

September 3, 2024

Version 1

EPS Sticking and Slipping

AFFECTED VEHICLES

Year	Model	Trim Level	VIN Range
2021–22	CR-V	ALL	ALL
2021–22	CR-V Hybrid	ALL	ALL

SYMPTOM

Steering effort complaint while driving at moderate or highway speeds, with a possible complaint of a clicking noise at slow speeds while turning, and no MIL illuminated, or DTC stored.

POSSIBLE CAUSE

There is a possible steering gearbox malfunction.

CORRECTIVE ACTION

Remove the electric power steering (EPS) gearbox assembly and replace it with a new steering gearbox. Keep the original EPS motor/control unit with the new steering gearbox.

CUSTOMER INFORMATION: The information in this bulletin is intended for use only by skilled technicians who have the proper tools, equipment, and training to correctly and safely maintain your vehicle. These procedures should not be attempted by “do-it-yourselfers,” and you should not assume this bulletin applies to your vehicle, or that your vehicle has the condition described. To determine whether this information applies, contact an authorized Honda automobile dealer.

PARTS INFORMATION

Part Name	Part Number	Quantity
CR-V Hybrid: EPS Gearbox Assembly	53640-TPG-315	1
CR-V Non-Hybrid: EPS Gearbox Assembly	53640-TLB-315	1

Must Replace Parts**CR-V 2WD Non-Hybrid Model:**

Part Name	Part Number	Quantity
Gearbox Mounting Bolt 14x73	90108-TBA-A00	4
Flange Bolt 12x33	90165-TLA-A00	4
Split Pin 3.0x22	94201-30220	2
Flange Bolt 14x90	90179-SDA-A00	4
Flange Bolt 14x79	90170-SHJ-A00	2
Flange Bolt 12x35	90164-T0A-A00	2
Flange Bolt 14x50	90181-TLA-A00	2
Self-Lock Nut 12mm	90215-SB0-003	6
Flange Nut 10mm	90002-S10-000	2
Flange Bolt 10x35	90182-TLA-A00	4
Exhaust Pipe Gasket	18302-SP0-003	1
Exhaust Pipe Gasket	18303-T2B-A01	1
Self-Lock Nut 10mm	90212-SA5-003	6

CR-V AWD Non Hybrid Model:

Gearbox Mounting Bolt 14x73	90108-TBA-A00	4
Flange Bolt 12x33	90165-TLA-A00	4
Split Pin 3.0x22	94201-30220	2
Flange Bolt 14x90	90179-SDA-A00	4
Flange Bolt 14x79	90170-SHJ-A00	2
Flange Bolt 12x35	90164-T0A-A00	2
Flange Bolt 14x50	90181-TLA-A00	2
Self-Lock Nut 12mm	90215-SB0-003	6
Flange Nut 10mm	90002-S10-000	2
Flange Bolt 10x35	90182-TLA-A00	4
Exhaust Pipe Gasket	18302-SP0-003	1
Exhaust Pipe Gasket	18303-T2B-A01	1
Self-Lock Nut 10mm	90212-SA5-003	6
12 Point Bolt 8x21	90113-S10-000	8
Flange Bolt 10x29	90382-SH9-003	2

CR-V Hybrid Model:

Gearbox Mounting Bolt 14x73	90108-TBA-A00	4
Flange Bolt 12x33	90165-TLA-A00	4
Split Pin 3.0x22	94201-30220	2
Flange Bolt 14x90	90179-SDA-A00	4
Flange Bolt 14x79	90170-SHJ-A00	2
Flange Bolt 12x35	90164-T0A-A00	2
Flange Bolt 14x50	90181-TLA-A00	2
Self-Lock Nut 12mm	90215-SB0-003	6
Flange Nut 10mm	90002-S10-000	2

TOOL INFORMATION

Tool Name	Tool Number	Quantity
Ball Joint Tool	07MAC-SL00202	1
Thread Protector 12mm	07AAF-SDAA100	1
Alignment Pin	070AG-SJAA10S	1

WARRANTY CLAIM INFORMATION

The normal warranty applies.

CR-V Non-Hybrid

Operation Number	Description	Flat Rate Time	Defect Code	Symptom Code	Template ID	Failed Part Number
5131C0	Non-Hybrid 2WD: Replace the EPS gearbox. Includes steering neutral position relearn, and alignment.	2.5 hr	03001	03217	A24011A	53640-TLB-305
5131C0B	For AWD add	0.4 hr			A24011B	53640-TLB-305

CR-V Hybrid

5131C0	Hybrid: Replace the EPS gearbox. Includes steering neutral position relearn and alignment.	2.4 hr	03001	03217	A24011C	53640-TPG-305
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Skill Level: Repair Technician

REPAIR PROCEDURE

Refer to Service Information for a more in-depth power steering gearbox removal procedure.

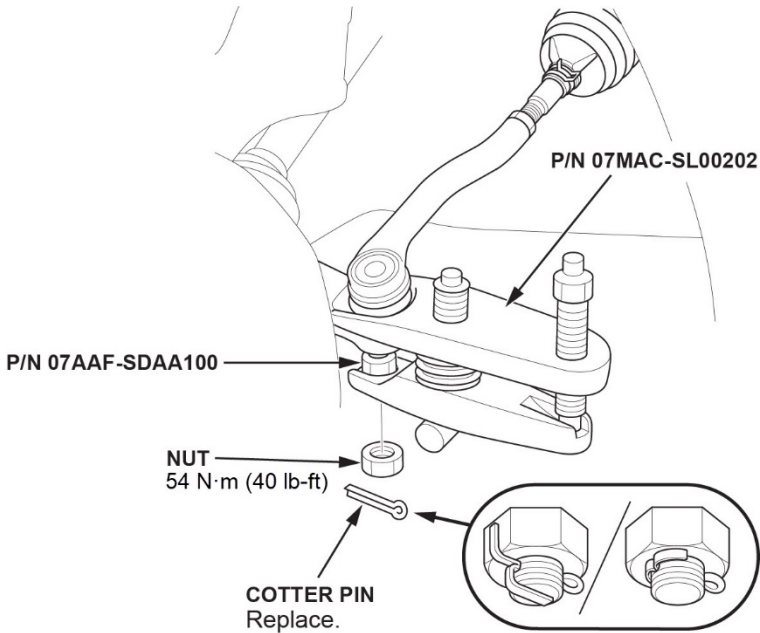
1. Disconnect the 12-volt battery terminal.
2. Raise the vehicle to a comfortable working height.
NOTE: **Keep** the vehicle elevated for the remainder of the procedure.
3. Remove the front wheels. Torque wheel nuts to **108 N·m (80 lb-ft)** after installation.
4. Disconnect the steering joint. Torque steering joint to **29 N·m (21 lb-ft)** after installation.

NOTE:

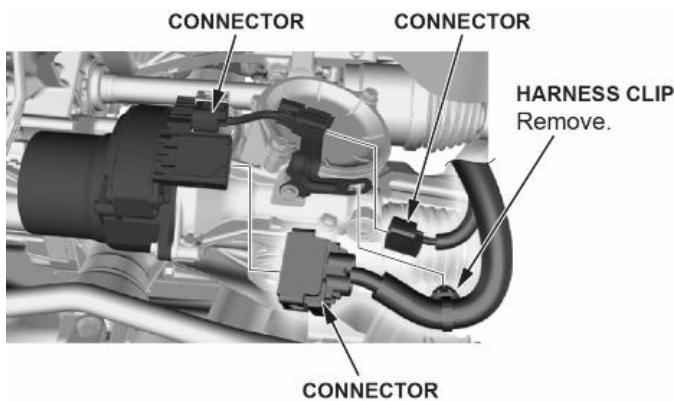
- Set the steering wheel straight ahead before disconnecting the joint.
- **Do not turn** the steering wheel while, or after, disconnecting the steering joint.

5. Disconnect the tie-rod end ball joint from both sides.

NOTE: Count the number of turns when removing the tie rod ends.

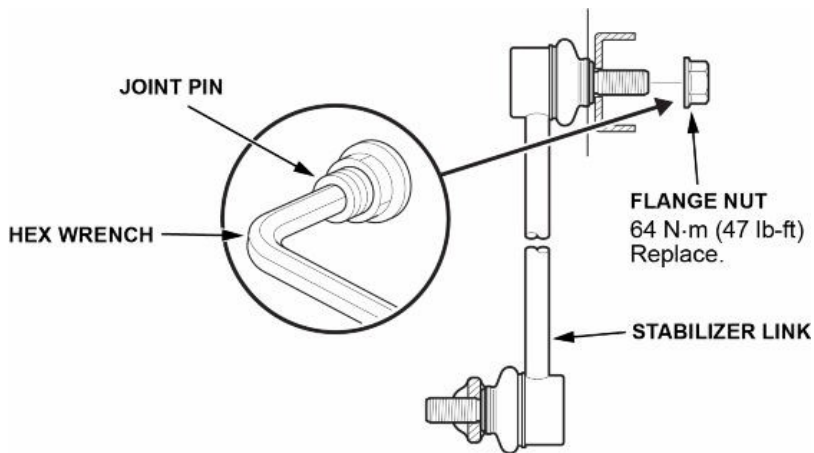


6. Remove the engine undercover.
7. Disconnect the EPS harness connectors.



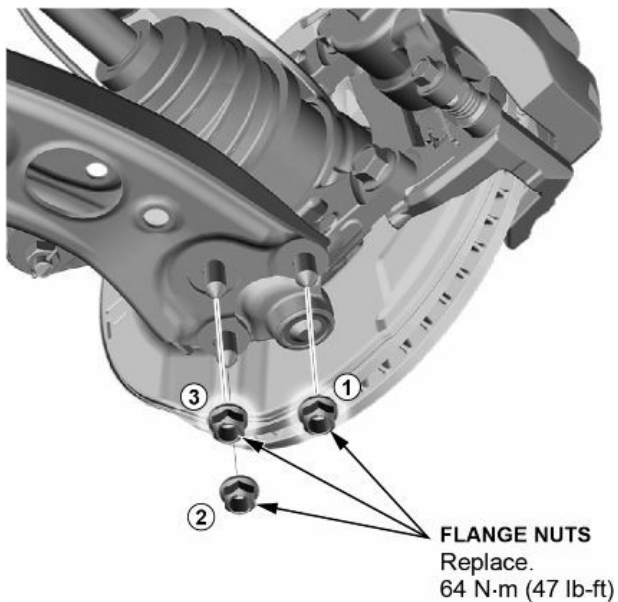
8. Disconnect the stabilizer links located on top.

NOTE: During the subframe installation process, position the stabilizer links in a vertical position for easier installation.

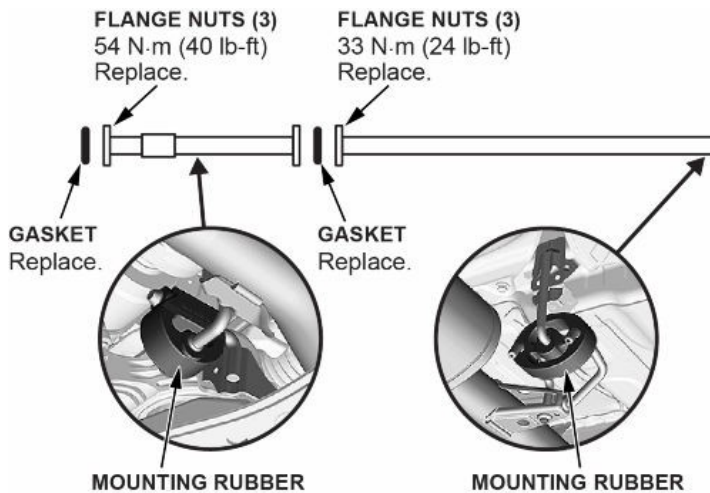


9. Disconnect the front lower arms.

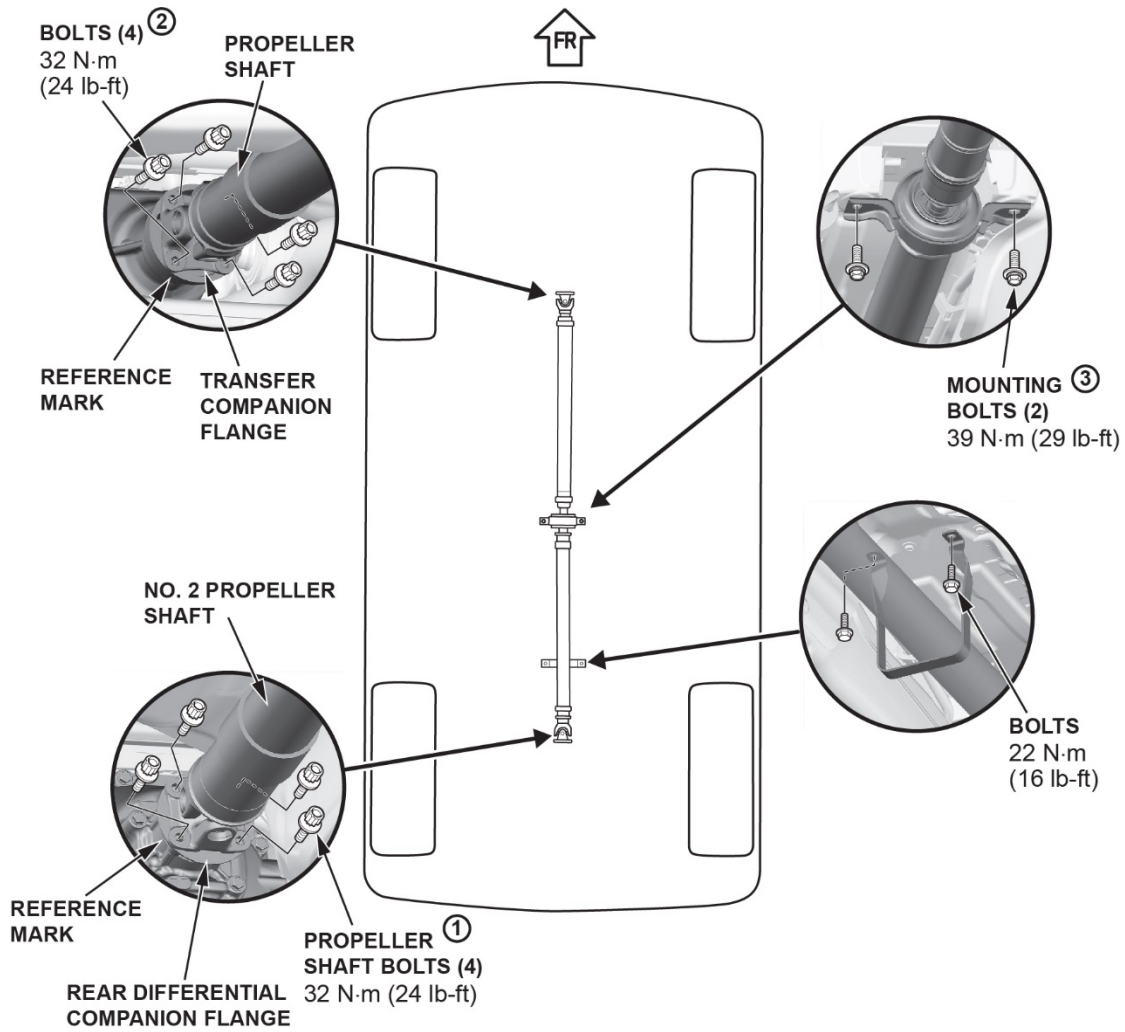
NOTE: During reassembly loosely install the new flange nuts, then tighten them to the specified torque in the numbered sequence shown.



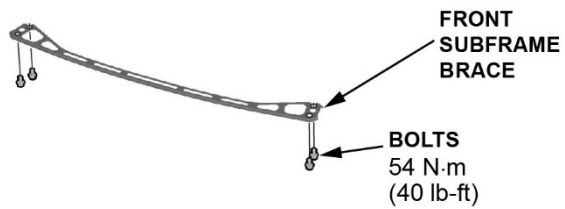
10. Remove the exhaust pipe A.



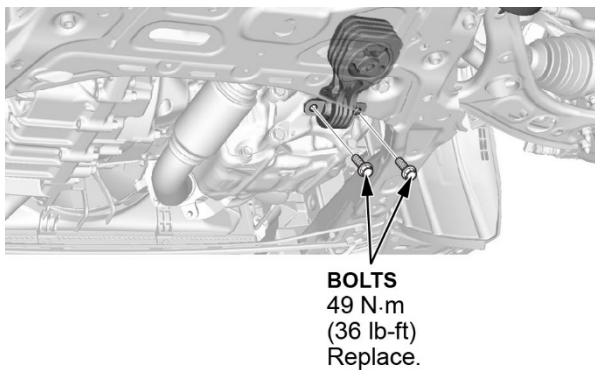
11. **Non-Hybrid AWD:** Remove the propeller shaft.



12. Remove the front subframe brace.



13. Remove the lower torque rod bolts.



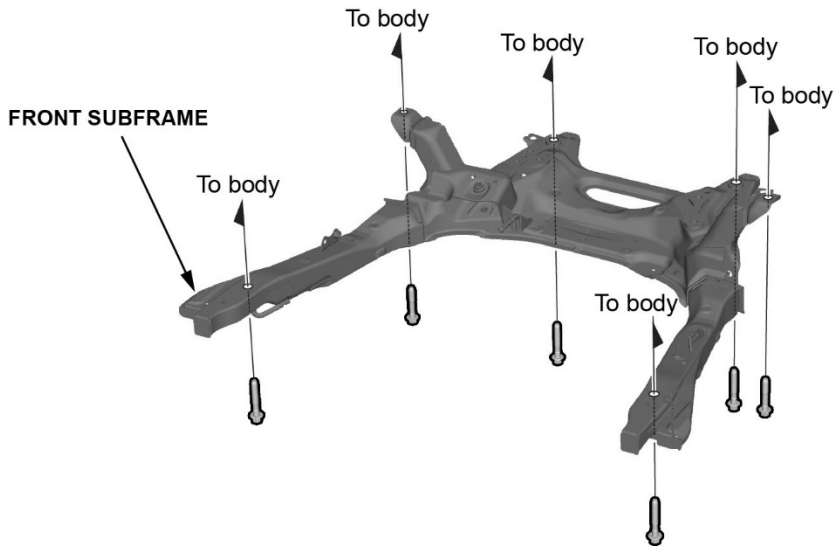
14. Remove the left and right front lower arm bolts.



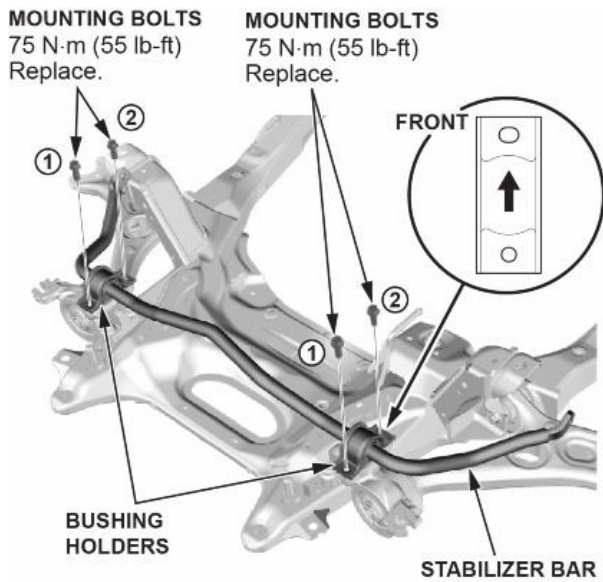
MOUNTING BOLT
69 N·m (51 lb-ft)
Replace.

15. Remove the subframe bolts, then lower the front subframe.

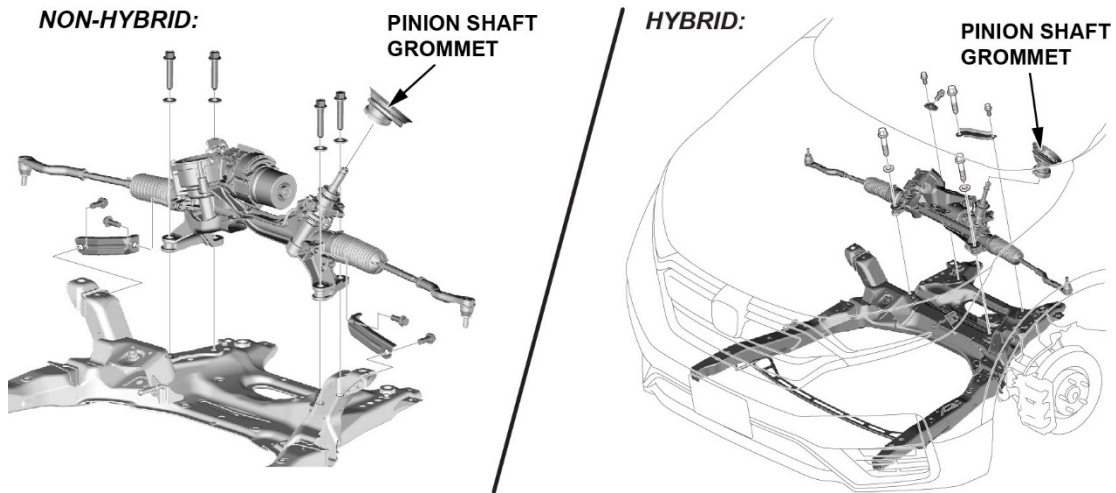
NOTE: After removing the front subframe mounting bolts, be sure to replace them with new ones.



16. **Non-Hybrid:** Remove the front stabilizer bar bushing holder.

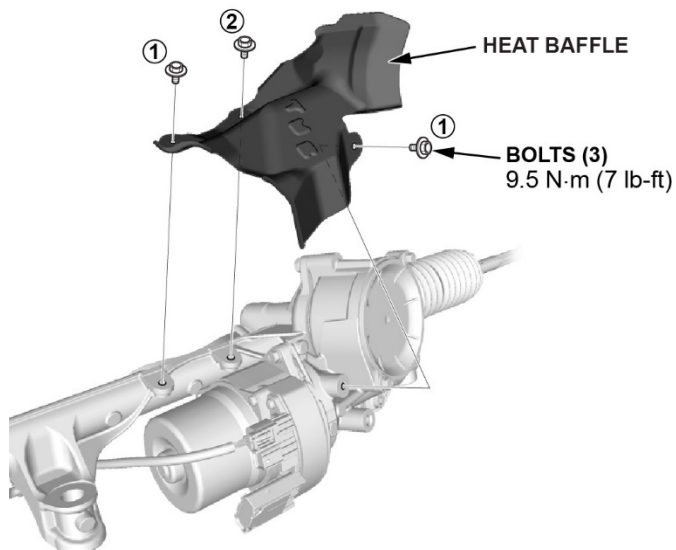


17. Remove the pinion shaft grommet.



18. Remove the steering gearbox.

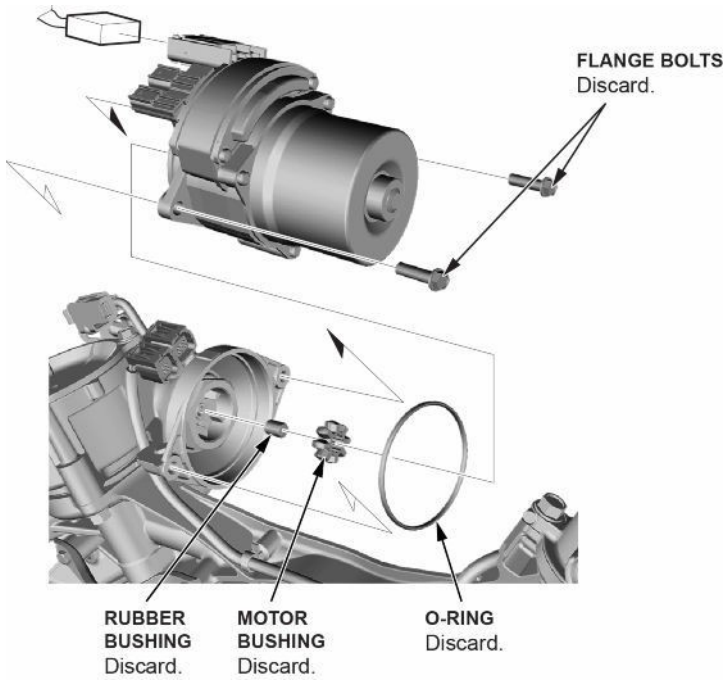
19. **Hybrid:** Remove the heat baffle.



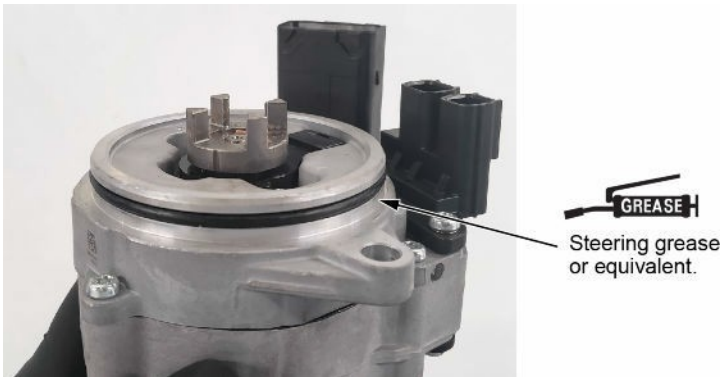
20. **Hybrid:** Remove the EPS harness.



21. Remove the EPS motor/control unit and discard the following: motor bushing, rubber bushing, O-ring, and flange bolts.



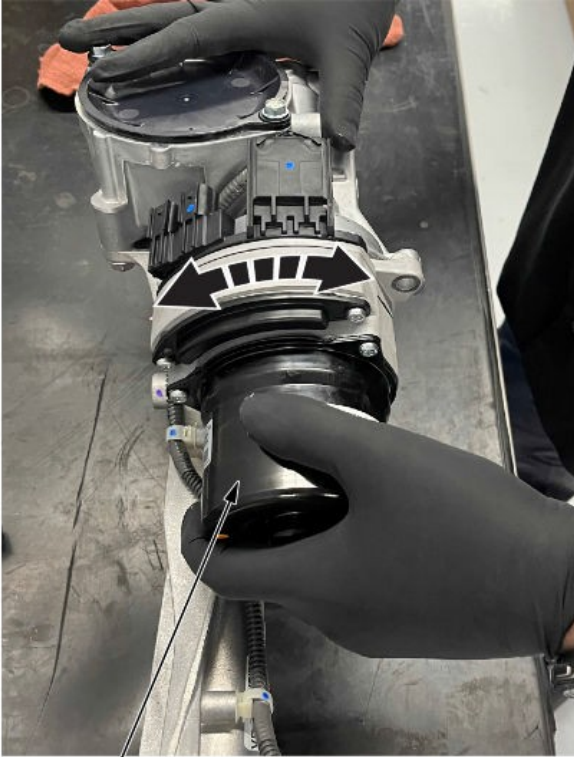
22. Apply steering grease or equivalent on the new O-ring and install it onto the EPS motor/control unit.



23. Install the original EPS motor/control unit onto the new steering gearbox using the new replacement parts included with the steering gearbox, but do not install the mounting bolts at this time.

NOTE: The motor bushing and rubber bushing are greased and installed in the new steering gearbox.

24. Turn the EPS motor/control unit to both the **left and right** in a **45° arc, two or three times** to ensure the EPS motor/control unit is properly engaged and seated. Once it is properly seated, then turn it to align the mounting holes.



EPS MOTOR CONTROL UNIT

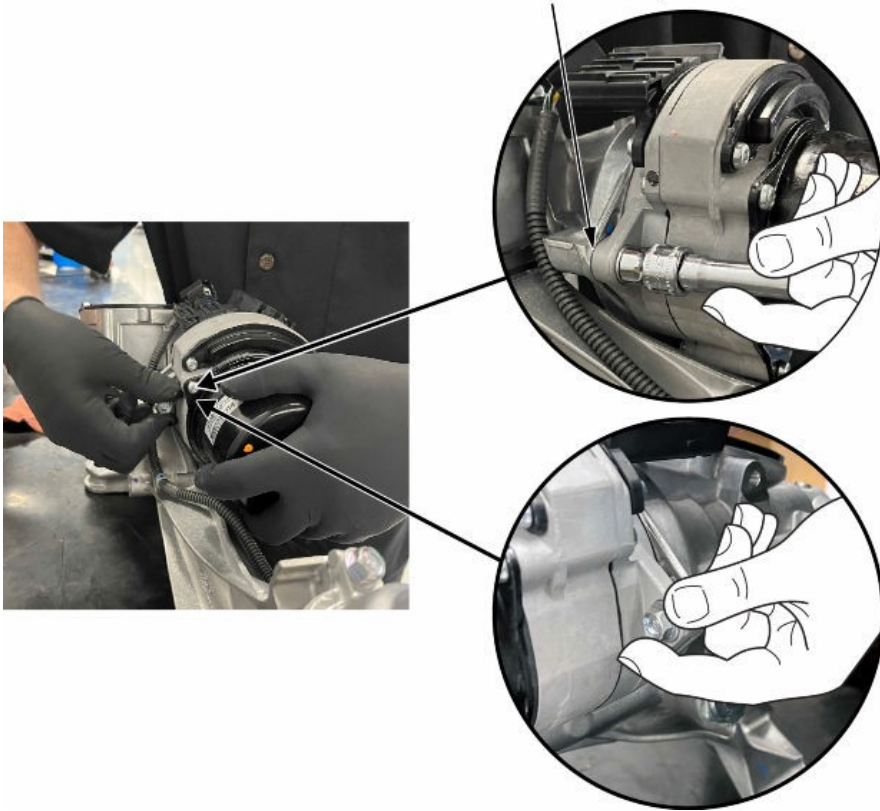
Turn unit two or three times to the right and left (about 45 degrees).

25. By hand, loosely install the new mounting bolts into the EPS motor/control unit, but do not fully torque them yet.

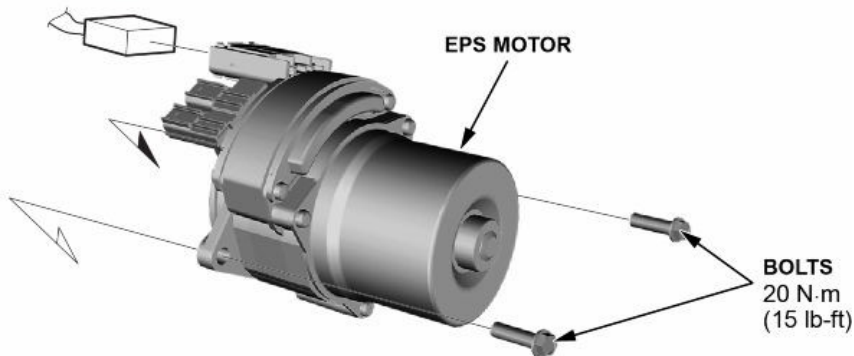
NOTE:

- Make sure the EPS motor/control unit is evenly seated on the steering gearbox.
- To prevent damaging to the motor and/or gearbox, **DO NOT** use power tools to install or tighten the bolts.

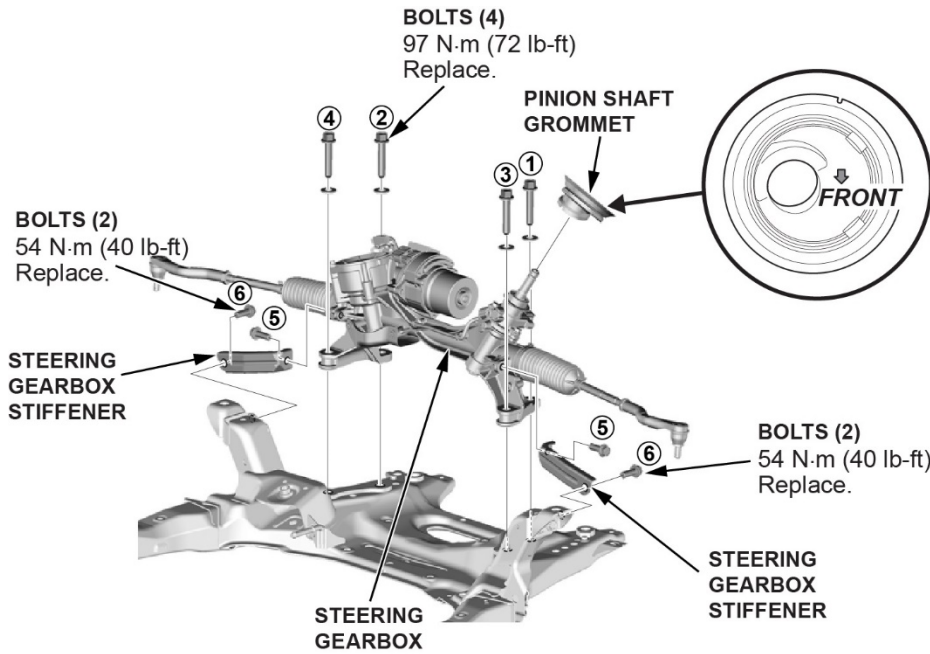
EPS MOTOR/CONTROL UNIT
Make sure unit is evenly seated.



26. Torque the EPS motor/control unit mounting bolts to **20 N.m (15 lb-ft)**.



27. **Non-Hybrid:** Loosely install the steering gearbox and steering gearbox stiffeners to the front subframe with new mounting bolts. Then, torque the mounting bolts to the specified torque in the numbered sequence shown.



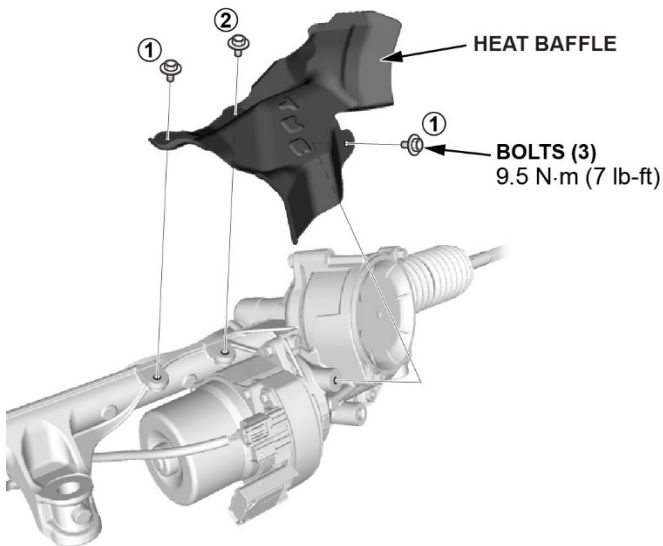
28. **Non-Hybrid:** Install the pinion shaft grommet.

NOTE: Install the grommet with the arrow facing forward towards the front of the vehicle.

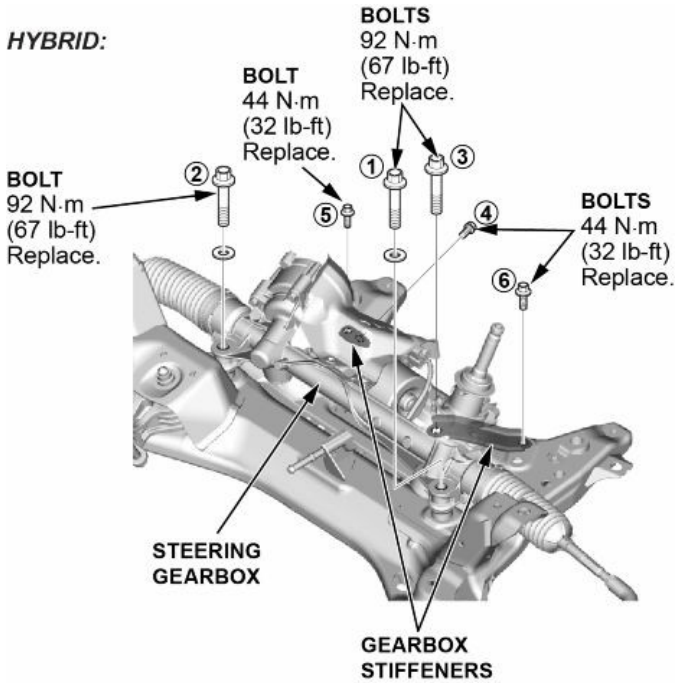
29. **Hybrid:** Install the EPS Harness.



30. **Hybrid:** Loosely install the heat baffle, then tighten the mounting bolts to the specified torque in the sequence shown.



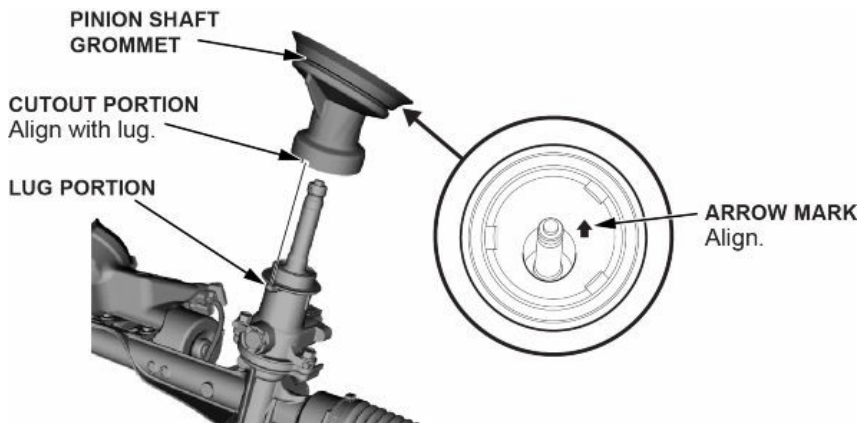
31. **Hybrid:** Loosely install the steering gearbox and steering gearbox stiffeners to the front subframe with new mounting bolts. Then, torque the mounting bolts to the specified torque in the numbered sequence shown.



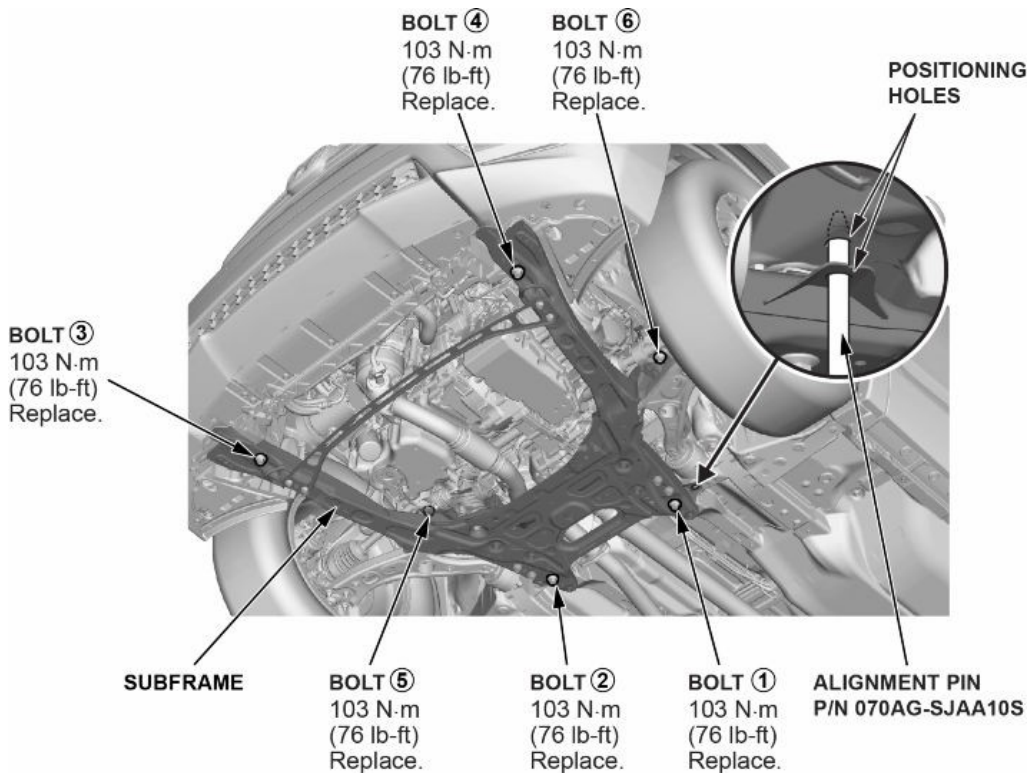
32. **Hybrid:** Install the pinion shaft grommet.

NOTE:

- Align the arrow mark on the pinion shaft grommet towards the front of the vehicle.
- Align the cutout portion with the lug portion.



33. Lift the front subframe up to the body, and loosely install the new subframe mounting bolts.



34. Insert the subframe alignment pin through the positioning hole on the right rear subframe, and into the positioning hole on the body. Then, loosely tighten the subframe right rear mounting bolt.

35. Insert the subframe alignment pin through the positioning hole on the left rear subframe, and into the positioning hole on the body.

36. Tighten the subframe mounting bolts to the specified torque in the sequence shown in the above image. NOTE: Use the subframe alignment pin when tightening the rear side subframe mounting bolts

37. Check all of the subframe mounting bolts and retighten if necessary.

38. Install all remaining parts in the reverse order of removal.

39. With the front wheels straight ahead, make sure the steering wheel is centered and the turning revolutions from center to full lock (left and right) is equal. If not, check the installation and the engagement of the joint/pinion shaft splines.
40. With the tires raised off the ground, check for noise and abnormality by turning the steering wheel fully to the right and left several times.
41. Do a wheel alignment.
42. Confirm the EPS provides power assist.
43. Check that the EPS indicator does not come on.
44. Do the VSA Sensor Neutral Position Memorization procedure.
 - Park the vehicle on a flat and level surface.
 - Connect i-HDS to the DLC located under the driver's side of the dashboard.
 - Turn the vehicle to the ON mode, but do not start the engine.
 - Set the steering wheel in the straight-ahead position.
 - Select the **ADJUSTMENT** from the **ABS/TCS/VSA** menu with the HDS, then select **ALL SENSOR**, and follow the screen prompts.