

# **Component Procedures: Front Steering Knuckle**

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# Component Procedures: Front Steering Knuckle

## Parts and Labor (itype\_189)

### Parts

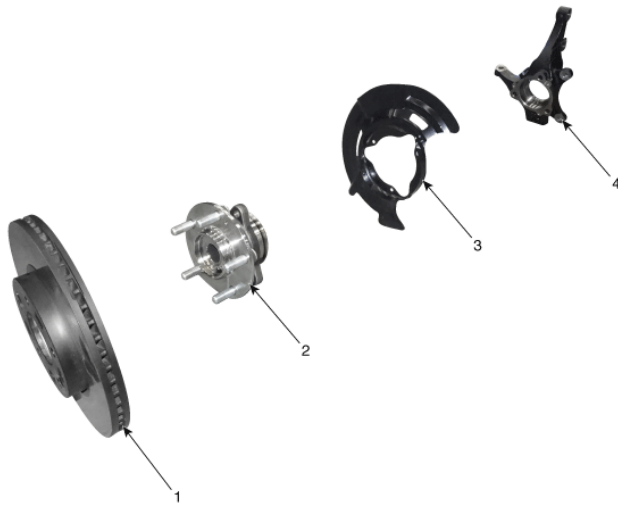
Qualifier	Part #	Name	Price	Note
Front Suspension > Suspension?	51715F2000	2 - Left	467.48	
Front Suspension > Suspension?	51716F2000	2 - Right	467.48	

### Labor

Operation	Qualifier Path	Skill	Std Hrs	Wty Hrs
Remove & Replace	Front Suspension > Suspension Components > Kn?	B	2.1	0.0
Remove & Replace	Front Suspension > Suspension Components > Kn?	B	4.0	0.0

## Front Hub / Knuckle - Components and Components Location (Article 45289)

- Components



1. Brake disc 2. Hub bearing 3. Dust cover 4. Knuckle

## Front Hub / Knuckle - Repair Procedures (Article 45291)

- Removal

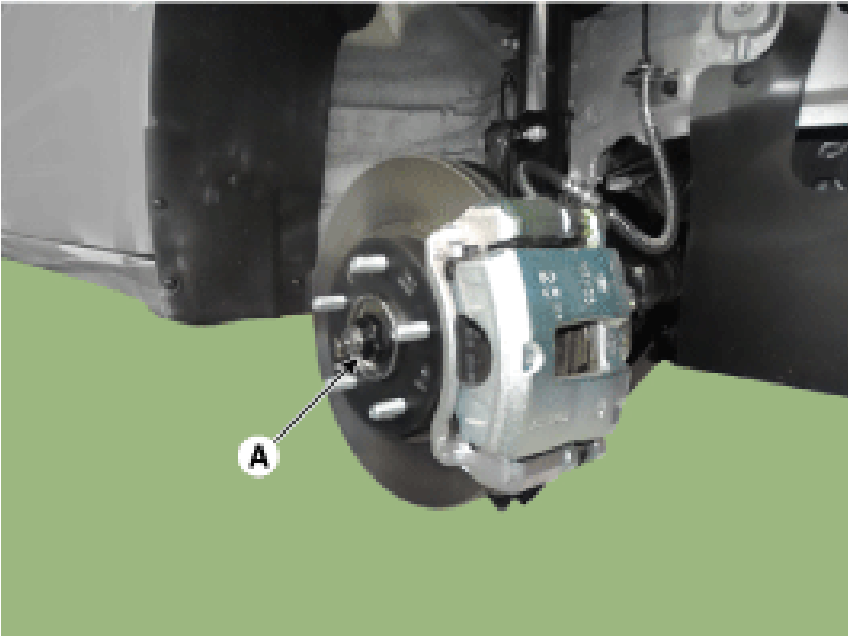
- Loosen the wheel nut s slightly. Raise the vehicle, and make sure it is securely supported.
- Remove the front wheel and tire (A) from the front hub . Tightening torque : 107.9 ~ 127.5 N.m (11.0 ~ 13.0 kgf.m, 79.6 ~ 94.0 lb-ft) Be careful not to damage the hub bolt s when removing the front wheel and tire (A).



Be careful not to damage the hub bolts when removing the front wheel and tire (A).

# NOTICE

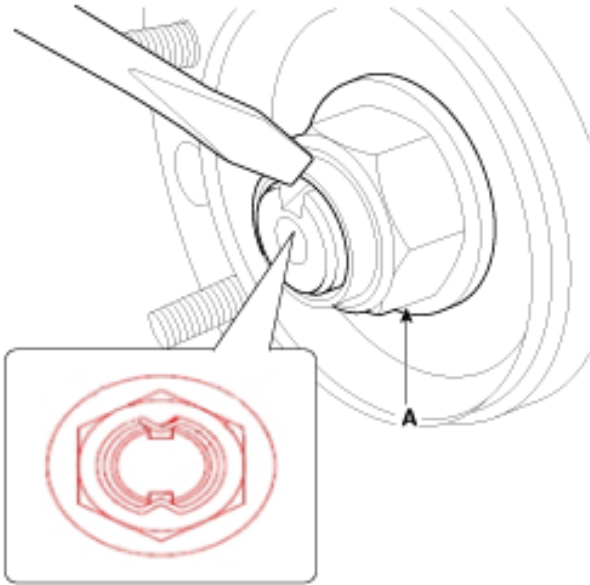
- Be careful not to damage the hub bolts when removing the front wheel and tire (A).
- Loosen the driveshaft caulking nut (A). The driveshaft lock nut should be replaced with new ones. After installation driveshaft lock nut, stake the lock nut using a chisel and hammer as shown in the illustration below. Caulking depth : 1.5 mm (0.591 in.)



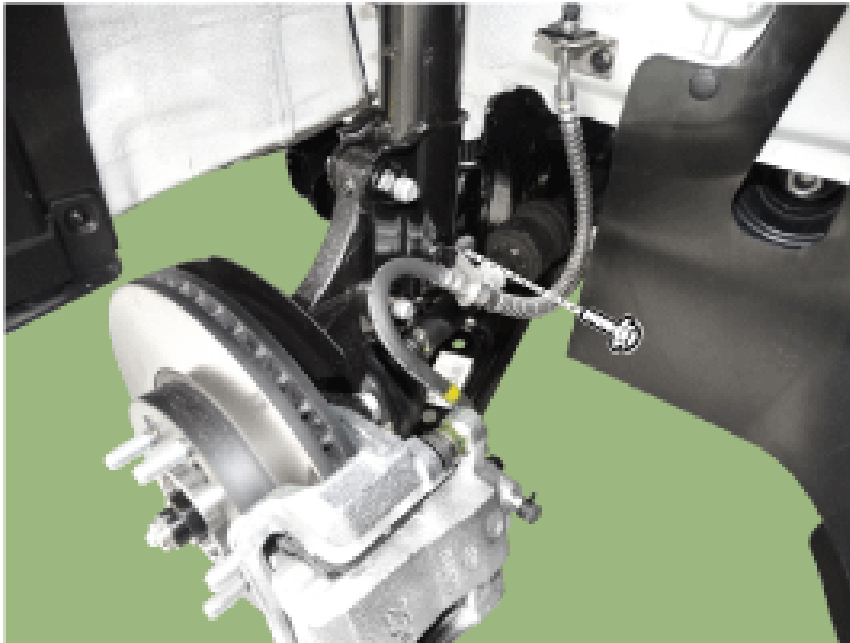
The driveshaft lock nut should be replaced with new ones. After installation driveshaft lock nut, stake the lock nut using a chisel and hammer as shown in the illustration below. Caulking depth : 1.5 mm (0.591 in.)

- The driveshaft lock nut should be replaced with new ones.

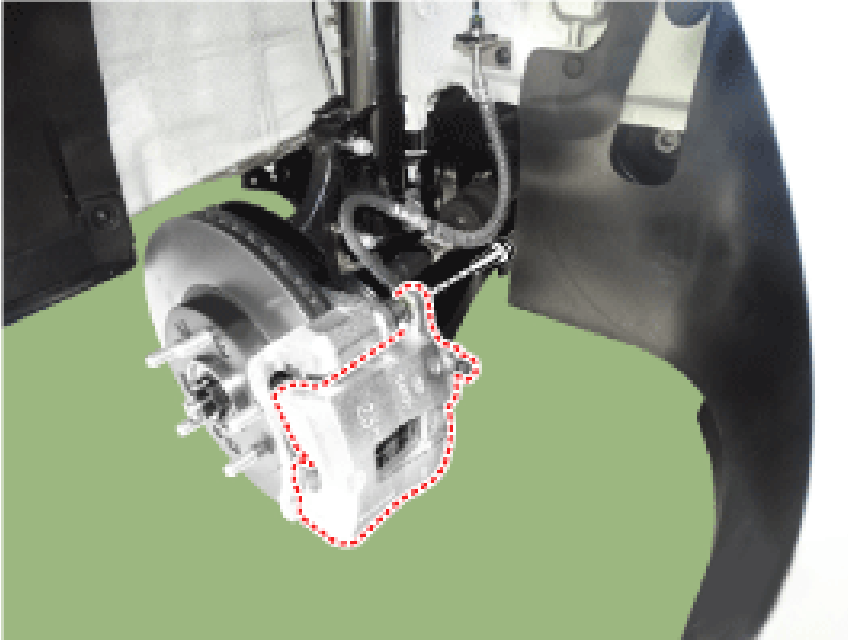
- After installation driveshaft lock nut, stake the lock nut using a chisel and hammer as shown in the illustration below. Caulking depth : 1.5 mm (0.591 in.)



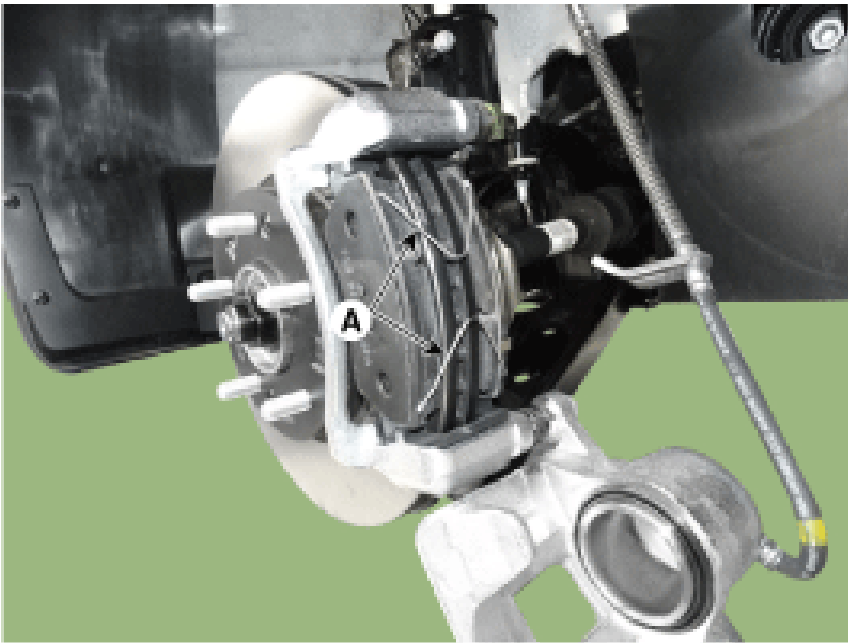
- Loosen the brake hose mounting bolt and then remove the brake hose bracket. Tightening torque : 8.8 ~ 13.7 N.m (0.9 ~ 1.4 kgf.m, 6.5 ~ 10.1 lb-ft)



- Put down the caliper body by loosening the guided rod bolt. Tightening torque : 2.2 ~ 3.2 kgf.m

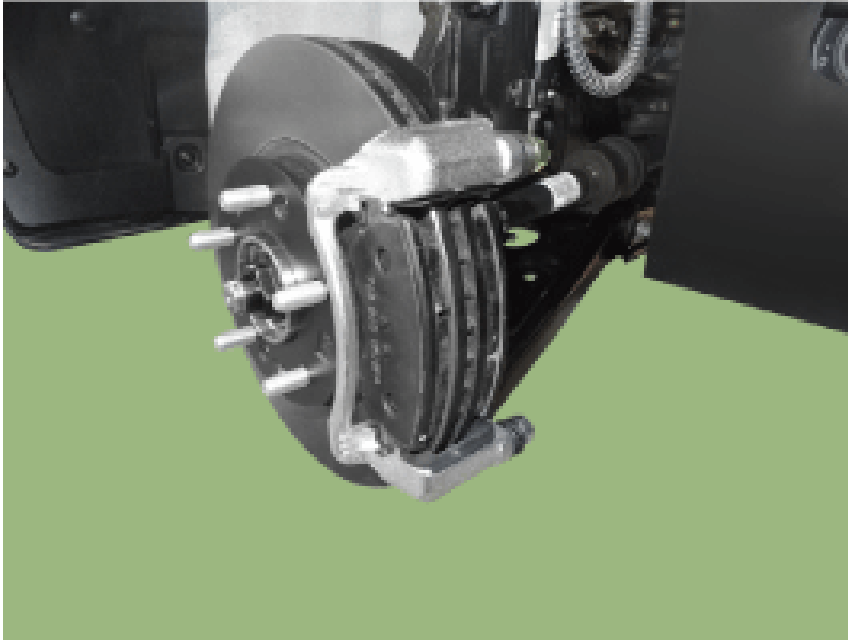


- Remove the pad return spring (A). Pad return springs must be replaced with new ones whenever pads are replaced. Technicians should be careful not to deform pad return springs. When pad return springs are deformed, it may cause improper braking, more fuel consumption.

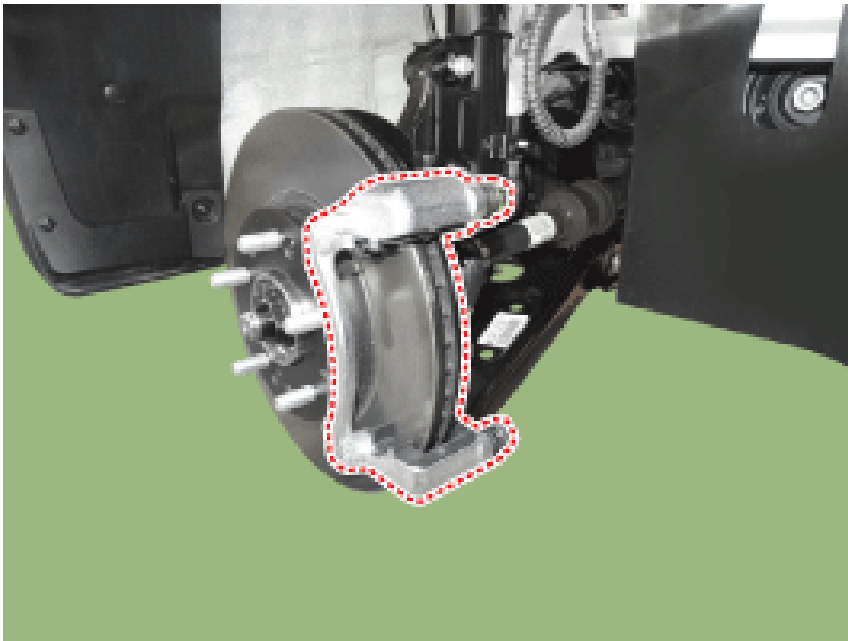


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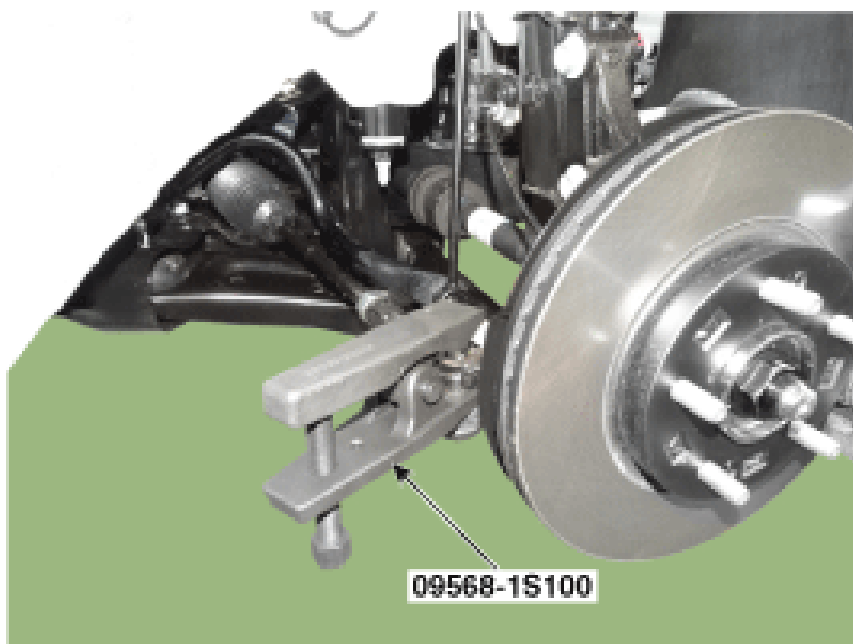
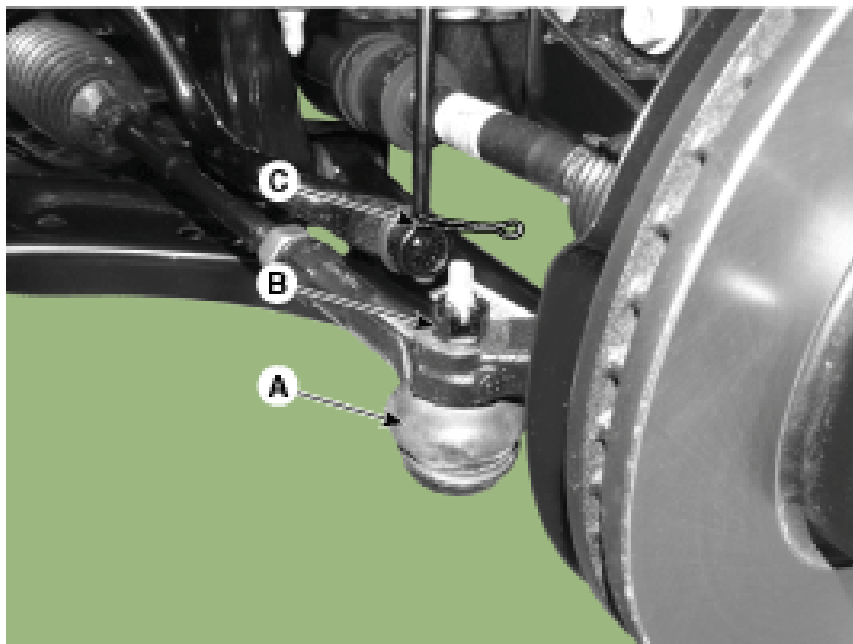
- Pad return springs must be replaced with new ones whenever pads are replaced.
- Technicians should be careful not to deform pad return springs.
- When pad return springs are deformed, it may cause improper braking, more fuel consumption.
- Remove the brake pad.



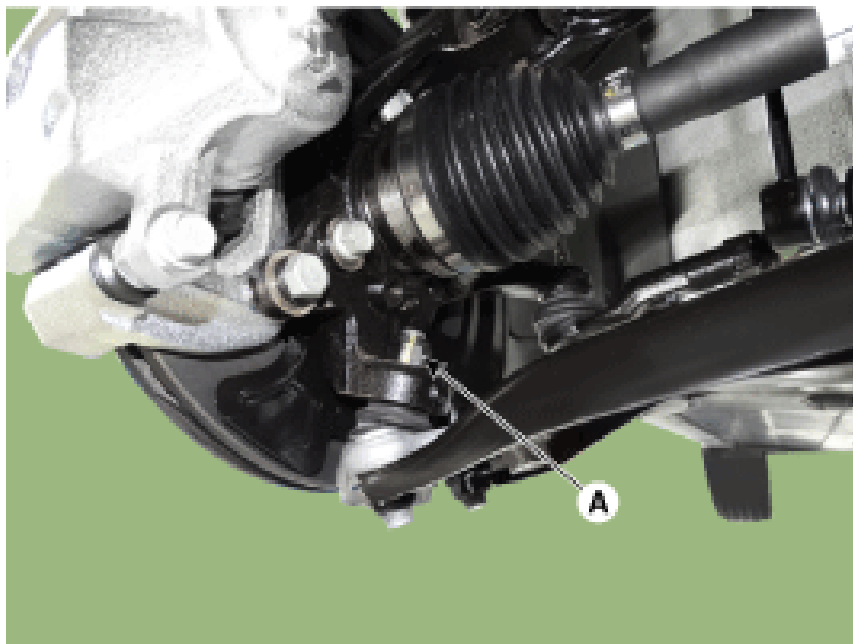
- Separate the pad retainer. And remove the caliper carrier by loosening the caliper mounting bolts.  
Tightening torque : 78.5 ~ 98.1 N.m (8.0 ~ 10.0 kgf.m, 57.9 ~ 72.3 lb-ft)



- Remove the tie rod end ball joint . Rmove the split pin (C). Loosen the nut (B). Using SST(09568-1S100), separate the ball joint (A) from the knuckle . Tightening torque : 23.5 ~ 33.3 N.m (2.4 ~ 3.4 kgf.m, 17.4 ~ 24.6 lb-ft)  
- Rmove the split pin (C).  
- Loosen the nut (B).  
- Using SST(09568-1S100), separate the ball joint (A) from the knuckle . Tightening torque : 23.5 ~ 33.3 N.m (2.4 ~ 3.4 kgf.m, 17.4 ~ 24.6 lb-ft)

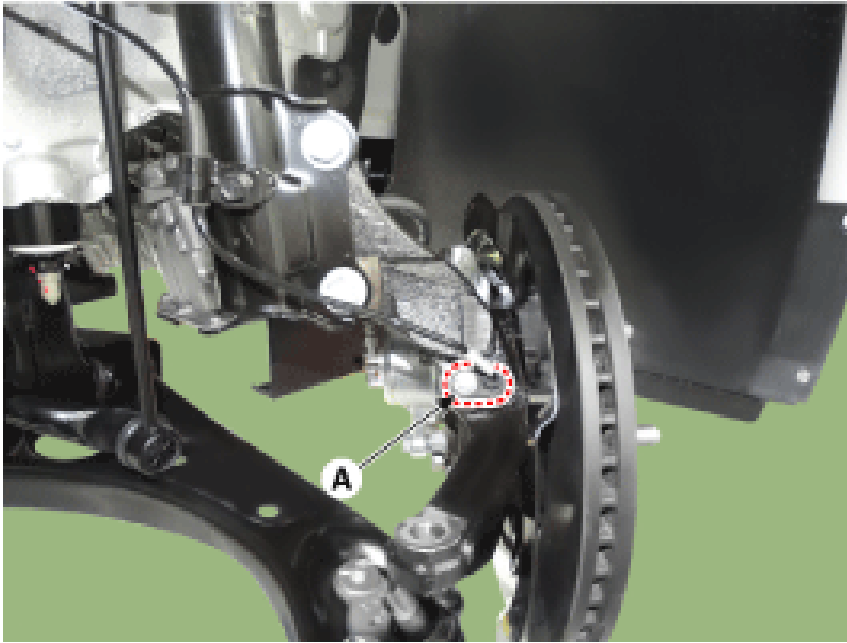


- Loosen the lower arm nut (A) and then remove the lower arm ball joint by using SST(09568-1S100). Tightening torque : 58.8 ~ 70.6 N.m (6.0 ~ 7.2 kgf.m, 43.4 ~ 52.1 lb-ft) Do not reuse the lower arm lock nut(A).

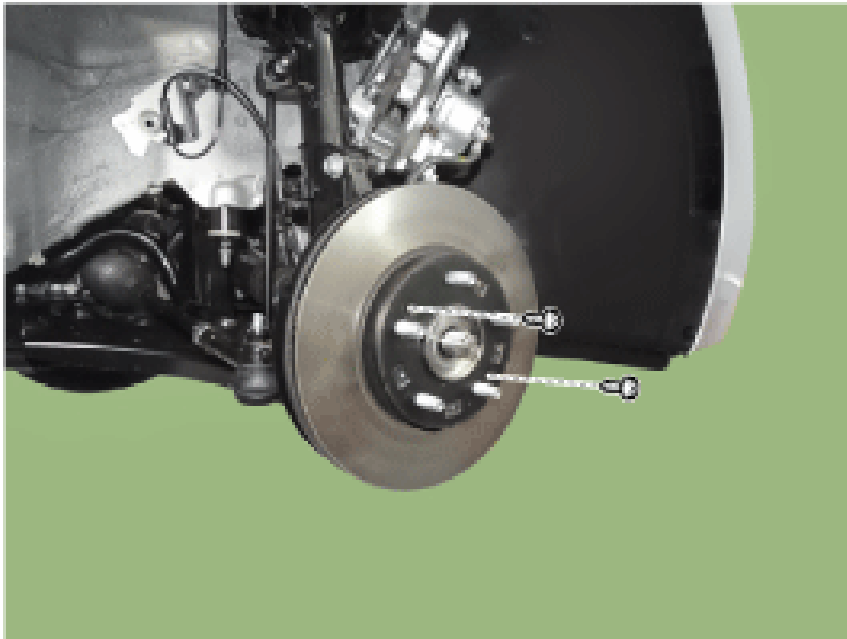


Do not reuse the lower arm lock nut(A).

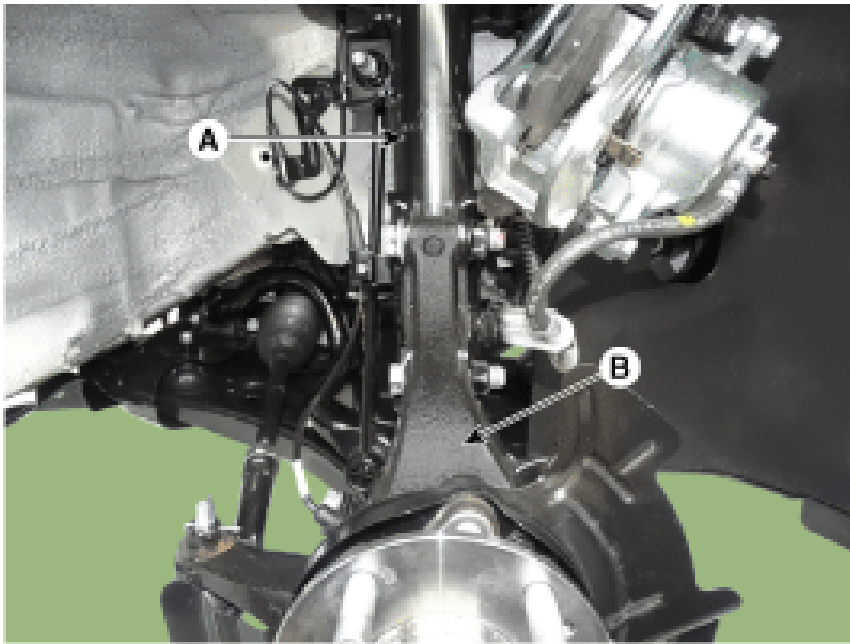
- Loosen the bolt and then remove the wheel speed sensor (A). Tightening torque : 7.8 ~ 11.8 N.m (0.8 ~ 1.2 kgf.m, 5.8 ~ 8.7 lb-ft)



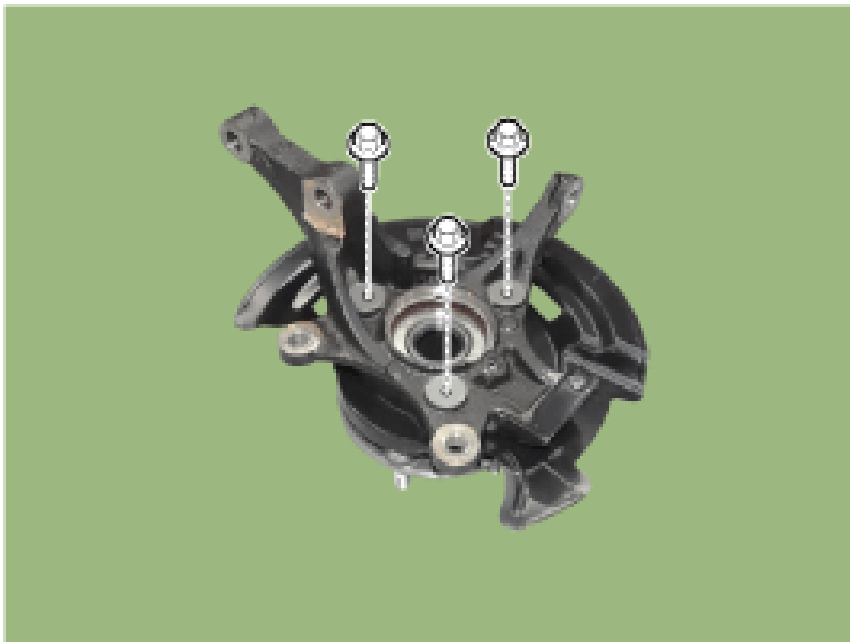
- Loosen the screw and then remove the front disc. Tightening torque : 4.9 ~ 5.9 N.m (0.5 ~ 0.6 kgf.m, 3.6 ~ 4.3 lb-ft)



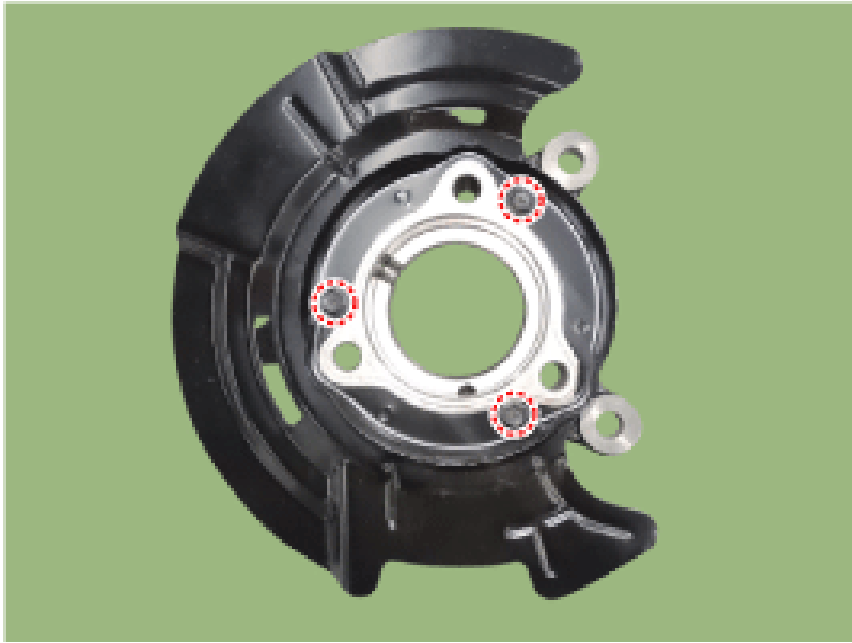
- Loosen the strut mounting bolts (A), nuts (B) and then remove the knuckle assembly (A). Tightening torque : 156.9 ~ 176.5 N.m (16.0 ~ 18.0 kgf.m, 115.7 ~ 130.2 lb-ft)



- Install in the reverse order of removal.
- Check the alignment. (Refer to Suspension System - "Alingment")
- Disassembly
- To reassembly, reverse the disassembly procedure. Tightening torque : 49.0 ~ 58.8 N.m (5.0 ~ 6.0 kgf.m, 36.2 ~ 43.4 lb-ft)



- Loosen the mounting bolts and then remove the dust cover. Tightening torque : 3.9 ~ 5.9 N.m (0.4 ~ 0.6 kgf.m, 2.9 ~ 4.3 lb-ft)



- Reassembly in the reverse order of disassembly.