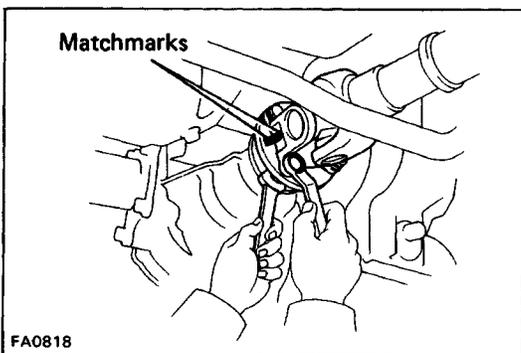
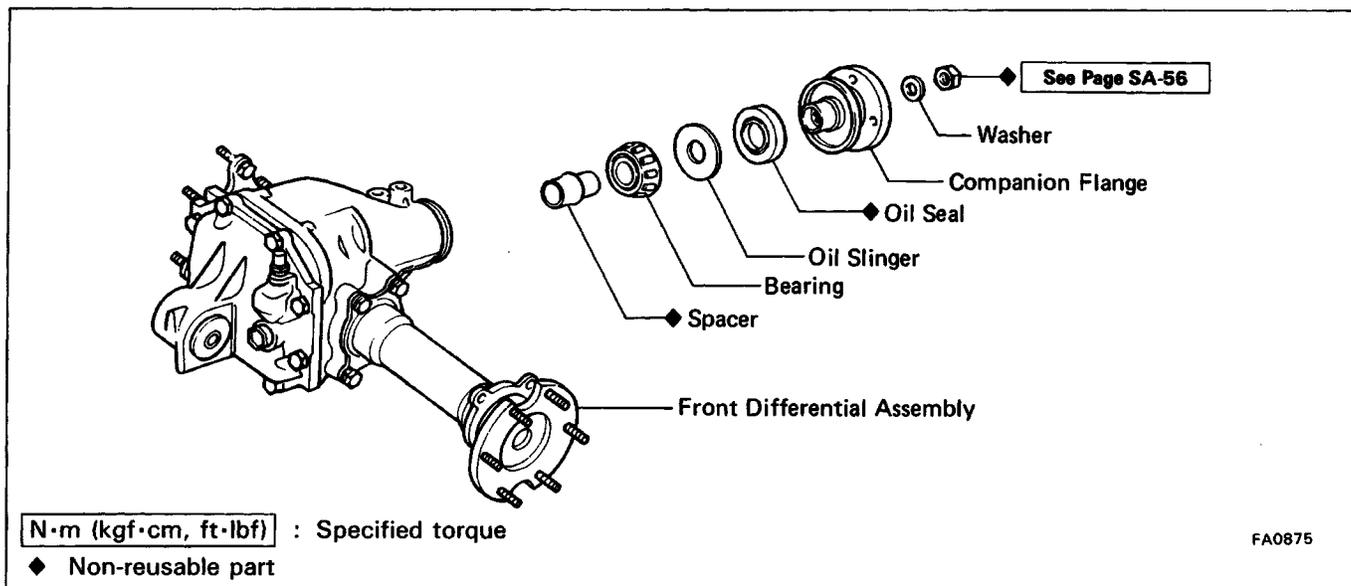


FRONT DIFFERENTIAL

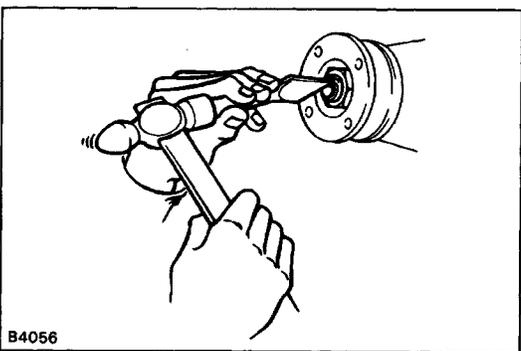
On-Vehicle Replacement of Rear Oil Seal



1. DRAIN DIFFERENTIAL OIL

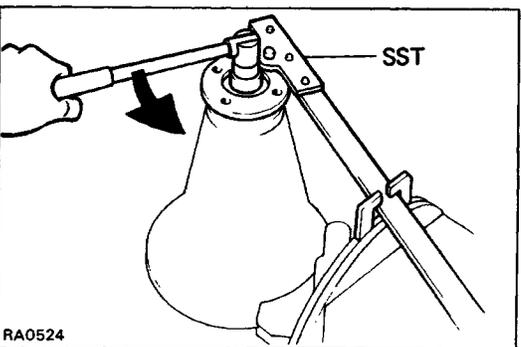
2. DISCONNECT PROPELLER SHAFT

Before disconnecting the propeller shaft from the front differential, place matchmarks on them.

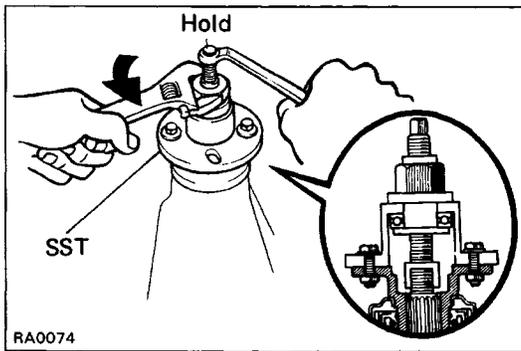


3. REMOVE COMPANION FLANGE

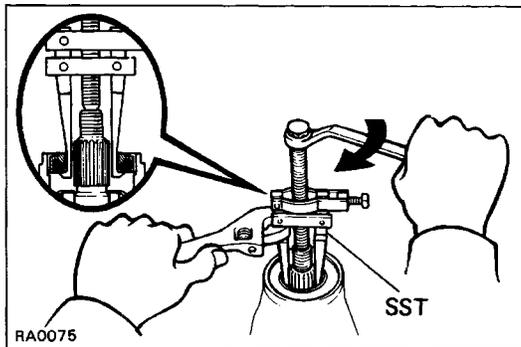
(a) Using a hammer and chisel, loosen the staked part of the nut.



(b) Using SST to hold the flange, remove the nut and washer.
 SST 09330-00021

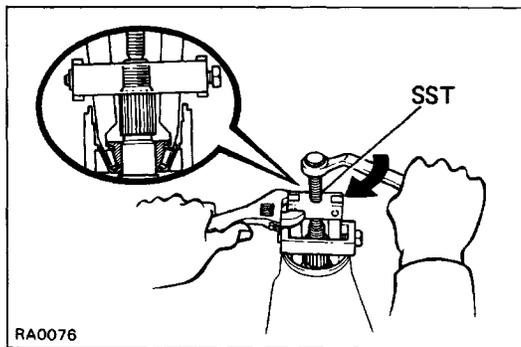


- (c) Using SST, remove the companion flange.
SST 09557-22022 (09557-22030)



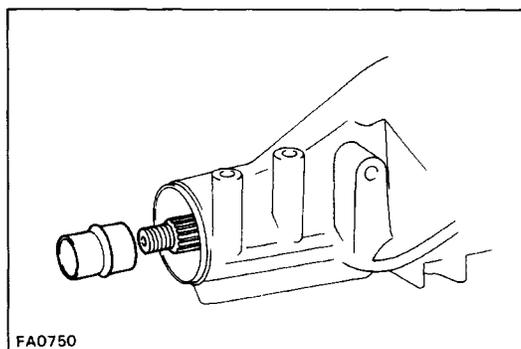
4. REMOVE OIL SEAL AND OIL SLINGER

- (a) Using SST, remove the oil seal.
SST 09308-10010
(b) Remove the oil slinger.



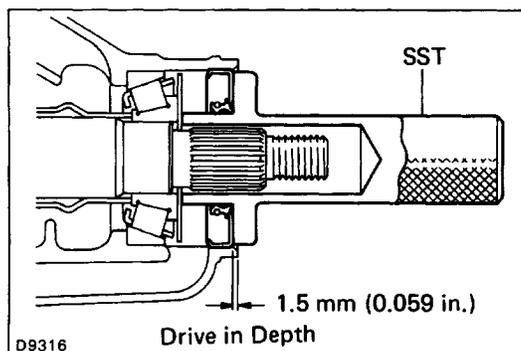
5. REMOVE REAR BEARING AND BEARING SPACER

- (a) Using SST, remove the rear bearing from the drive pinion.
SST 09556-30010
(b) Remove the bearing spacer.



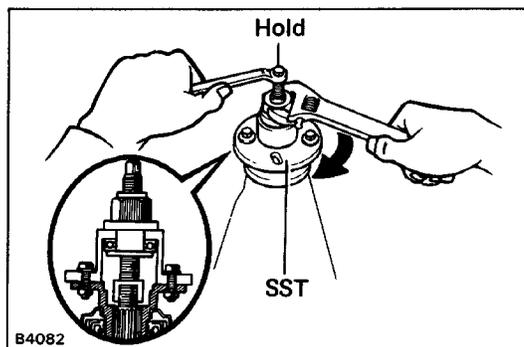
6. INSTALL NEW BEARING SPACER AND REAR BEARING

- (a) Install a new bearing spacer on the drive pinion.
(b) Install the rear bearing on the drive pinion.



7. INSTALL OIL SLINGER AND NEW OIL SEAL

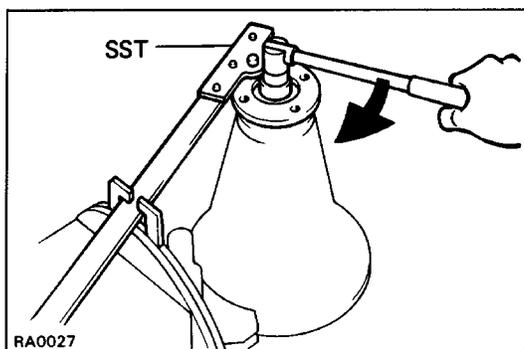
- (a) Install the oil slinger.
(b) Using SST, drive in a new oil seal.
SST 09554-30011
Oil seal drive in depth: 1.5 mm (0.059 in.)
(c) Apply MP grease to the oil seal lip.



8. INSTALL COMPANION FLANGE

- (a) Using SST, install the companion flange on the drive pinion.

SST 09557-22022 (09557-22030)

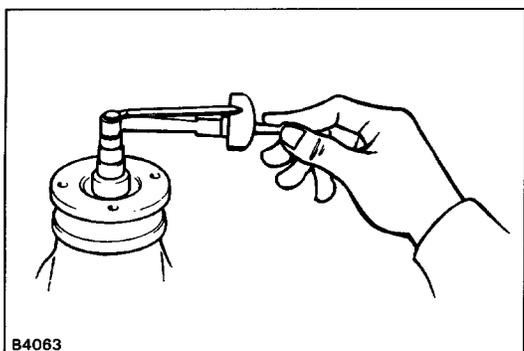


- (b) Coat the threads of the new nut with MP grease.

- (c) Using SST to hold the flange, torque the nut.

SST 09330-00021

Torque: 120 N-m (1,225 kgf-cm, 89 ft-lbf)



9. ADJUST DRIVE PINION BEARING PRELOAD

Using a torque meter, measure the preload of the back-lash between the drive pinion and ring gear.

Preload (starting):

New bearing

1.2 – 1.9 N-m

(12 – 19 kgf-cm, 10.4 – 16.5 in.-lbf)

Reused bearing

0.6 – 1.0 N-m

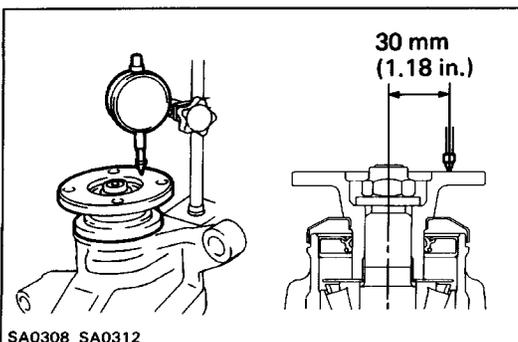
(6 – 10 kgf-cm, 5.2 – 8.7 in.-lbf)

- (a) If the preload is greater than specification, replace the bearing spacer.

- (b) If the preload is less than specification, retighten the nut 13 N-m (130 kgf-cm, 9 ft-lbf) a little at a time until the specified preload is reached.

Maximum torque: 223 N-m (2,275 kgf-cm, 165 ft-lbf)

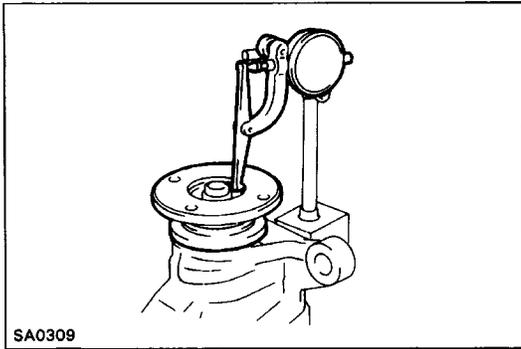
If the maximum torque is exceeded while retightening the nut, replace the bearing spacer and repeat the preload procedure. Do not back off the pinion nut to reduce the preload.



10. CHECK RUNOUT OF COMPANION FLANGE

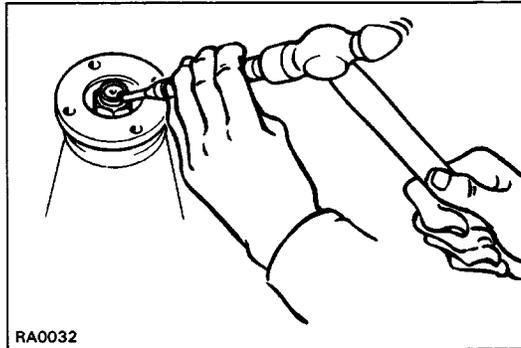
Using a dial indicator, measure the vertical and lateral runout of the companion flange.

Maximum vertical runout: 0.10 mm (0.0039 in.)



Maximum lateral runout: 0.10 mm(0.0039 in.)

If the runout is greater than maximum, inspect the bearings.



11. STAKE DRIVE PINION NUT

12. INSTALL DRAIN PLUG AND FILL DIFFERENTIAL WITH GEAR OIL

(w/ A.D.D.)

Oil type: Toyota "GEAR OIL SUPER" oil (Part No. 08885 – 02106) or hypoid gear oil API GL-5

Recommended oil viscosity: SAE 75W-90

Capacity: 1.86 liters (1.97 US qts, 1.64 Imp. qts)

(w/o A.D.D.)

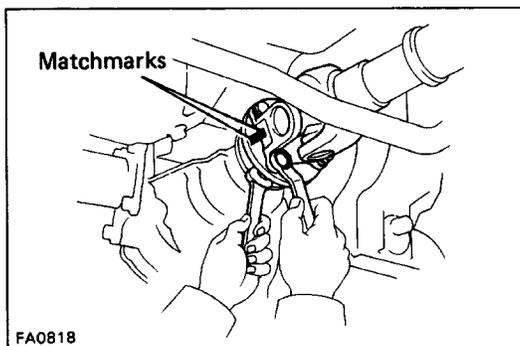
Oil type: Hypoid gear oil API GL-5

Recommended oil viscosity:

Above – 18°C (0°F) SAE 90

Below – 18 ° C (0 ° F) SAE 80W or 80W-90

Capacity: 1.6 liters (1.7 US qts, 1.4 Imp. qts)



13. CONNECT PROPELLER SHAFT TO COMPANION FLANGE

(a) Align the matchmarks and connect the propeller shaft to the companion flange with four bolts and nuts.

(b) Torque the nuts.

Torque: 74 N-m (750 kgf-cm, 54 ft-lbf)