

Replacement

1. Turn the steering wheel so that the front wheels are placed in the straight ahead position.

⚠ CAUTION

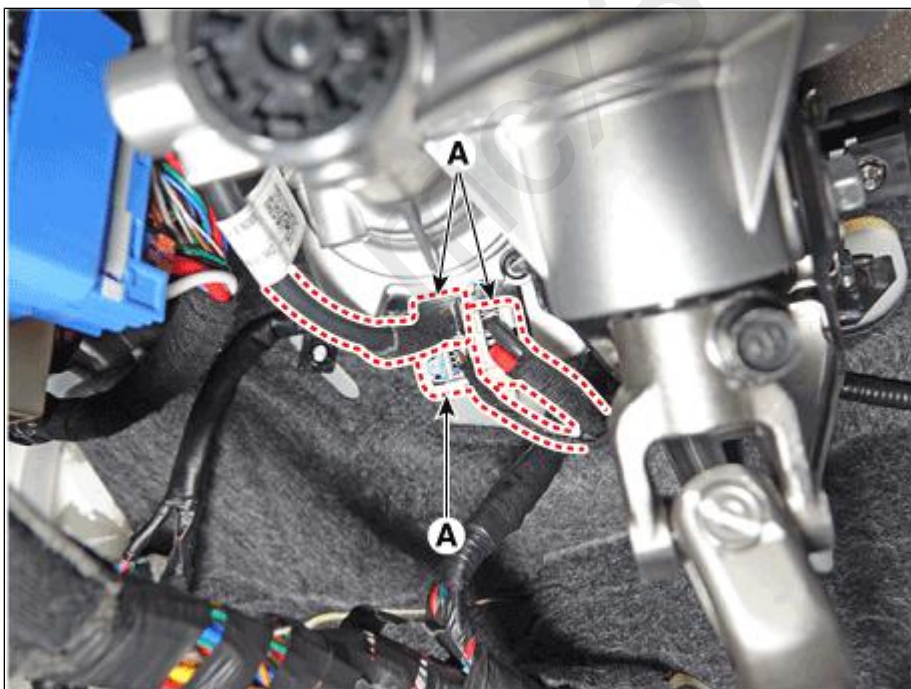
If the steering wheel and the front tires are not set straight ahead together, it may affect the number of circulation of steering wheel and damage the cable inside the clock spring.

2. Turn the ignition switch OFF and disconnect the battery negative (+) cable.

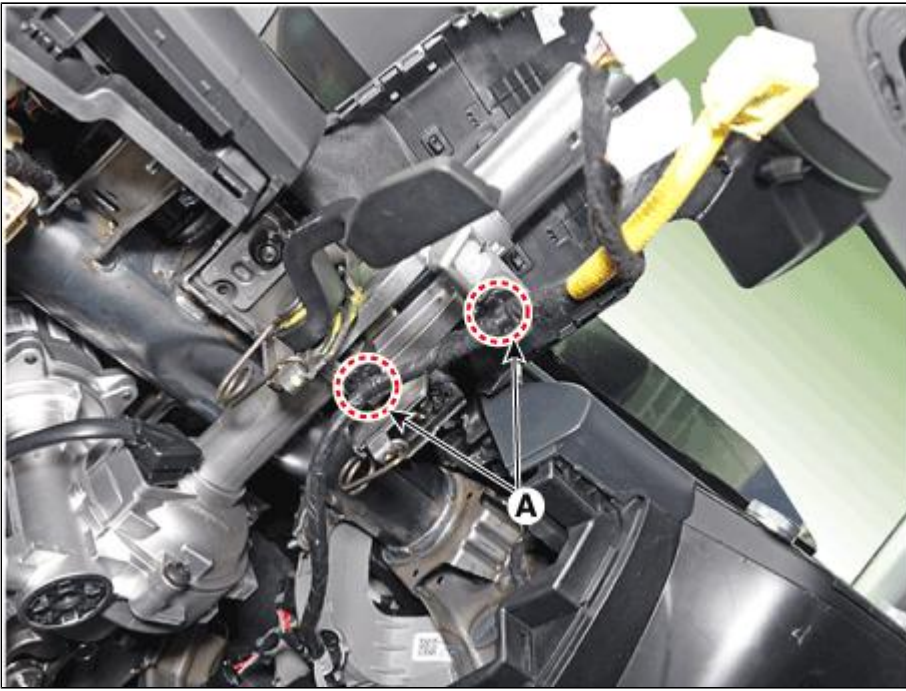
⚠ WARNING

Disconnect the battery negative cable from the battery and then wait for at least 3 minutes.

3. Remove driver airbag (DAB) module.
(Refer to Restraint - "Driver Airbag (DAB) Module and Clock Spring")
4. Remove the steering wheel.
(Refer to Steering System - "Steering Wheel")
5. Remove the clock spring.
(Refer to Restraint - "Driver Airbag (DAB) Module and Clock Spring")
6. Remove the steering column shroud panel.
(Refer to Body - "Steering Column Shroud Panel")
7. Remove the crash pad lower panel.
(Refer to Body - "Crash Pad")
8. Remove the brake booster. (**Only RHD**)
(Refer to Brake System - "Brake Booster")
9. Remove the brake pedal. (**Only RHD**)
(Refer to Brake System - "Brake Pedal")
10. Disconnect the MDPS connector (A).



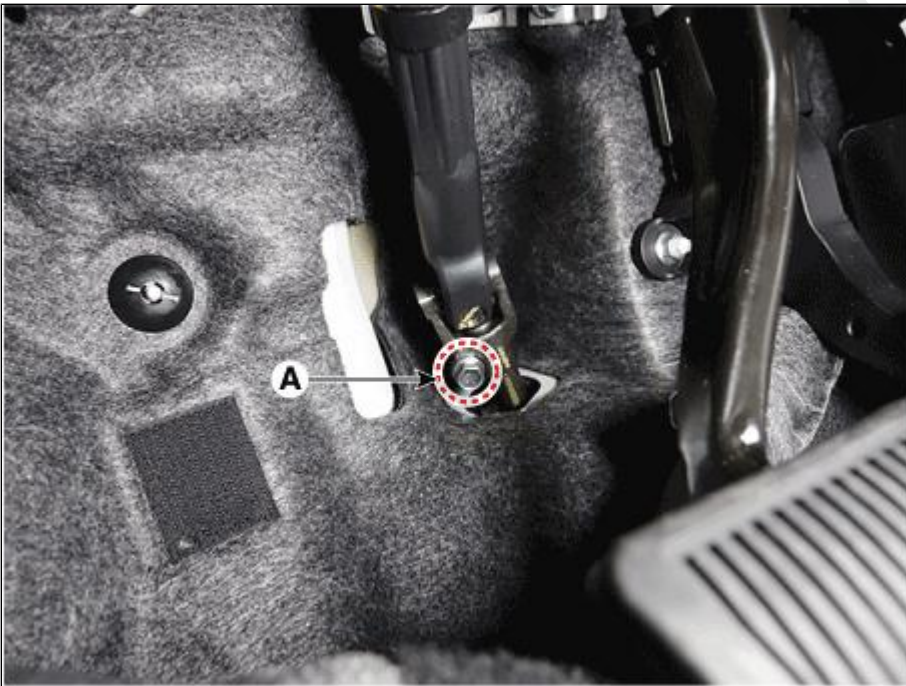
11. Remove the wiring clip (A) from the steering column.



12. Separate the universal joint from the steering gear box after loosening the universal joint mounting bolt (A).

Tightening torque :

49.0 - 58.8 N.m (5.0 - 6.0 kgf.m, 36.2 - 43.4 lb-ft)



NOTICE

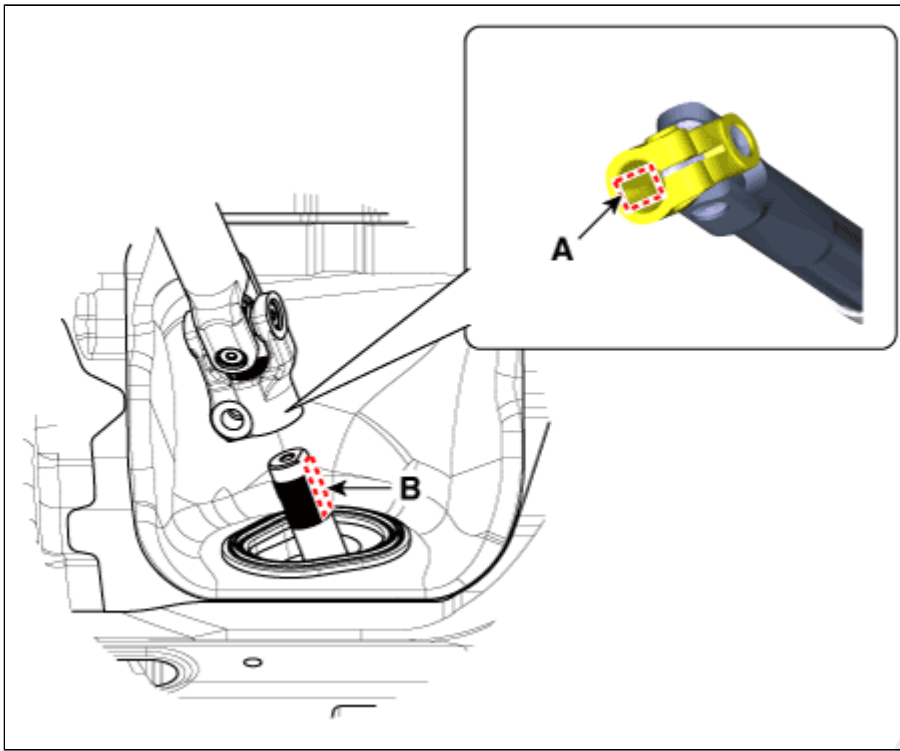
Lock the steering wheel in the straight ahead position to prevent the damage of the clock spring inner cable.

When mounting, securely insert the universal joint into the steering gear box pinion shaft.

Do not reuse the universal joint bolt.

Assemble so that pinion shaft shark pin can be inserted between the joint slots.

Install by aligning the machining surface (A) of the universal joint and the machining surface (B) of the steering gearbox pinion shaft.



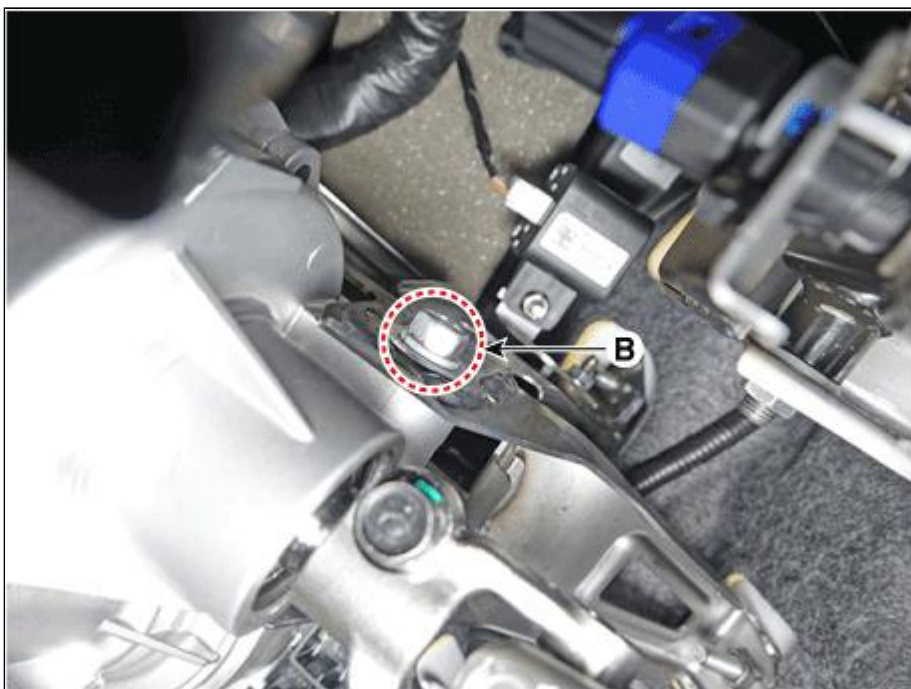
13. Remove the steering column assembly after loosening the mounting nuts (A) and bolt (B).

Tightening torque

(A) : 25.0 - 29.4 N.m (2.5 - 3.0 kgf.m, 14.5 - 21.7 lb-ft)

(B) : 53.9 - 58.8 N.m (5.5 - 6.0 kgf.m, 39.8 - 43.4 lb-ft)

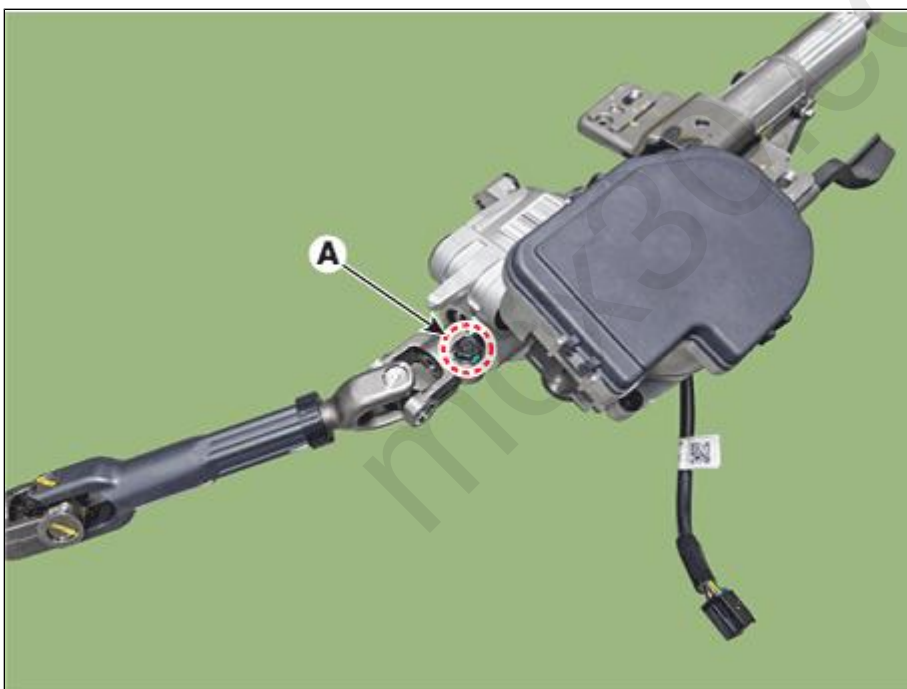




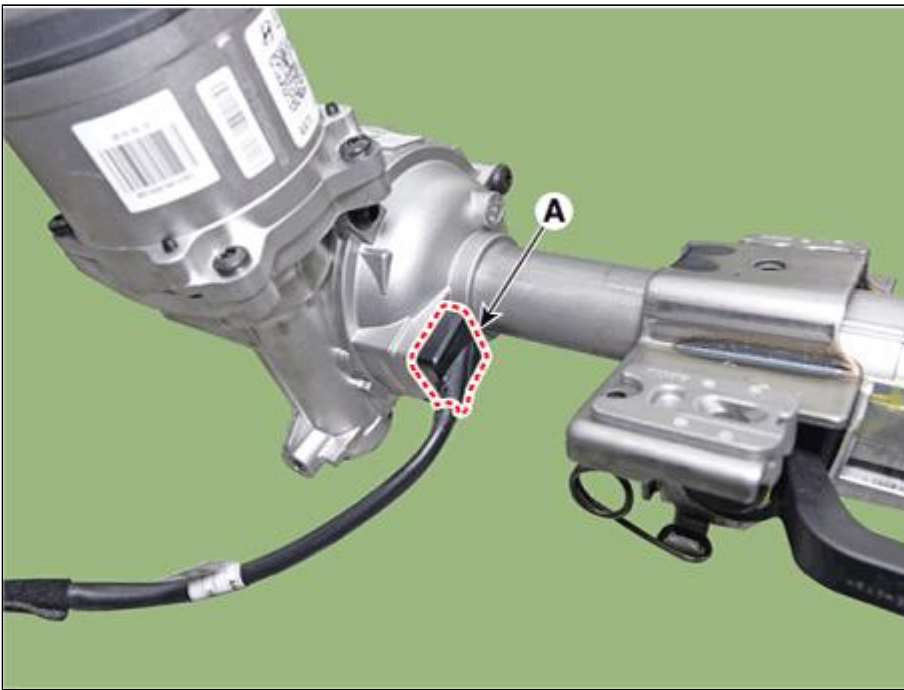
14. Separate the steering column assembly and universal joint assembly after loosening the mounting bolt (A).

Tightening torque :

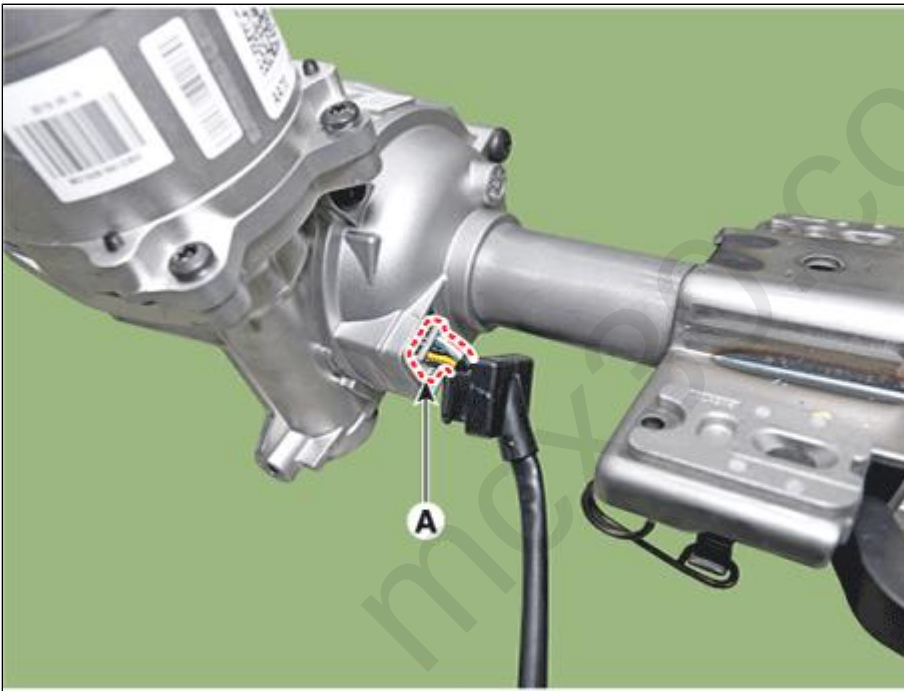
49.0 - 58.8 N.m (5.0 - 6.0 kgf.m, 36.2 - 43.4 lb-ft)



15. Disconnect the grommet (A).



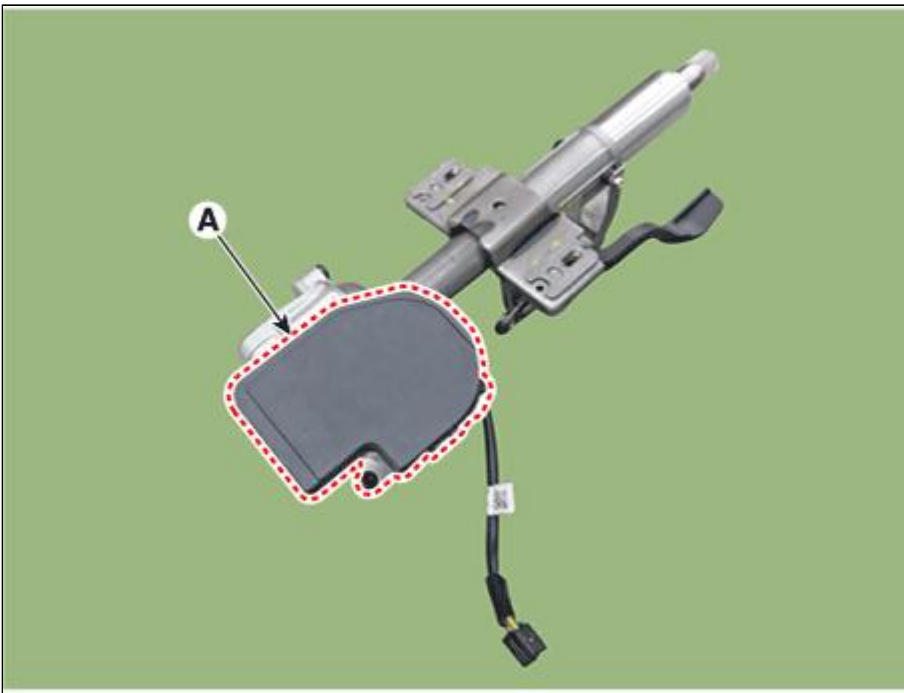
16. Disconnect the MDPS wiring connector (A).



17. Remove the MDPS power pack (A) after loosening the mounting bolts.

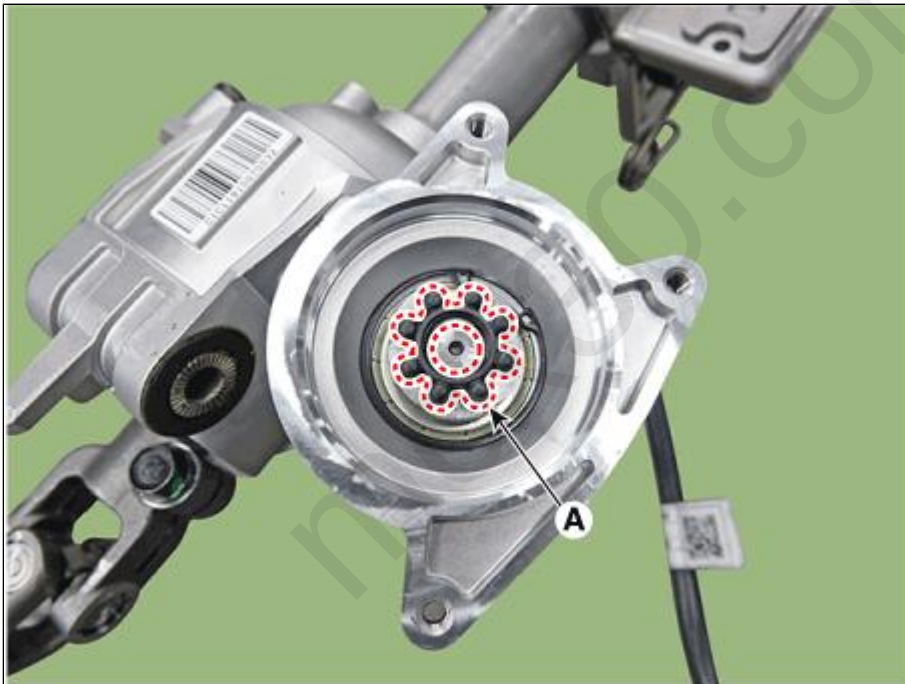
Tightening torque :

8.0 - 12.0 N.m (0.82 - 1.22 kgf.m, 5.9 - 8.8 lb-ft)



NOTICE

Check the couple ring (A) whether it is assembled, before installing the new MDPS motor.



18. To install, reverse the removal procedures.
19. Set the Steering angle zero point by using the diagnostic tool.

■ Motor Driven Power Steering



■ System Identification



■ Steering Angle Sensor(SAS) Calibration



■ Part replacement (Power steering motor)



■ Part replacement (Power steering ECU)



■ EPS Type Recognition



■ Set the steering feel torque to zero



■ MDPS TEST (Motor Driven Power Steering)



■ Tire Pressure Monitoring



■ Parking Guide System



■ Blind Spot Detection



■ Multi Function Camera



■ Adaptive Front Lighting System



■ Immobilizer



■ Smart Key Unit



■ Assist Door Module



■ Body Control Module



Do not touch any system buttons while performing this function.

S/W Management

■ Set the steering feel torque to zero

● [Set the steering feel torque to zero]

This function readjusts the steering feel torque to zero to improve the steering feel difference between right and left.

This function needs to perform in the following situations.

1. When the steering feel difference between right and left steering wheel occurs during driving
2. Make sure to perform the function during the replacement of the column or housing assembly

● [Condition]

1. IG On, Engine Drive
2. Empty Vehicle State
3. Align the steering wheel to the center
4. Take driver's hands off the steering wheel

⚠ [Caution]

When the steering feel difference occurs between right and left, steering might be unstable after driving and set torque to zero through the corresponding function.

[OK] button: Set the steering feel torque to zero

[Cancel] button: Finish additional function

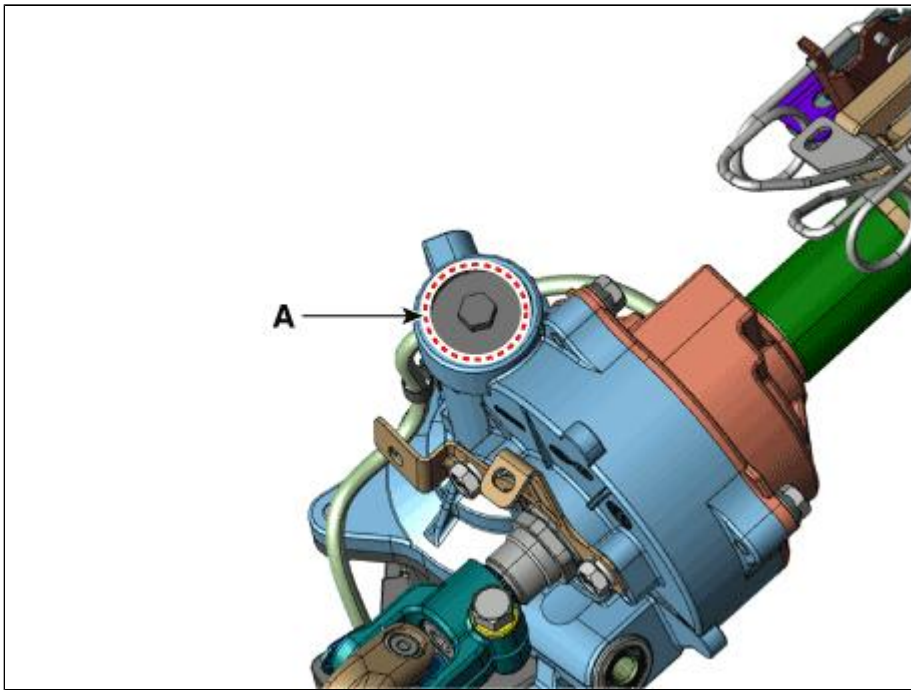
OK

Cancel

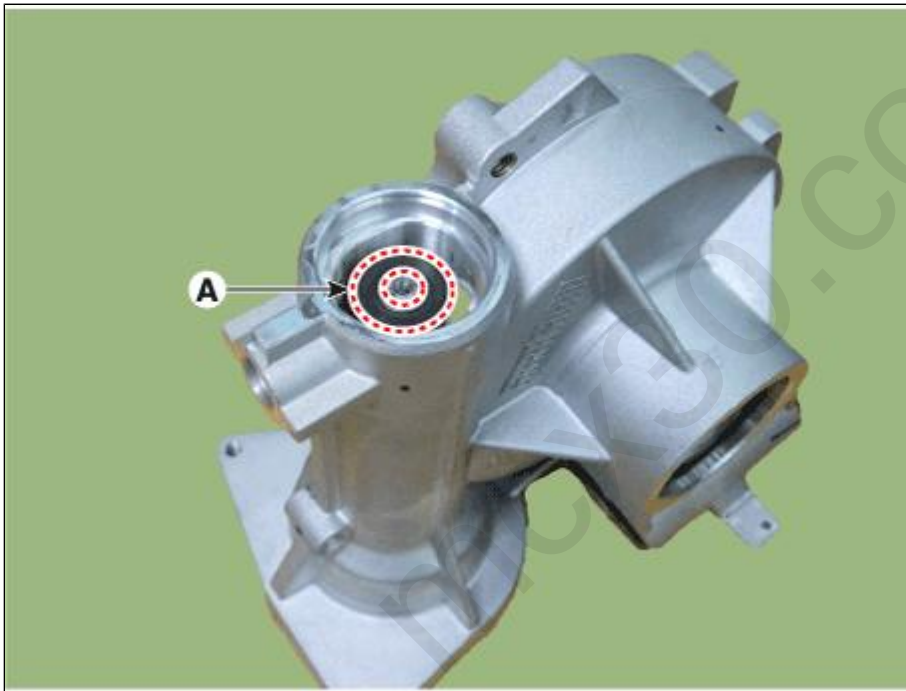
20. Conduct the "EPS Type Recognition" by diagnostic tool.
(Refer to MDPS PowerPack Assembly - "Diagnosis with diagnostic tool")
21. Conduct the "ASP Calibration" by diagnostic tool.
(Refer to MDPS PowerPack Assembly - "Diagnosis with Diagnostic tool")
22. Conduct the MDPS Performance Inspection using the diagnostic tool.
(Refer to Motor Driven Power Steering - "MDPS Performance Inspection")
23. Check the DTC.
24. Turn off the IGN switch and wait for 20 seconds or more. Then check the operation after starting the engine.

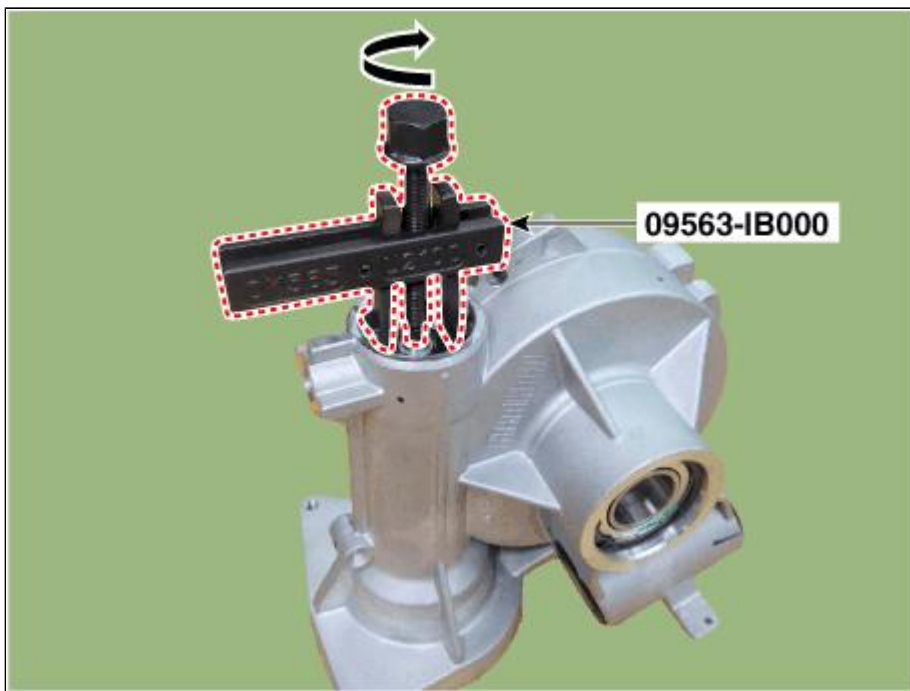
Small bearing

1. Remove the crash pad lower panel.
(Refer to Body (Interior and Exterior) - "Crash Pad Lower Pannel")
2. Remove the small bearing cover (A).

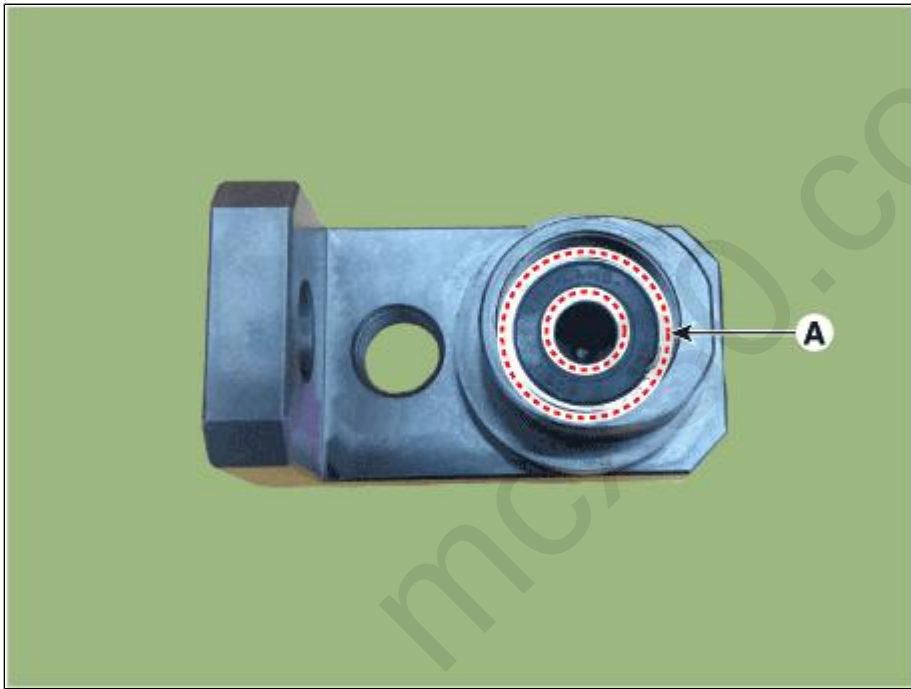


3. Remove the small bearing (A) by rotating in the direction of the arrow after installing the SST (09563-IB000).





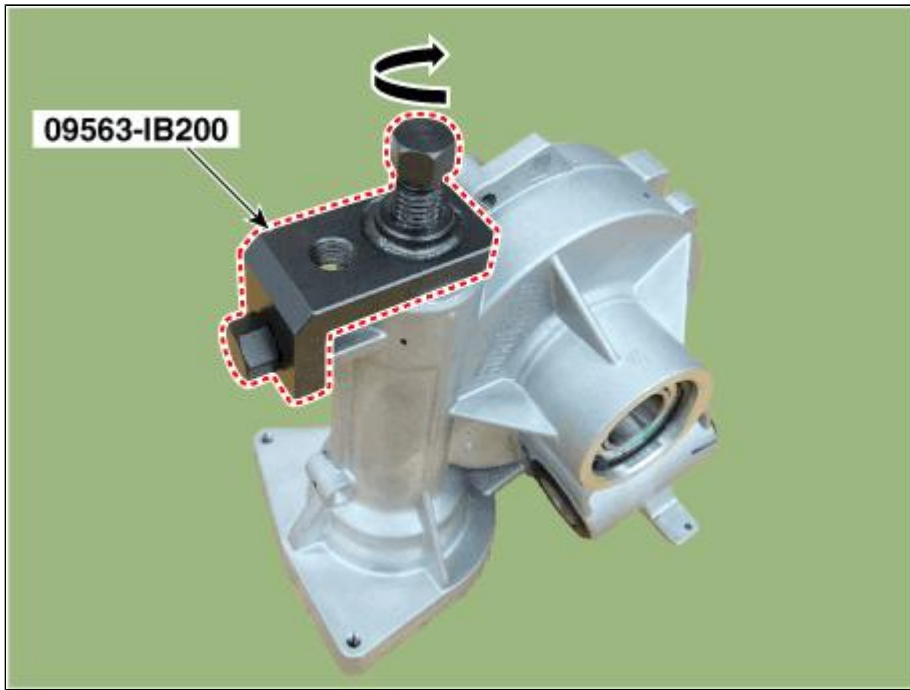
4. Install the new small bearing (A) to the SST (0956-IB200).



5. Press the small bearing by rotating in the direction of the arrow after installing the SST (09563-IB000).

Tightening torque :

2.0 - 2.9 N.m (0.2 - 0.3 kgf.m, 1.4 - 2.2 lb-ft)



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