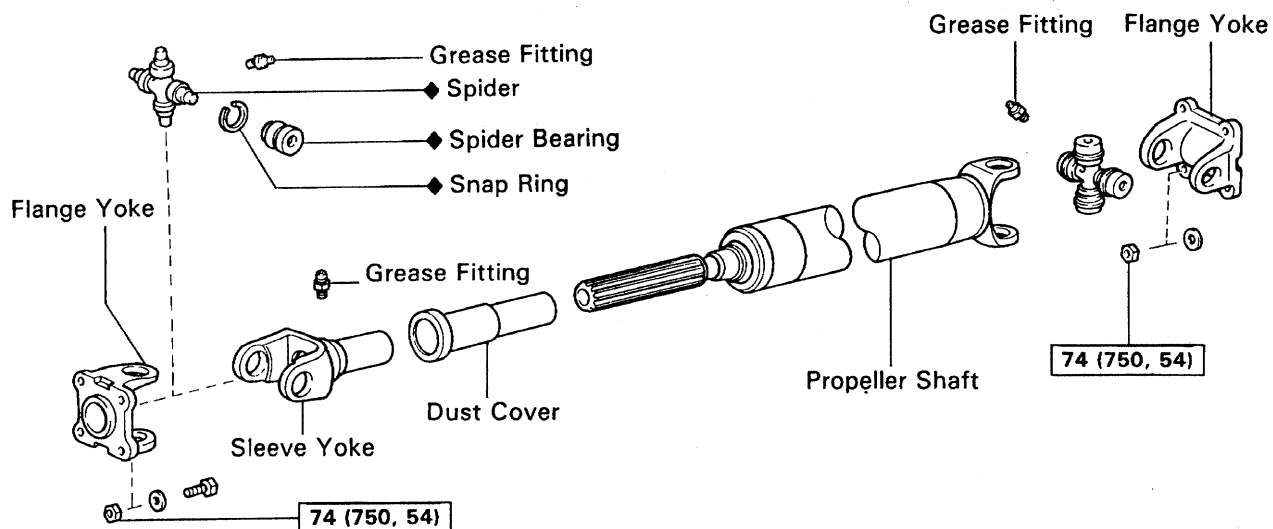


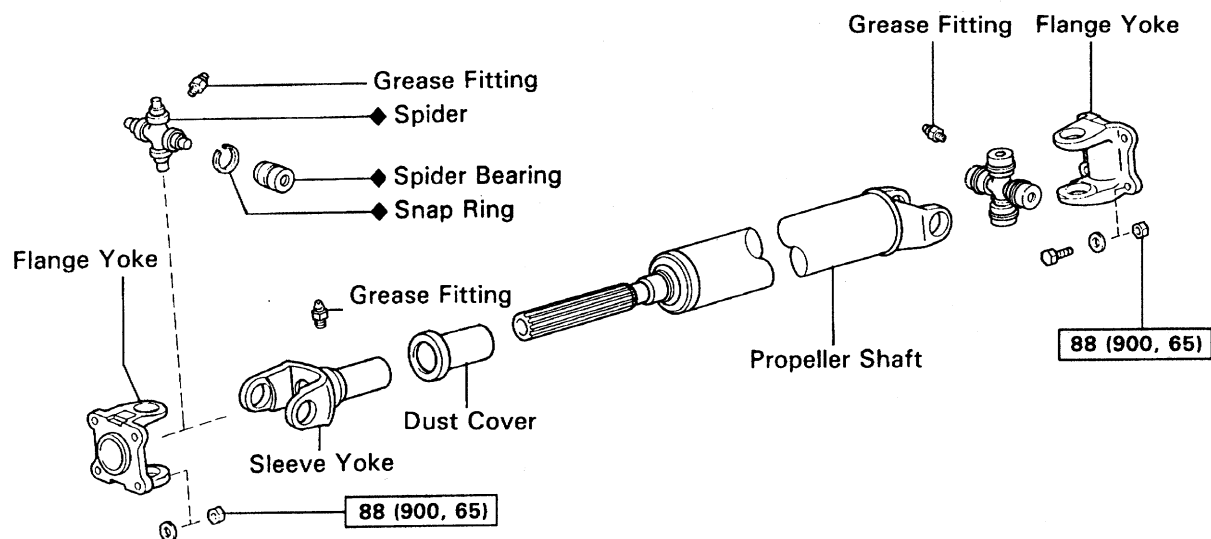
PROPELLER SHAFT COMPONENTS

PR02C-02

Front Propeller Shaft



Rear Propeller Shaft

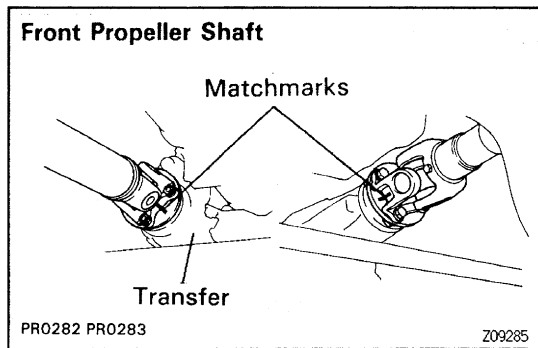


N·m (kgf·cm, ft·lbf) : Specified torque

◆ Non-reusable part

R07481
R07482

Z09228



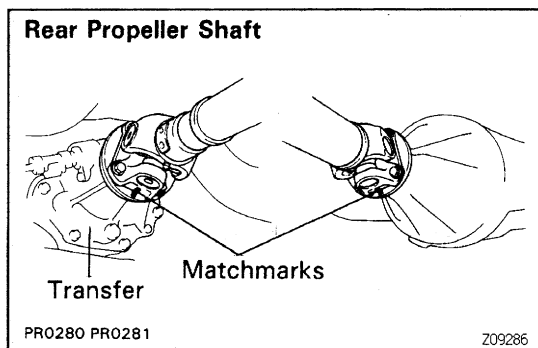
FRONT AND REAR PROPELLER SHAFTS REMOVAL

1. DISCONNECT FRONT PROPELLER SHAFT FLANGE FROM COMPANION FLANGE ON TRANSFER

- Place matchmarks on the flanges.
- Remove the 4 nuts.

2. DISCONNECT FRONT PROPELLER SHAFT FLANGE FROM COMPANION FLANGE ON DIFFERENTIAL

- Place matchmarks on the flanges.
- Remove the 4 bolts and nuts.
- Remove the front propeller shaft.



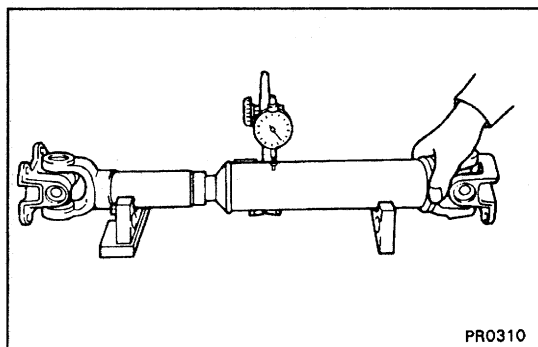
3. DISCONNECT REAR PROPELLER SHAFT FLANGE FROM COMPANION FLANGE ON TRANSFER

- Place matchmarks on the flanges.
- Remove the 4 nuts.

4. DISCONNECT REAR PROPELLER SHAFT FLANGE FROM COMPANION FLANGE ON DIFFERENTIAL

- Place matchmarks on the flanges.
- Remove the 4 bolts and nuts.
- Remove the rear propeller shaft.

PRO2E-01



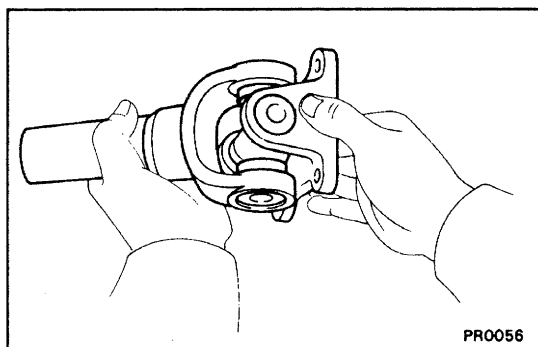
PROPELLER SHAFT INSPECTION

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:

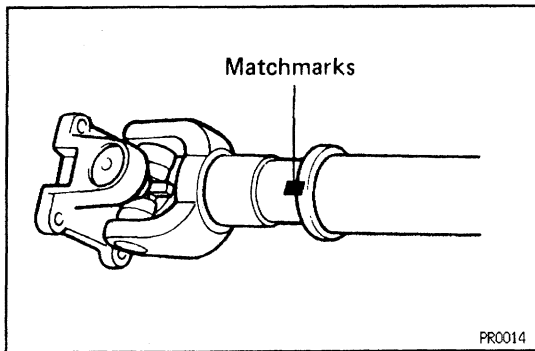
Less than 0.05 mm (0.0020 in.)

If necessary, replace the spider bearing.

PROPELLER SHAFT DISASSEMBLY

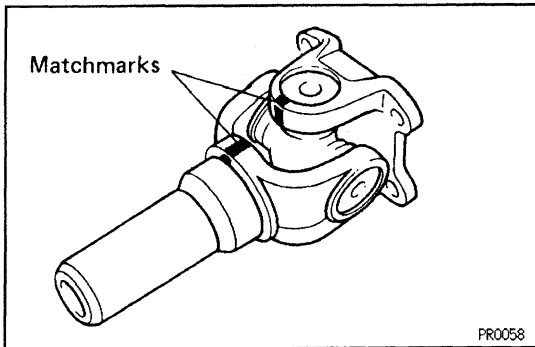
1. REMOVE SLEEVE YOKE FROM PROPELLER SHAFT

- (a) Place matchmarks on the sleeve yoke and shaft.
- (b) Pull out the sleeve yoke from the shaft.

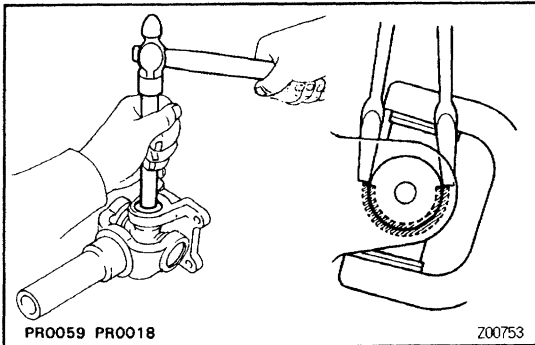


2. REMOVE SPIDER BEARING

- (a) Place matchmarks on the sleeve yoke and flange.

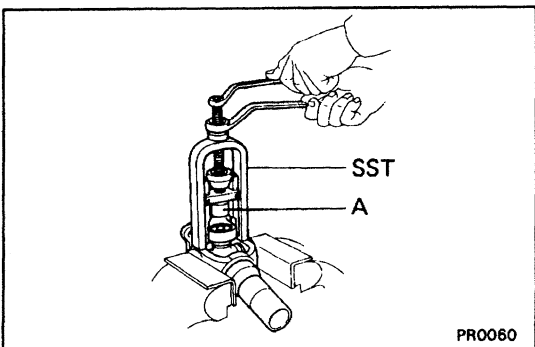


- (b) Slightly tap in the bearing outer races.
- (c) Using 2 screwdrivers, remove the 4 snap rings from the grooves.



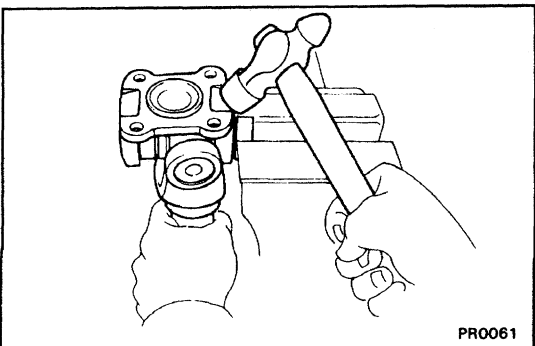
- (d) Using SST, push out the bearing from the flange.
SST 09332 - 25010

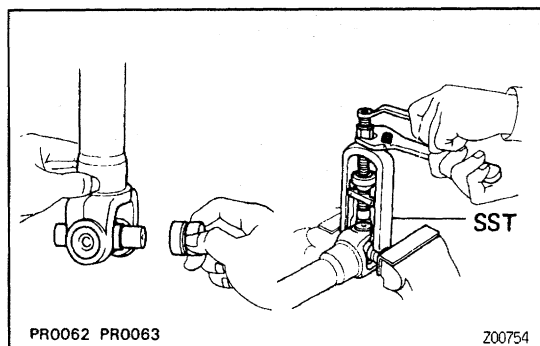
HINT: Sufficiently raise the part indicated by A so that it does not come into contact with the bearing.



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

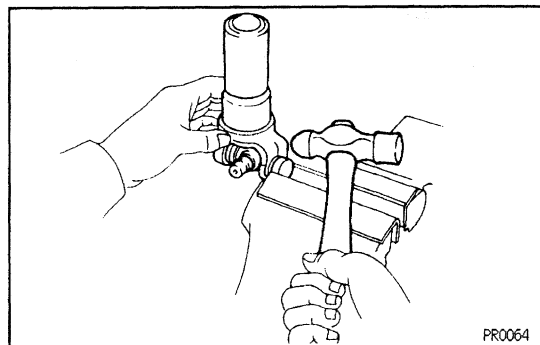
HINT: Remove the bearing on the opposite side by the same procedure.





(f) Install the 2 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.

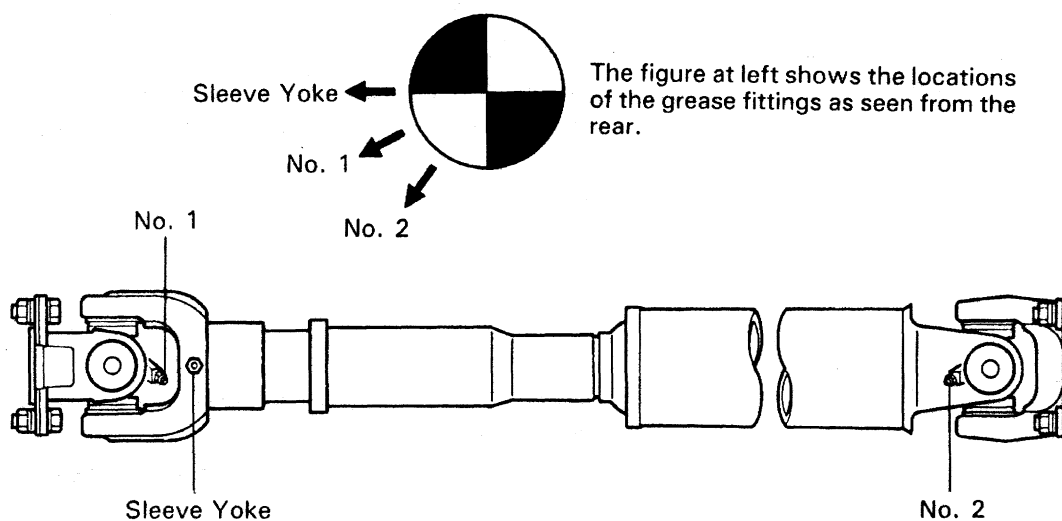
PROPELLER SHAFT ASSEMBLY

PR02G-02

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

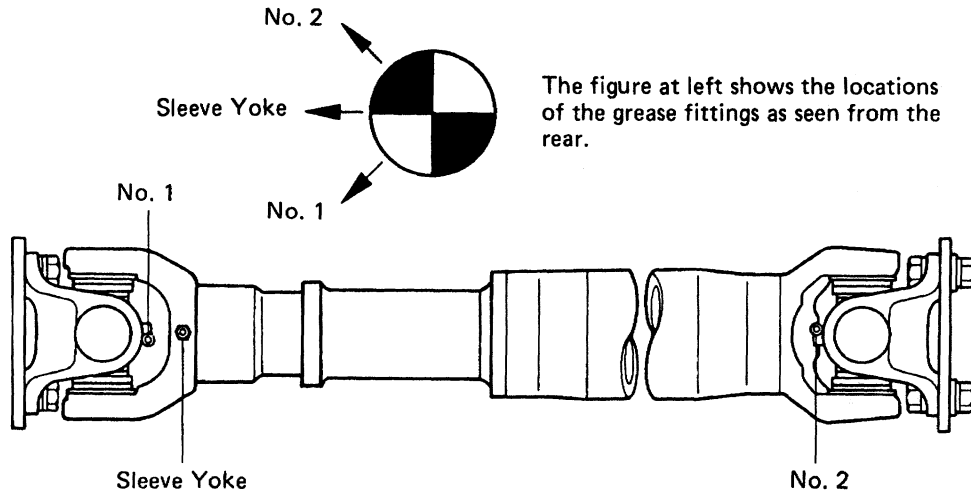
SPIDER GREASE FITTING ASSEMBLY DIRECTION

Front Propeller Shaft

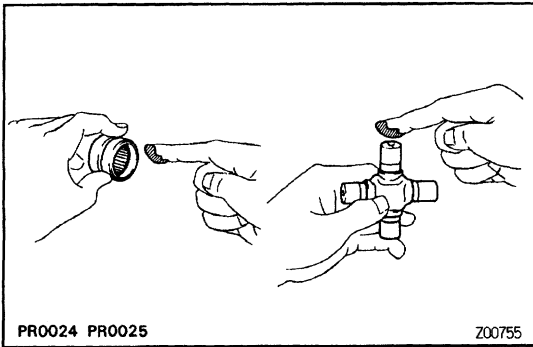


SPIDER GREASE FITTING ASSEMBLY DIRECTION

Rear Propeller Shaft



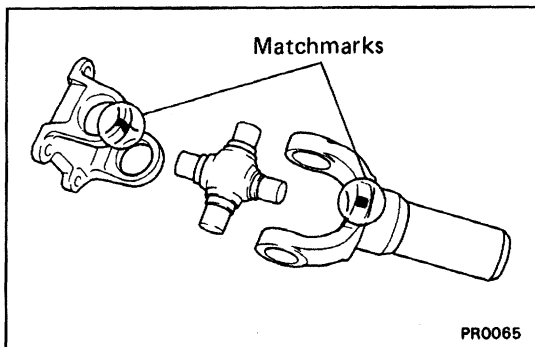
PR0285



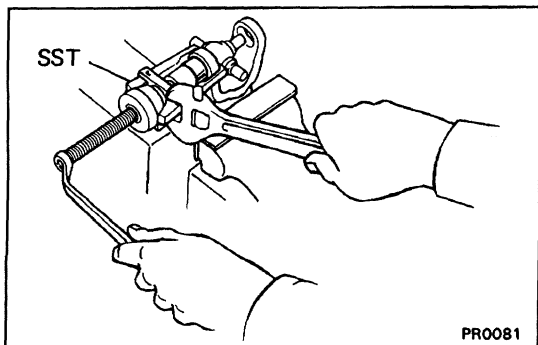
1. INSTALL SPIDER BEARING

(a) Apply MP grease to the a new spider and bearings.

HINT: Be careful not to apply too much grease.



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

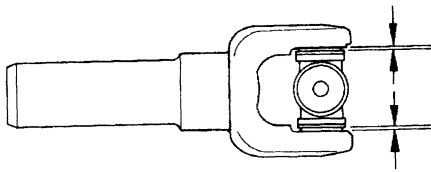


(c) Fit the spider into the yoke.

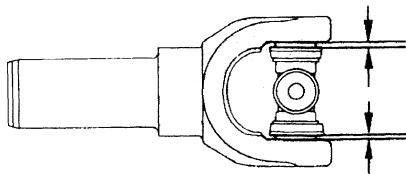
(d) Using SST, install the bearings on the spider.

SST 09332-25010

● **Front Propeller Shaft**



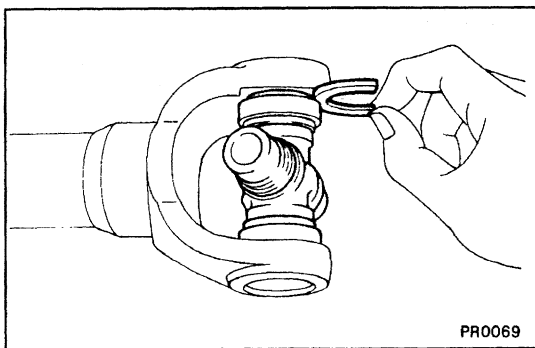
● **Rear Propeller Shaft**



PR0286
PR0068

Z00756

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



PR0069

(f) Install 2 new snap rings of equal thickness which will allow 0–0.05 mm (0–0.0020 in.) axial play.

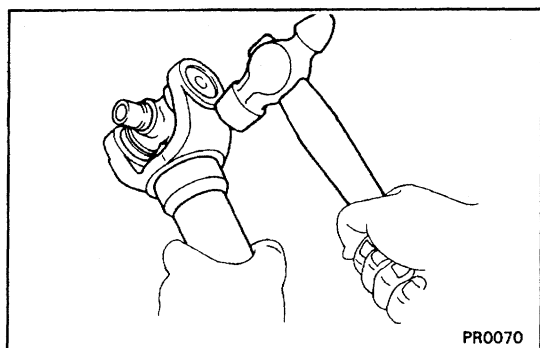
HINT: Do not reuse the snap rings.

**Thickness of snap ring
Front Propeller Shaft**

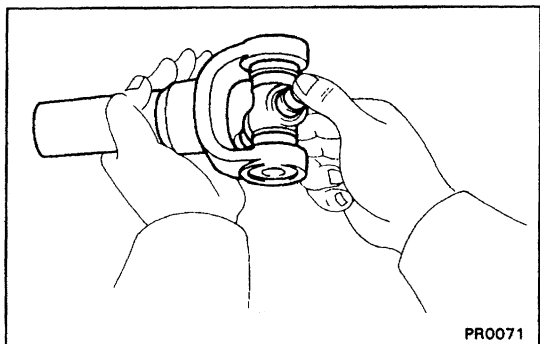
Color	Mark	Thickness mm (in.)
—	1	2.100–2.150 (0.0827–0.0846)
—	2	2.150–2.200 (0.0846–0.0866)
—	3	2.200–2.250 (0.0866–0.0886)
Brown	—	2.250–2.300 (0.0886–0.0906)
Blue	—	2.300–2.350 (0.0906–0.0925)
—	6	2.350–2.400 (0.0925–0.0945)
—	7	2.400–2.450 (0.0945–0.0965)
—	8	2.450–2.500 (0.0965–0.0984)

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 hammer, tap the yoke until there is no clearance between the bearing outer race and snap ring.



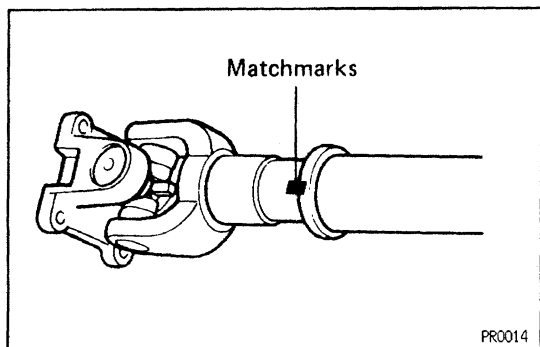
(h) Check that the spider bearing moves smoothly.

(i) Check the spider bearing axial play.

Bearing axial play:

Less than 0.05 mm (0.002a in.)

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

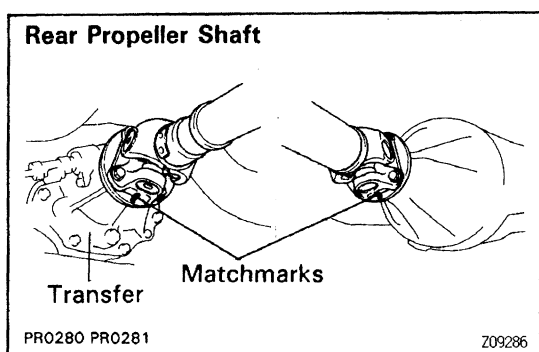


2. INSERT SLEEVE YOKE INTO PROPELLER SHAFT

(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.



11DIN-01

REAR AND FRONT PROPELLER SHAFTS INSTALLATION

1. INSTALL REAR PROPELLER SHAFT FLANGE TO COMPANION FLANGE ON TRANSFER

(a) Align the matchmarks on the flanges and connect the flanges with 4 nuts.

(b) Torque the nuts.

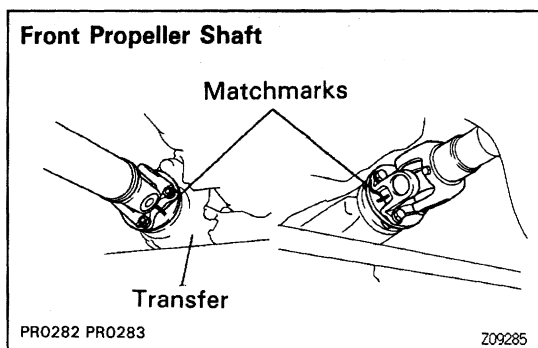
Torque: 88 N-m (900 kgf-cm, 65 ft-lbf)

2. INSTALL REAR PROPELLER SHAFT FLANGE TO COMPANION FLANGE ON DIFFERENTIAL

(a) Align the matchmarks on the flanges and connect the flanges with 4 bolts and nuts.

(b) Torque the bolts and nuts.

Torque: 88 N-m (900 kgf-cm, 65 ftYbf)



3. INSTALL FRONT PROPELLER SHAFT FLANGE TO COMPANION FLANGE ON TRANSFER

(a) Align the matchmarks on the flanges and connect the flanges with 4 nuts.

(b) Torque the nuts.

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

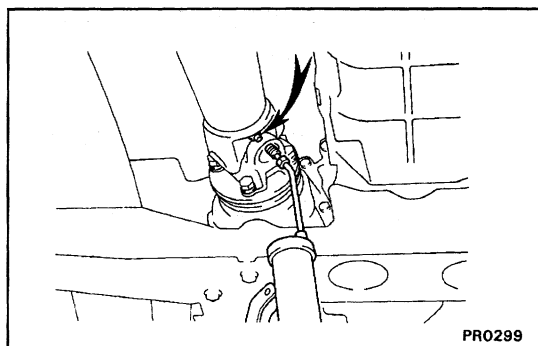
4. INSTALL FRONT PROPELLER SHAFT FLANGE TO COMPANION FLANGE ON DIFFERENTIAL

(a) Align the matchmarks on the flanges and connect the flanges with 4 bolts and nuts.

(b) Torque the bolts and nuts.

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

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



5. APPLY MP GREASE TO GREASE FITTING

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