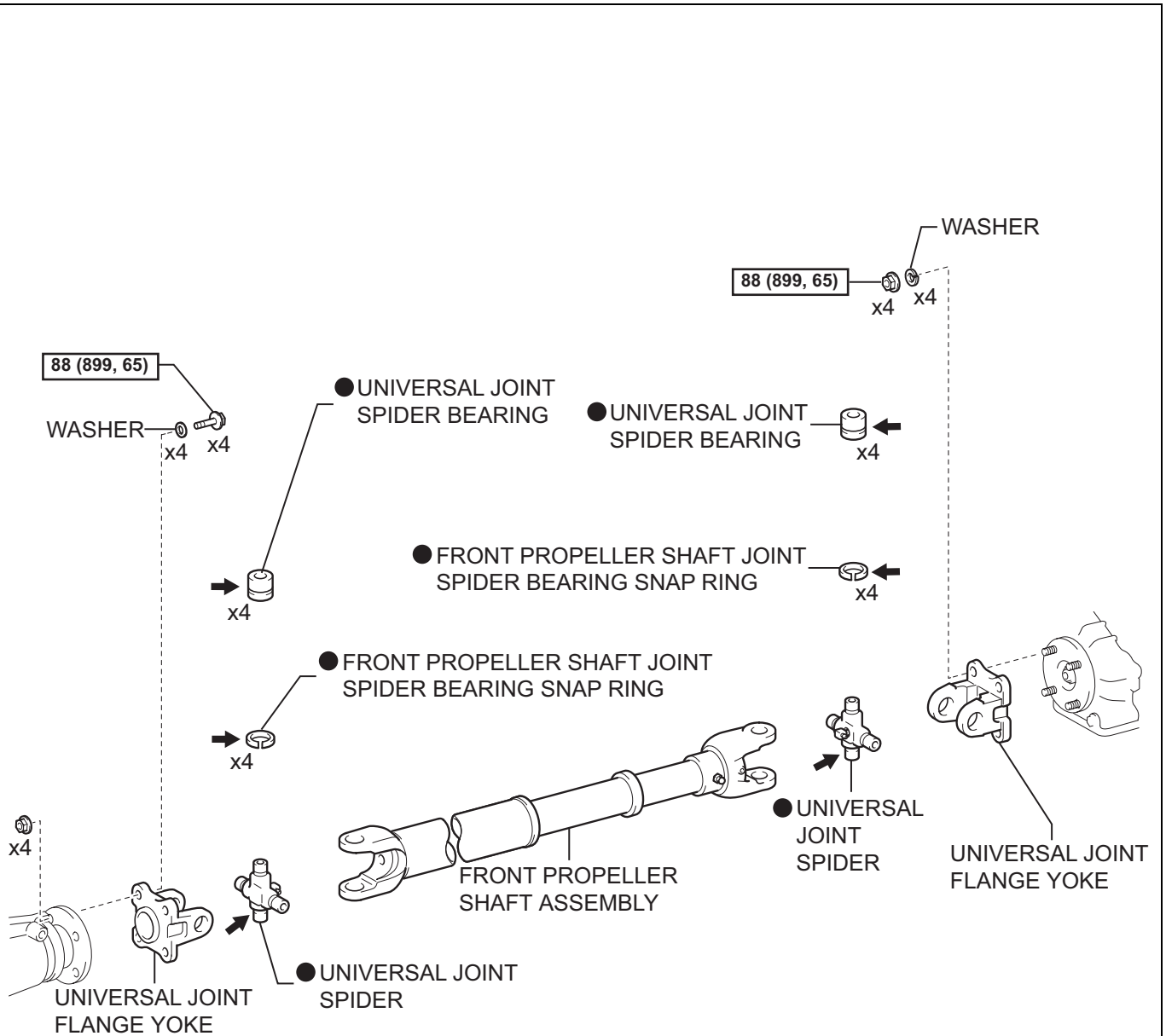


# FRONT PROPELLER SHAFT ASSEMBLY (for 4WD)

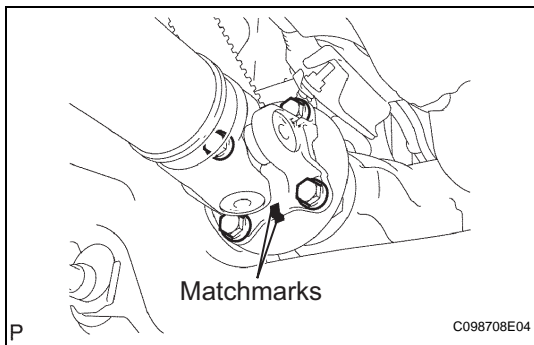
## COMPONENTS



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

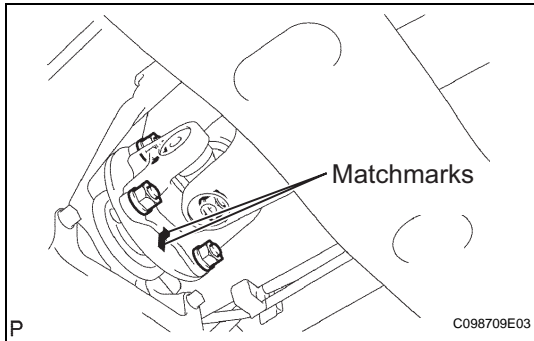
● Non-reusable part

← MP grease



## REMOVAL

1. **REMOVE FRONT PROPELLER SHAFT ASSEMBLY**
  - (a) Place matchmarks on the propeller shaft flange and differential flange.
  - (b) Remove the 4 nuts, 4bolts and 4 washers.
  - (c) Place matchmarks on the propeller shaft flange and transfer flange.
  - (d) Remove the 4 nuts, 4 washers and the propeller shaft assembly.



## DISASSEMBLY

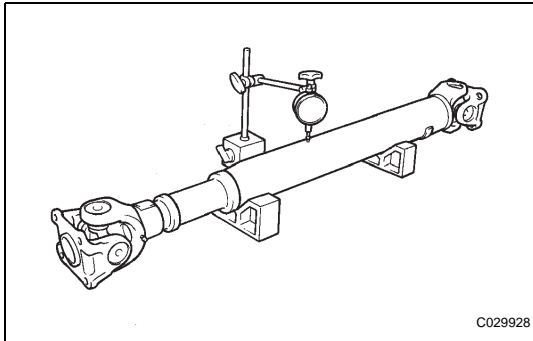
### 1. INSPECT FRONT PROPELLER SHAFT ASSEMBLY

- (a) Check that the propeller shaft is not damaged or deformed.  
If necessary, replace the propeller shaft.
- (b) Using a dial indicator, check the propeller shaft runout.

**Maximum runout:**

**0.3 mm (0.012 in.)**

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



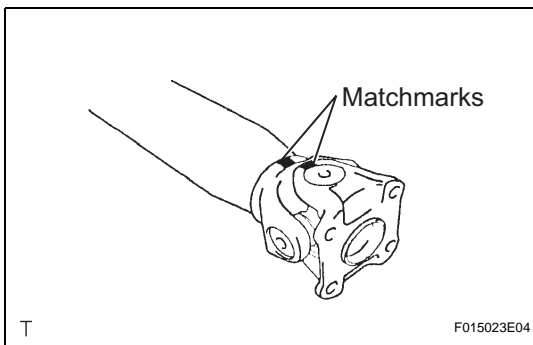
### 2. INSPECT UNIVERSAL JOINT SPIDER BEARING

- (a) Check that the joints move smoothly.
- (b) Check the spider bearings for wear and damage.
- (c) Check the spider bearing axial play by turning the yoke while holding the shaft tightly.

**Maximum bearing axial play:**

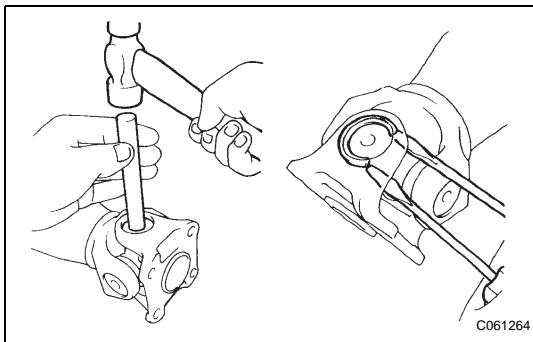
**0 mm (0 in.)**

If necessary, replace the spider bearing.

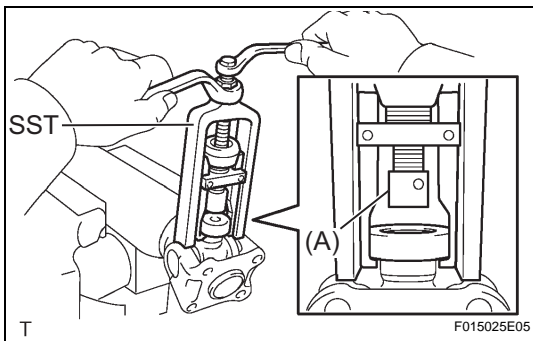


### 3. REMOVE FRONT PROPELLER SHAFT UNIVERSAL JOINT SPIDER KIT

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



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

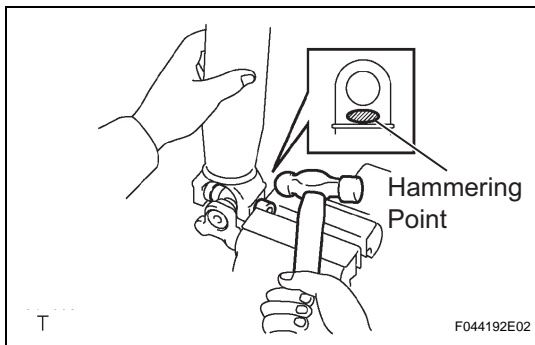


- (d) Using SST, push out the spider bearing from the propeller shaft.

**SST 09332-25010**

**HINT:**

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



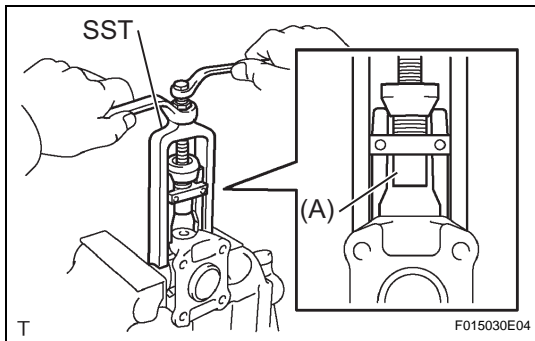
- (e) Clamp the spider bearing outer race in a vise and tap off the propeller shaft with a hammer.

**NOTICE:**

**Do not tap the shaft.**

**HINT:**

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

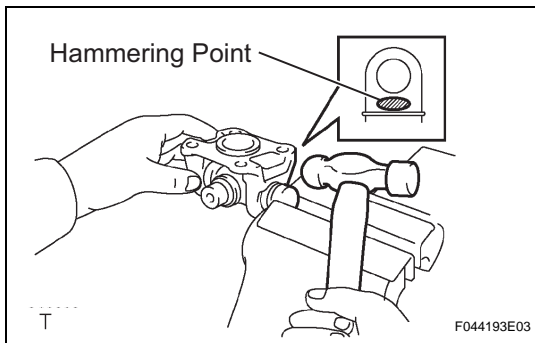


- (f) Install the 2 removed spider bearing outer races onto the spider.

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

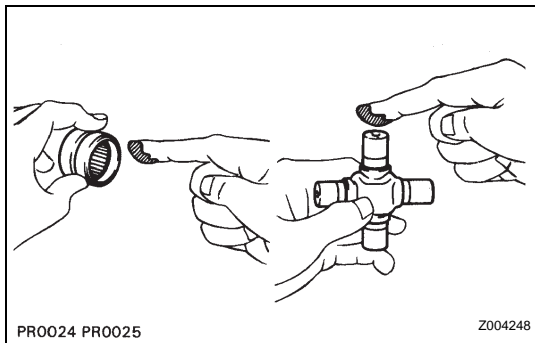
**SST 09332-25010****HINT:**

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



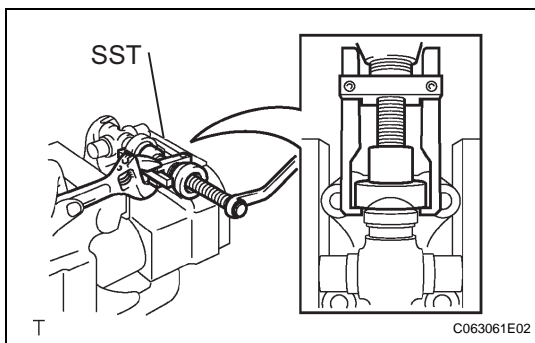
- (h) Clamp the outer bearing race in a vise and tap off the flange yoke with a hammer.

- (i) Remove the spider.

**REASSEMBLY****1. INSTALL FRONT PROPELLER SHAFT UNIVERSAL JOINT SPIDER KIT**

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

- (b) Fit the spider into the flange yoke.

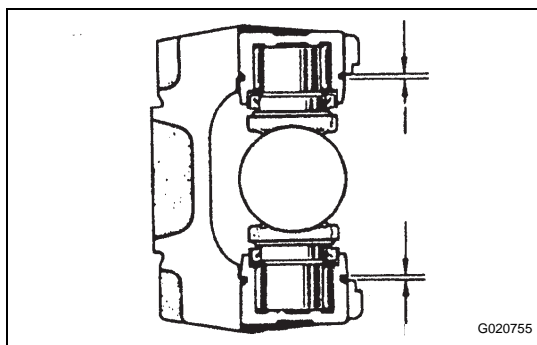


- (c) Using SST, install the spider bearings onto the spider.

**SST 09332-25010**

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

**SST 09332-25010**



(e) Install 4 new snap rings of equal thickness which will allow no axial play.

HINT:

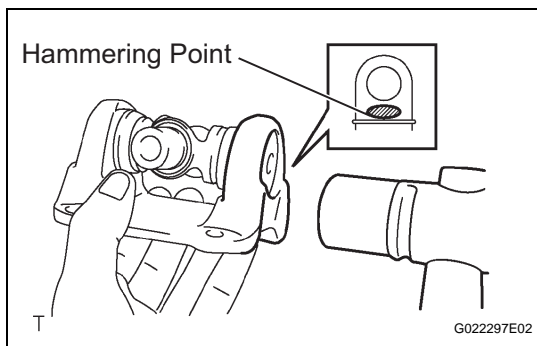
Do not reuse the snap rings.

**Thickness of snap ring**

Parts No.	Thickness mm (in.)	Mark
90520-25039	2.28 to 2.30	1
90520-25040	2.30 to 2.32	2
90520-25041	2.32 to 2.34	-
90520-25042	2.34 to 2.36	Brown
90520-25043	2.36 to 2.38	Blue
90520-25044	2.38 to 2.40	6
90520-25045	2.40 to 2.42	7
90520-25046	2.42 to 2.44	8
90520-25047	2.44 to 2.46	9
90520-25048	2.46 to 2.48	10
90520-25049	2.48 to 2.50	A
90520-25050	2.50 to 2.52	B
90520-25051	2.52 to 2.54	C
90520-25052	2.54 to 2.56	D
90520-25053	2.56 to 2.58	E
90520-25054	2.18 to 2.20	J
90520-25055	2.20 to 2.22	K
90520-25056	2.22 to 2.24	F
90520-25057	2.24 to 2.26	G
90520-25058	2.26 to 2.28	H

**NOTICE:**

- Use a new snap ring.
- Use snap rings as close as possible to the same thickness on both ends.

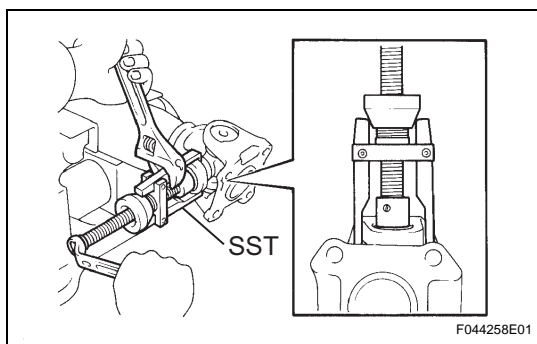


(f) Using a hammer, tap the yoke until there is no clearance between the spider bearing outer race and the snap ring.

HINT:

Install a new spider bearing on the sleeve side in the procedure described above.

(g) Align the matchmarks on the flange yoke and the sleeve yoke.



(h) Using SST, install the spider bearings onto the spider.

**SST 09332-25010**

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

**SST 09332-25010**

(j) Install 4 new snap rings of equal thickness which will allow no axial play.

HINT:

Do not reuse the snap rings.

**Thickness of snap ring**

Parts No.	Thickness mm (in.)	Mark
90520-25039	2.28 to 2.30	1
90520-25040	2.30 to 2.32	2
90520-25041	2.32 to 2.34	-
90520-25042	2.34 to 2.36	Brown
90520-25043	2.36 to 2.38	Blue
90520-25044	2.38 to 2.40	6
90520-25045	2.40 to 2.42	7
90520-25046	2.42 to 2.44	8
90520-25047	2.44 to 2.46	9
90520-25048	2.46 to 2.48	10
90520-25049	2.48 to 2.50	A
90520-25050	2.50 to 2.52	B
90520-25051	2.52 to 2.54	C
90520-25052	2.54 to 2.56	D
90520-25053	2.56 to 2.58	E
90520-25054	2.18 to 2.20	J
90520-25055	2.20 to 2.22	K
90520-25056	2.22 to 2.24	F
90520-25057	2.24 to 2.26	G
90520-25058	2.26 to 2.28	H

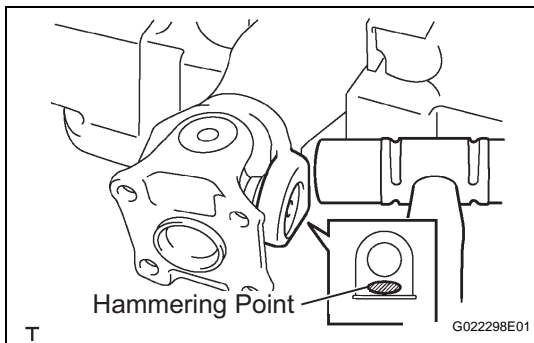
**NOTICE:**

- Use a new snap ring.
- Use snap rings as close as possible to the same thickness on both ends.

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

**HINT:**

Install a new spider bearing on the sleeve side in the procedure described above.

**2. INSPECT UNIVERSAL JOINT SPIDER BEARING**

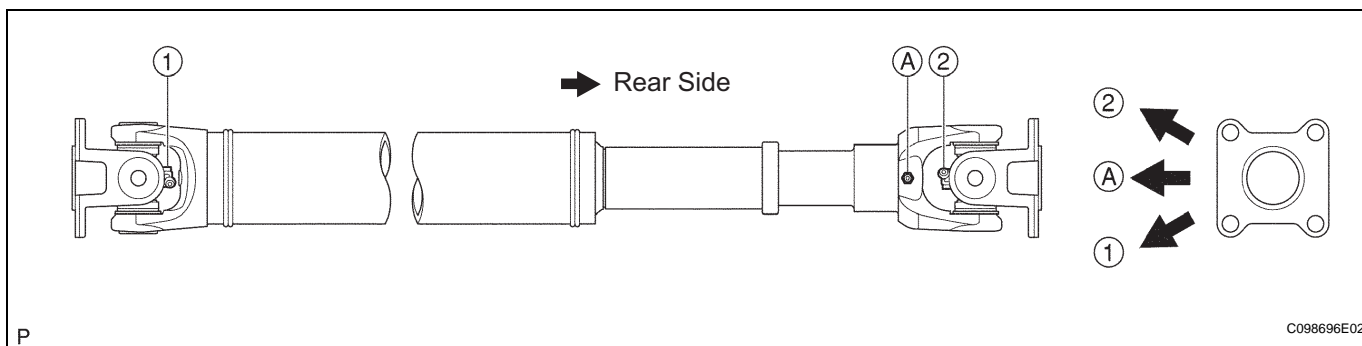
- (a) Check that the joints move smoothly.  
 (b) Check the spider bearing axial play by turning the yoke while holding the shaft tightly.

**Maximum bearing axial play:**

**0 mm (0 in.)**

**3. INSPECT FRONT PROPELLER SHAFT ASSEMBLY****HINT:**

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

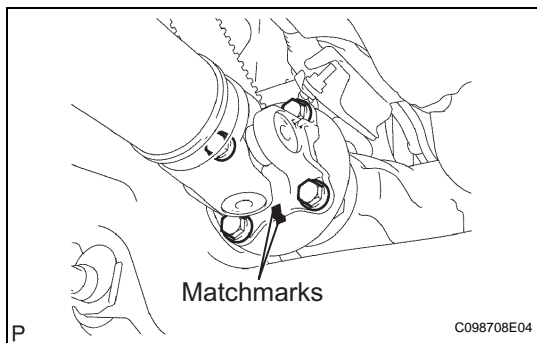


## INSTALLATION

### 1. INSTALL FRONT PROPELLER SHAFT ASSEMBLY

- (a) Align the matchmarks on the yoke and differential flange.
- (b) Install the propeller shaft assembly with the 4 bolts, 4 nuts and 4 washers.

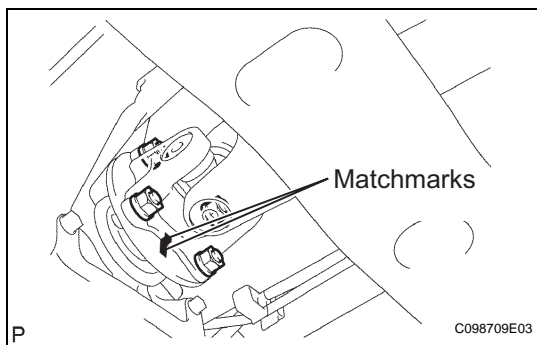
**Torque: 88 N\*m (899 kgf\*cm, 65 ft.\*lbf)**



- (c) Align the matchmarks on the yoke and transfer flange.

- (d) Install the propeller shaft assembly with the 4 nuts and 4 washers.

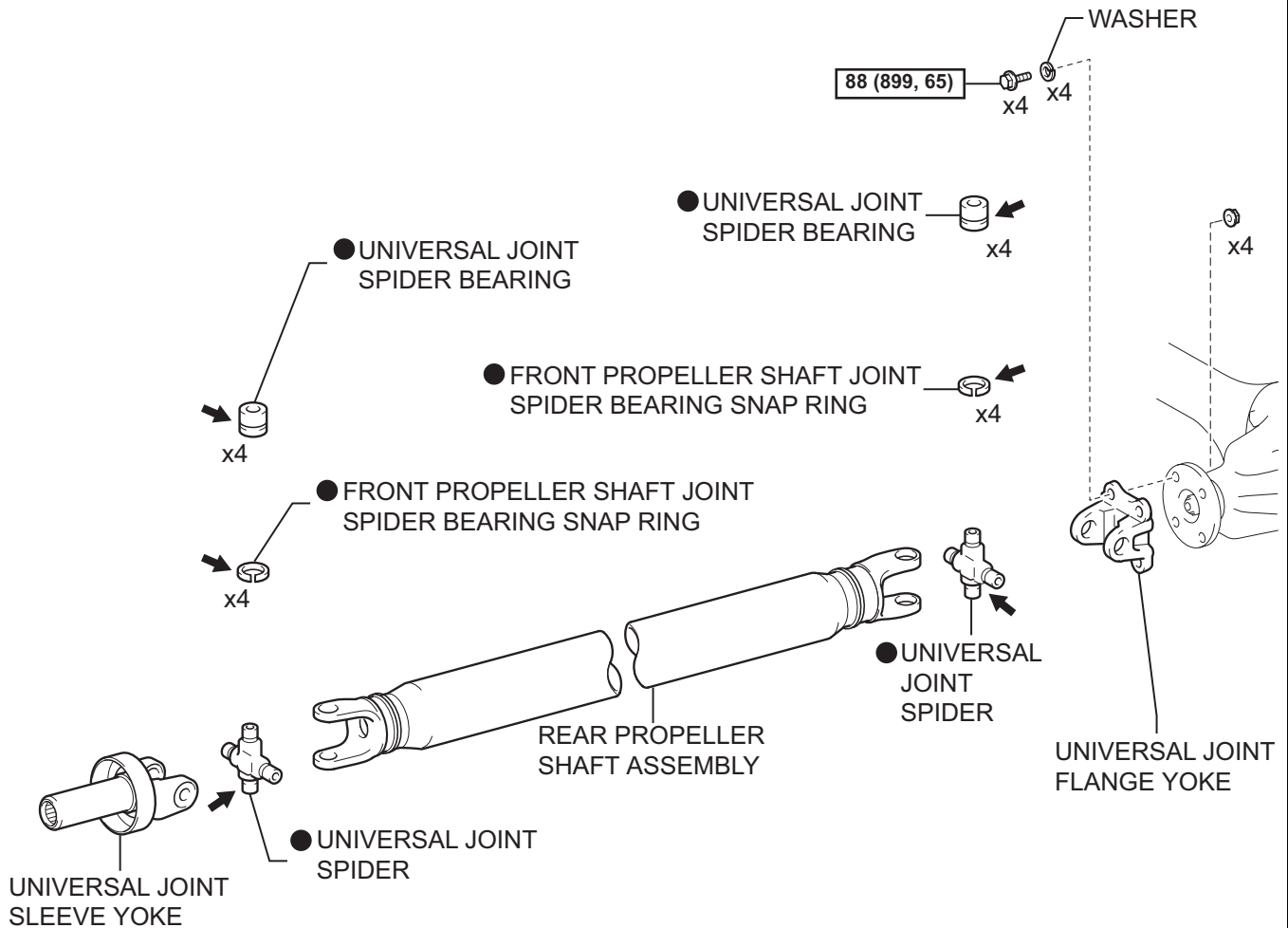
**Torque: 88 N\*m (899 kgf\*cm, 65 ft.\*lbf)**



# REAR PROPELLER SHAFT ASSEMBLY

## COMPONENTS

for 2WD:



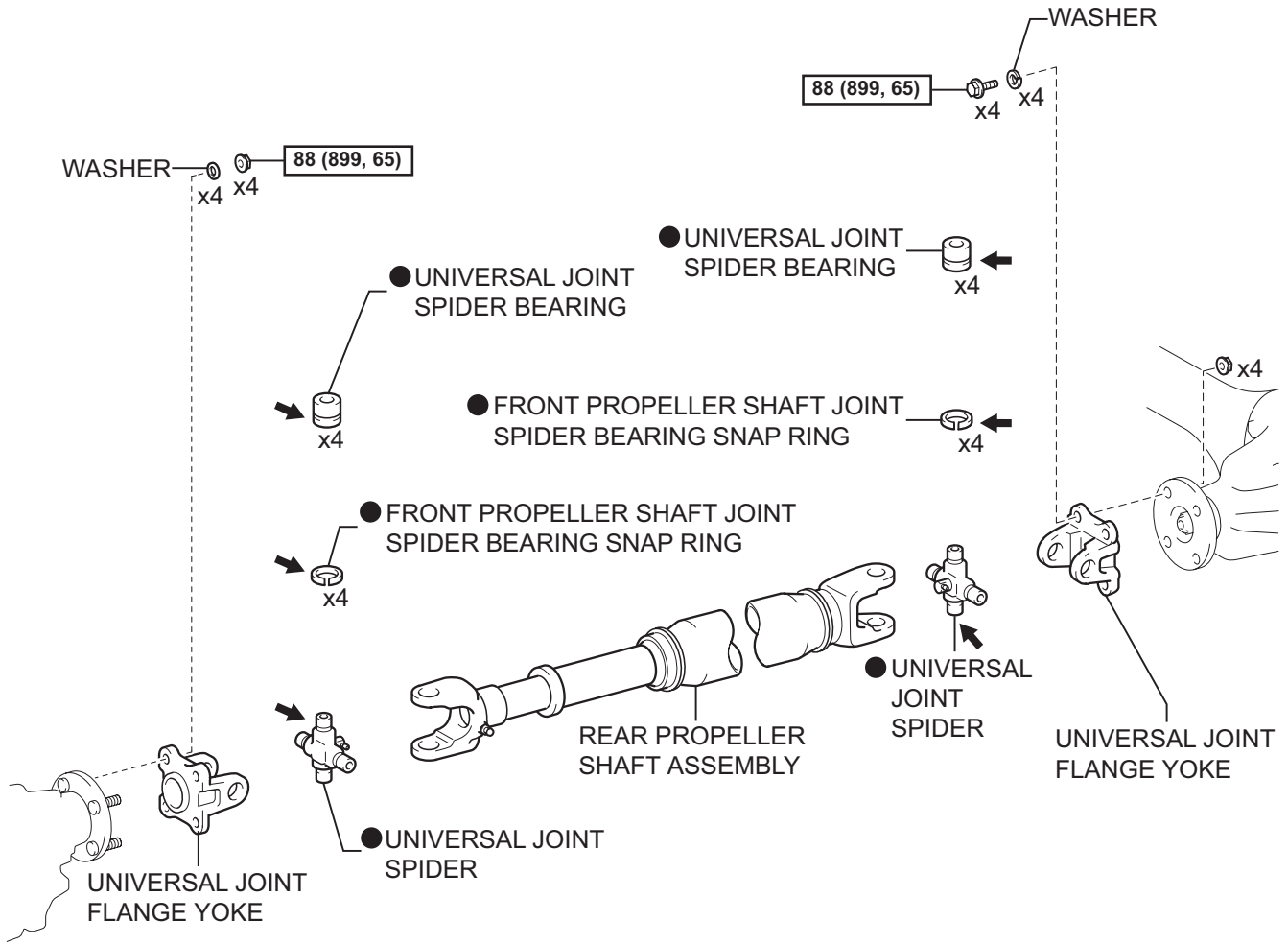
$\boxed{\text{N*m (kgf*cm, ft*lb)}} : \text{Specified torque}$

● Non-reusable part

← MP grease



for 4WD:



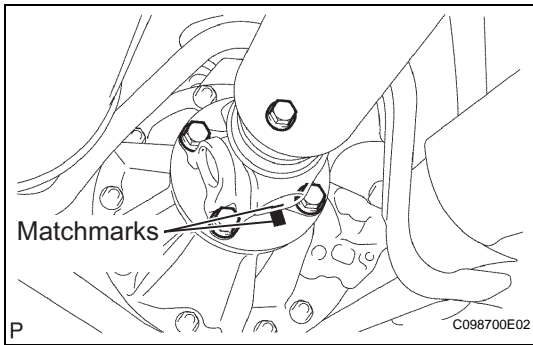
PR

$N \cdot m$  ( $kgf \cdot cm$ ,  $ft \cdot lbf$ ): Specified torque

● Non-reusable part

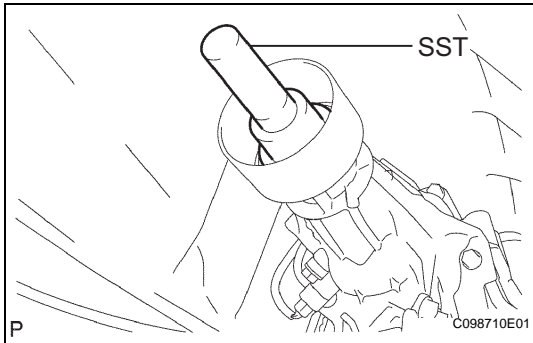
← MP grease

## REMOVAL



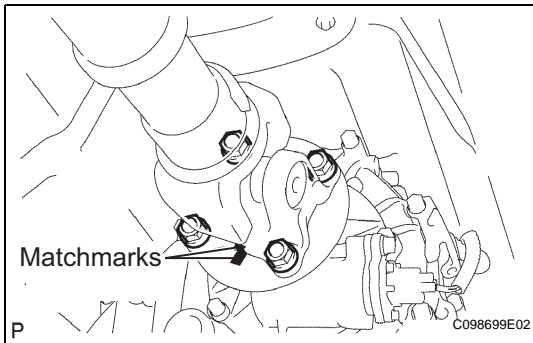
### 1. REMOVE REAR PROPELLER SHAFT ASSEMBLY (for 2WD)

- (a) Place matchmarks on the propeller shaft flange and differential flange.
- (b) Remove the 4 nuts, 4 bolts and 4 washers.
- (c) Remove the propeller shaft assembly.



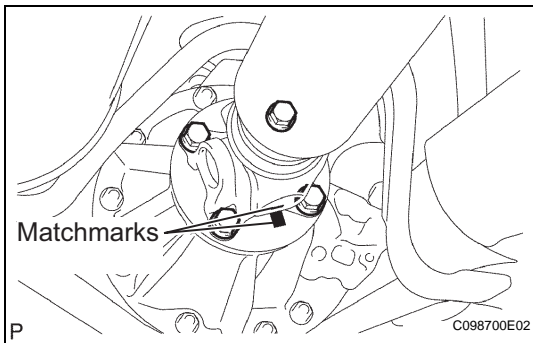
- (d) Insert SST into the extension housing to prevent oil leakage.

**SST 09325-40010**



### 2. REMOVE REAR PROPELLER SHAFT ASSEMBLY (for 4WD)

- (a) Place matchmarks on the propeller shaft flange and transfer flange.
- (b) Remove the 4 nuts and 4 washers.



- (c) Place matchmarks on the propeller shaft flange and differential flange.
- (d) Remove the 4 nuts, 4 bolts, 4 washers and the propeller shaft assembly.

## DISASSEMBLY

### 1. INSPECT REAR PROPELLER SHAFT ASSEMBLY

- (a) Check that the propeller shaft is not damaged or deformed.

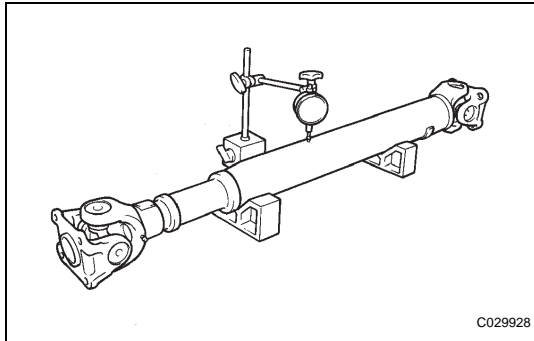
If necessary, replace the propeller shaft.

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

**Maximum runout:**

**0.3 mm (0.012 in.)**

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



### 2. INSPECT UNIVERSAL JOINT SPIDER BEARING

- (a) Check that the joints move smoothly.

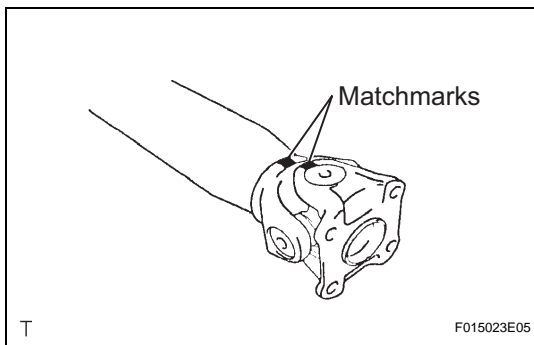
- (b) Check the spider bearings for wear and damage.

- (c) Check the spider bearing axial play by turning the yoke while holding the shaft tightly.

**Maximum bearing axial play:**

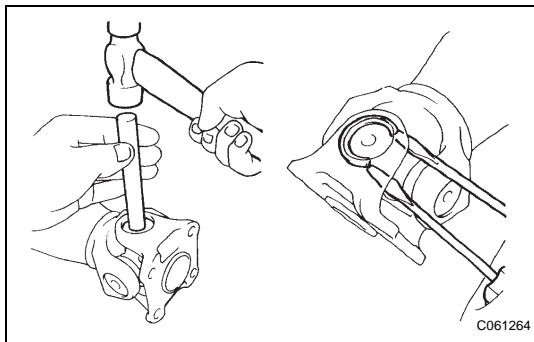
**0 mm (0 in.)**

If necessary, replace the spider bearing.



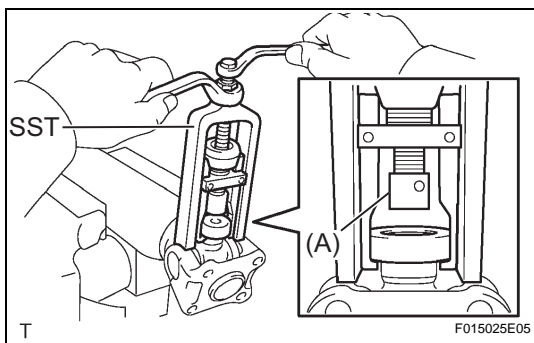
### 3. REMOVE REAR PROPELLER SHAFT UNIVERSAL JOINT SPIDER KIT

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



- (b) Using a brass bar and a hammer, slightly tap in the spider bearing outer races.

- (c) Using 2 screwdrivers, remove the 4 snap rings from the grooves.

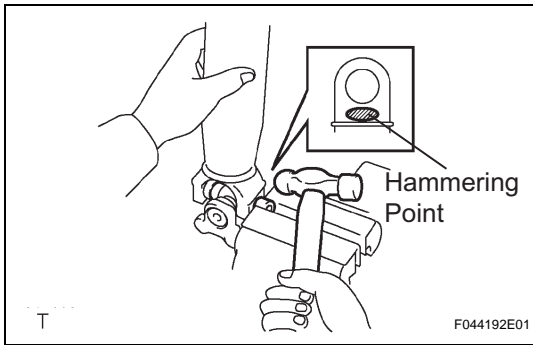


- (d) Using SST, push out the spider bearing from the propeller shaft.

**SST 09332-25010**

**HINT:**

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



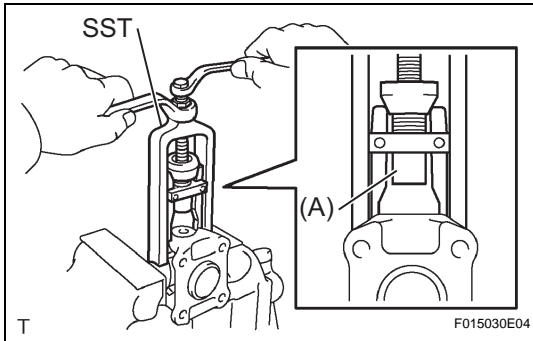
- (e) Clamp the spider bearing outer race in a vise and tap off the propeller shaft with a hammer.

**NOTICE:**

**Do not tap the shaft.**

**HINT:**

Remove the spider bearings on the opposite side in the same procedure.



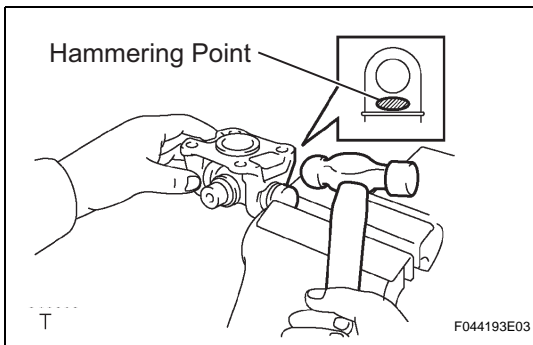
- (f) Install the 2 removed spider bearing outer races onto the spider.

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

**SST 09332-25010**

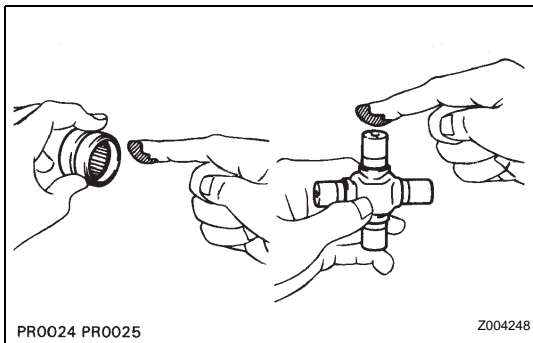
**HINT:**

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



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

- (i) Remove the spider.

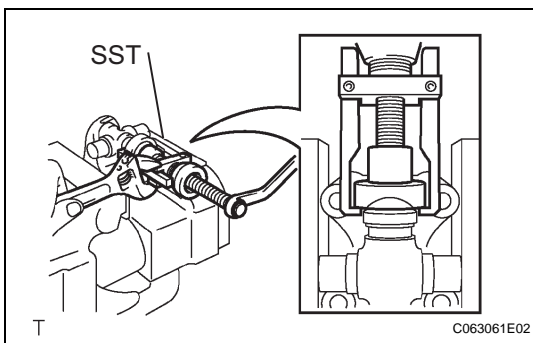


**REASSEMBLY**

**1. INSTALL REAR PROPELLER SHAFT UNIVERSAL JOINT SPIDER KIT**

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

- (b) Fit the spider into the flange yoke.

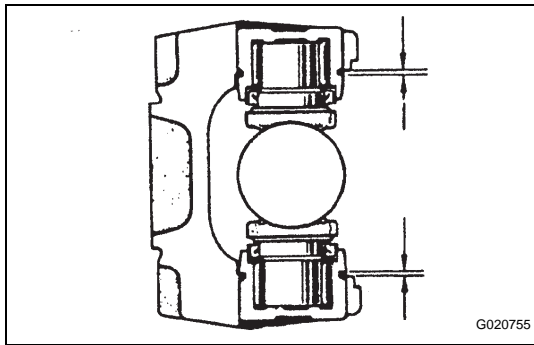


- (c) Using SST, install the spider bearings onto the spider.

**SST 09332-25010**

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

**SST 09332-25010**



- (e) Install 4 new snap rings of equal thickness which will allow no axial play.

HINT:

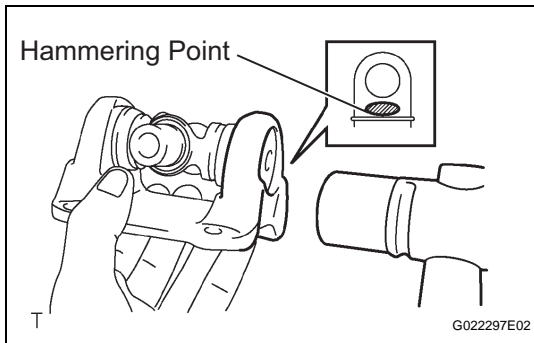
Do not reuse the snap rings.

**Thickness of snap ring**

Parts No.	Thickness mm (in.)	Mark
90520-25039	2.28 to 2.30	1
90520-25040	2.30 to 2.32	2
90520-25041	2.32 to 2.34	-
90520-25042	2.34 to 2.36	Brown
90520-25043	2.36 to 2.38	Blue
90520-25044	2.38 to 2.40	6
90520-25045	2.40 to 2.42	7
90520-25046	2.42 to 2.44	8
90520-25047	2.44 to 2.46	9
90520-25048	2.46 to 2.48	10
90520-25049	2.48 to 2.50	A
90520-25050	2.50 to 2.52	B
90520-25051	2.52 to 2.54	C
90520-25052	2.54 to 2.56	D
90520-25053	2.56 to 2.58	E
90520-25054	2.18 to 2.20	J
90520-25055	2.20 to 2.22	K
90520-25056	2.22 to 2.24	F
90520-25057	2.24 to 2.26	G
90520-25058	2.26 to 2.28	H

**NOTICE:**

- Use a new snap ring.
- Use snap rings as close as possible the same thickness on both ends.

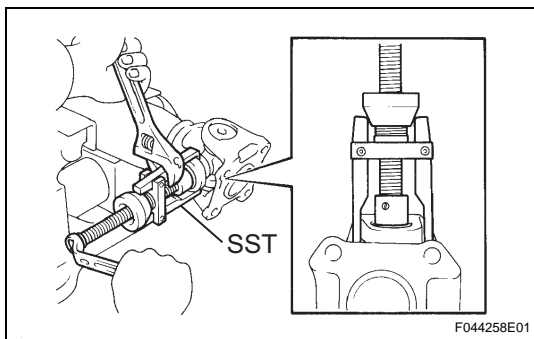


- (f) Using a hammer, tap the yoke until there is no clearance between the spider bearing outer race and snap ring.

HINT:

Install new spider bearings onto the sleeve side in the procedure described above.

- (g) Align the matchmarks on the flange yoke and the sleeve yoke.



- (h) Using SST, install the spider bearings onto the spider.

**SST 09332-25010**

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

**SST 09332-25010**

- (j) Install 4 new snap rings of equal thickness which will allow no axial play.

HINT:

Do not reuse the snap rings.

**Thickness of snap ring**

Parts No.	Thickness mm (in.)	Mark
90520-25039	2.28 to 2.30	1
90520-25040	2.30 to 2.32	2
90520-25041	2.32 to 2.34	-
90520-25042	2.34 to 2.36	Brown
90520-25043	2.36 to 2.38	Blue
90520-25044	2.38 to 2.40	6
90520-25045	2.40 to 2.42	7
90520-25046	2.42 to 2.44	8
90520-25047	2.44 to 2.46	9
90520-25048	2.46 to 2.48	10
90520-25049	2.48 to 2.50	A
90520-25050	2.50 to 2.52	B
90520-25051	2.52 to 2.54	C
90520-25052	2.54 to 2.56	D
90520-25053	2.56 to 2.58	E
90520-25054	2.18 to 2.20	J
90520-25055	2.20 to 2.22	K
90520-25056	2.22 to 2.24	F
90520-25057	2.24 to 2.26	G
90520-25058	2.26 to 2.28	H

**NOTICE:**

- Use a new snap ring.
- Use snap rings as close as possible to the same thickness on both ends.

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

**HINT:**

Install new spider bearings onto the sleeve side in the procedure described above.

**2. INSPECT UNIVERSAL JOINT SPIDER BEARING**

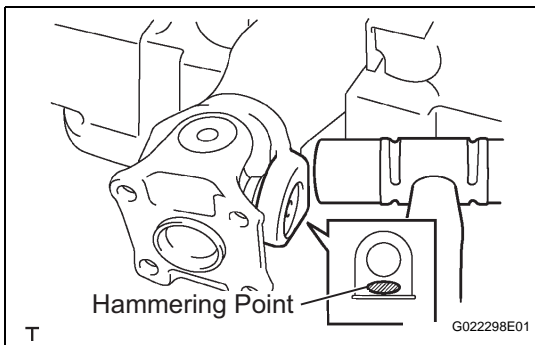
- Check that the joints move smoothly.
- Check the spider bearing axial play by turning the yoke while holding the shaft tightly.

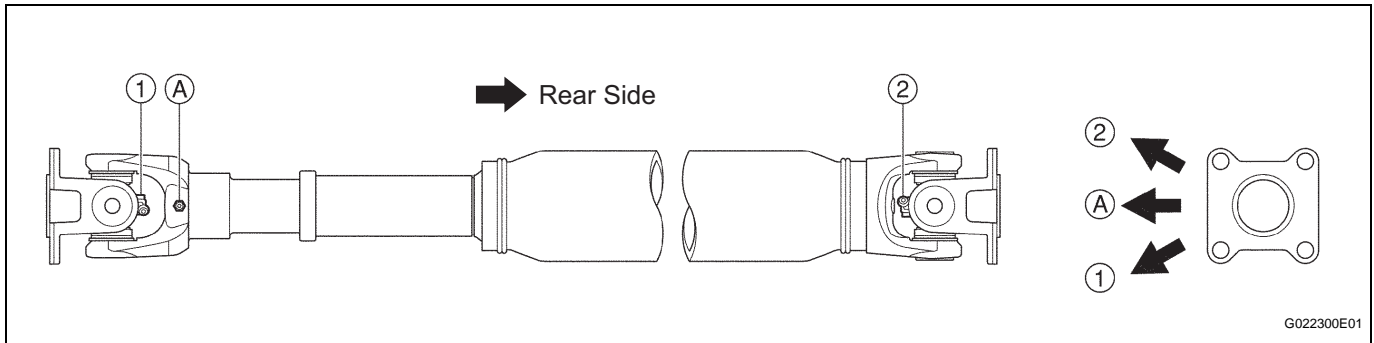
**Maximum bearing axial play:**  
**0 mm (0 in.)**

**3. INSPECT REAR PROPELLER SHAFT ASSEMBLY (for 4WD)**

**HINT:**

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

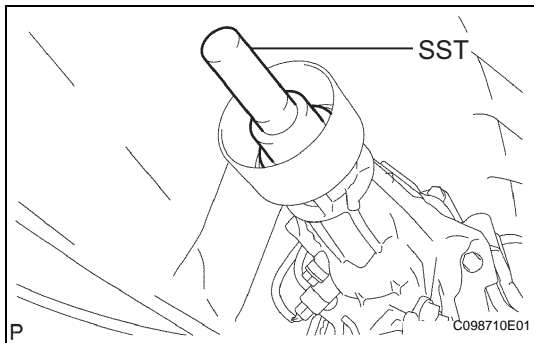




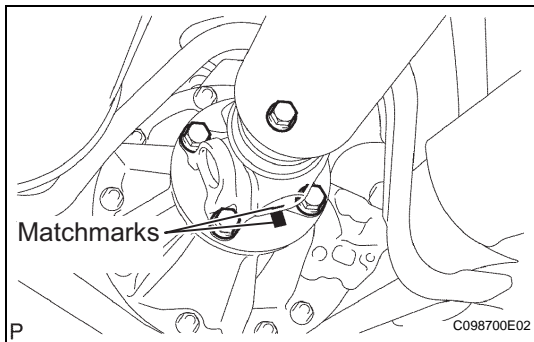
## INSTALLATION

### 1. INSTALL REAR PROPELLER SHAFT ASSEMBLY (for 2WD)

- Remove SST from the extension housing.
- Install the propeller shaft assembly into the extension housing.

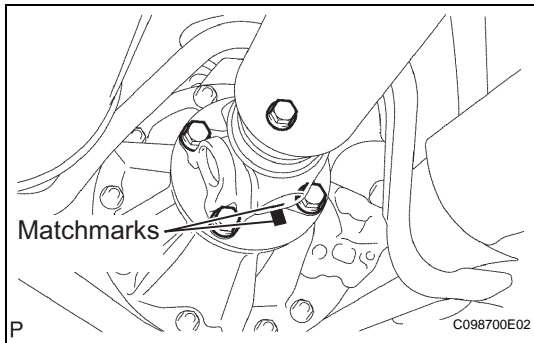


- Align the matchmarks on the propeller shaft flange and differential flange.
- Install the propeller shaft assembly with the 4 bolts, 4 nuts and 4 washers.  
**Torque: 88 N\*m (899 kgf\*cm, 65 ft.\*lbf)**



### 2. INSTALL REAR PROPELLER SHAFT ASSEMBLY (for 4WD)

- Align the matchmarks on the propeller shaft flange and differential flange.
- Install the propeller shaft assembly with the 4 bolts, 4 nuts and 4 washers.  
**Torque: 88 N\*m (899 kgf\*cm, 65 ft.\*lbf)**



- Align the matchmarks on the propeller shaft flange and transfer flange.
- Install the propeller shaft assembly with the 4 nuts and 4 washers.  
**Torque: 88 N\*m (899 kgf\*cm, 65 ft.\*lbf)**

