

DISASSEMBLY

1. INSPECT PROPELLER SHAFT UNIVERSAL JOINT SPIDER BEARING

- Check the spider bearings for wear and damage.
- Check each spider bearings axial play by turning the yoke while holding the shaft tightly.

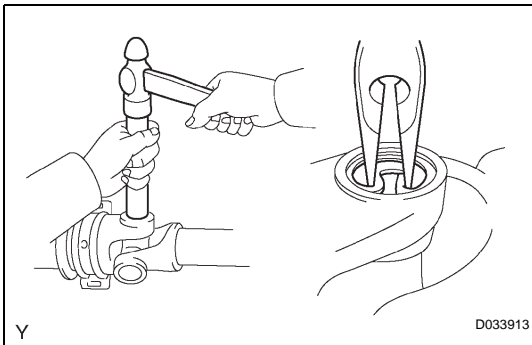
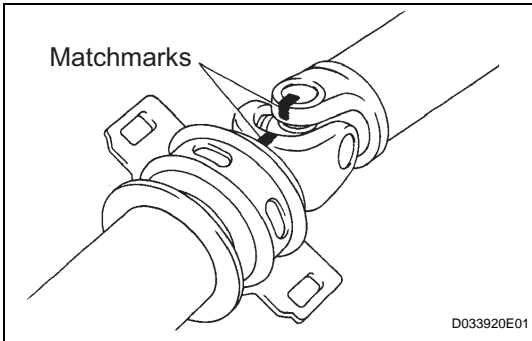
Maximum bearing axial play:

0 to 0.05 mm (0 to 0.002 in.)

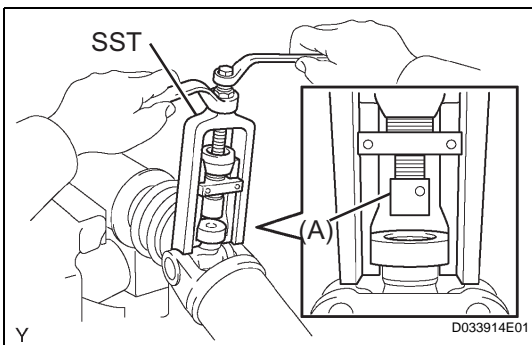
If the bearing axial play is greater than the maximum, replace the spider bearing.

2. REMOVE PROPELLER SHAFT UNIVERSAL JOINT SPIDER BEARING

- Place matchmarks on the propeller shaft and universal joint yoke.



- Using a brass bar and hammer, slightly tap in the spider bearing.
- Using needle-nose pliers, remove the 4 snap rings from the grooves.

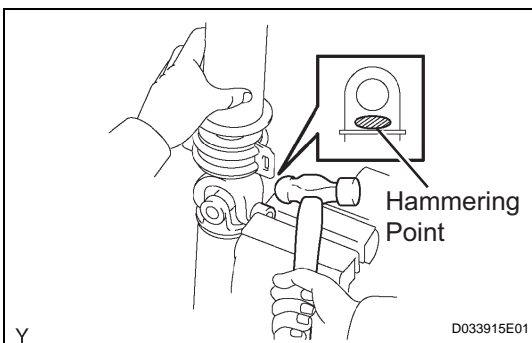


- Clamp the propeller shaft in a vise between aluminum plates.
- Using SST, push the spider bearing out of the propeller shaft.

SST 09332-25010

HINT:

Sufficiently raise the part indicated by (A) so that it does not come into contact with the spider bearing.



- Clamp the removed spider bearing outer race in a vise and tap the propeller shaft to remove the spider bearing.

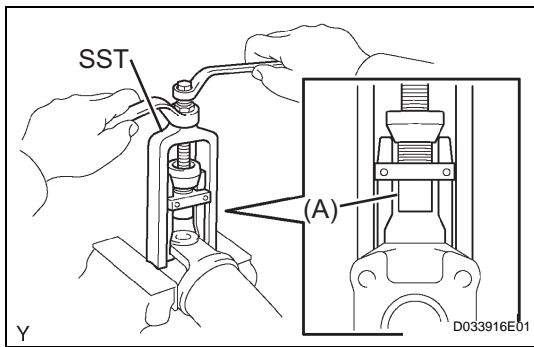
NOTICE:

Do not tap the shaft tube.

HINT:

Remove the spider bearing from the opposite side of the spider using the same procedure.

- Separate the propeller with center bearing shaft assembly from the propeller shaft assembly.

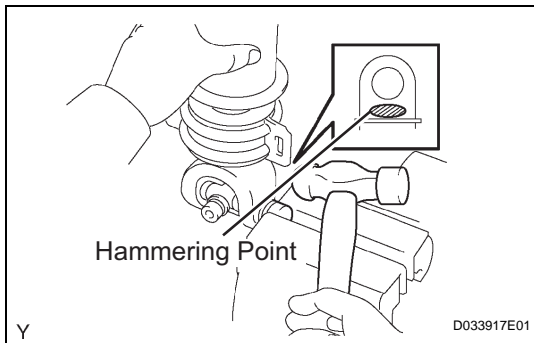


- (h) Reinstall the 2 removed spider bearings onto the spider and clamp the spider bearings in a vise.
- (i) Using SST, push the bearing out of the yoke.

SST 09332-25010

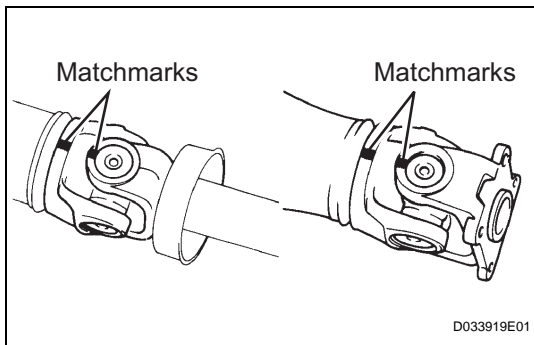
HINT:

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



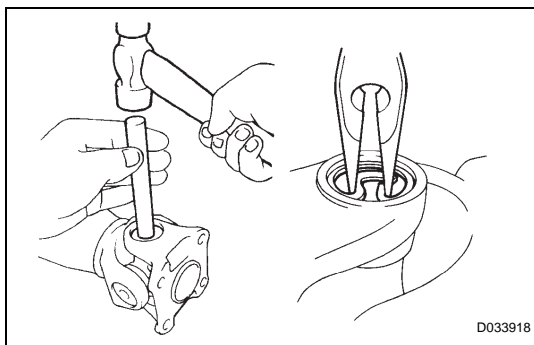
- (j) Clamp the outer bearing race in a vise and tap off the yoke with a hammer.
- (k) Remove the spider.

PR

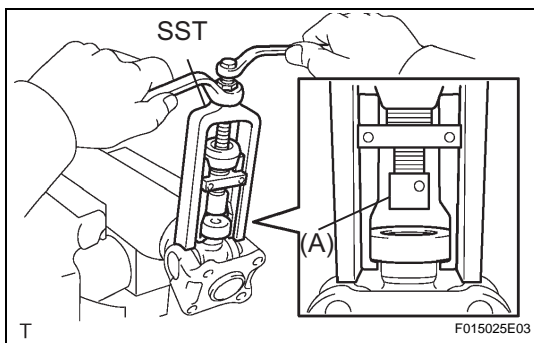


3. REMOVE PROPELLER SHAFT UNIVERSAL JOINT SPIDER BEARING

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



- (b) Using a brass bar and hammer, slightly tap in the spider bearing.
- (c) Using 2 needle-nose pliers, remove the 4 snap rings from the grooves.

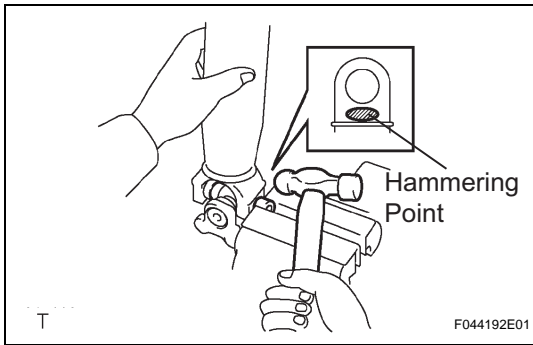


- (d) Clamp the propeller shaft in a vise between the aluminum plates.
- (e) Using SST, push the spider bearing out of the propeller shaft.

SST 09332-25010

HINT:

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



- (f) Clamp the removed spider bearing outer race in a vise and tap the propeller shaft to remove the spider bearing.

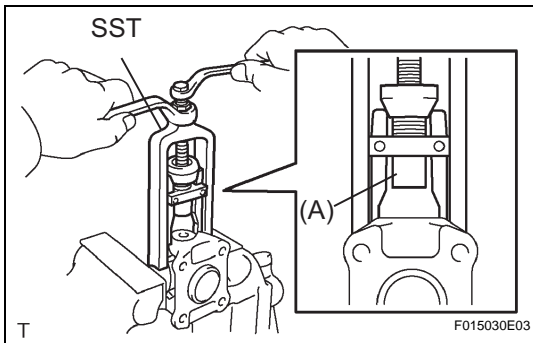
NOTICE:

Do not tap the shaft tube.

HINT:

Remove the spider bearing from the opposite side of the spider using the same procedure.

- (g) Separate the flange yoke and spider from the propeller shaft.



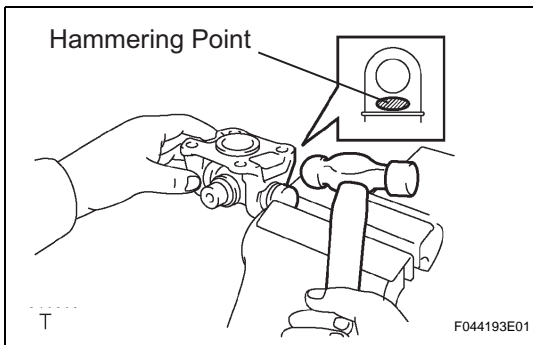
- (h) Reinstall the 2 removed spider bearings onto the spider and clamp the spider bearings in a vise.

- (i) Using SST, push the bearing out of the yoke.

SST 09332-25010

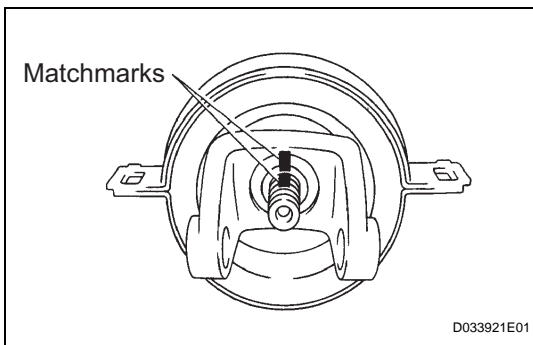
HINT:

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



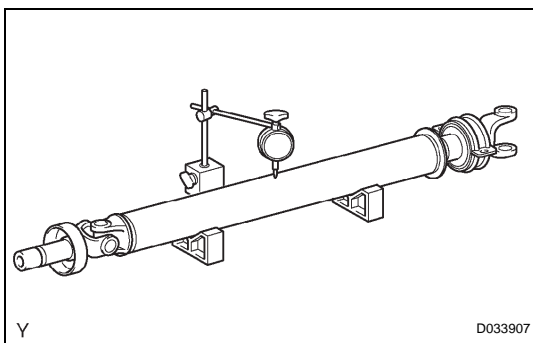
- (j) Clamp the outer bearing race in a vise and tap off the yoke with a hammer.

- (k) Remove the spider.



4. REMOVE CENTER SUPPORT BEARING ASSEMBLY NO. 2

- (a) Fix the yoke at the center bearing section in a vice.
 (b) Using a chisel and a hammer, loosen the staked part of the lock nut.
 (c) Place matchmarks on the yoke and shaft.
 (d) Using a brass bar and hammer, remove the center yoke, spacer and center support bearing from the intermediate shaft.



INSPECTION

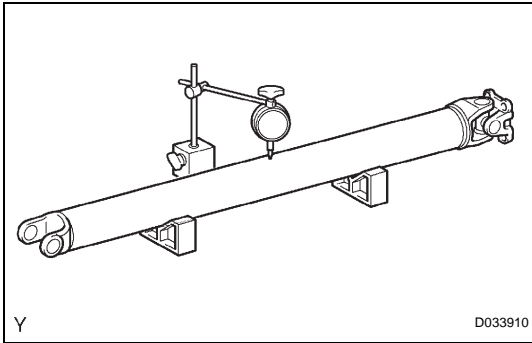
1. INSPECT PROPELLER WITH CENTER BEARING SHAFT ASSEMBLY

- (a) Using a dial indicator, check the propeller shaft runout.

Maximum runout:

0.6 mm (0.024 in.)

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



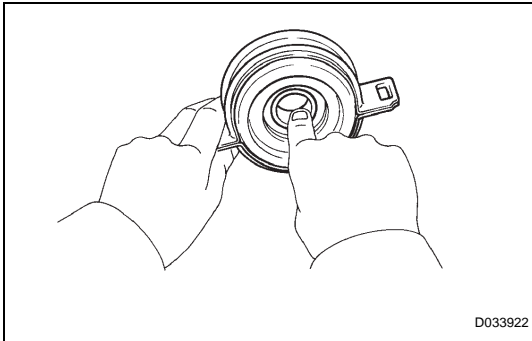
2. INSPECT PROPELLER SHAFT

- (a) Using a dial indicator, check the propeller shaft runout.

Maximum runout:

0.6 mm (0.024 in.)

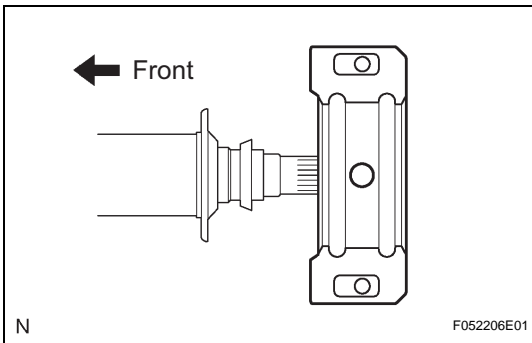
If the shaft runout is greater than the maximum, replace the shaft.



REASSEMBLY

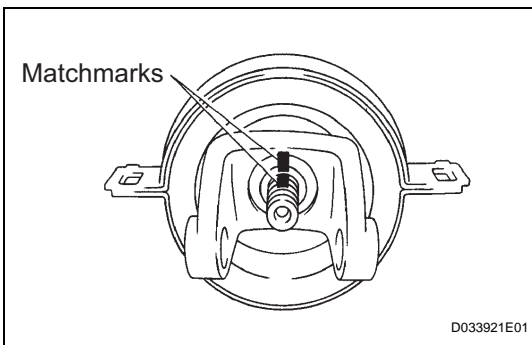
1. INSPECT CENTER SUPPORT BEARING ASSEMBLY NO. 2

- (a) When turning the center bearing with your hand, check that it turns smoothly without catching and that there are no cracks or damage. If there are any defects, replace it.



2. INSTALL CENTER SUPPORT BEARING ASSEMBLY NO. 2

- (a) Install the center support bearing onto the intermediate shaft.



- (b) Coat the splines of the intermediate shaft with MP grease No. 2.

- (c) Align the matchmarks on the center yoke and intermediate shaft.

HINT:

If replacing either the center yoke or intermediate shaft, reassemble them so that the front side yoke of the intermediate shaft and the center yoke are facing in the same direction.

- (d) Install the spacer.
(e) Fix the yoke at the center bearing section in a vice.
(f) Clamp the yoke in a vise, and press the bearing into position by tightening a new nut.

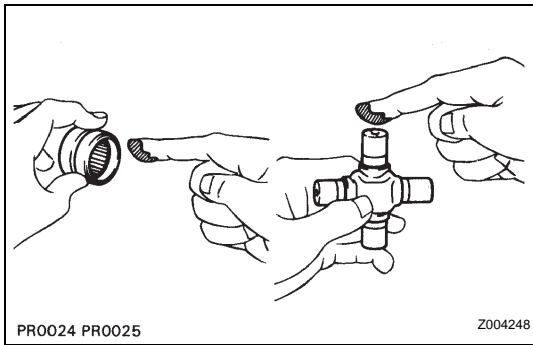
Torque: 182 N*m (1,850 kgf*cm, 134 ft.*lbf)

- (g) Loosen the nut.

- (h) Torque the nut again.

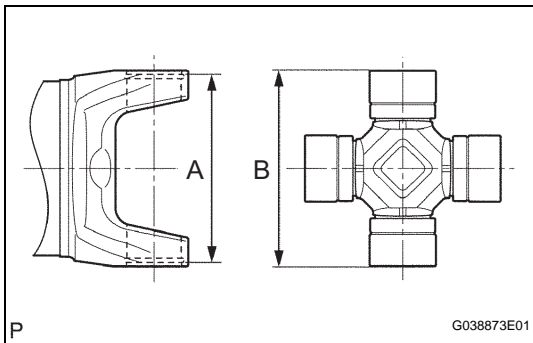
Torque: 69 N*m (700 kgf*cm, 51 ft.*lbf)

- (i) Using a chisel and hammer, stake the lock nut.



3. INSTALL PROPELLER SHAFT UNIVERSAL JOINT SPIDER BEARING

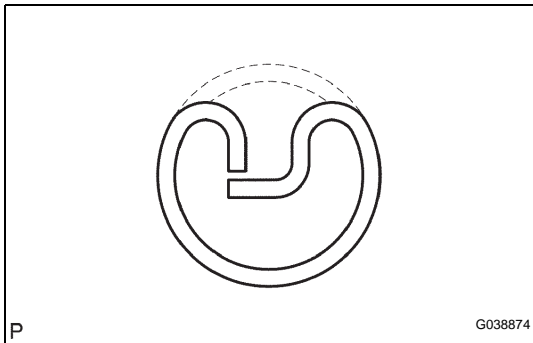
- Apply MP grease No. 2 to a new spider and bearings.
- Fit the spider into the flange yoke.



- Measure dimension A between the snap ring grooves.
- Insert the spider bearing into the spider journal portion, and then measure dimension B of the universal joint.

NOTICE:

When measuring dimension B, fix the spider and spider bearings in a vise and hold them firmly together.



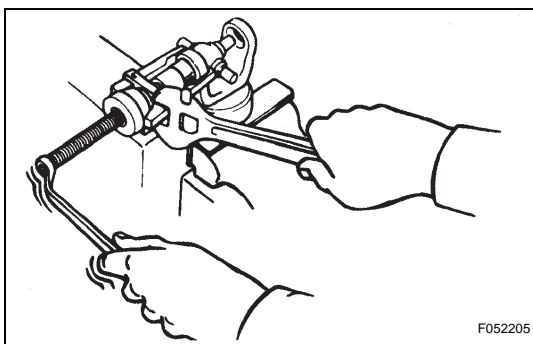
- Select snap rings to make dimensions A and B the same.

Snap Ring Type

Color	Thickness mm (in.)
Green	1.384 (0.0545)
Red	1.435 (0.0565)
Black	1.486 (0.0585)
Copper	1.511 (0.0595)
Silver	1.537 (0.0605)
Yellow	1.588 (0.0625)
Blue	1.638 (0.0645)

NOTICE:

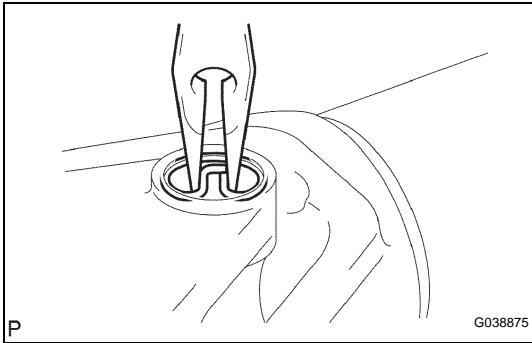
- Use new snap rings.
- If possible, use snap rings of the same thickness for both edges.



- Insert the spider into the yoke, and then using SST, press the spider bearing into the snap ring groove.
- Press in the spider bearing on the opposite side in the same way.

NOTICE:

When pressing in the spider bearing, be careful not to damage its lip.



- (h) Using needle-nose pliers, install new snap rings into the grooves of the yoke.

4. INSPECT PROPELLER SHAFT UNIVERSAL JOINT SPIDER BEARING

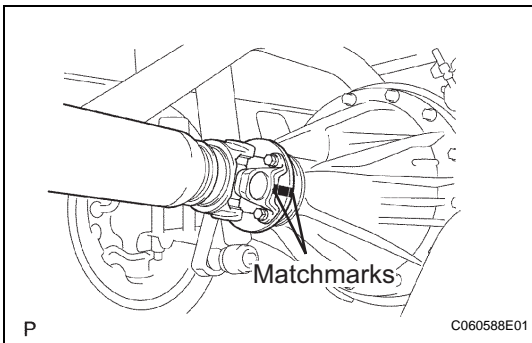
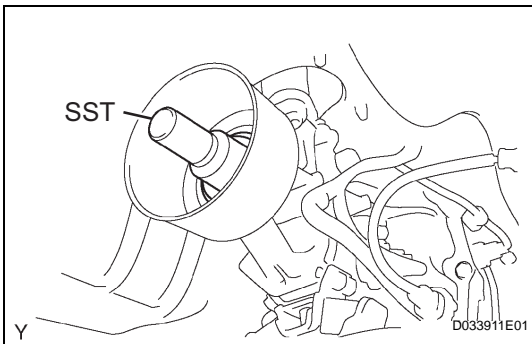
- (a) Check the spider bearings for wear and damage.
 (b) Check each spider bearing's axial play by turning the yoke while holding the shaft tightly.

Maximum bearing axial play:
0 to 0.05 mm (0 to 0.002 in.)

INSTALLATION

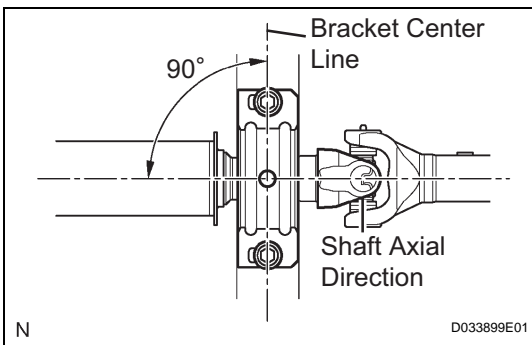
1. INSTALL PROPELLER WITH CENTER BEARING SHAFT ASSEMBLY

- (a) Remove SST from the extension housing.
 (b) Install the propeller shaft into the extension housing.



- (c) Align the matchmarks on the propeller shaft flange and differential flange.
 (d) Install the propeller shaft with the 4 bolts, 4 nuts and 4 washers.

Torque: 88 N*m (899 kgf*cm, 65 ft.*lbf)



- (e) Provisionally install the center support bearing with the 2 mounting bolts.

HINT:

Make sure the bearing is installed with the drain hole facing downwards.