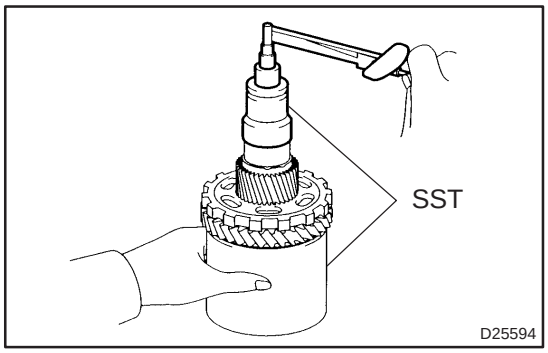
UNDERDRIVE PLANETARY GEAR ASSY (U241E)

4006U–01

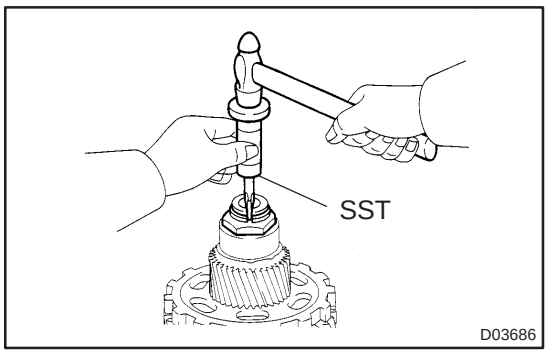
OVERHAUL



1. INSPECT UNDERDRIVE PLANETARY GEAR PRELOAD

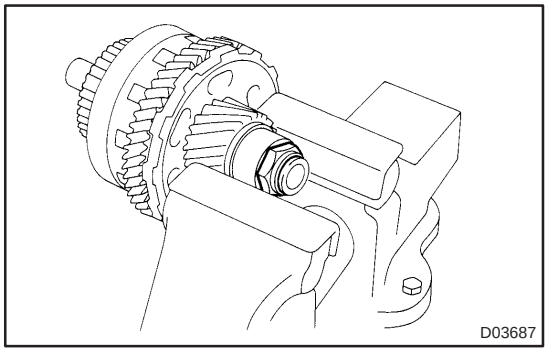
(a) Using SST a torque wrench, measure the turning torque of U/D planetary gear assy while rotating the torque wrench at 60 rpm.
SST 09387–00050, 09564–16020
Turning torque at 60 rpm:
0.23 – 5.01 N·m (2 – 51 kgf·cm, 2.0 – 44.3 in.·lbf)

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



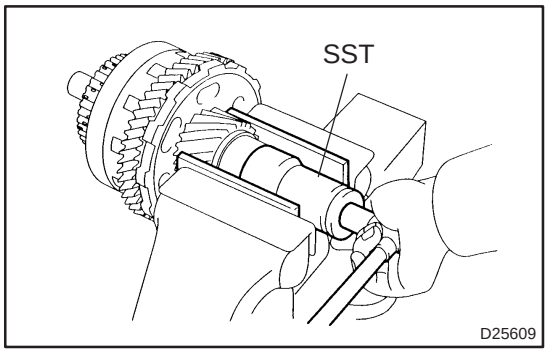
2. REMOVE CYLINDRICAL ROLLER BEARING RACE INNER

(a) Using SST, loosen the staked part of the nut.
SST 09930–00010 (09931–00010, 09931–00020), 09387–00050

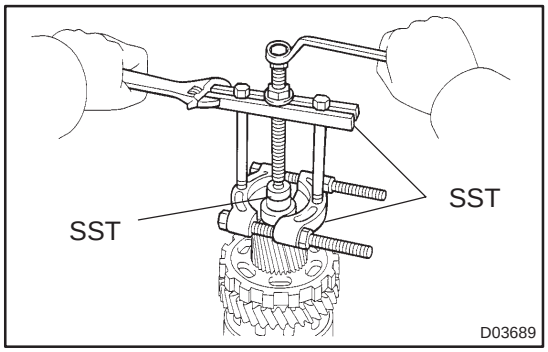


(b) Clamp the U/D planetary gear in soft jaw vise.

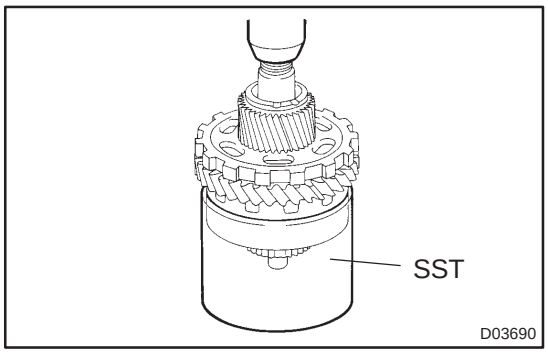
NOTICE:
Be careful not to damage the differential drive pinion.



(c) Using SST, remove lock nut.
SST 09564–16020

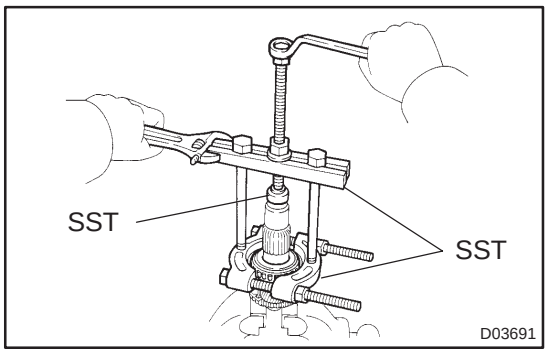


(d) Using SST, remove cylindrical roller bearing inner race.
SST 09950–00020, 09950–00030, 09950–60010 (09951–00340)

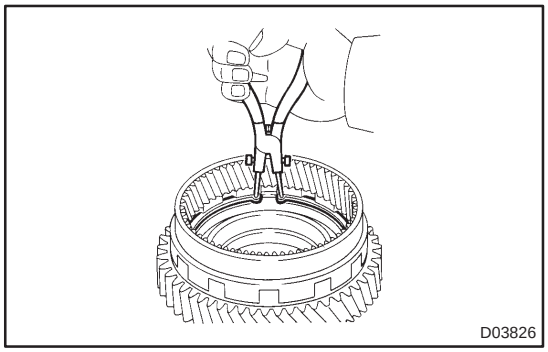


3. REMOVE UNDERDRIVE PLANETARY GEAR ASSY

(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

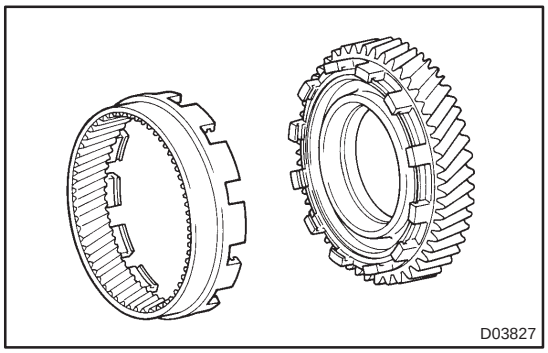


(b) Clamp the U/D planetary gear in soft jaw vise.
(c) Using SST, remove rear tapered roller bearing form the U/D planetary gear.
SST 09950–00020, 09950–00030, 09950–60010 (09951–00320)

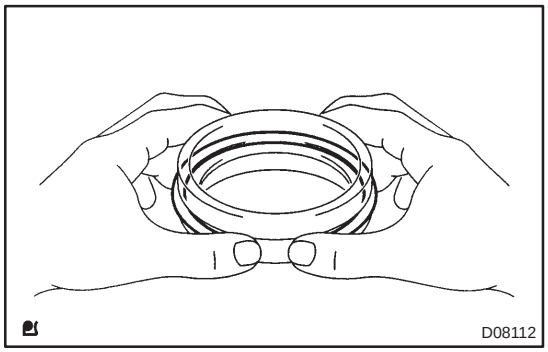


4. REMOVE UNDERDRIVE PLANETARY RING GEAR

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

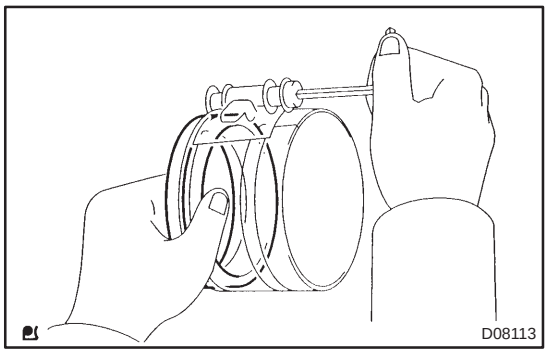


(b) Remove the U/D planetary ring gear from the counter driven gear.

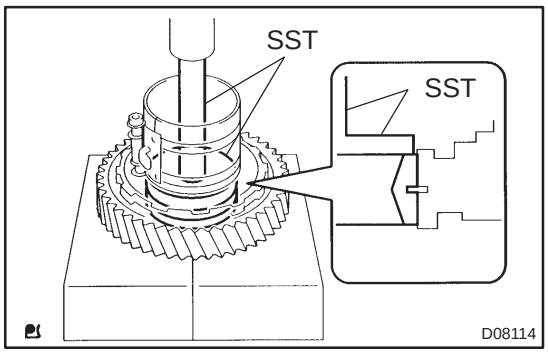


5. INSTALL UNDERDRIVE PLANETARY RING GEAR

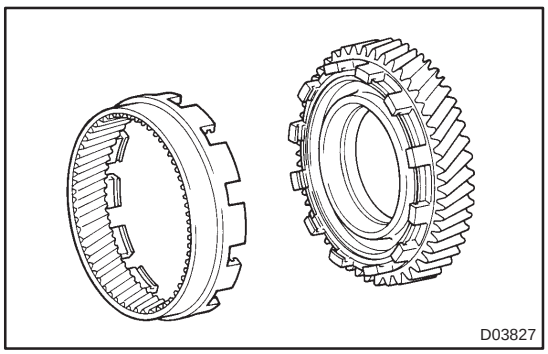
(a) Install a new snap ring to the outer race of the tapered roller bearing.



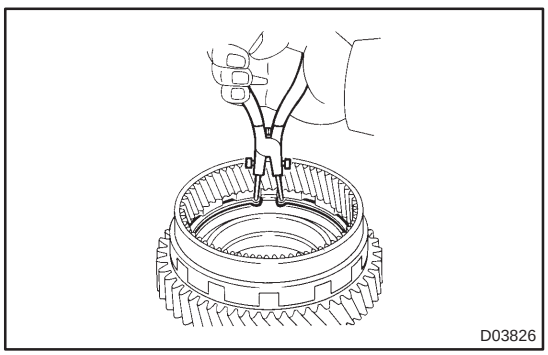
(b) Using a piston ring compressor, squeeze the snap ring.



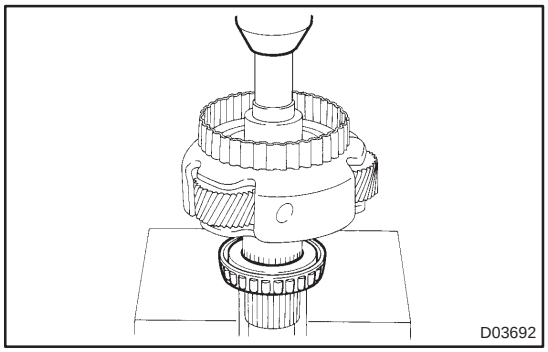
(c) Using SST a press, press in the outer race of the tapered roller bearing.
SST 09950–60020 (09951–00890), 09950–70010 (09951–07100)



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

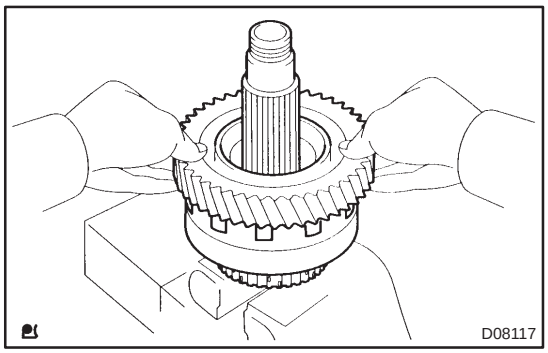


(e) Using snap ring pliers, install the snap ring.

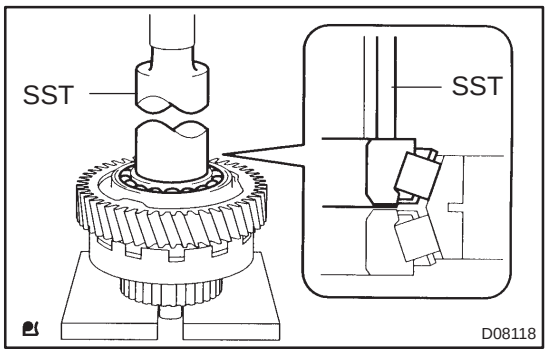


6. INSTALL UNDERDRIVE PLANETARY GEAR ASSY

(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.

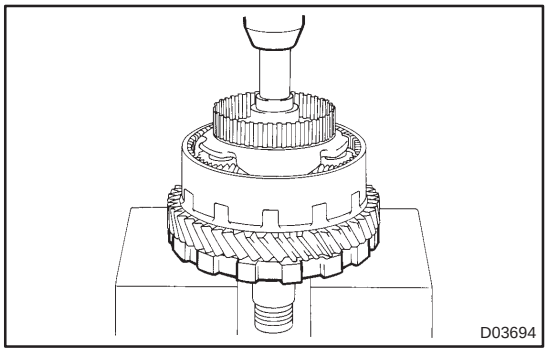


(c) Using SST and a press, press in the tapered roller bearing.

SST 09316–60011 (09316–00011)

NOTICE:

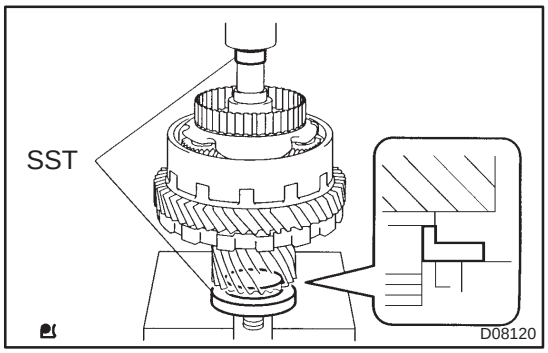
Press in the counter driven gear while rotating it.



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

NOTICE:

Press in the counter driven gear while rotating it.

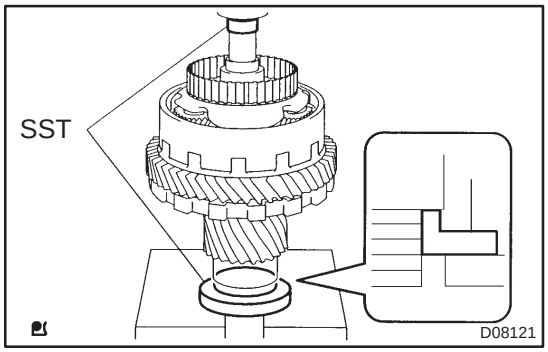


(e) Using SST and a press, install the differential drive pinion.

NOTICE:

Press in the counter driven gear while rotating it.

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

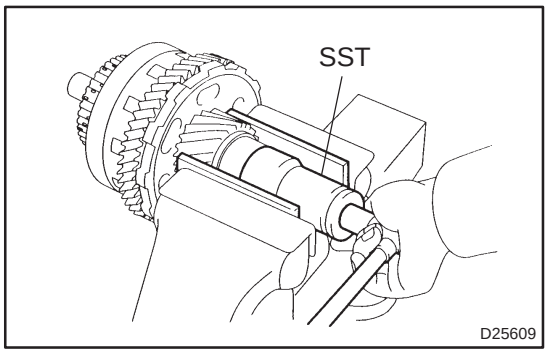


(f) Using SST and a press, in the cylindrical roller bearing inner race.

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.

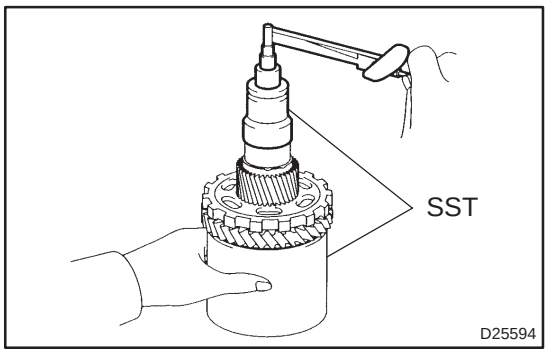
(h) Using SST, install a new lock nut.

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.

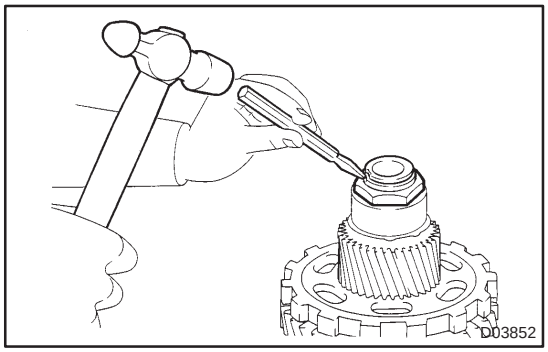
SST 09564–16020, 09387–00050

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.