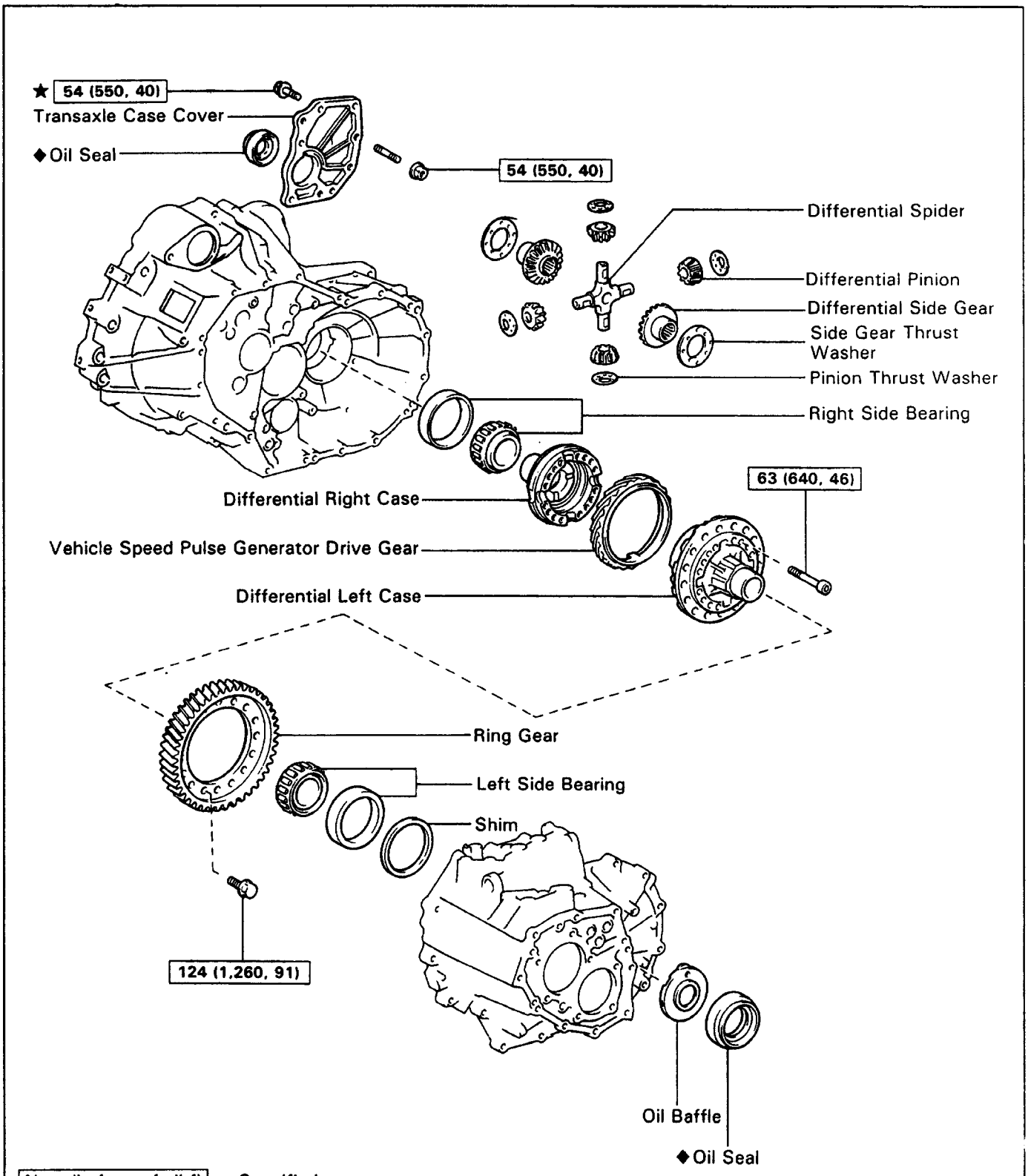
DIFFERENTIAL CASE (Standard Type)

MX01K–02

COMPONENTS

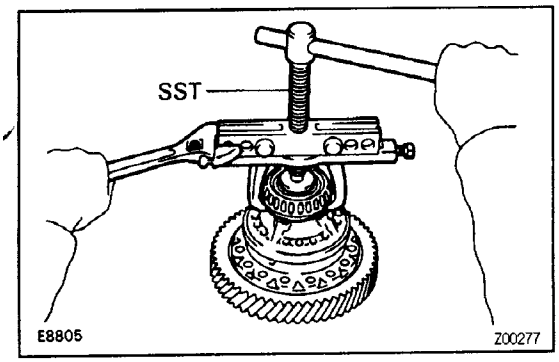


N·m (kgf·cm, ft·lbf) : Specified torque
◆ Non-reusable part
★ Precoated part

MT0721

MX01L–02

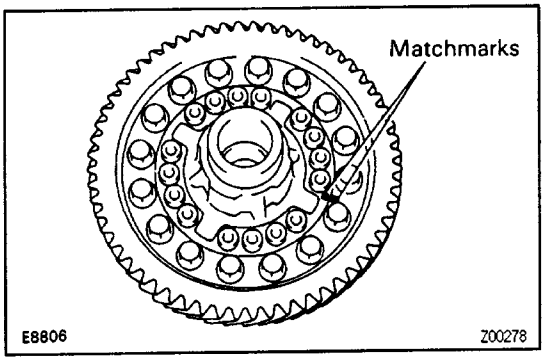
DIFFERENTIAL CASE DISASSEMBLY



1. REMOVE SIDE BEARING

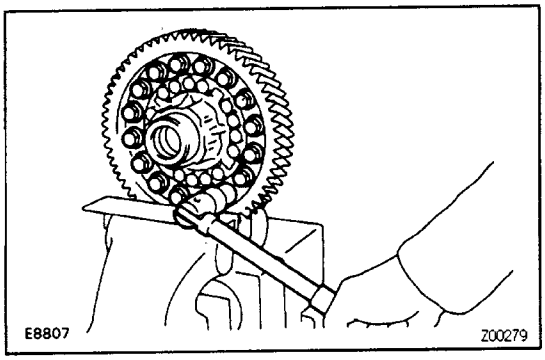
Using SST, remove the two side bearing.

SST 09950–20017

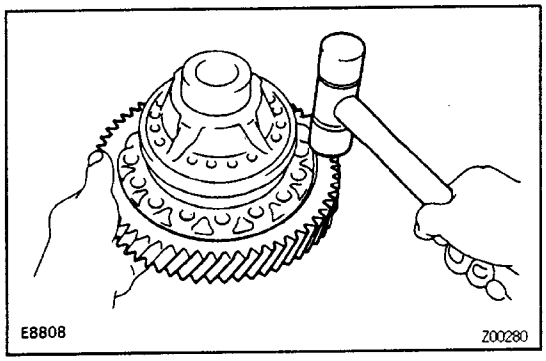


2. REMOVE RING GEAR

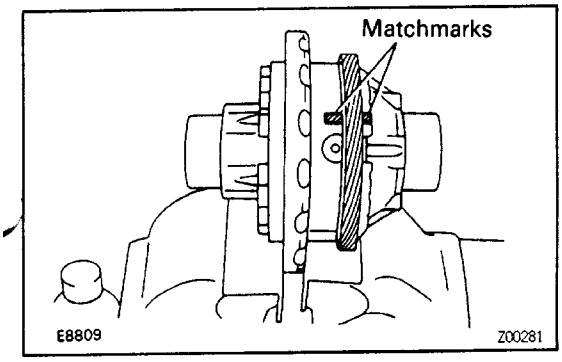
(a) Place the matchmarks on both the differential case and ring gear.



(b) Remove the sixteen bolts.

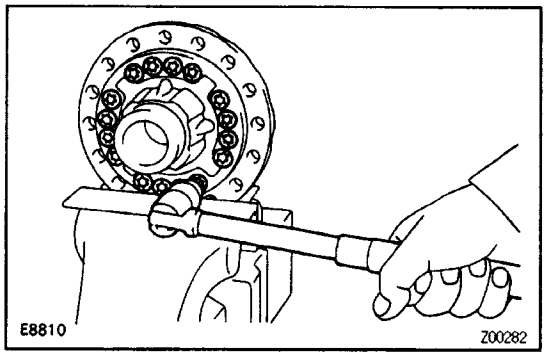


(c) Using a plastic hammer, tap out the ring gear.

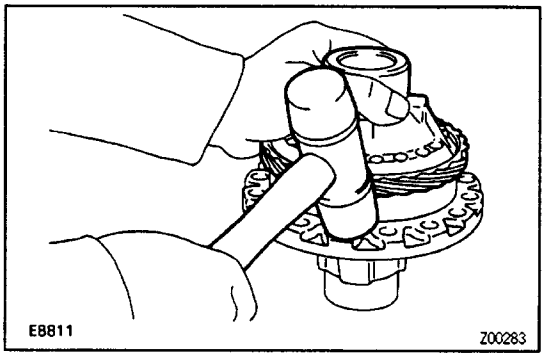


3. DISASSEMBLE DIFFERENTIAL CASE

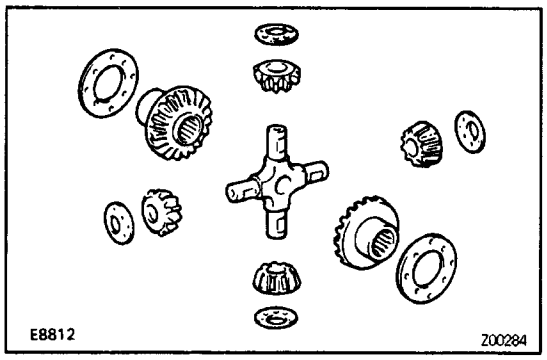
(a) Place the matchmarks on the differential right and left case.



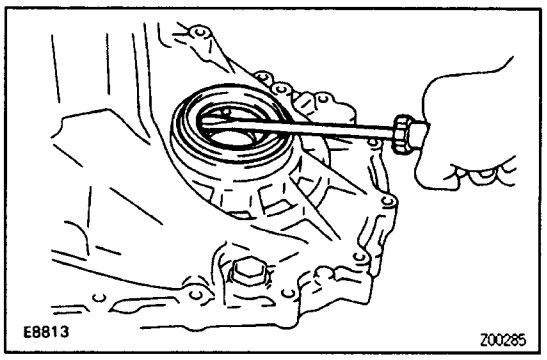
(b) Using a torx wrench, remove the sixteen torx screws.
Torx wrench: T50 09042–00040



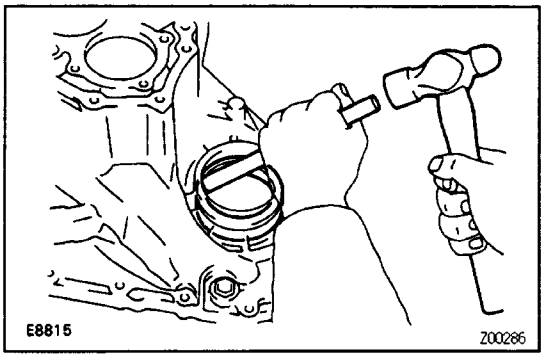
(c) Using a plastic hammer, tap out the differential left case.
(d) Remove the vehicle speed pulse generator drive gear from the differential right case.



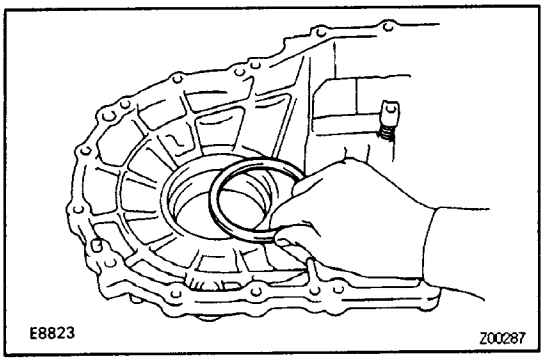
(e) Remove the two differential side gears, two side gear thrust washers, differential pinions and four pinion washers from the differential left case.



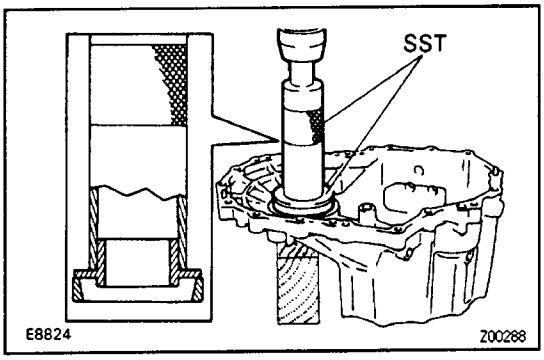
4. (TRANSMISSION CASE SIDE)
IF NECESSARY, REPLACE OIL SEAL AND TAPER ROLLER BEARING OUTER RACE
(a) Using screwdriver, remove the oil seal.
(b) Remove the transmission oil baffle.



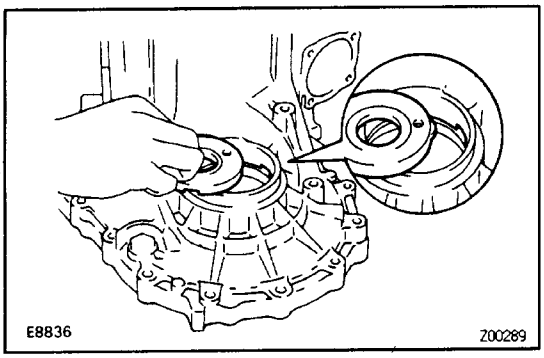
(c) Using a brass bar and hammer, drive out the bearing outer race lightly and evenly.
(d) Remove the shim.



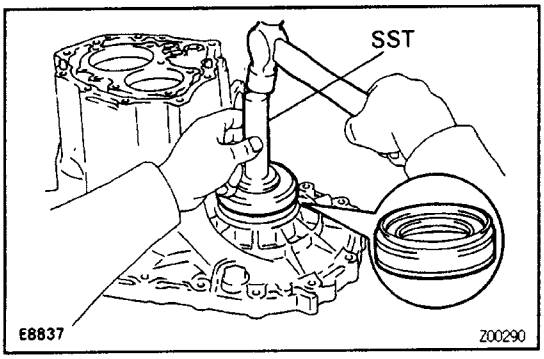
(e) Install the shim.
(See page MX2–60)
HINT: First select and install a shim of leaser thick–ness than before.



(f) Using SST and a press, install the taper roller bearing outer race.
SST 09316–60010 (09316–00010, 09316–00040)

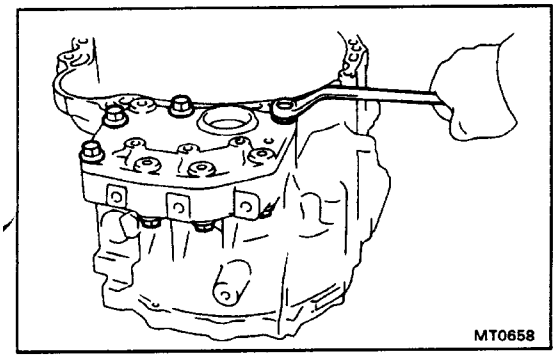


(g) Install the transmission oil baffle.
HINT: Install the transmission oil baffle projection into the case side cutout.



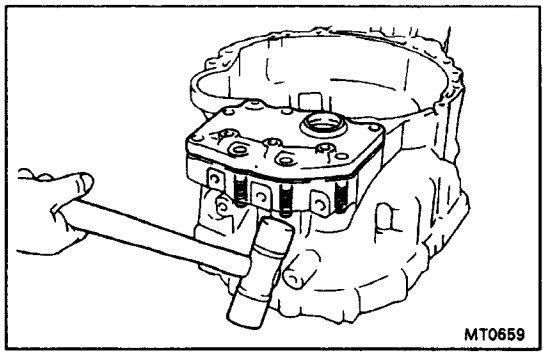
(h) Using SST and a hammer, drive in a new oil seal.
SST 09223–15010

(i) Coat the lip of oil seal with MP grease.

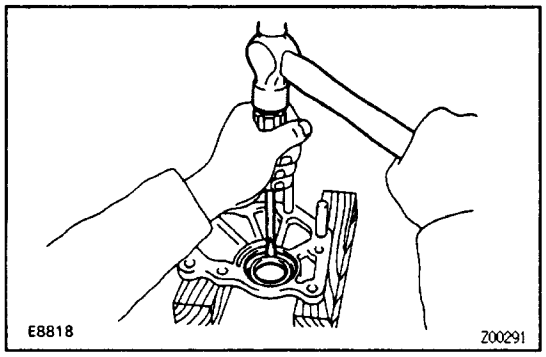


5. (TRANSAXLE CASE SIDE)
IF NECESSARY, REPLACE OIL SEAL AND TAPER ROLLER BEARING OUTER RACE

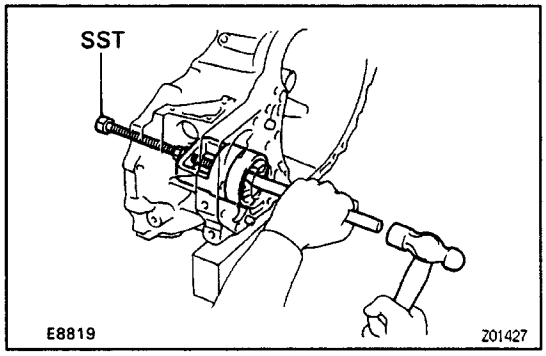
(a) Remove the four bolts and three nuts.



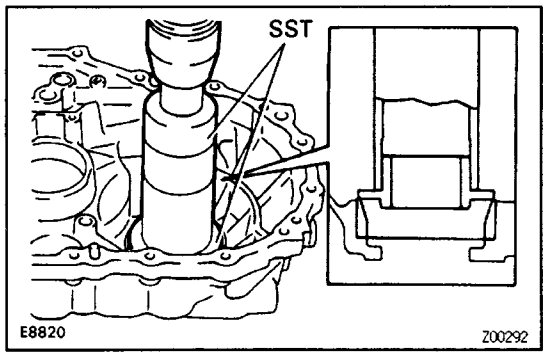
(b) Using a plastic hammer, tap the stud bolt and remove the transaxle case cover.



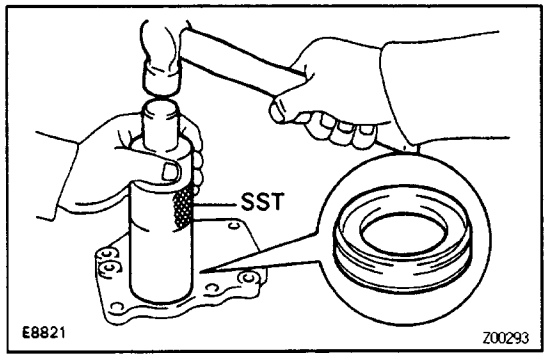
(c) Using a screwdriver and hammer, drive out the oil seal.



(d) Using a SST, brass bar and hammer, remove the taper roller bearing outer race.
SST 09612–65014

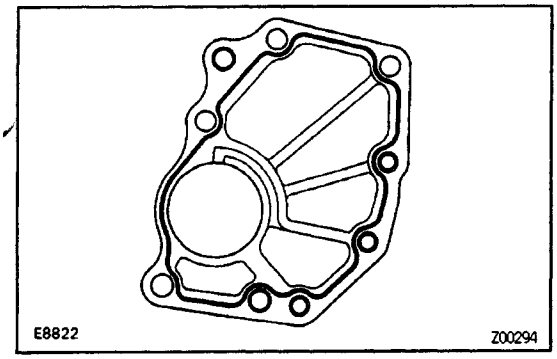


(e) Using SST and a press, install the taper roller bearing.
SST 09316–60010 (09316–00010, 09316–00040)



(f) Using SST and a hammer, drive in a new oil seal.
SST 09316–60010 (09316–00010)

(g) Coat the lip of oil seal with MP grease.



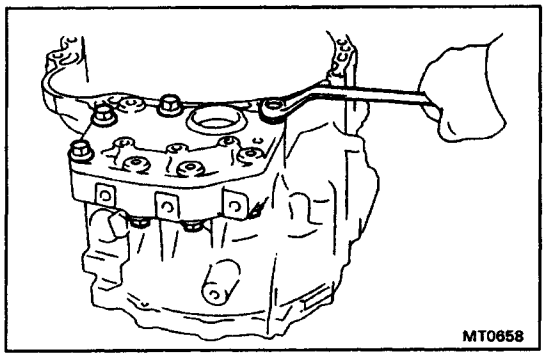
(h) Remove any packing material and be careful not to drop oil on the contacting surfaces of the transaxle case or case cover.

(i) Apply seal packing to the transansaxle case cover as shown.

Seal packing:

Part No. 08826–00090, THREE BOND 1281 or equivalent

HINT: Install the transaxle case cover as shown as the seal packing is applied.



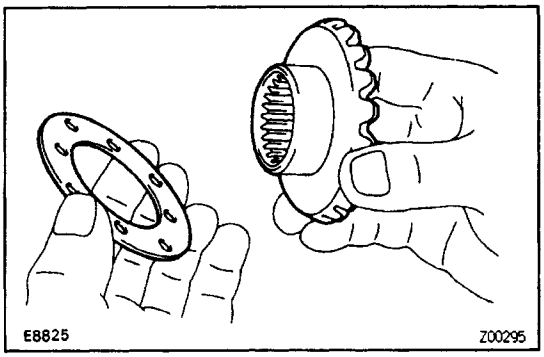
(j) Apply sealant to the bolt thread s.

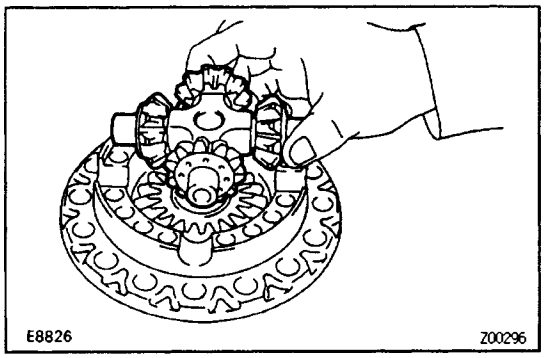
Sealant:

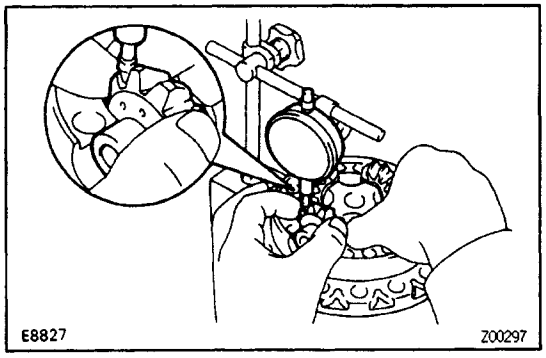
Part No.08833–00080, THREE BOND 1344, LOC–TITE 242 or equivalent

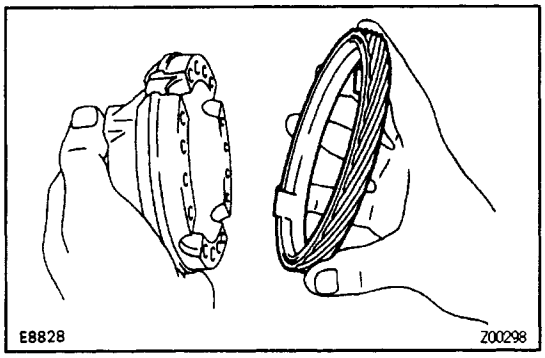
(k) Install and torque the four bolts and three nut.

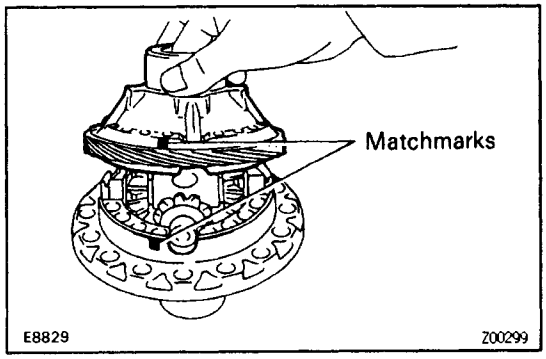
Torque: 54 N–m (550 kgf–cm. 40 ft–lbf)











DIFFERENTIAL CASE ASSEMBLY

MX021–02

(See page MX2–60)

1. ASSEMBLE DIFFERENTIAL CASE

HINT: Coat all of the sliding and rotating surface with gear oil before assembly.

(a) Install the thrust washer to the side gear.

(b) Install the four pinions and thrust washers to the spider.

(c) Install the side gear and spider with four pinions to the differential left case.

(d) Using a dial indicator, measure the backlash of one pinion gear while holding the No.2 differential case.

Standard backlash:

0.05–0.20 mm (0.0020–0.0079 in.)

HINT: Push the pinion gear and spider with four pinions to the right side a of the left side of the differential case.

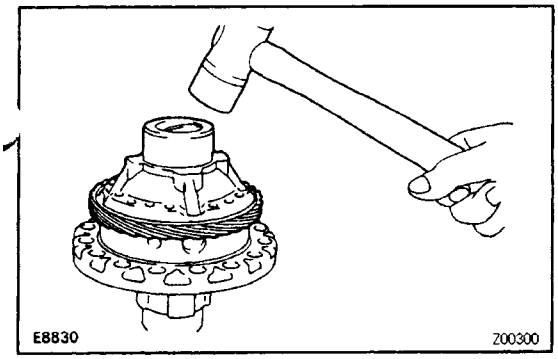
(e) Install the side gear and spider with four pinions to the right side of the differential case. Check the side gear backlash.

(f) Referring to the table below, Select the thrust washer which will ensure that the backlash is within specifi–cation. Try to select a washer of the same size.

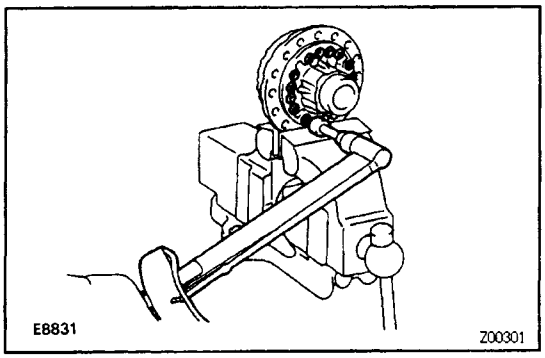
Thickness mm (in.)	Thickness mm (in.)
0.80 (0.0315)	1.20 (0.0472)
0.90 (0.0354)	1.30 (0.0512)
1.00 (0.0394)	1.40 (0.0551)
1.10 (0.0433)	

(g) Install the vehicle speed pulse generator drive gear.

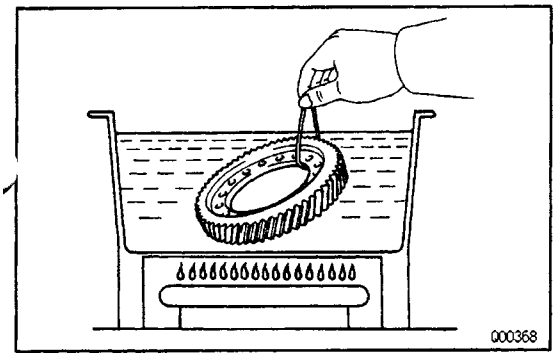
(h) Align the matchmarks on the differential cases.



(i) Using a plastic hammer, carefully tap the differential case to install it.

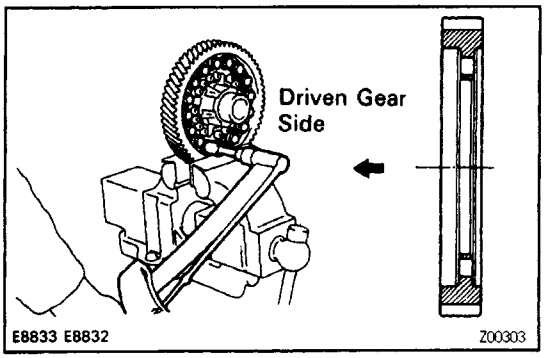


(j) Using a torx wrench, install and torque the sixteen torx screws.
Tom wrench T50 09042–00040
Torque: 63N.m (640 kgf–cm, 46 ft–lbf)



2. INSTALL RING GEAR

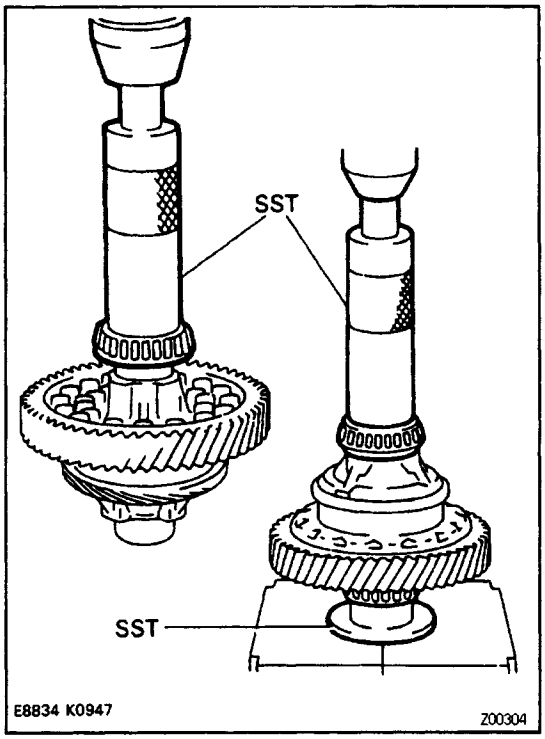
(a) Clean the contact surface of the differential case and the threads of the ring gear and differential case.
(b) Hear the ring gear in boiling water.
(c) After the moisture on the ring gear has completely evaporated, quickly install the ring gear to the differ–ential case.



HINT: Align the matchmarks on the differential left case and contact the ring gear.

(d) Temporarily install the sixteen bolts.
NOTICE: The ring gear set bolts should not be tightened until the ring gear has cooled sufficiently.

(e) After the ring gear has cooled sufficiently, torque the ring gear set bolts.
Torque: 124 N–m (1.260 kgf–cm, 91 ft–lbf)



3. INSTALL SIDE BEARING

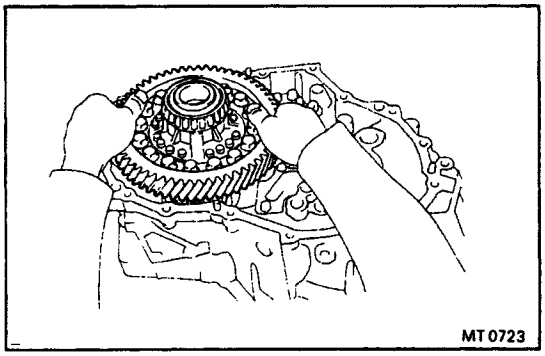
Using SST and a press, install the side bearings onto the differential case.

SST 09316–20011, 09316–60010 (09316–00010)

HINT: Press the bearing on the ring side first.

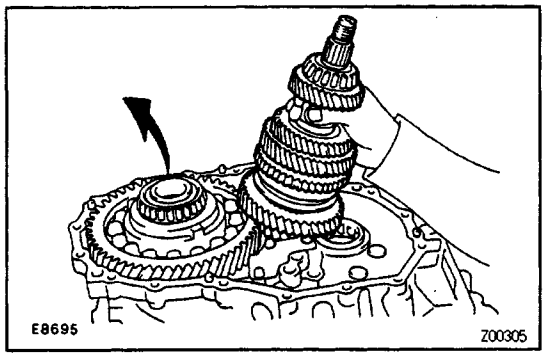
4. ADJUST OUTPUT SHAFT ASSEMBLY PRELOAD

(See pages MX2–85 to MX2–87)



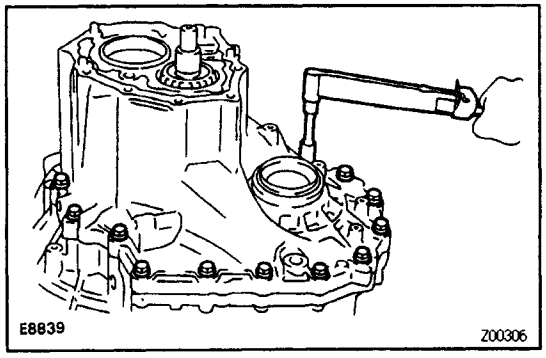
5. INSTALL DIFFERENTIAL CASE ASSEMBLY

Install the differential case assembly to the transaxle case.



6. INSTALL OUTPUT SHAFT ASSEMBLY

Lift up the differential case, install the output shaft assembly.



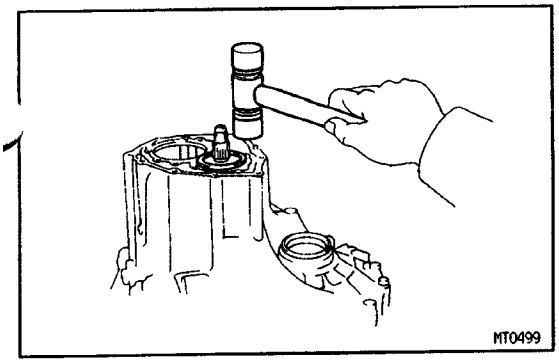
7. INSTALL TRANSMISSION CASE

(a) Install the transmission case.

HINT: If necessary, tap on the case with a plastic hammer.

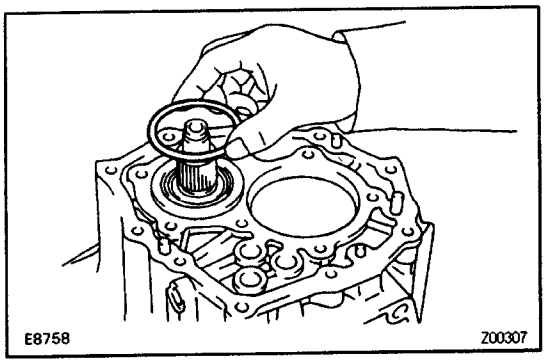
(b) Install and torque the seventeen bolts.

Torque: 29 N–m (300 kgf–cm 22 ft–lbf)



8. INSTALL OUTPUT SHAFT REAR TAPER ROLLER BEARING OUTER RACE

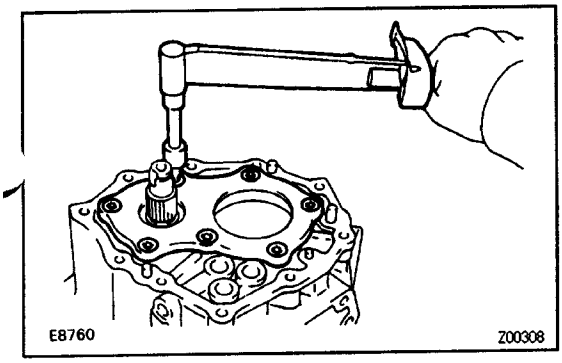
Using a plastic hammer, drive in the outer race.



9. INSTALL SHIM

(See pages MX2–85 **to** MX2–87**)**

HINT: install the previously selected shim.

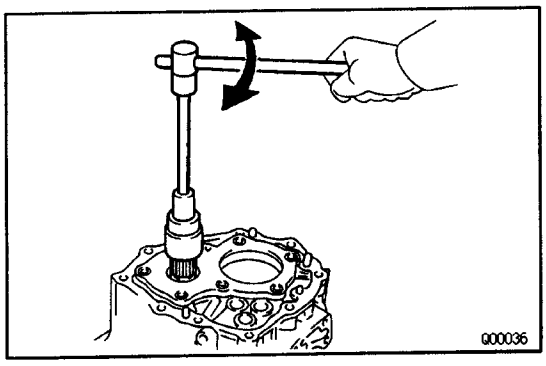


10. INSTALL REAR BEARING RETAINER

Using a torx wrench, install and torque the seven torx screws.

Torx wrench T45 09042–00050

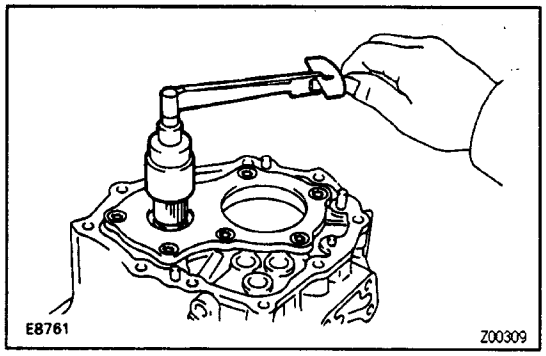
Torque: 42 N–m (430 kgf–cm, 31 ft–lbf)



11. ADJUST DIFFERENTIAL CASE SIDE BEARING PRELOAD

(a) Install the new lock nut to the output shaft.

(b) Turn the output shaft right and left two or three times to allow the bearings to settle.



(c) Using a small torque wrench, measure the preload.

Preload (at starting):

New bearing (Add output shaft preload)

0.2–0.4 N–m (2.0–4.1 kgf–cm, 1.7–3.6 in.¿lbf)

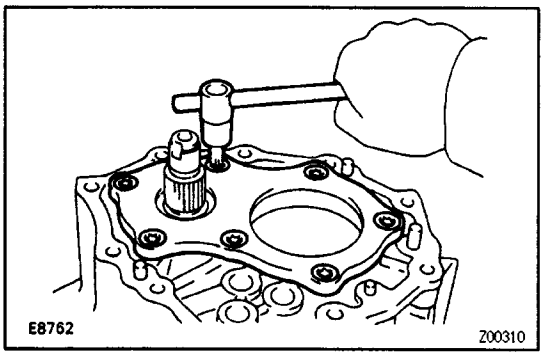
Reused bearing (Add output¿shaft preload)

0.1–0.2 N–m (1.3–2.5 kgf–cm, 1.1–2.2 in.–lbf)

If the preload is not within specification, select the thrust washers.

HINT: The total preload will change about 0.1–0.2 N–m (1–2 kgf–cm, 0.9–1.7 ft–lbf) with each shim thickness.

Mark	Thickness mm (in.)	Mark	Thickness mm (in.)
0	2.00 (0.0787)	9	2.45 (0.0965)
1	2.05 (0.0807)	A	2.50 (0.0984)
2	2.10 (0.0827)	B	2.55 (0.1004)
3	2.15 (0.0846)	C	2.60 (0.1024)
4	2.20 (0.0866)	D	2.65 (0.1043)
5	2.25 (0.0886)	E	2.70 (0.1063)
6	2.30 (0.0906)	F	2.75 (0.1083)
7	2.35 (0.0925)	G	2.80 (0.1102)
8	2.40 (0.0945)	H	2.85 (0.1122)

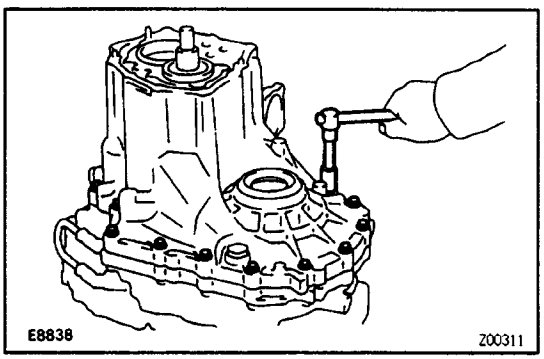


12. REMOVE REAR BEARING RETAINER

Using torx wrench, remove the seven torx screws and rear bearing retainer.

Torx wrench T45 09042–00050

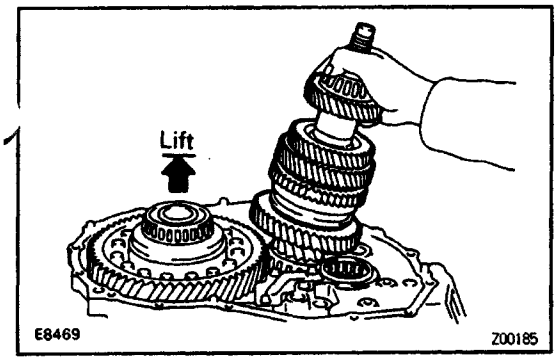
13. REMOVE SHIM



14. REMOVE TRANSMISSION CASE

(a) Remove the seventeen bolts.

(b) Using a plastic hammer, tap off the transmission case.



15. REMOVE OUTPUT SHAFT ASSEMBLY

16. REMOVE DIFFERENTIAL CASE ASSEMBLY