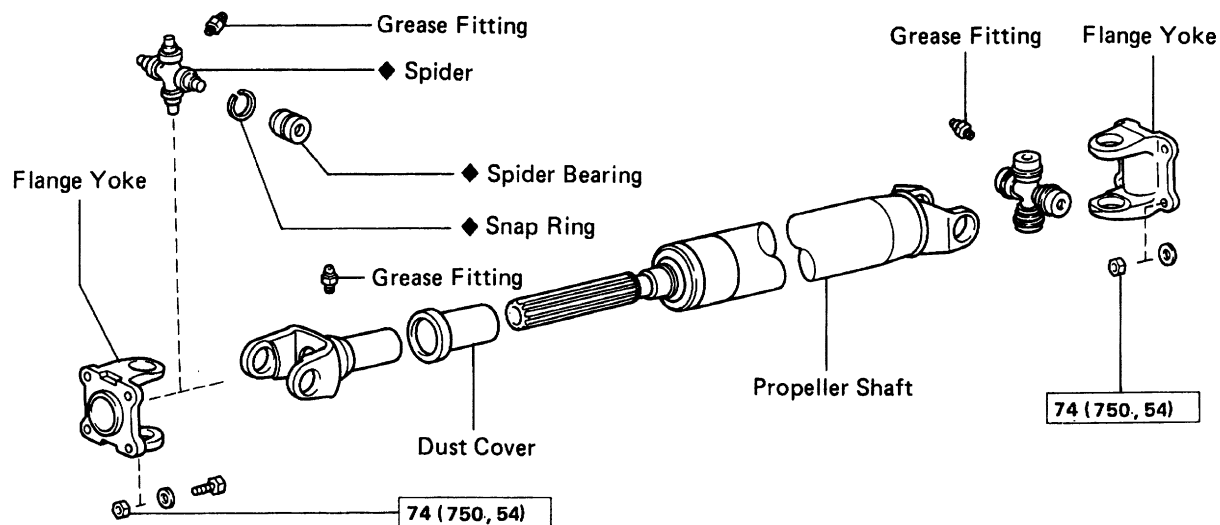


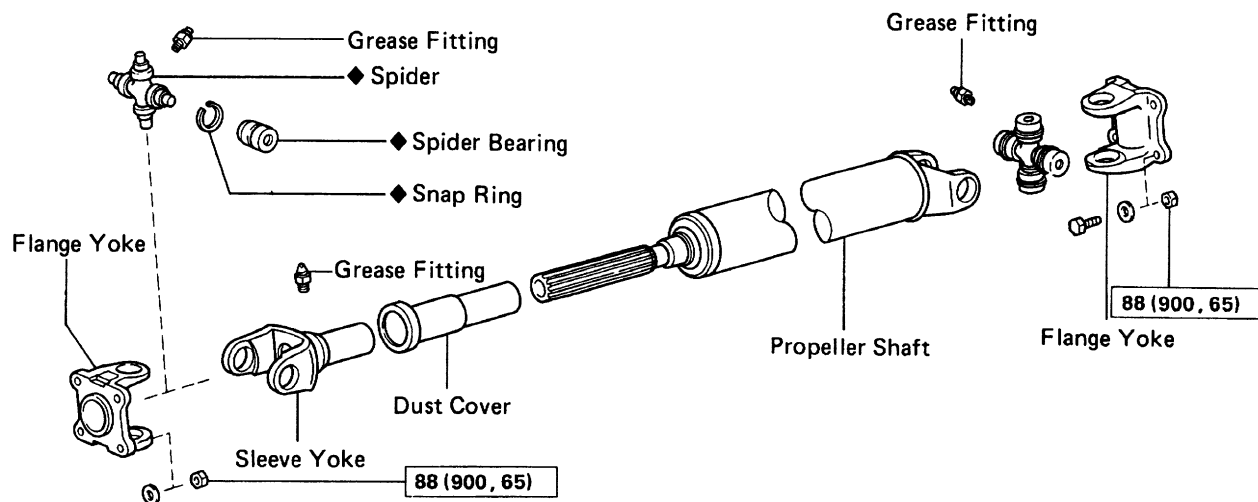
PROPELLER SHAFT COMPONENTS

PROOL-01

• Front Propeller Shaft



• Rear Propeller Shaft



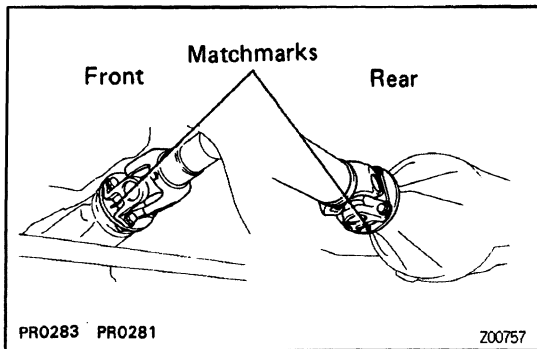
N·m (kgf·cm, ft·lbf) : Specified torque

◆ Non-reusable part

PR0278
PR0279

200750

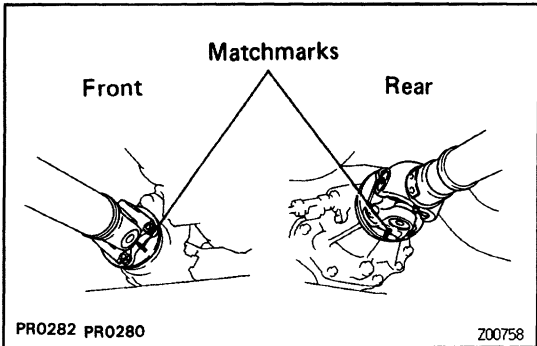
PROOM-01



FRONT AND REAR PROPELLER SHAFT REMOVAL

1. DISCONNECT PROPELLER SHAFT FLANGE FROM COMPANION FLANGE ON DIFFERENTIAL

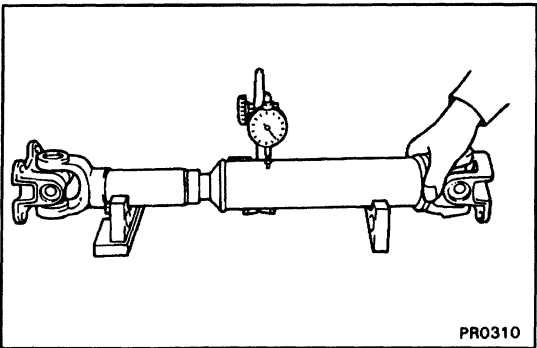
- Put matchmarks on the flanges.
- Remove the four bolts and nuts.



2. DISCONNECT PROPELLER SHAFT FLANGE FROM COMPANION FLANGE ON TRANSFER

- Put matchmarks on the flange.
- Remove the four nuts.
- Remove the propeller shaft.

PROOP-01

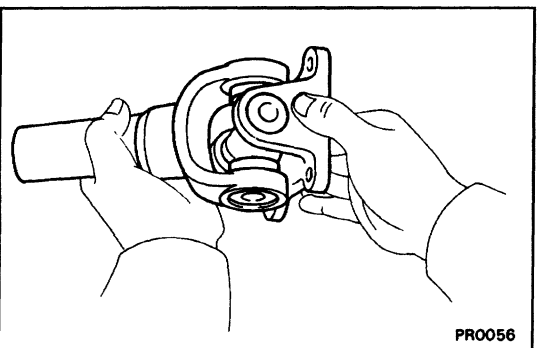


PROPELLER SHAFT INSPECTION

1. INSPECT FRONT AND REAR PROPELLER SHAFTS FOR DAMAGE OR RUNOUT

If shaft runout is greater than maximum, replace the shaft.

Maximum runout:
0.8 mm (0.031 in.)



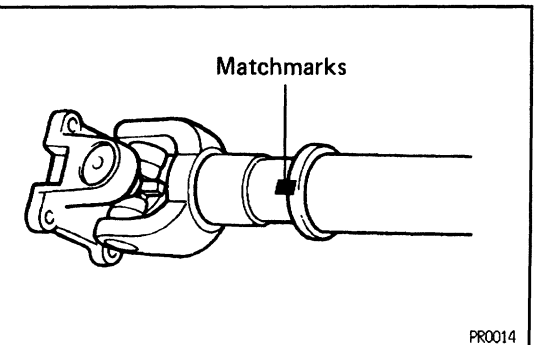
2. INSPECT SPIDER BEARING

- Inspect the spider bearings for wear or damage.
- Check the spider bearing axial play by turning the yoke while holding the shaft tightly.

Bearing axial play:
Less than 0.05 mm (0.0020 in.)

If necessary, replace the spider bearing.

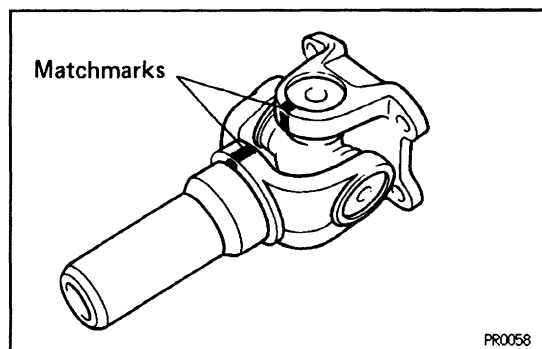
PROOP-01



PROPELLER SHAFT DISASSEMBLY

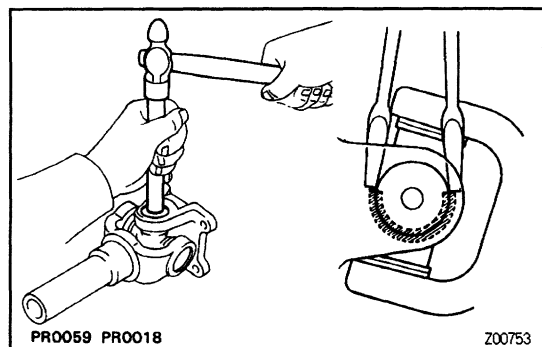
1. REMOVE SLEEVE YOKE FROM PROPELLER SHAFT

- Place the matchmarks on the sleeve yoke and shaft.
- Pull out the sleeve yoke from the shaft.



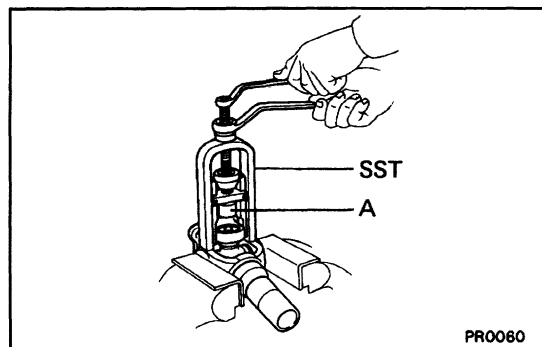
2. REMOVE SPIDER BEARING

(a) Put the matchmarks on the sleeve yoke and flange.



(b) Slightly tap in the bearing outer races.

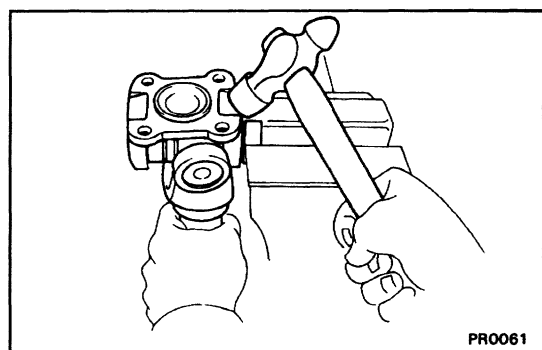
(c) Using two screwdrivers, remove the four snap rings from the grooves.



(d) Using SST, push out the bearing from the flange.

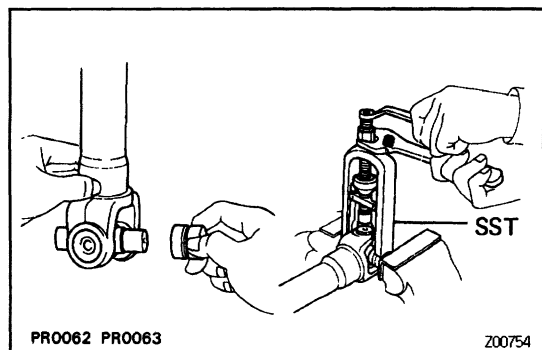
SST 09332 - 25010

HINT: Sufficiently raise the part indicated by A so that it does not come into contact with the bearing.



(e) Clamp the bearing outer race in a vise and tap off the flange with a hammer.

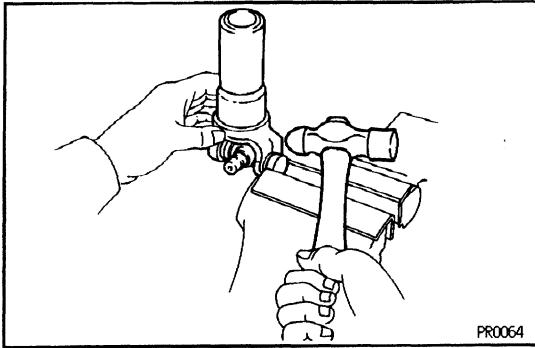
HINT: Remove the bearing on the opposite side in the same procedure.



(f) Install the two removed bearing outer races to the spider.

(g) Using SST, push out the bearing from the yoke.

SST 09332-25010



(h) Clamp the outer bearing race in a vise and tap off the yoke with a hammer.

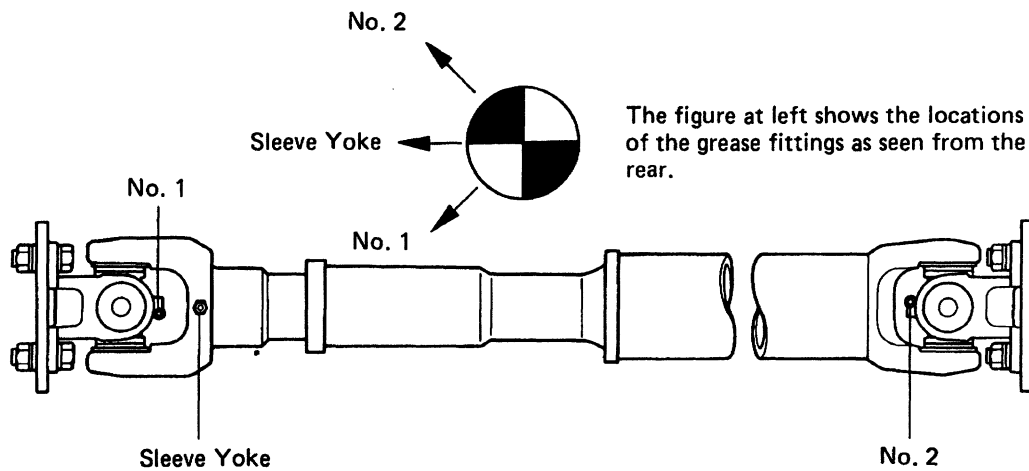
HINT: Remove the bearing on the opposite side in the same procedure.

PROPELLER SHAFT ASSEMBLY

PR000-01

HINT: When replacing the spider, be sure that the grease fitting assembly hole is facing in the direction shown in figure.

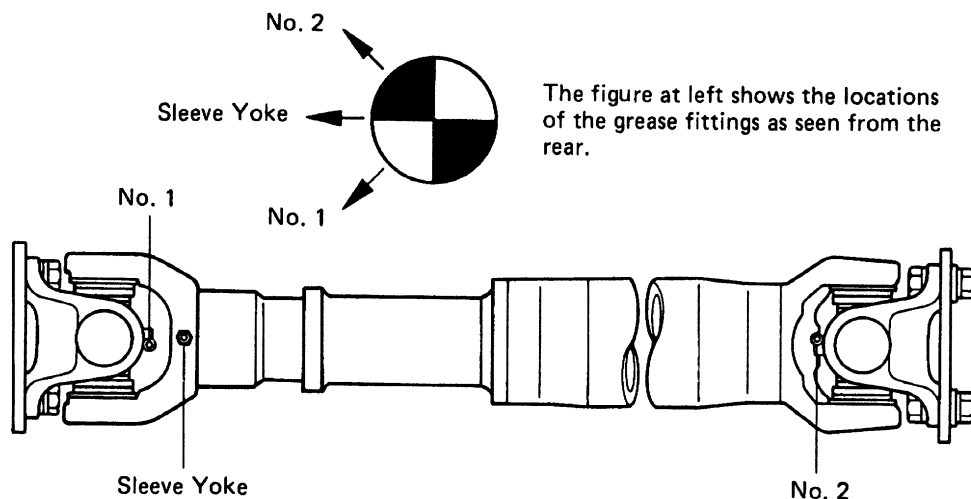
SPIDER GREASE FITTING ASSEMBLY DIRECTION Front Propeller Shaft



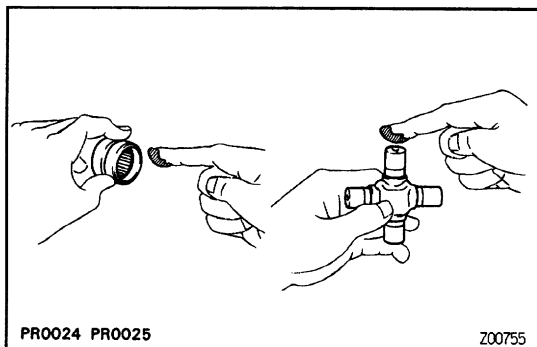
PR0284

SPIDER GREASE FITTING ASSEMBLY DIRECTION

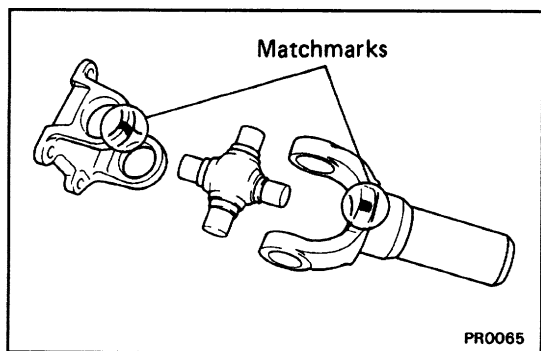
Rear Propeller Shaft



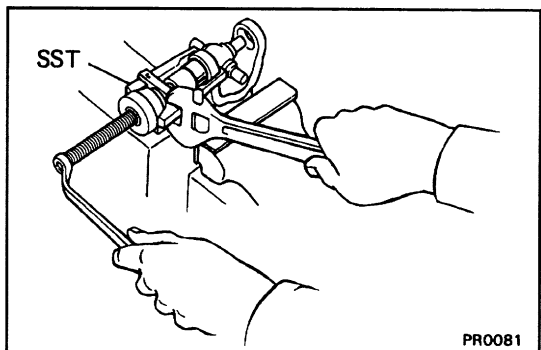
PRO285

**1. INSTALL SPIDER BEARING**

- (a) Apply MP grease to the spider and bearing.
HINT: Be careful not to apply too much grease.

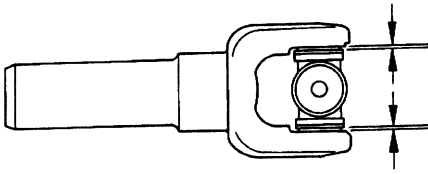


- (b) Align the matchmarks on the yoke and flange.

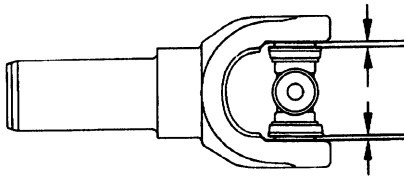


- (c) Fit a new spider into the yoke.
(d) Using SST, install a new bearing on the spider.
SST 09332-25010

● **Front Propeller Shaft**



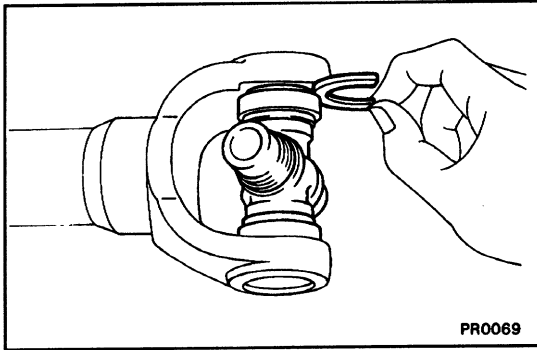
● **Rear Propeller Shaft**



PR0286
PR0068

Z00756

- (e) Using SST, adjust both bearings so that the snap ring grooves are at maximum and equal widths.



PR0069

- (f) Install two snap rings of equal thickness which will allow 0–0.05 mm (0–0.0020 in.) axial play.

HINT: Do not reuse the snap rings.

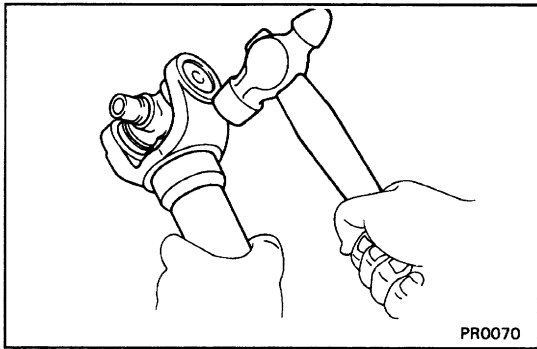
Thickness of snap ring

Front Propeller Shaft

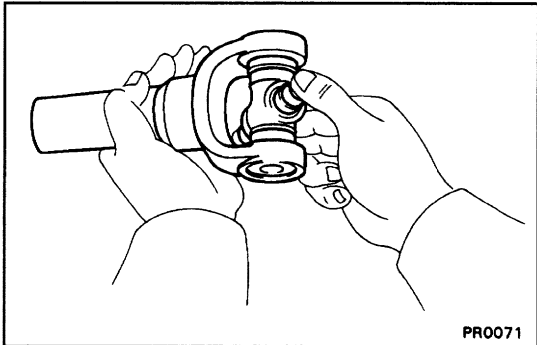
Color	Mark	Thickness mm (in.)
—	1	2.100–2.150 (0.0827–0.0846)
—	2	2.150–2.200 (0.0846–0.0866)
—	3	2.200–2.250 (0.0866–0.0886)
Brown	—	2.250–2.300 (0.0886–0.0906)
Blue	—	2.300–2.350 (0.0906–0.0925)
—	6	2.350–2.400 (0.0925–0.0945)
—	7	2.400–2.450 (0.0945–0.0965)
—	8	2.450–2.500 (0.0965–0.0984)

Rear Propeller Shaft

Color	Thickness mm (in.)
—	2.00 (0.0787)
Brown	2.03 (0.0799)
Blue	2.06 (0.0811)
—	2.09 (0.0823)



- (g) Using a hemmer, tap the yoke until there is no clearance between the bearing outer race and snap ring.

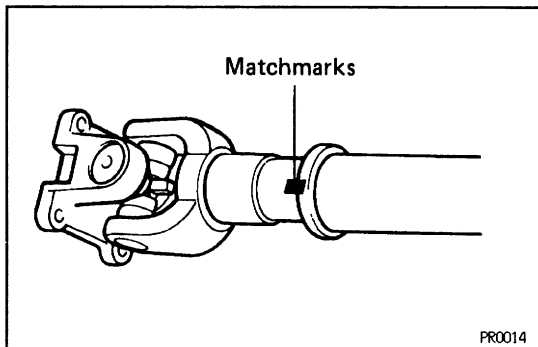


- (h) Check that the spider bearing moves smoothly.
(i) Check the spider bearing axial play.

Bearing axial play:

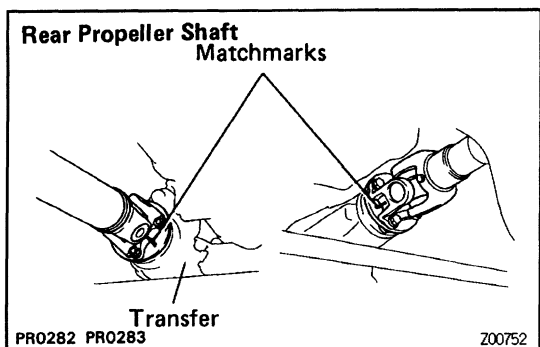
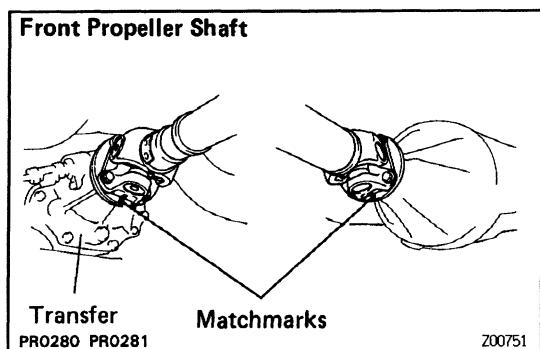
Less than 0.05 mm (0.0020 in.)

HINT: Install new spider bearing on the flange side in the procedure described above.



2. INSERT SLEEVE YOKE INTO PROPELLER SHAFT

- (a) Apply MP grease to the propeller shaft spline and sleeve yoke sliding surface.
(b) Align the matchmarks on the sleeve yoke propeller shaft.
(c) Install the propeller shaft into the sleeve yoke.



FRONT AND REAR PROPELLER SHAFTS INSTALLATION

7. CONNECT PROPELLER SHAFT FLANGE TO COM-PANION FLANGE ON TRANSFER

- Align the matchmarks on the flanges and connect the flanges with four nuts.
- Torque the nuts.

Torque:

Front Propeller Shaft

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

Rear Propeller Shaft

88 N-m (900 kgf-cm, 65 ft-lbf)

HINT: When installing the washers, put them properly in place.

2. CONNECT PROPELLER SHAFT FLANGE ON DIFFERENTIAL

- Align the matchmarks on the flanges and connect the flanges with four bolts and nuts.
- Torque the bolts and nuts.

Torque:

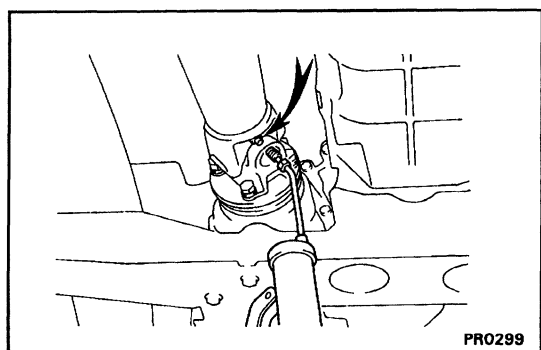
Front Propeller Shaft

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

Rear Propeller Shaft

88 N-m (900 kgf-cm, 65 ft-lbf)

HINT: When installing the washers, put them properly in place.



3. APPLY MP GREASE TO GREASE FITTING

With a grease gun, pump the MP grease into each fitting until it begins to flow around the oil seal.