

July 6, 2023

Version 1

2022–23 Civic EPS Gearbox Replacement

AFFECTED VEHICLES

Year	Model	Trim	VIN Range
2022	CIVIC	ALL	ALL
2023	CIVIC	ALL Except Type R	ALL

SYMPTOM

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

POSSIBLE CAUSE

There is a possible steering gearbox malfunction.

CORRECTIVE ACTION

Remove the EPS gearbox assembly and replace with a new gearbox. Keep the original EPS motor/control unit with the new gearbox.

PARTS INFORMATION

Part Name	Part Number	Quantity
Gearbox (4-door Si)	53640-T22-305	1
Gearbox (4-door, 5-door, LX, EX, EX-T)	53640-T21-306	1
Gearbox (4-door, 5-door, Touring, Sport)	53640-T21-305	1
Flange Bolt (12X75)	90161-SX8-T00	4
Washer Bolt (14X85)	90179-T20-A01	4
Flange Bolt (12X30)	90174-T20-A01	2
Flange Bolt (10X20)	90165-THR-A00	4
Washer Bolt (14X45)	90163-TGH-A01	2
Flange Bolt (14X105)	90175-TRW-A00	1

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.

Part Name	Part Number	Quantity
Flange Bolt (14X33)	90164-T20-A00	5
Washer Bolt (14X85)	90130-T20-A00	1
Flange Bolt (14X35)	90181-TBA-A00	2
Flange Bolt (14X80)	90108-T20-A00	3
Split Pin (3.0X22)	94201-30220	2
Washer Bolt (10X25)	90159-TBA-A00	3
Self-Lock Nut (12mm)	90215-SB0-003	6
Flange Nut (10mm)	90002-S10-000	2

WARRANTY CLAIM INFORMATION

The normal warranty applies.

Civic Si

Operation Number	Description	Flat Rate Time	Defect Code	Symptom Code	Template ID	Failed Part Number
5131C0	Replace the EPS gearbox and transfer motor. Includes steering neutral position relearn, DTC clear and alignment.	1.9 hr	03001	03217	A23037A	53640-T22-305

Civic 4-door and 5-door LX, EX, EX-T

Operation Number	Description	Flat rate Time	Defect Code	Symptom Code	Template ID	Failed Part Number
5131C0	Replace the EPS gearbox and transfer motor. Includes steering neutral position relearn, DTC clear and alignment.	1.9 hr	03001	03217	A23037B	53640-T21-306

Civic 4-door and 5-door Touring, Sport

Operation Number	Description	Flat Rate Time	Defect Code	Symptom Code	Template ID	Failed Part Number
5131C0	Replace the EPS gearbox and transfer motor. Includes steering neutral position relearn, DTC clear and alignment.	1.9 hr	03001	03217	A23037C	53640-T21-305

REPAIR PROCEDURE

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

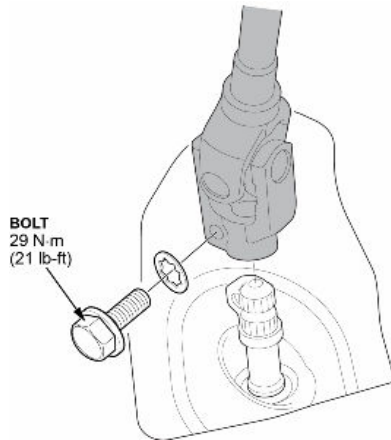
1. Disconnect the 12 volt battery terminal.
2. Raise the vehicle to a comfortable working height.

NOTE: **Keep** the vehicle elevated for the remainder of the procedure.

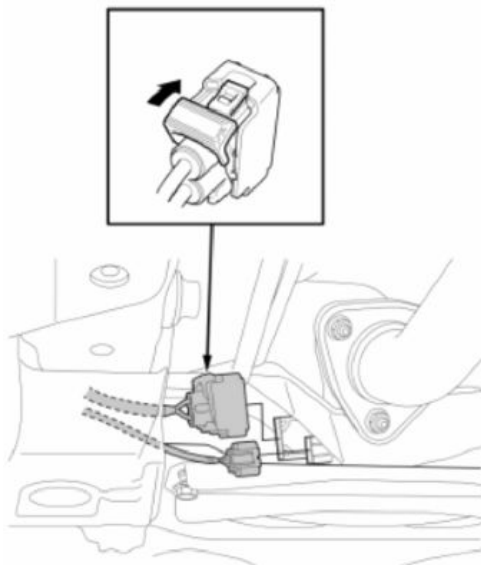
3. Remove the front wheels.
4. Disconnect the steering joint.

NOTE:

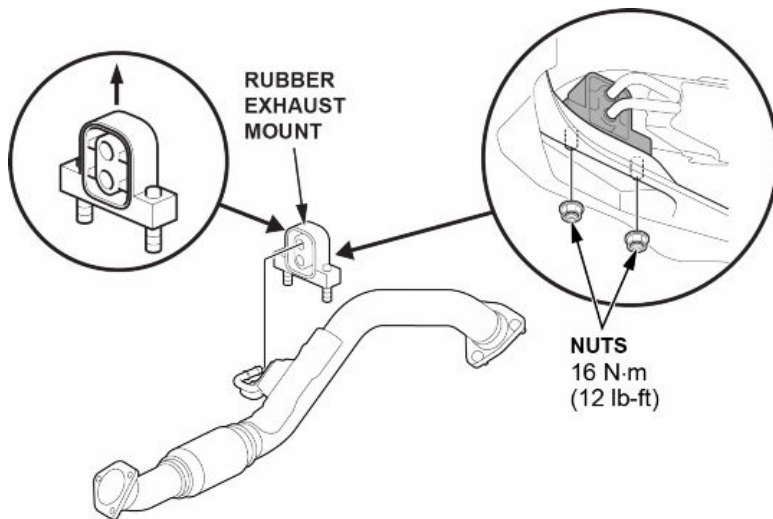
- Set the steering wheel straight ahead before disconnecting the shaft.
- **Do not turn** the steering wheel while disconnecting the steering joint.



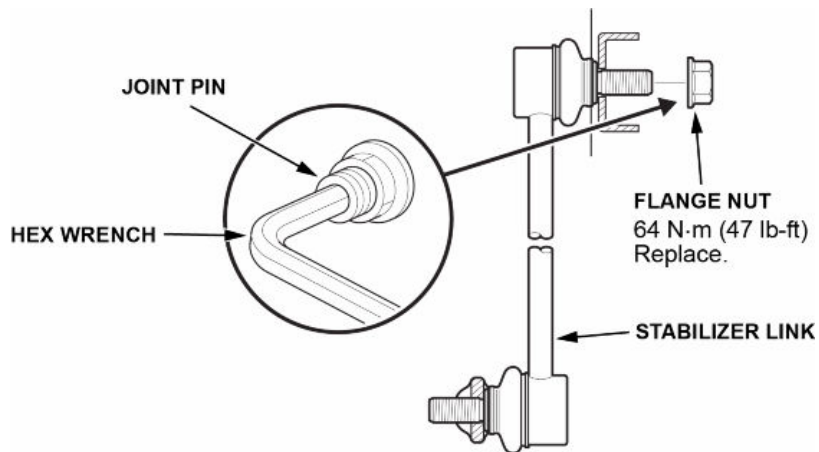
5. Remove the engine undercover.
6. Disconnect the EPS harness connectors.



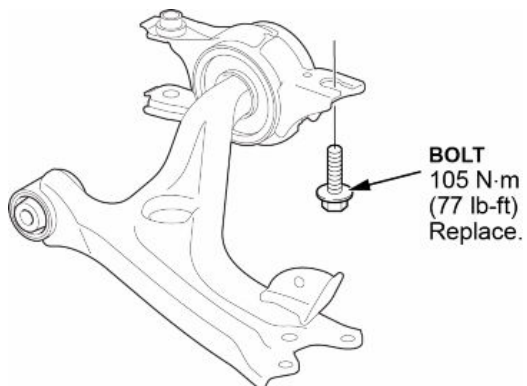
7. Remove the rubber exhaust mount.



8. Disconnect the stabilizer links located on top.



9. Remove the front lower assembly bolt (both sides).



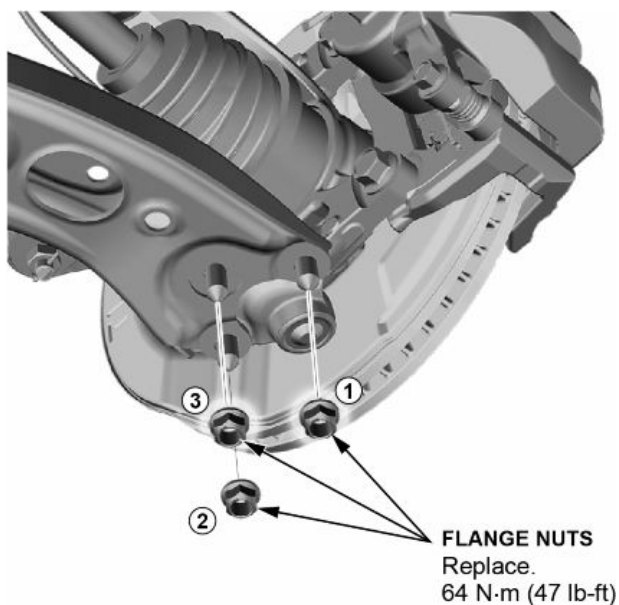
10. Loosen the outer tie-rod end nut (both sides).



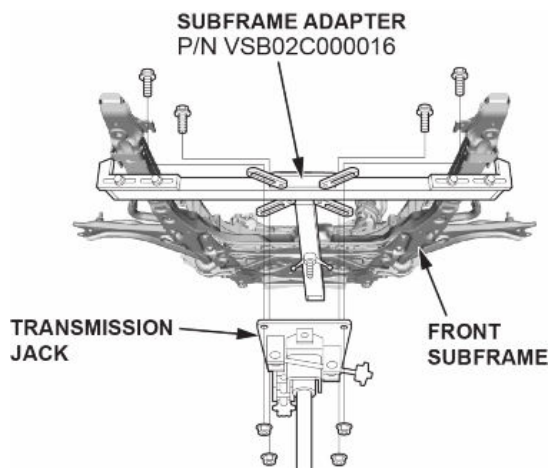
OUTER TIE-ROD NUT

11. Disconnect the front lower arms.

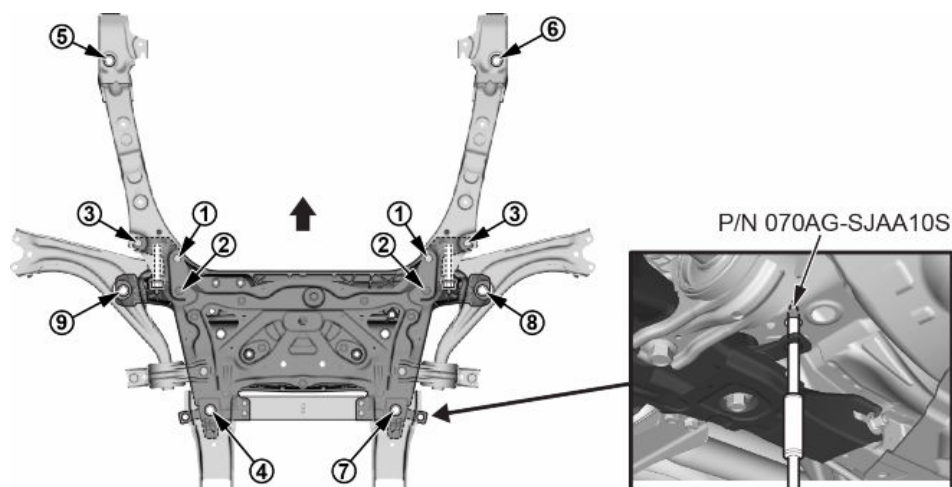
NOTE: During reassembly, loosely install the new flange nuts, then tighten them to the specified torque in the numbered sequence shown.



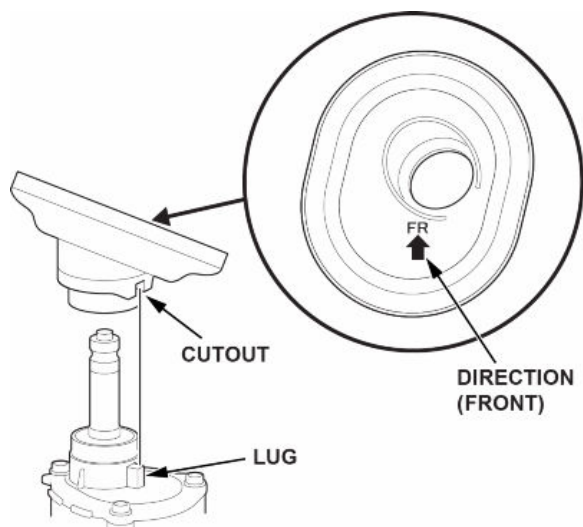
12. Remove the engine torque rod front bolt.
13. Attach the subframe adapter to the front subframe.



14. Raise a transmission jack and line up the slots in the subframe adapter arms with the bolt holes on the transmission jack base, then securely attach the four bolts.

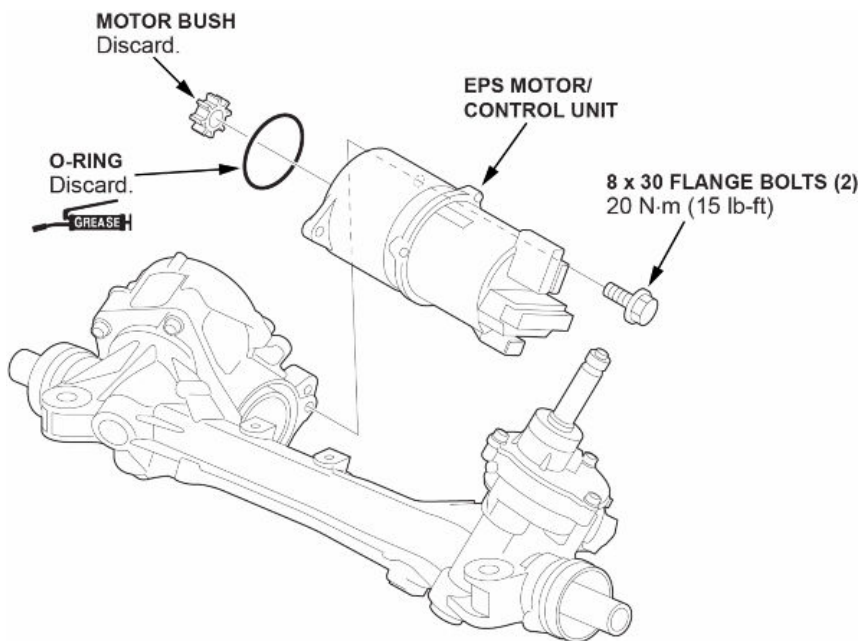


15. Remove the front subframe.
16. Transfer the tie rod ends to the replacement gearbox.
17. Transfer the steering shaft boot to the replacement gearbox.



18. Remove the steering gearbox from the subframe.

19. Separate the EPS motor/control unit from the removed rack and retain for installation on the new gearbox.



20. Install new O-ring (the O-ring is kitted in the new gearbox) to the EPS motor/control unit.

NOTE:

- Apply steering grease or equivalent to the O-ring.
- Discard the motor bush.

21. Install the EPS motor/control unit, but do not install the mounting bolts.

22. Turn the EPS motor/control unit **two or three times** to both the **left and right** in a **45° arc** as shown below.



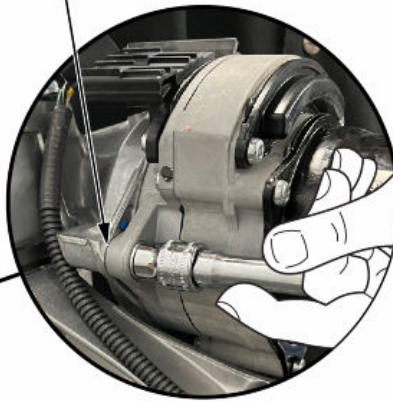
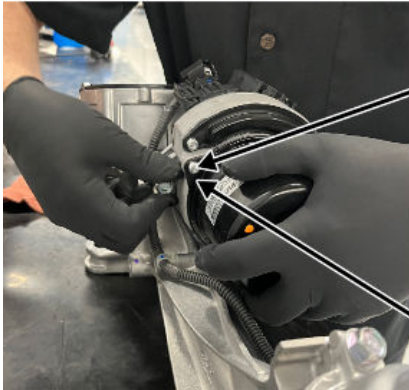
EPS MOTOR CONTROL UNIT
Turn unit two or three times to the right and left (about 45 degrees).

23. Loosely install the EPS motor/control unit mounting bolts by hand but do not fully torque them yet.

NOTE:

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

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

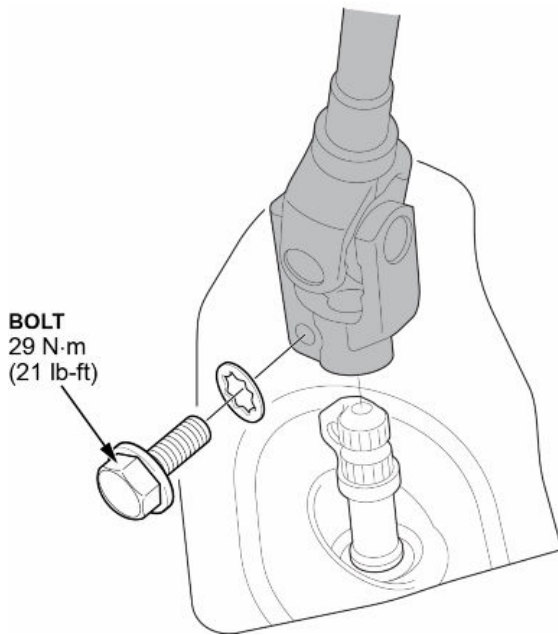


24. Torque the EPS motor/control unit mounting bolts to **20 N·m (15 lb-ft)**.

25. Install the new P/S gearbox with the EPS motor onto the subframe, and reassemble in the reverse order of removal.

26. Install the subframe, see the service information for proper installation and torque specs.

27. Install the pinion shaft to the steering joint **29 N·m (21 lb-ft)**.



28. Install all removed parts in the reverse order of removal.

29. With the front wheels set straight ahead, make sure the steering wheel is centered.

30. Make sure the turning revolutions from center to full lock (left and right) are equal.

NOTE: **If not**, check the installation of the steering wheel and the engagement of the joint/pinion shaft splines.

31. With the tires raised, check for noise and abnormality by turning the steering wheel **fully** to the **right and left** several times.

32. Confirm the EPS provides power assist.

33. Check that the EPS indicator does not come on.

34. Do a wheel alignment.

35. Do the VSA Sensor Neutral Position Memorization.

36. Park the vehicle on a flat and level surface.

37. Connect HDS to the DLC.

38. Turn the vehicle to the ON mode, but do not start the engine.

39. Set the steering wheel in the straight ahead position.

40. Select the **ADJUSTMENT** from the **ABS/TCS/VSA** menu with the HDS, then select **ALL SENSOR**, and follow the screen prompts.

END