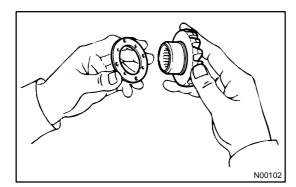
MX07A-05



REASSEMBLY

ASSEMBLE DIFFERENTIAL CASE

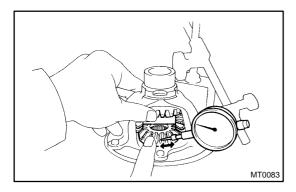
(a) Install the correct thrust washers and side gears. Refer to the table below, select thrust washers which will ensure that the backlash is within the specification. Try to select washers of the same size for both sides.

Standard backlash:

0.05 - 0.20 mm (0.0020 - 0.0079 in.)

Thickness mm (in.)	Thickness mm (in.)
1.50 (0.0591)	1.65 (0.0650)
1.55 (0.0610)	1.70 (0.0669)
1.60 (0.0630)	1.75 (0.0689)

- (b) Install the thrust washers and side gears in the differential case.
- (c) Install the pinion shaft.



(d) Using a dial indicator, check the side gear backlash. Measure the side gear backlash while holding one pinion gear toward the differential case.

Standard backlash:

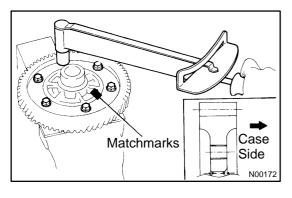
0.05 - 0.20 mm (0.0020 - 0.0079 in.)

If the backlash is not within the specification, install a thrust washer of different thickness.

- (e) Using a pin punch and hammer, drive in the straight pin through the differential case and hole in the pinion shaft.
- (f) Using a chisel and hammer, caulk the pin holes around the circumference of the differential case.

2. INSTALL RING GEAR ON DIFFERENTIAL CASE

- (a) Clean the contact surface of the differential case.
- (b) Heat the ring gear in boiling water.
- (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 differential case.



2002 ECHO (RM884U)

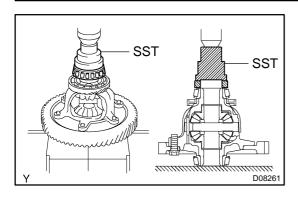
HINT:

Align the matchmarks on the differential case and contact the ring gear.

(e) Install the 6 set bolts. Tighten each set bolt uniformly, a little at a time in succession. Torque the bolts.

Torque: 124 N-m (1,260 kgf-cm, 91 ft-lbf)

Author: Date: 922



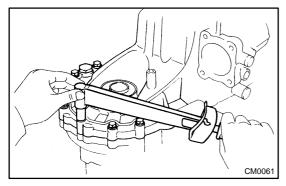
3. INSTALL SIDE BEARING

- (a) Install the vehicle speed sensor drive gear to the RH side.
- (b) Using SST and a press, install new side bearings to the both sides of the differential case.

SST 09350-32014 (09351-32090, 09351-32120)

NOTICE:

When replacing the side bearing outer race, replace the side bearing along with it.

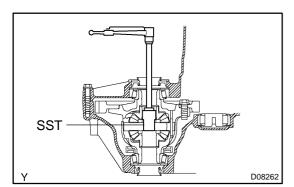


4. INSPECT DIFFERENTIAL SIDE BEARING PRELOAD NOTICE:

Perform this only when replacing the side bearing and outer race of the differential case.

- (a) Install the differential case assembly to the transaxle case.
- (b) Install the transmission case.
- (c) Install and torque the case bolts.

Torque: 29 N-m (300 kgf-cm, 22 ft-lbf)



(d) Using SST and a torque wrench, turn the differential case assembly right and left 2 or 3 times to allow the bearings to settle.

SST 09564-3201 1

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

SST 09564-3201 1

Preload (at starting):

New bearing

0.8 - 1.6 N·m (8 - 16 kgf·cm, 6.9 - 13.9 in.-lbf)

Reused bearing

0.5 - 1.0 N·m (5 - 10 kgf·cm, 4.3 - 8.7 in.-lbf)

If the preload is not within the specification, remove the transmission case side outer race of the side bearing with SST (See page MX-39).

(f) Select an appropriate shim.

HINT:

The preload will change by about 0.3 - 0.4 N·m (3 - 4 kgf·cm, 2.6 - 3.5 in.·lbf) corresponding to a change of 0.05 mm (0.0020 in.) in shim thickness.

Mark	Thickness mm (in.)	Mark	Thickness mm (in.)
AA	2.10 (0.0827)	LL	2.60 (0.1024)
ВВ	2.15 (0.0846)	MM	2.65 (0.1043)
CC	2.20 (0.0866)	NN	2.70 (0.1063)
DD	2.25 (0.0886)	PP	2.75 (0.1083)
EE	2.30 (0.0906)	QQ	2.80 (0.1102)
FF	2.35 (0.0925)	RR	2.85 (0.1122)
GG	2.40 (0.0945)	SS	2.90 (0.1142)
НН	2.45 (0.0965)	TT	2.95 (0.1161)
JJ	2.50 (0.0984)	UU	3.00 (0.1181)
KK	2.55 (0.1004)	-	-