NORTH AMERICA

Aisin Transmission

FCA US LLC

Reference: 71A



2022 (DD) Ram 3500 Cab Chassis

2022 (DP) Ram 4500/5500 Cab Chassis

2022 (D2) Ram 3500 Pickup

NOTE: 4500/5500 Cab Chassis repairs can only be performed by BusinessLink Dealers. Non BusinessLink Dealers should not order parts or perform the repair.

Revision	Edition	Detail	Template Version 1.8
0	August 2023	Initial Version.	

SYMPTOM DESCRIPTION

The transmission in on about 5,440 of the above vehicles was manufactured with a defective K1 clutch drum snap ring.

SCOPE

This campaign applies only to the above vehicles equipped with Aisin transmission (sales code DF2 or DF3).

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.

REPAIR TO BE PERFORMED

Replace the K1 clutch drum snap ring **ONLY**. If a failure has occurred or symptoms are present, reference TSB 21-002-23 (or current revision) for repair procedure. Claim LOP *21-71-A1-81 to close this CSN after TSB 21-002-23 has been completed.

COMPLETION REPORTING / 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 the following labor operation numbers and time allowances:

Labor Description	Number	Hrs
Inspect and Replace Snap	21-71-A1-82	4.4hrs
Ring		
*Close CSN LOP	*21-71-A1-81	0.1hrs

Optional Equipment	LOP Number	Hrs.
Two Piece Propeller Shaft	21-00-0A-62	0.20hrs
Skid Plate	21-00-0A-61	0.30hrs
DEF Equipped 4x4 pickup trucks only	21-00-01-69	0.60hrs
4x4 Equipped	21-00-0A-60	1.20hrs

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

PARTS RETURN

No parts return required for this campaign.

SPECIAL TOOLS

The following special tools is /are required to perform this repair:

Number	Description
NPN	wiTECH MicroPod II / MDP
NPN	Laptop Computer
NPN	wiTECH Software
826622B	End-Play, Socket
8266B	End-Play, Handle
C-3339A	Dial Indicator
C3752	Slide Hammer
9981	Adapter
9546	Quick connect tool

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DEALER NOTIFICATION

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

*Use StarParts to determine applicability by VIN AR = As Required

PARTS INFORMATION

Qty	Part Name	Part No.
1	K1 Clutch Snap Ring	68269568AB
1	Ring, Input Shaft Seal DIESEL	68253940AA
1	Ring, Input Shaft Seal GAS	68269569AA
1	Ring, Torque Converter Lock-Up Seal	68019782AA
1	O-Ring, Transmission Oil Pump	68244579AA
1	Gasket, Oil Pump	68244638AA
1	Gasket, Drain Plug	68085955AA
6	Bolt, Hex Head - Flexplate - Diesel	06511777AA
6	Bolt, Torque Converter to Flexplate - GAS	06508406AA
AR	*Bolt, Front or Rear Driveshaft	*06506497AA
AR	*Bolt, Front or Rear Driveshaft	*06509166AA
AR	MOPAR® High Temp Grease	05019061AB
AR	ASRC ATF (Quart)	05189966AD
AR	K1 Clutch Hub	68456960AA
AR	Race, K1 Thrust Bearing Number 2	68253813AB
AR	Roller, K1 Thrust Bearing Number 2	68253770AA
AR	K2 Clutch Hub	68254056AB
AR	K2 Thrust Bearing Number Three	68253772AA
AR	Race, Selectable Thrust Bearing - 0.81 mm - Diesel	68253814AA
AR	Race, Selectable Thrust Bearing - 1.10 mm - Diesel	68253815AA
AR	Race, Selectable Thrust Bearing - 1.60 mm - Diesel	68253816AA
AR	Race, Selectable Thrust Bearing - 0.81 mm - GAS	68269548AA
AR	Race, Selectable Thrust Bearing - 1.10 mm - GAS	68269549AA
AR	Race, Selectable Thrust Bearing - 1.60 mm - GAS	68269550AA

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Service Procedure

- 1. Disconnect the negative battery cable(s).
- Raise and support the vehicle.
- 3. Remove any necessary skid plates.
- 4. Mark the propeller shaft and axle companion flanges for assembly alignment.
- Remove the rear propeller shaft.
- 6. If equipped, remove the front propeller shaft.
- 7. If equipped, remove the transfer case.
- 8. Remove the catalytic converter.
- 9. **Gas Engine:** Remove the structural collar (Figure 1).
- 9. **Diesel Engine:** Remove the two inspection cover fasteners (2) and the inspection cover (1) (Figure 2).
- Through the access cover opening, rotate crankshaft in clockwise direction until torque converter bolts (1) are accessible. Then remove the six bolts one at a time. Rotate crankshaft with socket wrench on dampener bolt.

CAUTION: Tag the orientation of all electrical connectors. Some electrical connectors may be interchangeable, damage to the electrical system may occur if the connectors are reversed.

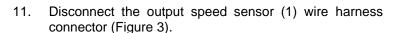




Figure 1 - Structural Collar

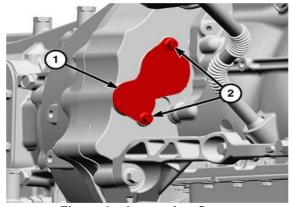


Figure 2 - Inspection Cover

- 12. Disconnect the transmission valve body solenoid wire harness connector and position harness aside.
- 13. Disconnect the transmission range sensor wire harness connector and position harness aside.
- 14. Disconnect the cooler line temperature sensor wire harness connector and position harness aside.
- 15. Disconnect any remaining transmission wiring harness clips from the case.
- 16. Disconnect the gearshift cable ball socket from transmission manual valve lever.
- 17. Release the locking tabs from the gearshift cable and remove the cable from the bracket and position a side.
- 18. Disconnect the transmission vent tube from the transmission.

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Service Procedure [Continued]

- 19. Remove the bolt securing the transmission fill tube.
- 20. Separate the transmission fill tube from the transmission and position it aside.
- 21. Support the rear of engine with a safety stand or jack.

CAUTION: The engine must be supported when removing the transmission. Failure to do so will result in damage to the exhaust system and other components.

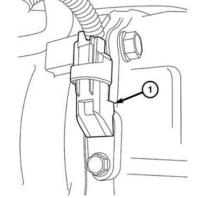


Figure 3 – Speed Sensor Connector

- 22. Support the transmission where the transmission oil pan meets the transmission case.
- 23. Raise the transmission slightly with a service jack to relieve load on the crossmember and supports.
- 24. Remove the crossmember.
- 25. Disconnect the transmission cooler temperature sensor wire harness connector.
- 26. Disconnect the transmission fluid cooler lines at the transmission fittings with quick connect tool <u>9546</u>.
- 27. Remove the eight remaining converter housing bolts.
- 28. Carefully work the transmission and torque converter assembly rearward off the engine block dowels.
- 29. Hold the torque converter in place during the transmission removal.
- 30. Lower the transmission and remove the assembly from under the vehicle.

CAUTION: Verify that transmission is secure on the lifting device or work surface, the center of gravity of the transmission will shift when the torque converter is removed creating an unstable condition. The torque converter is a heavy unit. Use caution when separating the torque converter from the transmission.

WARNINING! Be certain the transmission is secure when removing the torque converter, the torque converter is very heavy. Failure to follow these instructions may result in personal injury or may be fatal.

31. Remove the torque converter, carefully slide the torque converter out of the transmission.

NOTE: Gear train end play is a critical pre-disassembly check to help determine the condition of the transmission. An end play reading greater than specification (larger gap) indicate that a bearing or thrust plate is either missing, worn or has disintegrated, in which case there will be debris in the transmission oil pan.

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Service Procedure [Continued]

32. Using Adapter Socket, End Play 826622 and the handle from End-Play Tool Set 8266B and Dial Indicator C-3339A, measure and record the input shaft endplay (Fig. 3).

NOTE: Support the bottom of the transmission case before removing the torque converter housing.

33. Remove the bolts securing the torque converter housing to the transmission case and remove the housing (Fig. 4).

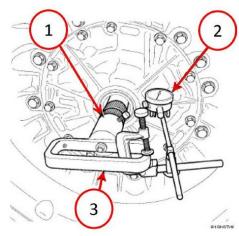


Fig. 3

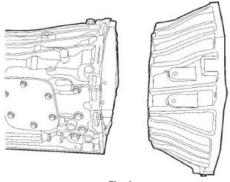


Fig. 4
Torque Converter Housing <u>And</u> Transmission Case

34. Remove the bolts securing the oil pump to the transmission case and use Slide Hammers C3752 with adapters 9981 to remove the oil pump assemble from the transmission spline (Figure. 5).

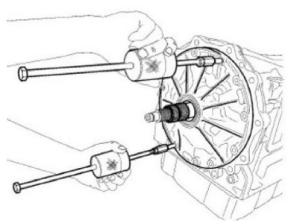


Figure 5 - Slide Hammer

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Service Procedure [Continued]

- 35. Remove the input shaft assembly with the K1 and K2 clutch assemblies attached (Fig. 6).
- 36. Snap Ring Replacement Procedure.
 - a) Remove the installed Snap Ring from K1 Clutch Assembly Drum.
 - b) Replace the snap ring in K1 Drum with replacement P/N 68269568AB snap ring. Be sure to install so that the snap ring ends are covered in the groove by drum "teeth" (Fig. 7) (not installed such that the ends are in open spaces of the groove).

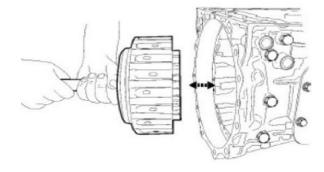


Fig. 6 K1 And K2 Clutch Assemblies

NOTE: The K1 snap ring should be fully seated inside K1 drum groove. The K1 clutch pack should remain inside the K1 assembly (Fig. 7).

37. Install the K2 clutch assembly and the K1 clutch/input shaft assembly into the transmission case (Fig. 6),

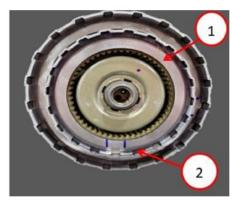


Figure 7 – Underside View of Correctly Seated Snap Ring

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Service Procedure [Continued]

NOTE: Be certain the input shaft seal rings are in place as well as the seal ring on the oil pump hub.

38. Lubricate with trans jel or petroleum jelly and install the nylon thrust washer onto the oil pump (Fig. 8).

NOTE: The nylon thrust washer is keyed to the oil pump (Fig. 8).

NOTE: Two pin punches inserted through the oil pump mounting holes will aid in the installation of the oil pump (Fig. 8).

- 1 Oil Pump
- 2 Nylon Thrust Washer
- 3 Input Shaft Seal Ring

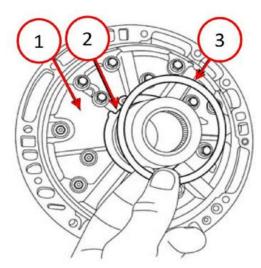


Figure 8 - Oil Pump Assembly

39. Lubricate and install the new oil pump O-ring with MOPAR ASRC ATF.

NOTE: Be sure that sealant is cleaned from the threads of the oil pump.

- 40. Install the oil pump with a **NEW** gasket onto the transmission case (Fig. 9).
- 41. Apply a light coating of MOPAR thread sealant onto the oil pump bolts and install the bolts. Tighten the bolts in a crisscross pattern to 21 N⋅m (15.5 ft. lbs.).

NOTE: The input shaft endplay clearance is adjusted by means of the selectable number one thrust bearing race. The Thrust Washer is non selectable.

42. Install the Dial Indicator Set C-3339A with Input Shaft Spline Socket, End Play 826622 and Handle 82668, to check the input shaft endplay clearance. The input shaft endplay clearance for both 2WD and 4WD is 0.50 - 0.90 mm (0.019 - 0.035 in.). If the clearance is not within tolerance, choose the correct selectable thrust bearing race.

NOTE: The following dimensions below are at time of production.

- Bearing race number one = 0.81 mm (0.031 in.).
- Bearing race number two = 1.10 mm (0.043 in.).
- Bearing race number three = 1.60 mm (0.063 in.).
- Endplay spec = 7.62 mm 22.8 mm (0.300 0.900 in.).

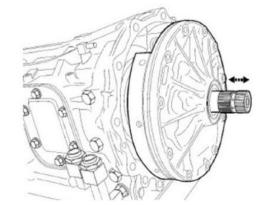


Figure 9 – Oil Pump Assembly on Spline Shaft

43. Assemble and disassemble as necessary to achieve the input shaft endplay clearance.

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Service Procedure [Continued]

- 44. Remove the Dial Indicator set up.
- 45. Install the torque converter housing to the transmission case.
- 46. Install the torque converter housing bolts and tighten to 64 N·m (47 ft. lbs.).

WARNING! Be certain the transmission is secure when installing the torque converter, the torque converter is very heavy. Failure to follow these steps may result in personal injury, or may be fatal.

- 47. Install new torque converter lockup seal located at the nose of the K1 input shaft.
- 48. Apply trans jel or petroleum jelly onto the torque converter lockup seal and torque converter hub seal.
- 49. Install the torque converter onto the input shaft while applying inward pressure and rotating back and forth at the same time in order to align the input shaft splines and the two teeth on the oil pump drive gear.
- 50. Install a C-clamp or similar device to secure the torque converter into the torque converter housing.
- 51. Using a new gasket, install the transmission oil pan drain plug.
- 52. Position transmission on jack and secure it with chains.

NOTE: Verify the transmission dowel pins are seated in engine block and protrude far enough to hold transmission in alignment.

- 53. Align the close tolerance torque converter bolt hole (1) in the flexplate so that the first torque converter bolt is installed here. The close tolerance bolt hole may be identified by two white painted lines (2) flanking the bolt hole (Figure 10).
- 54. Support the rear of the engine with a safety jack.
- 55. Raise transmission and align the torque converter with the flexplate and transmission converter housing with the engine block.
- 56. Move the transmission forward. Then raise, lower or tilt the transmission to align the converter housing with engine block dowels.



Figure 10 - Flexplate

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Service Procedure [Continued]

- 57. Carefully work transmission forward and over engine block dowels until converter hub is seated in crankshaft. Verify that no wires, or the transmission vent hose, have become trapped between the engine block and the transmission.
- 58. Install the exhaust bracket to the right side on the converter housing.

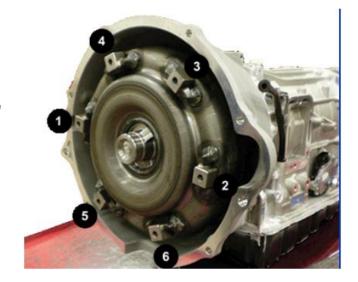
CAUTION: Ensure that the transmission bell housing and the engine block are flush before installing the bolts. Never utilize the mounting bolts to draw the transmission to the engine.

59. Install the bolts to attach the transmission to the engine and tighten to 64N·m (47ft. lbs.).

CAUTION: It is essential that correct length bolts be used to attach the converter to the driveplate. Failure to follow this caution may result in transmission damage.

NOTE: Transmission shown removed for clarity.

- 60. Hand start a **NEW** torque converter to flexplate bolt in the torque converter (1) and tighten to 20N·m (15 ft. lbs.), then back it off 1/2 turn.
- 61. Rotate the crankshaft 180 degrees in a clockwise direction and hand start a **NEW** torque converter to flexplate bolt (2) and tighten to 100 N·m (74 ftlbs).
- 62. Rotate crankshaft 60 degrees in a clockwise direction and hand start a **NEW** torque converter to flexplate bolt (3) and tighten to 100 N·m (74 ftlbs).
- 63. Rotate crankshaft 60 degrees in a clockwise direction and hand start a **NEW** torque converter to flexplate bolt (4) and tighten to 100 N·m (74 ftlbs).



- 64. Rotate crankshaft 60 degrees and tighten the first bolt installed (1) to 100 N·m (74 ft-lbs).
- 65. Rotate crankshaft 60 degrees in a clockwise direction and hand start a **NEW** torque converter to flexplate bolt (5) and tighten to 100 N·m (74 ft-lbs).
- 66. Rotate crankshaft 60 degrees in a clockwise direction and hand start a **NEW** torque converter to flexplate bolt (6) and tighten to 100 N·m (74 ft-lbs).
- 67. Diesel Engine: Install the torque converter bolt access cover.
- 68. Connect the transmission vent hose.

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Service Procedure [Continued]

- 69. If equipped, Install transfer case.
- 70. If removed install rear support to transmission. Tighten bolts to 68N·m (50ft. lbs.).
- 71. Install the crossmember.
- 72. Lower transmission onto crossmember.
- 73. Install the nuts securing transmission mount to the cross member and tighten to 68N·m (50ft. lbs.).
- 74. Remove engine support fixture.

CAUTION: Install the electrical connectors correctly. Some electrical connectors may be interchangeable, damage to the electrical system may occur if the connectors are reversed

- 75. Connect wire harness connector to the transmission range sensor.
- 76. Connect the cooler line temperature sensor.
- 77. Connect the valve body solenoid connector to the valve body solenoid receptacle.
- 78. If removed, install shift cable bracket and the shift cable bracket bolts and tighten to 50N·m (37In. Lbs.).
- 79. Install the shift cable into the shift cable bracket.
- 80. Connect gearshift cable ball socket from transmission manual valve lever.
- 81. Connect the wire harness to the output speed sensor.
- 82. Clip any remaining wiring harness to the proper position on the transmission case.
- 83. Connect cooler lines to transmission fittings.

NOTE: Make sure that the jiffy tite fittings locks are in place.

- 84. Install transmission fill tube and tighten to 12.5N·m (106ln. Lbs.).
- 85. Install the rear propeller shaft.
- 86. If equipped, install the front propeller shaft.
- 87. Adjust gearshift cable if necessary.
- 88. Install any skid plates removed previously.
- 89. Lower vehicle.
- 90. Fill transmission with MOPAR® ASRC Automatic Transmission Fluid.

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Service Procedure [Continued]

CAUTION! A unique transmission fluid has been developed for this transmission. This fluid is NOT compatible with ATF+4 or any other current FCA US LLC transmission fluid. For specifics about this unique fluid see Fluids, Lubricants and Genuine Parts.

- 91. Perform the transmission verification test.
- 92. Return the vehicle to the customer.

This notice applies to your vehicle,

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LOGO

VEHICLE PICTURE

YOUR SCHEDULING OPTIONS

1. RECOMMENDED OPTION

Call your authorized Chrysler /
Dodge / Jeep® / RAM
BusinessLink / 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 71A.

CUSTOMER SATISFACTION NOTIFICATION

Aisin Transmission

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 [2022 Model Year (DD) Ram 3500 Cab Chassis, (DP) Ram 4500/5500 Cab Chassis, (D2) Ram 3500 Pickup] trucks equipped with an AISIN transmission.

WHY DOES MY VEHICLE NEED REPAIRS?

The transmission in your vehicle may experience an internal dislodging of a snap ring which can cause poor shift quality and not engage the lower gears. The Malfunction Indicator Lamp (MIL) may also illuminate on the instrument panel cluster.

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 snap ring in the transmission. The estimated repair time is about 5 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. [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