

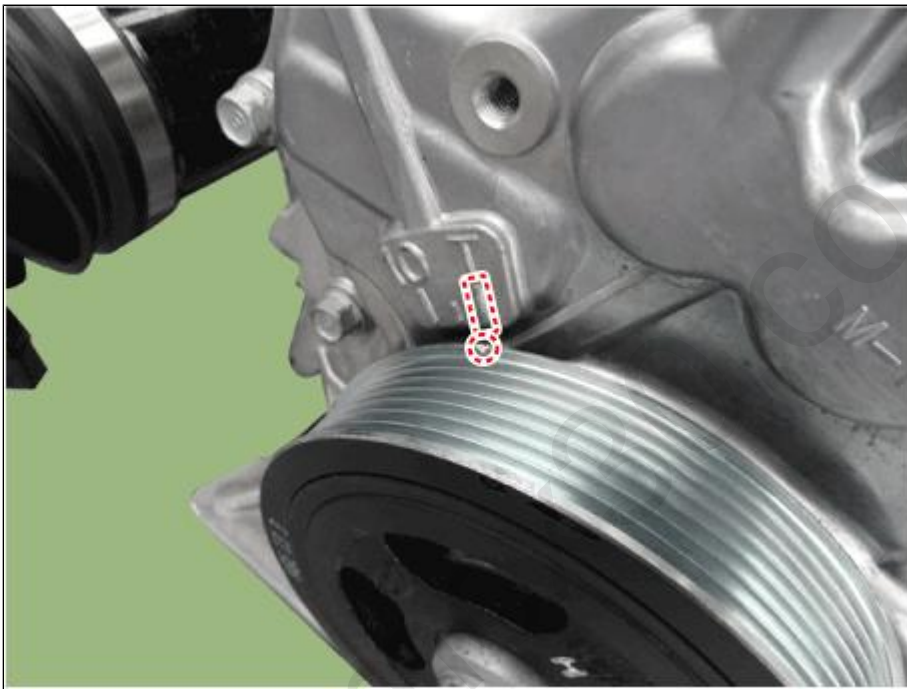
Removal

⚠ WARNING

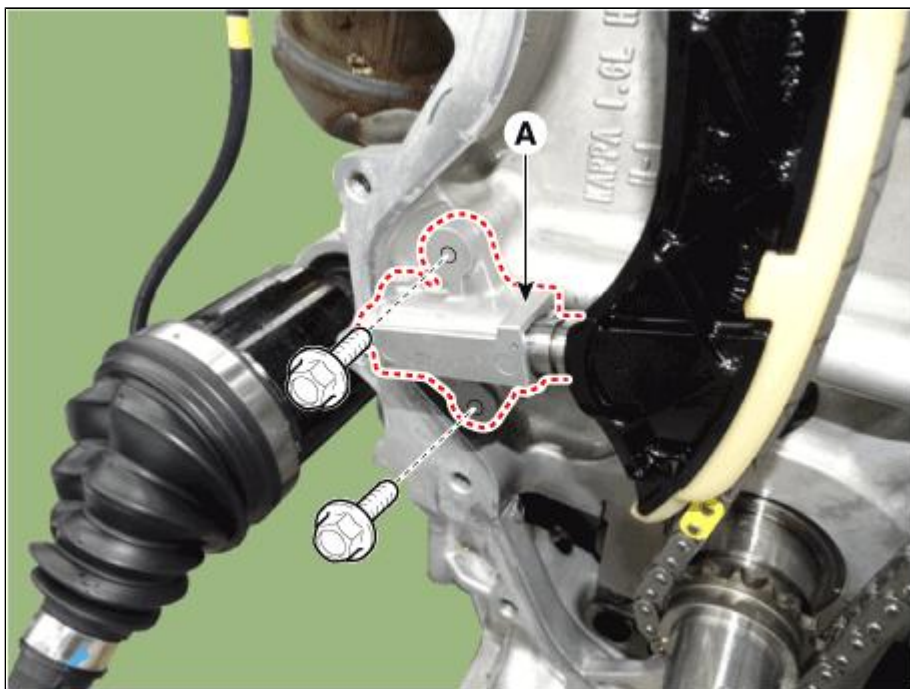
Be sure to read and follow the "General Safety Information and Caution" before doing any work related with the high voltage system. Failure to follow the safety instructions may result in serious electrical injuries.

Be sure to read and follow the "High Voltage Shut-off Procedures" before doing any work related with the high voltage system. Failure to follow the safety instructions may result in serious electrical injuries.

1. Shut off the high voltage circuit.
(Refer to General Information - "High Voltage Shutoff Procedure")
2. Disconnect the battery positive terminal.
3. Remove the cylinder head cover.
(Refer to Cylinder Head Assembly - "Cylinder Head Cover")
4. Set No.1 cylinder to TDC (Top dead center) on compression stroke.
(1) Turn the crankshaft damper pulley and align its groove with the timing mark of the timing chain cover.



5. Remove the timing chain cover.
(Refer to Timing System - "Timing Chain Cover")
6. Put paint marks on the timing chain links (3 places) that meet with the timing marks of the camshaft sprockets (In, Ex : 2) and the crankshaft sprocket.
7. Remove the timing chain tensioner (A).

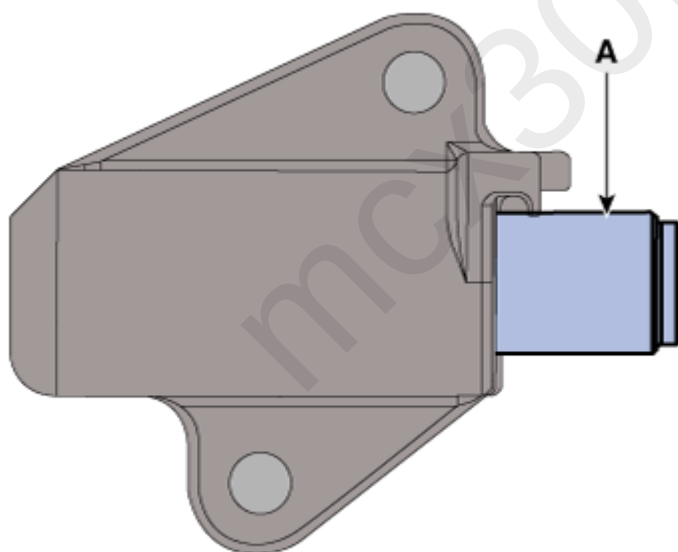


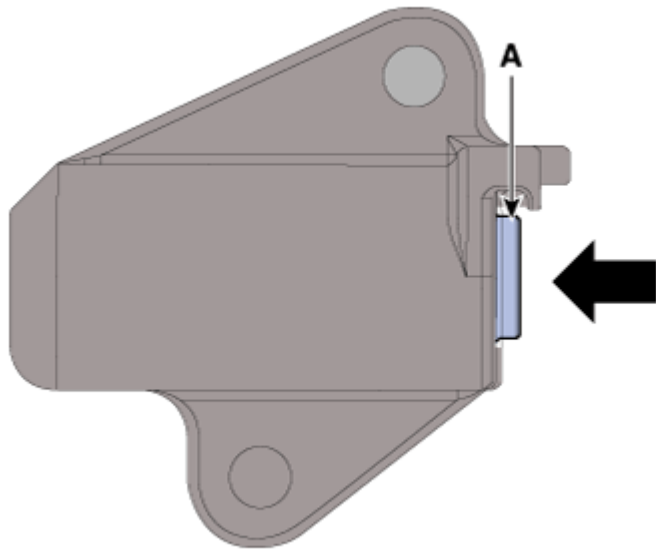
NOTICE

Do not reuse the detached tensioner.

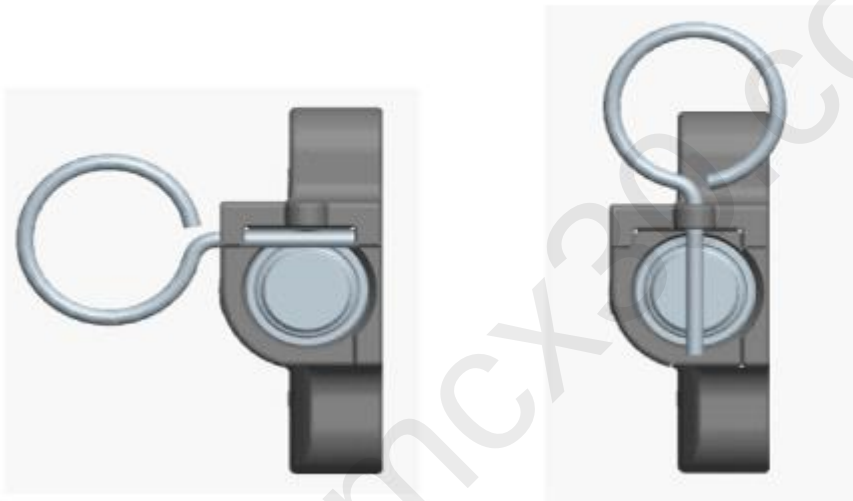
If need to reuse the tensioner, remove the tensioner, make the piston (A) to protrude maximally, push the piston (A) to the end, and then mount the stopper pin.

At this time, the tensioner fixing pin should be placed in the same way as when the product was first delivered from the factory.

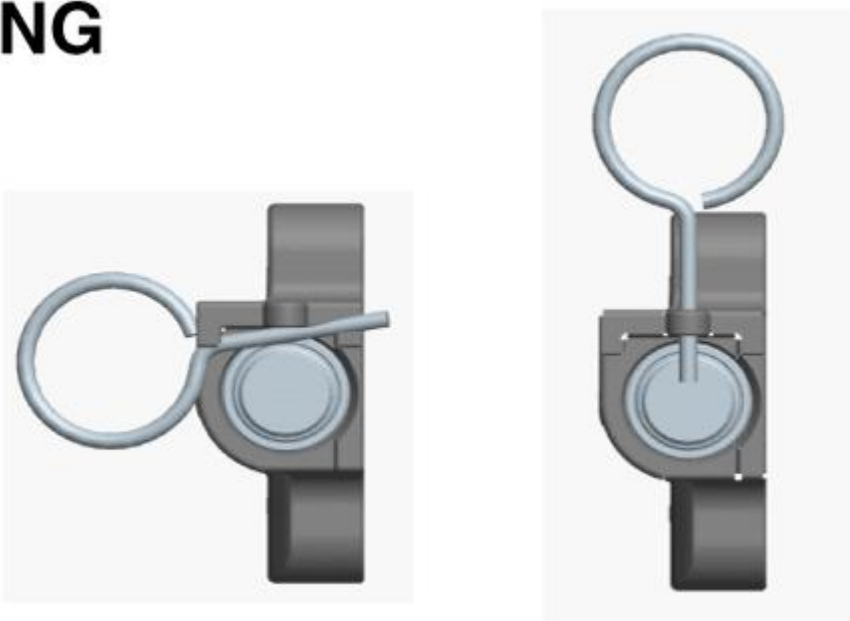




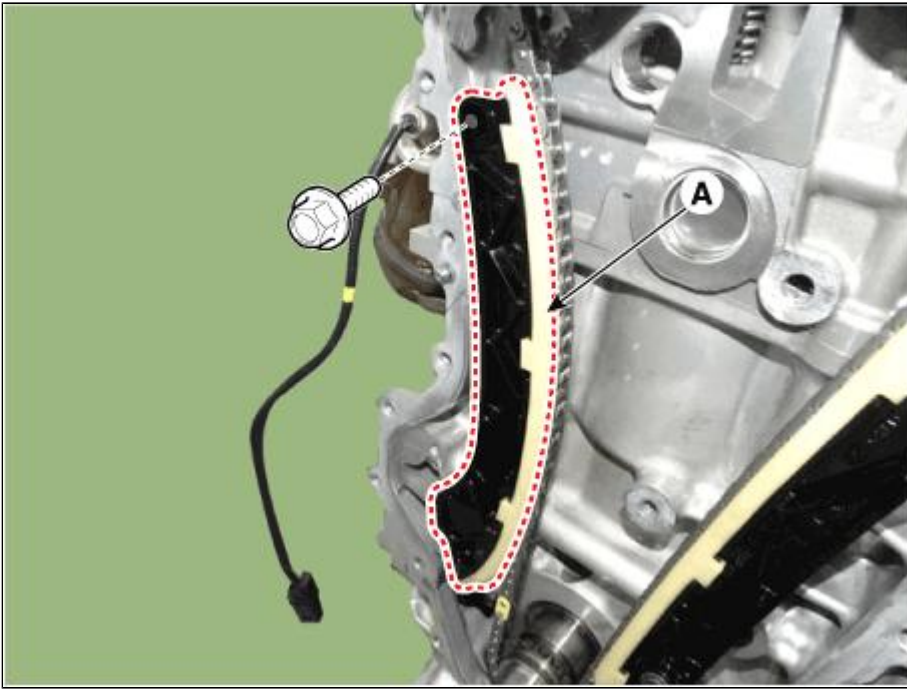
OK



NG



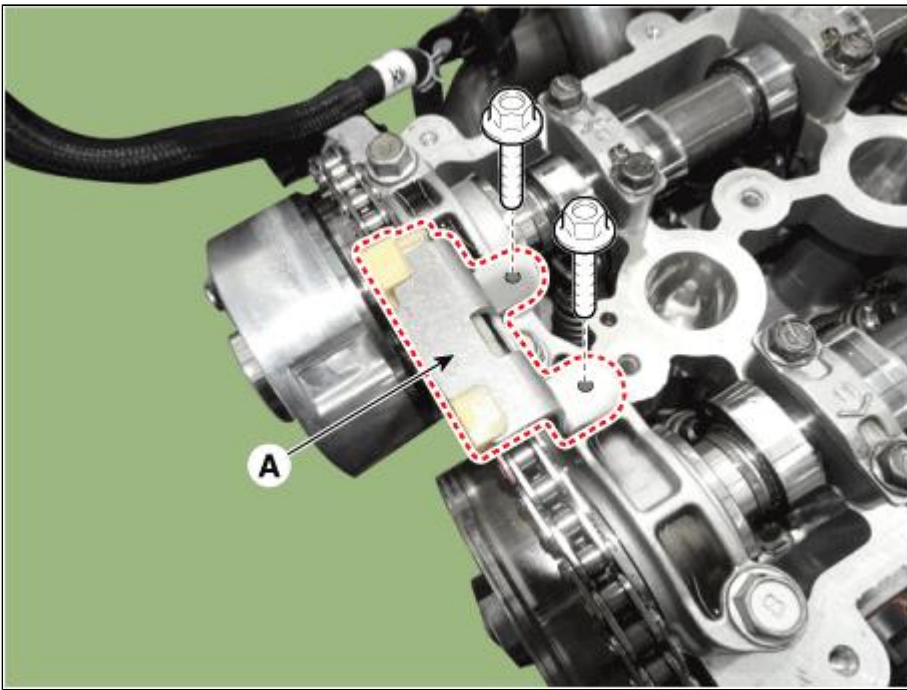
8. Remove the timing chain tensioner arm (A).



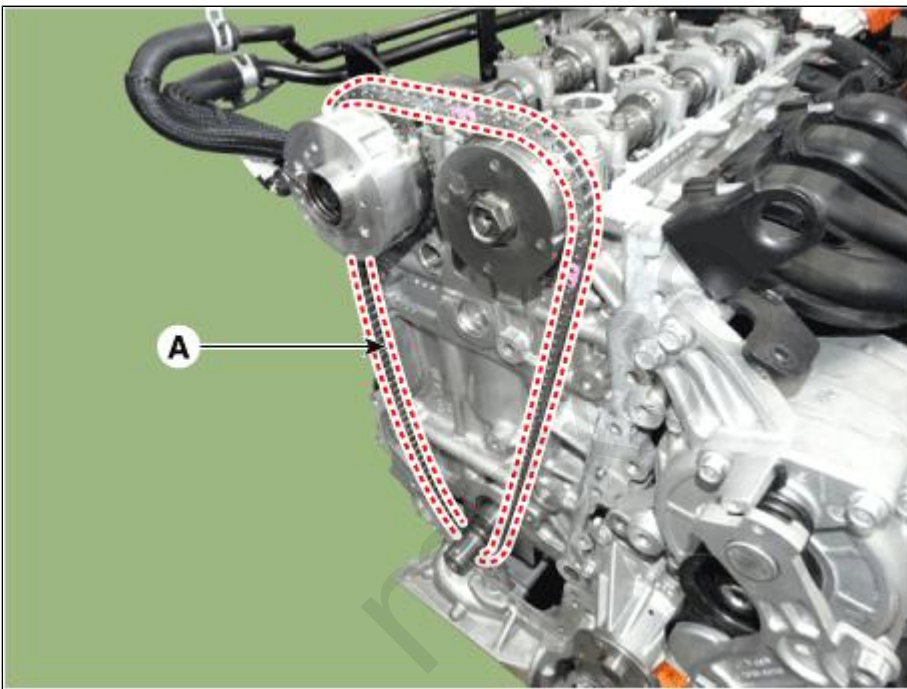
9. Remove the timing chain guide (A).



10. Remove the timing chain cam guide (A).



11. Remove the timing chain (A).



Inspection

Sprockets, Chain Tensioner, Chain Guide, Chain Tensioner Arm

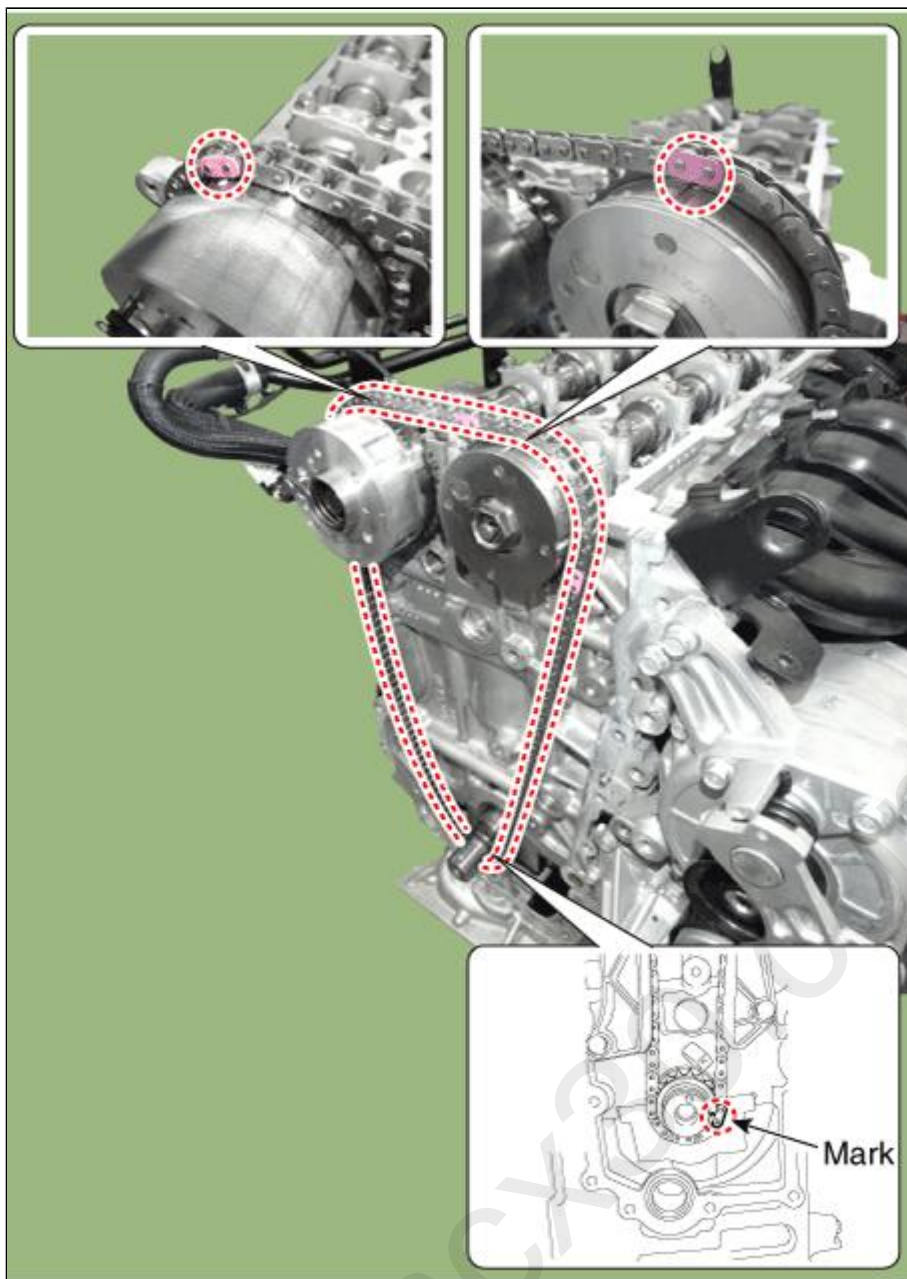
1. Check the camshaft sprocket and crankshaft sprocket for abnormal wear, cracks, or damage. Replace as necessary.
2. Inspect the tensioner arm and chain guide for abnormal wear, cracks, or damage. Replace as necessary.
3. Check that the tensioner piston moves smoothly.

Installation

1. Install the timing chain.

Crankshaft sprocket → Intake CVVT sprocket → Exhaust CVVT sprocket

(1) Install the timing chain with no slack between the crankshaft sprocket and the intake CVVT sprocket.



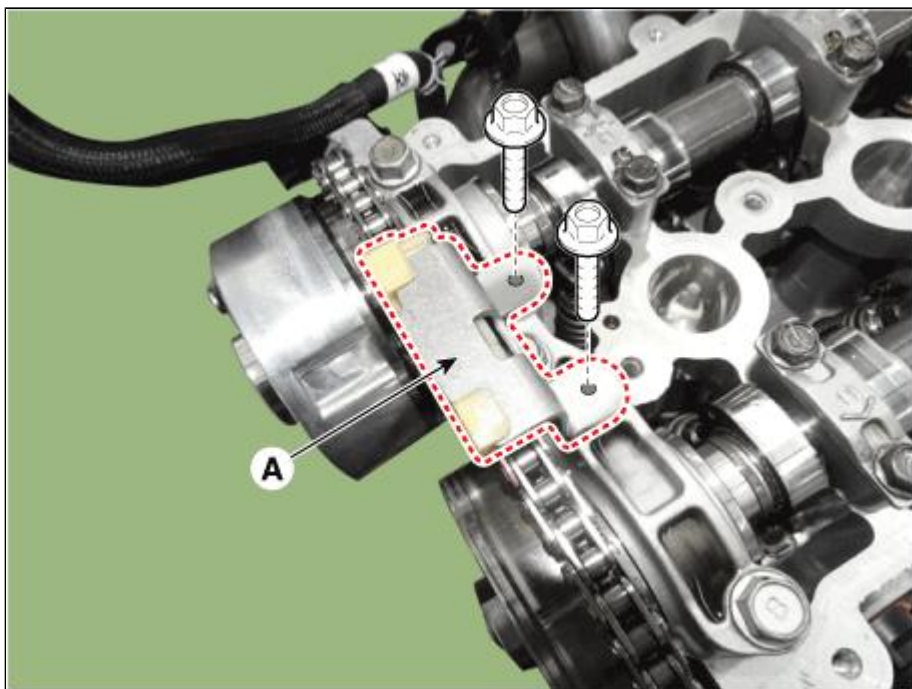
NOTICE

The timing marks of each sprocket should be matched with timing marks (color link) of timing chain when installing the timing chain.

2. Install the timing chain cam guide (A).

Tightening torque :

9.8 - 11.8 N.m (1.0 - 1.2 kgf.m, 7.2 - 8.7 lb-ft)



3. Install the timing chain guide (A).

Tightening torque :

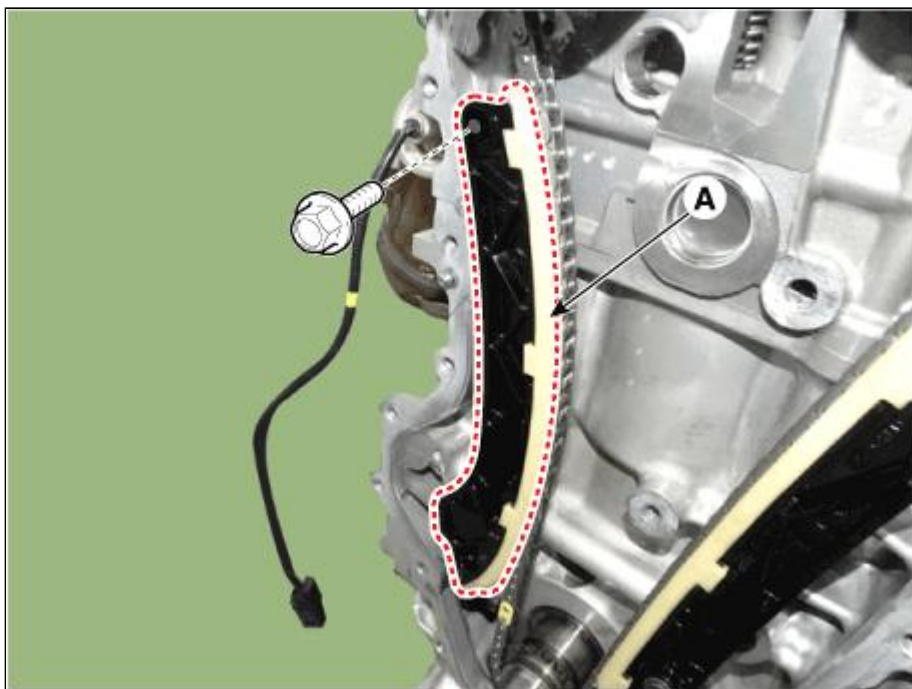
9.8 - 11.8 N.m (1.0 - 1.2 kgf.m, 7.2 - 8.7 lb-ft)



4. Install the timing chain tensioner arm (A).

Tightening torque :

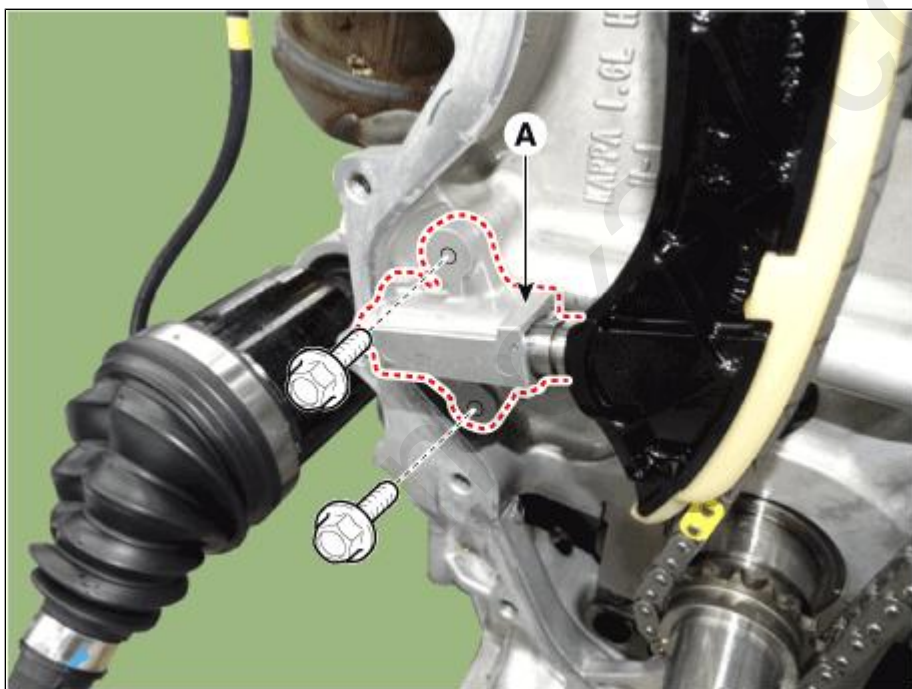
9.8 - 11.8 N.m (1.0 - 1.2 kgf.m, 7.2 - 8.7 lb-ft)



5. Install the timing chain tensioner (A) and remove the stopper pin.

Tightening torque :

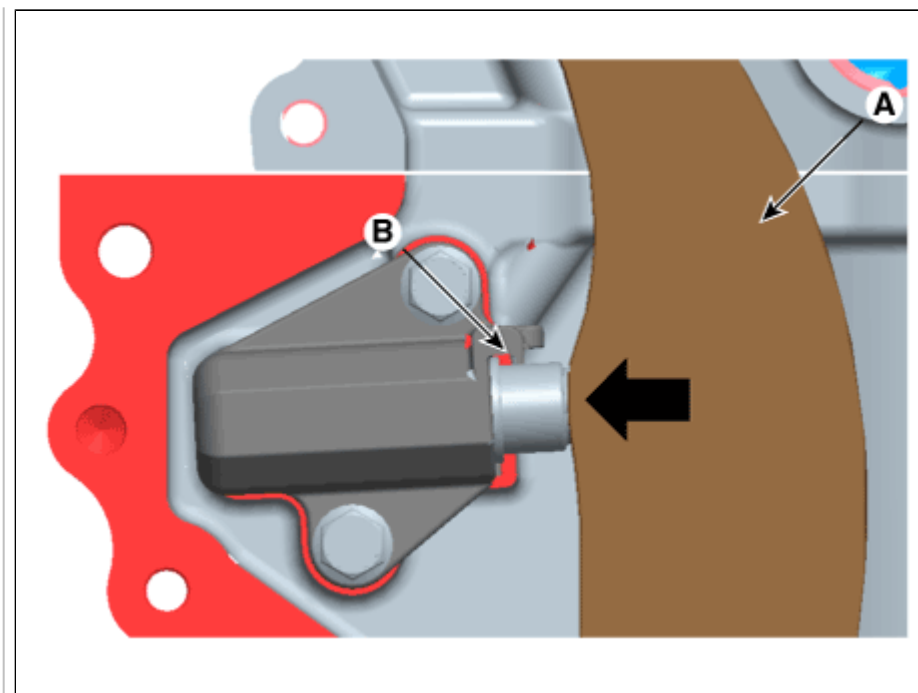
9.8 - 11.8 N.m (1.0 - 1.2 kgf.m, 7.2 - 8.7 lb-ft)



NOTICE

When reinstall the tensioner, check the ratchet function of the tensioner after removing the fixing pin by retracting the tensioner arm (A) maximally as shown below.

When maximally retracted, there should be no interference between the tensioner arm (A) and tensioner housing (B).



6. Install the other parts in the reverse order of removal.

7. Add all the necessary fluids and check for leaks. Connect diagnostic tool. Check for codes, note, and clear. Recheck.

NOTICE

Refill engine with engine oil.

Inspect for fuel leakage.

After assembling the fuel line, turn on the ignition switch so that the fuel pump runs for approximately two seconds and fuel line pressurizes.

Repeat this operation two or three times, then check for fuel leakage at any point in the fuel line.

Rate this Document

☐ Document Type : SHOP

☐ Document Rating :

Please rate the above contents on a scale of 1 to 5.

Little Value 1 2 3 4 5 Excellent Value