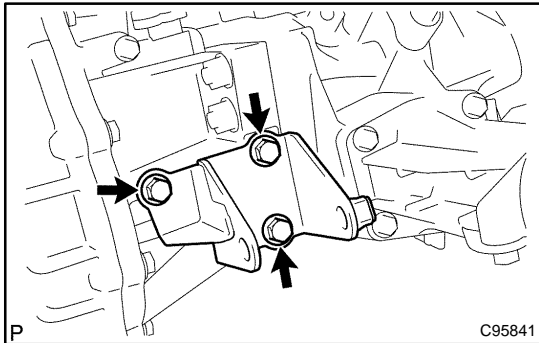


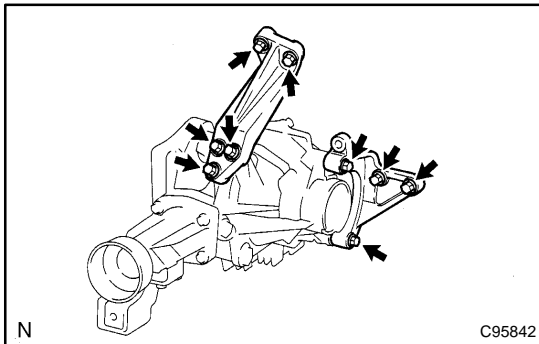
## OVERHAUL

1. REMOVE ENGINE ASSEMBLY WITH TRANSAXLE (See page 14-30)
2. SEPARATE VANE PUMP ASSY (See page 14-30)
3. REMOVE RACK & PINION POWER STEERING GEAR ASSY (See page 14-30)
4. REMOVE FRONT SUSPENSION CROSSMEMBER W/CENTER MEMBER (See page 14-30)
5. REMOVE MANIFOLD STAY (See page 14-30)
6. REMOVE OXYGEN SENSOR (See page 14-30)
7. REMOVE EXHAUST MANIFOLD HEAT INSULATOR NO.1 (See page 14-30)
8. REMOVE EXHAUST MANIFOLD (See page 14-30)
9. REMOVE STARTER ASSY (See page 14-30)
10. REMOVE FRONT DRIVE SHAFT ASSY RH (See page 30-15)



### 11. REMOVE TRANSVERSE ENGINE ENGINE MOUNTING BRACKET

- (a) Remove the 3 bolts and engine mounting bracket.



### 12. REMOVE TRANSFER STIFFENER PLATE CENTER

- (a) Remove the 5 bolts and stiffener plate center.

### 13. REMOVE TRANSFER STIFFENER PLATE RH

- (a) Remove the 4 bolts and stiffener plate RH.

### 14. REMOVE TRANSFER ASSY

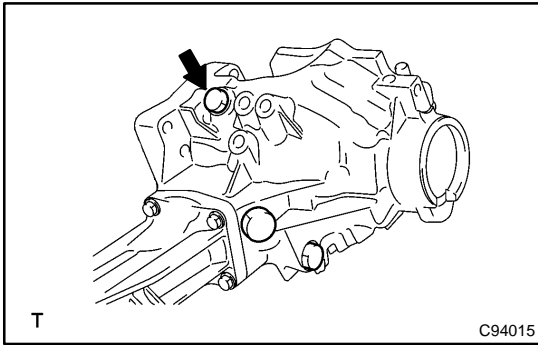
- (a) Remove the 6 nuts.
- (b) Using a plastic hammer, remove the transfer assy from the transaxle assy.

#### NOTICE:

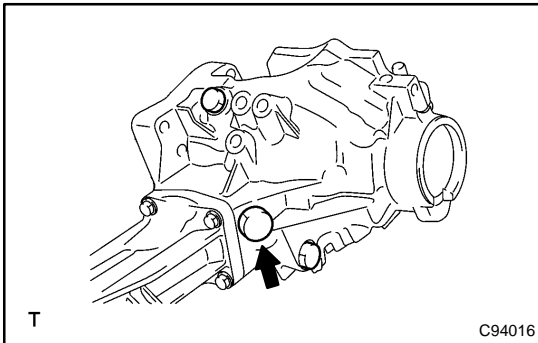
- Remove the transfer assy horizontally from the transaxle assy.
- When removing, do not touch the both sides of oil seal part of transfer assy.

### 15. REMOVE TRANSFER & TRANSAXLE SETTING STUD BOLT

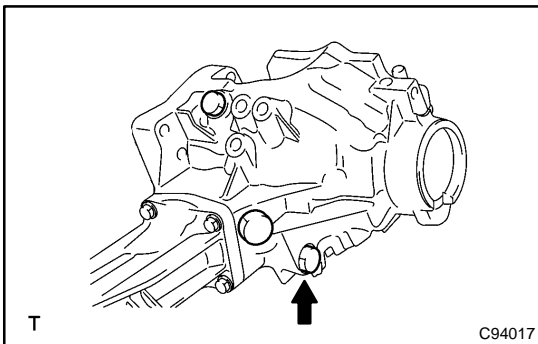
- (a) Remove the 4 stud bolts.

**16. REMOVE TRANSFER CASE NO.1 PLUG**

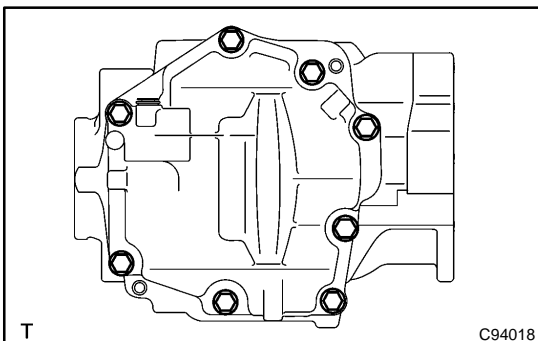
- (a) Remove the transfer case No.1 plug.
- (b) Remove the gasket from the transfer case No.1 plug.

**17. REMOVE TRANSFER CASE NO.2 PLUG**

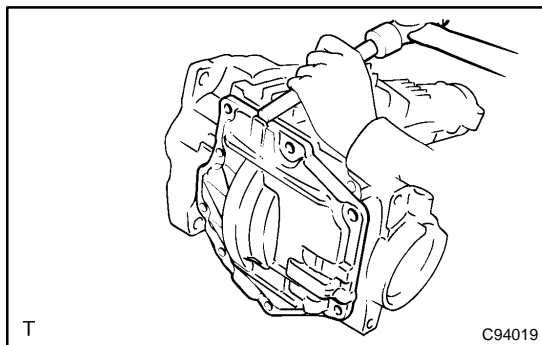
- (a) Remove the transfer case No.2 plug.
- (b) Remove the gasket from the transfer case No.2 plug.

**18. REMOVE TRANSFER DRAIN PLUG**

- (a) Remove the transfer drain plug.
- (b) Remove the gasket from the transfer drain plug.

**19. REMOVE TRANSFER CASE BREATHER PLUG****20. REMOVE TRANSFER CASE COVER NO.1**

- (a) Remove the 8 bolts.

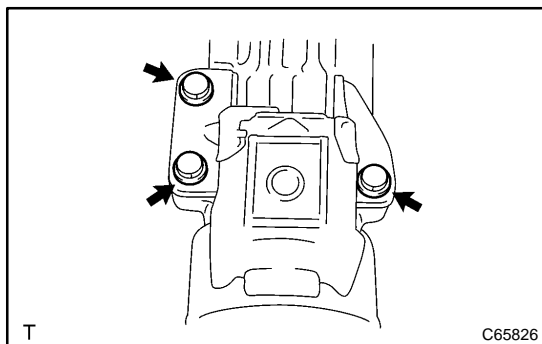


- (b) Using a brass bar and a hammer, remove the transfer case cover No.1 from the case.

**NOTICE:**

**Place the brass bar on the rib part of the case.**

- (c) Remove the bolt and breather oil deflector.

**21. REMOVE TRANSFER DYNAMIC DAMPER**

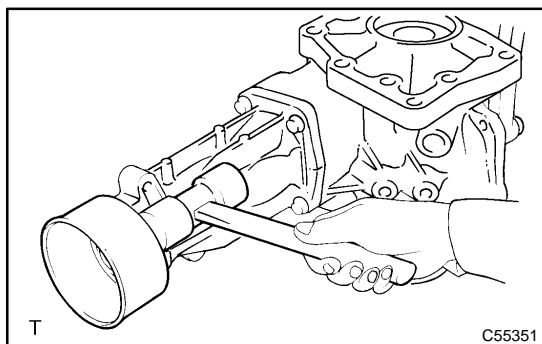
- (a) Remove the 3 bolts and transfer dynamic damper from the extension housing.

**22. REMOVE TRANSFER CASE STRAIGHT PIN**

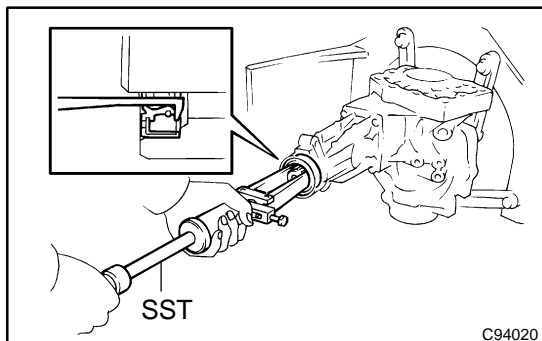
- (a) Remove the 4 transfer case straight pins from the transfer case.

**23. FIX TRANSFER ASSY**

- (a) Attach the transfer assy to the overhaul attachment.

**24. REMOVE TRANSFER EXTENSION HOUSING DUST DEFLECTOR**

- (a) Using a plastic hammer, remove the transfer extension housing dust deflector from the extension housing.

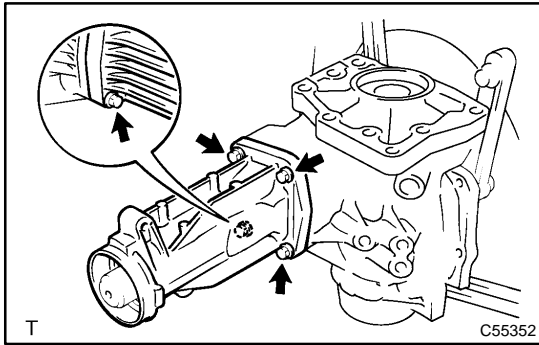
**25. REMOVE TRANSFER EXTENSION HOUSING TYPE T OIL SEAL**

- (a) Using SST, remove the oil seal from the extension housing.

SST 09308-00010

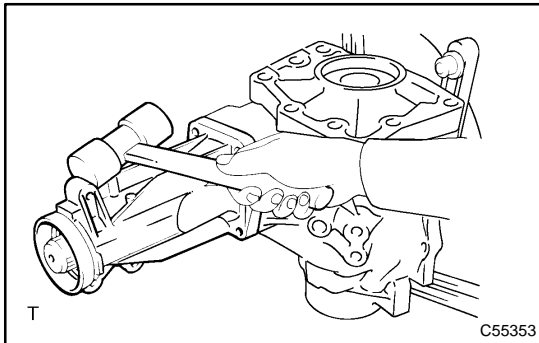
**NOTICE:**

**Be careful of not damaging the oil seal press in face of housing and the inner diameter of bush.**

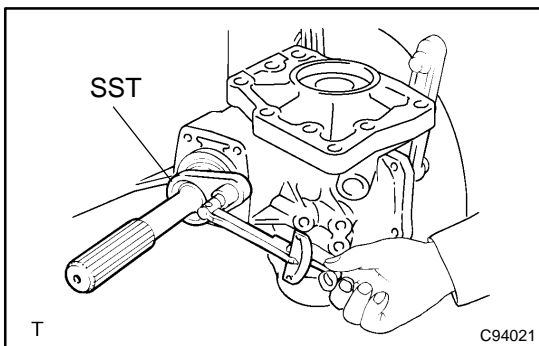


## 26. REMOVE TRANSFER EXTENSION HOUSING SUB-ASSY

- (a) Remove the 4 bolts.



- (b) Using a plastic hammer, remove the extension housing sub-assy from the case.



## 27. INSPECT PRELOAD

- (a) Using SST and a torque wrench, measure the preload of the backlash between the drive pinion and ring gear.

SST 09326-20011

### Preload (at starting):

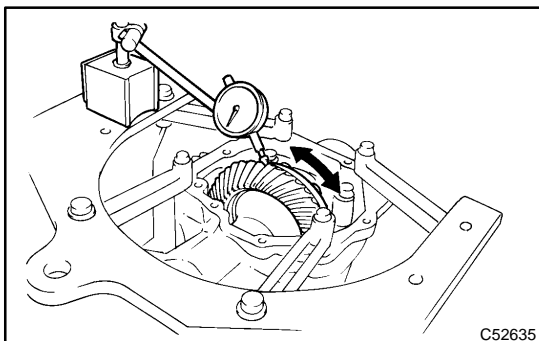
**0.32 – 0.57 N·m (3 – 6 kgf·cm, 2.8 – 5.0 in·lbf)**

- (b) Using SST and a torque wrench, measure the total preload.

SST 09326-20011

### Preload (at starting):

**0.53 – 0.94 N·m (5 – 10 kgf·cm, 4.7 – 8.3 in·lbf)**



## 28. INSPECT BACKLASH

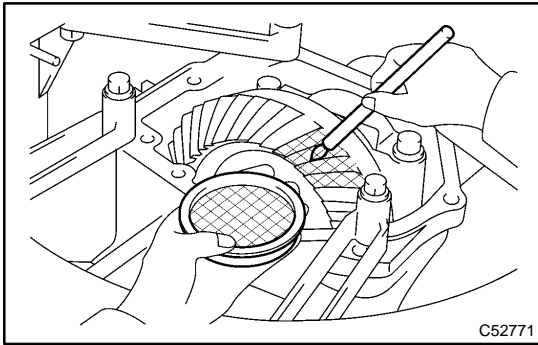
- (a) Using a dial indicator, check the backlash of the ring gear.

**Backlash: 0.10 – 0.15 mm (0.0039 – 0.0059 in.)**

If the backlash is not within the specification, adjust the side bearing preload or repair as necessary.

### NOTICE:

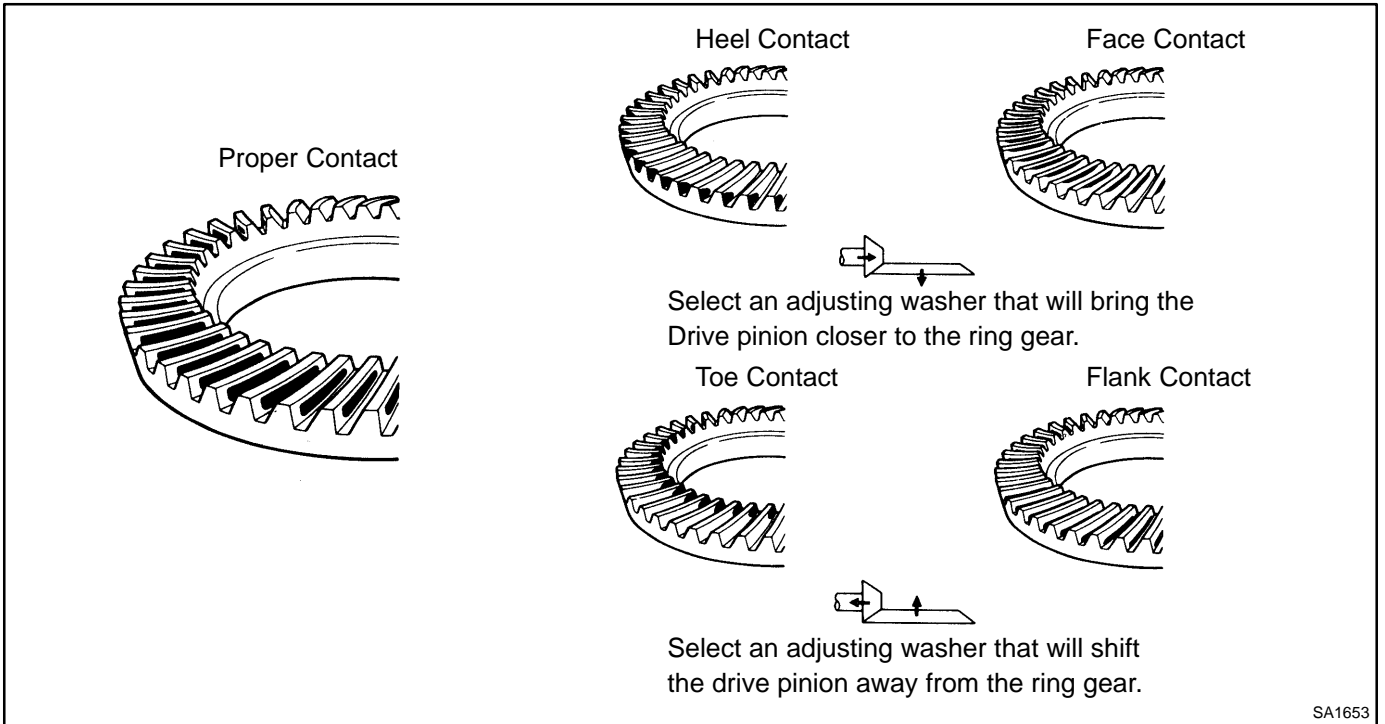
**Check at least 3 positions on the circumference of the ring gear.**



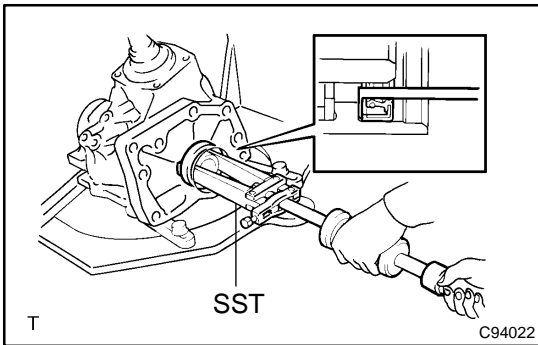
**29. INSPECT TOOTH CONTACT BETWEEN RING GEAR AND DRIVEN PINION**

- (a) Coat 3 or 4 teeth at 4 different positions on the ring gear with red lead.
- (b) Rotate the ring gear inspect the tooth pattern.

C52771



SA1653



**30. REMOVE TRANSFER CASE OIL SEAL**

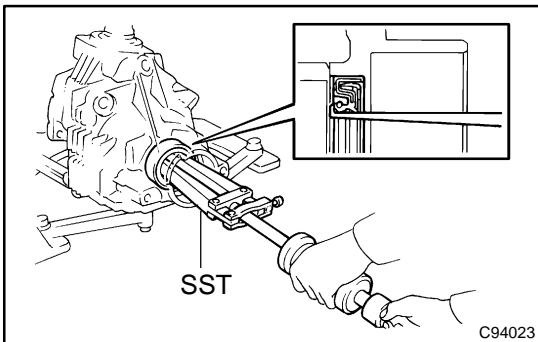
- (a) Using SST, remove the oil seal from the case.  
SST 09308-00010

**NOTICE:**

Do not damage the oil seal press in face of case.

T

C94022



**31. REMOVE TRANSFER CASE RH OIL SEAL**

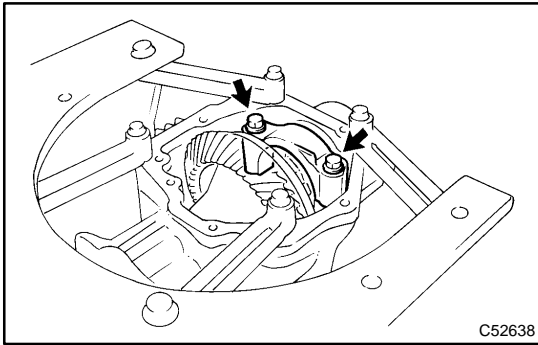
- (a) Using SST, remove the oil seal from the case.  
SST 09308-00010

**NOTICE:**

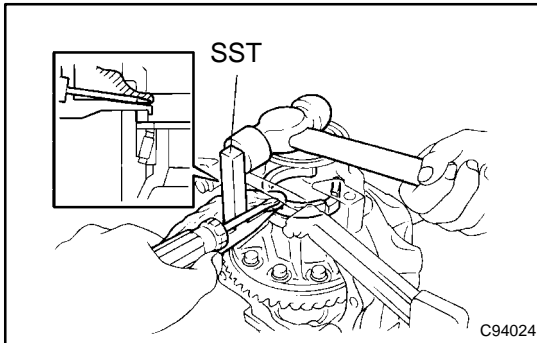
Do not damage the oil seal press in face of case.

SST

C94023

**32. REMOVE BEARING CAP**

- (a) Remove the 2 bolts and the bearing cap.

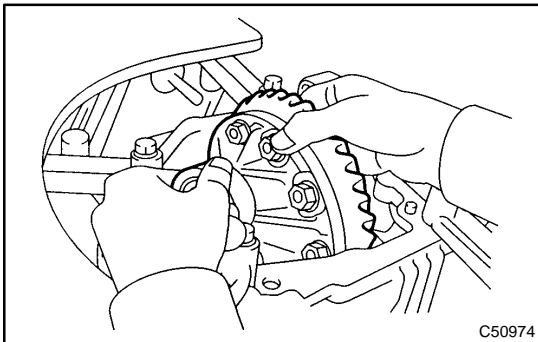
**33. REMOVE TRANSFER OUTPUT SHAFT SPACER NO.1**

- (a) Using SST, a screwdriver and a hammer, remove the transfer output shaft spacer No.1.

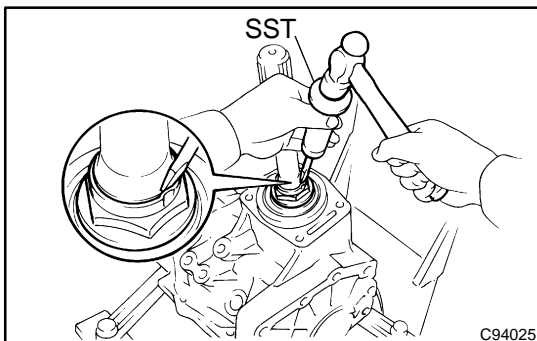
SST 09504-22011

**NOTICE:**

Protect with waste for not damaging the case.

**34. REMOVE TRANSFER RING GEAR MOUNTING CASE WASHER NO.2****35. REMOVE TRANSFER RING GEAR MOUNTING CASE**

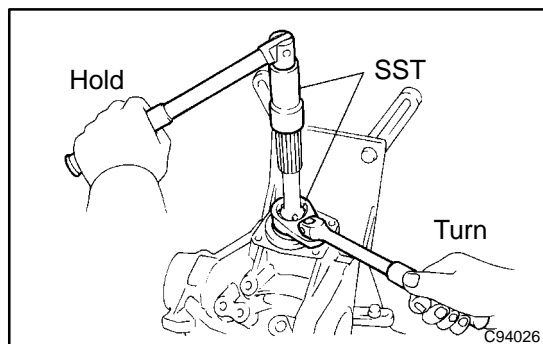
- (a) Remove the transfer ring gear mounting case from the transfer assy.

**36. REMOVE DRIVEN PINION**

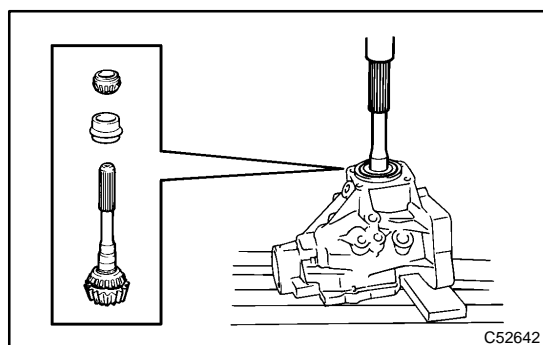
- (a) Using SST and a hammer, unstage the gear nut.  
SST 09930-00010

**HINT:**

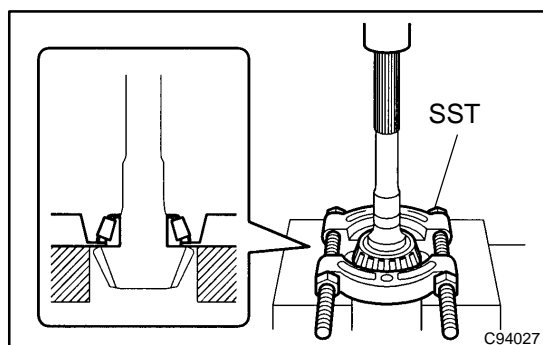
- Using SST with the flat side facing outward.
- Do not machine the tip of SST with a grinder, etc.



- (b) Using SST, remove the gear nut.  
SST 09326-20011, 09556-16030

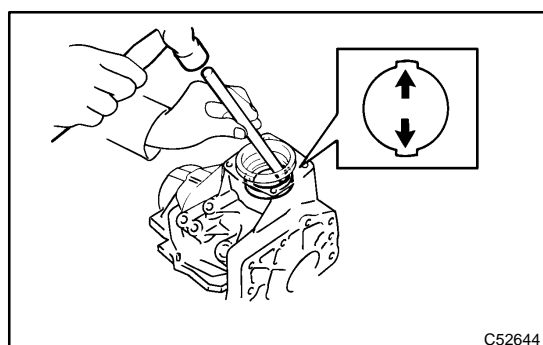


- (c) Using a press, remove the driven pinion, transfer driven pinion bearing rear inner race and transfer pinion bearing spacer.



### 37. REMOVE BEARING (FOR TRANSFER DRIVEN PINION FRONT)

- (a) Using SST and a press, remove the transfer driven pinion bearing front inner race.  
SST 09950-00020



- (b) Using a brass bar and a hammer, tap the driven pinion bearing front outer race to remove from the case.

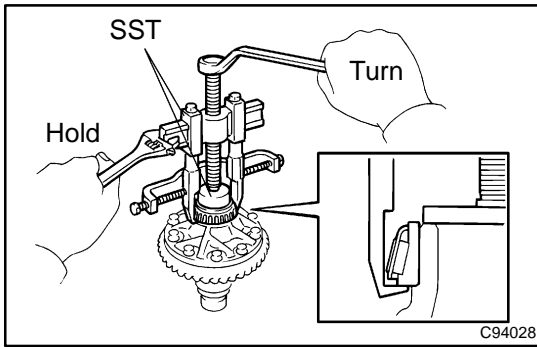
#### NOTICE:

Place the brass bar at the 2 positions of the cutouts on the case.

### 38. REMOVE TRANSFER OUTPUT WASHER

### 39. REMOVE RING GEAR MOUNTING CASE BEARING

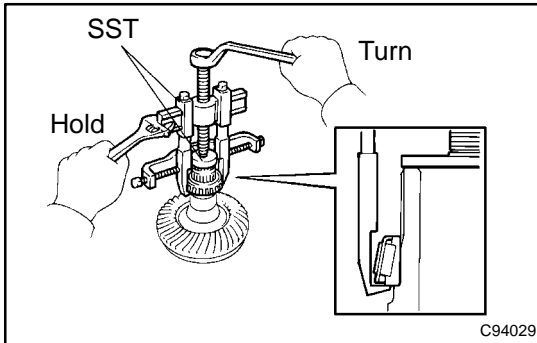
- (a) Remove the ring gear mounting case bearing RH outer race from the ring gear mounting case assy.



- (b) Using SST, remove the ring gear mounting case bearing RH inner race from the ring gear mounting case assy.
- SST 09950-40011 (09951-04010, 09952-04010, 09953-04020, 09954-04010, 09955-04061, 09957-04010, 09958-04011), 09950-60010 (09951-00400, 09951-00450)

**NOTICE:**

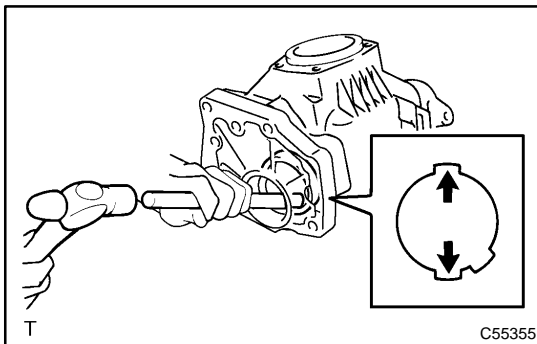
Using SST (09953-04020) with its screw and tip applied to grease.



- (c) Using SST, remove the ring gear mounting RH inner race from the ring gear mounting case assy.
- SST 09950-40011 (09951-04010, 09952-04010, 09953-04020, 09954-04010, 09955-04061, 09957-04010, 09958-04011), 09950-60010 (09951-00400, 09951-00450)

**NOTICE:**

Using SST (09953-04020) with its screw and tip applied to grease.

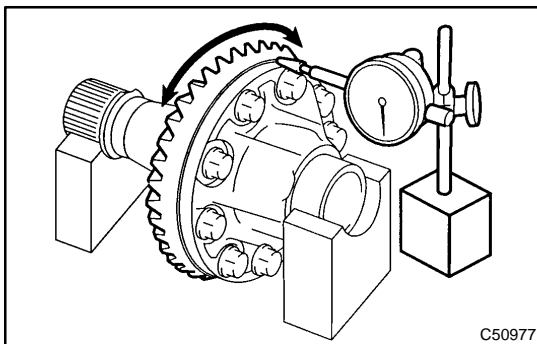


- (d) Using a brass bar and a hammer, tap the 2 positions of the ring gear mounting case bearing LH outer race to remove from the case.

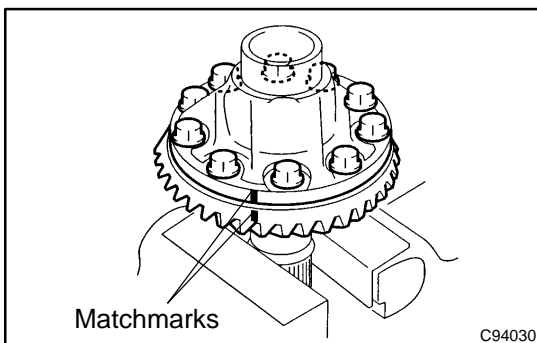
**NOTICE:**

Place the brass bar at the 2 positions of the cutouts on the case.

- (e) Remove the case washer.

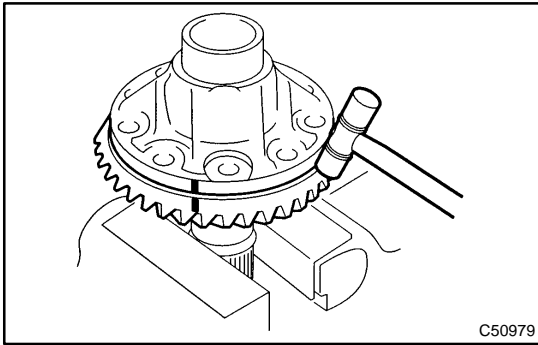
**40. INSPECT RUNOUT OF RING GEAR**

- (a) Place the ring gear mounting case assy on the V-block.
- (b) Using a dial indicator, check the runout of the ring gear.
- Maximum runout: 0.06 mm (0.0024 in.)**

**41. REMOVE RING GEAR**

- (a) Make matchmarks on the ring gear mounting case and the ring gear.
- (b) Remove the 10 bolts.

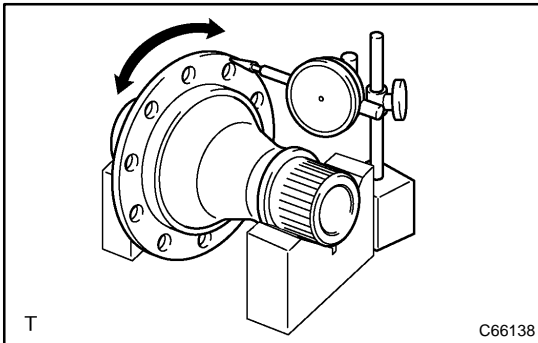




- (c) Using a plastic hammer, tap on the ring gear to separate it from the ring gear mounting case.

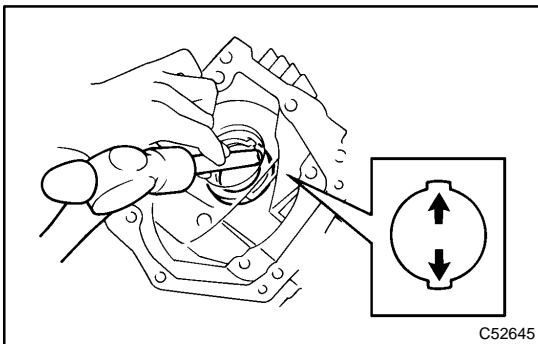
**NOTICE:**

**Do not damage the tooth face of the ring gear.**

**42. INSPECT RUNOUT OF TRANSFER RING GEAR MOUNTING CASE**

- (a) Place the ring gear mounting case assy on the V-block.  
 (b) Using a dial indicator, check the runout of the ring gear.

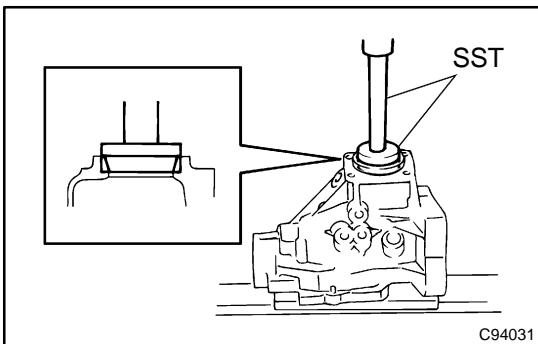
**Maximum runout: 0.14 mm (0.0055 in.)**

**43. REMOVE BEARING (FOR TRANSFER DRIVEN PINION REAR)**

- (a) Using a brass bar and a hammer, tap the 2 positions on the driven pinion bearing rear outer race before removing from the case.

**NOTICE:**

**Place the brass bar at the 2 positions of the cutouts on the case.**

**44. INSTALL BEARING (FOR TRANSFER DRIVEN PINION REAR)**

- (a) Using SST and a press, press the driven pinion bearing rear outer race into the case.

SST 09950-60010 (09951-00620), 09950-70010 (09951-07150)

**NOTICE:**

**Keep the transfer case horizontally using tip of wood, etc..**

- (b) Apply gear oil to the driven pinion bearing rear outer race.

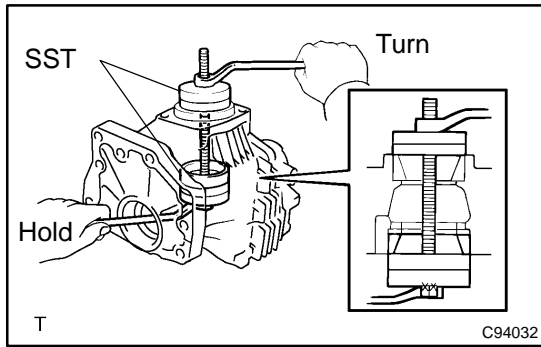
**45. INSTALL TRANSFER OUTPUT WASHER**

- (a) Install a washer to the case.

**HINT:**

Install the same washer as the previous one.

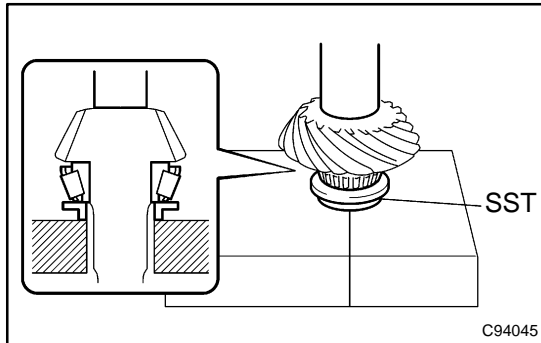
- (b) Apply gear oil to the washer.



#### 46. INSTALL BEARING (FOR TRANSFER DRIVEN PINION FRONT)

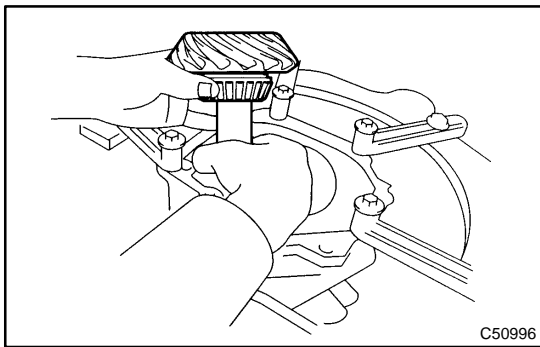
- (a) Apply gear oil to the inner surface of the transfer case.
- (b) Using SST, install the driven pinion bearing front outer race to the case with a bolt and a nut.

SST 09950-60010 (09951-00610, 09951-00620, 09951-00650), 09950-60020 (09951-00680)



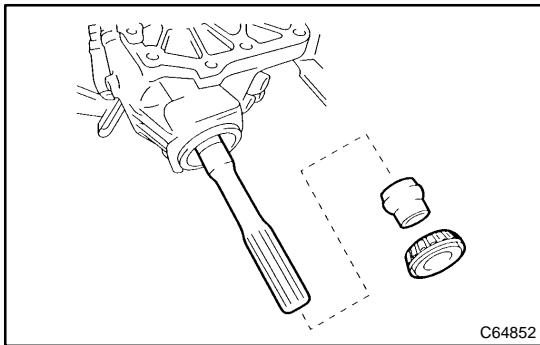
- (c) Using SST and a press, press the driven pinion bearing front inner race into the driven pinion.

SST 09506-30012



#### 47. INSTALL DRIVEN PINION

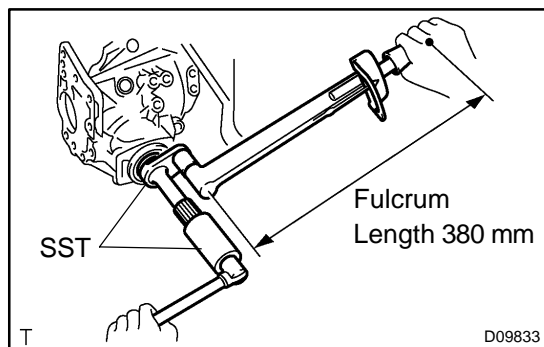
- (a) Install the driven pinion to the case.



- (b) Install a new pinion bearing spacer and driven pinion bearing rear inner race to the driven pinion.

#### HINT:

Install the pinion bearing spacer with the larger inner diameter coming to the front side.



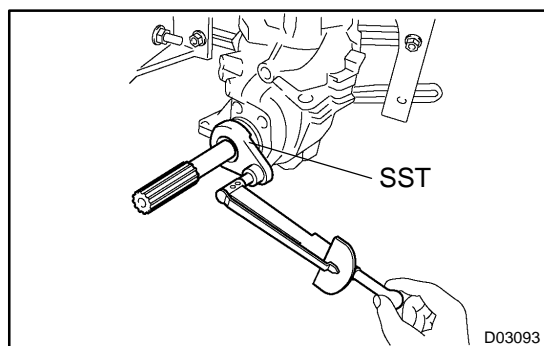
- (c) Using SST, install a new gear nut.  
SST 09326-20011, 09556-16030  
**Torque:**  
**260 – 355 N·m (2,647 – 3,616 kgf·cm, 191 – 262 ft·lbf)**

**HINT:**

- Using a torque wrench with a fulcrum length of 380 mm (15.03 in.).
- This torque value is effective in the case that SST is parallel to a torque wrench.

**NOTICE:**

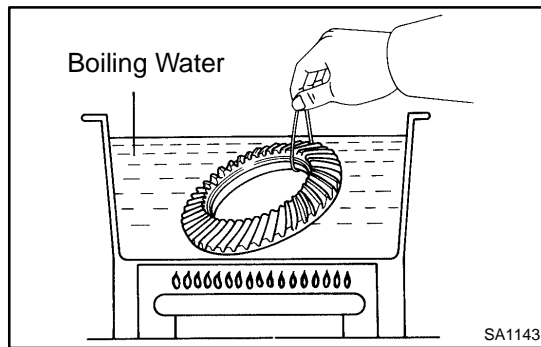
**Do not stake the nut until the final adjustment of the preload, tooth contact and backlash is completed.**

**48. ADJUST DRIVEN PINION PRELOAD**

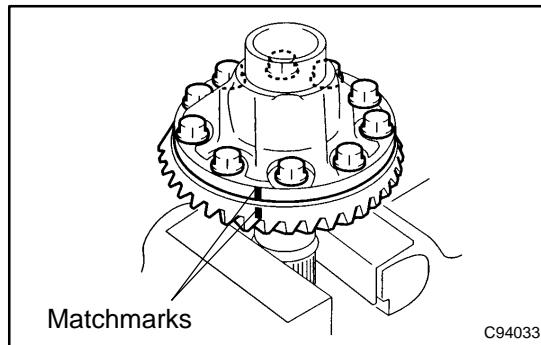
- (a) Using SST and a torque wrench, measure the driven pinion preload.  
SST 09326-20011  
**Preload (at starting):**  
**New bearing:**  
**0.52 – 0.97 N·m (5 – 10 kgf·cm, 4.6 – 8.6 in·lbf)**  
**Reused bearing:**  
**0.30 – 0.52 N·m (3 – 5 kgf·cm, 2.7 – 4.6 in·lbf)**

**HINT:**

- Using a torque wrench with a fulcrum length of 160 mm (6.3 in.).
- This torque value is effective in case that SST is parallel to torque wrench.
- If the preload is not sufficient, adjust the driven pinion by tightening the lock nut by 5° to 10° and measuring the preload until the preload is within the standard value.
- If the preload is more than standard value, replace the spacer with a new one.
- Even if the tightening torque of gear nut exceeds the specified torque, if the preload is not enough, loosen the gear nut once and apply rust preventive oil or gear oil super to the gear nut and to the screw or bearing surface of driven pinion. Then do the procedure again. If the tightening torque is smaller than the specified value, replace the pinion bearing spacer with a new one and adjust it.

**49. INSTALL RING GEAR**

- (a) Clean the contact surface of the ring gear and transfer ring gear mounting case.
- (b) Heat the ring gear in water and boil for 10 minutes.
- (c) Carefully remove the ring gear from the water.

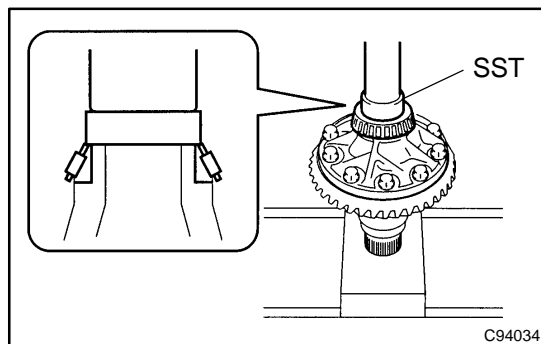


- (d) After the moisture on the ring gear has completely evaporated, quickly install the ring gear to the transfer ring gear mounting case.
- (e) Install the 10 bolts.

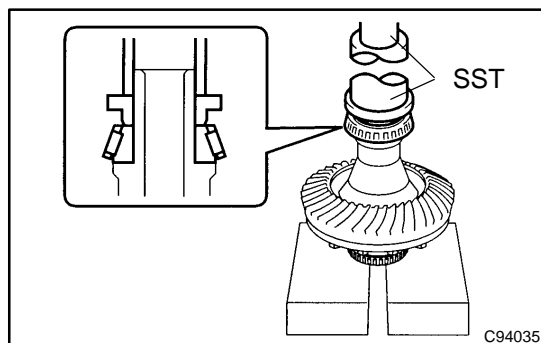
**Torque: 77.5 N·m (790 kgf·cm, 57 ft·lbf)**

**NOTICE:**

- **Tighten the bolts in diagonal order in splitting several times.**
- **After the ring gear has well cooled down, tighten the bolts.**
- **Make paint marks, etc, do the procedure while checking the bolts retightened.**

**50. INSTALL RING GEAR MOUNTING CASE BEARING**

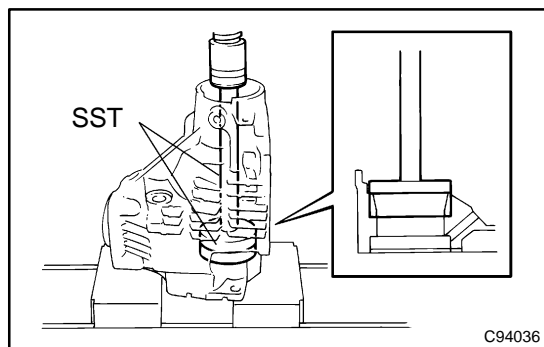
- (a) Using SST and a press, press the ring gear mounting case bearing RH inner race into the ring gear mounting case.  
SST 09950-60010 (09951-00420)
- (b) Install the ring gear mounting case bearing RH outer race to the ring gear mounting case.
- (c) Apply gear oil to the ring gear mounting case bearing RH.



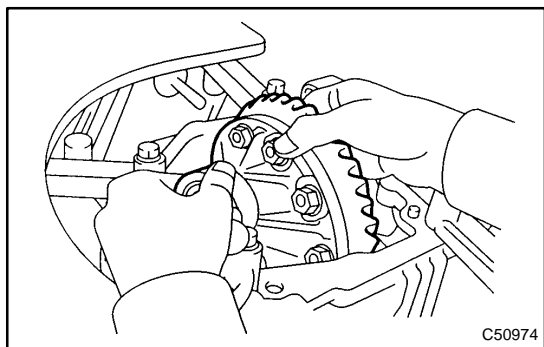
- (d) Using SST and a press, press the ring gear mounting case LH inner race into the ring gear mounting case.  
SST 09223-00010, 09726-40010
- (e) Install the washer to the case.

**HINT:**

Use a new washer with the same thickness as the removed one when installation.

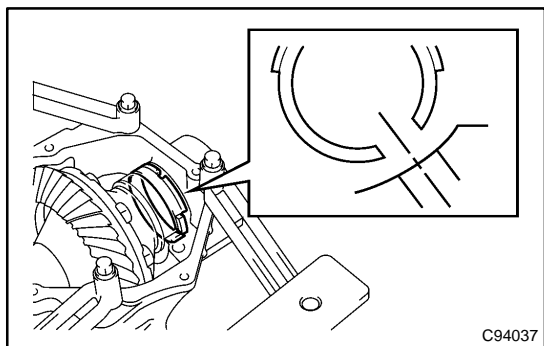


- (f) Using SST and a press, press the ring gear mounting case bearing LH outer race into the case.  
SST 09950-60010 (09951-00620), 09950-70010 (09951-07200)
- (g) Apply gear oil to the ring gear mounting case bearing.



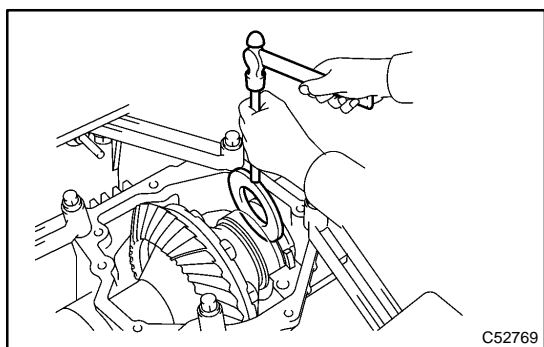
#### 51. INSTALL TRANSFER RING GEAR MOUNTING CASE

- (a) Apply gear oil to the ring gear mounting case.  
(b) Install the ring gear mounting case to the transfer case.



#### 52. INSTALL TRANSFER OUTPUT SHAFT SPACER NO.1

- (a) To install a new spacer No.1, align the cutouts on it with the hole of the case as shown in the illustration.

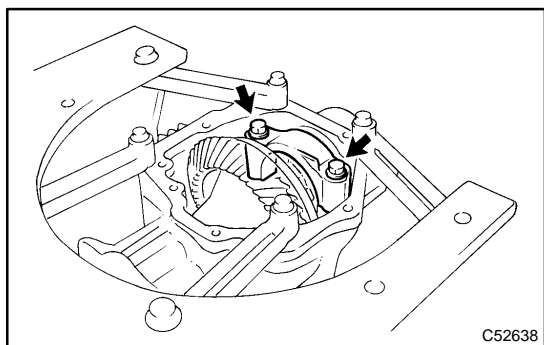


#### 53. INSTALL TRANSFER RING GEAR MOUNTING CASE WASHER NO.2

- (a) Using a brass bar and a hammer, install a new case washer No.2.

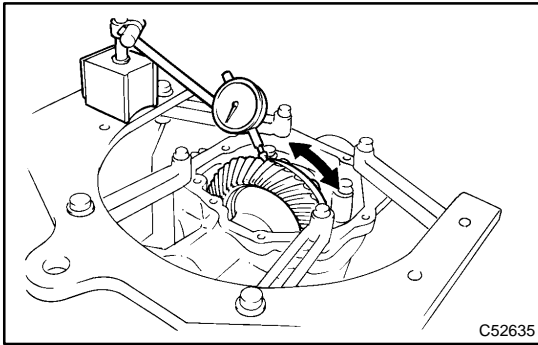
#### HINT:

Install a new washer No.2 with the same thickness as the removed one.



#### 54. INSTALL BEARING CAP

- (a) Install the bearing cap with the 2 bolts.  
**Torque: 63.2 N·m (644 kgf·cm, 47 ft·lbf)**

**55. INSPECT BACKLASH**

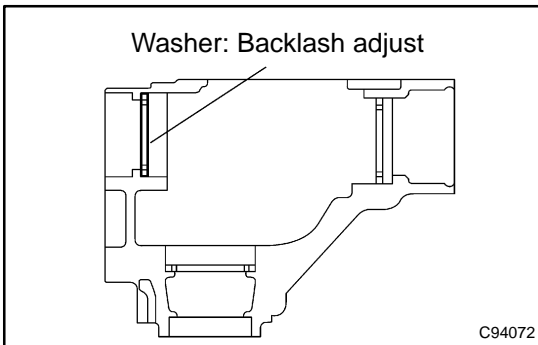
- (a) Place a dial indicator on the teeth surface on the ring gear vertically, check with fixing the driven pinion and moving the ring gear.

**Backlash: 0.10 – 0.15 mm (0.0039 – 0.0059 in.)**

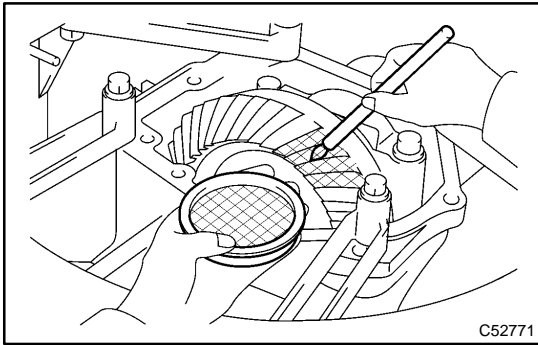
**NOTICE:**

**Check at least 3 positions on the circumference of the ring gear.**

- (b) If the backlash is not in the range of specified value, select the ring gear mounting case bearing LH side washer from the table and install it to meet the specified value.

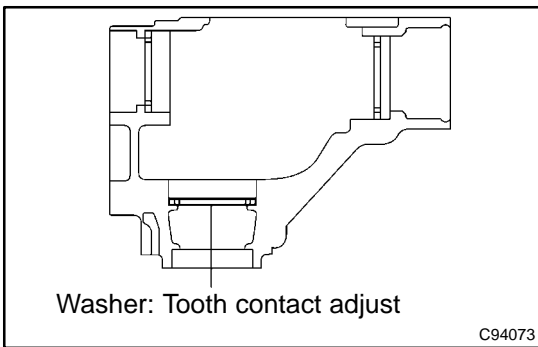
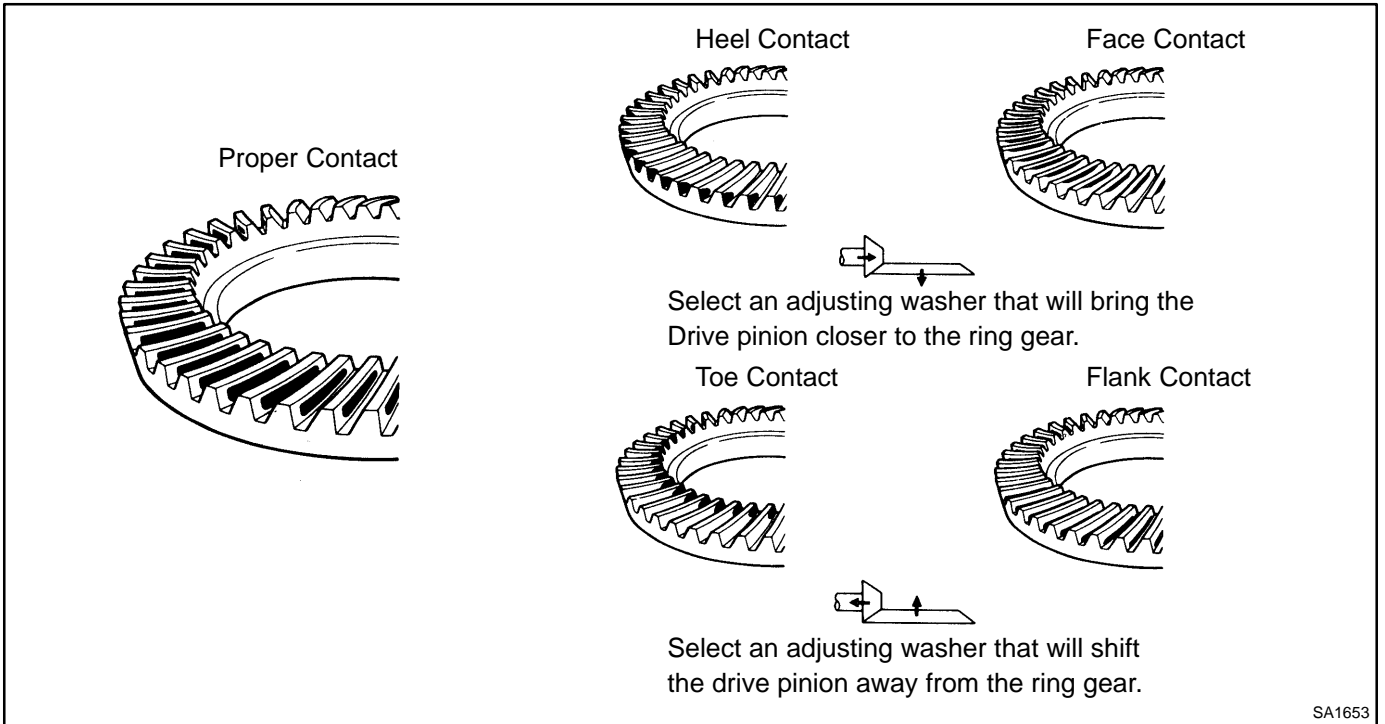
**Washer thickness: mm (in.)**

Mark	Thickness	Mark	Thickness
50	2.05 (0.0807)	68	2.59 (0.1020)
51	2.08 (0.0819)	69	2.62 (0.1031)
52	2.11 (0.0831)	70	2.65 (0.1043)
53	2.14 (0.0843)	71	2.68 (0.1055)
54	2.17 (0.0854)	72	2.71 (0.1067)
55	2.20 (0.0866)	73	2.74 (0.1079)
56	2.23 (0.0878)	74	2.77 (0.1091)
57	2.26 (0.0890)	75	2.80 (0.1102)
58	2.29 (0.0902)	76	2.83 (0.1114)
59	2.32 (0.0913)	77	2.86 (0.1126)
60	2.35 (0.0925)	78	2.89 (0.1138)
61	2.38 (0.0937)	79	2.92 (0.1150)
62	2.41 (0.0949)	80	2.95 (0.1161)
63	2.44 (0.0961)	81	2.98 (0.1173)
64	2.47 (0.0973)	82	3.01 (0.1185)
65	2.50 (0.0984)	83	3.04 (0.1197)
66	2.53 (0.0996)	84	3.07 (0.1209)
67	2.56 (0.1008)	–	–



**56. INSPECT TOOTH CONTACT BETWEEN RING GEAR AND DRIVEN PINION**

- (a) Coat 3 or 4 teeth at the 4 different positions on the ring gear with red read.
- (b) Rotate the ring gear, inspect the teeth pattern.



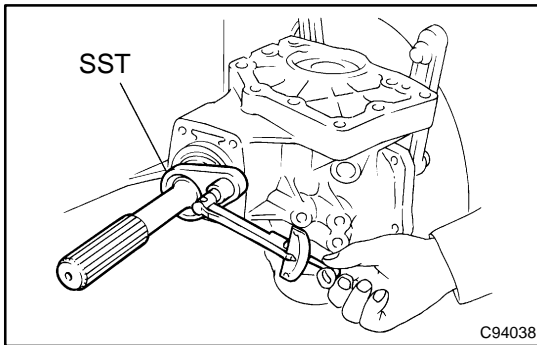
- (c) If the teeth are not contacting properly, select the proper washer again.

**Washer thickness: mm (in.)**

Mark	Thickness	Mark	Thickness
AA	2.10 (0.0827)	JA	2.34 (0.0921)
AC	2.12 (0.0835)	JC	2.36 (0.0929)
BB	2.14 (0.0843)	KB	2.38 (0.0937)
CA	2.16 (0.0850)	LA	2.40 (0.0945)
CC	2.18 (0.0858)	LC	2.42 (0.0953)
DB	2.20 (0.0866)	MB	2.44 (0.0961)
EA	2.22 (0.0874)	NA	2.46 (0.0969)
EC	2.24 (0.0882)	NC	2.48 (0.0976)
FB	2.26 (0.0890)	PB	2.50 (0.0984)
GA	2.28 (0.0898)	QA	2.52 (0.0992)
GC	2.30 (0.0906)	QC	2.54 (0.1000)
HB	2.32 (0.0913)	-	-

**NOTICE:**

**When the board thickness is changed, readjust the backlash.**

**57. ADJUST MEASURE TOTAL PRELOAD**

- (a) Using SST and a torque wrench, measure the total preload.

SST 09326-20011

**Total preload:**

**New bearing:**

**Driven pinion preload + 0.3 – 0.45 N·m (3 – 5 kgf·cm,  
2.7 – 4.0 in.·lbf)**

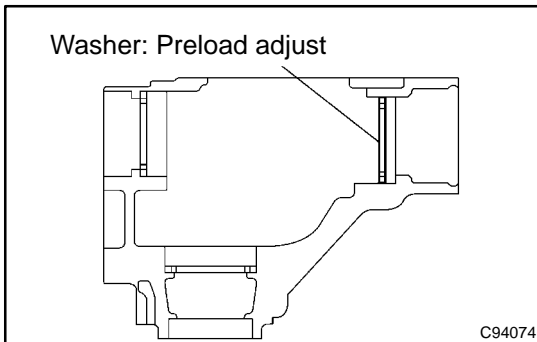
**Reused bearing:**

**Driven pinion preload + 0.19 – 0.33 N·m (2 – 3 kgf·cm,  
1.7 – 2.9 in.·lbf)**

**HINT:**

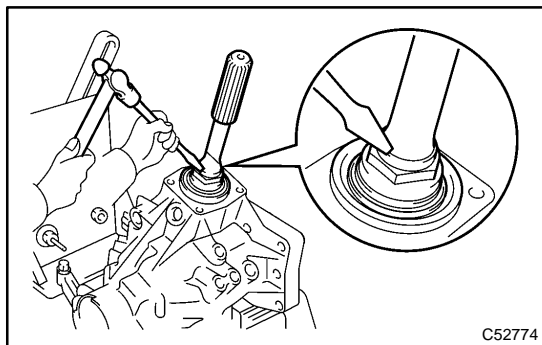
- Using a torque wrench with a fulcrum length of 160 mm (6.3 in.).
- Turn the driven pinion counterclockwise and clockwise several times.

If the preload non-standard, again select proper washer.

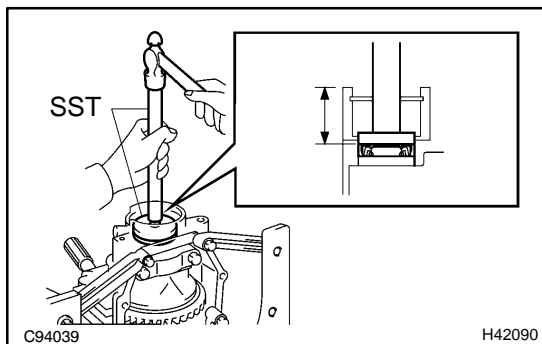
**Washer thickness: mm (in.)**

Mark	Thickness	Mark	Thickness
A0	2.47 (0.0972)	C3	3.16 (0.1244)
A1	2.50 (0.0984)	C4	3.19 (0.1256)
A2	2.53 (0.0996)	C5	3.22 (0.1268)
A3	2.56 (0.1008)	C6	3.25 (0.1280)
A4	2.59 (0.1020)	C7	3.28 (0.1291)
A5	2.62 (0.1031)	C8	3.31 (0.1303)
A6	2.65 (0.1043)	C9	3.34 (0.1315)
A7	2.68 (0.1055)	D0	3.37 (0.1327)
A8	2.71 (0.1067)	D1	3.40 (0.1339)
A9	2.74 (0.1079)	D2	3.43 (0.1350)
B0	2.77 (0.1091)	D3	3.46 (0.1362)
B1	2.80 (0.1102)	D4	3.49 (0.1374)
B2	2.83 (0.1114)	D5	3.52 (0.1386)
B3	2.86 (0.1126)	D6	3.55 (0.1398)
B4	2.89 (0.1138)	D7	3.58 (0.1409)
B5	2.92 (0.1150)	D8	3.61 (0.1421)
B6	2.95 (0.1161)	D9	3.64 (0.1433)
B7	2.98 (0.1173)	E0	3.67 (0.1445)
B8	3.01 (0.1185)	E1	3.70 (0.1457)
B9	3.04 (0.1197)	E2	3.73 (0.1469)
C0	3.07 (0.1209)	E3	3.76 (0.1480)
C1	3.10 (0.1220)	E4	3.79 (0.1492)
C2	3.13 (0.1232)	E5	3.82 (0.1504)





- (b) Using a chisel and a hammer, stake the gear nut.



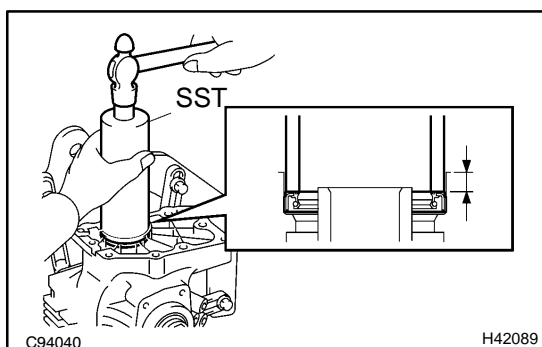
#### 58. INSTALL TRANSFER CASE RH OIL SEAL

- (a) Using SST and a hammer, drive a new oil seal into the case until it reaches the position shown in the illustration.  
SST 09950-60010 (09951-00360, 09951-00590, 09952-06010), 09950-70010 (09951-07150)  
**Drive in depth: 33.7 – 34.3 mm (1.328 – 1.350 in.)**

#### NOTICE:

**Do not install the oil seal at an angle.**

- (b) Apply a little MP grease to the lip of the oil seal.



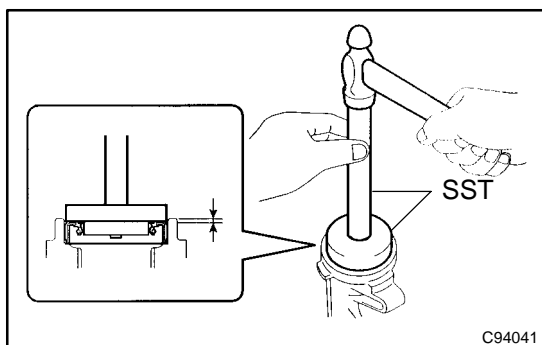
#### 59. INSTALL TRANSFER CASE OIL SEAL

- (a) Using SST and a hammer, drive a new oil seal into the transfer case until the position in the illustration.  
SST 09316-60011 (09316-00011)  
**Drive in depth: 9.7 – 10.3 mm (0.328 – 0.406 in.)**

#### NOTICE:

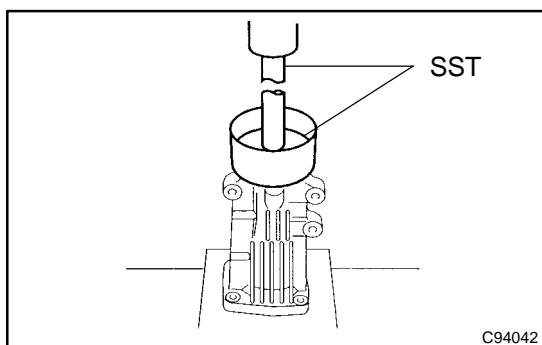
**Do not install the oil seal at an angle.**

- (b) Apply a little MP grease to the lip of the oil seal.



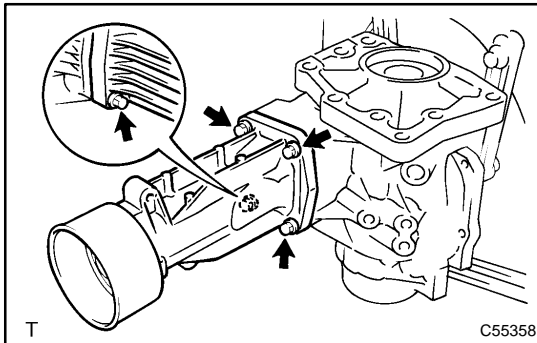
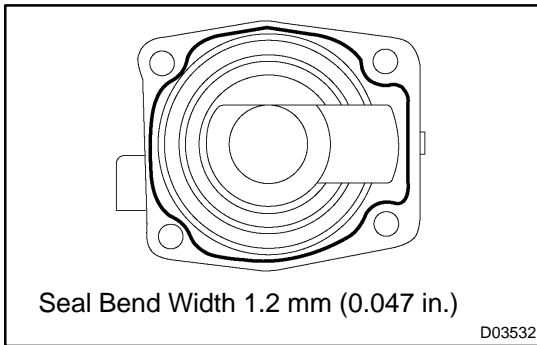
#### 60. INSTALL TRANSFER EXTENSION HOUSING TYPE T OIL SEAL

- (a) Using SST and a hammer, drive a new oil seal into the extension housing until the position in the illustration.  
SST 09950-60010 (09951-00380, 09951-00580, 09952-06010), 09950-70010 (09951-07150)  
**Drive in depth: 1.1 – 1.9 mm (0.043 – 0.075 in.)**
- (b) Apply a little MP grease to the lip of the oil seal.



#### 61. INSTALL TRANSFER EXTENSION HOUSING DUST DEFLECTOR

- (a) Using SST and a press, install the dust deflector to the extension housing.  
SST 09950-60010 (09951-00640), 09950-70010 (09951-07150)



## 62. INSTALL TRANSFER EXTENSION HOUSING SUB-ASSY

- Remove any FIPG material and be careful not to drop oil on the contacting surfaces of the extension housing sub-assy and the transfer case.
- Degrease the surface with white gasoline.
- Apply FIPG to the extension housing sub-assy.

### FIPG:

**Part No.08826-00090, THREE BOND 1281 or equivalent**

- Install the extension housing sub-assy with the 4 bolts to the case.

**Torque: 25.5 N·m (260 kgf·cm, 19 ft·lbf)**

### NOTICE:

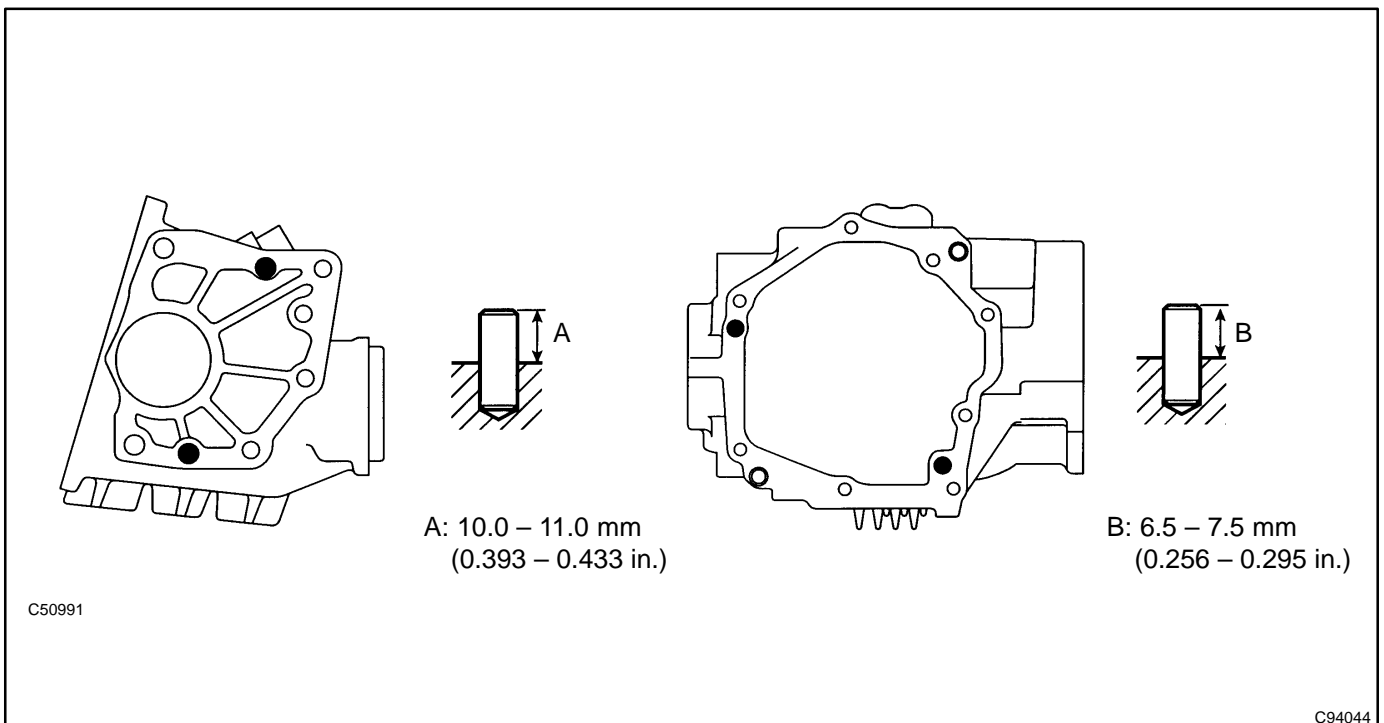
**Assemble transfer extension housing sub-assy within 10 minutes after FIPG application.**

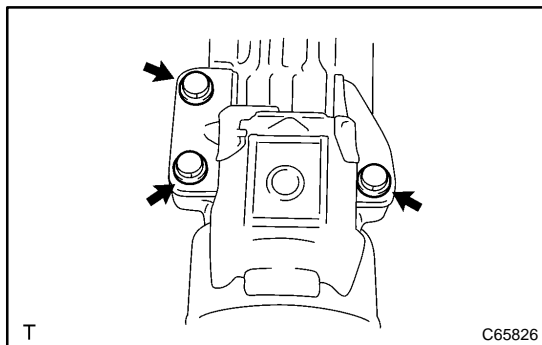
## 63. SEPARATE TRANSFER ASSY

- Remove the transfer assy from the overhaul attachment.

## 64. INSTALL TRANSFER CASE STRAIGHT PIN

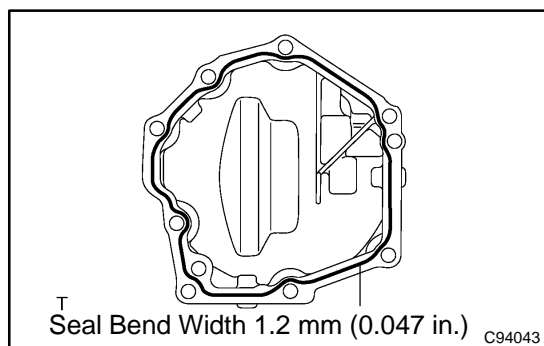
- Using a plastic hammer, drive the 4 straight pins into the position in the illustration of the case.



**65. INSTALL TRANSFER DYNAMIC DAMPER**

- (a) Install the transfer dynamic damper with the 3 bolts to the extension housing sub-assy.

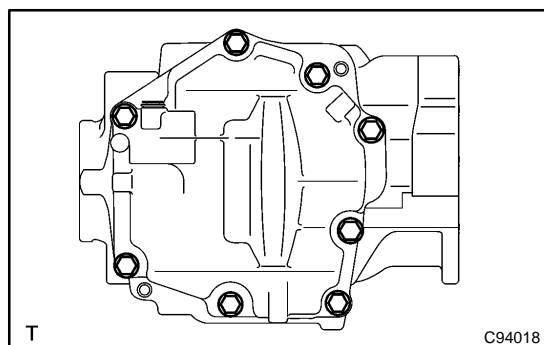
**Torque: 25.5 N·m (260 kgf·cm, 19 ft·lbf)**

**66. INSTALL TRANSFER CASE BREATHER PLUG****67. INSTALL TRANSFER CASE COVER NO.1**

- (a) Install the breather oil deflector with the bolt.  
**Torque: 6.5 N·m (66 kgf·cm, 58 in.-lbf)**
- (b) Remove any FIPG material and be careful not to drop oil on the contacting surfaces of the transfer case cover No.1 and the transfer case.
- (c) Degrease the surface with white gasoline.
- (d) Apply FIPG to the transfer case cover No.1.

**FIPG:**

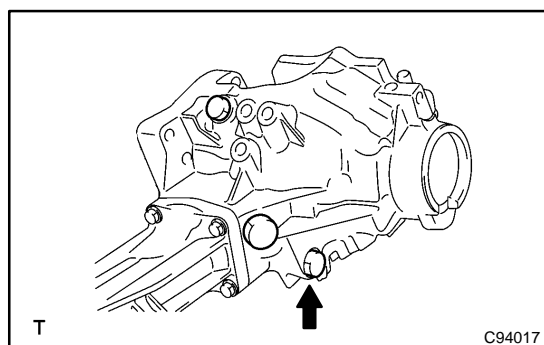
**Part No.08826-00090, THREE BOND 1281 or equivalent**



- (e) Install the transfer case cover No.1 with the 8 bolts.  
**Torque: 19.6 N·m (200 kgf·cm, 14 ft·lbf)**

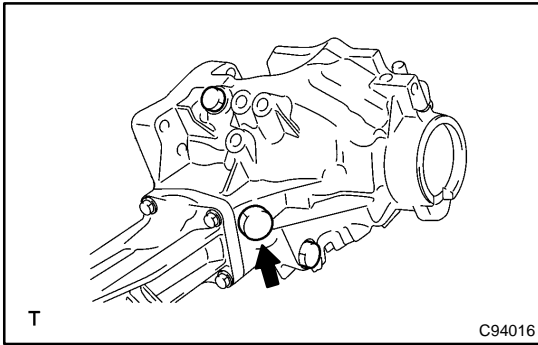
**NOTICE:**

- Before pouring transfer oil, leave it at least an hour.
- Assemble transfer case cover No.1 within 10 minutes after FIPG application.

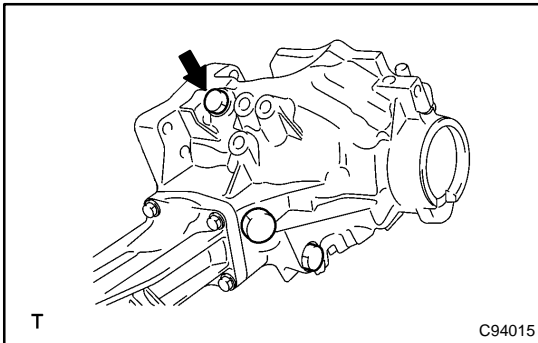
**68. INSTALL TRANSFER DRAIN PLUG**

- (a) Install a new gasket to the transfer drain plug.
- (b) Install the transfer drain plug to the transfer assy.

**Torque: 49 N·m (500 kgf·cm, 36 ft·lbf)**

**69. INSTALL TRANSFER CASE NO.2 PLUG**

- (a) Install a new gasket to the transfer case No.2 plug.
- (b) Temporary tighten the transfer case No.2 plug to the transfer assy.

**70. INSTALL TRANSFER CASE NO.1 PLUG**

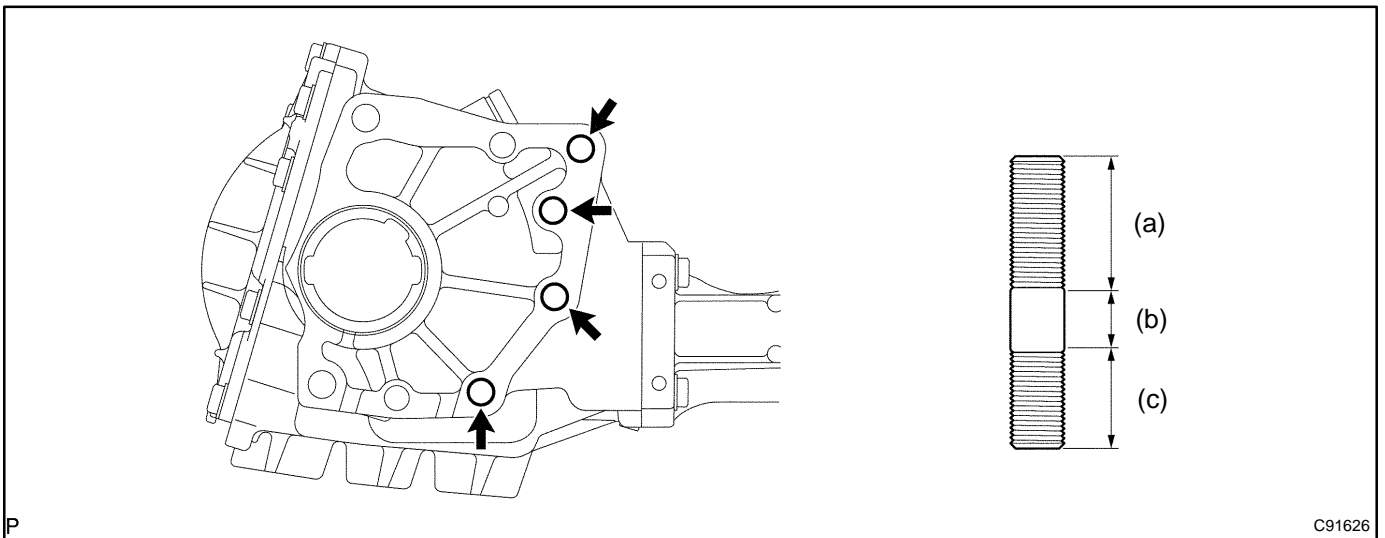
- (a) Install a new gasket to the transfer case No.1 plug.
  - (b) Install the transfer case No.1 plug to the transfer assy.
- Torque: 49 N·m (500 kgf·cm, 36 ft·lbf)**

**71. INSTALL TRANSFER & TRANSAXLE SETTING STUD BOLT**

- (a) Install the 4 stud bolts to the position in the illustration of the case.
- Torque: 39.2 N·m (400 kgf·cm, 29 ft·lbf)**

**HINT:**

In the case of this stud bolt in the illustration, the bottom side is the case installation side.

**Stud bolt length:**

- a: 30 mm (1.1811 in.)**
- b: 12 mm (0.4724 in.)**
- c: 22 mm (0.8661 in.)**

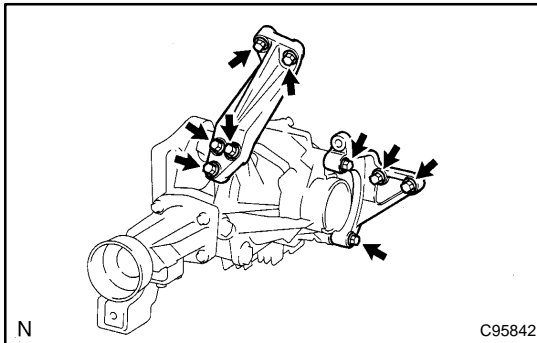
**72. INSTALL TRANSFER ASSY**

- (a) Install the transfer assy with the 6 nuts to the transaxle assy.

**Torque: 68.6 N·m (700 kgf·cm, 51 ft·lbf)**

**NOTICE:**

- Install the transfer assy to the transaxle assy horizontally.
- Do not touch the oil seal part of the transfer assy when installation.

**73. INSTALL TRANSFER STIFFENER PLATE RH**

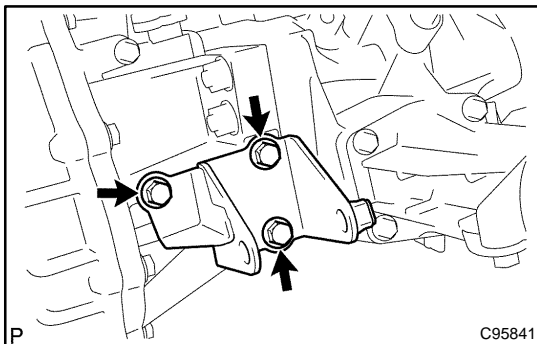
- (a) Install the stiffener plate RH with the 4 bolts.

**Torque: 34 N·m (347 kgf·cm, 25 ft·lbf)**

**74. INSTALL TRANSFER STIFFENER PLATE CENTER**

- (a) Install the stiffener plate center with the 5 bolts.

**Torque: 34 N·m (347 kgf·cm, 25 ft·lbf)**

**75. INSTALL TRANSVERSE ENGINE ENGINE MOUNTING BRACKET**

- (a) Install the engine mounting bracket with the 3 bolts.

**Torque: 64 N·m (652 kgf·cm, 47 ft·lbf)**

**76. INSTALL FRONT DRIVE SHAFT ASSY RH (See page 30-15)****77. INSTALL EXHAUST MANIFOLD (See page 14-30)****78. INSTALL EXHAUST MANIFOLD HEAT INSULATOR NO.1 (See page 14-30)****79. INSTALL OXYGEN SENSOR (See page 14-30)****80. INSTALL MANIFOLD STAY (See page 14-30)****81. INSTALL FRONT SUSPENSION CROSSMEMBER W/CENTER MEMBER (See page 14-30)****82. INSTALL RACK & PINION POWER STEERING GEAR ASSY (See page 14-30)**

SST 09023-38200

**83. INSTALL VANE PUMP ASSY (See page 14-30)****84. INSTALL ENGINE ASSEMBLY WITH TRANSAXLE (See page 14-30)**

SST 09670-00010

**85. ADD TRANSFER OIL (See page 31-3)**

Oil grade: API GL-5

Viscosity: SAE 90

Torque: 49 N·m (500 kgf·cm, 36 ft·lbf)

**86. ADD AUTOMATIC TRANSAXLE FLUID****87. ADD ENGINE OIL****88. ADD COOLANT (See page 16-6)****89. CHECK ENGINE OIL LEAK****90. CHECK ENGINE COOLANT LEAK**

2003 COROLLA MATRIX (RM940U)

91. CHECK FUEL LEAK
92. CHECK EXHAUST GAS LEAK
93. INSPECT CHECK IDLE SPEED AND IGNITION TIMING (See page 14-1)  
SST 09843-18030, 09843-18040
94. INSPECT CO/HC (See page 14-1)
95. INSPECT AND ADJUST FRONT WHEEL ALIGNMENT (See page 26-6)
96. CHECK ABS SPEED SENSOR SIGNAL (See page 05-316)