

Technical Service Bulletin

NUMBER: 21-01-99

GROUP: Transfer Case

DATE: Feb. 5, 1999

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SUBJECT:

NV 247 Transfer Case - low speed grinding noise

OVERVIEW:

This bulletin involves removing the transfer case and installing new lubrication pump assembly, p/n 05013017AB, followed by flushing and refilling the transfer case with transmission fluid.

MODELS:

1999 (WJ) Grand Cherokee

SYMPTOM/CONDITION:

A grinding, raspy noise may be present in the transfer case. This noise will be present during a light acceleration or float condition at speeds up to 35 mph. The noise is most noticeable when the vehicle has not been driven for several hours. It typically lessens as the vehicle warms up and is often not present when the vehicle is at operating temperature. The condition is caused by high internal pressure in the lubrication supply pump, which allows the rotors to misalign and produce noise. A revised lubrication pump assembly has been released to correct the condition.

DIAGNOSIS:

If the vehicle exhibits the condition described above, perform the Repair Procedure.

PARTS REQUIRED:

1	05013017AB	Lubrication Pump Assembly
4	05013457AA	Transmission Fluid (Quart)

REPAIR PROCEDURE:

1. Raise the vehicle on a hoist.
2. Remove the transfer case drain plug and drain the transfer case fluid.
3. Mark the front and rear propeller shaft yoke for alignment reference and remove the front and rear propeller shafts.
4. Support the transmission with a jack stand.
5. Remove the rear cross member and skid plate.
6. Disconnect the transfer case shift cable from the range lever.
7. Disconnect the transfer case vent tube.
8. Support the transfer case with a transmission jack stand securing it with chains.
9. Remove the transfer case attaching nuts and pull the transfer case and jack rearward to disengage it.
10. Remove the transfer case from the vehicle.

- 11. Remove rear retainer bolts and remove rear bearing locating ring access plug.
- 12. Loosen rear retainer with pry tool to break sealer bead (pry only against retainer boss).
- 13. Remove rear retainer as follows:
 - A. Spread rear bearing locating ring with snap ring pliers.
 - B. Slide retainer off main shaft and rear bearing.
- 14. Remove rear bearing snap-ring and rear bearing (Note position of bearing locating ring groove for assembly reference).
- 15. Disengage oil pickup tube from oil pump, remove and dispose oil pump assembly.
- 16. Install new lubrication pump, p/n 05013017AB. Tighten the rear retainer bolts to 30 Nm (25 ft. lbs.)
- 17. Install the transfer case reversing the removal procedure. Tighten the attaching nuts to 41 Nm (30 ft. lbs.).
- 18. Install the propeller shafts. Tighten the attaching screws to 19 Nm (14 ft. lbs.).
- 19. Install the drain plug and fill the transfer case with transmission fluid, p/n 05013457AA, until the fluid runs out the fill plug (1.6 liters - 1.7 quarts). Install the fill plug.

NOTE: IT IS IMPORTANT TO FLUSH ALL OF THE ORIGINAL FLUID OUT OF THE TRANSFER CASE. THIS REQUIRES DRIVING THE VEHICLE FOR AT LEAST FIVE MILES AND DRAINING AND REFILLING THE TRANSFER CASE AGAIN WITH NEW FLUID, P/N 05013457 (ATF - IV)

- 20. Drive the vehicle for approximately five miles making several turns to work the lubricant into the clutches. This will allow the new fluid to circulate throughout unit and act to flush all to the remaining original fluid out of the unit.
- 21. Raise the vehicle on the hoist again and drain and refill the assembly with transmission fluid, p/n 05013457AA.

POLICY: Reimbursable within the provisions of the warranty.

TIME ALLOWANCE:

Labor Operation No: 21-38-02-902.2 Hrs.

FAILURE CODE: P8 - New Part