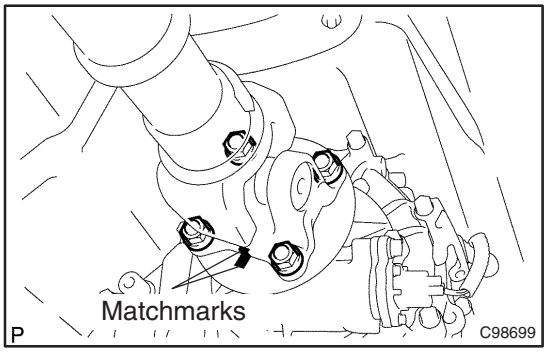
300SG–01

OVERHAUL



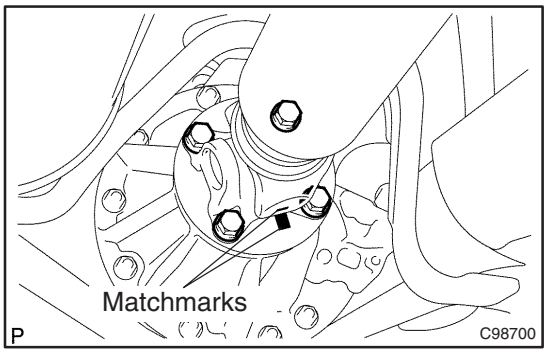
1. REMOVE PROPELLER SHAFT ASSY

(a) Put matchmarks on the propeller shaft flange and front differential flange.

(b) Remove the 4 nuts and 4 washers.

HINT:

If the flange connection part is hard to separate, temporarily tighten one nut only and evenly tap the flange with a brass bar and hammer to separate the propeller shaft assy from the front differential flange.

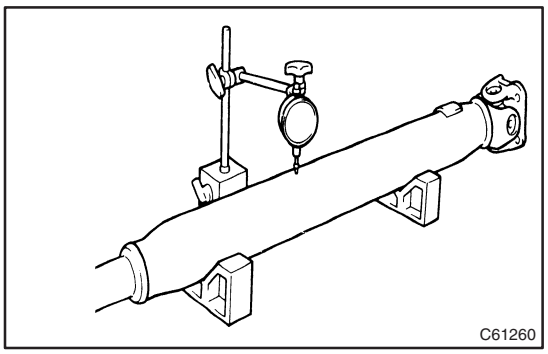


(c) Put matchmarks on the propeller shaft flange and rear differential flange.

(d) Remove the 4 nuts, 4 bolts, 4 washers, and propeller shaft assy.

HINT:

If the flange connection part is hard to separate, temporarily tighten one bolt and nut only and evenly tap the flange with a brass bar and hammer to separate the propeller shaft assy from the front differential flange.



2. INSPECT PROPELLER SHAFT ASSY

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

Maximum runout: 0.8 mm (0.0315 in.)

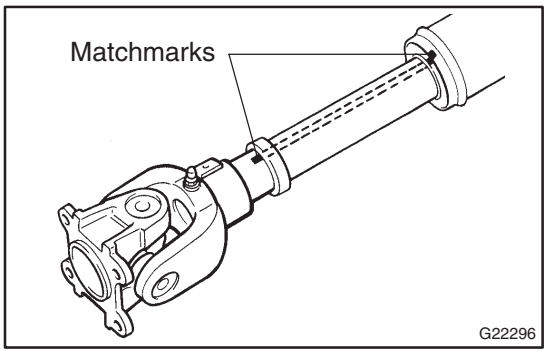
If the shaft runout is greater than maximum, replace the propeller shaft.

3. INSPECT REAR PROPELLER SHAFT UNIVERSAL JOINT SPIDER BEARING

(a) Check the spider bearings for wear or damage.

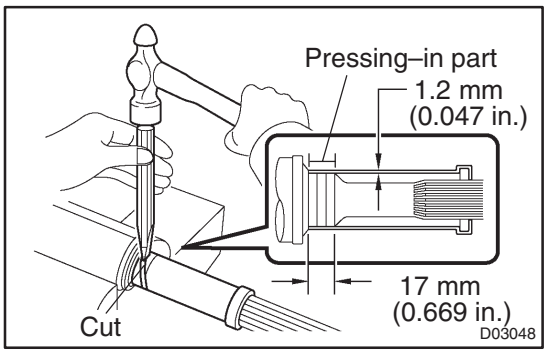
(b) Check for the looseness around the joint by strongly moving the flange in the axial and radial directions.

If necessary, replace the spider bearing.



4. REMOVE RR PROPELLER SHAFT UNIVERSAL J0INT SLEEVE YOKE SUB–ASSY

(a) Put matchmarks on the propeller shaft and sleeve yoke.
(b) Remove the sleeve yoke from the propeller shaft.
(c) Remove the grease fitting from the universal joint sleeve yoke.

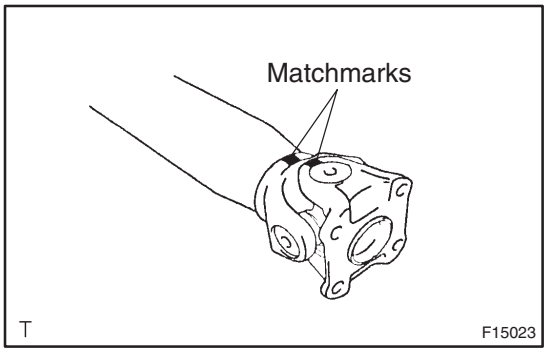


5. REMOVE REAR PROPELLER SHAFT SLIDING SHAFT DUST COVER SUB–ASSY

(a) Cut the dust cover spirally at the pressing–in part with a saw and pry it off with a chisel and a hammer.

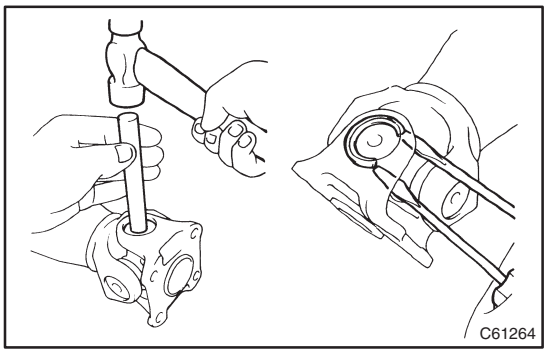
NOTICE:

Do not damage the propeller shaft. If damage, replace the shaft with a new one.

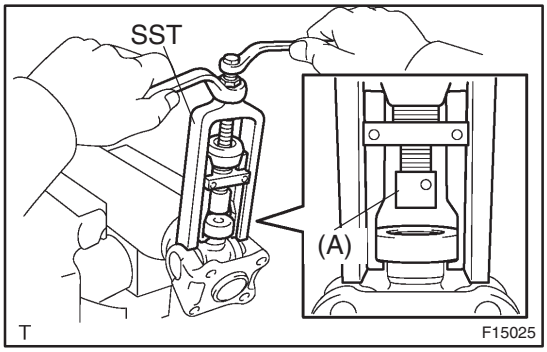


6. REMOVE REAR PROPELLER SHAFT UNIVERSAL JOINT SPIDER BEARING

(a) Put matchmarks on the flange yoke and propeller shaft assy.



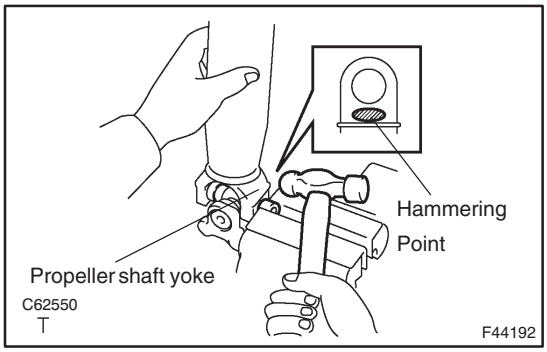
(b) Lightly tap the center of the spider bearing using a brass bar and hammer.
(c) Remove the 4 snap rings using 2 screwdrivers and a hammer.



(d) Using SST, pull the spider bearing out as much as possible so that it does not come into contact with the flange yoke.
SST 09332–25010

HINT:

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



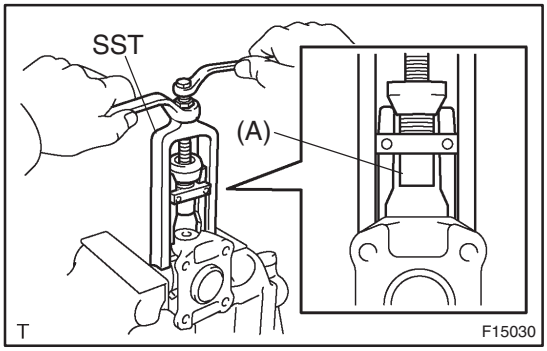
(e) Clamp the spider bearing in a vise and tap off the propeller shaft yoke with a hammer.

HINT:

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

NOTICE:

Do not tap the shaft.



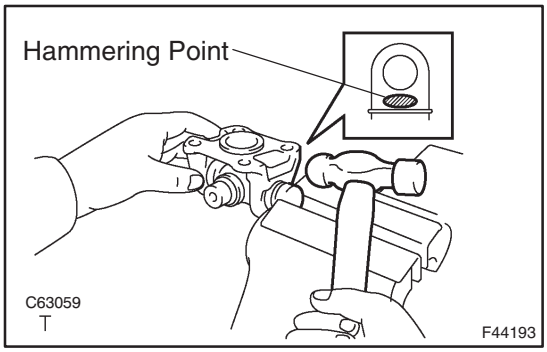
(f) Install the 2 removed spider bearings, and clamp them in a vise.

(g) Using SST, pull the spider bearing out as much as possible so that it does not come into contact with the flange yoke.

SST 09332–25010

HINT:

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

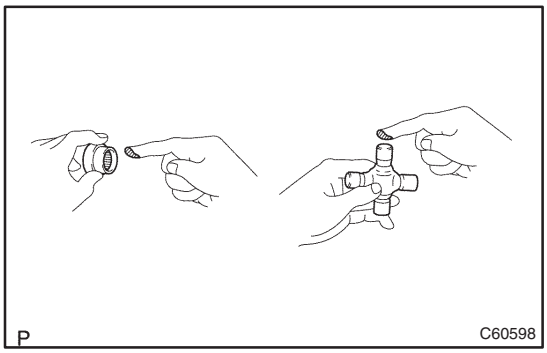


(h) Clamp the spider bearing in a vise and tap off the flange yoke with a hammer.

(i) Remove the spider.

HINT:

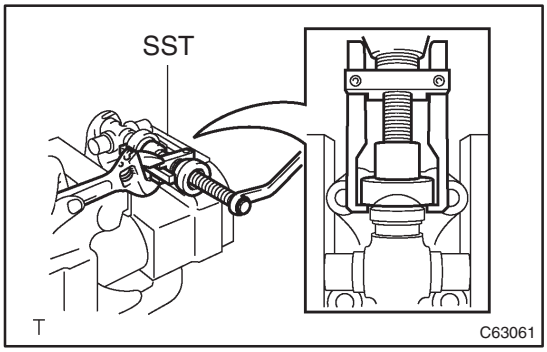
Remove the bearing on the opposite side using the same procedure.



7. INSTALL REAR PROPELLER SHAFT UNIVERSAL JOINT SPIDER BEARING

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

(b) Fit the spider into the flange yoke.

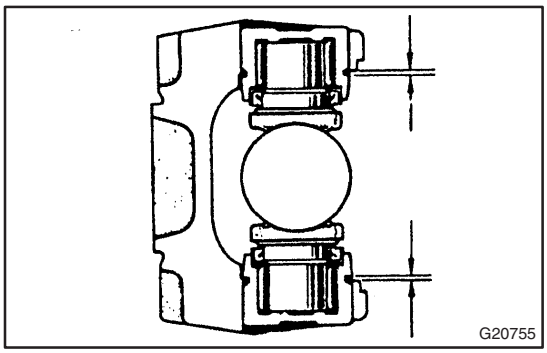


(c) Using SST, install the spider bearings on the spider.

SST 09332–25010

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

SST 09332–25010



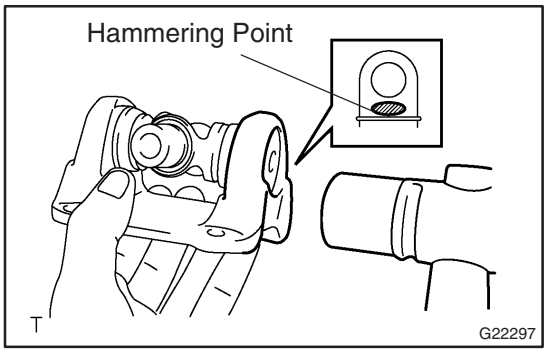
(e) Select a snap ring that makes the play in the axial direction of the spider less than 0.05 mm and the thickness of both sides equal.

Thickness of snap ring

Parts No.	Thickness mm (in.)	Mark
90520–29024	1.985 to 2.015 (0.07815 to 0.07933)	–
90520–29025	2.015 to 2.045 (0.07933 to 0.08051)	Light brown
90520–29026	2.045 to 2.075 (0.08051 to 0.08169)	Blue
90520–29027	2.075 to 2.105 (0.08169 to 0.08287)	–
90520–29039	1.980 to 2.000 (0.07795 to 0.07874)	1
90520–29040	2.000 to 2.020 (0.07874 to 0.07953)	2
90520–29041	2.020 to 2.040 (0.07953 to 0.08031)	3
90520–29042	2.040 to 2.060 (0.08031 to 0.08110)	4
90520–29043	2.060 to 2.080 (0.08110 to 0.08189)	5
90520–29044	2.080 to 2.100 (0.08189 to 0.08268)	6
90520–29045	2.110 to 2.120 (0.08307 to 0.08346)	7
90520–29046	2.120 to 2.140 (0.08346 to 0.08425)	8
90520–29047	2.140 to 2.160 (0.08425 to 0.08504)	九
90520–29048	2.160 to 2.180 (0.08504 to 0.08582)	10

NOTICE:

- **Do not reuse snap rings.**
- **Be sure to use snap rings with the same thickness on both ends.**

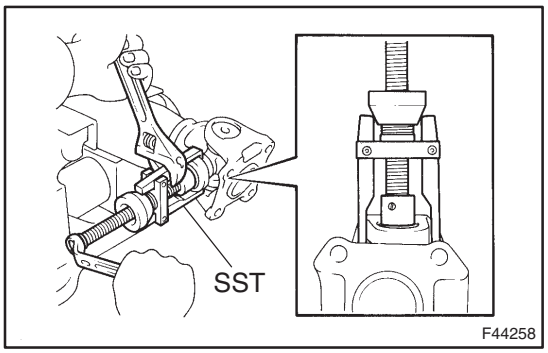


(f) Using a hammer, tap the yoke until there is no clearance between the spider bearing and snap ring.

HINT:

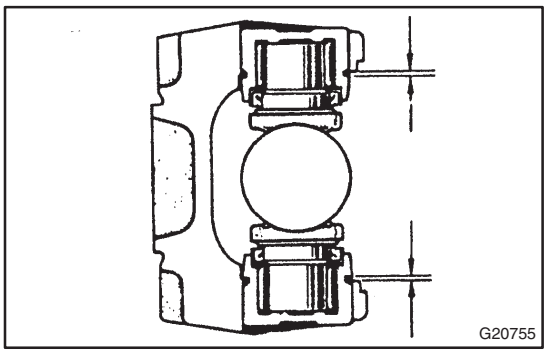
Install a new spider bearing on the sleeve side in the procedure described above.

(g) Align the matchmarks on the flange yoke and propeller shaft yoke.



(h) Using SST, install the bearings on 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



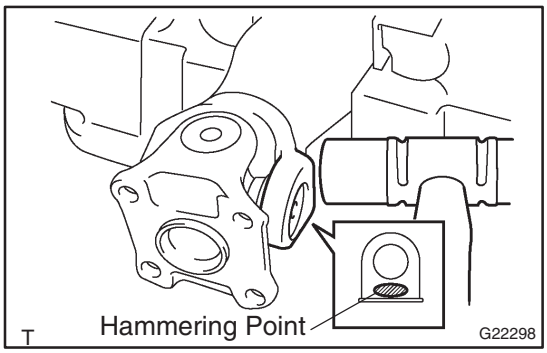
(j) Select a snap ring that makes the play in the axial direction of the spider less than 0.05 mm and the thickness of both sides equal.

Thickness of snap ring

Parts No.	Thickness mm (in.)	Mark
90520–29024	1.985 to 2.015 (0.07815 to 0.07933)	–
90520–29025	2.015 to 2.045 (0.07933 to 0.08051)	Light brown
90520–29026	2.045 to 2.075 (0.08051 to 0.08169)	Blue
90520–29027	2.075 to 2.105 (0.08169 to 0.08287)	–
90520–29039	1.980 to 2.000 (0.07795 to 0.07874)	1
90520–29040	2.000 to 2.020 (0.07874 to 0.07953)	2
90520–29041	2.020 to 2.040 (0.07953 to 0.08031)	3
90520–29042	2.040 to 2.060 (0.08031 to 0.08110)	4
90520–29043	2.060 to 2.080 (0.08110 to 0.08189)	5
90520–29044	2.080 to 2.100 (0.08189 to 0.08268)	6
90520–29045	2.110 to 2.120 (0.08307 to 0.08346)	7
90520–29046	2.120 to 2.140 (0.08346 to 0.08425)	8
90520–29047	2.140 to 2.160 (0.08425 to 0.08504)	九
90520–29048	2.160 to 2.180 (0.08504 to 0.08582)	10

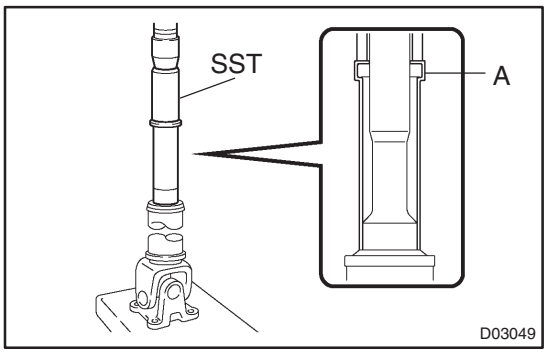
NOTICE:

- **Do not reuse snap rings.**
- **Be sure to use snap rings with the same thickness on both ends.**



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

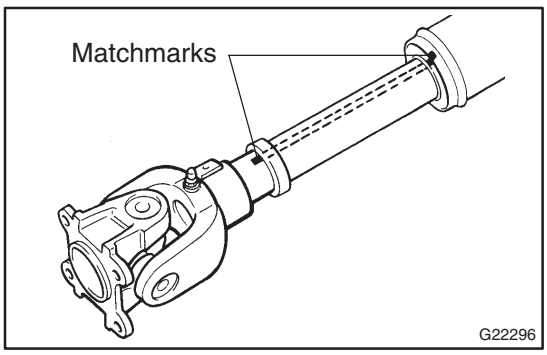
HINT:
Install a new spider bearing on the sleeve side in the procedure described above.



8. INSTALL REAR PROPELLER SHAFT SLIDING SHAFT DUST COVER SUB–ASSY

(a) Using SST and press, press in a new dust cover.
SST 09636–20010

NOTICE:
Place the universal joint straight when pressing in the dust cover. Apply MP grease to the "A" part.



9. INSTALL RR PROPELLER SHAFT UNIVERSAL JOINT SLEEVE YOKE SUB–ASSY

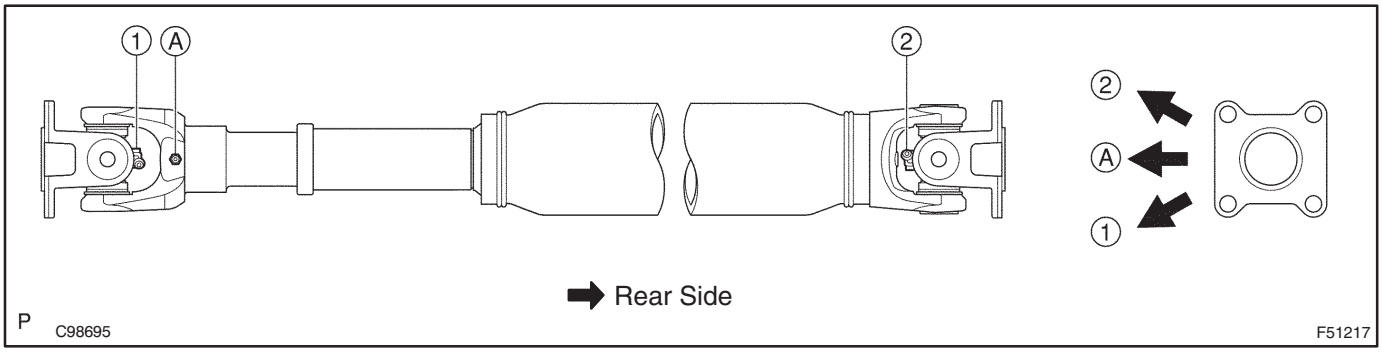
(a) Install the grease fitting to the universal joint sleeve yoke.
(b) Apply MP grease to the propeller shaft spline and sleeve yoke sliding surface.
(c) Align the matchmarks on the sleeve yoke propeller shaft.
(d) Install the propeller shaft into the sleeve yoke.

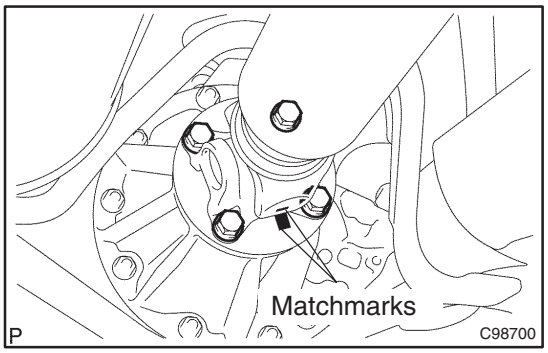
10. INSPECT REAR PROPELLER SHAFT UNIVERSAL JOINT SPIDER BEARING

(a) Check that the spider bearing moves smoothly by turning the flange.
(b) Check for the looseness around the joint by strongly moving the flange in the axial and radial directions.

11. INSPECT PROPELLER SHAFT ASSY

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



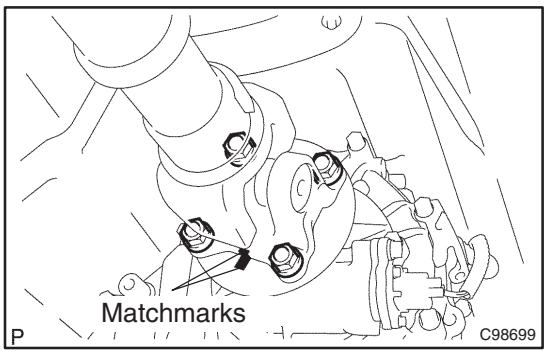


12. INSTALL PROPELLER SHAFT ASSY

(a) Align the matchmarks on the yoke and differential flange.

(b) Install the propeller shaft assy with the 4 bolts, 4 nuts and 4 washers.

Torque: 88 N·m (897 kgf·cm, 65 ft·lbf)



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

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

Torque: 88 N·m (897 kgf·cm, 65 ft·lbf)