



Dealer Service Instructions for:

March 2021

# Customer Satisfaction Notification Y05 Rear Axle

**Remedy Available** 

## 2021 (WK) Jeep® Grand Cherokee

*NOTE:* This campaign applies only to the above vehicles equipped with a 195 mm Rear-Independent-Aluminum (RIA) axle (sales code DRH).

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 complete this campaign service on these vehicles before retail delivery. Dealers should also perform this repair on vehicles in used vehicle inventory and those vehicles in for service. Involved vehicles can be determined by using the VIP inquiry process.

# Subject

The rear axle on about 77 of the above vehicles may have insufficient output shaft bearing preload due to incorrect differential shimming. This condition may result in an improper gear mesh pattern, reduced bearing life and a whine noise developing at 30,000 to 50,000 miles

## Repair

Replace the rear axle assembly.

## **Parts Information**

Part Number	<u>Qty.</u>	<b>Description</b>
68378937AB	1	Rear Axle, 195 mm RIA
68091399AA	1	Front Mount, Rear Axle
06509298AA	1	Nut, Hex Flange Lock, M22x1.50

# Parts Return

No parts return required for this campaign.

Render the rear axle assembly unusable and discard.

# **Special Tools**

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

- 10270 Protector, Half Shaft, Drive
- C-4212F Press, Ball Joint
- ➢ C-4212-7 Adapter, Center Screw Pin
- C4212-6 Adapter, Ball Joint Press
- 2046502130 Remover, Large Bushing
- ➢ 2046507130 Installer, Small Bushing

## Service Procedure

#### A. Rear Axle Removal

- 1. Position the vehicle on an appropriate lift, then raise and support the vehicle.
- 2. Saturate the exhaust muffler and resonator fasteners with Mopar® Rust Inhibitor. Allow 5 minutes for penetration while draining the rear axle fluid.
- 3. Remove the axle fluid drain plug and drain the rear axle fluid into a suitable waste oil container (Figure 1).
- 4. Install the axle fluid drain plug and tighten to prevent leakage (Figure 1).



Figure 1 – Drain Plug

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.

5. Remove axle vent tube (Figure 2).



Figure 2 – Vent Tube

6. Support the exhaust system using a suitable jack.

7. **Dual Exhaust ONLY**: Remove the resonator exhaust isolator (1) (Figure 3).



Figure 3 – Resonator Isolator

8. **Dual Exhaust ONLY**: Remove the resonator nuts (1) and the exhaust resonator (2) (Figure 4).



Figure 4 – Resonator

9. **Dual Exhaust ONLY**: Remove the left rear exhaust isolator (1) (Figure 5).



Figure 5 – Left Exhaust Isolator

10. **All vehicles**: Remove the exhaust ground strap (1) (Figure 6).



Figure 6 – Exhaust Ground Strap

11. All vehicles: Remove the two rear exhaust isolators (1) (Figure 7).



Figure 7 – Rear Exhaust Isolators

12. **All vehicles**: Remove the two exhaust isolators (1) from the muffler (Figure 8).



Figure 8 – Muffler Exhaust Isolators

13. All vehicles: Remove the four spring nuts (1) then remove the muffler/tailpipe (2) assembly from vehicle (Figure 9).

NOTE: Muffler removal is a two-person operation.



Figure 9 – Muffler/Tailpipe Assembly

CAUTION: Never allow the driveshaft to hang from the center bearing, or while only connected to the transmission. If a driveshaft section is hung unsupported, damage may occur to the shaft, coupler, and center bearing from over-angulation. This may result in driveline vibrations or component failure.

14. Support the driveshaft using a suitable jack, or other method such as wire or strap to support the driveshaft.

15. Remove the bolts securing the driveshaft coupler to rear axle flange (Figure 10).



Figure 10 – Driveshaft to Rear Axle Flange

- 16. Remove the right side rear wheel and tire assembly.
- 17. While a helper applies the brakes to keep the hub from rotating, remove and **DISCARD** the right side rear hub/bearing nut. **The used hub nut is not reusable** (Figure 11).

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

18. Remove the right side rear brake caliper tension clip by pressing forward on the clip to release the clip while pulling the clip away from the brake caliper (Figure 11).



Figure 11 – Right Rear Hub and Brake Caliper

- 19. Remove the slide bolt (guide pin) dust shields from the r right side rear brake caliper (Figure 12).
- 20. Fully loosen (unthread) the brake caliper slide bolts (guide pins) from the brake caliper adapter (Figure 13).

NOTE: It is not necessary to fully remove the slide bolts (guide pins) from the caliper.

21. Remove the brake caliper from the brake caliper adapter and support the brake caliper so that no weight is applied to the brake hose (Figure 14).



Figure 12 – Brake Caliper Dust Shields



Figure 13 – Brake Caliper Slide Bolts



Figure 14 – Support Brake Caliper

- 22. Remove the wheel speed sensor bolt (Figure 15).
- 23. Remove the wheel speed sensor from the knuckle (Figure 15).
- 24. Remove the nut and bolt securing the toe link to the knuckle (Figure 15).



Figure 15 – Right Side Rear Suspension Components and Wheel Speed Sensor

- 25. Remove the tension link nut and bolt (Figure 16).
- 26. Remove the camber link nut and bolt (Figure 16).



Figure 16 – Right Side Rear Suspension Components

27. Swing the rear knuckle outward as shown (Figure 17).



Figure 17 – Right Side Rear Knuckle

28. Remove the halfshaft outer Constant Velocity (CV) joint end from the wheel hub (Figure 18).



Figure 18 – Right Side Rear Halfshaft Outer CV Joint

29. Using a hammer or similar tool (1) as a pivot point and a suitable pry tool (2), carefully disengage the right side halfshaft (3) from axle assembly (Figure 19).

30. Remove the right side halfshaft from the axle assembly. Use care to protect the halfshaft journal.



Figure 19 – Disengage Halfshaft

31. Using a hammer or similar tool (1) as a pivot point and a suitable pry tool (2), carefully disengage the left side halfshaft (3) from axle assembly (Figure 19).

32. Position transmission jack (1) to rear axle assembly (Figure 20).



Figure 20 – Support Rear Axle

33. Remove the bolt/nut (1) securing the rear axle front mount isolator to the crossmember (Figure 21).



Figure 21 – Rear Axle Front Mount

34. Remove the two bolts (1) securing the rear axle mounts to the crossmember (Figure 22).



Figure 22 – Rear Axle Rear Mounts

35. Carefully lower rear axle (Figure 23). While lowering axle, separate driveshaft from axle and support with suitable rope or wire.



Figure 23 – Rear Axle

- 36. Lower axle just enough to remove the left halfshaft (1) from the axle. Use care to protect the halfshaft journal (Figure 24).
- 37. Remove axle from vehicle.
- 38. Remove the **OLD** rear axle from the transmission jack and secure the **NEW** rear axle on the transmission jack.



Figure 24 – Remove Left Halfshaft

39. Remove the two rubber snubber washers from the rear axle front mount (Figure 25).



Figure 25 – Snubber Washers Rear Axle Front Mount

#### **B.** Rear Axle Installation

- 1. Secure the **NEW** rear axle in a suitable holding fixture to prepare for mount installation.
- 2. Make sure the **NEW** front mount inner metal orientation notches are in the same exact orientation as the original front mount in the removed rear axle.
- 3. Install the **NEW** axle front mount in the **NEW** rear axle housing using; Ball Joint Press C-4212F, Center Screw Pin Adapter C-4212-7, Ball Joint Press Adapter C4212-6, Large Bushing Remover 2046502130 and Small Bushing Installer 2046507130 (Figure 26).



Figure 26 – Rear Axle Front Mount Installation

4. Install the two rubber snubber washers to the rear axle front mount (Figure 25).

- 5. Secure the **NEW** rear axle on the transmission jack.
- 6. Remove the shipping plug from the left side of the **NEW** rear axle (Figure 27).
- 7. Install the Axle Seal Protector 10270 (1) into the left side of the rear axle (Figure 28).

CAUTION: Use care when installing the halfshaft to the axle. The halfshaft installation angle should be minimized to avoid damage to the seal upon installation.



Figure 27 – Shipping Plugs

- 8. Using the transmission jack, raise the **NEW** axle just enough to install the left halfshaft. Use care to protect the axle seal and journal.
- 9. Remove the axle seal protector 10270.

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

10. Verify proper installation of the left halfshaft by pulling outward on joint by hand.



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Figure 28 – Axle Seal Protector

- 11. Align the driveshaft coupler to the axle flange while raising the axle into position (Figure 23).
- 12. Install the two bolts (1) securing the rear axle mounts to the crossmember and tighten the bolts to 133 N·m (98 ft. lbs.) (Figure 22).
- 13. Install the bolt/nut (1) securing the rear axle front mount isolator to the crossmember and tighten to 115 N·m (85 ft. lbs.) (Figure 21).
- 14. Remove the transmission jack (1) from under the rear axle assembly (Figure 20).
- 15. Remove the shipping plug from the right side of the **NEW** rear axle (Figure 27).
- 16. Install the Axle Seal Protector 10270 (1) into the right side of the rear axle (Figure 28).
- 17. Install the right side halfshaft into the axle assembly. Use care to protect the axle seal and journal.
- 18. Remove the axle seal protector 10270.

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

19. Verify proper installation by pulling outward on joint by hand.

- 20. Install the halfshaft outer Constant Velocity (CV) joint end into the wheel hub (Figure 18).
- 21. Swing the rear knuckle into position (Figure 17).
- 22. Install the camber link bolt and nut then tighten to 110 N·m (81 ft. lbs.) (Figure 16).
- 23. Install the tension link bolt and nut then tighten to 108 N·m (79 ft. lbs.) (Figure 16).
- 24. Install the toe link bolt and nut then tighten to 108 N·m (79 ft. lbs.) (Figure 15).
- 25. Install the wheel speed sensor and bolt to the knuckle then tighten to 11 N·m (8 ft. lbs.) (Figure 15).
- 26. Install the brake caliper to the brake caliper adapter.

#### CAUTION: Verify that the brake hose is not twisted or kinked.

- 27. Tighten the brake caliper slide bolts (guide pins) to 27.5 N·m (20 ft. lbs.) (Figure 13).
- 28. Install the rear brake caliper slide bolt (guide pin) dust shields (Figure 12).

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

29. Install a **NEW** hub/bearing nut and tighten to 310 N·m (229 ft. lbs.) (Figure 11).

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

- 30. Align the driveshaft joint bolt holes with the bolt holes on the axle flange. Clean the bolts then apply Mopar<sup>®</sup> Lock AND Seal Adhesive or equivalent to the threads. Install the bolts and tighten to 55 N⋅m (41 ft. lbs.) (Figure 10).
- 31. Remove the jack or other form of temporary support from the driveshaft.

#### **NOTE:** Muffler installation is a two-person operation.

- 32. Install the muffler and tailpipe (2) assembly in vehicle and tighten the four spring nuts (1) to 47 N·m (35 ft. lbs.) (Figure 9).
- 33. Install the two exhaust isolators (1) to the muffler (Figure 8).
- 34. Install the two rear exhaust isolators (1) (Figure 7).
- 35. Install the ground strap (1) (Figure 6).
- 36. **Dual Exhaust ONLY**: Install the left rear exhaust isolator (1) (Figure 5).
- 37. **Dual Exhaust ONLY**: Clean the gasket sealing surfaces. Install the exhaust resonator (2) and tighten the nuts (1) to 75 N⋅m (55 ft. lbs.) (Figure 4).
- 38. **Dual Exhaust ONLY**: Install the resonator exhaust isolator (1) (Figure 3).
- 39. Remove the jack supporting the exhaust system.

40. Install the axle vent tube (Figure 2).

NOTE: The NEW rear axle comes filled with lubricant. It is NOT necessary to check the lubricant level unless lubricant was spilled during shipping or during the installation process. If lubricant loss occurred, Refer to the detailed service procedures available in DealerCONNECT / Service Library under: Service Info > 03 - Differential and Driveline > Rear Axle – 195RIA > Standard Procedure - Fluid Drain and Fill.

41. Lower the vehicle.

CAUTION: Before moving vehicle, pump brake pedal several times to ensure vehicle has a firm brake pedal to adequately stop vehicle.

- 42. Pump brake pedal until caliper pistons and brake pads are seated and a firm brake pedal is obtained.
- 43. Start the engine and inspect the exhaust system to ensure there are no exhaust leaks.
- 44. Render the old recalled rear axle unusable and **DISCARD**.
- 45. Return the vehicle to inventory or 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 <u>Number</u>	Time <u>Allowance</u>
Replace Rear Axle	03-Y0-51-82	2.6 hours

Add the cost of the campaign parts plus applicable dealer allowance to your claim.

In addition, enter "MATL" in the Part Number section of your claim with the applicable Material Allowance where appropriate.

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 <u>updated</u> VIN list of <u>their incomplete</u> 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 campaign 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** <u>*before*</u> 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,

Y05



# **VEHICLE PICTURE**

#### YOUR SCHEDULING OPTIONS

1. RECOMMENDED OPTION Call your authorized Chrysler / Dodge / Jeep<sub>®</sub> / 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.



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 Y05.

#### CUSTOMER SATISFACTION NOTIFICATION Rear Axle

#### 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 <sup>[1]</sup>. This will be done at no charge to you.

We are recommending the following improvements be performed on certain [2021 Model Year (WK) Jeep Grand Cherokee] vehicles.

#### WHY DOES MY VEHICLE NEED REPAIRS?

The rear axle on your vehicle may have insufficient output shaft bearing preload due to incorrect differential shimming. This condition may result in an improper gear mesh pattern, reduced bearing life and a whine noise developing at 30,000 to 50,000 miles.

#### 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 rear axle assembly. The estimated repair time is three 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 <u>FREE</u> 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.<sup>[2]</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 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.