DISASSEMBLY

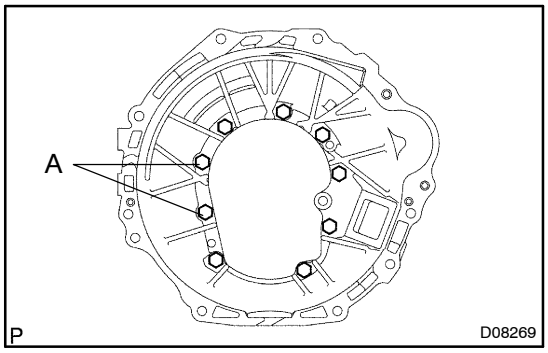
1. REMOVE BACK–UP LIGHT SWITCH WITH GASKET

Torque: 44 N·m (450 kgf·cm, 32 ft·lbf)

HINT:

At the time of reassembly, please refer to the following item. 08881-01

Replace the used gasket with a new one.



2. REMOVE CLUTCH HOUSING

Remove the 9 bolts and clutch housing from the transmission case.

Torque: 36 N·m (370 kgf·cm, 27 ft·lbf)

HINT:

At the time of reassembly, please refer to the following item.

When the bolts in the part "A" is the ones with sealant, the torque shall be as shown.

Sealant:

Part No. 08833 – 00080, THREE BOND 1344, LOCTITE 242 or equivalent

Torque: 34 N·m (350 kgf·cm, 25 ft·lbf)

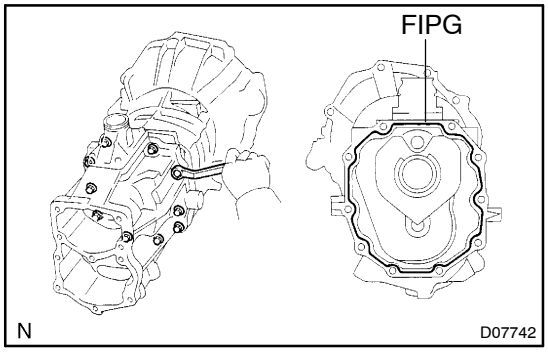
3. REMOVE CONTROL SHIFT LEVER RETAINER

Remove the 4 bolts, control shift lever retainer and oil deflector.

Torque: 18 N·m (185 kgf·cm, 13 ft·lbf)

4. REMOVE 2 RESTRICT PINS

Torque: 37 N·m (380 kgf·cm, 27 ft·lbf)



5. REMOVE TRANSFER ADAPTOR

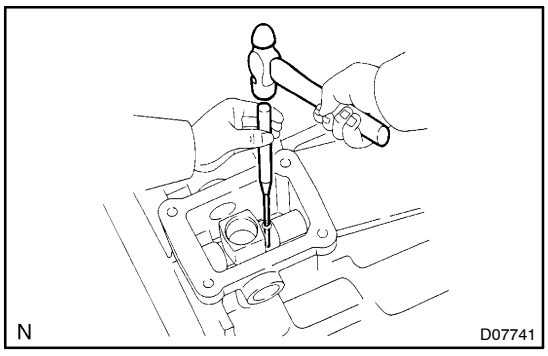
(a) Remove the 10 bolts.

Torque: 37 N·m (380 kgf·cm, 27 ft·lbf)

(b) Using a plastic hammer, tap the transfer adaptor, remove the transfer adaptor with the shift lever housing and the shift and select lever.

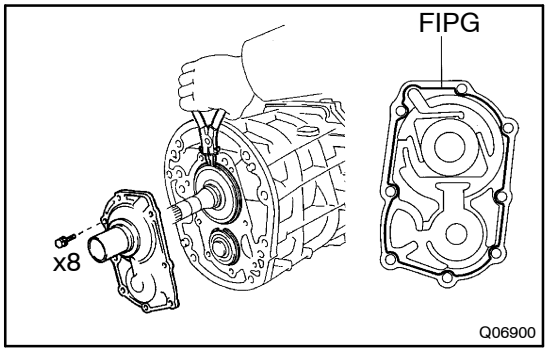
FIPG:

Part No. 08826 – 00090, THREE BOND 1281 or equivalent



(c) Using a pin punch and hammer, drive out the slotted spring pin from the shift lever housing.

(d) Remove the shift lever housing and the shift and select lever.



6. REMOVE FRONT BEARING RETAINER

(a) Remove the 8 bolts.

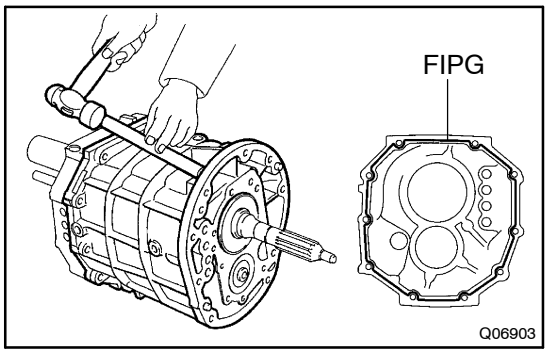
Sealant:
Part No. 08833 – 00080, THREE BOND 1344, LOCTITE 242 or equivalent
Torque: 17 N·m (170 kgf·cm, 12 ft·lbf)

(b) Using a plastic hammer, tap the front bearing retainer and remove it.

FIPG:
Part No. 08826 – 00090, THREE BOND 1281 or equivalent

7. REMOVE BEARING SNAP RING

Using a snap ring expander, remove the 2 snap rings.



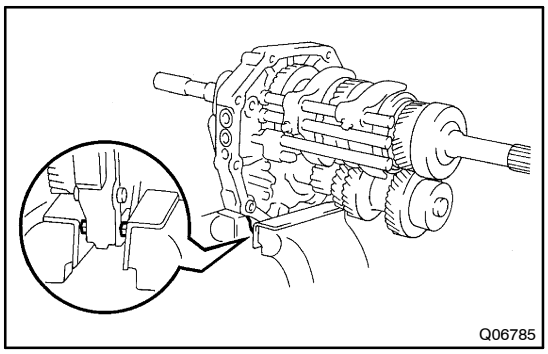
8. SEPARATE INTERMEDIATE PLATE FROM TRANSMISSION CASE

(a) Using a brass bar and hammer, carefully tap the transmission case.

(b) Remove the transmission case from the intermediate plate.

HINT:
At the time of reassembly, please refer to the following item.
Align the each bearing outer race, each fork shaft end and reverse idler gear shaft end with the case installation holes.

FIPG:
Part No. 08826 – 00090, THREE BOND 1281 or equivalent

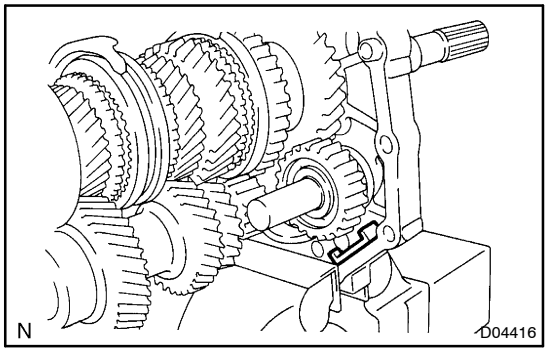


9. MOUNT INTERMEDIATE PLATE IN VISE

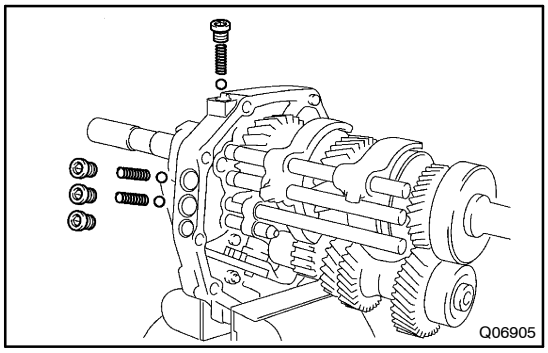
(a) Use the 2 clutch housing bolts, plate washers and suitable nuts, as shown.

HINT:
Increase or decrease plate washers so that the bolt tip does not protrude from the nut.

(b) Mount the intermediate plate in a vise.



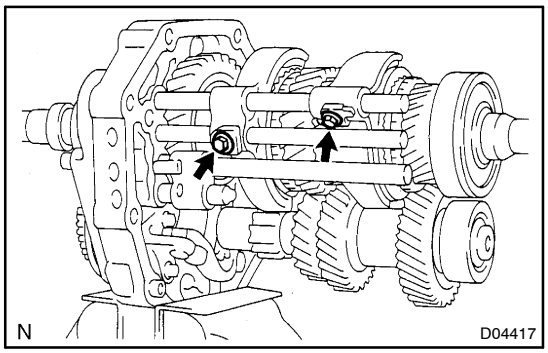
10. REMOVE MAGNET FROM INTERMEDIATE PLATE



11. REMOVE STRAIGHT SCREW PLUG, LOCKING BALL AND SPRING

(a) Using a hexagon wrench (T40), remove the 4 plugs.
Sealant:
Part No. 08833 – 00080, THREE BOND 1344, LOCTITE 242 or equivalent
Torque: 19 N·m (190 kgf·cm, 14 ft·lbf)

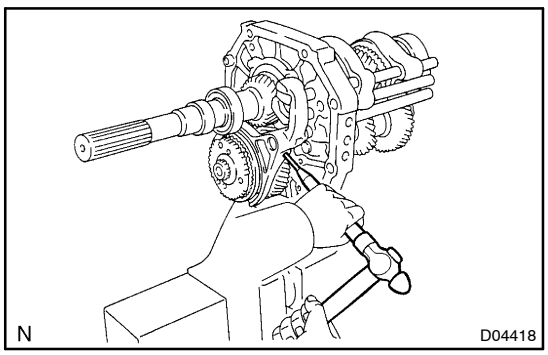
(b) Using a magnetic finger, remove the 3 springs and balls.



12. REMOVE SHIFT FORK SET BOLT

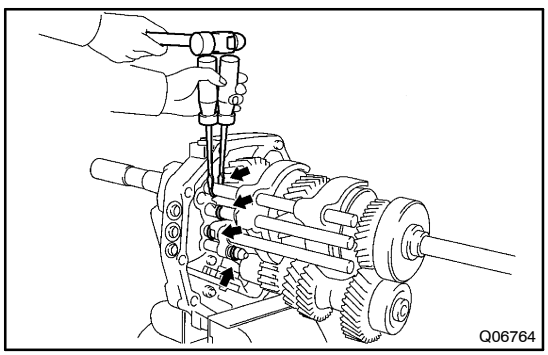
Remove the 2 bolts from the shift forks No. 1 and No. 2.
Torque: 20 N·m (200 kgf·cm, 14 ft·lbf)

HINT:
At the time of reassembly, please refer to the following item.
Replace the used set bolt with a new one.



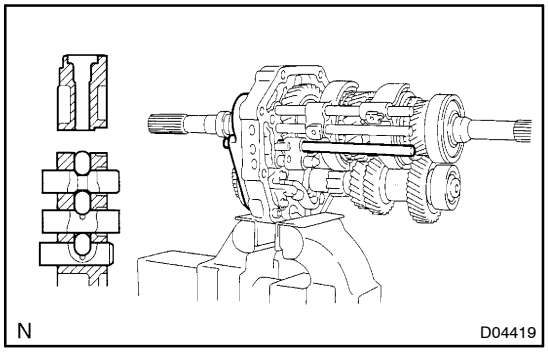
13. REMOVE SLOTTED SPRING PIN

Using a pin punch and hammer, drive out the pin from the shift fork No. 3.



14. REMOVE SNAP RING

Using 2 screwdrivers and a hammer, tap out the 4 snap rings from each shift fork shaft.

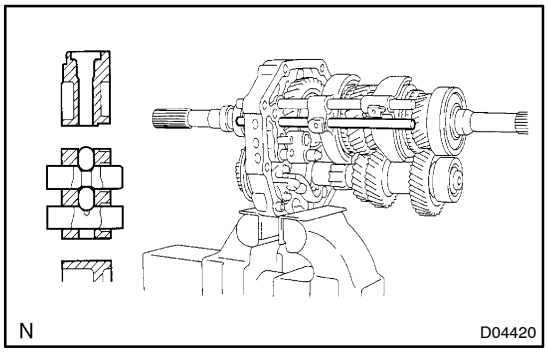


15. REMOVE SHIFT FORK SHAFT NO. 3 AND SHIFT FORK NO. 3

(a) Pull out the shift fork shaft No. 3 from the shift fork No. 3, reverse shift fork and intermediate plate.

(b) Remove the shift fork No. 3 from the groove of the hub sleeve No. 3.

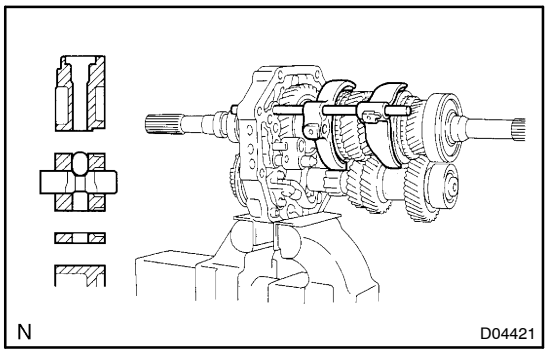
(c) Using a magnetic finger, remove the interlock pin from the intermediate plate.



16. REMOVE SHIFT FORK SHAFT NO. 1

(a) Pull out the shift fork shaft No. 1 with the straight pin from the shift fork No. 1 and intermediate plate.

(b) Using a magnetic finger, remove the interlock pin from the intermediate plate.

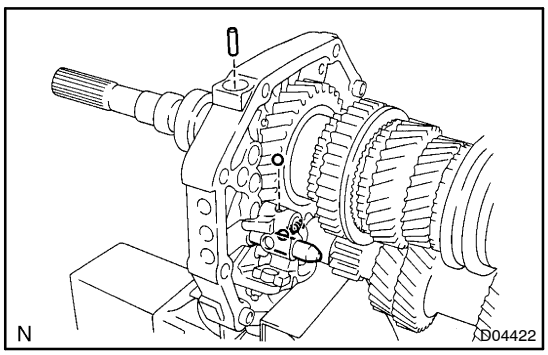


17. REMOVE SHIFT FORK SHAFT NO. 2, SHIFT FORK NO. 1 AND NO. 2

(a) Pull out the shift fork shaft No. 2 from the shift forks No. 1, No. 2 and intermediate plate.

(b) Remove the shift fork No. 1 and No. 2 from the groove of the hub sleeves No. 1 and No. 2.

(c) Using a magnetic finger, remove the interlock pin from the intermediate plate.



18. REMOVE SHIFT FORK SHAFT NO. 4

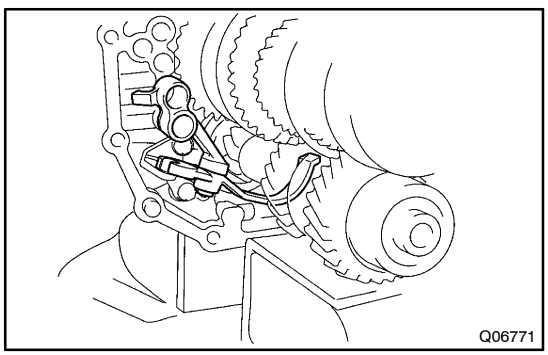
(a) Using a magnetic finger, remove the ball.

(b) Pull out the shift fork shaft No. 4 from the reverse shift fork and intermediate plate.

NOTICE:

Take care of the ball in the reverse shift fork. It will spring out when you pull out the shift fork shaft No. 4.

(c) Using a magnetic finger, remove the spring from the reverse shift fork.



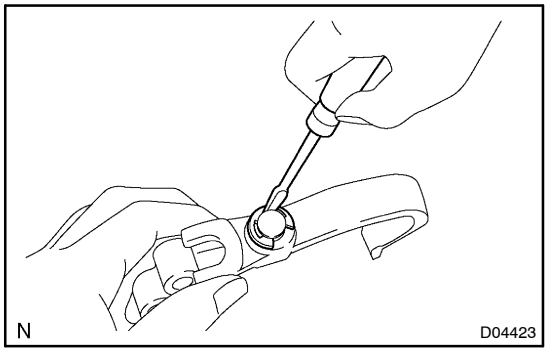
19. REMOVE REVERSE SHIFT FORK AND ARM

(a) Remove the reverse shift fork and arm.

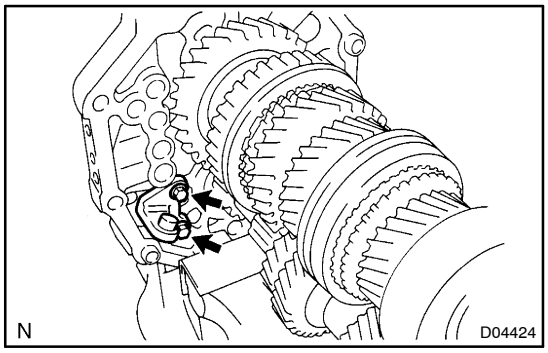
HINT:

At the time of reassembly, please refer to the following item.

Align the reverse shift arm with the pivot of the reverse shift arm bracket.



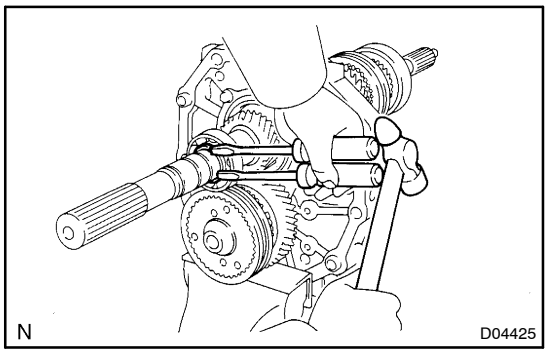
(b) Using a screwdriver, remove the E–ring.
(c) Separate the reverse shift fork and arm.



20. REMOVE REVERSE SHIFT ARM BRACKET

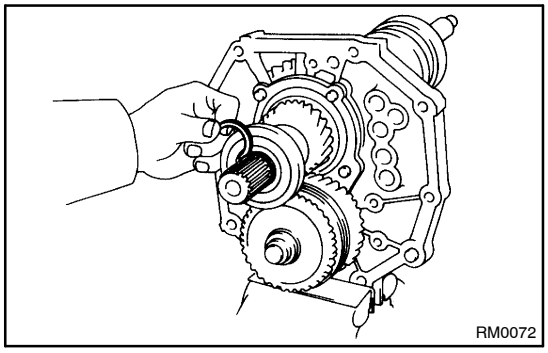
Remove the 2 bolts and reverse shift arm bracket.

Torque: 18 N·m (185 kgf·cm, 13 ft·lbf)



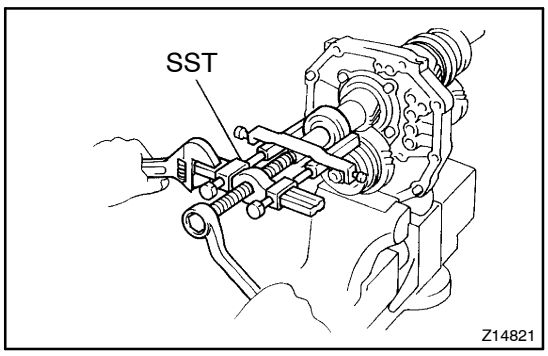
21. REMOVE OUTPUT SHAFT REAR BEARING

(a) Using 2 screwdrivers and a hammer, tap out the snap ring.

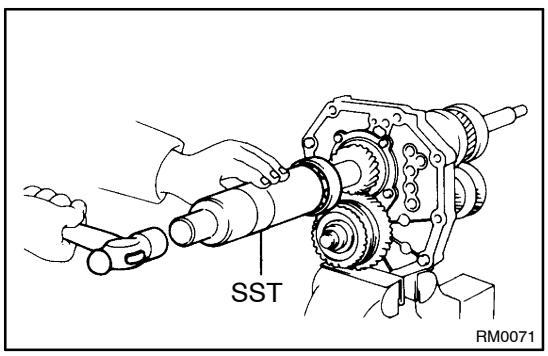


HINT:
At the time of reassembly, please refer to the following item.
Select a snap ring that allows the minimum axial play.

Mark	Thickness mm (in.)
A	2.65 – 2.70 (0.1043 – 0.1063)
B	2.70 – 2.75 (0.1063 – 0.1083)
C	2.75 – 2.80 (0.1083 – 0.1102)
D	2.80 – 2.85 (0.1102 – 0.1122)
E	2.85 – 2.90 (0.1122 – 0.1142)
F	2.90 – 2.95 (0.1142 – 0.1161)
G	2.95 – 3.00 (0.1161 – 0.1181)
H	3.00 – 3.05 (0.1181 – 0.1201)
J	3.05 – 3.10 (0.1201 – 0.1220)
K	3.10 – 3.15 (0.1220 – 0.1240)
L	3.15 – 3.20 (0.1240 – 0.1260)
M	3.20 – 3.25 (0.1260 – 0.1280)
N	3.25 – 3.30 (0.1280 – 0.1299)
P	3.30 – 3.35 (0.1299 – 0.1319)
Q	3.35 – 3.40 (0.1319 – 0.1339)
R	3.40 – 3.45 (0.1339 – 0.1358)
S	3.45 – 3.50 (0.1358 – 0.1378)

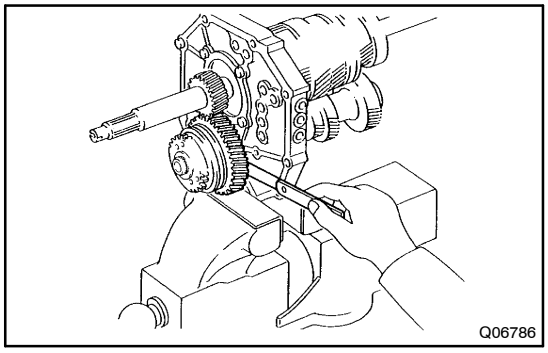


(b) Using SST, remove the rear bearing.
SST 09950–40011 (09951–04010, 09952–04010, 09953–04020, 09954–04010, 09955–04061, 09958–04011)



HINT:
At the time of reassembly, please refer to the following item.
Using SST and a hammer, drive in a new bearing.
SST 09316–60011 (09316–00011, 09316–00071)

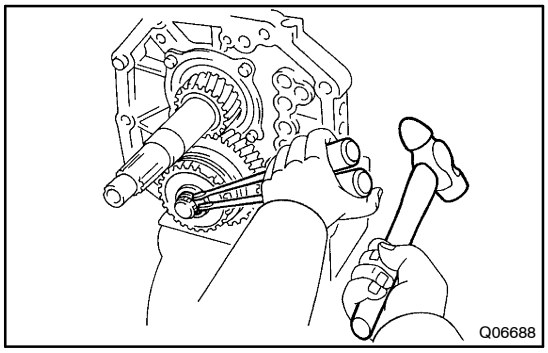
22. REMOVE SPACER



23. INSPECT COUNTER 5TH GEAR THRUST CLEARANCE

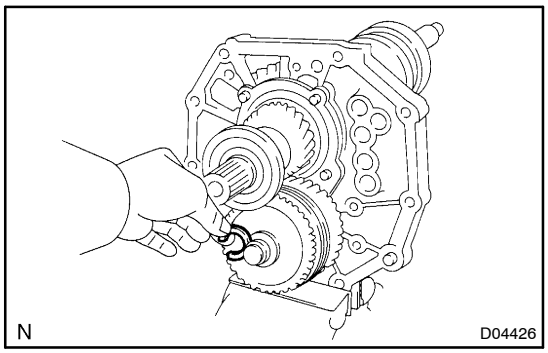
Using a feeler gauge, measure the counter 5th gear thrust clearance.

Standard clearance:
0.10 – 0.35 mm (0.0039 – 0.0138 in.)
Maximum clearance:
0.35 mm (0.0138 in.)



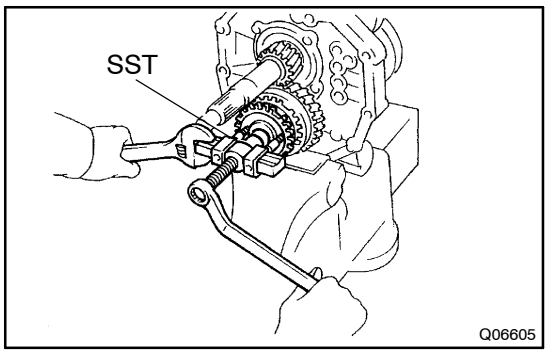
24. REMOVE GEAR SPLINE PIECE NO. 5, SYNCHRONIZER RING, NEEDLE ROLLER BEARING AND COUNTER 5TH GEAR WITH HUB SLEEVE NO. 3

(a) Using 2 screwdrivers and a hammer, tap out the snap ring.



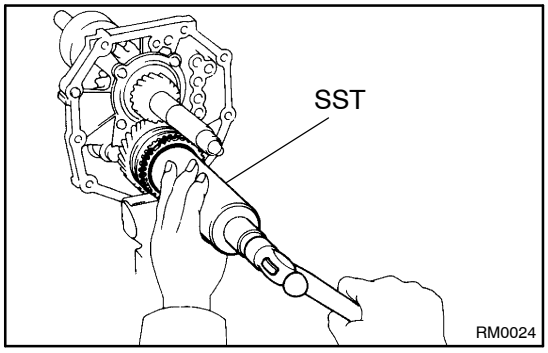
HINT:
At the time of reassembly, please refer to the following item.
Select a snap ring that allows the minimum axial play.

Mark	Thickness mm (in.)
A	2.80 – 2.85 (0.1102 – 0.1122)
B	2.85 – 2.90 (0.1122 – 0.1142)
C	2.90 – 2.95 (0.1142 – 0.1161)
D	2.95 – 3.00 (0.1161 – 0.1181)
E	3.00 – 3.05 (0.1181 – 0.1201)
F	3.05 – 3.10 (0.1201 – 0.1220)
G	3.10 – 3.15 (0.1220 – 0.1240)



(b) Using SST, remove the gear spline piece No. 5.
SST 09950–50012 (09951–05010, 09552–05010, 09953–05020, 09954–05020)

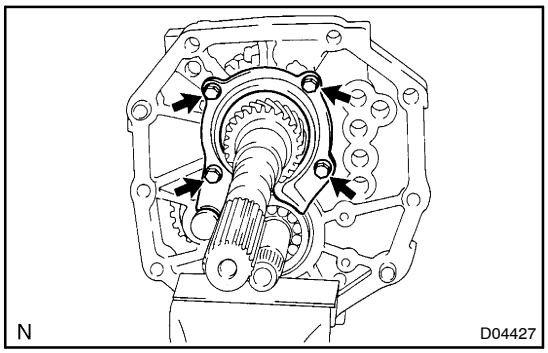
(c) Remove the counter 5th gear with the hub sleeve No.3.



HINT:
At the time of reassembly, please refer to the following items.

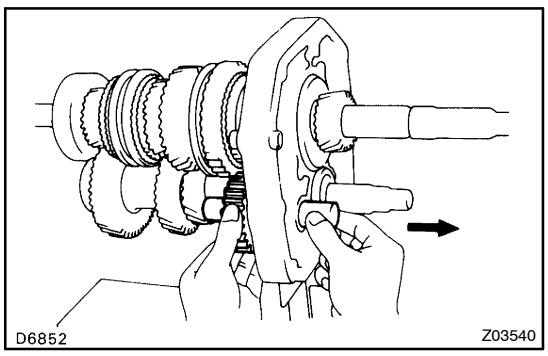
- Using SST and a hammer, drive in the gear spline piece No. 5 with the synchronizer ring slots aligned with the shifting keys.
  SST 09316–60011 (09316–00011)
- When installing the gear spline piece No. 5, support the counter gear in front with a 1.4 – 2.3 kg (3 – 5 lb) hammer or equivalent.

25. REMOVE NEEDLE ROLLER BEARING, THRUST WASHER AND STRAIGHT PIN FROM COUNTER GEAR

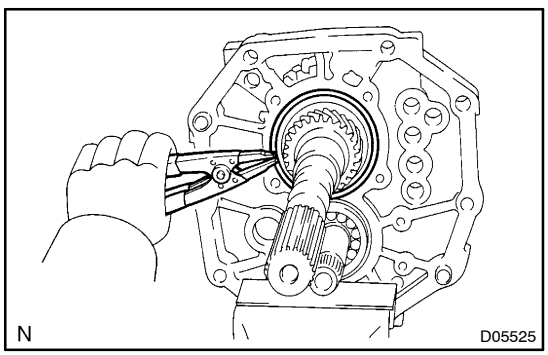


26. REMOVE REAR BEARING RETAINER
Remove the 4 bolts and rear bearing retainer.
HINT:
At the time of reassembly, please refer to the following item.
Align the rear bearing retainer with the reverse idler gear shaft groove.

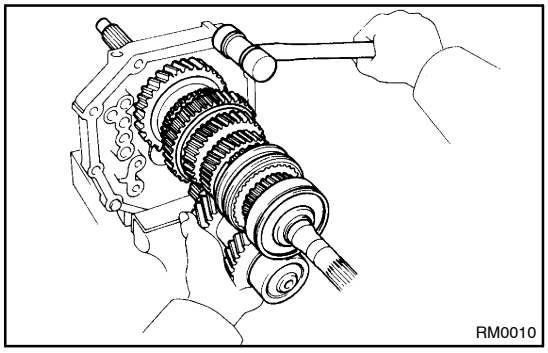
Torque: 18 N·m (185 kgf·cm, 13 ft·lbf)



27. REMOVE REVERSE IDLER GEAR AND SHAFT
Pull out the shaft toward the rear and remove the reverse idler gear.
HINT:
At the time of reassembly, please refer to the following item.
Align the reverse shift arm with the reverse idler gear shaft.



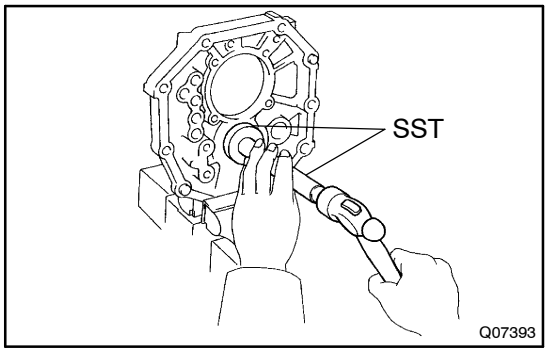
28. REMOVE OUTPUT SHAFT CENTER BEARING SNAP RING
Using a snap ring expander, remove the snap ring.



29. REMOVE OUTPUT SHAFT AND COUNTER GEAR FROM INTERMEDIATE PLATE

(a) Remove the output shaft, counter gear and input shaft as a unit from the intermediate plate by pulling on the counter gear and tapping on the intermediate plate with a plastic hammer.

(b) Remove the input shaft with the needle roller bearing from the output shaft.



30. REMOVE COUNTER GEAR REAR BEARING FROM INTERMEDIATE PLATE

Using SST and a hammer, remove the rear bearing.

SST 09950–60010 (09951–00620), 09950–70010 (09951–07150)

31. SEPARATE INPUT SHAFT ASSEMBLY AND OUTPUT SHAFT ASSEMBLY

(a) Separate the input shaft assembly and output shaft assembly.

(b) Remove the synchronizer ring and bearing.