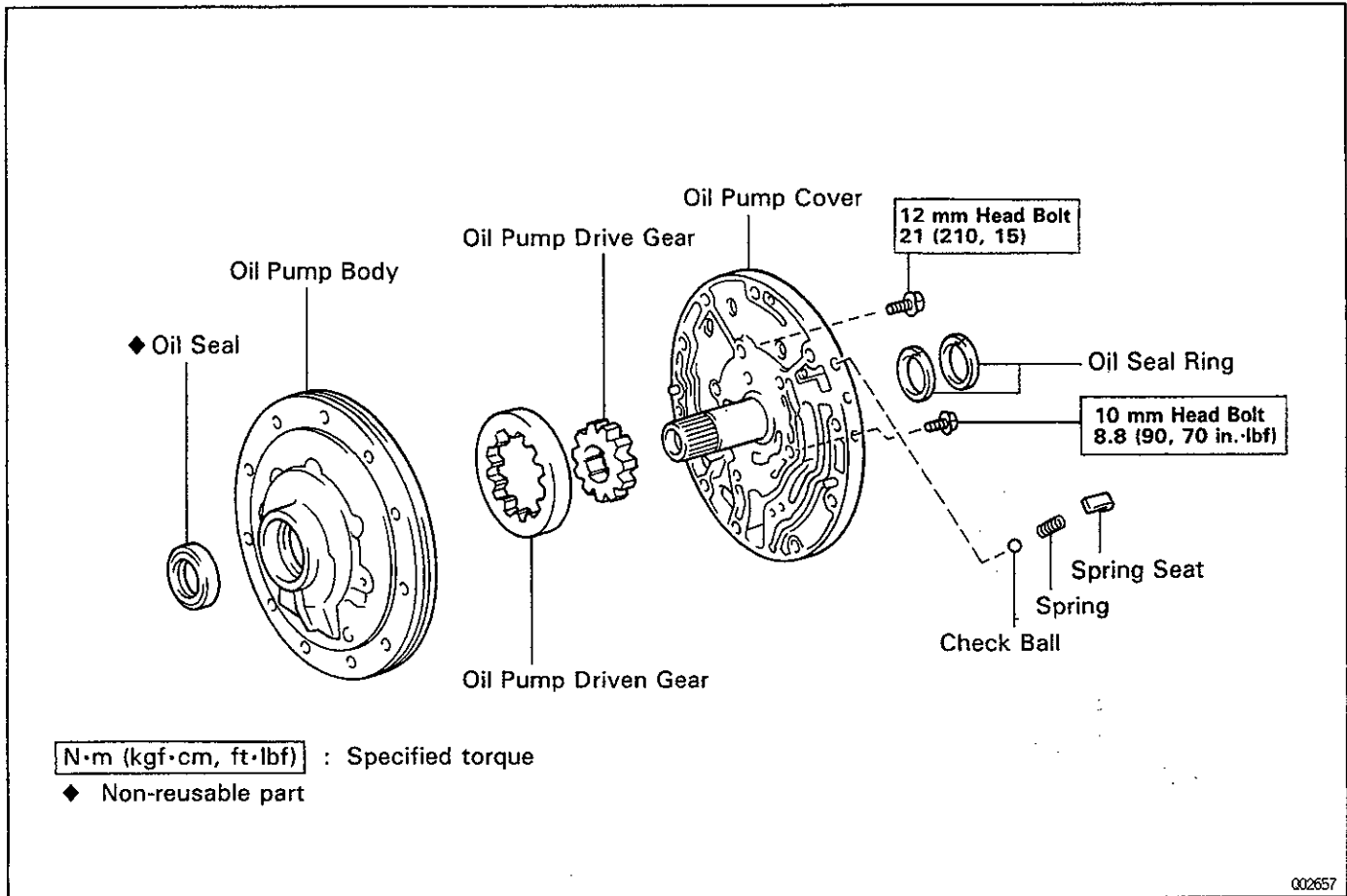


OIL PUMP COMPONENTS

AT094-01

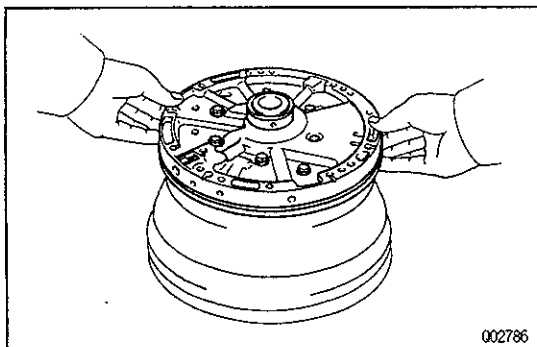
AT



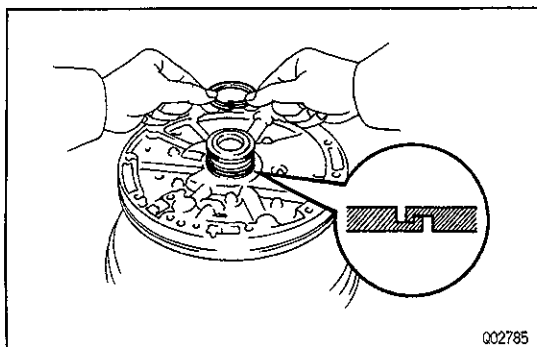
AT07W-02

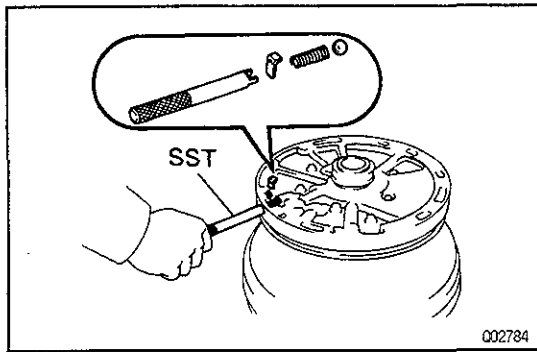
COMPONENTS DISASSEMBLY

1. USE TORQUE CONVERTER AS WORK STAND



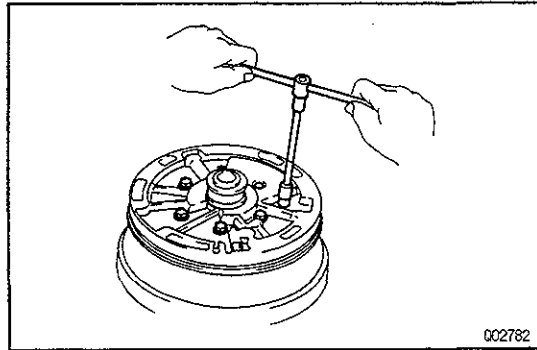
2. REMOVE OIL SEAL RINGS remove the two oil seal rings.



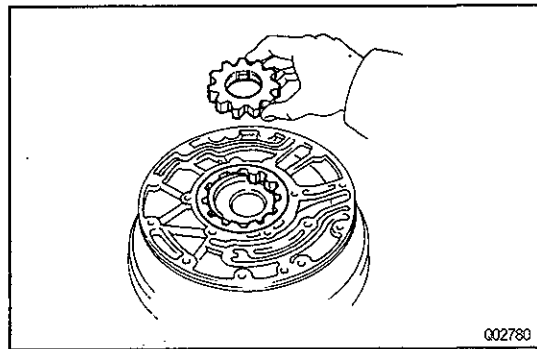


3. REMOVE CHECK BALL

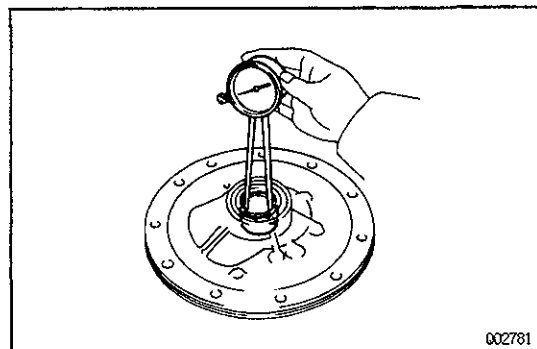
- (a) Using SST, compress the spring and remove the spring seat.
SST 09350-36010(09350-06100)
- (b) Remove the spring and check ball.



4. REMOVE EIGHT BOLTS AND PUMP COVER



5. REMOVE OIL PUMP DRIVE AND DRIVEN GEARS



OIL PUMP INSPECTION

AT07X-01

1. INSPECT BUSHING OF OIL PUMP BODY

Using a dial indicator, measure the inside diameter.

Standard inside diameter:

42.050–42.075 mm (1.6555–1.6565 in.)

Maximum inside diameter:

42.13 mm (1.6587 in.)

If the inside diameter is greater than maximum, replace the pump body.

2. INSPECT BUSHINGS OF OIL PUMP COVER

Using a dial indicator, measure the inside diameter.

Front bushing standard inside diameter:

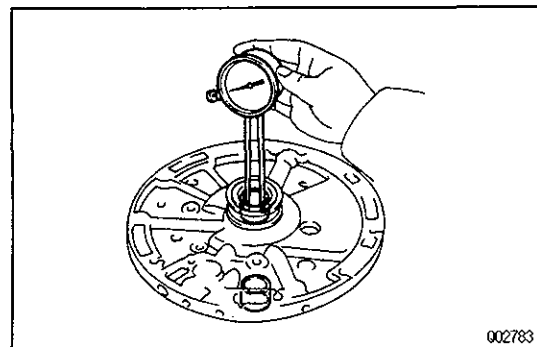
24.000–24.021 mm (0.9449–0.9457 in.)

Rear bushing standard inside diameter:

26.500–26.521 mm (1.0433–1.0441 in.)

Front bushing maximum inside diameter:

24.07 mm (0.9476 in.)

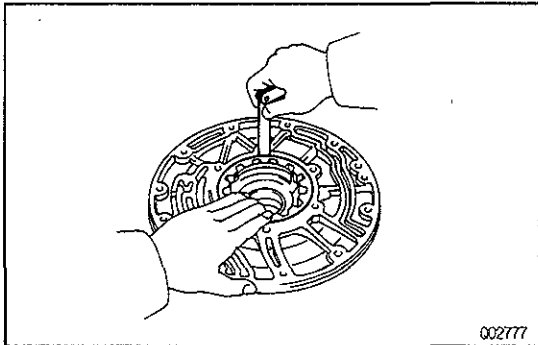


Rear bushing maximum inside diameter:

26.57 mm (1.0461 in.)

If the inside diameter is greater than the maximum, replace the pump cover.

AT



3. INSPECT BODY CLEARANCE OF DRIVEN GEAR

- (a) Push the driven gear to one side of the body.
- (b) Using a feeler gauge, measure the clearance between the driven gear and body.

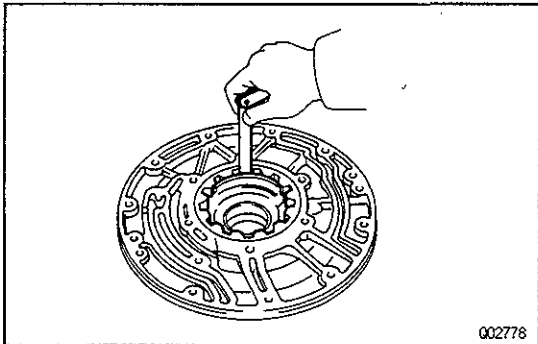
Standard body clearance:

0.07–0.15 mm (0.0028–0.0059 in.)

Maximum body clearance:

0.3 mm (0.012 in.)

If the body clearance is greater than the maximum, replace the gears and pump body as a set.



4. INSPECT TIP CLEARANCE OF DRIVEN GEAR

Using a feeler gauge, measure the clearance between the gear teeth and the crescent-shaped part of the pump body.

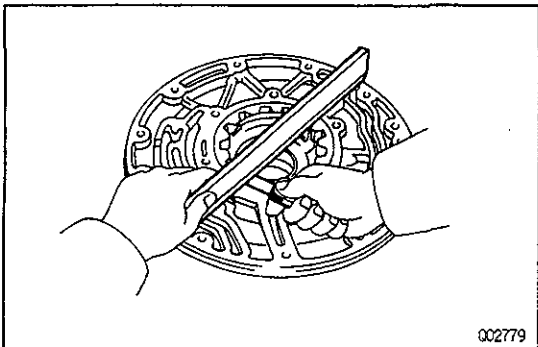
Standard tip clearance:

0.14–0.24 mm (0.0055–0.0094 in.)

Maximum tip clearance:

0.3 mm (0.012 in.)

If the tip clearance is greater than the maximum, replace the gears and pump body as a set.



5. INSPECT SIDE CLEARANCE OF DRIVE AND DRIVEN GEARS

Using a steel straight edge and a feeler gauge, measure the clearance between the gears and steel straight edge.

Standard side clearance:

0.02–0.05 mm (0.0008–0.0020 in.)

Maximum side clearance:

0.1 mm (0.004 in.)

If the side clearance is greater than the maximum, select and replace the gears as set.

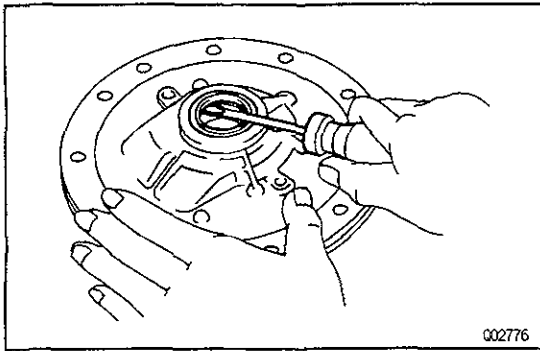
HINT: There are two difference thicknesses for drive and driven gears.

Gear thickness:

18.435–18.450 mm (0.7258–0.7264 in.)

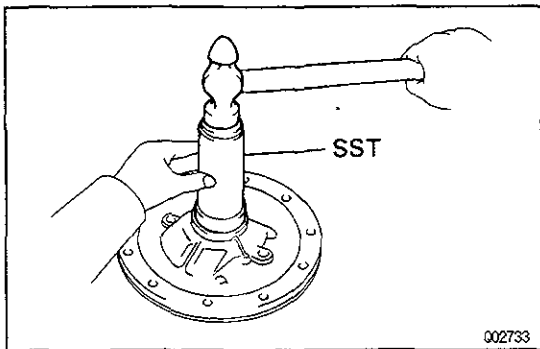
18.451–18.486 mm (0.7264–0.7278 in.)

If necessary, replace the pump body.



6. IF NECESSARY, REPLACE OIL SEAL

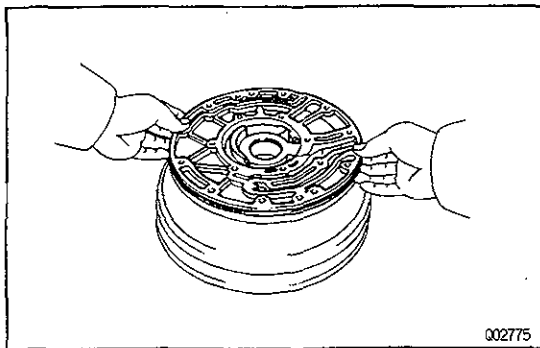
- (a) Using a screwdriver, pry off the oil seal.



- (b) Using SST, tap in a new oil seal. The oil seal end should be with the outer edge of the pump body.

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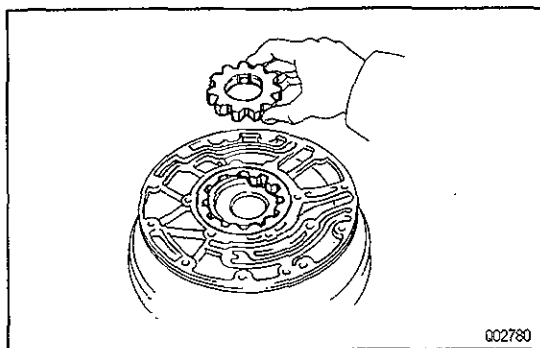
- (c) Apply MP grease to the oil seal lip.



OIL PUMP ASSEMBLY

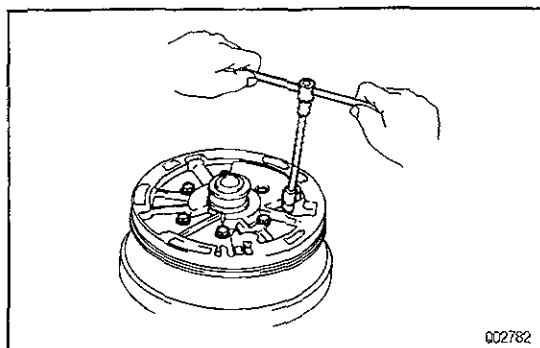
AT07Y-02

1. PLACE OIL PUMP BODY ONTO TORQUE CONVERTER



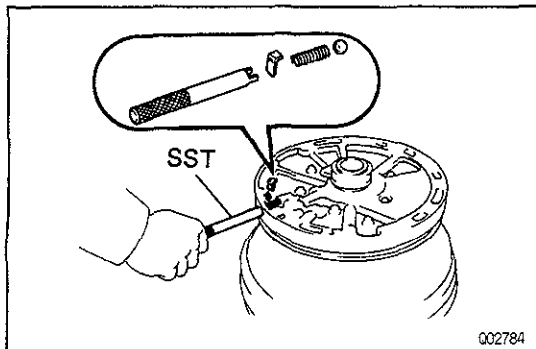
2. INSTALL DRIVEN AND DRIVE GEARS TO OIL PUMP BODY

- (a) Coat the driven and drive gears with ATF.
(b) Install the driven and drive gears.



3. INSTALL OIL PUMP COVER TO OIL PUMP BODY

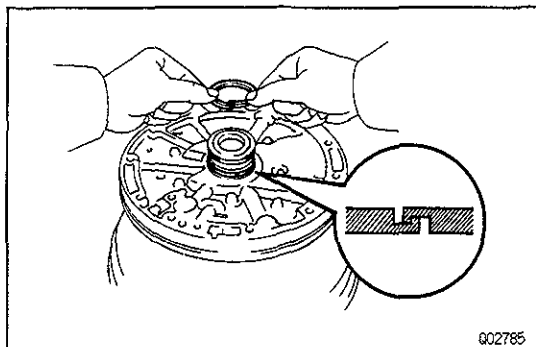
- (a) Align the bolt holes of the oil pump body and cover.
(b) Install the pump cover with the eight bolts.
Torque (10 mm head bolt): 8.8 N·m (90 kgf·cm, 78 in.-lbf)
Torque (12 mm head bolt): 21 N·m (210 kgf·cm, 15 ft-lbf)

**4. INSTALL CHECK BALL**

- (a) Install the check ball and spring.
- (b) Using SST, compress the spring and install the spring seat.

SST 09350–36010(09350–06110)

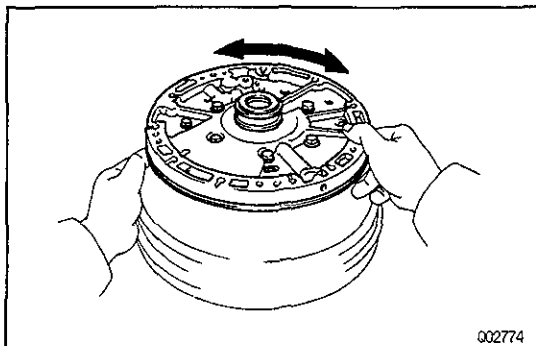
AT

**5. INSTALL OIL SEAL RINGS**

- (a) Coat the two oil seal rings with ATF.
- (b) Contract the oil seal rings, and install them onto the stator shaft.

NOTICE: Do not spread the ring ends too much.

HINT: After installing the oil seal rings, check that they rotate smoothly.

**6. CHECK OIL PUMP DRIVE ROTATION**

Make sure the drive gear rotates smoothly when installed to the torque converter.