



Revision 2 February 2023

Dealer Service Instructions for:

# Safety Recall Z18 / NHTSA 22V-154

## Steering Gear

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***NOTE: Parts Information section has been updated.***

### Remedy Available

**2021-2022 (WD) Dodge Durango**

**2022 (WK) Jeep® Grand Cherokee**

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

**IMPORTANT:** Some of the involved vehicles may be in dealer new vehicle inventory. Federal law requires you to complete this recall service on these vehicles before retail delivery. Dealers should also consider this requirement to apply to used vehicle inventory and should perform this recall on vehicles in for service. Involved vehicles can be determined by using the VIP inquiry process.

### Subject

The steering gear assembly on some of the above vehicles may have been built with a rack bar manufactured with hardness below specification that may bend or yield in certain circumstances. If the rack bar yields, it could bind within the steering rack, possibly resulting in sudden greater effort required to maintain directional steering control and/or the inability to maintain directional steering control, which can cause a vehicle crash without prior warning.

**Repair**

Replace the steering rack & pinion gear assembly.

**Parts Information**

**Steering Rack & Pinion Gear Assembly Part Number**

Please reference StarParts and any applicable Tech Tips to check for correct Steering Rack and Pinion Gear Assembly Part Number to order.

<u>Part Number</u>	<u>Qty.</u>	<u>Description</u>
06510206AA	1	Pinch Bolt
06511398AA	2	Nut, Upper Ball Joint
06511398AA	2	Nut, Outer Tie Rod
06512099AA	2	Clevis Nut
06512111AA	2	Clevis Bolt
04809863AC	2	Washer, Half Shaft Outer
06102240AA	1	Bolt and Washer, (Axle tube bushing bracket bolt and nut)
06104717AA	1	Nut, Lock (axle tube bushing bracket bolt and nut)
06509298AA	2	Nut, Axle Half Shaft to hub and bearing
06511930AA	2	Bolt, Front axle differential (Cover bushing bolt & pinion nose bolt)
68087448AC	3	Bolt kit, front prop to pinion flange
06512761AA	2	Rivet, Spat Attaching – (WD only as applicable)

**Parts Return**

No parts return required for this campaign.

Render the steering gear unusable and discard.

**Special Tools**

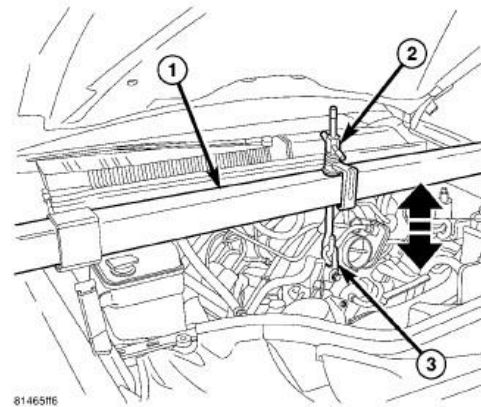
**The following special tools are required to perform this repair:**

9360	Remover, Tie Rod
8984C	Fixture
8534C	Driveline Support or Equivalent
C-4150A	Press, Ball Joint
10270	Protector, Half Shaft, Drive
8677	Ball Joint Remover

**Service Procedure**

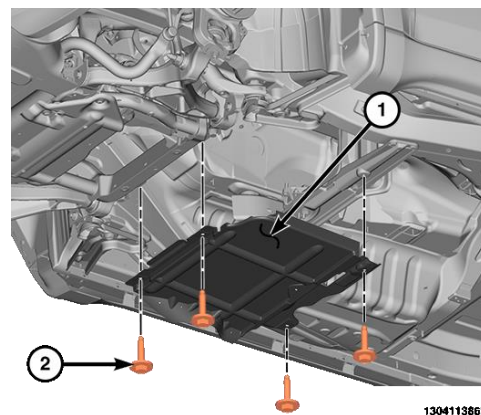
**A. Removal**

1. Disconnect and isolate the negative battery cable.
2. Remove the air cleaner body.
3. Disconnect the throttle body wire harness connector and disengage the wire harness clip from the throttle body.
4. Remove the four bolts and the throttle body and set aside.
5. Support the engine using **Fixture, Engine Lifting 8984C Fixture, Driveline Support 8534C** or equivalent (Figure 1).
6. Raise and support the vehicle.
7. Remove the front wheels and tires.



**Figure 1 – Engine Lifting Fixture**

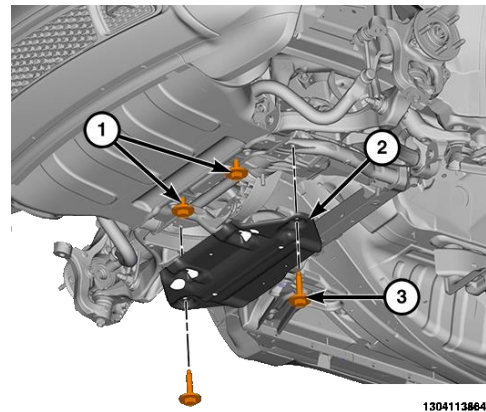
8. Remove the bolts (2) and remove the transmission skid plate (1) (Figure 2).



**Figure 2 – Transmission Skid Plate**

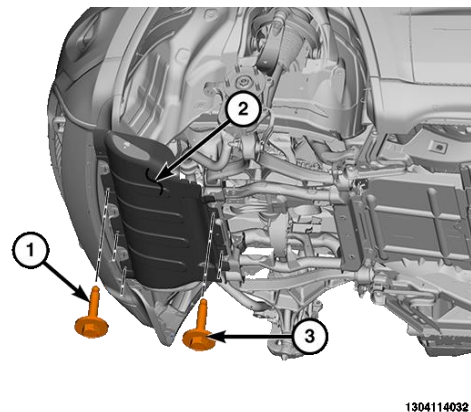
**Service Procedure [Continued]**

9. Remove the front suspension skid plate by loosening the front bolts (1), removing the rear bolts (3), then the skid plate (2) (Figure 3).



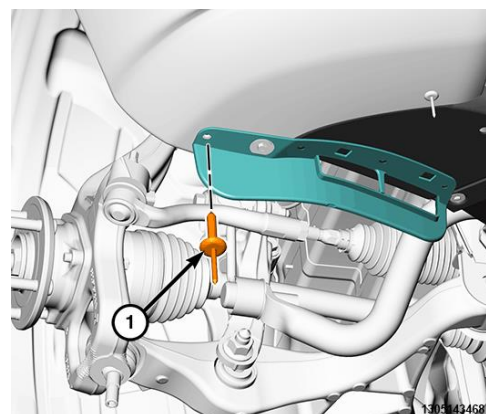
**Figure 3 – Front Suspension Skid Plate**

10. Remove the front skid plate on standard models by removing the front (1) and rear (3) bolts, then removing the front skid plate (2) (Figure 4).



**Figure 4 – Front Skid Plate**

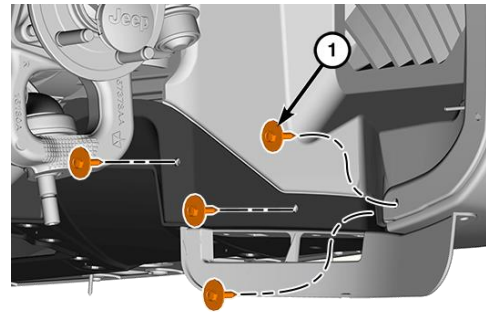
11. For Trackhawk models, remove the outer spat rivet (1) (Figure 5).



**Figure 5 – Outer Spat Limit (Trackhawk Models)**

**Service Procedure [Continued]**

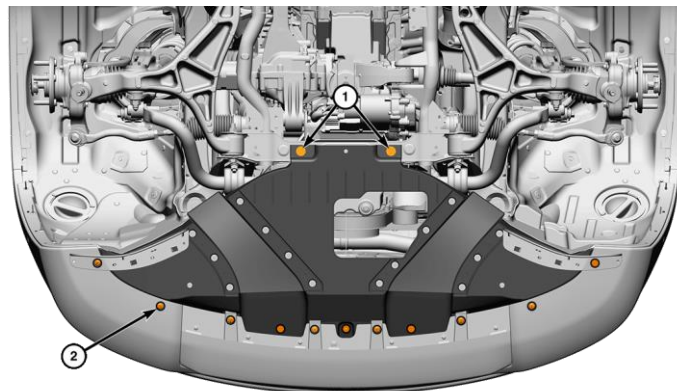
12. For Trackhawk models, remove the four fasteners (1) from each wheel well (Figure 6).



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**Figure 6 – Wheel Well Fasteners (Trackhawk Models)**

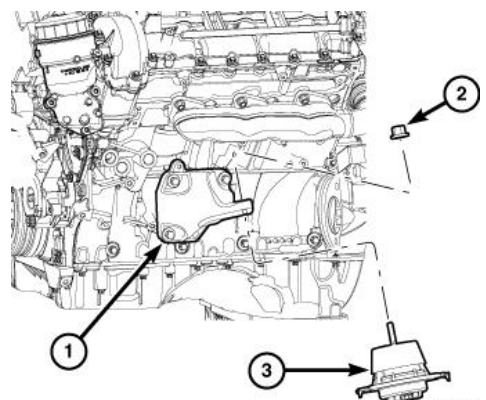
13. For Trackhawk models, remove the two rear fasteners (1) and the 11 front fasteners (2) then remove the skid plate (Figure 7).



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**Figure 7 – Skid Plate Fasteners (Trackhawk Models)**

14. Remove the engine mount nuts (2) (Figure 8).



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**Figure 8 – Engine Mount Nuts**

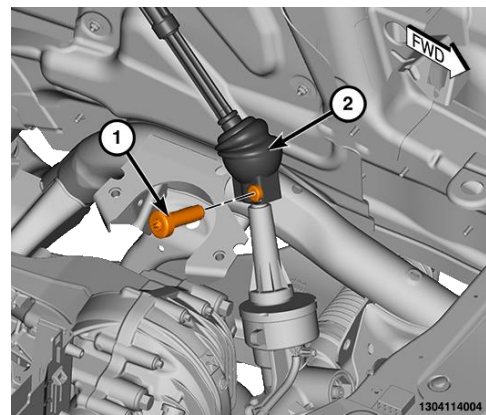
**Service Procedure [Continued]**

15. Remove the catalytic converter heat shield from the frame.

**CAUTION: Steering Column Control Module (SCCM) is centered to the vehicles steering system. Failure to keep the system and steering column module centered and locked/inhibited from rotating can result in SCCM damage.**

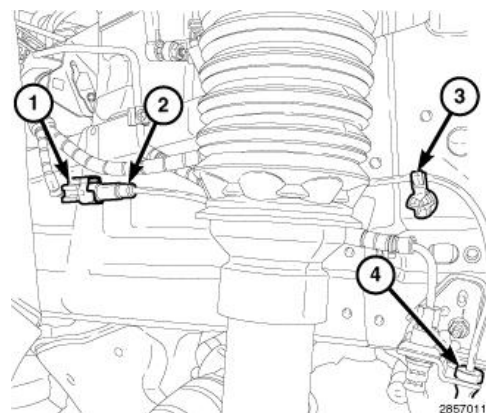
16. Place the front wheels in the straight-ahead position with the steering wheel centered and locked with a steering wheel lock.

17. Remove the steering shaft coupler pinch bolt (1) and disconnect the coupler (2) from the steering shaft. **Discard** the steering shaft coupler pinch bolt (Figure 9).



**Figure 9 – Steering Shaft Coupler Pinch Bolt**

18. Disconnect the wheel speed sensor electrical connector (1), the wheel speed sensor wiring routing clips (2, 3), and remove the wheel speed sensor wiring (4) from the brake flex hose bracket (Figure 10).



**Figure 10 – Wheel Speed Sensor Connections**

**Service Procedure [Continued]**

19. Disconnect the sensor wire routing clips from the brake hose and remove the wheel speed sensor wiring (3) from the knuckle (4) (Figure 11).

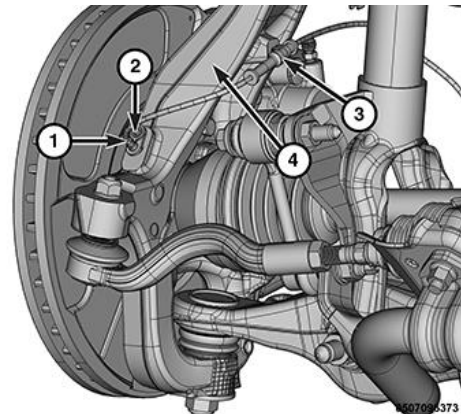
20. Remove the front wheel sensor mounting bolt (2) and remove the sensor (1) from the knuckle (4) (Figure 11).

21. Remove both brake calipers and hang to the side.

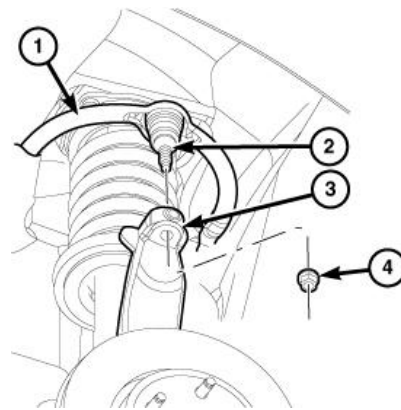
22. Remove the brake rotor.

23. Support the outside of the lower control arms with a suitable holding fixture and raise to normal ride height.

24. Remove the upper ball joint nuts (4) and **DISCARD** (Figure 12).



**Figure 11 – Wheel Speed Sensor**

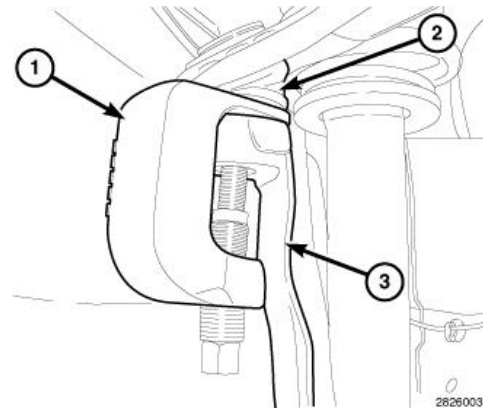


**Figure 12 – Ball Joint Nut**



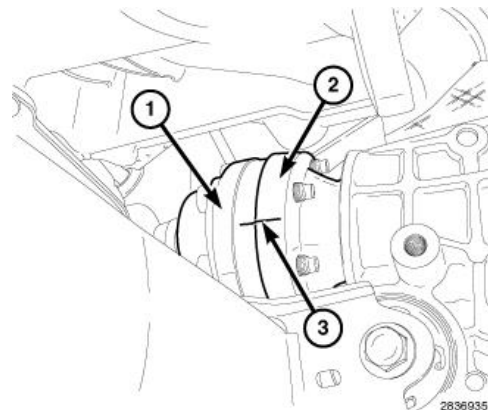
**Service Procedure [Continued]**

- 25. Separate the upper ball joints (2) from the knuckles (3) using **Press, Ball Joint C-4150A** (1) (Figure 13).
- 26. Remove the shock clevis bracket to lower control arm nut/bolts and **DISCARD**.



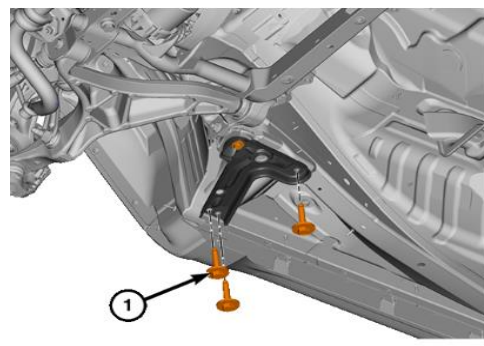
**Figure 13 – Ball Joint Press 4150A**

- 27. Mark (3) the front driveshaft (1) and pinion flange (2) for installation reference if applicable (Figure 14).
- 28. Remove the driveshaft (1) from the pinion flange (2) if applicable (Figure 14).
- 29. Disconnect the steering gear wire harness connectors.



**Figure 14 – Driveshaft & Pinion Flange**

- 30. Remove the bolts (1) from the rear brackets (Figure 15).



**Figure 15 - Bracket**

**Service Procedure [Continued]**

31. Using a grease pencil or equivalent, mark the location of the cradle on the underbody.
32. Support the cradle with suitable lifting device.
33. Remove the four cradle bolts (3) and separate the cradle crossmember (1) and brackets (2) from the vehicle (Figure 16).

**CAUTION: Remove axle vent tube prior to removing axle. Failure to remove vent tube will allow axle fluid to saturate the vent and cause reduced or improper axle venting resulting in axle damage.**

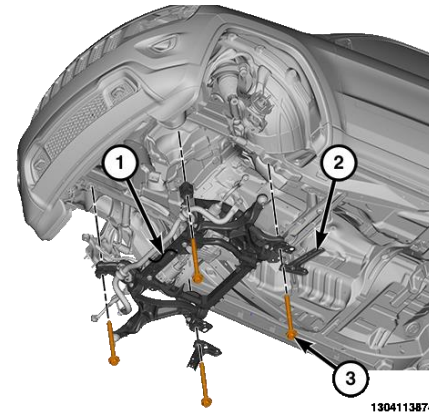


Figure 16 - Cradle

34. Remove axle vent tube from axle.

**NOTE: Always install a NEW hub nut. The original hub nut is one-time use only and should be discarded when removed.**

35. Remove halfshaft hub/bearing nut (1) and **DISCARD** (Figure 17).

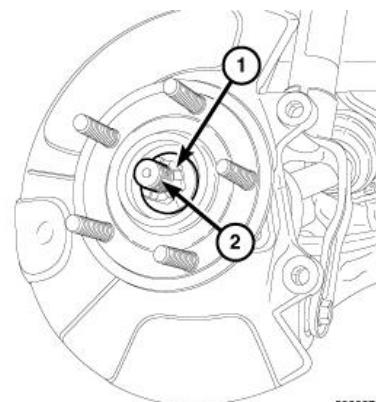
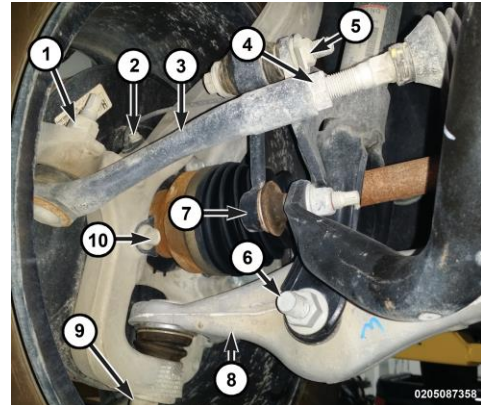


Figure 17 – Hub/Bearing Nut

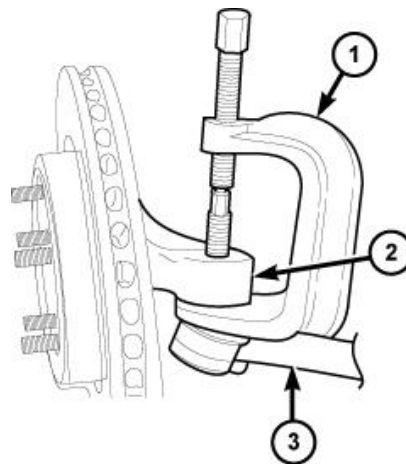
**Service Procedure [Continued]**

36. Remove tie rod end nut (1) (Figure 18).



**Figure 18 – Tie Rod End Nut**

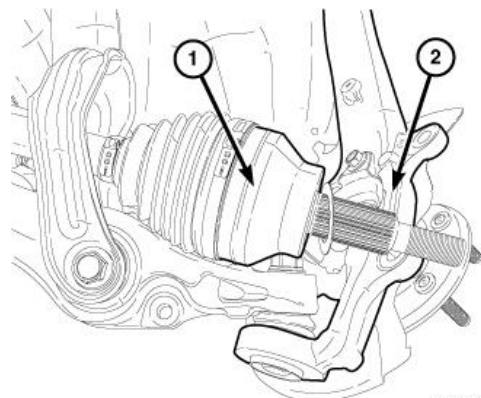
37. Separate the outer tie rod end (3) from the knuckle (2) with **Ball Joint Remover 8677** (1) (Figure 19).



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**Figure 19 – Ball Joint Remover 8677**

38. Lean the knuckle (2) out and push halfshaft (1) out of the hub/bearing. Discard the coated washer between the outer CV joint and the hub (Figure 20).



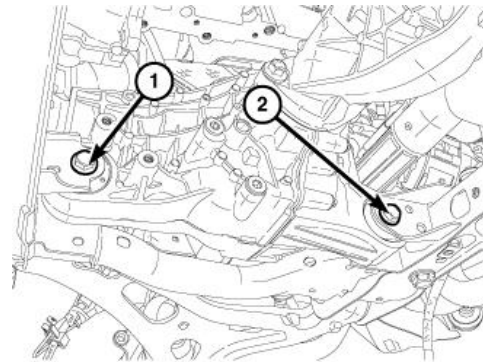
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**Figure 20 – Halfshaft from Hub/Bearing**

39. Pry halfshaft from axle/axle tube with pry bar. There are notches present on the inner CV joint housing to pry against, use care not to damage halfshaft seal.

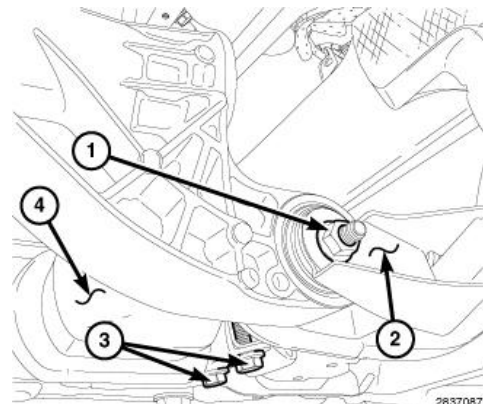
**Service Procedure [Continued]**

40. Remove and **DISCARD** the front axle cover bushing bolt (2) and front axle pinion nose bushing bolt (1) from the crossmember (Figure 21).



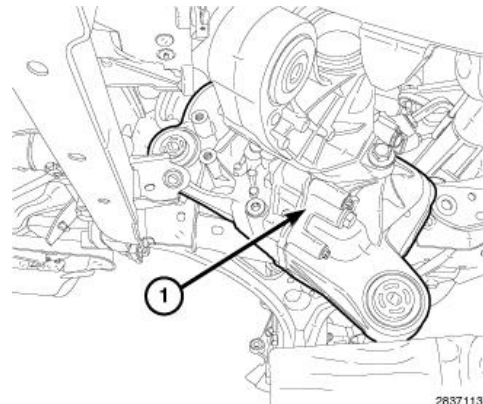
**Figure 21 – Front Axle Bushing Bolts**

41. Remove and **DISCARD** the nut and bolt (1) from front axle tube bushing (2) bracket (Figure 22).
42. Remove the bolts (3) from frame dampener (4) (Figure 22).



**Figure 22 – Front Axle Tube Bushing Nut & Bolt**

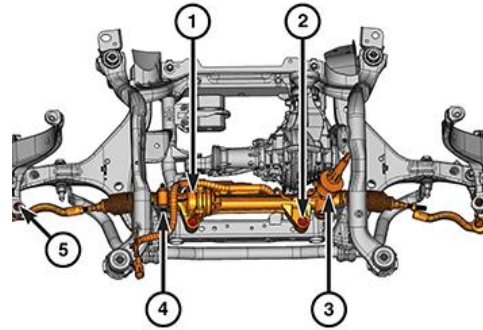
43. To remove the axle (1), tilt the front side of the axle downward while maneuvering the axle bracket. Then lower the axle and slide it to the RH side of the vehicle to clear the front axle cover mounting bracket (Figure 23).



**Figure 23 – Front Axle Removal**

**Service Procedure [Continued]**

44. Remove the two steering gear bolts (2) (Figure 24).
45. Remove the one steering gear bolt (4) (Figure 24).
46. Remove the steering gear (3) (Figure 24).



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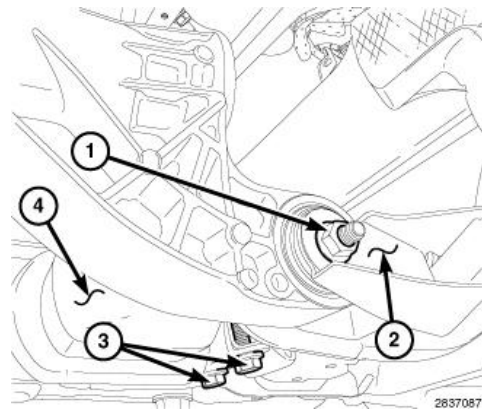
**Figure 24 – Steering Gear Bolts****B. Installation**

**CAUTION: Steering Column Control Module (SCCM) is centered to the vehicles steering system. Failure to keep the system and steering column module centered and locked/inhibited from rotating can result in SCCM damage.**

1. Drill out the rivets with a 9/64 drill bit, transfer the steering gear heat shield, secure the heat shield with the **NEW** self-tapping screws provided with the new steering gear.
2. Position the **NEW** steering gear (3) to the crossmember cradle (Figure 24).
3. Install the two steering gear bolts (2) and tighten to 250N·m (184 ft. lbs.).
4. Insert both outer tie rod end studs into the steering knuckles.
5. Install the two outer tie rod end nuts (5) and tighten them to 54N·m + 110° (40 ft. lbs. + 110°) (Figure 24).
6. Lift the axle into the cradle (if applicable).

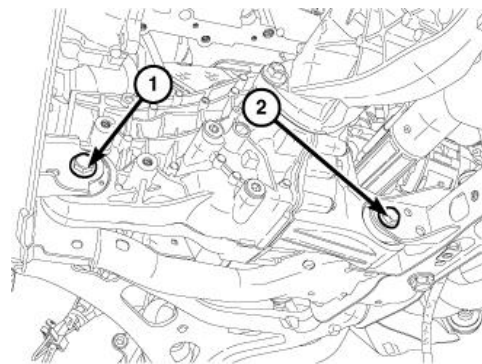
**Service Procedure [Continued]**

7. Install **NEW** front axle tube bushing mounting fasteners (1) in the RH axle bracket (2) and tighten to 61N·m (45 ft. lbs.) (Figure 25).
8. Install frame dampener (4) and bolts (3) and tighten to 61N·m (45 ft. lbs.).



**Figure 25 – Front Axle Fasteners**

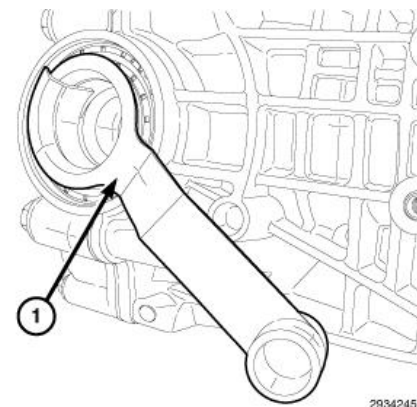
9. Install a **NEW** front axle cover bushing bolt (2) and a **NEW** front axle pinion nose bushing bolt (1) and tighten to 118N·m (87 ft. lbs.) (Figure 26).
10. Install front axle vent tube and ensure orientation is correct. Vent Tube needs to be fully seated to vent nipple and then can be orientated to correct position.



**Figure 26 – Front Axle Fasteners**

11. Using axle seal protector 10270 (1), install halfshafts in the axle. Verify halfshaft has engaged (Figure 27).

**NOTE: Use care when removing seal protector to prevent damaging the seal.**



**Figure 27 – Axle Seal Protector 10270**

**Service Procedure [Continued]**

12. Install **NEW** coated washer on the outer C/V joint shaft.
13. Install halfshaft (1) through the hub/bearing (2) (Figure 20).
14. Raise the engine cradle into position guiding the engine mounts into the engine mount brackets.
15. Align the engine cradle to the marks made during removal.
16. Install the engine cradle stiffener brackets and install the four engine cradle support bolts.
17. Tighten the four engine cradle support bolts to 180 N·m (133ft. lbs.) (Figure 16).
18. Install and tighten the six engine cradle stiffener bracket bolts to 20N·m (15ft. lbs.) (Figure 15).
19. Connect the steering gear wire harness connectors.
20. Install the driveshaft with reference marks aligned (Figure 14).

**NOTE: Clean the driveshaft bolts and apply Mopar Lock and Seal Adhesive or equivalent to the threads before installation.**

21. Install the front driveshaft bolts and tighten to 55N·m (41ft. lbs.).
22. Support the outside of the lower control arm with a suitable holding fixture, and raise to normal ride height.
23. Tighten the **NEW** front shock clevis bracket to lower control arm nut/bolt to 150 Nm + 45° (111ft. lbs. +45°).
24. Insert both outer tie rod end studs into the steering knuckles.
25. Install the two outer tie rod end nuts (5) and tighten them to 54Nm + 110° (40ft. lbs. +110°) (Figure 24).

**Service Procedure [Continued]**

26. Install the **NEW** upper ball joint nuts (4) and tighten to 165Nm (122ft. lbs.) (Figure 12).

**Caution: The steering gear must be centered prior to installing the coupler to prevent clockspring damage.**

27. Connect the steering shaft coupler to the steering shaft, install a **NEW** coupler pinch bolt and tighten to 45N·m (33ft. lbs.).
28. Lower the engine fully onto the engine mounts.
29. Remove the engine support tool (Figure 1).
30. Tighten the engine mount nuts to 61N·m (45ft. lbs.) (Figure 8).
31. Install the brake calipers and tighten to 55N·m (41ft. lbs.).
32. Position the wheel speed sensor in the knuckle, install the mounting bolt, and tighten to 10.7 N·m (95 in. lbs.).
33. Attach the sensor wire routing clips to the brake hose.
34. Attach the wheel speed sensor wiring to the knuckle.
35. For Trackhawk models, install the two rear fasteners (1) and the 11 front fasteners (2) with the front skid plate (Figure 7).
36. For Trackhawk models, install the four fasteners (1) from each wheel well (Figure 6).
37. For Trackhawk models, install **NEW** outer spat rivet (1) (Figure 5).
38. Install the front skid plate on standard models by installing the front (1) and rear (3) bolts and tightening to 55 N·m (41 ft. lbs.) (Figure 4).
39. Install the front suspension skid plate by sliding under the front bolts (1), installing the rear bolts and tightening to 28 N·m (21 ft. lbs.) (Figure 3).



**Service Procedure [Continued]**

40. Install the transmission skid plate (1) and bolts (2). Tighten bolts to 55 N·m (41 ft. lbs.) (Figure 2).
41. Install the wheels and tires.
42. If removed, Install the throttle body and tighten the four bolts in a criss-cross pattern. For 3.6L engines, tighten to 9Nm (80 in. lbs.). For all other engines, tighten to 12Nm (9 ft. lbs.).
43. Perform wheel alignment, paying special attention to thrust angle. If engine cradle crossmember needs to be shifted to align thrust angle, Reference to 02 Front/Wheel Alignment- Standard Procedure.
44. 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 recall service completions and provide dealer payments.

Use one of the following labor operation numbers and time allowances:

	<b>Labor Operation Number</b>	<b>Time Allowance</b>
Steering Gear, Electric Power Steering, Replace (WD, WK 3.6L Models)	19-Z1-81-82	3.2 hours
Steering Gear, Electric Power Steering, Replace (WD, WK 5.7L or 6.4L Models)	19-Z1-81-83	4.3 hours
Steering Gear, Electric Power Steering, Replace (WD, WK 6.2L Models)	19-Z1-81-84	5.9 hours

**Related Operation**

Front End Alignment	02-00-01-50	1.0 hour
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**Optional Equipment**

Air Suspension Equipped	19-00-05-61	0.3 hours
All Wheel Drive/Four Wheel Drive Equipped	19-00-05-64	0.4 hours
Skid Plate Equipped	19-00-05-69	0.2 hours
Floor Plan Reimbursement	95-95-95-97	Calculate See Below

**Completion Reporting and Reimbursement [Continued]**

Floor Plan Reimbursement represents the vehicle’s average daily allowance (see table below) multiplied by the number of days the vehicle was in dealer inventory and not available for sale. This reimbursement is limited to the number of days from the date of the stop sale to the date that the remedy was made available. Note: If the vehicle was received by your dealership (KZX date) AFTER the stop sale date, you will use the KZX date instead of the stop sale date. For this Recall, the stop sale was initiated on 03/22/2022 and the remedy was made available on 05/12/2022, therefore, the number of days cannot exceed 51 days.

Vehicle	Average Daily Allowance
2021-2022 WD Dodge Durango	\$ [REDACTED]
2022 WK Jeep Grand Cherokee	\$ [REDACTED]

**NOTE: See the Warranty Administration Manual, Recall Claim Processing Section, for complete recall 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 first class 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 recall launch, those with a phone number, city, zip code, or VIN sequence.

**Dealers must 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.

*Recall 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 recall 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 Services / Field Operations  
FCA US LLC

This notice applies to your vehicle,

[Model Year and Model]

VIN XXXXXXXXXXXXXXXXXXXX

Z18/NHTSA 22V-154

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 Owners Companion App. You will be asked to provide your Vehicle Identification Number (VIN) to protect and verify your identity. The last eight characters of your VIN are provided above.

#### DEALERSHIP INSTRUCTIONS

Please reference Safety Recall Z18.

# IMPORTANT SAFETY RECALL

## Steering Gear

Dear [Name],

This notice is sent to you in accordance with the National Traffic and Motor Vehicle Safety Act.

FCA US LLC has decided that a defect, which relates to motor vehicle safety, exists in certain [2021 through 2022 Model Year Dodge Durango and 2022 Model Year Jeep® Grand Cherokee] vehicles.

It is extremely important to take steps now to repair your vehicle to ensure the safety of you and your passengers.

#### WHY DOES MY VEHICLE NEED REPAIRS?

The steering gear assembly on your vehicle <sup>[1]</sup> may have been built with a rack bar manufactured with hardness below specification that may bend or yield in certain circumstances. **If the rack bar yields, it could bind within the steering rack, possibly resulting in sudden greater effort required to maintain directional steering control and/or the inability to maintain directional steering control, which can cause a vehicle crash without prior warning.**

#### HOW DO I RESOLVE THIS IMPORTANT SAFETY ISSUE?

FCA US will repair your vehicle <sup>[2]</sup> free of charge (parts and labor). To do this, your dealer will replace the steering gear assembly. The estimated repair time is 8 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 after May 27, 2022 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](http://www.fcarecallreimbursement.com) to submit your reimbursement request online. <sup>[3]</sup> 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 recall repair performed.

We apologize for any inconvenience, but are sincerely concerned about your safety. 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] If your dealer fails or is unable to remedy this defect without charge and within a reasonable time, you may submit a written complaint to the Administrator, National Highway Traffic Safety Administration, 1200 New Jersey Ave., S.E., Washington, DC 20590, or you can call the toll-free Vehicle Safety Hotline at 1-888-327-4236 (TTY 1-800-424-9153), or go to [safercar.gov](http://safercar.gov).

[3] 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.

Note to lessors receiving this recall notice: Federal regulation requires that you forward this recall notice to the lessee within 10 days.