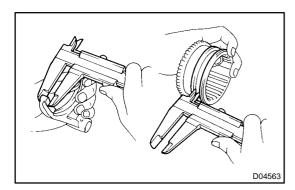
TR085-01



INSPECTION

1. INSPECT HIGH AND LOW CLUTCH SLEEVE AND NO. 2 GEAR SHIFT FORK CLEARANCE

(a) Using vernier calipers, measure the thickness of the No. 2 gear shift fork claw.

Thickness: 11.85 mm (0.4665 in.)

(b) Using vernier calipers, measure the groove of the high and low clutch sleeve.

Distance: 12.00 mm (0.4724 in.)

(c) Calculate a clearance between the high and low clutch sleeve and No. 2 gear shift fork clearance.

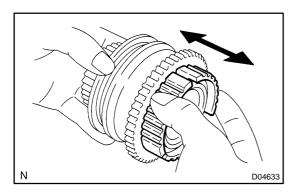
Standard clearance:

0.15 - 0.35 mm (0.0059 - 0.0138 in.)

Maximum clearance:

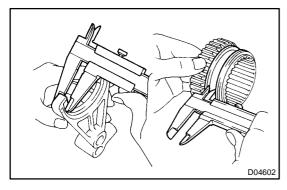
0.35 mm (0.138 in.)

If the clearance exceeds the maximum, replace the high and low clutch sleeve or No. 2 gear shift fork.



2. INSPECT CLUTCH HUB AND HIGH AND LOW CLUTCH SLEEVE

- (a) Check that the tip of the spline gear of the high and low clutch sleeve is not worn.
- (b) Install the high and low clutch sleeve to the clutch hub and check that the high and low clutch sleeve moves smoothly.



3. INSPECT CENTER DIFFERENTIAL LOCK SLEEVE AND CENTER DIFFERENTIAL LOCK FORK

(a) Using vernier calipers, measure the thickness of the center differential lock fork claw.

Thickness: 10.2 mm (0.4016 in.)

(b) Using vernier calipers, measure the groove of the center differential lock sleeve.

Distance: 10.5 mm (0.4134 in.)

(c) Calculate a clearance between the center differential lock sleeve and center differential lock fork.

Standard clearance:

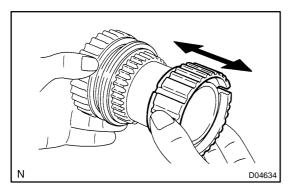
0.26 - 0.84 mm (0.0102 - 0.0331 in.)

Maximum clearance:

0.84 mm (0.0331 in.)

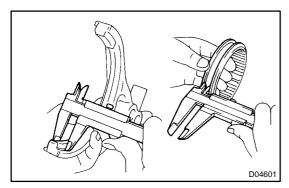
If the clearance exceeds the maximum, replace the center differential lock sleeve or center differential lock fork.

2002 4RUNNER (RM887U)



4. INSPECT CENTER DIFFERENTIAL LOCK SLEEVE AND CLUTCH HUB

- (a) Check that the tip of the spline gear of the center differential lock sleeve is not worn.
- (b) Install the center differential lock sleeve to the clutch hub and check that the center differential lock sleeve moves smoothly.



5. INSPECT FRONT DRIVE CLUTCH SLEEVE AND NO. 1 GEAR SHIFT FORK

(a) Using vernier calipers, measure the thickness of the No. 1 gear shift fork claw.

Thickness: 11.85 mm (0.4665 in.)

(b) Using vernier calipers, measure the groove of the front drive clutch sleeve.

Distance: 12.00 mm (0.4724 in.)

(c) Calculate a clearance between the front drive clutch sleeve and No. 1 gear shift fork.

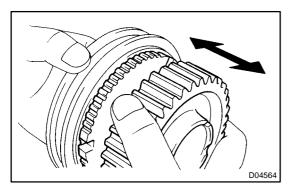
Standard clearance:

0.15 - 0.35 mm (0.0059 - 0.0138 in.)

Maximum clearance:

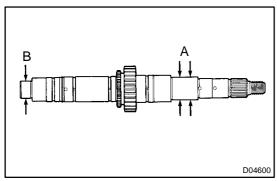
0.35 mm (0.0138 in.)

If the clearance exceeds the maximum, replace the front drive clutch sleeve or No. 1 gear shift fork.



6. INSPECT DRIVE SPROCKET AND FRONT DRIVE CLUTCH SLEEVE

- (a) Check that the tip of the spline gear of the front drive clutch sleeve is not worn.
- (b) Install the front drive clutch sleeve to the drive sprocket and check that the front drive clutch sleeve moves smoothly.



7. INSPECT REAR OUTPUT SHAFT

Using a micrometer, measure the outer diameter of the rear output shaft journal surface.

Standard diameter:

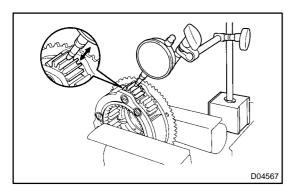
Part A: 36.98 - 37.00 mm (1.4559 - 1.4567 in.) Part B: 27.98 - 27.99 mm (1.1016 - 1.1020 in.)

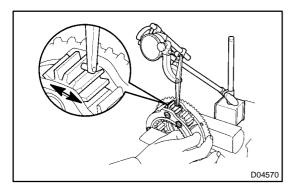
Minimum diameter:

Part A: 36.98 mm (1.4559 in.) Part B: 27.98 mm (1.1016 in.)

2002 4RUNNER (RM887U)

If the outer diameter is less than the minimum, replace the rear output shaft.





8. INSPECT CENTER DIFFERENTIAL PLANETARY GEAR RADIAL CLEARANCE

Using a dial indicator, measure the radial clearance of the pinion gear (outside and inside).

Standard clearance:

0.01 - 0.04 mm (0.0004 - 0.0016 in.)

Maximum clearance:

0.04 mm (0.0016 in.)

If the clearance exceeds the maximum, replace the center differential planetary gear.

9. INSPECT CENTER DIFFERENTIAL PLANETARY GEAR BACKLASH

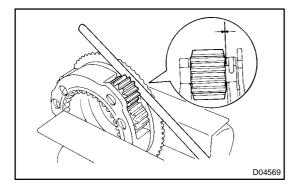
Using a dial indicator, set up the indicator to the tooth edge of the pinion gear (outside) perpendicularly then fix the pinion gear (inside), and inspect while moving the pinon gear (outside).

Standard backlash:

0.01 - 0.04 mm (0.0004 - 0.0016 in.)

HINT:

- Check at more than 3 points on the pinion gear.
- Do the same for the pinion gear.



2002 4RUNNER (RM887U)

10. INSPECT CENTER DIFFERENTIAL PLANETARY GEAR THRUST CLEARANCE

Using a feeler gauge, measure the thrust clearance of the pinion gear.

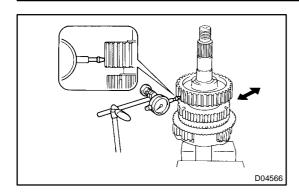
Standard clearance:

0.15 - 0.70 mm (0.0059 - 0.0276 in.)

Maximum clearance:

0.70 mm (0.0276 in.)

If the clearance exceeds the maximum, replace the center differential planetary gear.



11. INSPECT DRIVE SPROCKET RADIAL CLEARANCE

- (a) Install the center differential planetary gear to the rear output shaft and insert the drive sprocket via the needle roller bearing.
- (b) Using a dial indicator, measure the radial clearance of the drive sprocket.

Standard clearance:

0.01 - 0.06 mm (0.0004 - 0.0024 in.)

Maximum clearance:

0.06 mm (0.0024 in.)

If the clearance exceeds the maximum, replace the drive sprocket, rear output shaft or needle roller bearing.

2002 4RUNNER (RM887U)