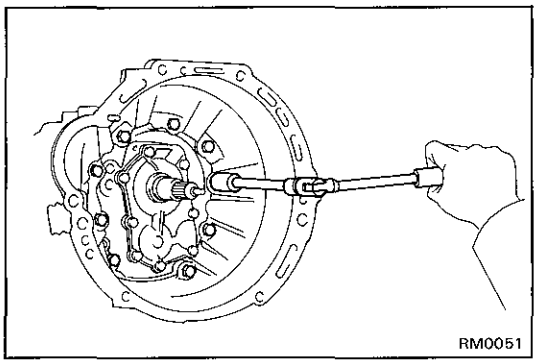

RM0051

DISASSEMBLY OF TRANSMISSION

(See pages MT-99, 100)

1. **REMOVE RELEASE FORK AND BEARING**

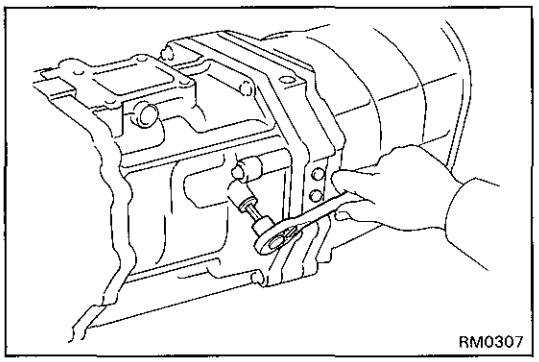
2. **REMOVE TRANSFER**
(See page TF-4)

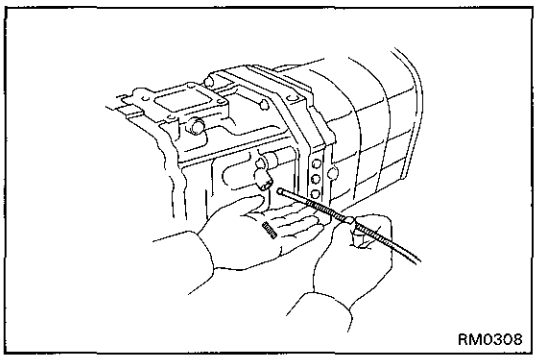
3. **REMOVE BACK-UP LIGHT SWITCH, SHIFT LEVER *RETAINER AND RESTRICT PINS***

4. **REMOVE CLUTCH HOUSING FROM TRANSMISSION CASE**

5. **REMOVE STRAIGHT SCREW PLUG, SPRING AND BALL**

(a) Using a torx socket wrench, remove the screw plug from the extension housing or transfer adaptor.
(Torx socket wrench T40 09042-00020)

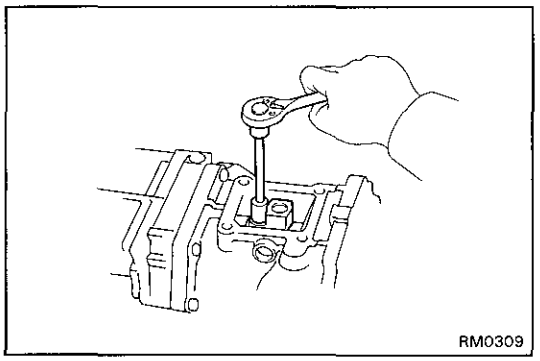

RM0307


RM0308

(b) Using a magnetic finger, remove the spring and ball.

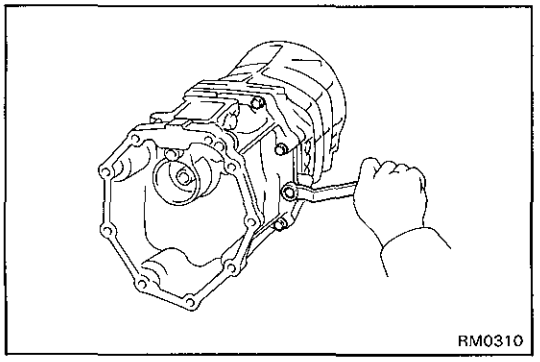
6. **REMOVE TRANSFER ADAPTOR**

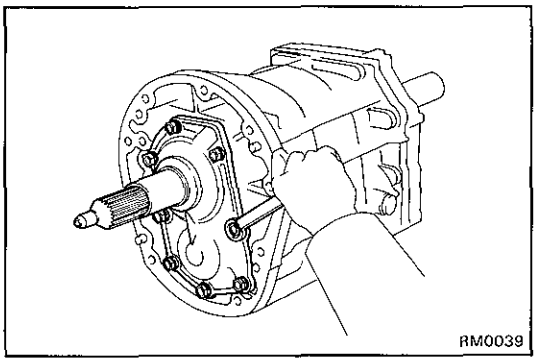
(a) Remove the shift lever housing set bolt.


RM0309

(b) Remove the ten bolts.

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

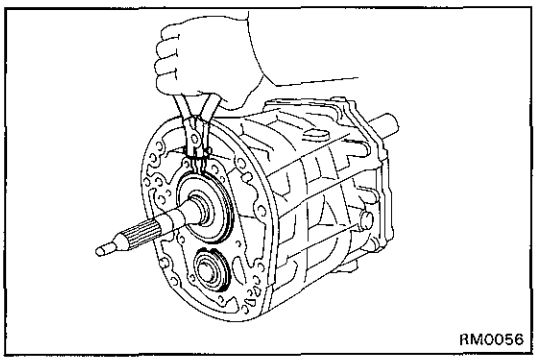

RM0310



7. REMOVE FRONT BEARING RETAINER

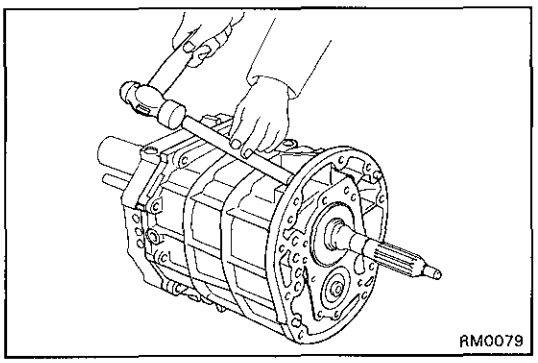
(a) Remove the eight bolts.

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



8. REMOVE BEARING SNAP RINGS

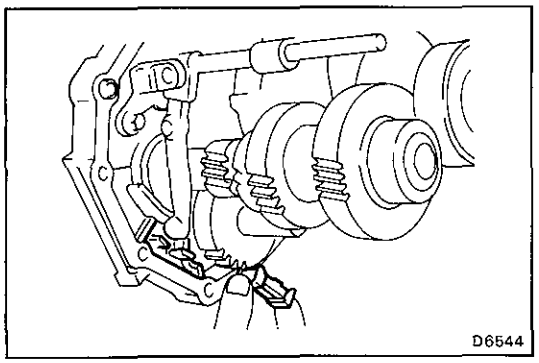
Using snap ring pliers, remove the two snap rings.



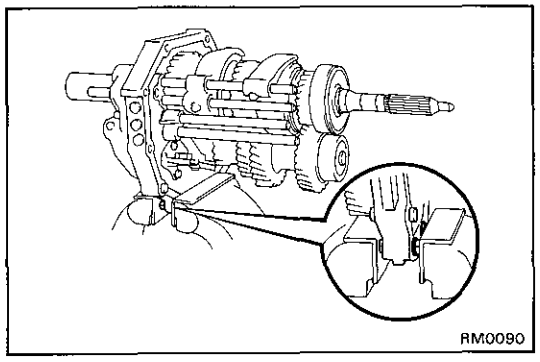
9. SEPARATE INTERMEDIATE PLATE FROM TRANSMISSION CASE

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

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



10. REMOVE MAGNET FROM INTERMEDIATE PLATE

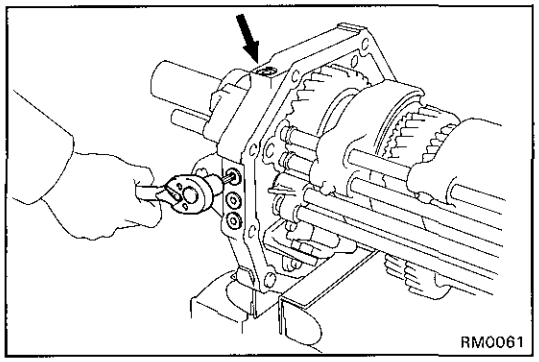


11. MOUNT INTERMEDIATE PLATE IN VISE

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

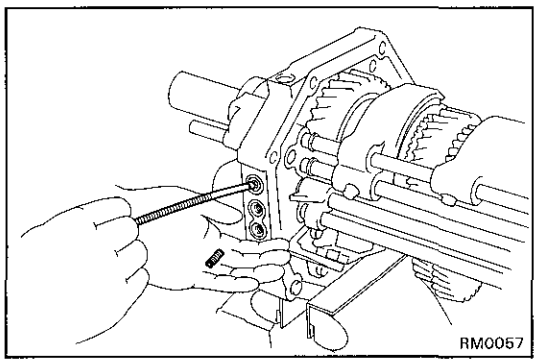
NOTICE: Install the plate washers in reverse of normal. Increase or decrease plate washers so that the bolt tip and front tip surface of the nut are aligned.

(b) Mount the intermediate plate in a vise.



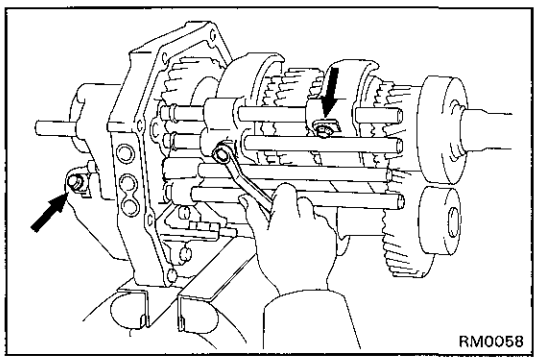
12. REMOVE STRAIGHT SCREW PLUGS, LOCKING BALLS AND SPRINGS

(a) Using a torx socket wrench, remove the four plugs.
(Torx socket wrench T40 09042-00020)



(b) (R150F and R151F)
Using a magnetic finger, remove the four springs and balls.

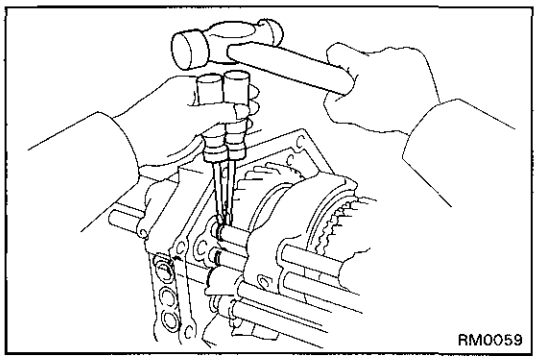
(R141F)
Using a magnetic finger, remove the three springs and balls.



13. REMOVE SHIFT FORK SET BOLTS

(R150F and R151F)
Remove the three bolts.

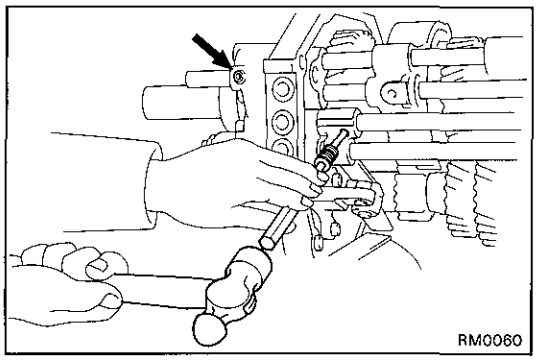
(R141F)
Remove the two bolts.



14. *REMOVE SNAP RINGS*

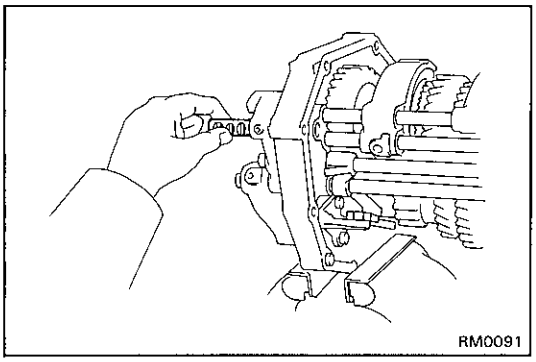
(R150F and R151F)
Using two screwdrivers and a hammer, remove the three snap rings.

(R141F)
Using two screwdrivers and a hammer, remove the six snap rings.



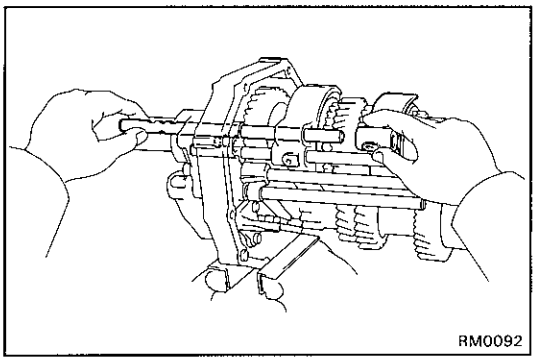
15. REMOVE SLOTTED SPRING PINS

Using a pin punch and hammer, drive out the two pins.



16. REMOVE SHIFT FORK SHAFT NO.5

Pull out shift fork shaft No.5 from the intermediate plate.

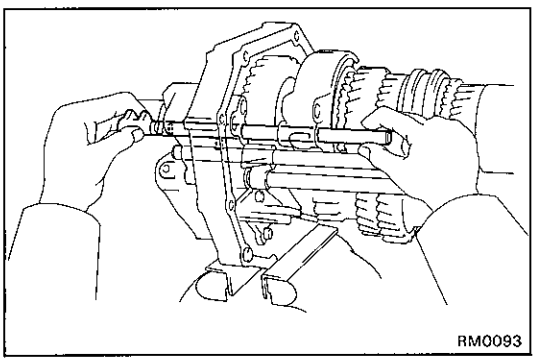


17. REMOVE SHIFT FORK SHAFT NO.2 AND SHIFT FORK

(a) Pull out shift fork shaft No.2 from the intermediate plate.

(b) Remove shift fork No.2.

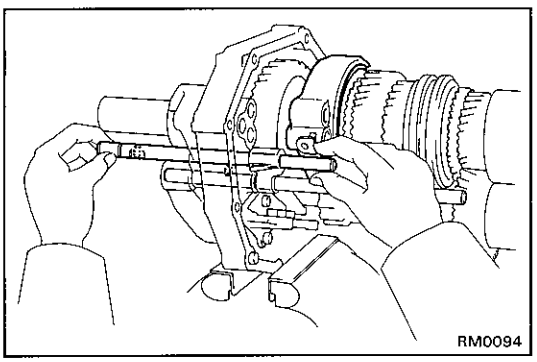
(c) Using a magnetic finger, remove the interlock pin from the intermediate plate.



18. REMOVE SHIFT FORK SHAFT NO.1

(a) Pull out shift fork shaft No.1 from the intermediate plate.

(b) Using a magnetic finger, remove the interlock pins from the shaft hole and intermediate plate.

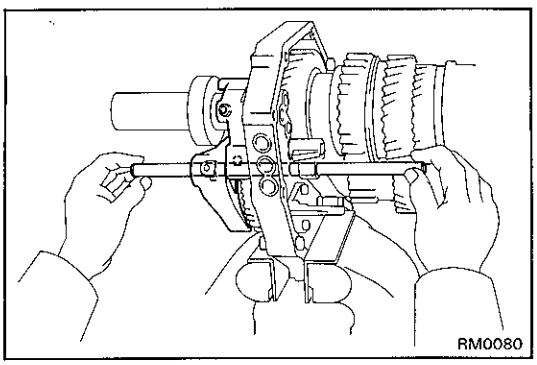


19. REMOVE SHIFT FORK SHAFT NO.3 AND SHIFT FORK NO.1

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

(b) Remove shift fork No.1.

(c) Using a magnetic finger, remove the interlock pin and locking ball from the shaft hole and intermediate plate.

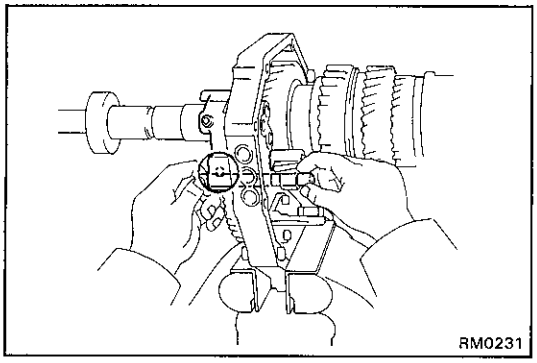


20. (R150F and R151F)
REMOVE SHIFT FORK SHAFT NO.4, SHIFT FORK NO.3 AND REVERSE SHIFT HEAD

(a) Pull out shift fork shaft No.4 from the intermediate plate.

(b) Remove the reverse shift head and locking ball.

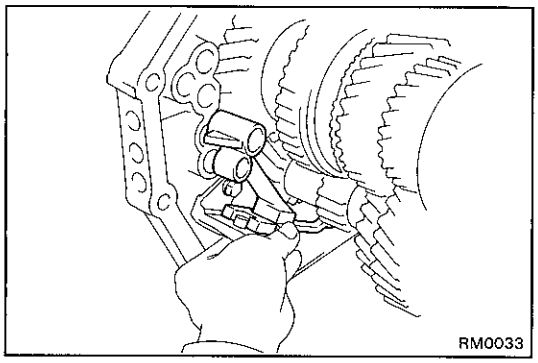
(c) Remove shift fork No.3.



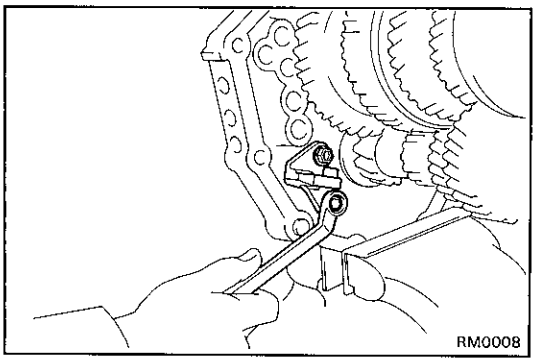
(R141F)
REMOVE SHIFT FORK SHAFT NO.4 AND REVERSE SHIFT HEAD

(a) Pull out shift fork shaft No.4 from the intermediate plate.

(b) Remove the reverse shift head and locking ball.

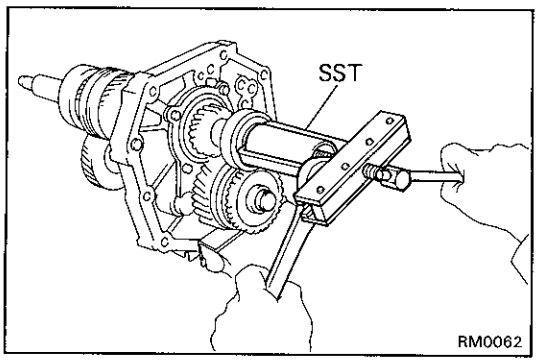


21. REMOVE REVERSE SHIFT ARM FROM REVERSE SHIFT ARM BRACKET



22. REMOVE REVERSE SHIFT ARM BRACKET

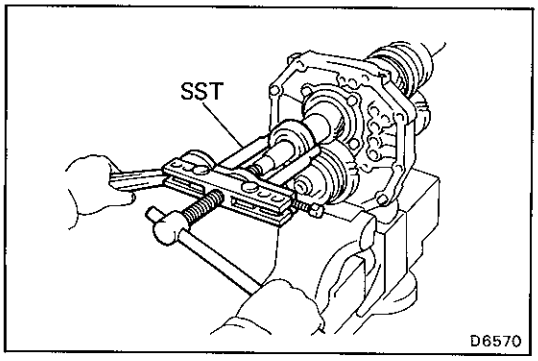
Remove the two bolts and the reverse shift arm bracket.



23. REMOVE SLEEVE FROM OUTPUT SHAFT

Using SST, remove the sleeve from the output shaft.

SST 09213-36020

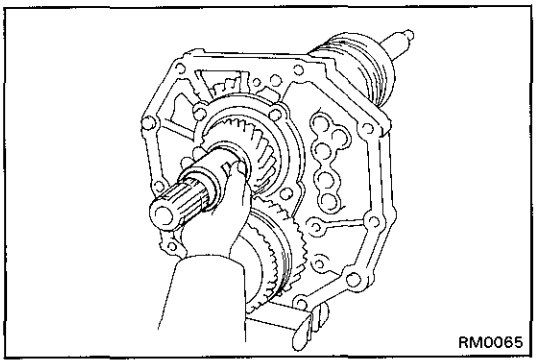


24. REMOVE OUTPUT SHAFT REAR BEARING

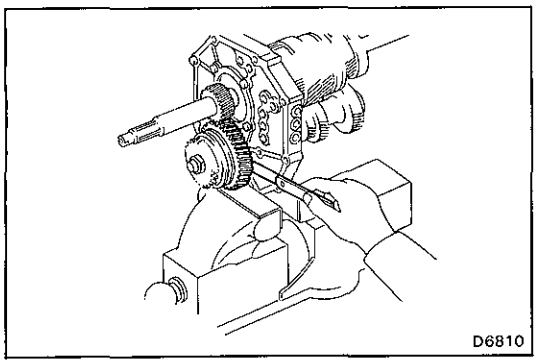
(a) Using two screwdrivers and a hammer, tap out the snap ring.

(b) Using SST, remove the rear bearing.

SST 09950-20017



25. REMOVE SPACER

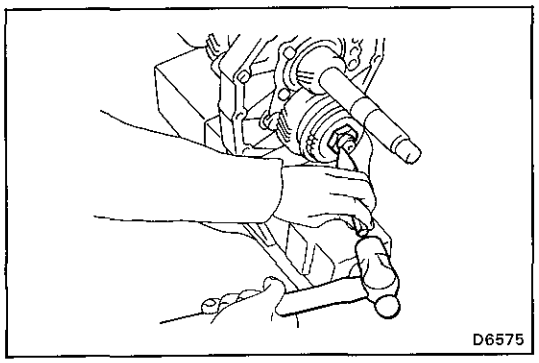


26. MEASURE COUNTER FIFTH GEAR THRUST CLEARANCE

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

Standard clearance: **0.10 — 0.35 mm (0.0039 — 0.0138 in.)**

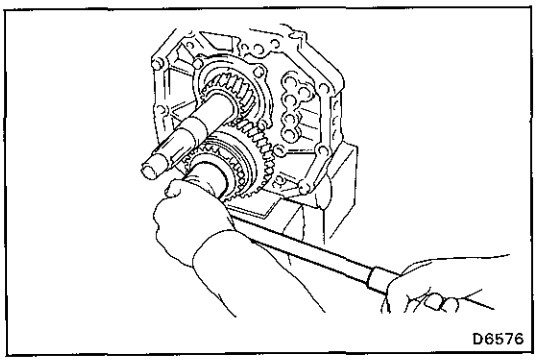
Maximum clearance: **0.40 mm (0.0157 in.)**



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

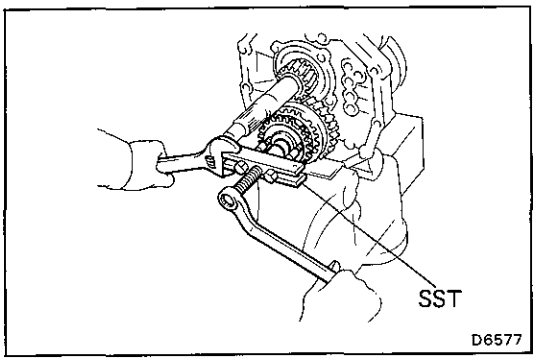
(a) Engage the gear double meshing.

(b) Using a hammer and chisel, loosen the staked part of the nut.



(c) Remove the lock nut.

(d) Disengage the gear double meshing.



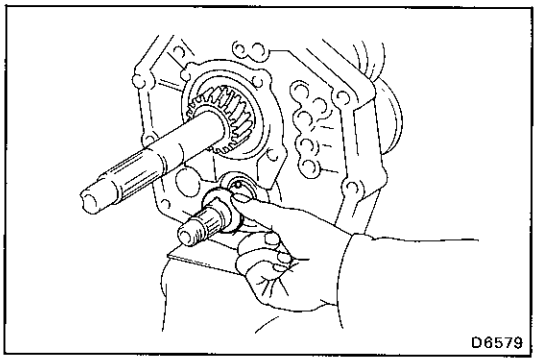
(e) Using SST, remove gear spline piece No.5.

SST 09213-31021

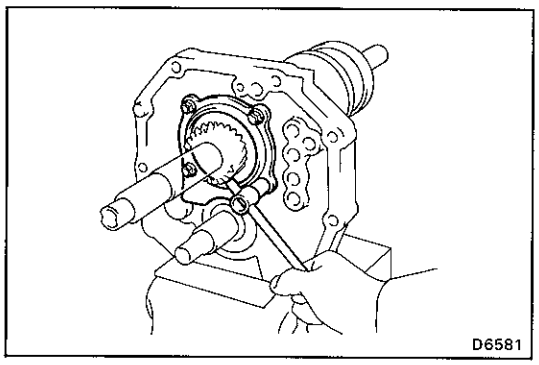
(f) Remove the counter 5th gear with hub sleeve No.3.

28. REMOVE SHIFTING KEYS AND SPRINGS FROM 5TH GEAR AND HUB SLEEVE NO.3

Using a screwdriver, remove the three shifting keys and two springs.

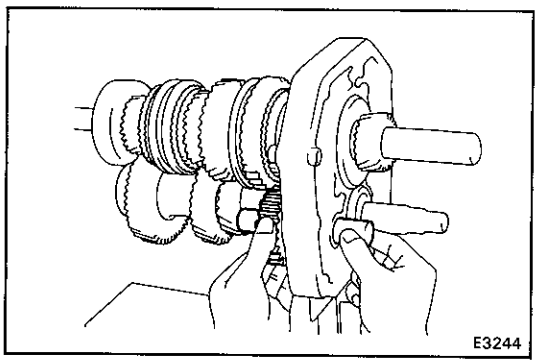


29. REMOVE THRUST WASHER AND BALL



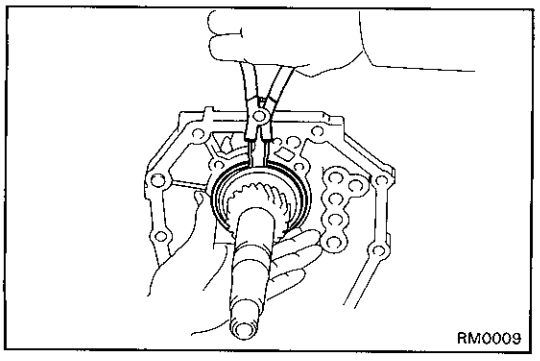
30. REMOVE REAR BEARING RETAINER

Remove the four bolts and rear bearing retainer.



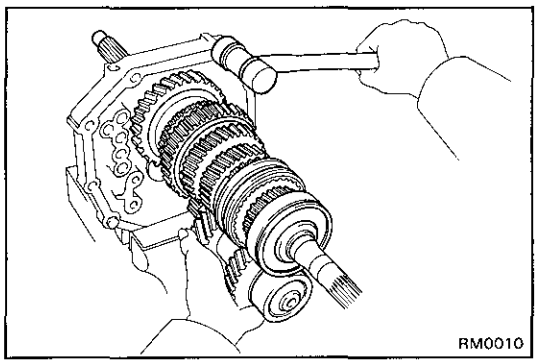
31. REMOVE REVERSE IDLER GEAR AND SHAFT

Pull out the shaft toward the rear.



32. REMOVE BEARING SNAP RING

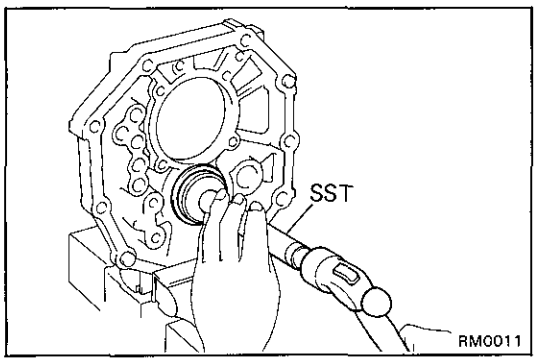
Using snap ring pliers, remove the snap ring.



33. REMOVE OUTPUT SHAFT, COUNTER GEAR AND INPUT SHAFT AS A UNIT 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.

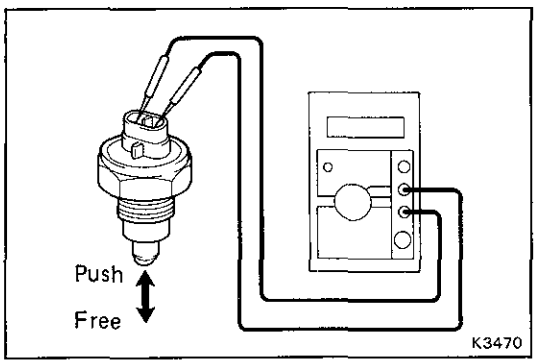
(b) Remove the input shaft with the needle roller bearing from the output shaft.



34. REMOVE COUNTER REAR BEARING FROM INTERMEDIATE PLATE

Using SST, remove the counter rear bearing.

SST 09608-12010 (09608-00020, 09608-00050)



35. INSPECT BACK-UP LIGHT SWITCH

Check that there is continuity between terminals.

Switch Position	Specified
Push	Continuity
Free	No continuity

If operation is as specified replace switch.