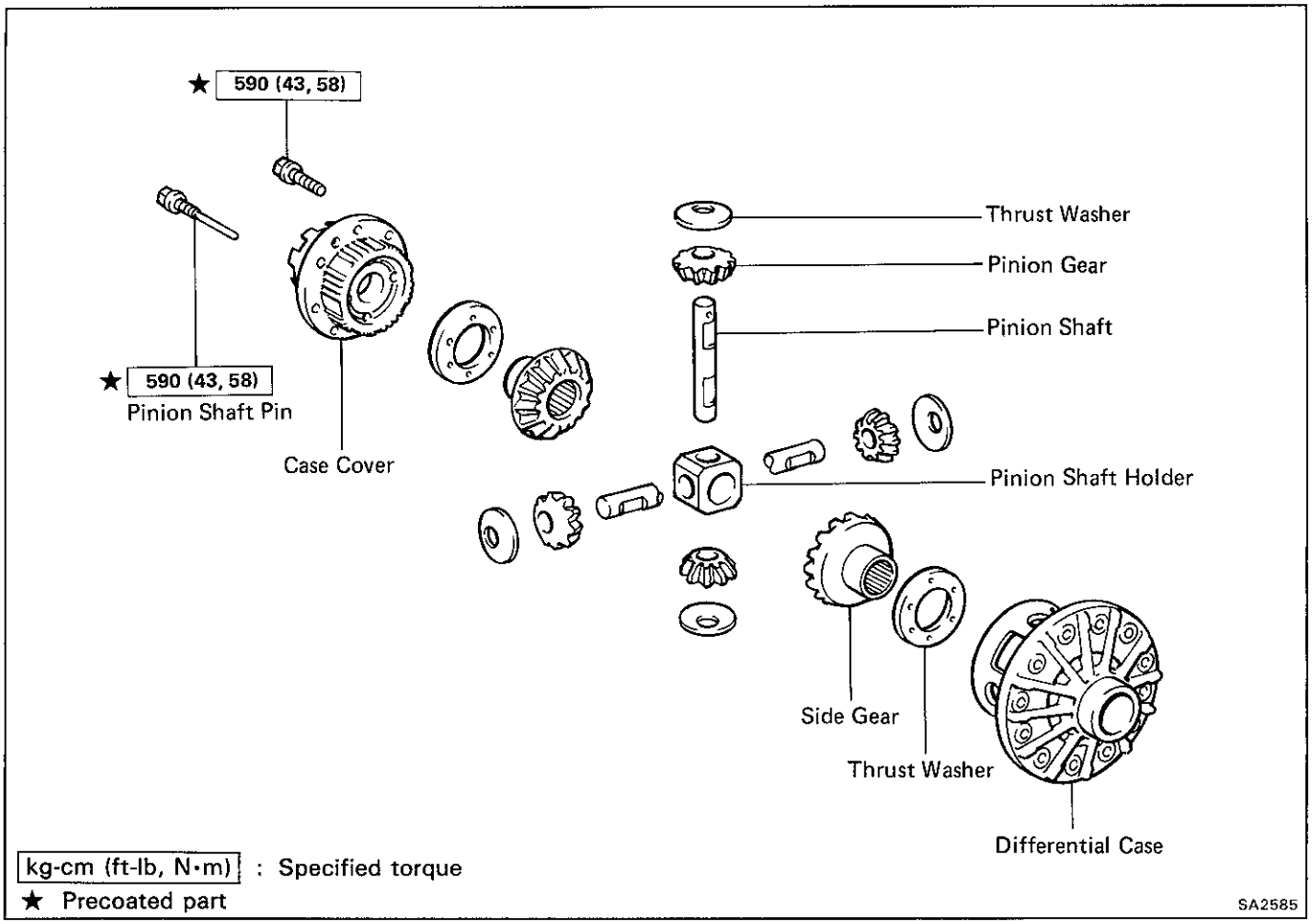
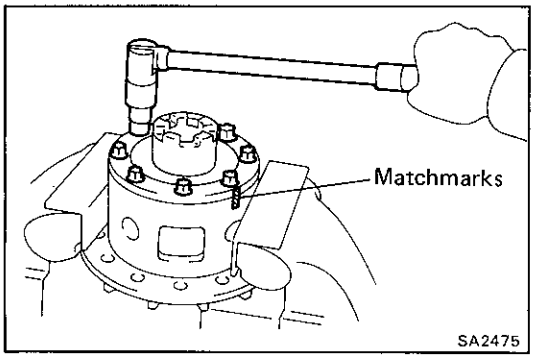
Differential Case (4 Pinion Type)

COMPONENTS



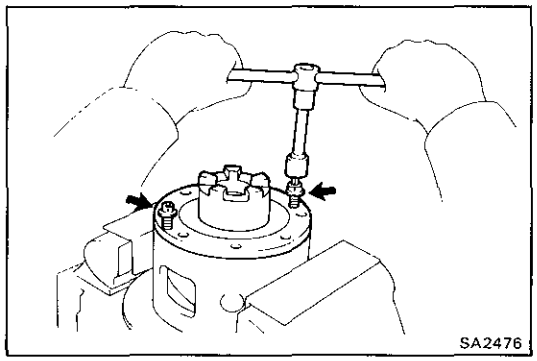
REMOVAL OF DIFFERENTIAL CASE

1. **REMOVE DIFFERENTIAL (See page SA-142)**
2. **REMOVE DIFFERENTIAL CASE FROM CARRIER (See page SA-146)**



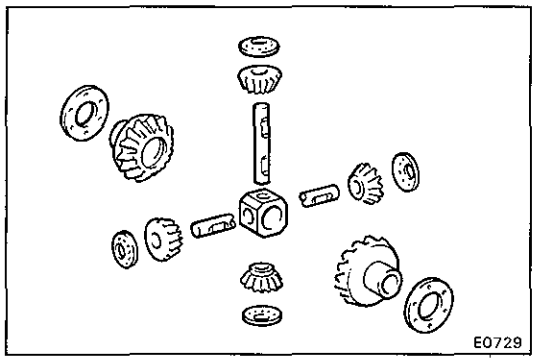
DISASSEMBLY OF DIFFERENTIAL CASE

1. **DISASSEMBLE DIFFERENTIAL CASE**
   (a) Place matchmarks on the case and cover.
   (b) Using a torx socket wrench (09044-00020), remove the five set bolts and three pinion shaft pins.


SA2476

(c) Using two cover installation bolts, separate the cover and case.

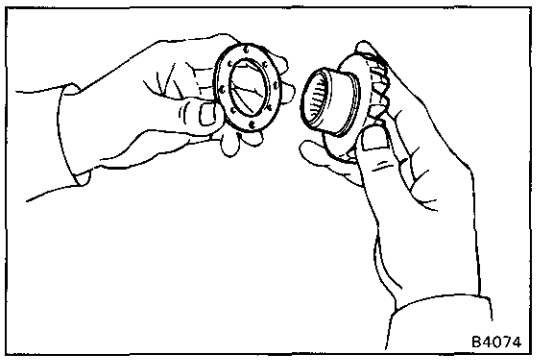
(d) Remove the two cover installation bolts.


E0729

2. **REMOVE FOLLOWING PARTS FROM CASE:**
   - Side gear (2 pieces)
   - Side gear thrust washer (2 pieces)
   - Pinion gear (4 pieces)
   - Pinion thrust washer (4 pieces)
   - Pinion shaft (3 pieces)
   - Pinion shaft holder

ASSEMBLY OF DIFFERENTIAL CASE

(See page SA-171)

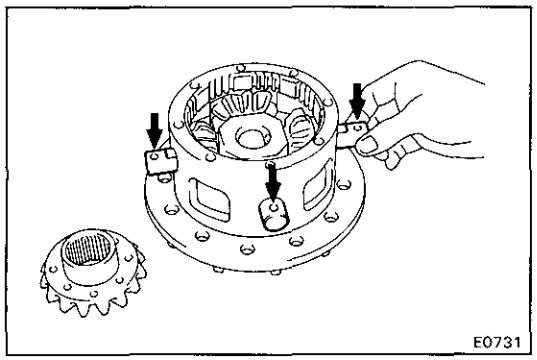

B4074

1. **MEASURE SIDE GEAR BACKLASH**

(a) Apply gear oil to each part.

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

(c) Install the thrust washer to the pinion.


E0731

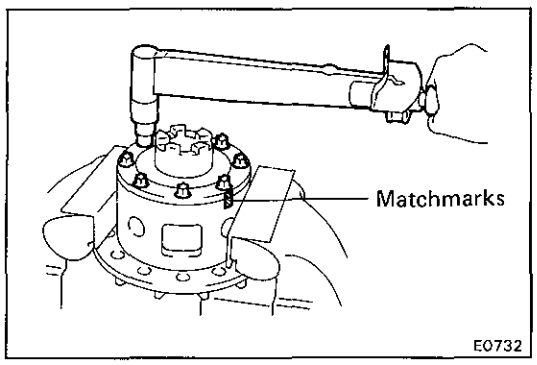
(d) Install the side gear into the case.

(e) Install the holder into the case.

(f) Install the four pinions.

(g) Align the pinion shaft hole and case pinion shaft pin hole, and install the pinion shaft.

(h) Install the side gear to the cover.

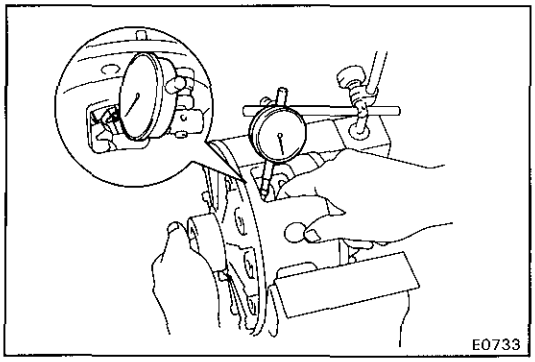


E0732

(i) Align matchmarks, install the case and cover.

(j) Using a torx socket wrench (09044-00020), torque the five bolts and three pinion shaft pins.

Torque: 590 kg-cm (43 ft-lb, 58 N·m)



(k) Holding the side gear, measure the backlash.

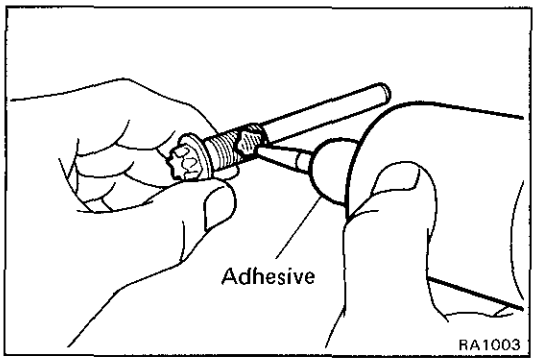
Backlash: 0.02 – 0.20 mm (0.0008 – 0.0079 in.)

HINT: Measure at all four locations.

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

Thrust washer thickness	mm (in.)
1.60 (0.0630)	1.90 (0.0748)
1.75 (0.0689)	2.05 (0.0807)

(l) After measuring backlash, remove the five set bolts and three pinion shaft pins.

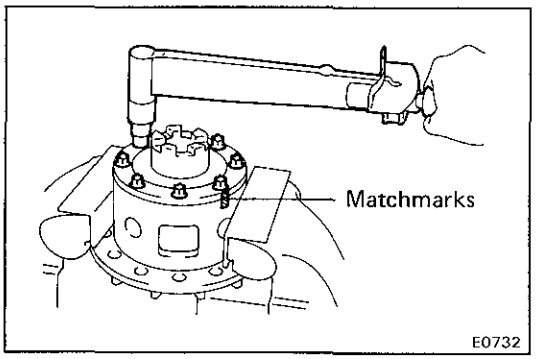


2. ASSEMBLE DIFFERENTIAL CASE

(a) Clean the threads of the bolts, pinion shaft pins, case and cover with the white gasoline.

(b) Coat the threads of the bolts and pinion shaft pins with adhesive.

Adhesive: Part No. 08833-00070, THREE BOND 1324 or equivalent



(c) Align matchmarks, install the case and cover.

(d) Using a torx socket wrench (09044-00020), torque the five bolts and three pinion shaft pins.

Torque: 590 kg-cm (43 ft-lb, 58 N·m)

INSTALLATION OF DIFFERENTIAL

1. INSTALL DIFFERENTIAL CASE IN CARRIER
(See page SA-146)

2. INSTALL DIFFERENTIAL
(See page SA-142)