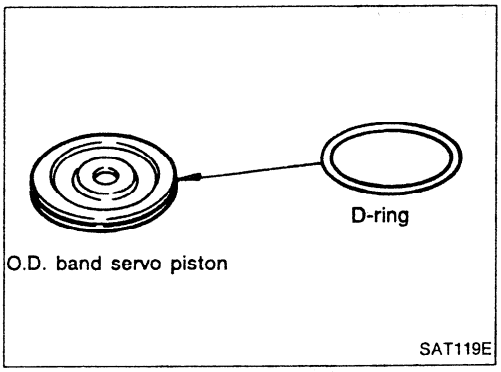
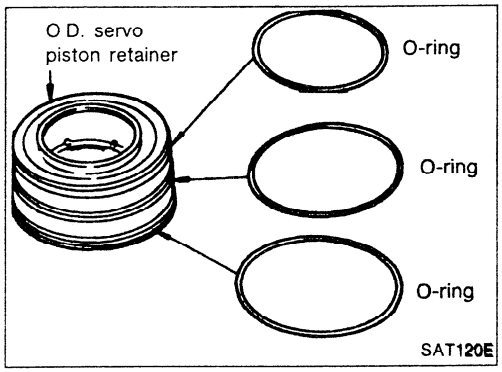
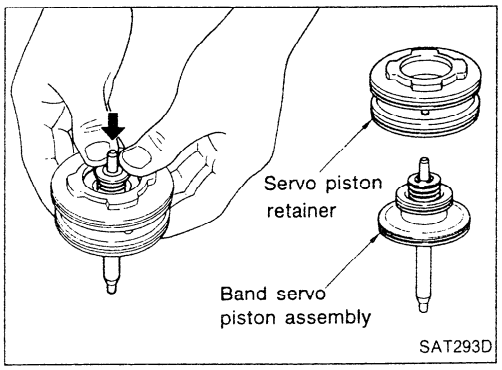
Band Servo Piston Assembly (Cont'd)



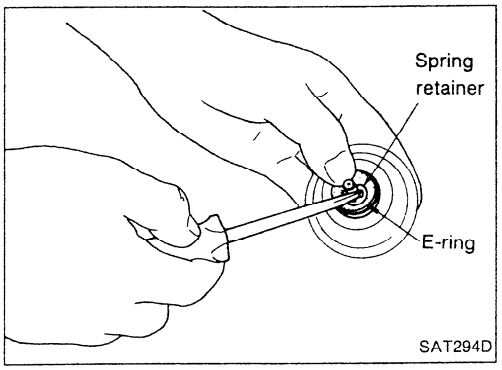
4. Remove D-ring from O.D. band servo piston.



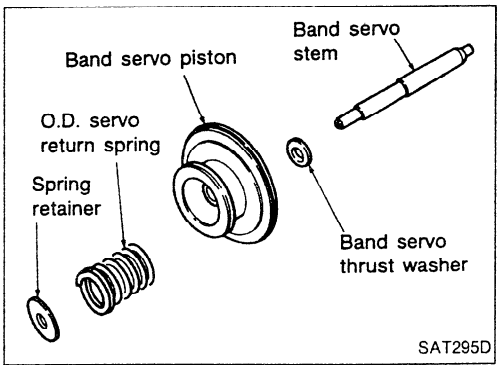
5. Remove O-rings from O.D. servo piston retainer.



6. Remove band servo piston assembly from servo piston retainer by pushing it forward.

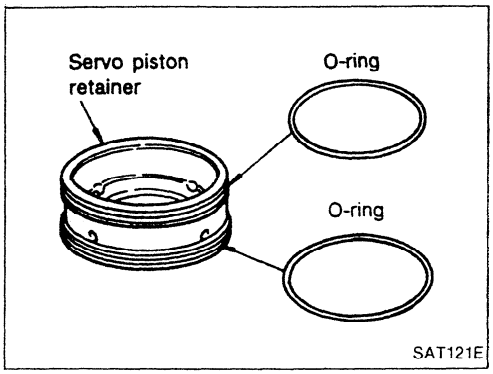


7. Place piston stem end on a wooden block. While pushing servo piston spring retainer down, remove E-ring.

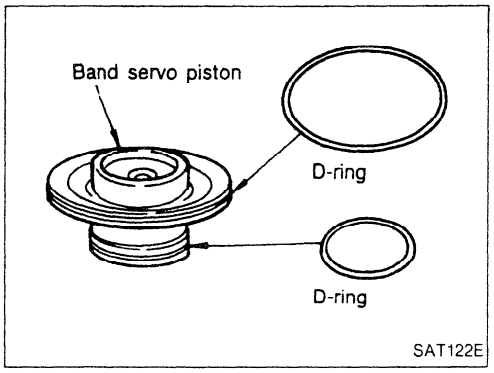


8. Remove O.D. servo return spring, band servo thrust washer and band servo piston stem from band servo piston.

Band Servo Piston Assembly (Cont'd)



9. Remove O-rings from servo piston retainer.

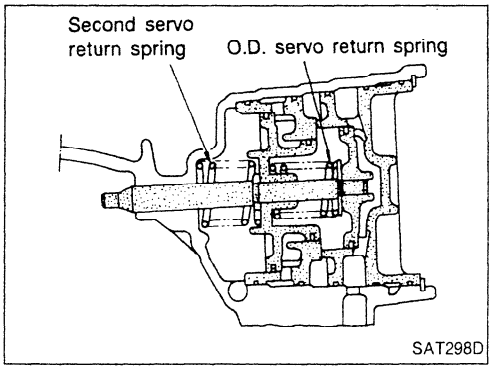


10. Remove D-rings from band servo piston.

INSPECTION

Pistons, retainers and piston stem

- Check frictional surfaces for abnormal wear or damage.



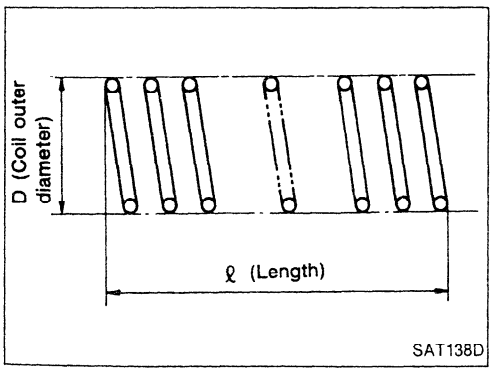
Return springs

- Check for deformation or damage.
- Measure free length and outer diameter.

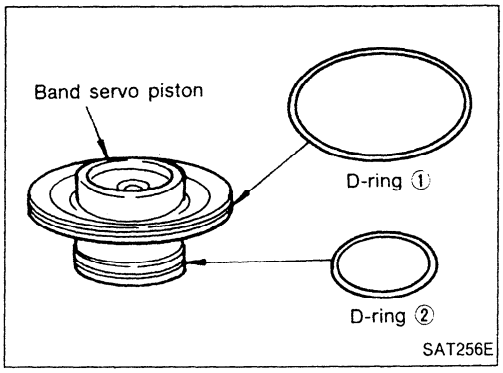
Inspection standard

Unit: mm (in)

Parts	Free length	Outer diameter
2nd servo return spring	32 5 (1.280)	25.9 (1.020)
O.D. servo return spring	31.0 (1.220)	21.7 (0.854)



Band Servo Piston Assembly (Cont'd)



ASSEMBLY

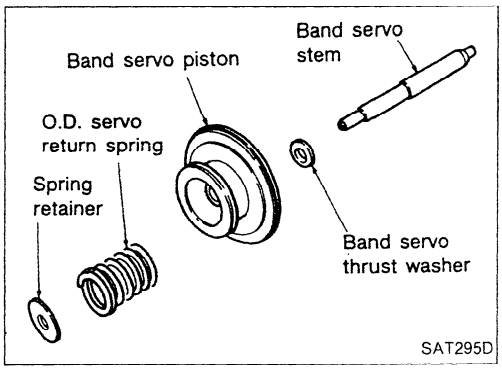
1. Install D-rings to band servo piston.

- **Apply A.T.F. to D-rings.**
- **Pay attention to the position of each D-ring.**

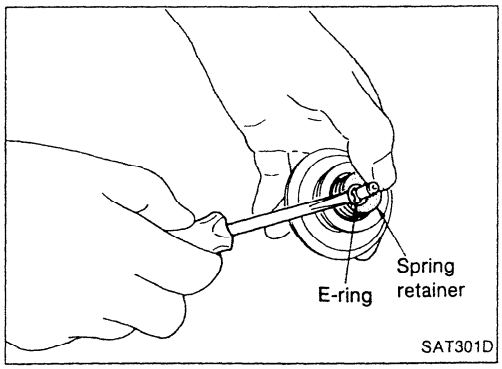
D-rings:

Unit: mm (in)

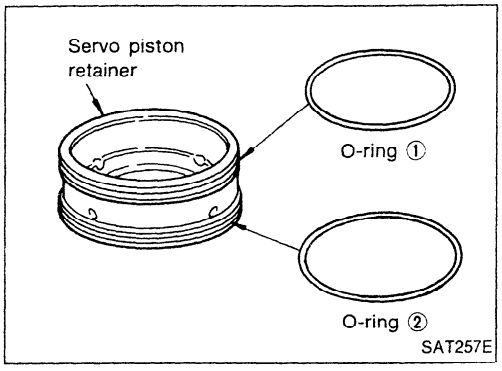
D-ring	Inner diameter	
	Model 31X74, 31X79	Model 31X75, 31X76, 31X77
①	51.9 (2.043)	53.8 (2.118)
②	29.8 (1.173)	31.7 (1.248)



2. Install band servo piston stem, band servo thrust washer, O.D. servo return spring and spring retainer to band servo piston.



3. Place piston stem end on a wooden block. While pushing servo piston spring retainer down, install E-ring.



4. Install O-rings to servo piston retainer.

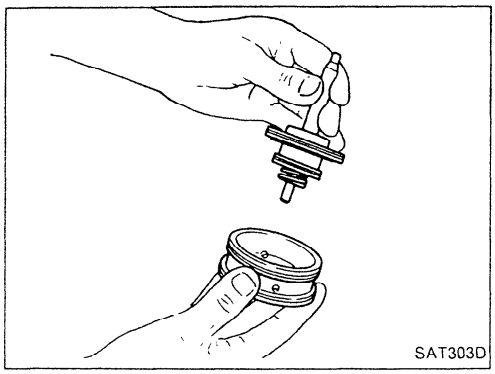
- **Apply A.T.F. to O-rings.**
- **Pay attention to the position of each O-ring.**

O-rings:

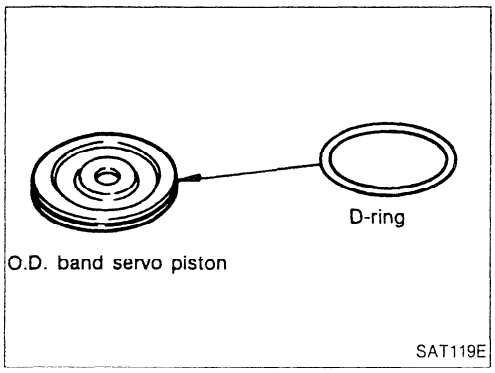
Unit: mm (in)

O-ring	Inner diameter
①	65.4 (2.575)
②	67.3 (2.650)

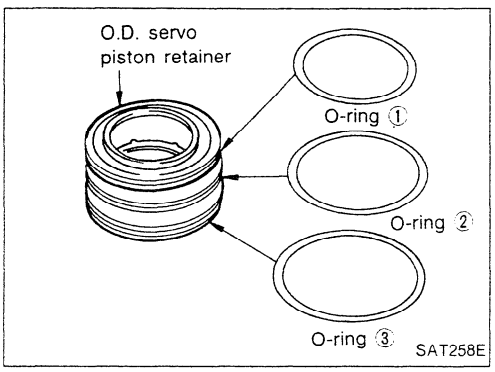
Band Servo Piston Assembly (Cont'd)



5. Install band servo piston assembly to servo piston retainer by pushing it inward.



6. Install D-ring to O.D. band servo piston.
- **Apply A.T.F. to D-ring.**

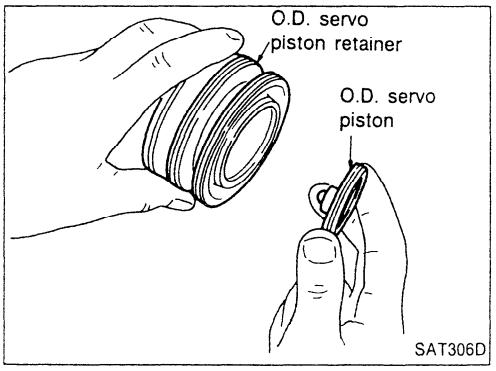


7. Install O-rings to O.D. servo piston retainer.
- **Apply A.T.F. to O-rings.**
- **Pay attention to the position of each O-ring.**

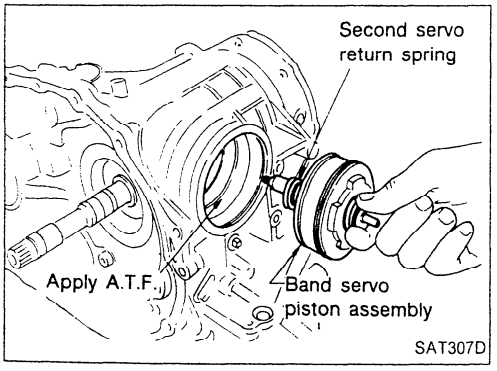
O-rings:

Unit: mm (in)

O-ring	Inner diameter
①	69.2 (2.724)
②	71.2 (2.803)
③	73.1 (2.878)

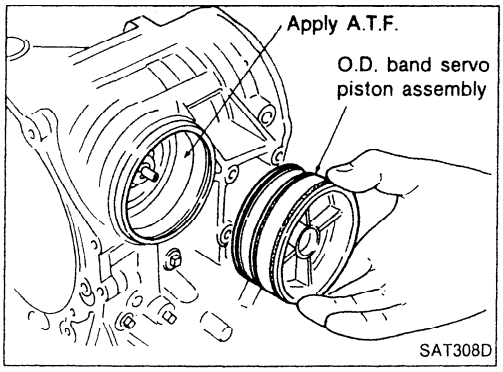


8. Install O.D. band servo piston to O.D. servo piston retainer.

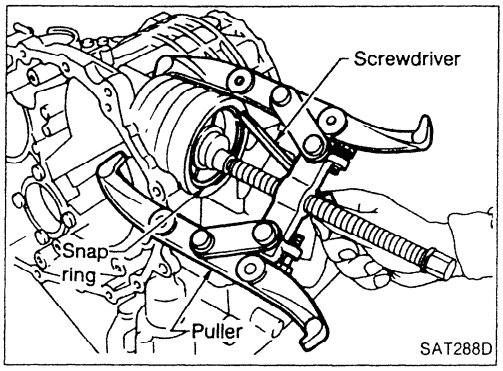


9. Install band servo piston assembly and 2nd servo return spring to transmission case.
- **Apply A.T.F. to O-ring of band servo piston and transmission case.**

Band Servo Piston Assembly (Cont'd)

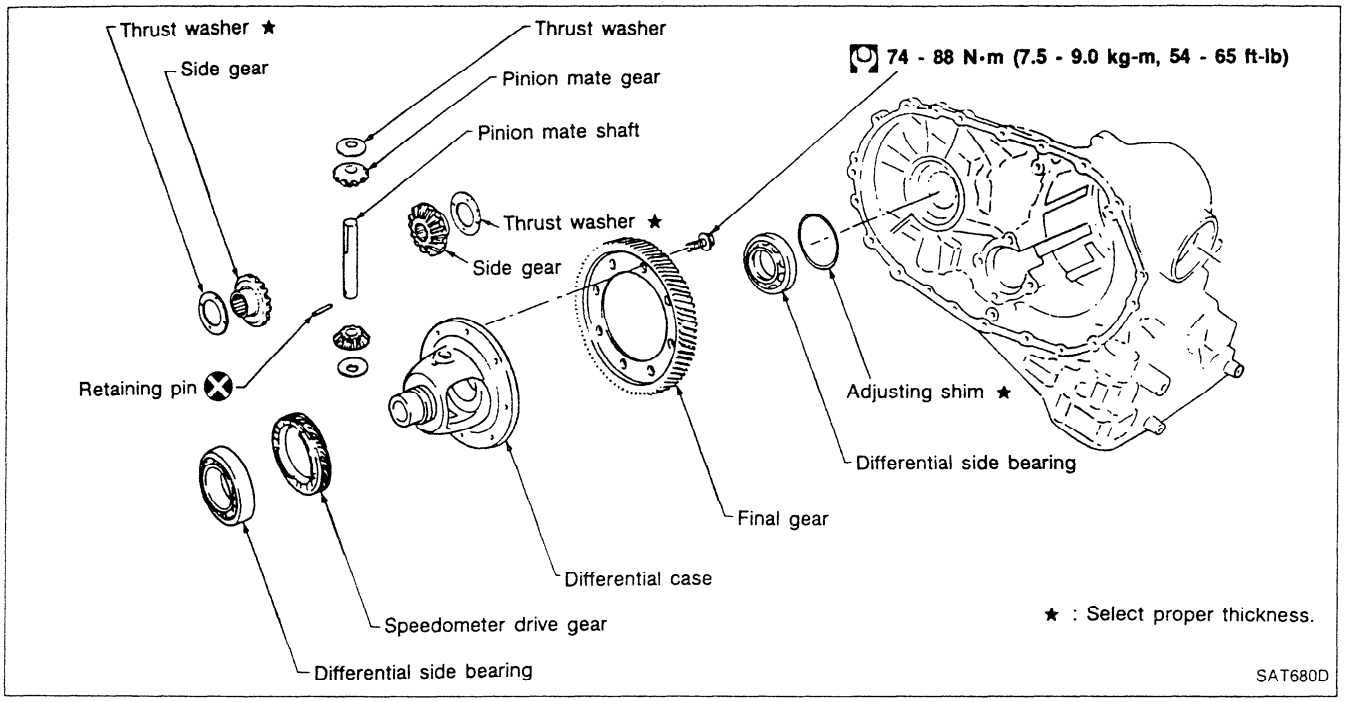


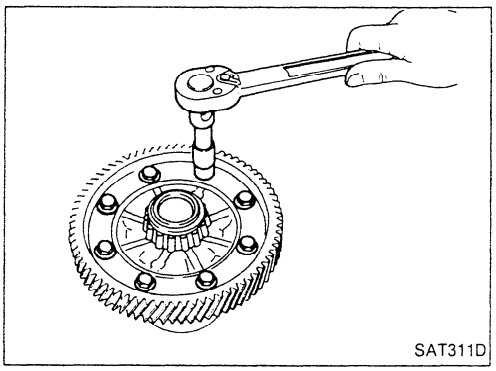
10. Install O.D. band servo piston assembly to transmission case.
- **Apply A.T.F. to O-ring of band servo piston and transmission case.**



11. Install band servo piston snap ring to transmission case.

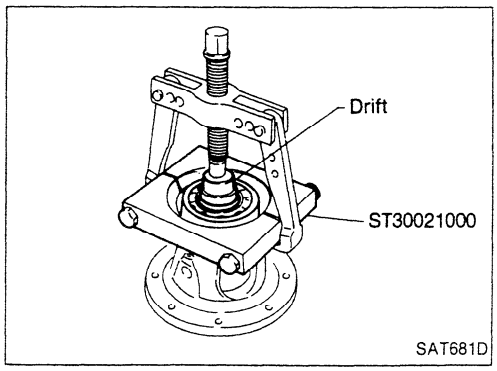
Final Drive



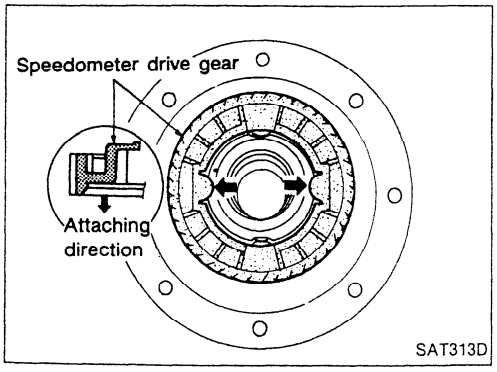


DISASSEMBLY

1. Remove final gear.

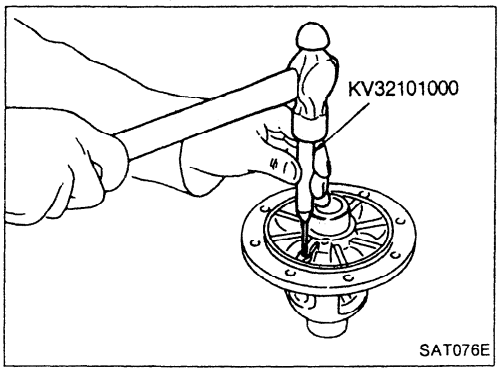


2. Press out differential side bearings.

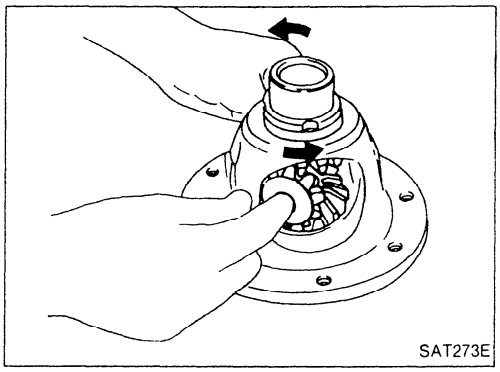


3. Remove speedometer drive gear.

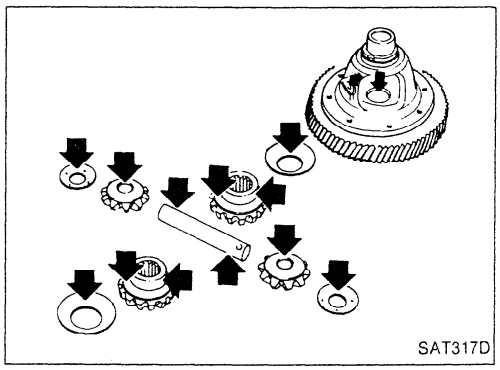
Final Drive (Cont'd)



4. Drive out pinion mate shaft retaining pin.



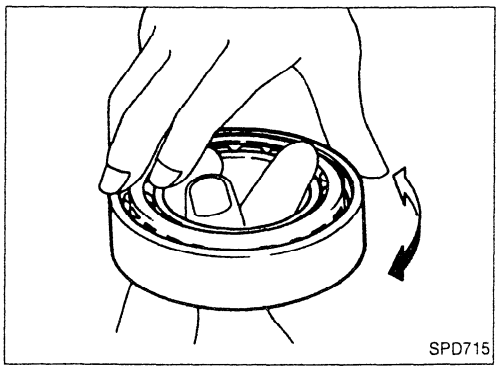
5. Draw out pinion mate shaft from differential case.
6. Remove pinion mate gears and side gears.



INSPECTION

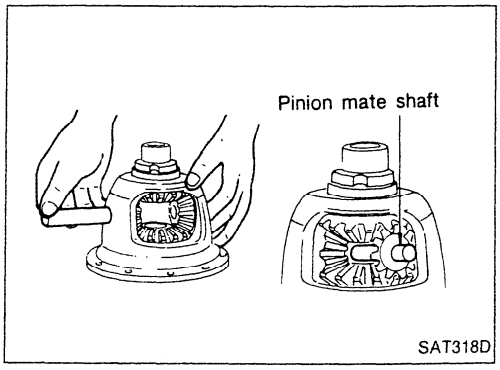
Gear, washer, shaft and case

- Check mating surfaces of differential case, side gears and pinion mate gears.
- Check washers for wear.



Bearings

- Make sure bearings roll freely and are free from noise, cracks, pitting or wear.

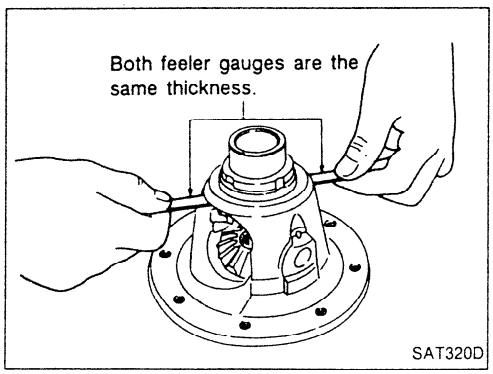


ASSEMBLY

1. Install side gears and thrust washers in differential case.
2. Install pinion mate gears and thrust washers in the differential case while rotating them.

- **Apply A.T.F. to all parts.**

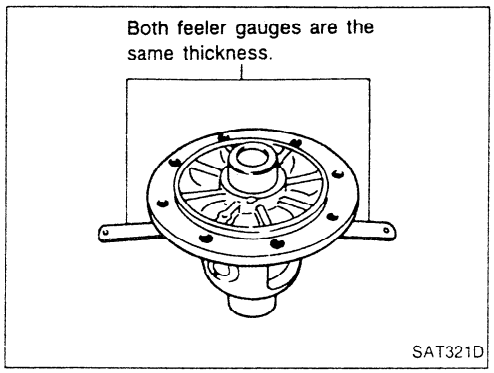
Final Drive (Cont'd)



3. Measure clearance between side gear and differential case with washers.

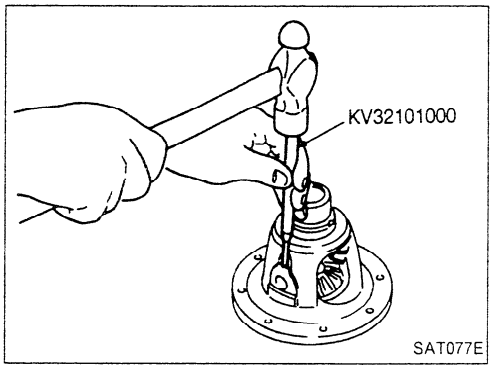
Clearance between side gear and differential case with washers:

0.1 - 0.2 mm (0.004 - 0.008 in)

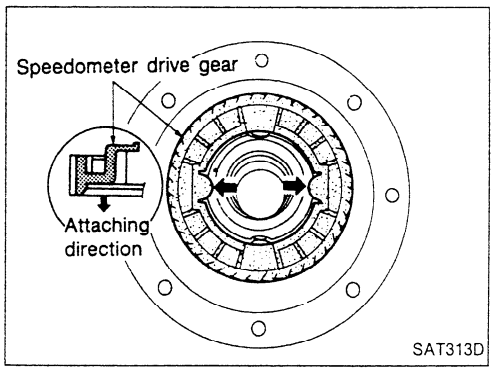


- If not within specification, adjust clearance by changing thickness of side gear thrust washers.

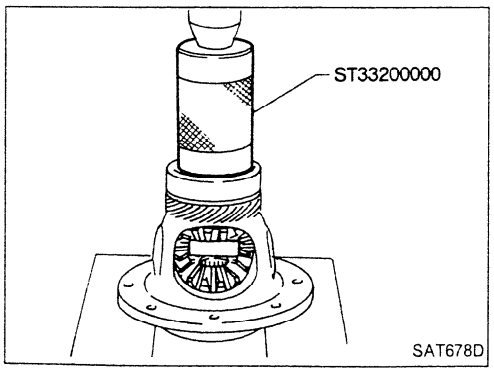
Side gear thrust washer: Refer to S.D.S.



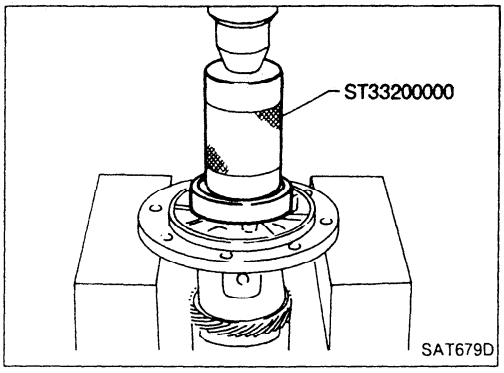
4. Install retaining pin.
- **Make sure that retaining pin is flush with case.**

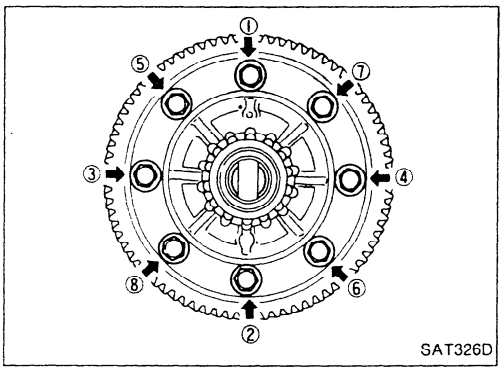


5. Install speedometer drive gear on differential case.
- **Align projection of speedometer drive gear with groove of differential case.**

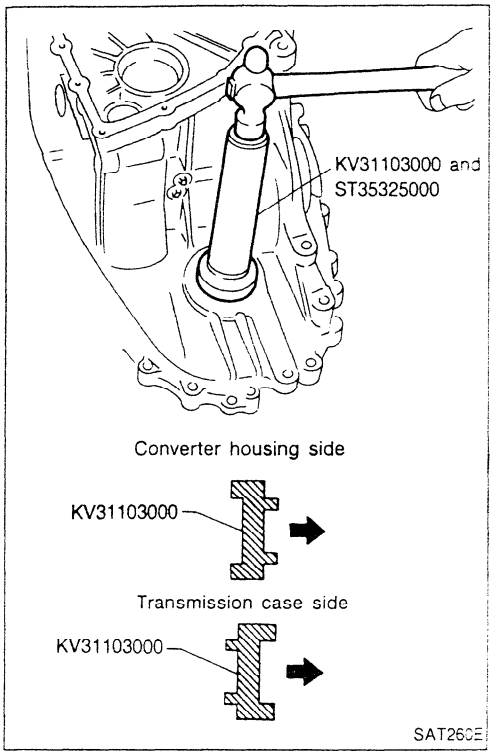


6. Press differential side bearings on differential case.



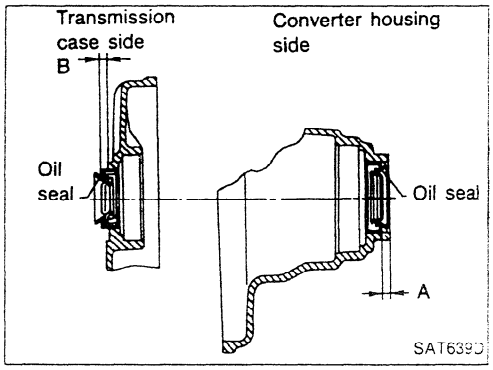


7. Install final gear and tighten fixing bolts in numerical order.



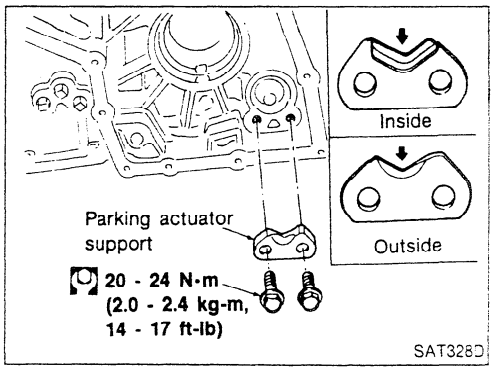
Assembly

1. Install differential side oil seals on transmission case and converter housing, so that "A" and "B" are within specifications.

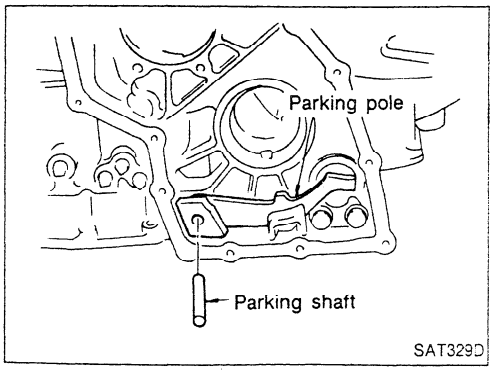


Unit: mm (in)

A	B
5.5 - 6.5 (0.217 - 0.256)	0.5 (0.020) or less



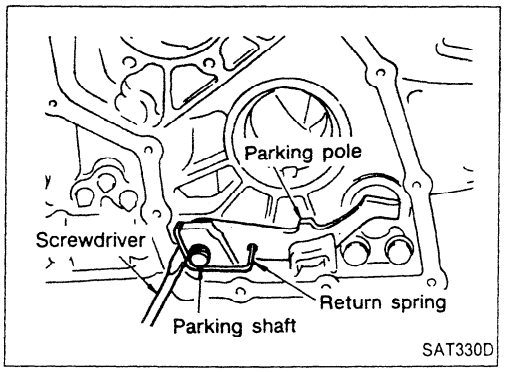
2. Install parking actuator support to transmission case.
- **Pay attention to direction of parking actuator support.**



3. Install parking pawl on transmission case and fix it with parking shaft.

Assembly (Cont'd)

4. Install return spring.

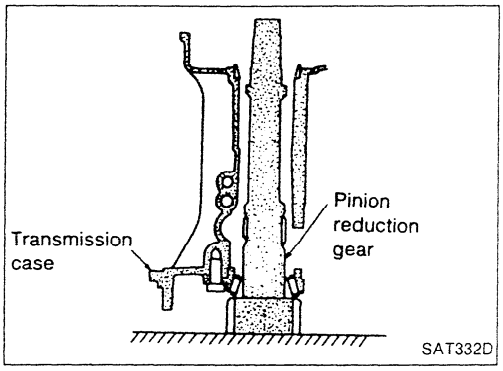


Adjustment

REDUCTION GEAR BEARING PRELOAD

1. Select proper thickness of reduction gear bearing adjusting shim using the following procedures.

a. Place reduction gear on transmission case as shown.

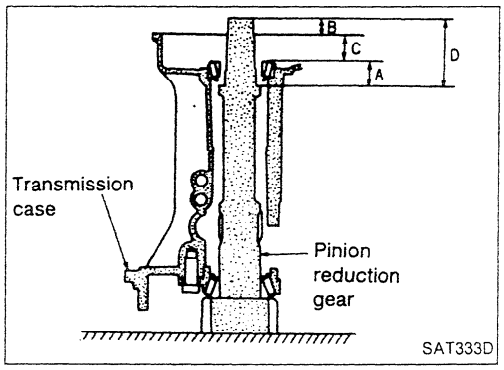


b. Place idler gear bearing on transmission case.

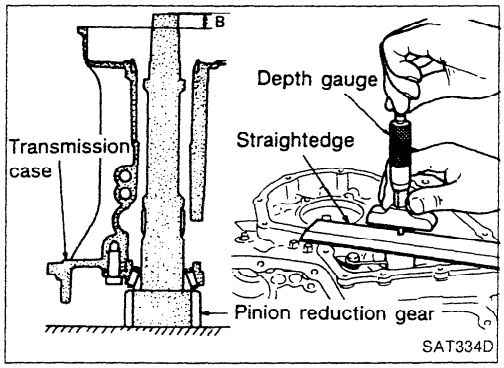
c. Measure dimensions "B", "C" and "D" and calculate dimension "A".

A = D − (B + C)

"A": Distance between surface of idler gear bearing inner race and adjusting shim mating surface of reduction gear.



- Measure dimension "B" between end of reduction gear and surface of transmission case.
- **Measure in at least two places.**



- Measure dimension "C" between surface of idler gear bearing inner race and converter housing fitting surface of transmission case.
- **Measure in at least two places.**