



4WD JEEP VEHICLES WITH NAG 1 TRANSMISSION NO MOVE OR GOOD REVERSE NO FORWARD

COMPLAINT: A 4 wheel drive Jeep using the NAG 1 transmission suddenly develops a no forward movement while reverse operates well. In some cases a no move forward and a no reverse may be present. A grinding noise can be heard near the transfer case. When park is selected after an attempt is made to move the vehicle, the parking pawl can be heard skipping across the parking gear. Operating the transmission on the lift with the transfer case removed shows that the output shaft and flange rotates. No evidence of damage is discovered causing the problem when the transfer case is disassembled for inspection.

CAUSE: The flange which connects the output shaft of the transmission to the input gear of the transfer case is fastened to the output shaft by a nut. The spline inside the flange and the spline on the output has stripped. The retaining nut and flange needs to be removed to see the damage. In some case the spline lays down in the drive direction enough to prevent forward movement but will engage for and drive in the reverse direction. With the spline already compromised, it will not take long before reverse movement is lost as well.

CORRECTION: The spline being stripped with both the output shaft and flange will require transmission removal and disassembly to change the output shaft. A new flange and nut will be required as well.

Note: NAG1 transmissions are known to have converter clutch vibrations due to valve body wear issues. And if you replace the valve body with a remanufactured one you may find that the problem still exists afterwards. Some 2011 Jeep Grand Cherokees with a 5.7L and 3.6L engine using the 4WD Quadra-Trac (II) Transfer case may exhibit shudder during acceleration coast or deceleration in both Auto and Sport modes. In these situations the DTCM software was configured to reduce the 4WD torque to the front axle during nonslip events under normal driving conditions (NUMBER: 21-004-10 REVA).

Earlier Commanders and Grand Cherokees may also experience a transfer case electrical failure may result in an unintentional shifting of the transfer case into the neutral position. There is a campaign to reflash of the final drive controller which governs the transfer case. The Chrysler recall campaign number is N23 should this be a customer complaint that comes up in your shop.

Many thanks to Rino Partipilo from Continental Automatic Transmission

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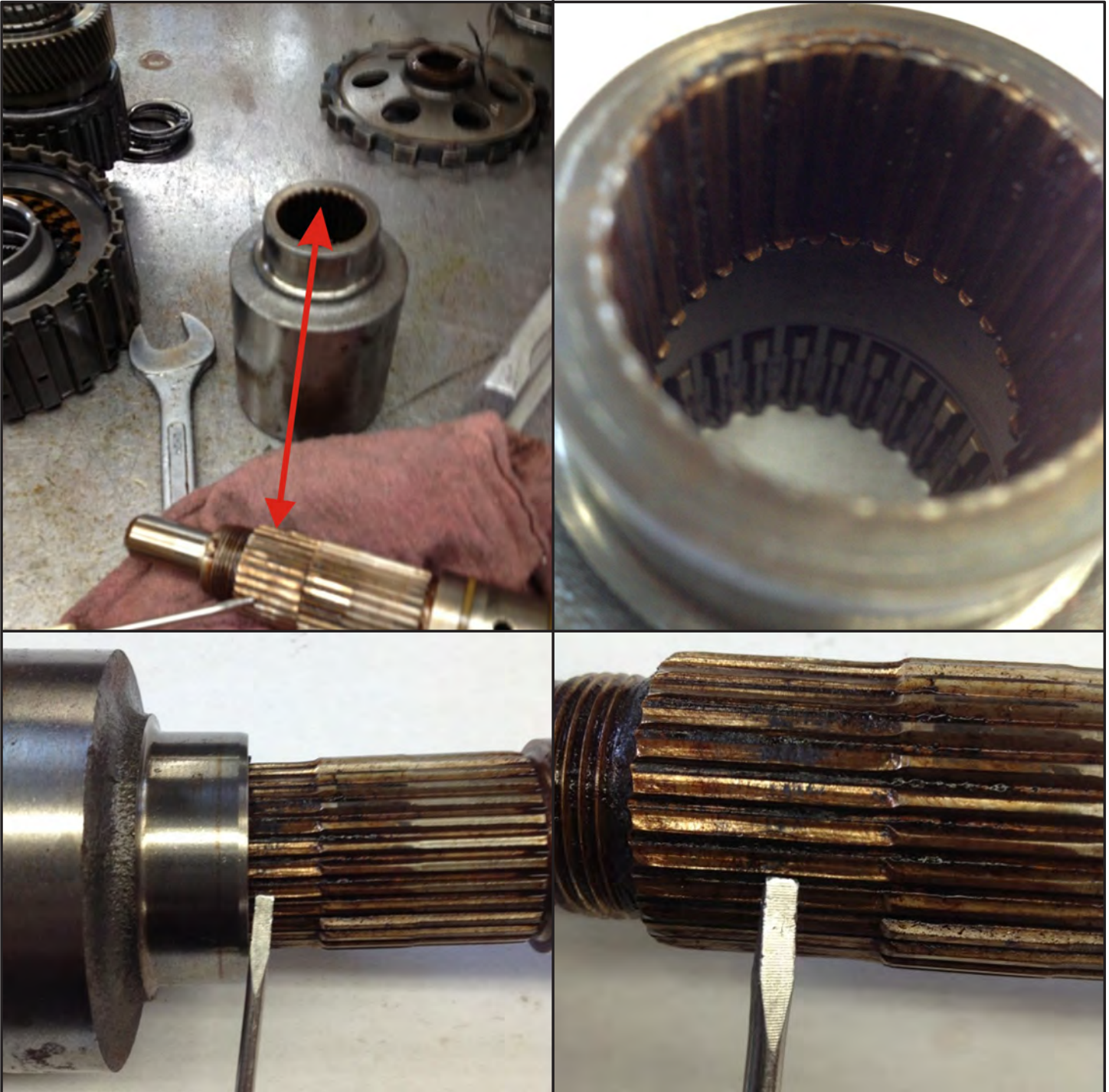


Figure 1