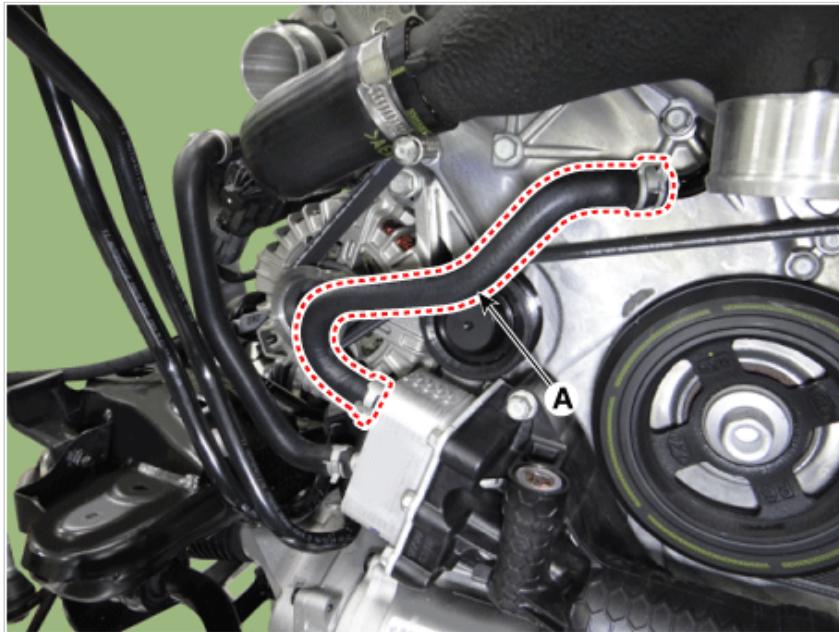




## Removal

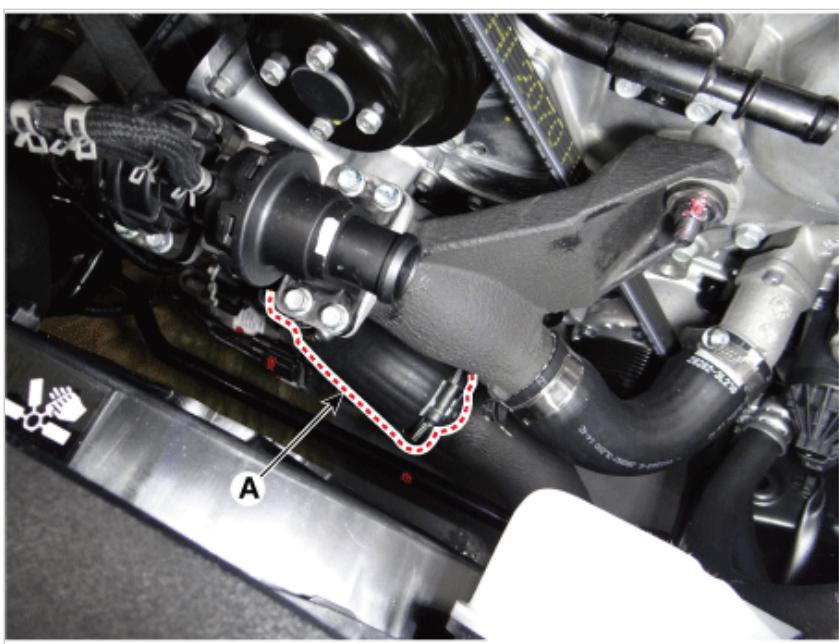
1. Remove the engine cover.  
**(Refer to Engine and Transmission Assembly - "Engine Cover")**
2. Remove the engine room front under cover.  
**(Refer to Engine and Transmission Assembly - "Engine Room Under Cover")**
3. Drain the coolant.  
**(Refer to Cooling System - "Coolant")**
4. Disconnect the oil cooler water hose A (A).



5. Disconnect the intercooler inlet hose (A).

### Tightening torque :

4.9 - 6.9 N·m (0.5 - 0.7 kgf·m, 3.6 - 5.1 lb·ft, 43.4 - 60.8 lb·in)  
(If equipped with a cap, tighten it until the cap is removed.)



6. Disconnect the LH & RH inlet hose (A).

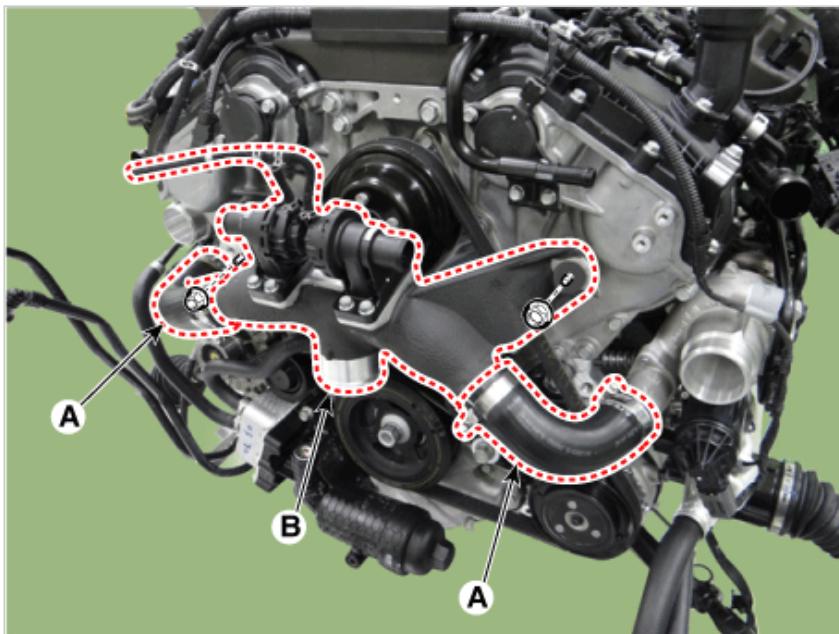
### Tightening torque :

4.9 - 6.9 N·m (0.5 - 0.7 kgf·m, 3.6 - 5.1 lb·ft, 43.4 - 60.8 lb·in)  
(If equipped with a cap, tighten it until the cap is removed.)

7. Remove the intercooler inlet joint (B).

**Tightening torque :**

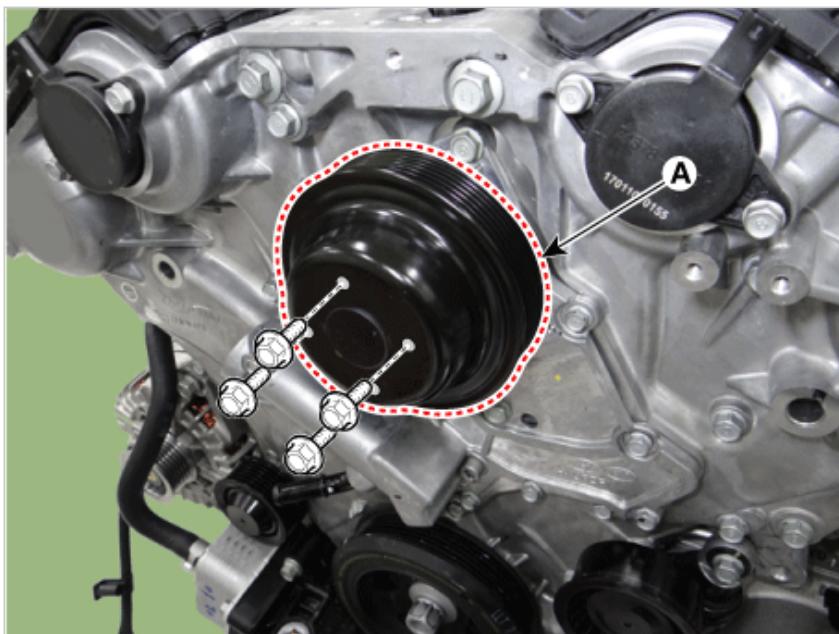
49.0 - 53.9 N·m (5.0 - 5.5 kgf·m, 36.2 - 39.8 lb·ft)



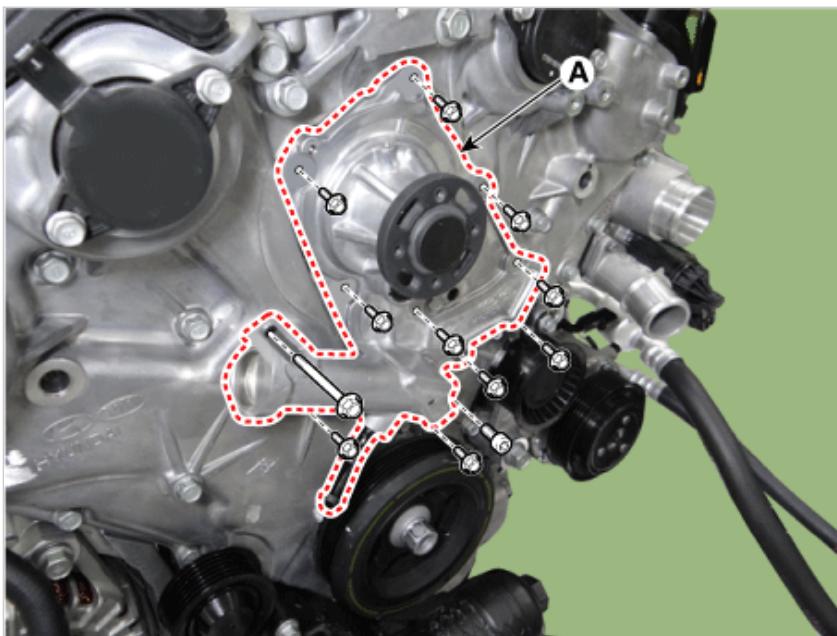
8. Remove the drive belt.

(Refer to Drive Belt System - "Drive Belt")

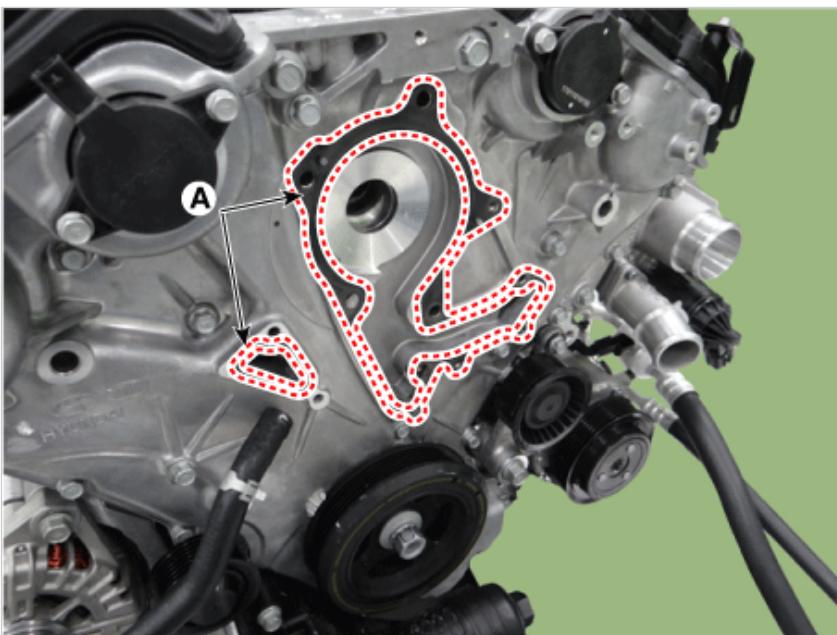
9. Remove the water pump pulley (A).



10. Remove the water pump (A).



11. Remove the water pump gasket (A).



## Inspection

1. Check each part for cracks, damage or wear, and replace the coolant pump assembly if necessary.
2. Check the bearing for damage, abnormal noise and sluggish rotation, and replace the coolant pump assembly if necessary.
3. Check for coolant leakage. If coolant leaks from hole, the seal is defective. Replace the coolant pump assembly.

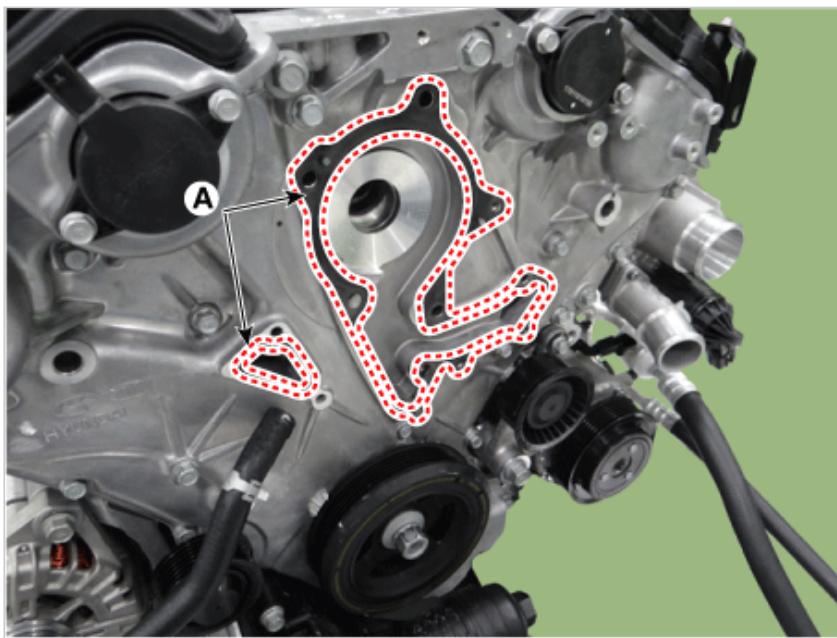
### NOTICE

A small amount of seepage from the bleed hole is normal.

## Installation

### Water pump

1. Install the new water pump gasket (A).

**NOTICE**

Always use a new water pump gasket.

2. Install the water pump (A).

**Tightening torque**

Bolts B (4EA) :

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

Bolt C (1EA) :

21.6 - 26.5 N·m (2.2 - 2.7 kgf·m, 15.9 - 19.5 lb·ft) - Always use a new bolt.

Bolts D (4EA) :

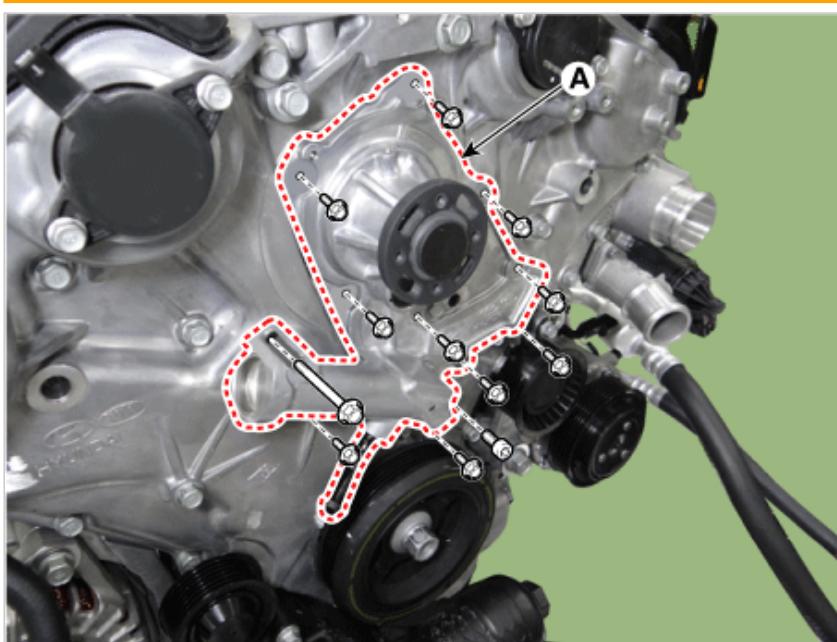
21.6 - 23.5 N·m (2.2 - 2.4 kgf·m, 15.9 - 17.4 lb·ft)

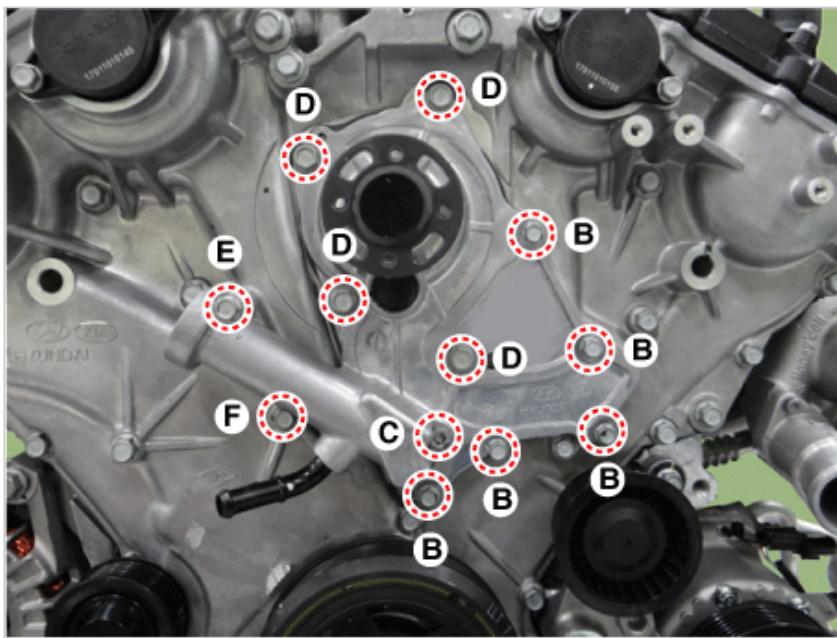
Bolt E (1EA) :

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

Bolt F (1EA) :

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



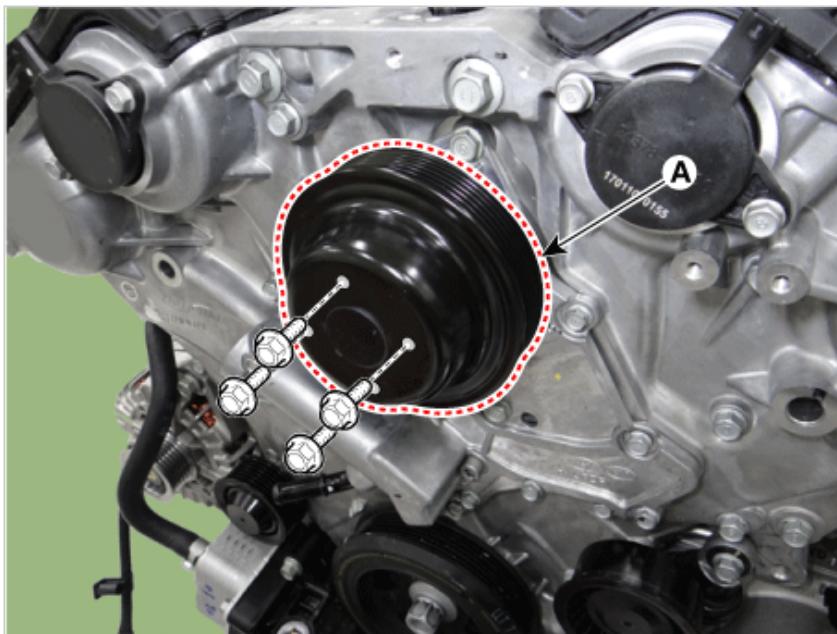
**NOTICE**

- Clean the contact face before assemble.
- Always use a new seal bolt (Bolt C)

## 3. Install the water pump pulley (A)

**Tightening torque :**

7.8 - 9.8 N·m (0.8 - 1.0 kgf·m, 5.8 - 7.2 lb·ft)



## 4. Install the remaining parts in the reverse order of removal.

## 5. Fill with engine coolant.

(Refer to Cooling System - "Coolant")

## 6. Start engine and check for leaks.

## 7. Recheck engine coolant level.