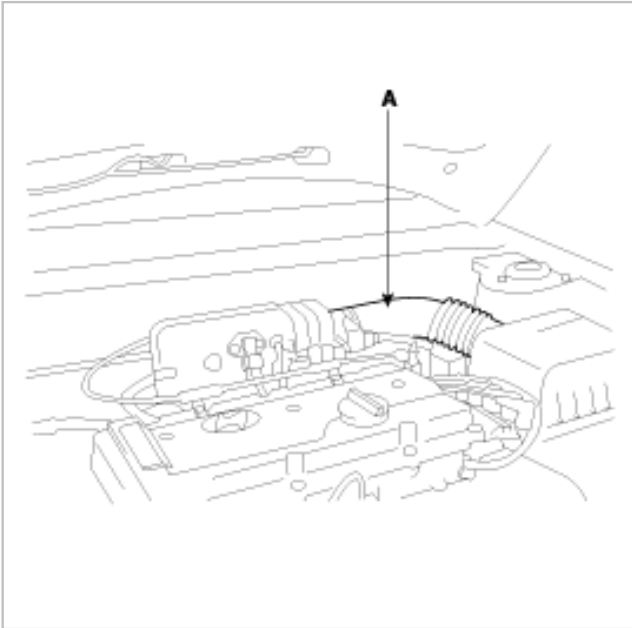


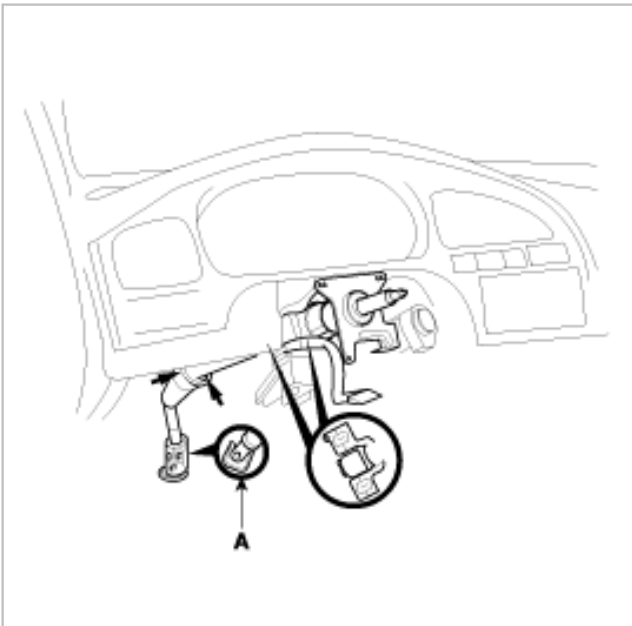


REMOVAL

1. Remove the air intake hose assembly(A).

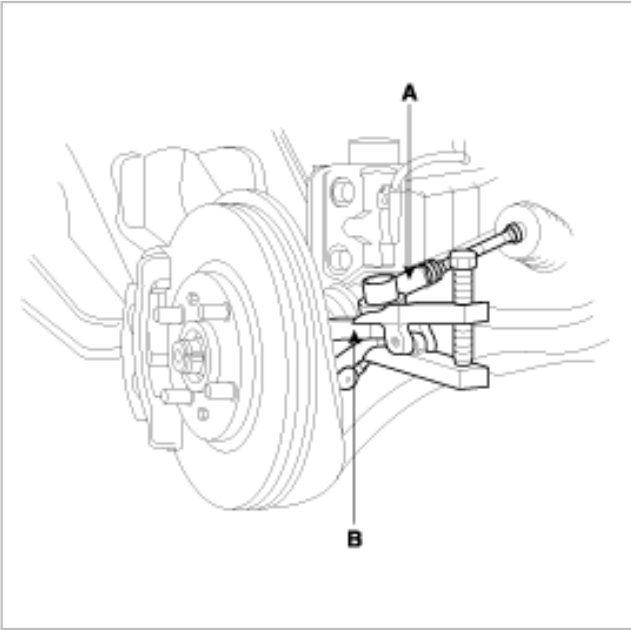


2. Detach the power steering pressure hose mounting clamp and the return tube mounting clamp.
3. Drain the power steering fluid.
4. Disconnect the pressure tube and the return tube fittings from the gear box.
5. Disconnect the shaft assembly(A) from the gear box inside the passenger compartment.

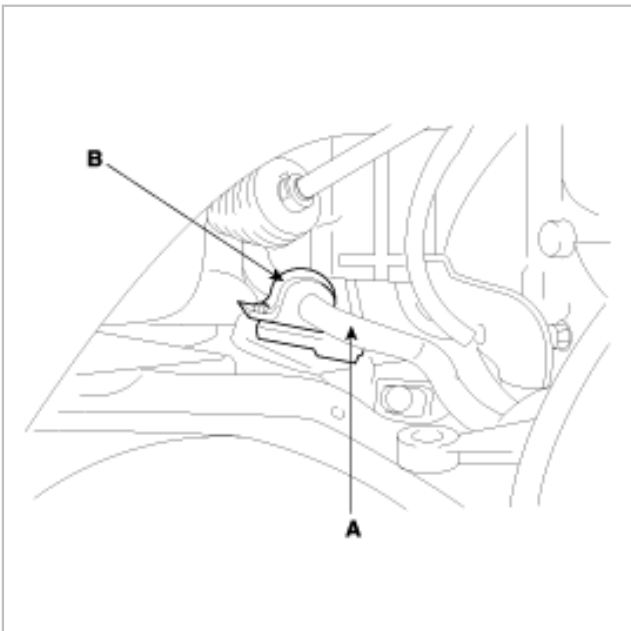


6. Remove the strap and push out the dust cover and remove the dust cover mounting plate.
7. Raise up the vehicle.
8. Remove the front tires (RH/LH).

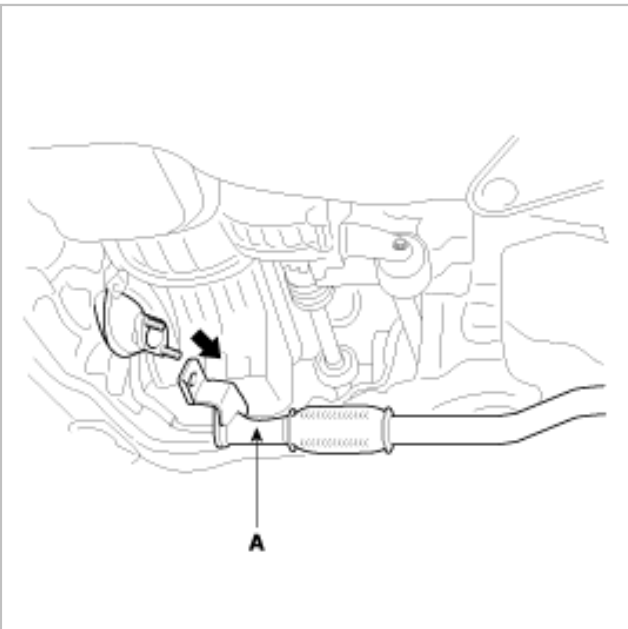
9. After removing the split pin, disconnect the tie rod(A) from the knuckle(B) by using the special tool (09568-31000).



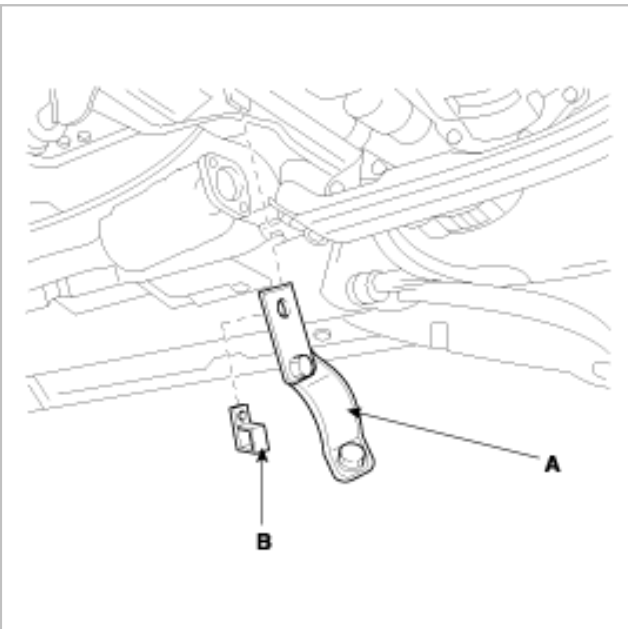
10. Remove the stabilizer bar(A) (RH side) mounting bracket(B).



11. Remove the front muffler assembly(A).



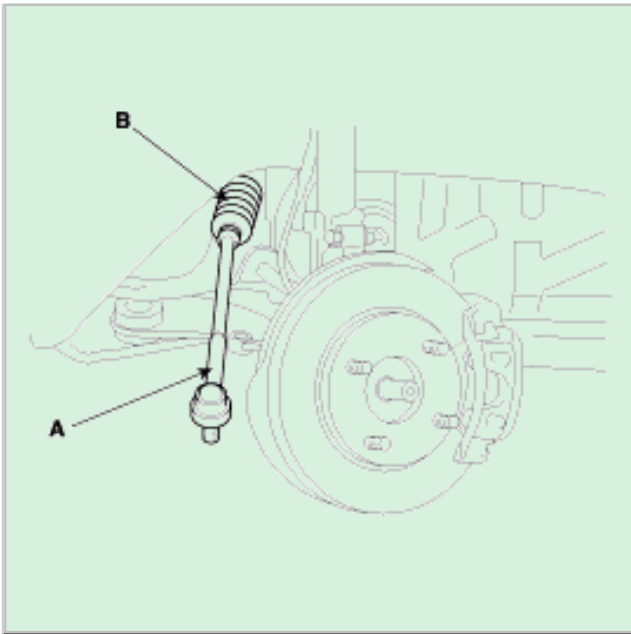
12. Remove the mounting bolt and mounting clamp(A) of power steering gear box, and also remove the clamp(B) holding the pressure tube and the return tube.



13. Pull the power steering gear box assembly(A) toward the right side of the vehicle.

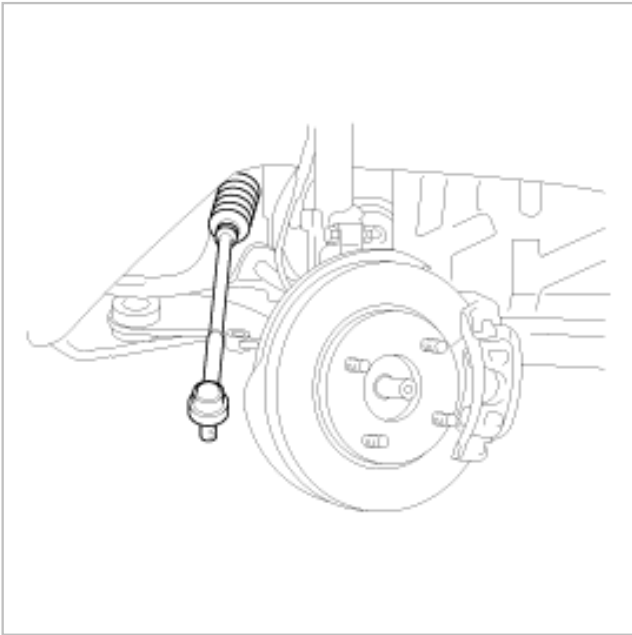
NOTE

When removing the gear box, pull it out carefully and slowly so as not to cause damage to the boots(B).



INSTALLATION

1. Push in the power steering gear box assembly(A) on the right side of the vehicle.



2. Install the dust cover mounting plate.
3. Connect the dust cover to its mounting plate with a new strap.

4. Connect the steering gear box assembly(A) to the steering column shaft and universal joint assembly(B).

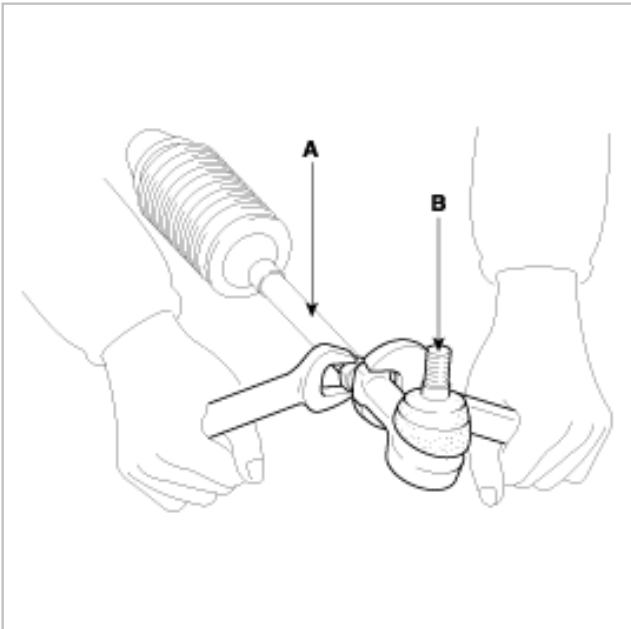


5. Installation is the reverse of removal.

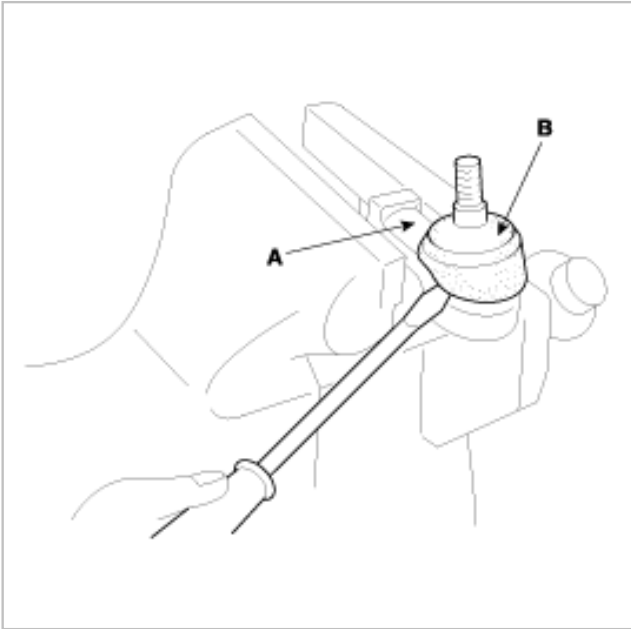
6. After installation, air bleed the system.

DISASSEMBLY

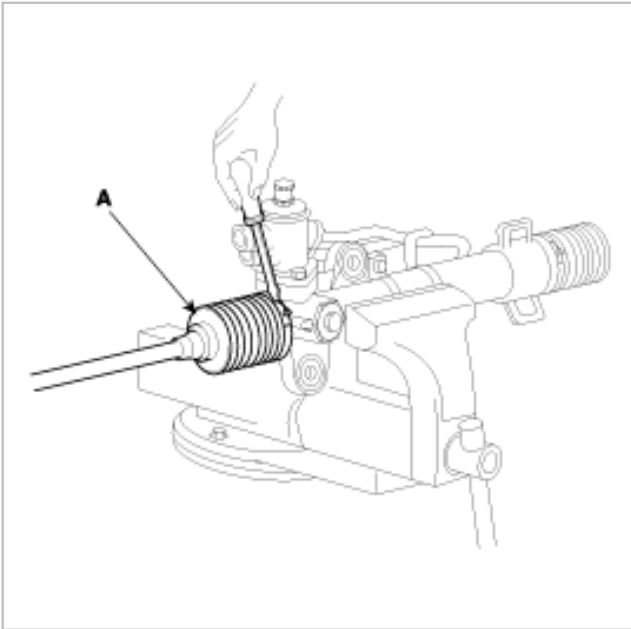
1. Remove the tie rod, end(B) from the tie rod(A).



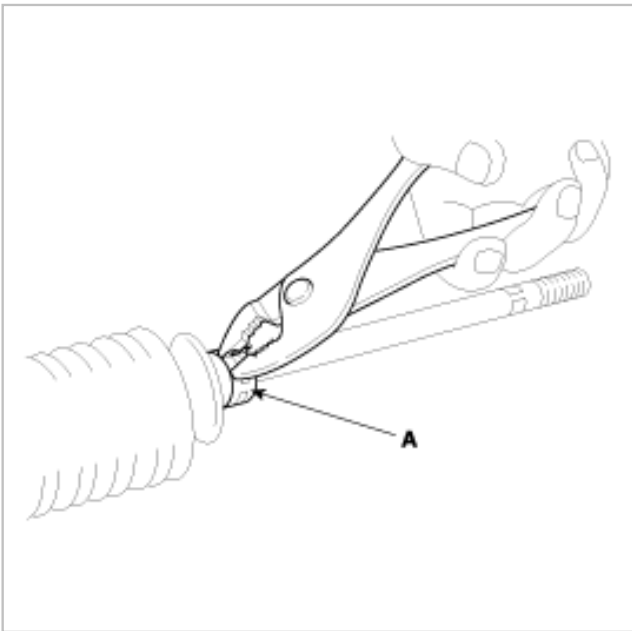
2. After mounting the tie rod end(A) in a vise, remove the dust cover(B) from the ball joint.



3. Remove the bellows band(A).



4. Remove the bellows clip(A).



5. Pull the bellows out toward the tie rod.

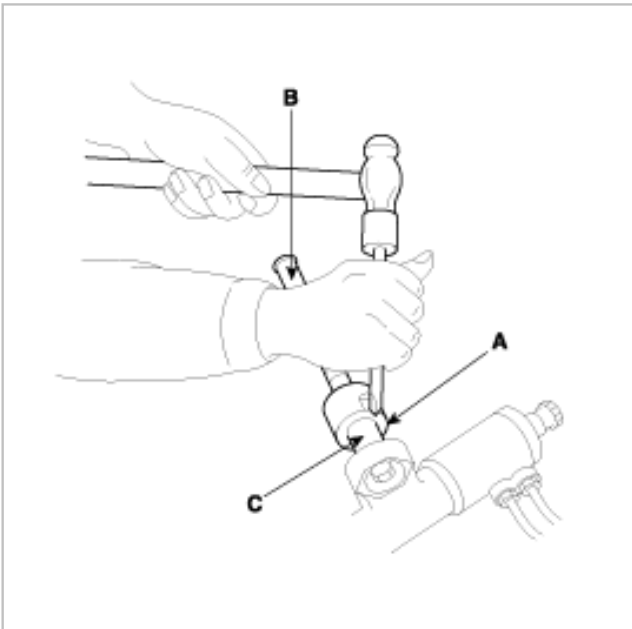
NOTE

Check for rust on the rack when the bellows are replaced.

6. Remove the feed tube from the rack housing.

7. While moving the rack slowly, drain the fluid from the rack housing.

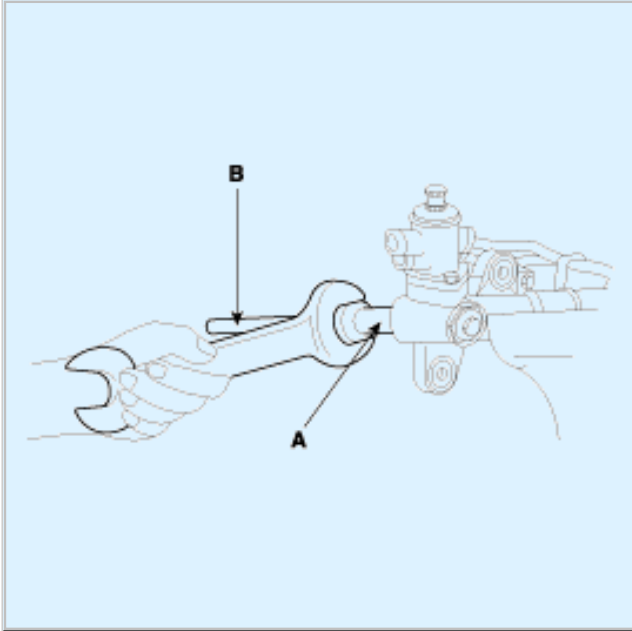
8. Unstake the tab washer(A) which fixes the tie rod(B) and rack(C) with a chisel.



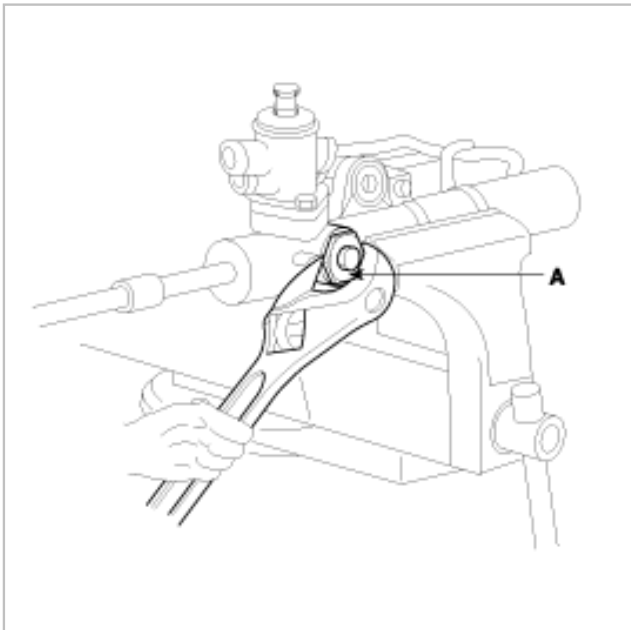
9. Remove the tie rod(B) from the rack(C).

CAUTION

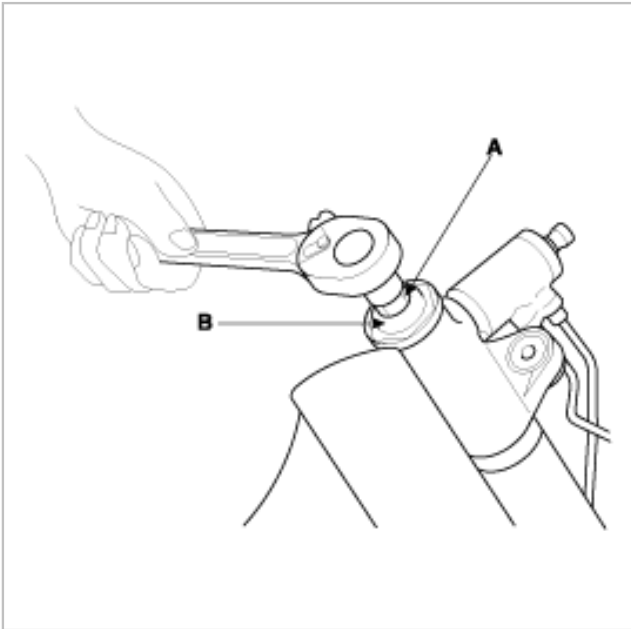
Remove the tie rod(B) from the rack(A), taking care not to twist the rack.



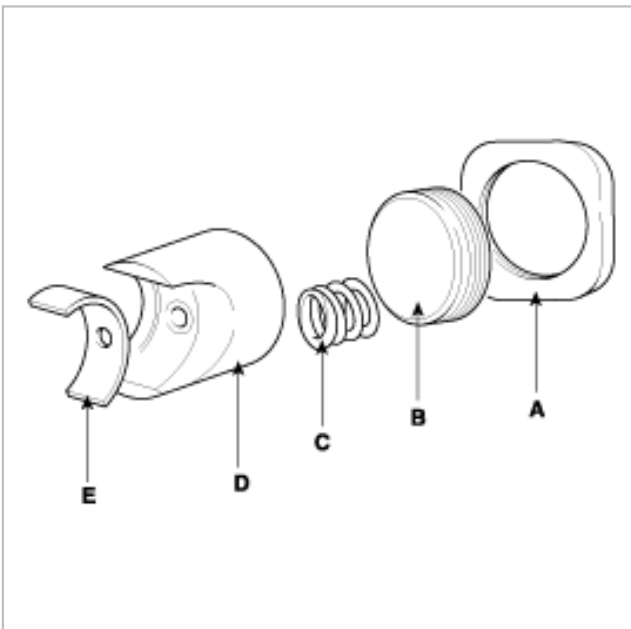
10. Remove the yoke plug locking nut(A).



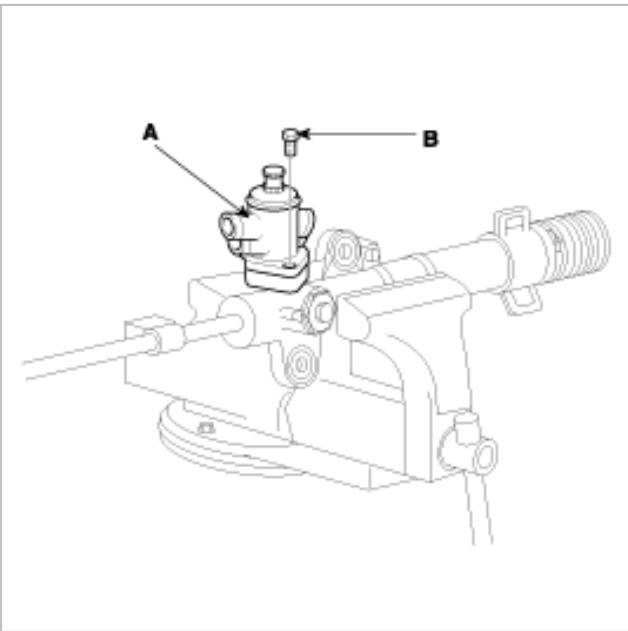
11. Remove the yoke plug(B) with a 14mm socket(A).



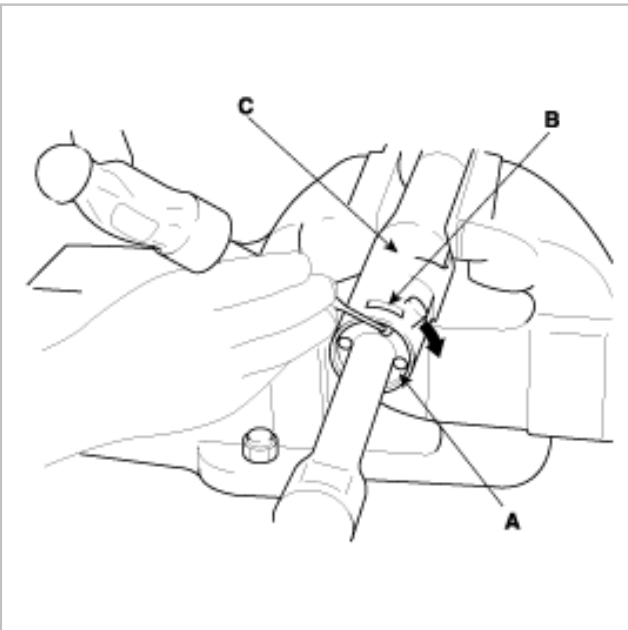
12. Remove the lock nut(A), yoke plug(B), rack support spring(C), rack support yoke(D) and bushing(E) from the gear box.



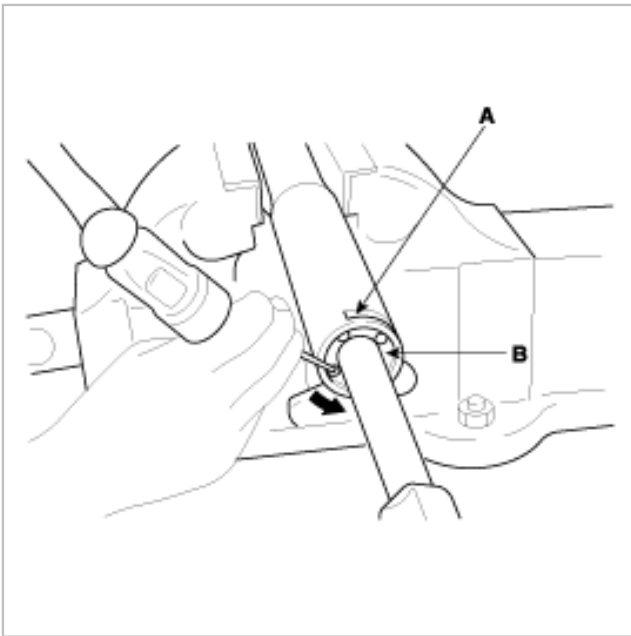
13. Remove the valve body housing(A) by loosening the two bolts(B).



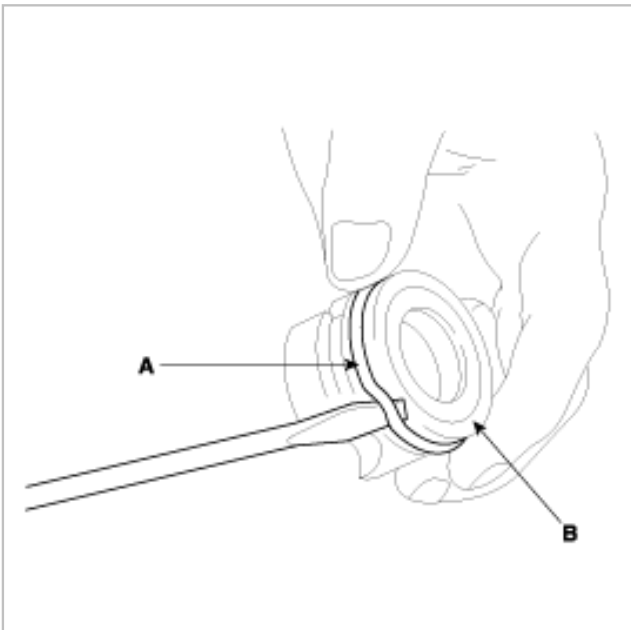
14. Turn the rack stopper(A) clockwise until the end of the circlip(B) comes out of the slot in the rack housing(C).



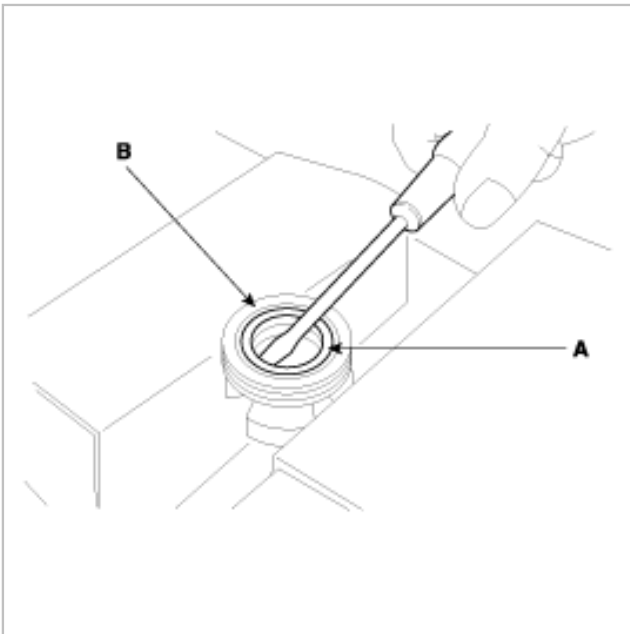
15. When the end of the circlip(A) comes out of the notched hole of the housing rack cylinder, turn the rack stopper(B) counterclockwise and remove the circlip(A).



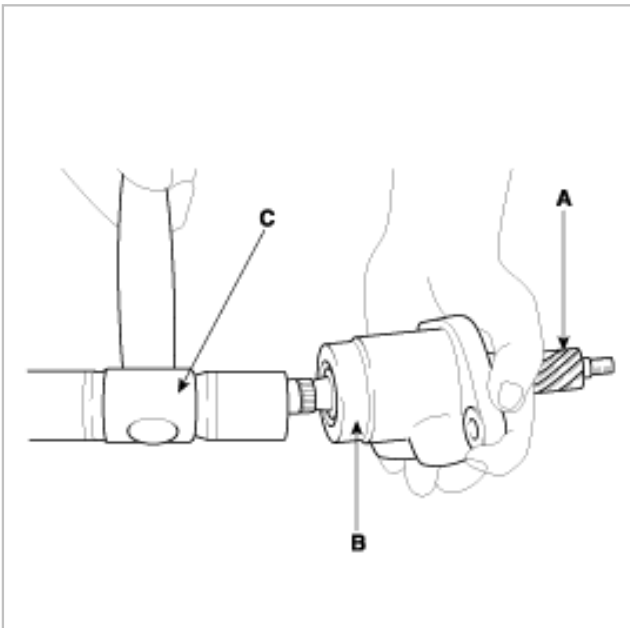
16. Remove the O-ring(A) from the rack bushing(B).



17. Remove the oil seal(A) from the rack bushing(B).



18. Remove the valve body(A) from the valve body housing(B) with a soft hammer(C).



19. Using the special tool, remove the oil seal and ball bearing from the valve body housing.

20. Remove the oil seal and O-ring from the rack housing.

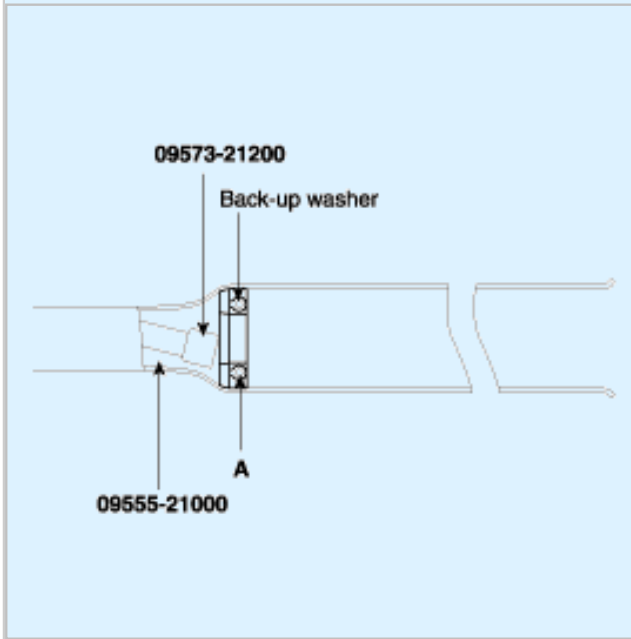
CAUTION

Be careful not to damage the pinion valve cylinder inside of the rack housing.

21. Using the special tool(06573-21200, 09555-21000), remove the oil seal(A) from the rack housing.

CAUTION

Be careful not to damage the rack cylinder inside of the rack housing.

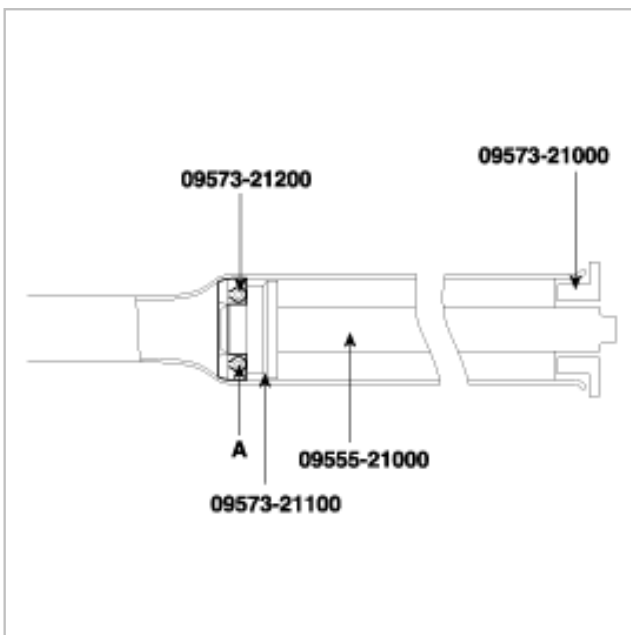


REASSEMBLY

1. Apply the specified fluid to the entire surface of the rack oil seal.

Recommended fluid : PSF-3

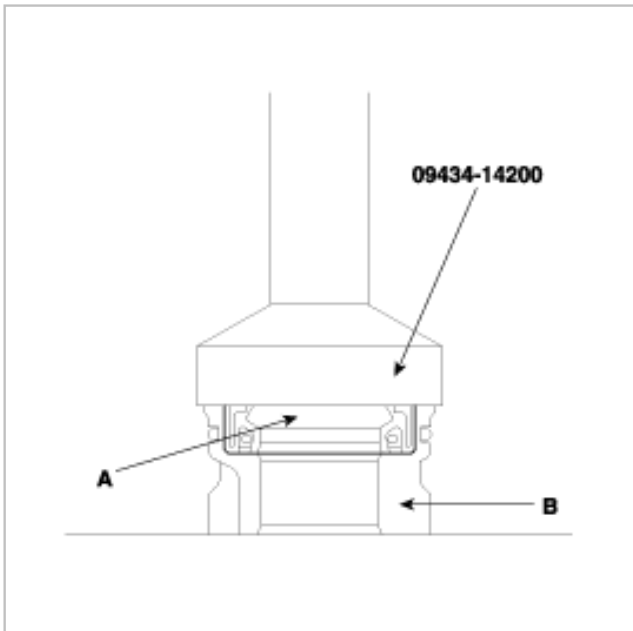
2. Install the backup washer and oil seal(A) to the specified position in the rack housing.



3. Apply the specified fluid to the entire surface of the rack bushing oil seal.

Recommended fluid : PSF-3

4. Install the oil seal(A) in the rack bushing(B).



5. Apply the specified fluid to the entire surface of the O-ring and install it in the rack bushing.

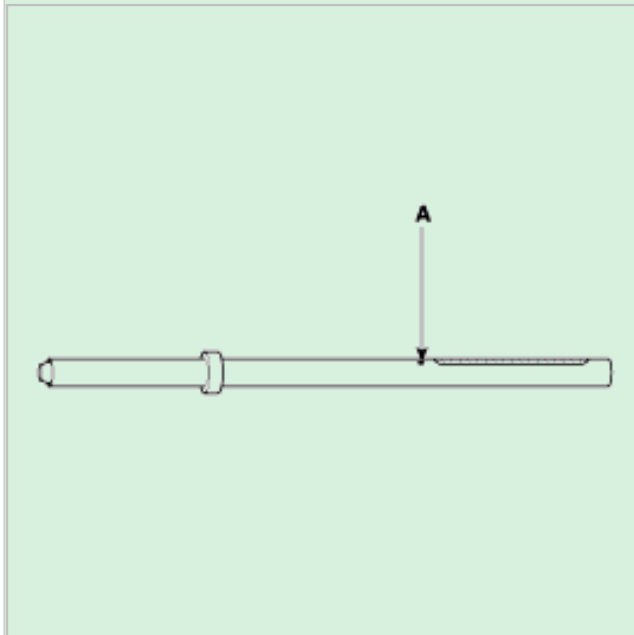
6. Apply the specified grease to the rack teeth.

Recommended grease

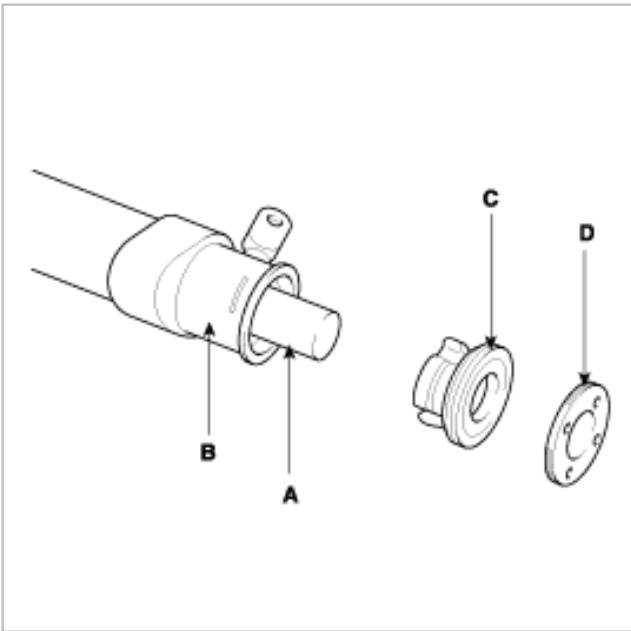
Multipurpose grease SAE J310, NLGI No.2

NOTE

Do not plug the vent hole(A) in the rack with grease.



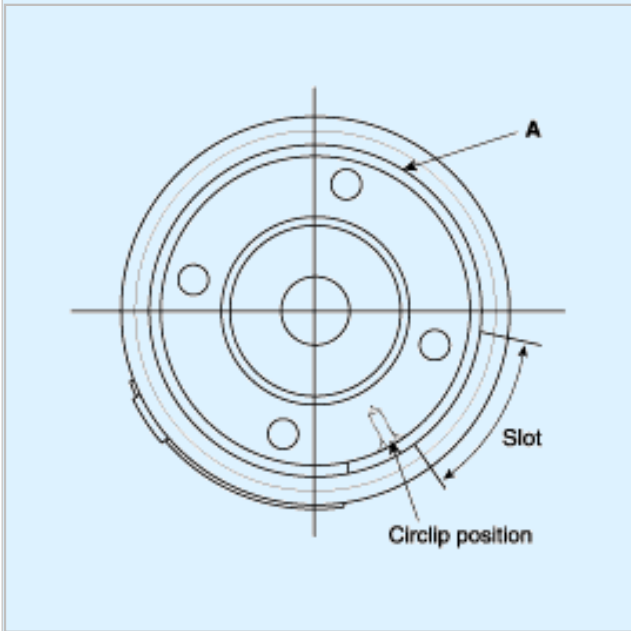
7. Insert the rack(A) into the rack housing(B) and install the rack bushing(C) and rack stopper(D).



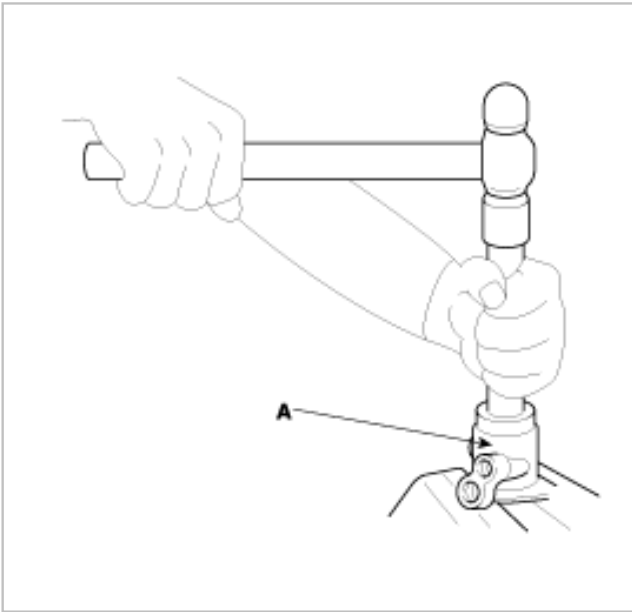
8. Push in the rack stopper until the circlip groove of the rack stopper is aligned with the notched hole of the rack housing. Install the circlip(A) while turning the rack stopper.

CAUTION

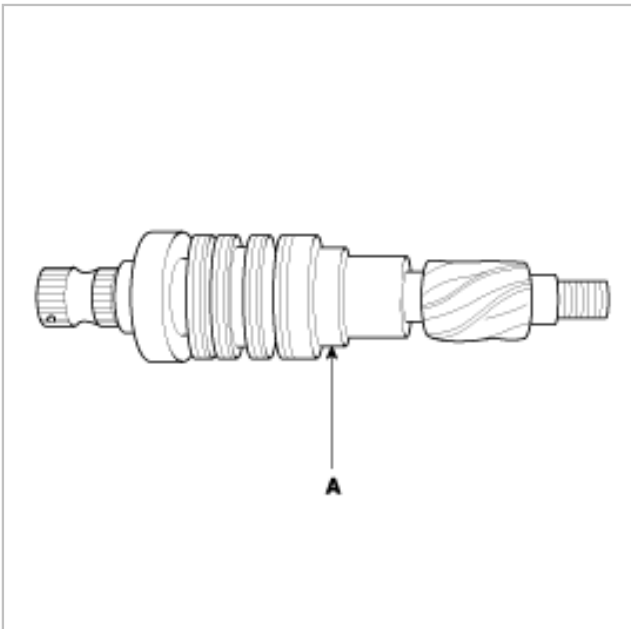
The circlip end should not be visible through the notched hole of the rack housing.



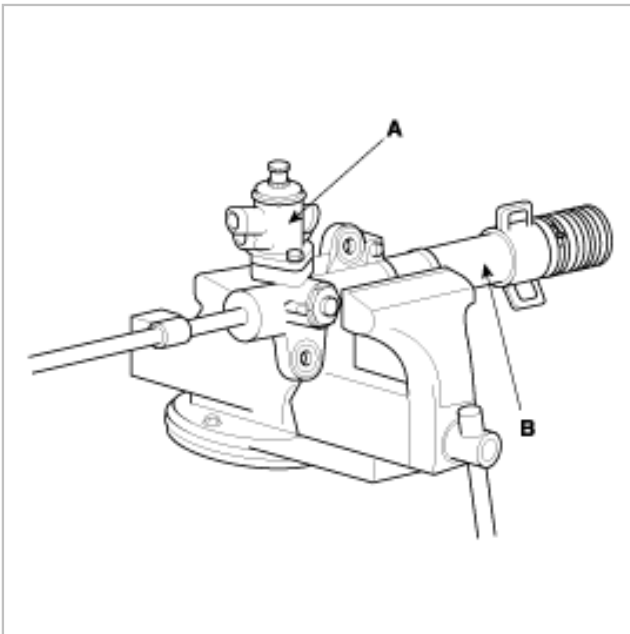
9. Install the oil seal and the ball bearing in the valve body(A).



10. After applying the specified fluid and grease to the pinion valve assembly(A), install it in the rack housing assembly.



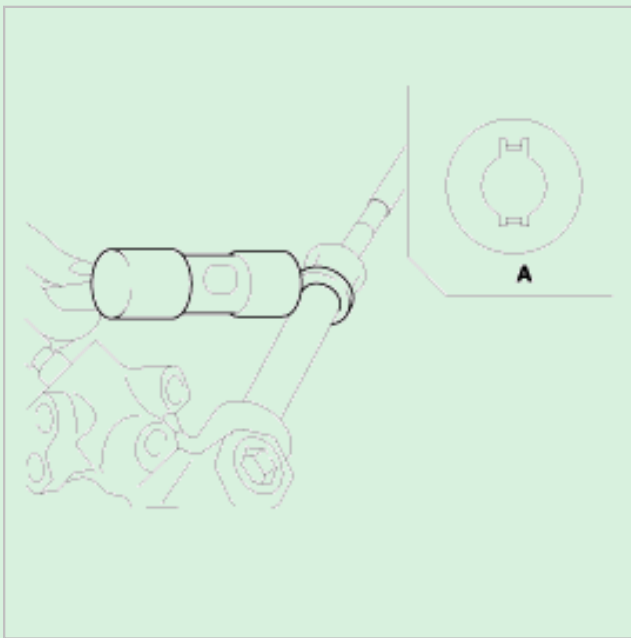
11. After applying the specified fluid to the oil seal, install it in the rack housing, and fix the valve body assembly (A) and O-ring in the gear box(B).



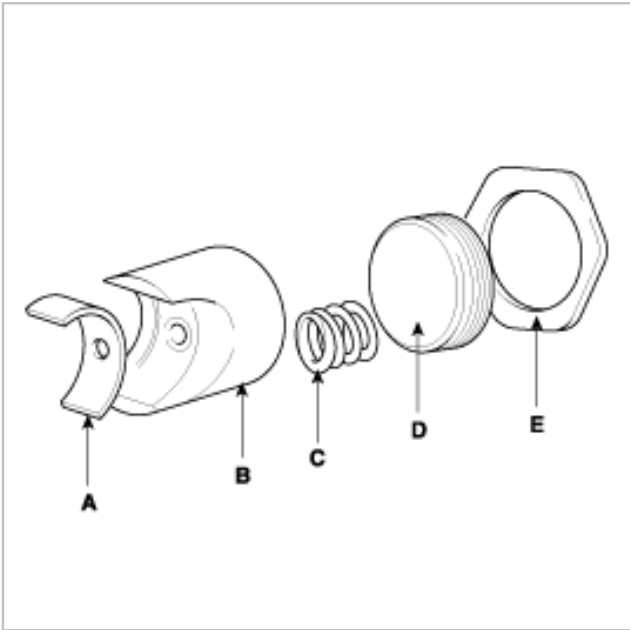
12. Install the tab washer and the tie rod and stake the tab washer(A) end at two points over the tie rod.

NOTE

1. Align the tab washer pawls with the rack grooves.
2. Always use a new tab washer.



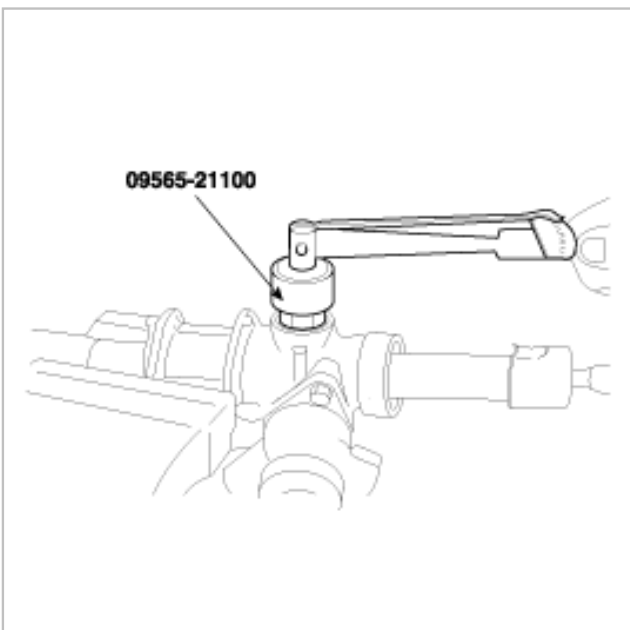
13. Install the bushing(A), rack support yoke(B), rack support spring(C), lock nut(E) and yoke plug(D) in the order shown in the illustration. Apply semi-drying sealant to the threaded section of the yoke plug before installation.



14. With the rack placed in the center position, attach the yoke plug to the rack housing. Tighten the yoke plug to 15 Nm (150 kg.cm, 11 lb.ft), using the special tool. Loosen the yoke plug approximately from 30° to 60° and tighten the locking nut to the specified torque.

Tightening torque

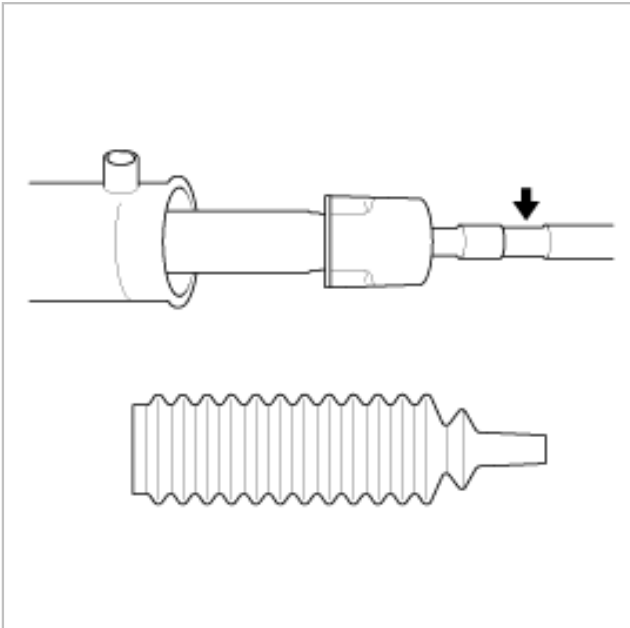
50~70 Nm (500~700 kg.cm, 37~52 lb.ft)



15. Tighten the feed tube to the specified torque and install the mounting rubber using adhesive.

16. Apply the specified grease to the bellows mounting position (fitting groove) of the tie rod.

: Silicone grease



17. Install the new attaching band to the bellows.

NOTE

When the bellows are installed, a new band must be used.

18. Install the bellows in position, taking care not to twist it.

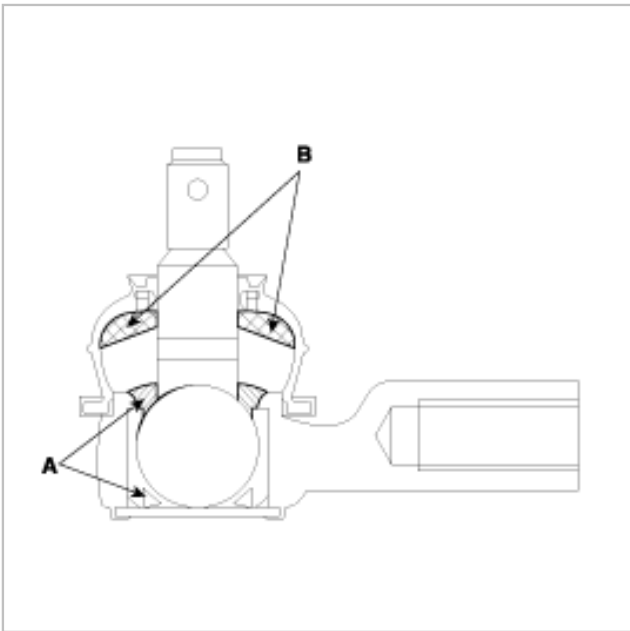
19. Fill the dust cover inner side and lip with the specified grease, and fix the dust cover in position with the clip ring attached in the groove of the tie rod end.

Recommended greas

A : POLY LUB GLY 801K or equivalent

B : SHOWA SUNLIGHT MB2 or equivalent

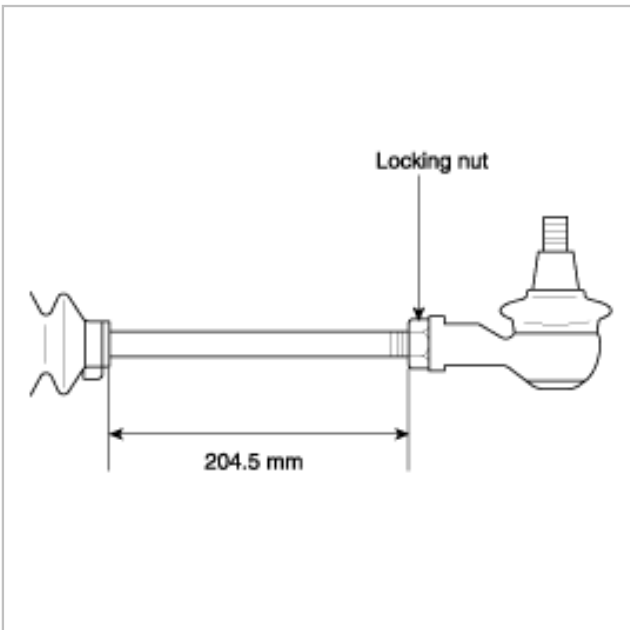
Dust cover inner side and lip : THREE BOND



20. Install the tie rods so that the length of the left and right tie rods equals the standard value.

Standard value

Tie rod free length : 204.5mm

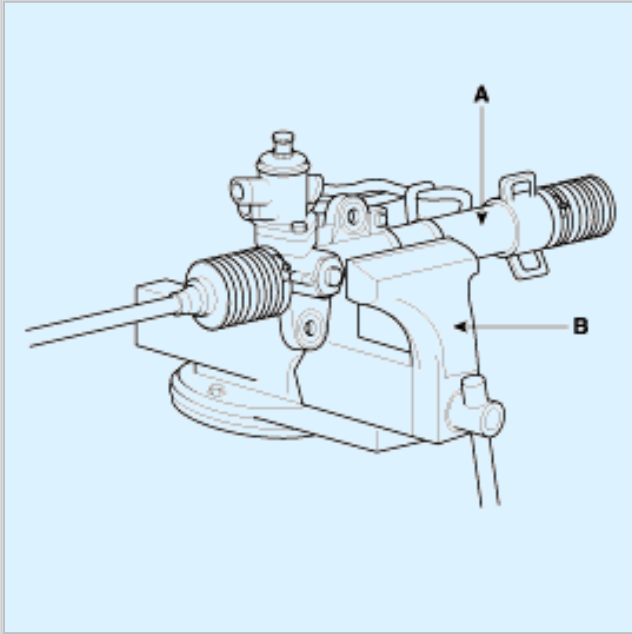


21. Check for total pinion preload.

INSPECTION AND ADJUSTMENT BEFORE DISASSEMBLY

CAUTION

When mounting the gear box in a vise, let the installation section of it be fixed to the jaws. If other section is fixed the gear box may be damaged.



TOTAL PINION PRELOAD

1. Rotate the pinion gear for approximately 4 to 6 seconds for one rotation to measure the total pinion preload.

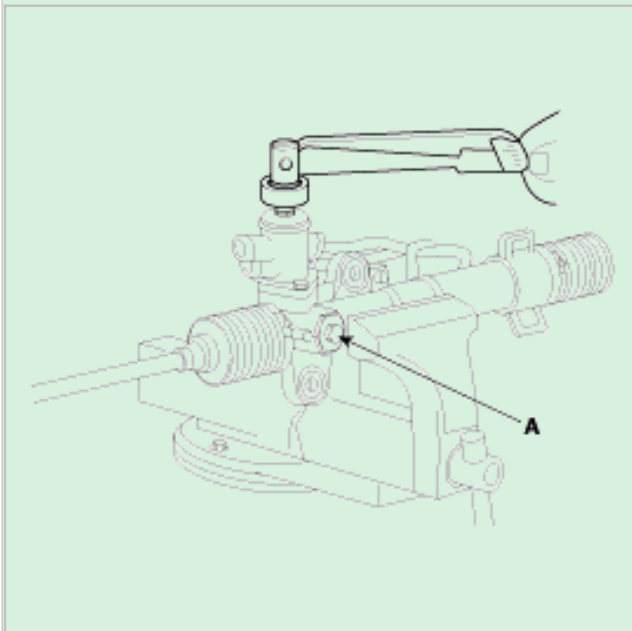
Standard value

Total pinion preload :

0.6~1.3 Nm (6~13 kg.cm, 0.4~1.0 lb.ft)

NOTE

Measure the pinion preload through the entire stroke of the rack.



2. If the measured value is out of specifications, first adjust the yoke plug(A), then recheck the total pinion preload.
3. If you adjust the yoke plug but do not obtain the total pinion preload, check or replace the yoke plug components

TIE ROD SWING RESISTANCE

1. Rotate the tie rod severely ten times.
2. Measure the tie rod(A) swing resistance with a spring scale(B).

Standard value

Total rod swing resistance :

8-22 N (1.9-4.6 lb) [2-5 Nm (20-50 kg.cm, 17-43 lb.in.)]

3. If the measured value exceeds the standard value, replace the tie rod assembly.

CAUTION

Even if the measured value is below the standard value, the tie rod that swings smoothly without excessive play may be used. If the measured value is below 4.3 N (0.9 lb) [100 Ncm (8.7 lb.in.)], replace the tie rod.

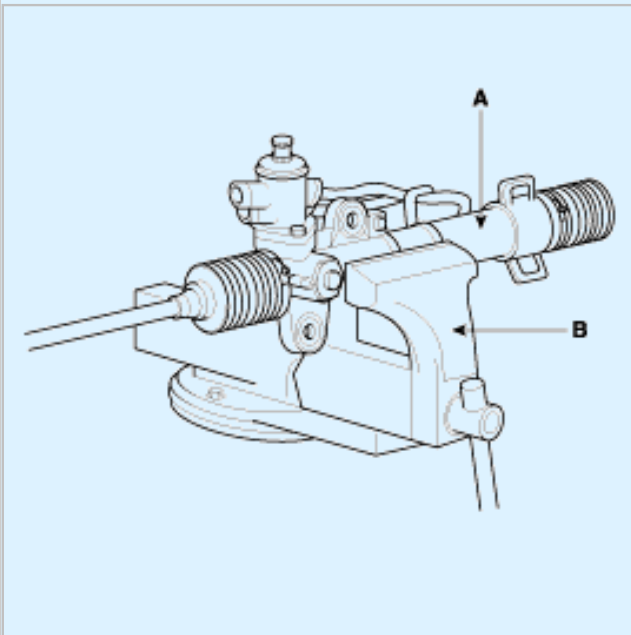
BELLOWS INSPECTION

1. Inspect the bellows for damage or deterioration.
2. Make sure the bellows are secured in the correct position.
3. If the bellows are defective, replace them with new ones.

INSPECTION AND ADJUSTMENT BEFORE DISASSEMBLY

CAUTION

When mounting the gear box in a vise, let the installation section of it be fixed to the jaws. If other section is fixed the gear box may be damaged.



TOTAL PINION PRELOAD

1. Rotate the pinion gear for approximately 4 to 6 seconds for one rotation to measure the total pinion preload.

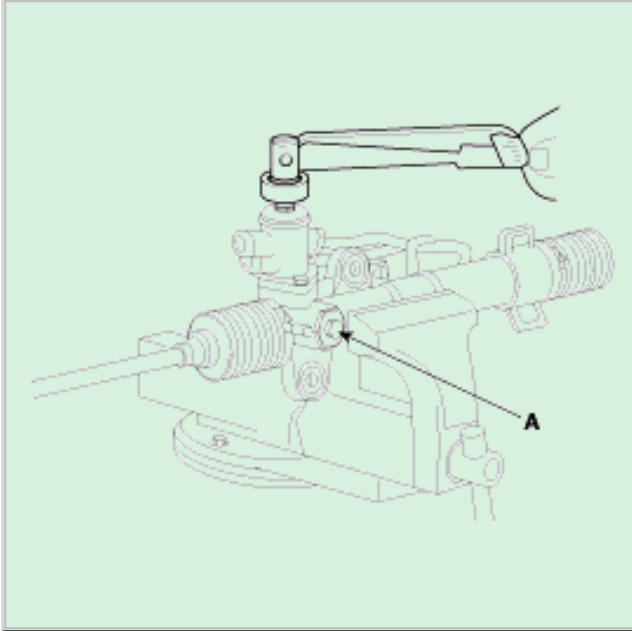
Standard value

Total pinion preload :

0.6~1.3 Nm (6~13 kg.cm, 0.4~1.0 lb.ft)

NOTE

Measure the pinion preload through the entire stroke of the rack.



2. If the measured value is out of specifications, first adjust the yoke plug(A), then recheck the total pinion preload.
3. If you adjust the yoke plug but do not obtain the total pinion preload, check or replace the yoke plug components

TIE ROD SWING RESISTANCE

1. Rotate the tie rod severely ten times.
2. Measure the tie rod(A) swing resistance with a spring scale(B).

Standard value

Total rod swing resistance :

8-22 N (1.9-4.6 lb) [2-5 Nm (20-50 kg.cm, 17-43 lb.in.)]

3. If the measured value exceeds the standard value, replace the tie rod assembly.

CAUTION

Even if the measured value is below the standard value, the tie rod that swings smoothly without excessive play may be used. If the measured value is below 4.3 N (0.9 lb) [100 Ncm (8.7 lb.in.)], replace the tie rod.

BELLOWS INSPECTION

1. Inspect the bellows for damage or deterioration.

2. Make sure the bellows are secured in the correct position.
3. If the bellows are defective, replace them with new ones.