

August 2020

Dealer Service Instructions for:

Customer Satisfaction Notification W51 Steering Gear

Remedy Available

2020 (DJ) Ram 2500 Pickup
(D2) Ram 3500 Pickup

NOTE: Some vehicles above may have been identified as not involved in this campaign and therefore have been excluded from this campaign.

IMPORTANT: Some of the involved vehicles may be in dealer new vehicle inventory. Dealers should also consider this requirement to apply to used vehicle inventory and should perform this campaign on vehicles in for service. Involved vehicles can be determined by using the VIP inquiry process.

Subject

The Hydraulic-Electric steering gear on about 72 of the above vehicles have been manufactured with an insufficient amount of grease. Lack of grease may cause a gritty or non-smooth feel in the steering wheel when turning.

Repair

Replace the steering gear and the required associated fasteners, set toe to specification.

Parts Information

<u>Part Number</u>	<u>Description</u>
CCALW511AA	Part Package

Each package contains the following components:

<u>Quantity</u>	<u>Description</u>
1	Steering Gear
1	Bolt, Pinch Intermediate Shaft
1	Nut, Pitman Arm

68218057AC	Fluid (ATF), Power Steering (MSQ of 6)
06510495AA	Washer, Pressure Hose to Pump (MSQ of 10)

Parts Return

Return the Steering Gear to the Mopar Core Return Center for core credit.

Special Tools

The following special tools are required to perform this repair:

- NPN wiTECH MicroPod II
- NPN Laptop Computer
- NPN wiTECH Software
- NPN Puller, Pitman Arm
- 9688A Adapter, Cap PS
- C-4207-A Hand Vacuum Pump or equivalent
- C-3894-A Puller, Tie Rod

Service Procedure

A. Hydraulic-Electric Steering Gear Removal Procedure

NOTE: The steering column on vehicles with an automatic transmission may not be equipped with an internal locking shaft that allows the ignition key cylinder to be locked with the key. Alternative methods of locking the steering wheel for service will have to be used.

1. Disconnect the Intelligent Battery Sensor (IBS) wire harness connector.
2. Loosen the ground terminal nut and remove the negative battery cable(s) with IBS from the battery(s) and isolate it (Figure 1).
3. Place the front wheels in a straight ahead position.
4. Lock the steering wheel.

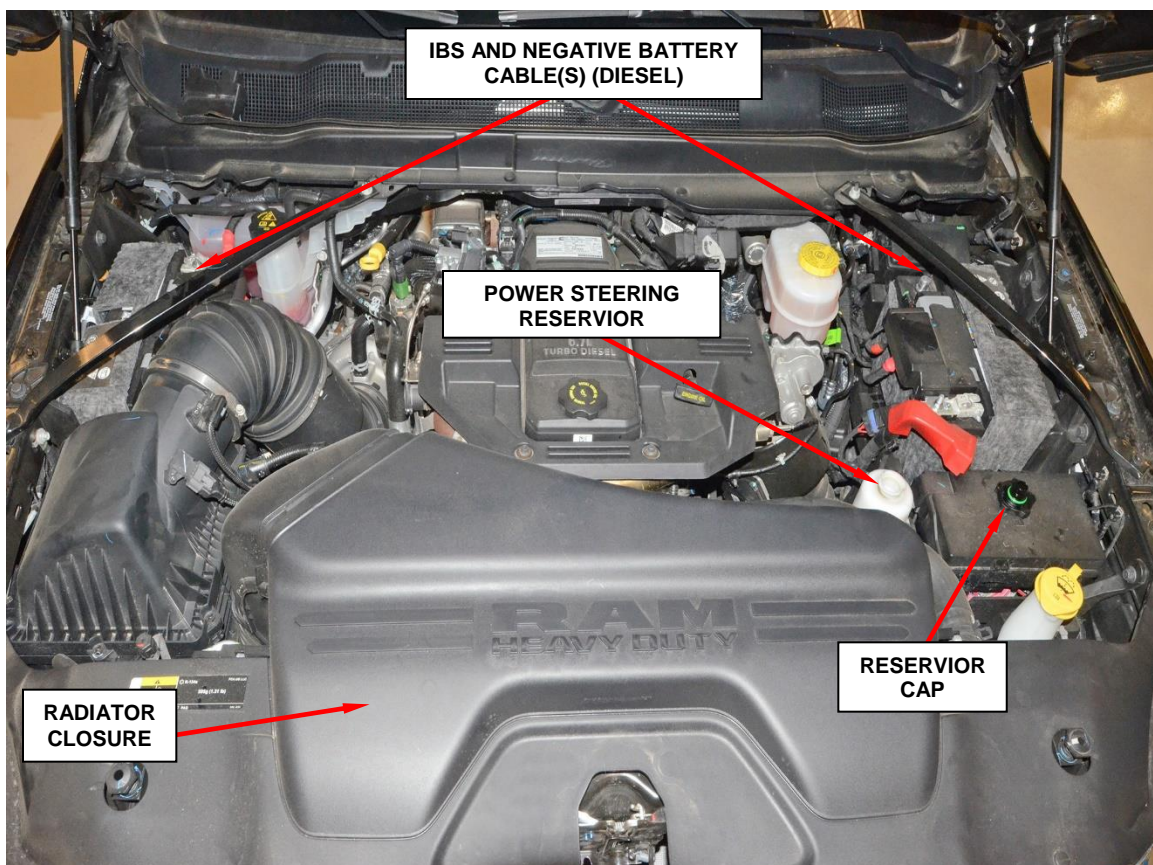


Figure 1 – Engine Compartment

Service Procedure [Continued]

5. **Gas Engine Equipped:** Remove the air cleaner hose, and body.
6. **Diesel Engine Equipped:** Disconnect the Mass Air Flow (MAF) sensor wire harness connector.
7. **Diesel Engine Equipped:** Disconnect the Temperature/Barometric Absolute Pressure (T/BAP) sensor wire harness connector.
8. **Diesel Engine Equipped:** Detach the wire harness from the clean air hose.
9. Remove the 14 push pins and the radiator closure (Figure 1).
10. Remove the two bolts securing the intake air tube (Figure 2).

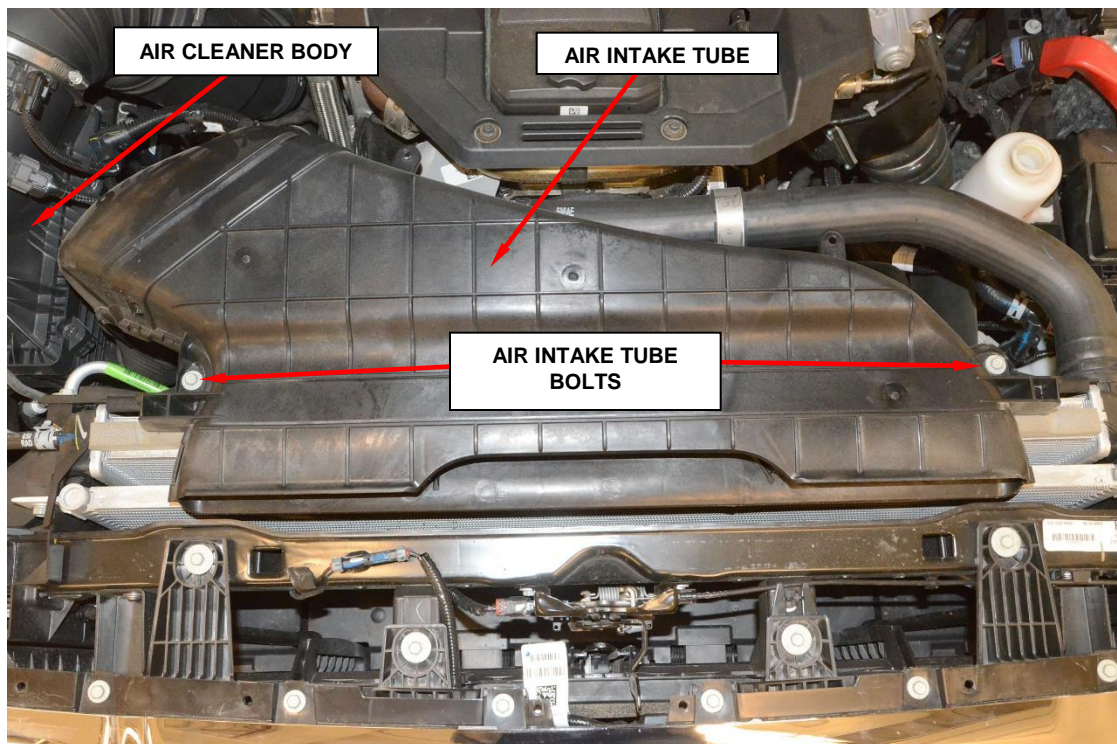


Figure 2 – Air Intake Tube

11. Lift up on the air cleaner body with intake air tube and remove and set aside (Figure 2).

Service Procedure [Continued]

12. Drain and siphon the power steering fluid from the reservoir.
13. Remove the left inner wheel well liner (Figure 3).

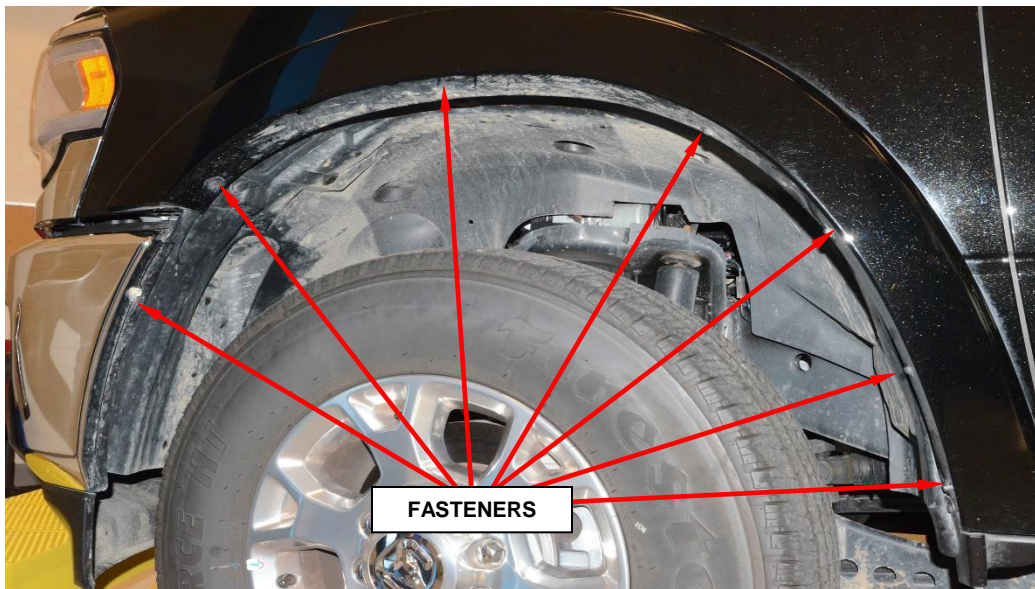


Figure 3 – Wheel Well Liner

14. Release the accessory drive belt tension and remove the serpentine belt off the power steering pump pulley.
15. Position a drain pan under the power steering pump.
16. Disconnect the return hose (3) (Figure 4).

NOTE: Do not remove the fitting on the pump that the high pressure hose screws into. If the fitting does come loose, it must be retightened before continuing.

NOTE: If the fitting comes out of the pump body, the internal spring and valve parts will drop out of the pump. They cannot be reinstalled properly. Install a new pump.

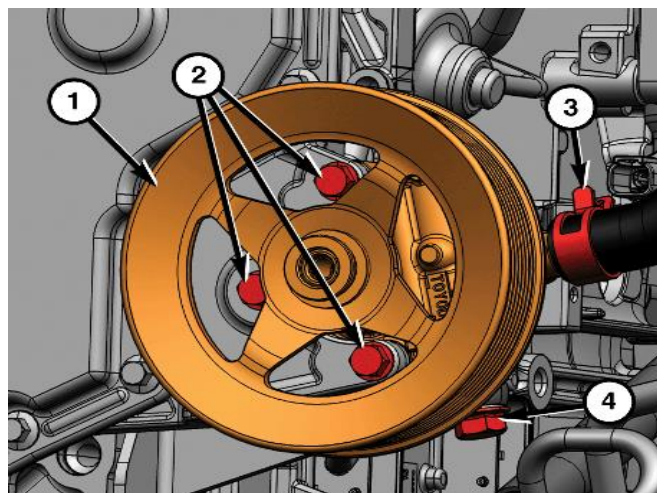
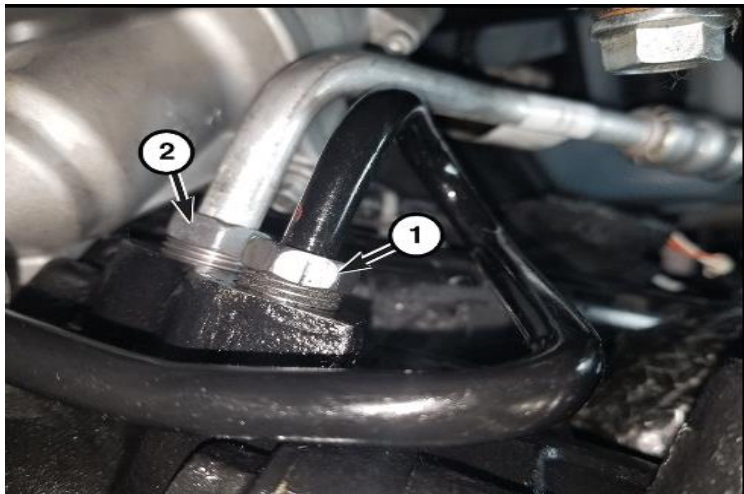


Figure 4 – Power Steering Pump

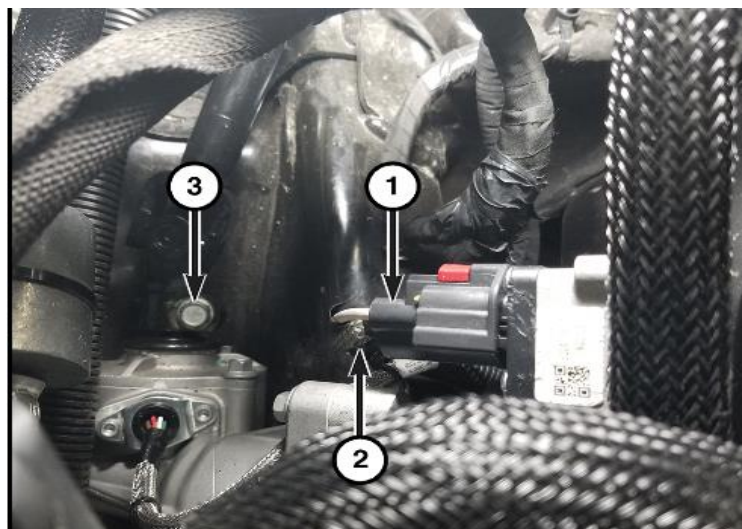
Service Procedure [Continued]

17. Using a backer wrench to stabilize the fitting disconnect the pressure hose (4) to the power steering pump (1) and **DISCARD** the washers (Figure 4).
18. Loosen the rear power steering bracket to engine block bolt.
19. Remove the three bolts (2) securing the pump to the rear bracket through the pulley holes (Figure 4).
20. Remove the power steering pump and set aside (1) (Figure 4).

21. Remove the power steering pressure line to gear nut (1) (Figure 5).
22. Remove the power steering return line to gear nut (2) (Figure 5).
23. Disconnect both lines from the steering gear.

**Figure 5 – Power Steering Lines**

24. Remove and **DISCARD** the intermediate shaft to steering gear pinch bolt (3) at the steering gear and slide the coupler off the steering gear (Figure 6).
25. Disconnect the two steering gear wire harness connectors (1, 2) (Figure 6).

**Figure 6 – Intermediate Shaft**

Service Procedure [Continued]

26. Raise and support the vehicle.
27. Remove the stabilizer bar **Without Disconnect Equipped:**
 - a) Hold the stabilizer link stud and remove the stabilizer link lower nut (Figure 7).
 - b) Remove the links from the axle using Tie Rod Puller C-3894-A

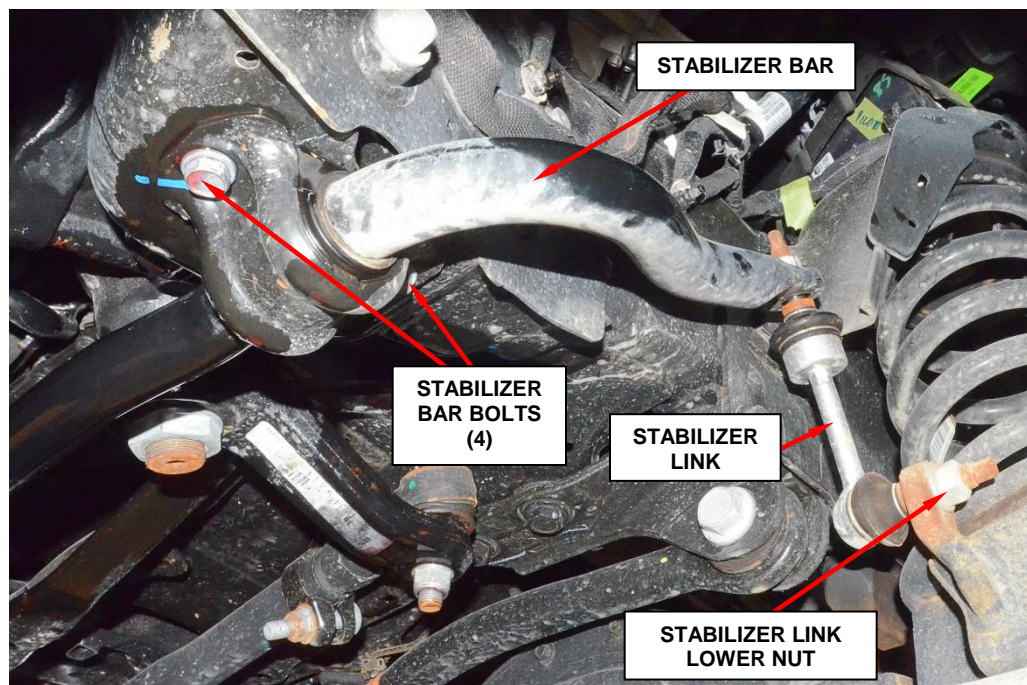


Figure 7 – Stabilizer Link

- c) Remove the four stabilizer bar bolts (Figure 7).
- d) Remove the stabilizer bar, the stabilizer bar brackets, and the stabilizer bar bushings as an assembly and set aside (Figure 7).

Service Procedure [Continued]

NOTE: Disconnect Equipped: Before disconnecting the stabilizer bar actuator wire harness connector, clean the outside of the connector with a cleaner and compressed air, to remove any dirt or debris.

NOTE: Disconnect Equipped: The Final Drive Control Module (FDCM) is integrated with the front stabilizer bar actuator.

28. **Disconnect Equipped:** Disconnect the stabilizer bar actuator wire harness connector (5) (Figure 6).

WARNING: Disconnect Equipped: The disconnecting stabilizer bar unit (3) is not serviced separately from the bar (4). Do not disassemble this unit from the stabilizer bar (Figure 8).

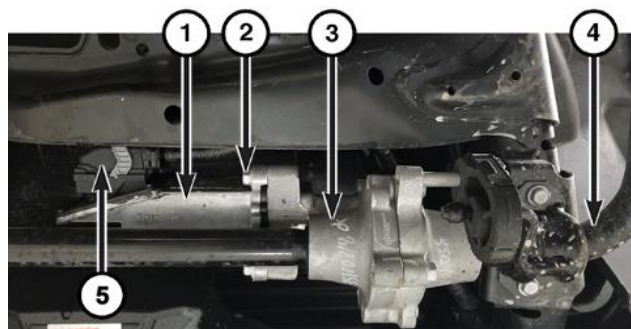


Figure 8 – Disconnect Equipped Stabilizer

29. Remove the pitman arm nut (Figure 9).

30. Remove the pitman arm with a suitable pitman arm puller tool.

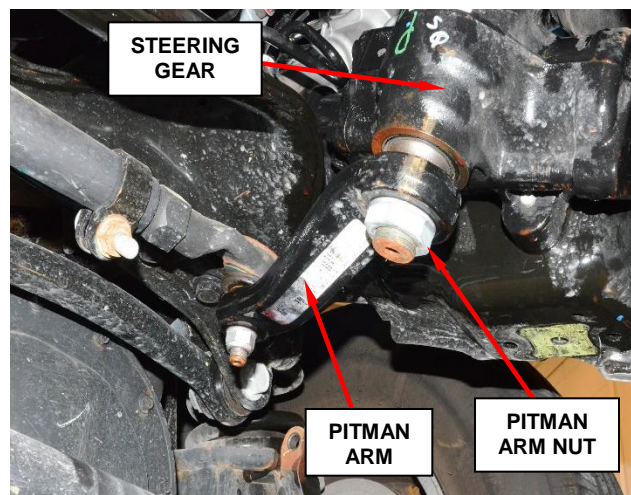


Figure 9 – Pitman Arm

Service Procedure [Continued]

31. Disconnect the crankshaft position sensor wire harness connector (1), if equipped with diesel engine (Figure 10).



Figure 10 – Crankshaft Sensor

32. Remove and save the three steering gear bolts and remove the steering gear. (Figure 11) **Return the Steering Gear to the Mopar Core Return Center for core credit.**

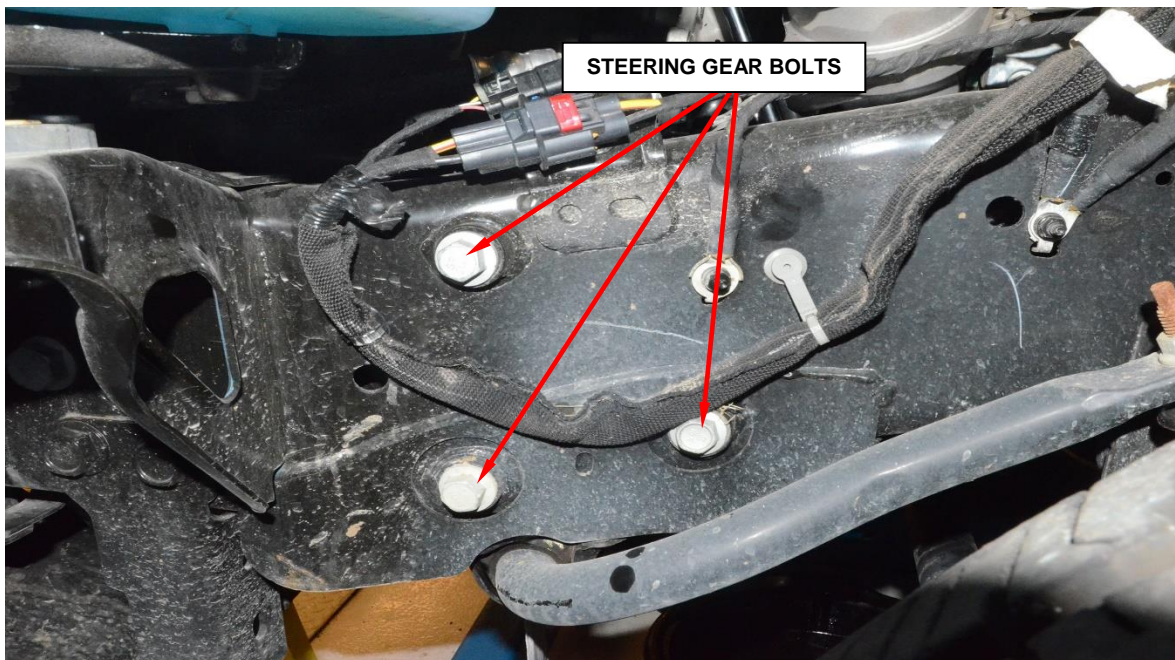


Figure 11 – Steering Gear Mounting Bolts

Service Procedure [Continued]

33. Proceed to section **B. Hydraulic-Electric Steering Gear Installation Procedure.**

B. Hydraulic-Electric Steering Gear Installation Procedure

1. Position the **NEW** steering gear to the frame rail then install the three steering gear bolts and tighten to 156N·m (115ft. lbs.) (Figure 11).
2. Connect the crankshaft position sensor wire harness connector, if equipped with diesel (Figure 10).
3. Engage the intermediate shaft to the steering gear (Figure 6).
4. Install a **NEW** intermediate shaft to steering gear pinch bolt and tighten to 55N·m (41ft. lbs.) (Figure 6).
5. Install a **NEW** pitman arm nut and tighten to 450 N·m (332ft. lbs.) (Figure 9).
6. Install the power steering return line to gear nut and tighten to 36N·m (27ft. lbs.) (Figure 5).
7. Install the power steering pressure line to gear nut and tighten to 33N·m (24ft. lbs.) (Figure 5).
8. Position the stabilizer bar to the frame, ensure the bar is centered with equal spacing on both sides.
9. Install the four stabilizer bar bolts and tighten to 83N·m (61ft. lbs.) (Figure 7).

NOTE: Disconnect Equipped, the seal must be clean and intact in the electrical connector before connecting the stabilizer bar actuator wire harness connector

10. Position the stabilizer bar link to the stabilizer bar and to the axle bracket (Figure 7).
11. Install the stabilizer links lower nut, then hold the stabilizer link stud and tighten to 149N·m (110ft. lbs.) (Figure 7).

Service Procedure [Continued]

12. **Disconnect Equipped:** Connect the stabilizer bar actuator wire harness connector.
13. Lower the vehicle.
14. Position the power steering pump in the vehicle.
15. Align the power steering pump with the mounting holes on the rear bracket. Install the three power steering pump mounting bolts and tighten to 28Nm (21ft. lbs.) (Figure 4).
16. Tighten the rear power steering bracket to engine block bolt to 8N·m (6 ft. lbs.).
17. Using **NEW** washers, install the pressure line (4) to the power steering pump assembly (1), using a backer wrench to stabilize the fitting tighten the bolt to 50 Nm (37 ft. lbs.) (Figure 4).
18. Connect the return hose (3) to the pump (Figure 4).
19. Install the serpentine belt onto the power steering pump pulley.
20. Install the left inner wheel well liner and secure the fasteners and push-pin.
21. Install the air cleaner body with intake air tube and push down to lock in place (Figure 2).
22. Install the two bolts securing the intake air tube and tighten to 8N·m (70In.Lbs.).
23. Install the radiator closure with the 14 push pins (Figure 1).
24. **Diesel Engine Equipped:** Attach the Mass Air Flow (MAF) sensor wire harness connector.
 - a) **Diesel Engine Equipped:** Attach the Temperature/Barometric Absolute Pressure (T/BAP) sensor wire harness connector.
 - b) **Diesel Engine Equipped:** Attach the wire harness from the clean air hose.
25. Install the clean air hose.

Service Procedure [Continued]26. Proceed to section **C. Power Steering System Bleeding Procedure**

CAUTION: Mopar® Power Steering Fluid + 4 or Mopar® ATF+4 Automatic Transmission Fluid is to be used in the power steering system. Both Fluids have the same material standard specifications (MS-9602). No other power steering or automatic transmission fluid is to be used in the system. Damage may result to the power steering pump and system if another fluid is used. Do not overfill the system.

Caution: If the air is not purged from the power steering system correctly, pump failure could result.

NOTE: Be sure the vacuum tool used in the following procedure is clean and free of any fluids.

C. Power Steering System Bleeding Procedure

1. Check the fluid level. As measured on the side of the reservoir, the level should indicate between **MAX** and **MIN** when the fluid is at normal ambient temperature. Adjust the fluid level as necessary.
2. Assemble the vacuum tool as show in figure 12.

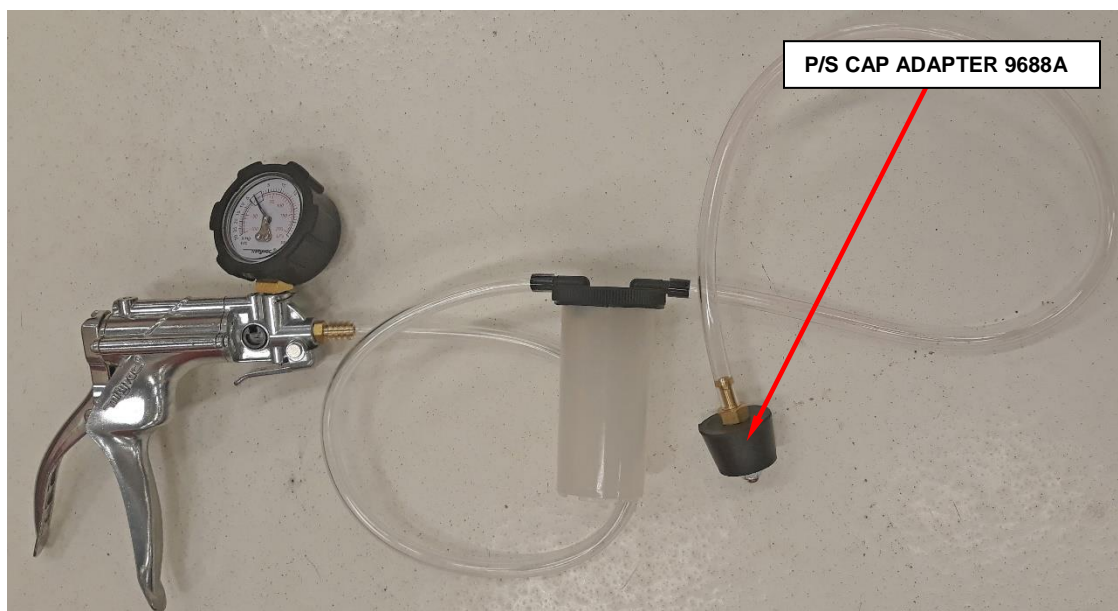


Figure 12 – Vacuum Tool Assembled

Service Procedure [Continued]

3. Tightly insert **P/S Cap Adapter 9688A** into the mouth of the reservoir (Figure 13).

CAUTION: Failure to use a vacuum pump reservoir may allow power steering fluid to be sucked into the hand vacuum pump.

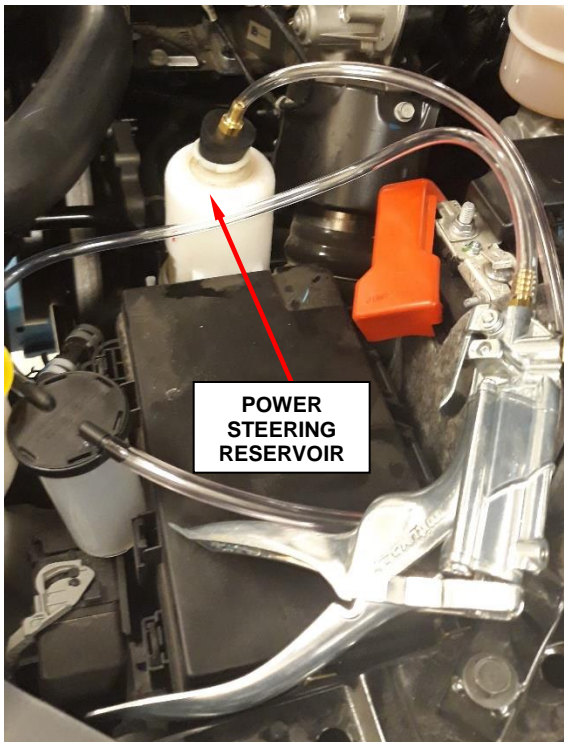


Figure 13 – Reservoir Adapter

4. Attach **Hand Vacuum Pump C-4207-A**, or equivalent, with reservoir attached to the **P/S Cap Adapter 9688A** (Figure 13).

CAUTION: Do not run the vehicle while vacuum is applied to the power steering system. Damage to the power steering pump can occur.

NOTE: When performing the following step make sure the vacuum level is maintained during the entire time period.

Service Procedure [Continued]

5. Using Hand Vacuum Pump, apply 68-85 kPa (20-25 In. Hg) of vacuum to the system for a minimum of three minutes.
6. Slowly release the vacuum and remove the special tools.
7. Adjust the fluid level as necessary. Refer to step one.
8. Repeat step one through step six until the fluid no longer drops when vacuum is applied.
9. Install the negative battery cable(s) with IBS to the negative post and tighten to 7N·m (62In. Lbs.).
10. Connect the IBS wire harness connector.
11. Start the engine and cycle the steering wheel lock-to-lock three times.

NOTE: Do not hold the steering wheel at the stops.
12. Stop the engine and check for leaks at all connections.
13. Check for any signs of air in the reservoir and check the fluid level. If air is present, repeat the procedure as necessary.
14. Perform the reset steering angle calibration.
 - a) Center the steering wheel and secure it in place
 - b) Connect the scan tool
 - c) Under Steering Assist Module (SAM), Routines, perform the Reset Steering Angle Calibration
15. Perform the wheel alignment standard procedure (Set Toe).
16. Road test the vehicle.
17. Return the vehicle to the customer.

Completion Reporting and Reimbursement

Claims for vehicles that have been serviced must be submitted on the DealerCONNECT Claim Entry Screen located on the Service tab. Claims paid will be used by FCA to record Customer Satisfaction Notification service completions and provide dealer payments.

Use the following labor operation number and time allowance:

	Labor Operation Number	Time Allowance
Replace Hydraulic-Electric Steering Gear	19-W5-11-82	2.8 hours

NOTE: See the Warranty Administration Manual, Recall Claim Processing Section, for complete claim processing instructions.

Dealer Notification

To view this notification on DealerCONNECT, select “Global Recall System” on the Service tab, then click on the description of this notification.

Owner Notification and Service Scheduling

All involved vehicle owners known to FCA are being notified of the service requirement by mail. They are requested to schedule appointments for this service with their dealers. A generic copy of the owner letter is attached.

Vehicle Lists, Global Recall System, VIP and Dealer Follow Up

All involved vehicles have been entered into the DealerCONNECT Global Recall System (GRS) and Vehicle Information Plus (VIP) for dealer inquiry as needed.

GRS provides involved dealers with an updated VIN list of their incomplete vehicles. The owner's name, address and phone number are listed if known. Completed vehicles are removed from GRS within several days of repair claim submission.

To use this system, click on the “**Service**” tab and then click on “**Global Recall System.**” Your dealer's VIN list for each recall displayed can be sorted by: those vehicles that were unsold at campaign launch, those with a phone number, city, zip code, or VIN sequence.

Dealers should perform this repair on all unsold vehicles before retail delivery. Dealers should also use the VIN list to follow up with all owners to schedule appointments for this repair.

VIN lists may contain confidential, restricted owner name and address information that was obtained from the Department of Motor Vehicles of various states. Use of this information is permitted for this notification only and is strictly prohibited from all other use.

Additional Information

If you have any questions or need assistance in completing this action, please contact your Service and Parts District Manager.

Customer Service / Field Operations
FCA US LLC

This notice applies to your vehicle,

[Model Year and Model]

VIN XXXXXXXXXXXXXXXXXXXX

W51

LOGO

VEHICLE PICTURE

YOUR SCHEDULING OPTIONS

- 1. RECOMMENDED OPTION**
Call your authorized Chrysler / Dodge / Jeep® / RAM Dealership
- 2. Call the FCA Recall Assistance Center at 1-800-853-1403.** An agent can confirm part availability and help schedule an appointment
- 3. Visit recalls.mopar.com, scan the QR code below, or download the Mopar Owner's Companion App.**

QR Code

Get access to recall notifications, locate your nearest dealer, and more through this website or Mopar Owner's Companion App. You will be asked to provide your Vehicle Identification Number (VIN) to protect and verify your identity.

DEALERSHIP INSTRUCTIONS

Please reference CSN W51.

CUSTOMER SATISFACTION NOTIFICATION

Steering Gear

Dear [Name],

At FCA US LLC, we recognize that the success of our business depends on the satisfaction of our customers. We are constantly monitoring the quality of our products and looking for opportunities to improve our vehicles even after they are sold. Because your long-term satisfaction is important to us, we are contacting you on important improvements we would like to make to your vehicle ^[1]. This will be done at no charge to you.

We are recommending the following improvements be performed on certain [2020 Model Year (DJ) Ram 2500 Pickup, (D2) Ram 3500 Pickup] vehicles.

WHY DOES MY VEHICLE NEED REPAIRS?

The Hydraulic-Electric steering gear on your vehicle may have been manufactured with an insufficient amount of grease. Lack of grease may cause a gritty or non-smooth feel in the steering wheel when turning.

HOW DO I RESOLVE THIS CUSTOMER SATISFACTION NOTIFICATION?

FCA US will repair your vehicle free of charge (parts and labor). To do this, your dealer will replace the steering gear. The estimated repair time is about 2 hours. In addition, your dealer will require your vehicle for proper check-in, preparation, and check-out during your visit, which may require more time. Your time is important to us, so we recommend that you schedule a service appointment to minimize your inconvenience. Please bring this letter with you to your dealership.

**TO SCHEDULE YOUR FREE REPAIR,
CALL YOUR CHRYSLER, DODGE, JEEP OR RAM DEALER TODAY**

WHAT IF I ALREADY PAID TO HAVE THIS REPAIR COMPLETED?

If you have already experienced this specific condition and have paid to have it repaired, you may visit www.fcarecallreimbursement.com to submit your reimbursement request online. ^[2] Once we receive and verify the required documents, reimbursement will be sent to you within 60 days. If you have had previous repairs performed and/or already received reimbursement, you may still need to have the repair performed.

We apologize for any inconvenience, but are sincerely concerned about your satisfaction. Thank you for your attention to this important matter.

Customer Assistance/Field Operations
FCA US LLC



Mr. Mrs. Customer
1234 Main Street
Hometown, MI 48371

[1] If you no longer own this vehicle, please help us update our records. Call the FCA Recall Assistance Center at 1-800-853-1403 to update your information.

[2] You can also mail in your original receipts and proof of payment to the following address for reimbursement consideration: FCA Customer Assistance, P.O. Box 21-8004, Auburn Hills, MI 48321-8007, Attention: Recall Reimbursement.