

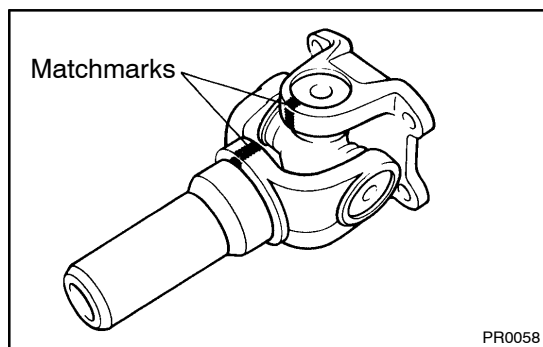
SPIDER BEARING REPLACEMENT

PR04M-01

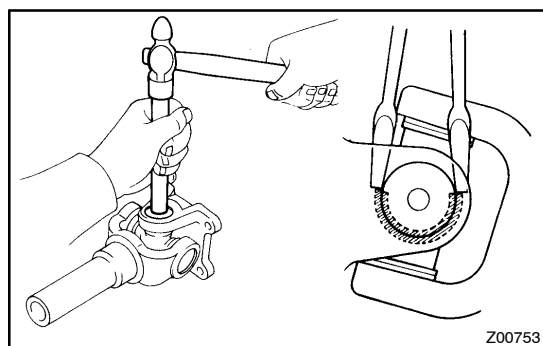
NOTICE:

Be careful not to grip the propeller shaft tube too tightly in a vise as this will cause deformation.

1. REMOVE PROPELLER SHAFT (See page [PR-4](#))

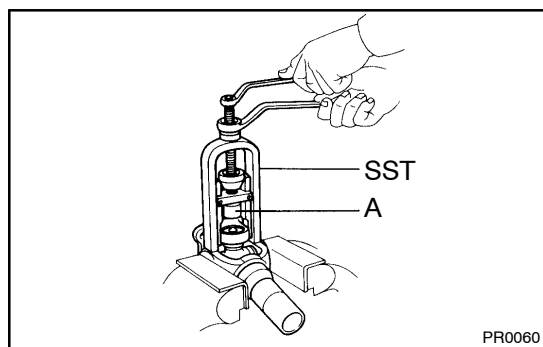


2. PLACE MATCHMARKS ON SHAFT AND FLANGE YOKE OR FLANGE YOKE AND SLEEVE YOKE
3. REMOVE SLEEVE YOKE FROM PROPELLER SHAFT



4. REMOVE SNAP RINGS

- (a) Using a brass bar and hammer, slightly tap in the bearing outer races.
- (b) Using 2 screwdrivers, remove the 4 snap rings from the grooves.

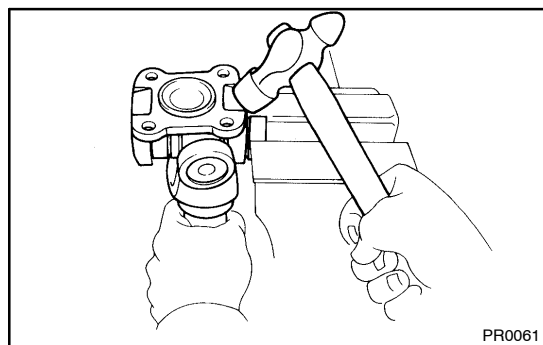


5. REMOVE SPIDER BEARINGS

- (a) 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.

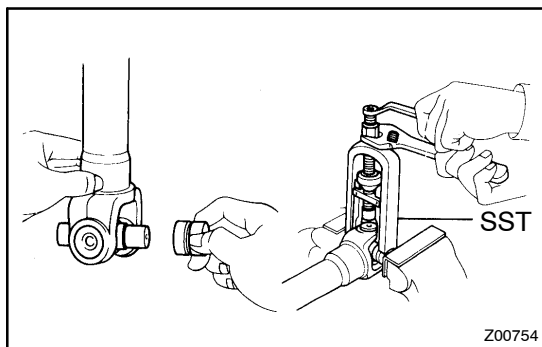


- (b) Clamp the bearing outer race in a vise and tap off the flange with a hammer.

HINT:

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

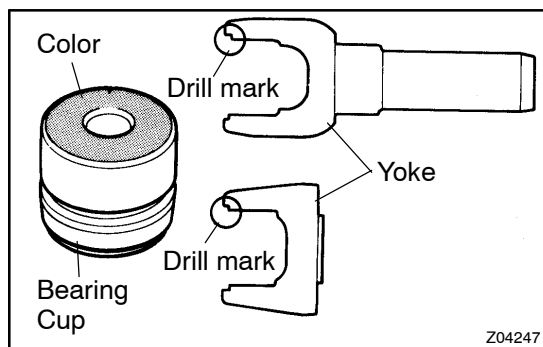
- (c) Remove the flange yoke from the sleeve yoke (or propeller shaft).



- (d) Install the 2 removed bearing outer races to the spider.
- (e) Using SST, push out the bearing from the yoke.
SST 09332-25010
- (f) Clamp the outer bearing race in a vise and tap off the yoke with a hammer.

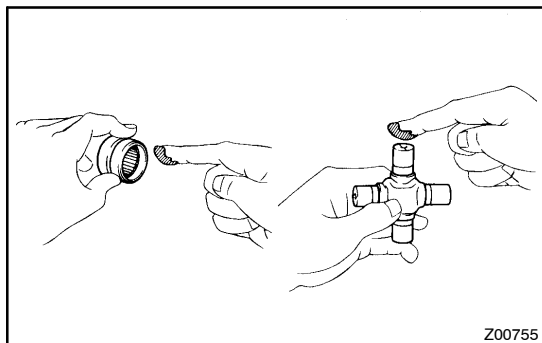
HINT:

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

**6. SELECT SPIDER BEARING**

Select the bearing according to whether or not there is a drill mark on the yoke section.

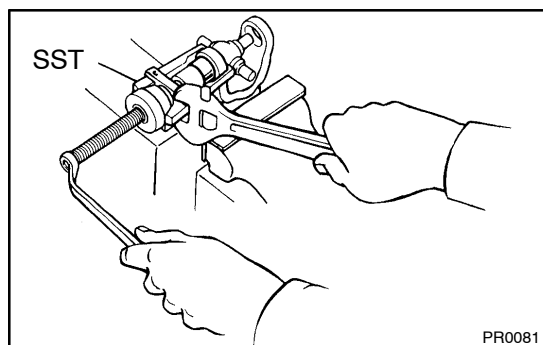
Yoke	Bearing
w/ drill mark	w/ color mark (Red)
No drill mark	No color mark

**7. INSTALL SPIDER BEARING**

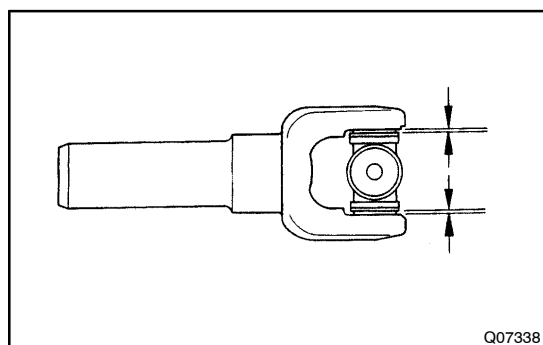
- (a) Apply MP grease to a new spider and bearings.

NOTICE:

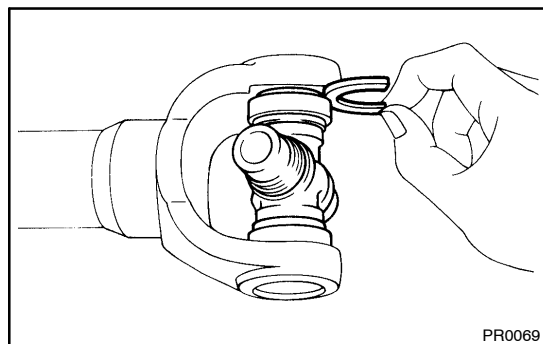
Be careful not to apply too much grease.



- (b) Fit the spider into the yoke.
- (c) Using SST, install the bearings on the spider.
SST 09332-25010



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



8. INSTALL SNAP RING

- (a) Install 2 new snap rings of equal thickness which will allow 0 mm (0 in.) axial play.

HINT:

Do not reuse the snap rings.

Thickness of snap ring:

Color	Mark	Thickness mm (in.)
–	1	2.28 – 2.30 mm (0.0898 – 0.0906 in.)
–	2	2.30 – 2.32 mm (0.0906 – 0.0913 in.)
–	–	2.32 – 2.34 mm (0.0913 – 0.0921 in.)
Brown	–	2.34 – 2.36 mm (0.0921 – 0.0929 in.)
Blue	–	2.36 – 2.38 mm (0.0929 – 0.0937 in.)
–	6	2.38 – 2.40 mm (0.0937 – 0.0945 in.)
–	7	2.40 – 2.42 mm (0.0945 – 0.0953 in.)
–	8	2.42 – 2.44 mm (0.0953 – 0.0961 in.)
–	九	2.44 – 2.46 mm (0.0961 – 0.0969 in.)
–	10	2.46 – 2.48 mm (0.0969 – 0.0976 in.)

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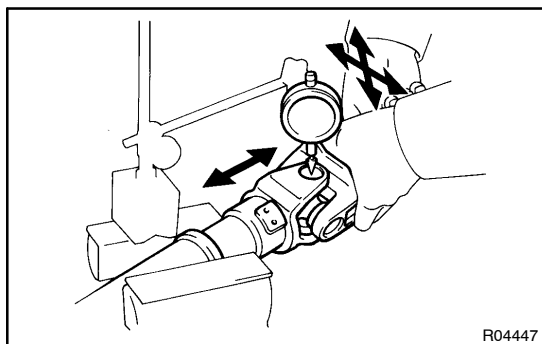
- (b) Using a hammer, tap the yoke until there is no clearance between the bearing outer race and snap ring.

9. INSTALL FLANGE YOKE TO SLEEVE YOKE (OR PROPELLER SHAFT)

- (a) Align the matchmarks on the propeller shaft and flange yoke or flange yoke and sleeve yoke.
- (b) Install the flange yoke to the sleeve yoke (or propeller shaft).

HINT:

Install 2 new spider bearings and snap ring on the flange yoke side in the procedure described above.

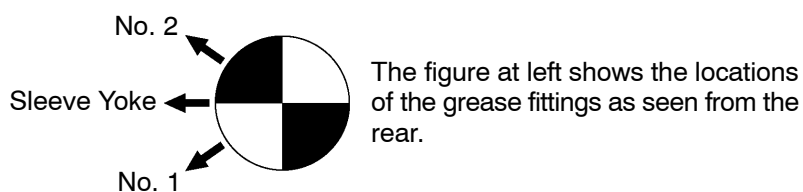
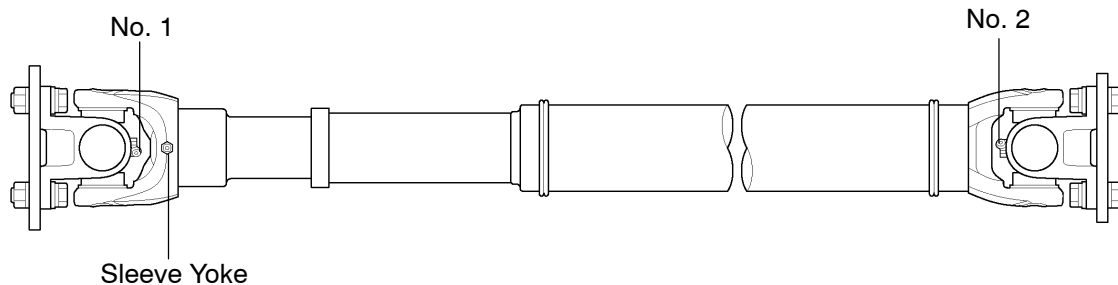
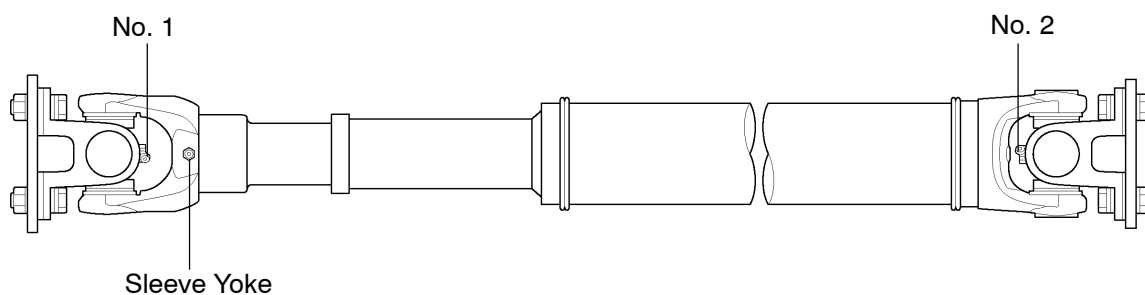
**10. CHECK SPIDER BEARING (See page PR-5)**

- (a) Check that the spider bearing moves smoothly.
- (b) Check the spider bearing axial play.

Maximum bearing axial play: 0 mm (0 in.)

HINT:

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

SPIDER GREASE FITTING ASSEMBLY DIRECTION**Front propeller shaft****Rear propeller shaft**

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