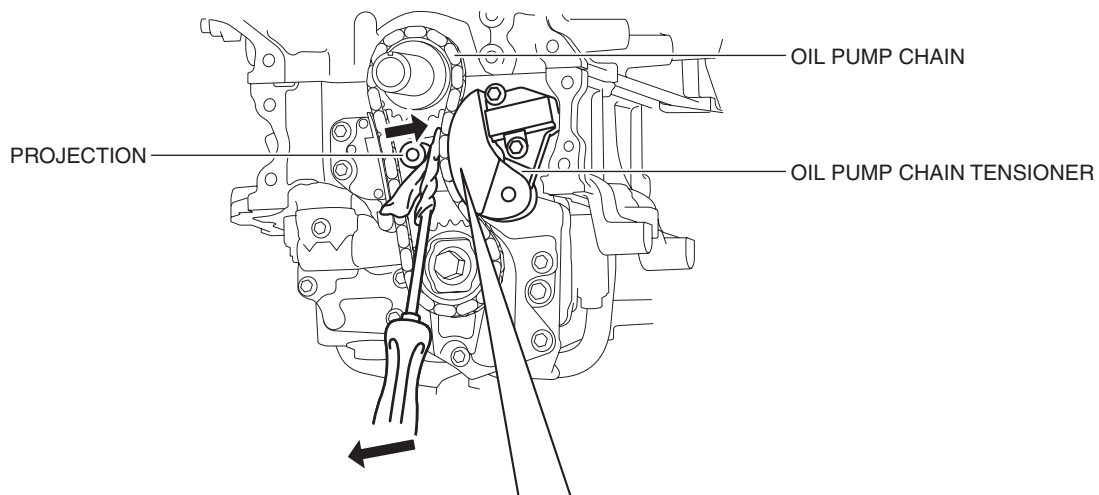
- At this stage, only loosen the oil pump driven sprocket installation bolt, do not remove it. Remove the bolt after removing the oil pump chain tensioner.



3. Set a cloth wrapped flathead screwdriver in the gap between the lower cylinder block projection and the oil pump chain as shown in the figure.

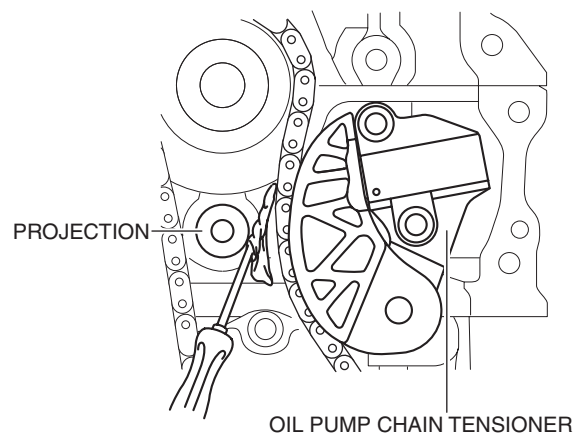
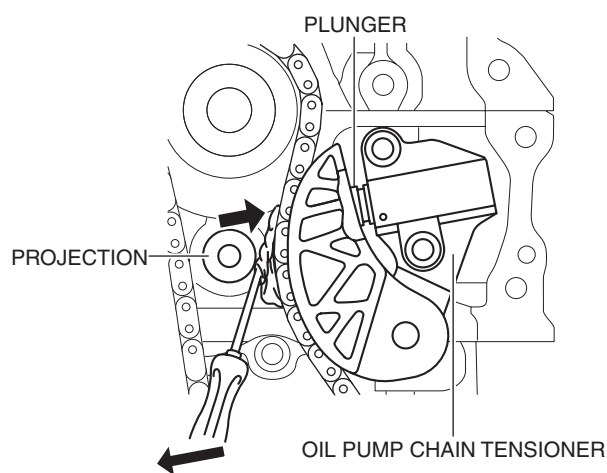


4. Move the screwdriver in the direction of the arrow and press the oil pump chain, and then press in the plunger of the oil pump chain tensioner.



BEFORE PRESSING

AFTER PRESSING



bes2ze00000080

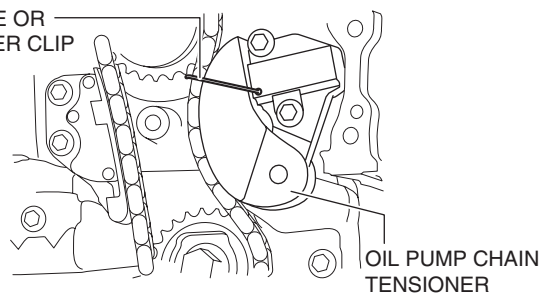
5. Insert a wire with an approx. diameter of **1.4 mm {0.055 in}** or a paper clip into the body hole of the oil pump chain tensioner with the plunger pressed.

Note

- The wire or paper clip secures the plunger, and the tension can be released.

6. Remove the oil pump chain tensioner.
7. Remove the oil pump chain and oil pump driven sprocket as a single unit.

WIRE OR
PAPER CLIP



bes2ze00000081