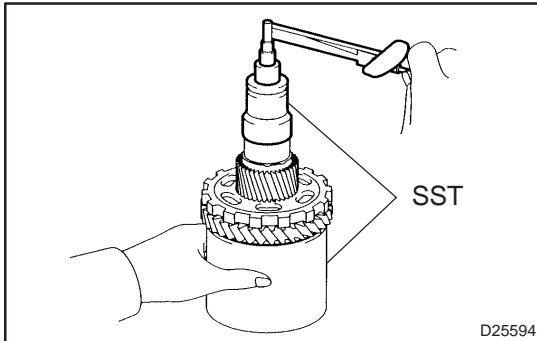


UNDERDRIVE PLANETARY GEAR ASSY (U241E) OVERHAUL

4006U-01



1. INSPECT UNDERDRIVE PLANETARY GEAR PRELOAD

- (a) Using SST a torque wrench, measure the turning torque of U/D planetary gear assy while rotating the torque wrench at 60 rpm.

SST 09387-00050, 09564-16020

Turning torque at 60 rpm:

0.23 – 5.01 N·m (2 – 51 kgf·cm, 2.0 – 44.3 in·lbf)

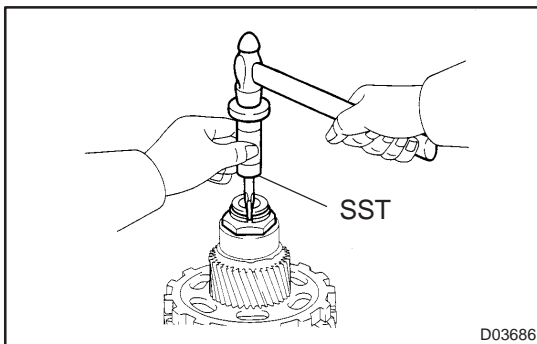
HINT:

Use a torque wrench with a fulcrum length of 160 mm (6.3 in.).

2. REMOVE CYLINDRICAL ROLLER BEARING RACE INNER

- (a) Using SST, loosen the staked part of the nut.

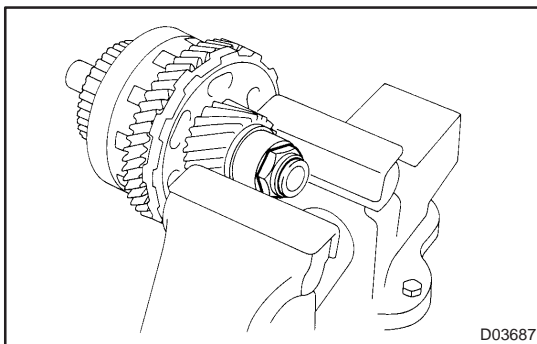
SST 09930-00010 (09931-00010, 09931-00020), 09387-00050



- (b) Clamp the U/D planetary gear in soft jaw vise.

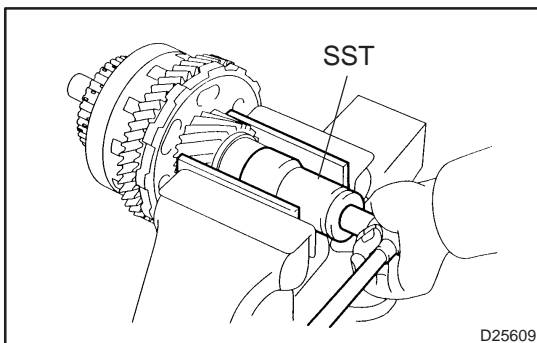
NOTICE:

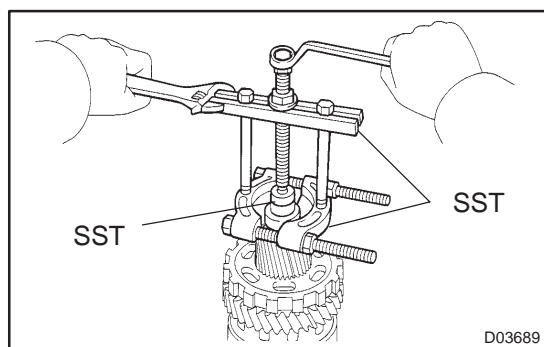
Be careful not to damage the differential drive pinion.



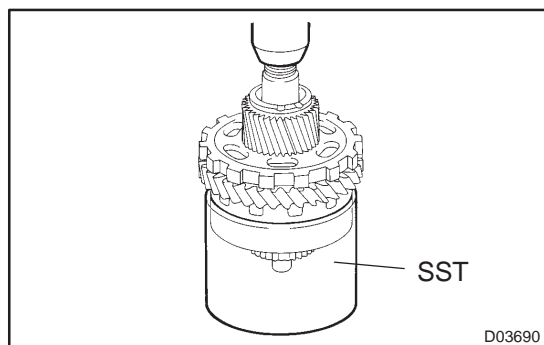
- (c) Using SST, remove lock nut.

SST 09564-16020



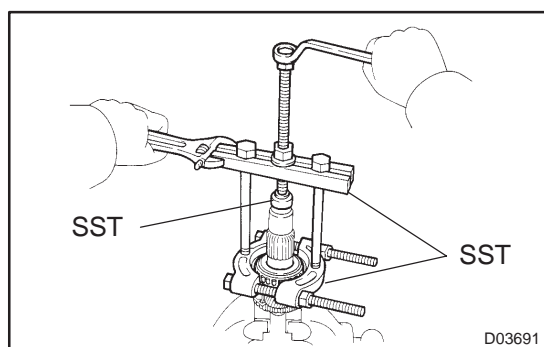


- (d) Using SST, remove cylindrical roller bearing inner race.
SST 09950-00020, 09950-00030, 09950-60010
(09951-00340)

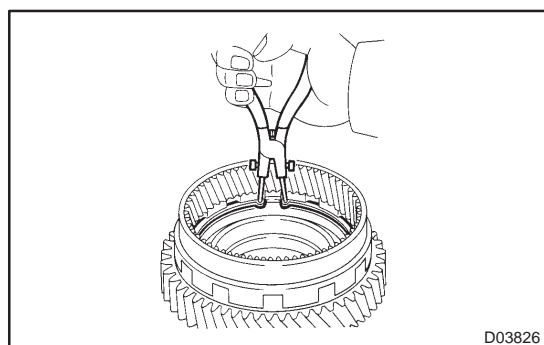


3. REMOVE UNDERDRIVE PLANETARY GEAR ASSY

- (a) Using SST and press, remove the differential drive pinion, parking lock gear, counter driven gear with U/D planetary ring gear and front tapered roller bearing.
SST 09387-00050

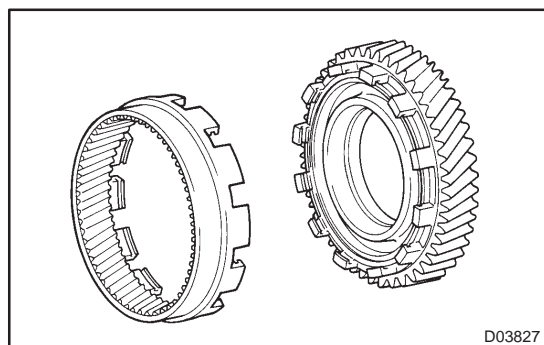


- (b) Clamp the U/D planetary gear in soft jaw vise.
(c) Using SST, remove rear tapered roller bearing from the U/D planetary gear.
SST 09950-00020, 09950-00030, 09950-60010
(09951-00320)

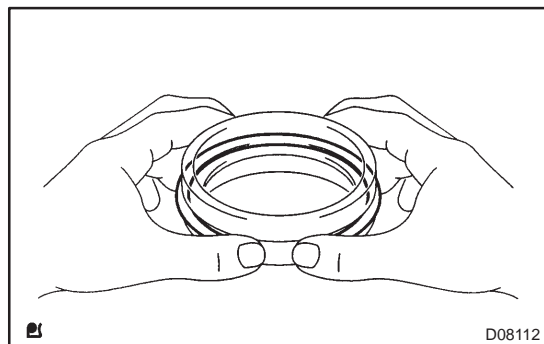


4. REMOVE UNDERDRIVE PLANETARY RING GEAR

- (a) Using a snap ring pliers, remove the snap ring.

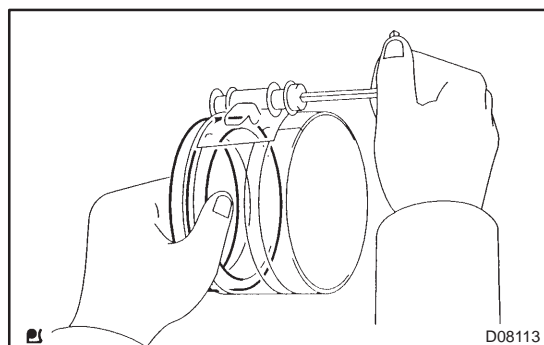


- (b) Remove the U/D planetary ring gear from the counter driven gear.

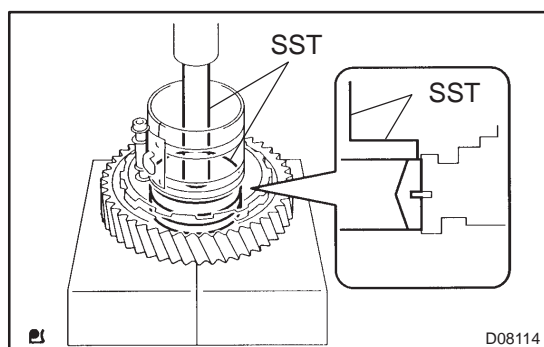


5. INSTALL UNDERDRIVE PLANETARY RING GEAR

- (a) Install a new snap ring to the outer race of the tapered roller bearing.

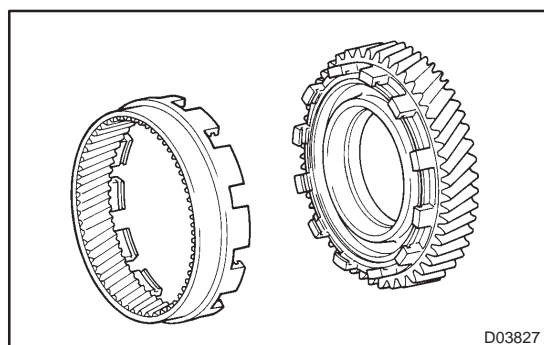


- (b) Using a piston ring compressor, squeeze the snap ring.

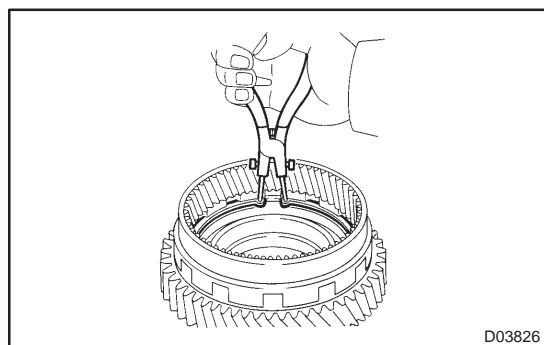


- (c) Using SST a press, press in the outer race of the tapered roller bearing.

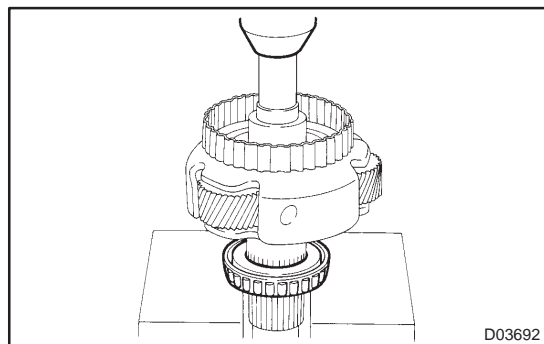
SST 09950-60020 (09951-00890), 09950-70010 (09951-07100)



- (d) Install the underdrive planetary ring gear to the counter driven gear.

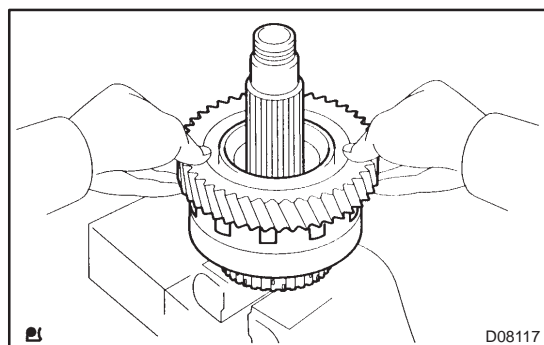


- (e) Using snap ring pliers, install the snap ring.

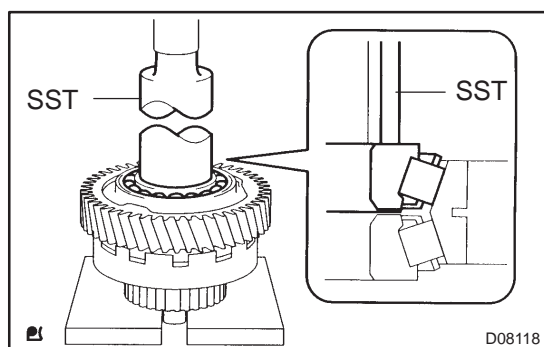


6. INSTALL UNDERDRIVE PLANETARY GEAR ASSY

- (a) Using a press, install the tapered roller bearing.



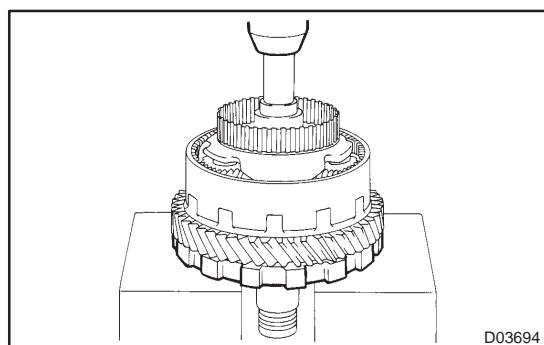
- (b) Install the counter driven gear with planetary ring gear to the U/D planetary gear.



- (c) Using SST and a press, press in the tapered roller bearing.
SST 09316-60011 (09316-00011)

NOTICE:

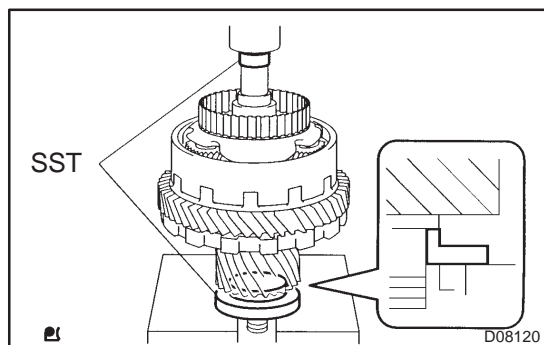
Press in the counter driven gear while rotating it.



- (d) Using a press, install the parking lock gear.

NOTICE:

Press in the counter driven gear while rotating it.

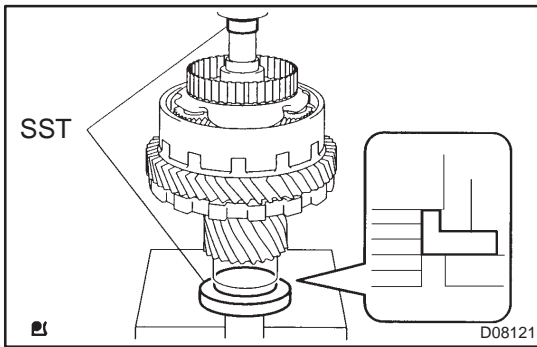


- (e) Using SST and a press, install the differential drive pinion.

NOTICE:

Press in the counter driven gear while rotating it.

SST 09506-35010, 09950-60010 (09951-00250)

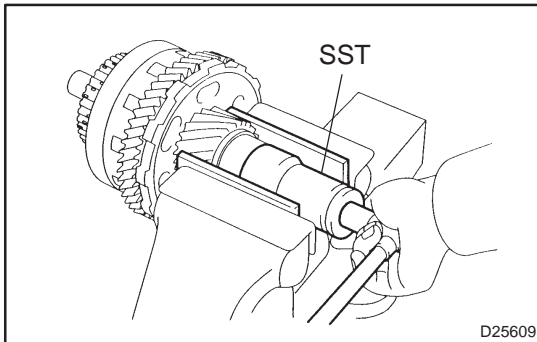


- (f) Using SST and a press, in the cylindrical roller bearing inner race.

NOTICE:

Press in the counter driven gear while rotating it.

SST 09506-35010, 09950-60010 (09951-00250)



- (g) Clamp the U/D planetary gear in soft jaw vise.

NOTICE:

Be careful not to damage the differential drive pinion.

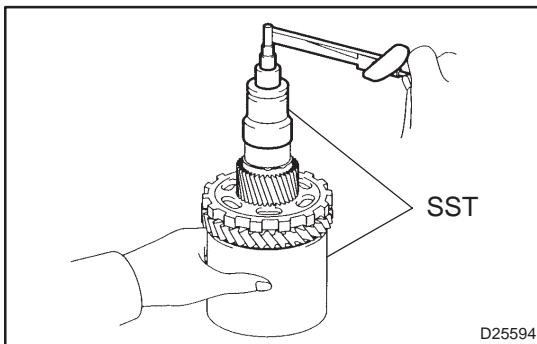
- (h) Using SST, install a new lock nut.

Torque: 280 N·m (2,855 kgf·cm, 207 in·lbf)

SST 09564-16020

HINT:

Use a torque wrench with a fulcrum length of 750 mm (29.53 in.).



- (i) Using SST and a torque wrench, measure the turning torque of U/D planetary gear assy while rotating the torque wrench at 60 rpm.

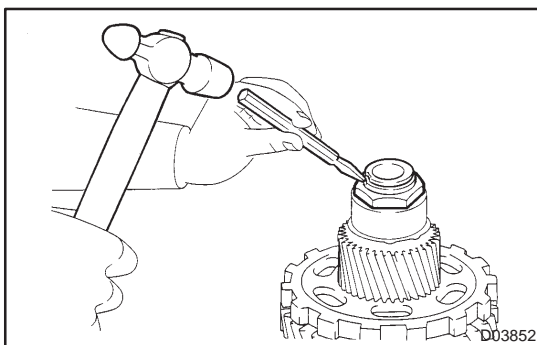
SST 09564-16020, 09387-00050

Turning torque at 60 rpm:

0.23 – 5.01 N·m (2 – 51 kgf·cm, 2.0 – 44.3 in·lbf)

HINT:

Use a torque wrench with a fulcrum length of 160 mm (6.30 in.).



- (j) Using a pin punch and hammer, stake the lock nut.

NOTICE:

Make sure that there are no cracks on the nut.