

MANUAL TRANSMISSION

SECTION

MT

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FS5W71C & FS5R30A

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FS5W71C

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FS5R30A


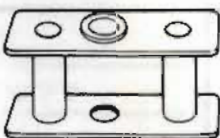
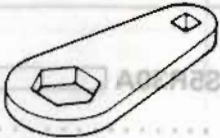
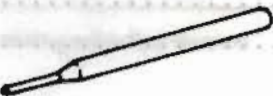
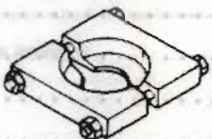
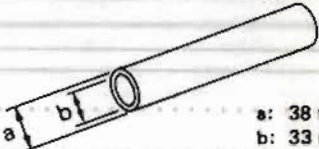
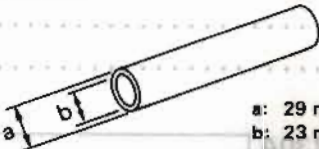
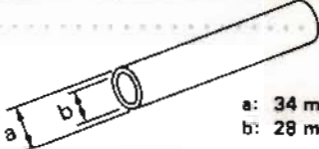
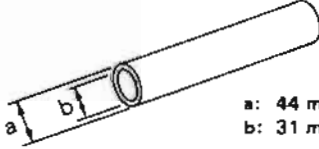
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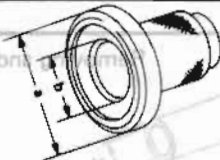

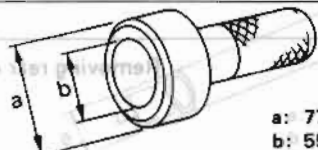

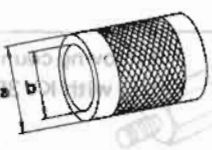
FS5W71C & FS5R30A

SERVICE DATA AND SPECIFICATIONS (S.D.S.)	MT-54
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MT

SPECIAL SERVICE TOOLS – for FS5W71C




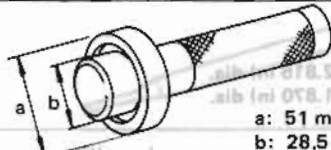
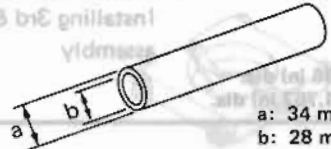
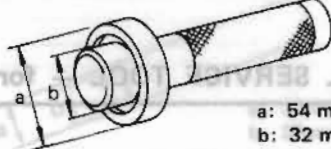
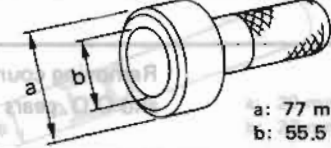
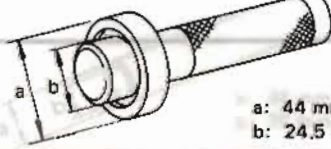
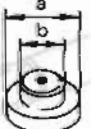
Tool number (Kent-Moore No.) Tool name	Description
ST23810001 () Adapter setting plate	 Fixing adapter plate with gear assembly
KV31100401 () Transmission press stand	 Pressing counter gear and mainshaft
ST22520000 (J26348) Wrench	 Tightening mainshaft lock nut
ST23540000 (J25689-A) Pin punch	 Removing and installing fork rod retaining pin
ST30031000 (J22912-01) Puller	 Removing and installing 1st gear bushing Removing main drive gear bearing Measuring wear of baulk rings
ST23860000 () Drift	 Installing counter drive gear a: 38 mm (1.50 in) dia. b: 33 mm (1.30 in) dia.
ST22360002 (J25679-01) Drift	 Installing counter gear front and rear end bearings a: 29 mm (1.14 in) dia. b: 23 mm (0.91 in) dia.
ST22350000 (J25678-01) Drift	 Installing O.D. gear bushing a: 34 mm (1.34 in) dia. b: 28 mm (1.10 in) dia.
ST23800000 (J25691-01) Drift	 Installing front cover oil seal a: 44 mm (1.73 in) dia. b: 31 mm (1.22 in) dia.


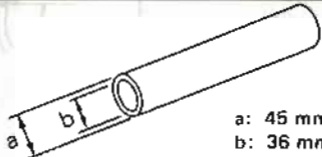

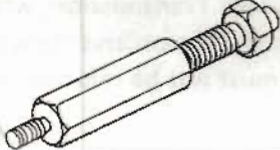
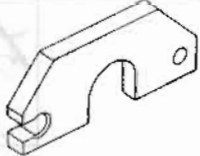
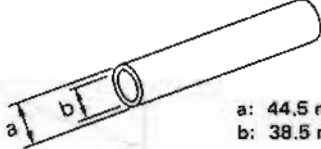
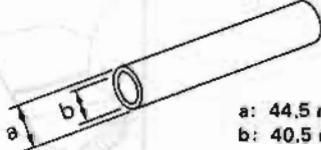
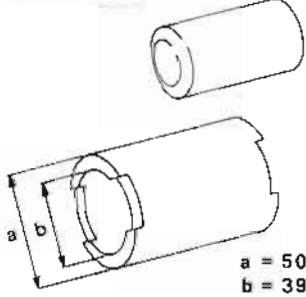
Tool number (Kent-Moore No.) Tool name	Description
ST33400001 (J26082) Drift	 <p>Installing rear oil seal</p> <p>a: 60 mm (2.36 in) dia. b: 47 mm (1.85 in) dia.</p>
ST33290001 (J25810-A) Puller	 <p>Removing rear oil seal</p>
ST30720000 (J26082) Drift	 <p>Installing mainshaft ball bearing</p> <p>a: 77 mm (3.03 in) dia. b: 55.6 mm (2.185 in) dia.</p>
ST30613000 (J25742-3) Drift	 <p>Installing main drive gear bearing</p> <p>a: 71.5 mm (2.815 in) dia. b: 47.5 mm (1.870 in) dia.</p>
ST33200000 (J26082) Drift	 <p>Installing counter rear bearing Installing 3rd & 4th synchronizer assembly</p> <p>a: 60 mm (2.36 in) dia. b: 44.5 mm (1.752 in) dia.</p>

COMMERCIAL SERVICE TOOL — for FS5W71C


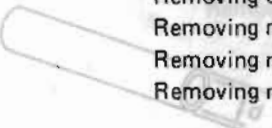










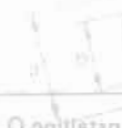
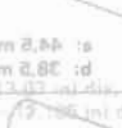






Tool name	Description
Puller	 <p>Removing counter bearings, counter drive and O.D. gears</p>
	 <p>Installing main drive gear bearing</p> <p>a: 73 mm (2.83 in) dia. b: 48 mm (1.89 in) dia.</p>

SPECIAL SERVICE TOOLS — for FS5R30A

Tool number (Kent-Moore No.) Tool name	Description	
ST23540000 (J25689-A) Pin punch		Removing and installing retaining pin
ST30031000 (J22912-01) Puller		Removing 1st & 2nd synchronizer assembly Removing counter gear rear thrust bearing Removing main drive bearing
ST33290001 (J25810-A) Puller		Removing rear oil seal
ST33230000 () Drift	 a: 51 mm (2.01 in) dia. b: 28.5 mm (1.122 in) dia.	Removing mainshaft and counter gear
ST22350000 (J25678-01) Drift	 a: 34 mm (1.34 in) dia. b: 28 mm (1.10 in) dia.	Removing counter gear front bearing (Use with KV38100300)
KV38100300 (J25523) Drift	 a: 54 mm (2.13 in) dia. b: 32 mm (1.26 in) dia.	Removing counter gear front bearing (Use with ST22350000) Installing counter gear rear bearing
ST30720000 ① (J34286) ② (J34331) Drift	 a: 77 mm (3.03 in) dia. b: 55.5 mm (2.185 in) dia.	① Removing mainshaft front bearing ② Installing mainshaft front bearing
ST33210000 ① (J25523) ② (J25803-01) Drift	 a: 44 mm (1.73 in) dia. b: 24.5 mm (0.965 in) dia.	① Installing counter gear front bearing ② Installing front cover oil seal
ST30613000 (J25742-3) Drift	 a: 72 mm (2.83 in) dia. b: 48 mm (1.89 in) dia.	Installing main drive gear bearing

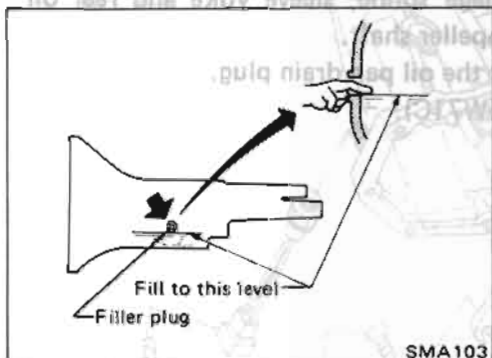
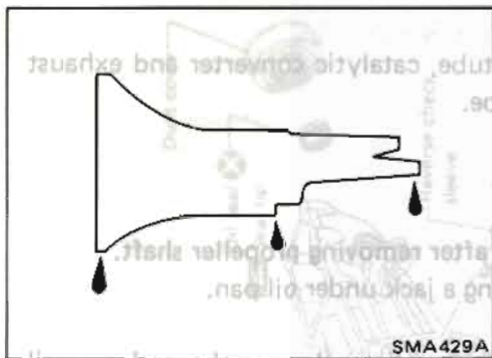
Tool number (Kent-Moore No.) Tool name	Description	
ST37750000 (J34286) (J34332) (J34334) (J25679-01) Drift	 <p>a: 40 mm (1.57 in) dia. b: 31 mm (1.22 in) dia.</p>	① Removing counter gear rear bearing ② Installing O.D. gear bushing ② Installing reverse cone ③ Installing reverse counter gear ④ Installing counter gear rear end bearing
ST22452000 (J34337) Drift	 <p>a: 45 mm (1.77 in) dia. b: 36 mm (1.42 in) dia.</p>	Installing reverse hub Installing mainshaft rear bearing
ST33400001 (J26082) Drift	 <p>a: 60 mm (2.36 in) dia. b: 47 mm (1.85 in) dia.</p>	Installing rear oil seal
(J26349-3) Puller leg		Installing mainshaft and counter gear (Use with J34328)
(J34328) Puller		Installing mainshaft and counter gear (Use with J26349-3)
(J26092) Drift	 <p>a: 44.5 mm (1.752 in) dia. b: 38.5 mm (1.516 in) dia.</p>	Installing sub-gear snap ring
(J34342) Drift	 <p>a: 44.5 mm (1.752 in) dia. b: 40.5 mm (1.594 in) dia.</p>	Installing O.D. main gear Installing reverse gear bushing
ST36730000 (-) Drift	 <p>a = 50 mm (1.97 in) dia. b = 39 mm (1.54 in) dia.</p>	Installing sub-gear on reverse idler gear

COMMERCIAL SERVICE TOOL — for FS5R30A

Tool name	Description	Description	(Tool Name No.)
Puller	 <p> (1) Removing counter gear rear end bearing (2) Removing mainshaft rear bearing (3) Removing reverse synchronizer hub (4) Removing reverse counter gear </p>		(1) (J25679-01) (2) (J34332) (3) (J34332) (4) (J34332)
Puller	 <p> a: 40 mm (1.57 in) dia. b: 31 mm (1.22 in) dia. </p>		(1) (J25679-01) (2) (J25679-01) (3) (J25679-01)
Puller	 <p> a: 48 mm (1.73 in) dia. b: 38 mm (1.45 in) dia. </p>		(1) (J25679-01) (2) (J25679-01) (3) (J25679-01)
Puller	 <p> a: 60 mm (2.36 in) dia. b: 47 mm (1.85 in) dia. c: 32 mm (1.26 in) dia. </p>		(1) (J25679-01) (2) (J25679-01) (3) (J25679-01)
Puller	 <p> a: 60 mm (2.36 in) dia. b: 47 mm (1.85 in) dia. c: 32 mm (1.26 in) dia. </p>		(1) (J25679-01) (2) (J25679-01) (3) (J25679-01)
Puller	 <p> a: 60 mm (2.36 in) dia. b: 47 mm (1.85 in) dia. c: 32 mm (1.26 in) dia. </p>		(1) (J25679-01) (2) (J25679-01) (3) (J25679-01)
Puller	 <p> a: 48 mm (1.73 in) dia. b: 38 mm (1.45 in) dia. </p>		(1) (J25679-01) (2) (J25679-01) (3) (J25679-01)
Puller	 <p> a: 48 mm (1.73 in) dia. b: 38 mm (1.45 in) dia. </p>		(1) (J25679-01) (2) (J25679-01) (3) (J25679-01)
Puller	 <p> a: 48 mm (1.73 in) dia. b: 38 mm (1.45 in) dia. </p>		(1) (J25679-01) (2) (J25679-01) (3) (J25679-01)
Puller	 <p> a: 50 mm (1.97 in) dia. b: 38 mm (1.45 in) dia. </p>		(1) (J25679-01) (2) (J25679-01) (3) (J25679-01)

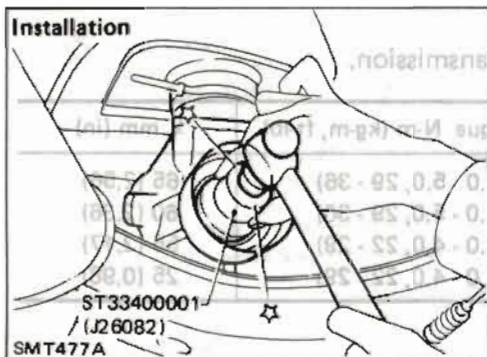
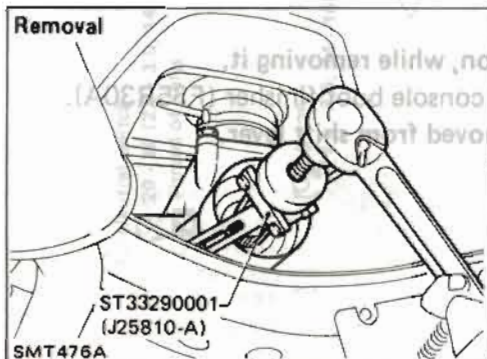
Checking M/T Oil

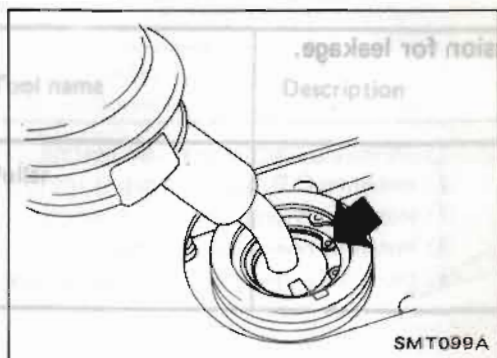
- Check manual transmission for leakage.



- Check oil level.

Replacing Rear Oil Seal





Removal

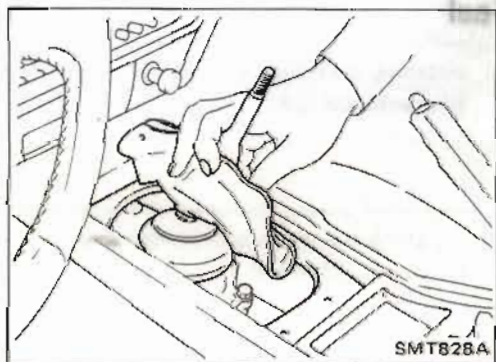
- Remove exhaust front tube, catalytic converter and exhaust manifold connecting tube.
Refer to section EM.
- Remove propeller shaft.
Refer to section PD.

Insert plug into rear oil seal after removing propeller shaft.

- Support engine by placing a jack under oil pan.

CAUTION:

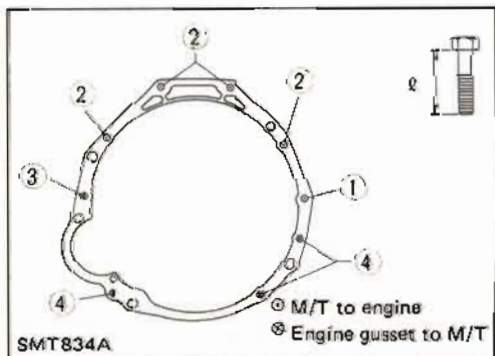
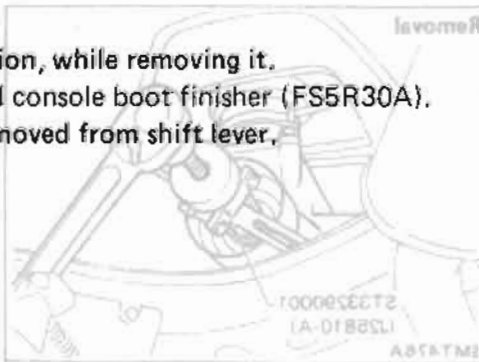
- Be careful not to damage spline, sleeve yoke and rear oil seal, when removing propeller shaft.
- Do not place jack under the oil pan drain plug.
- Remove shift lever (FS5W71C).



WARNING:

Support Manual Transmission, while removing it.

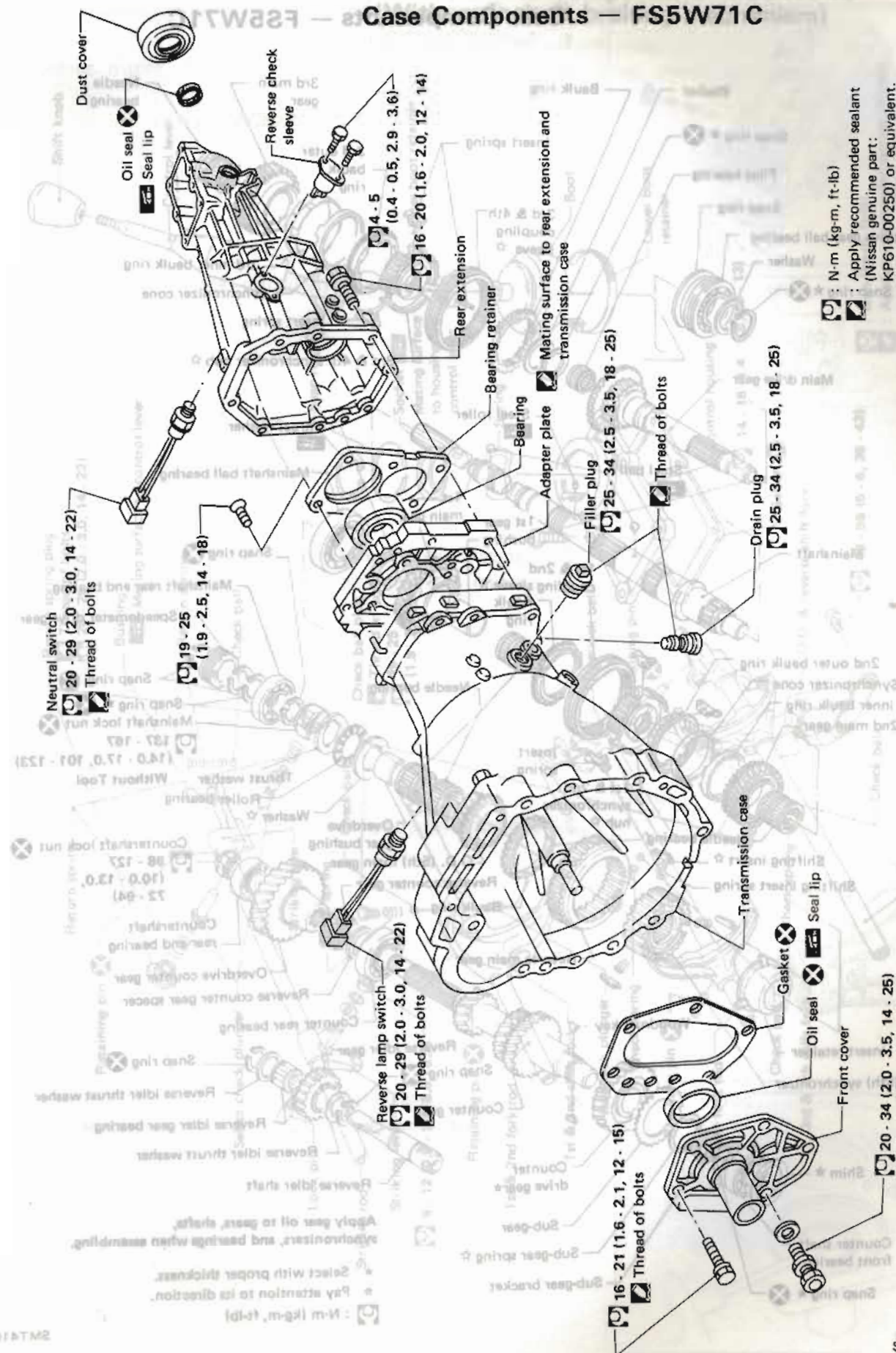
- Remove shift knob and console boot finisher (FS5R30A).
Dust cover must not be removed from shift lever.



Installation

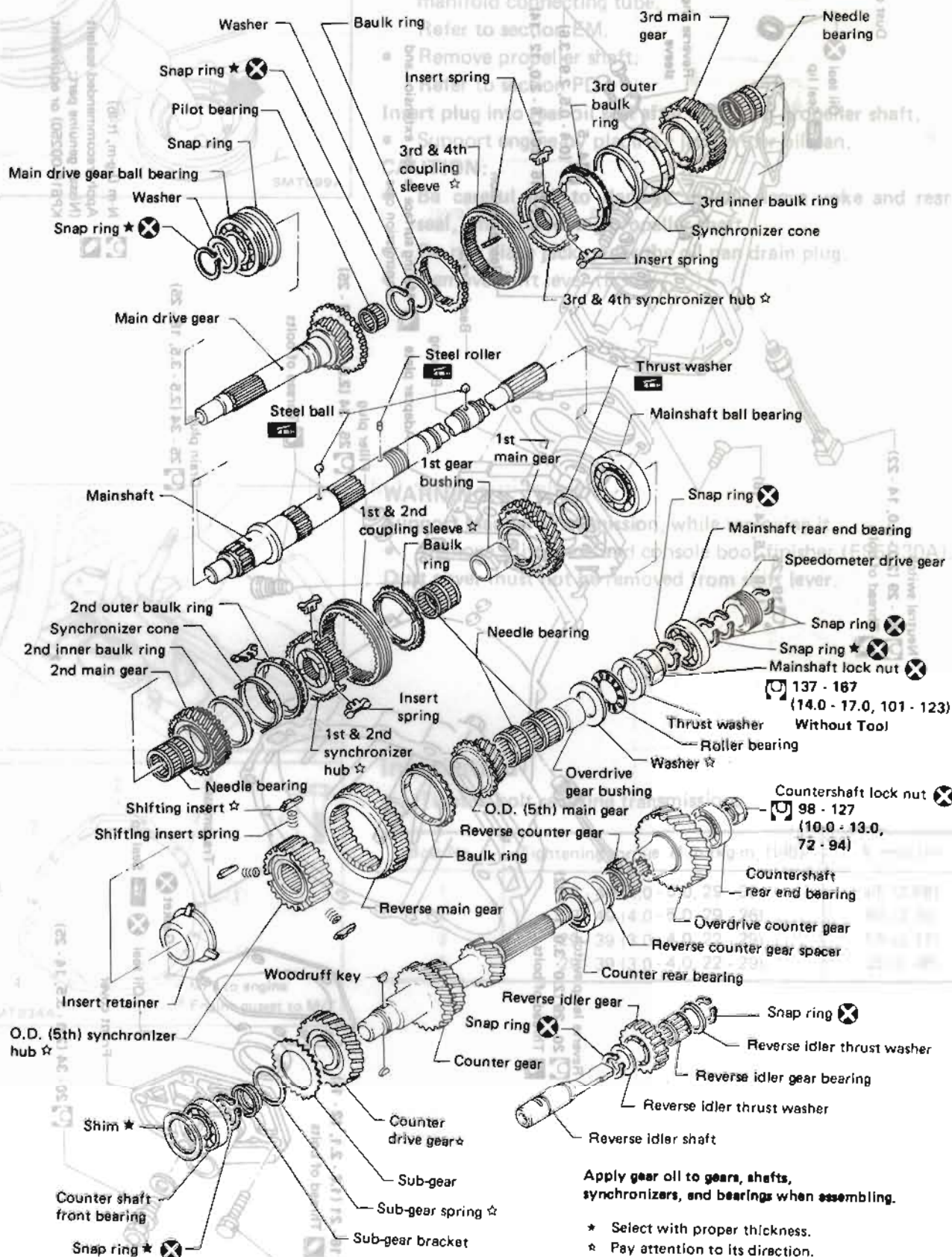
- Tighten bolt securing transmission.

Bolt No.	Tightening torque N·m (kg·m, ft·lb)	ℓ mm (in)
1	39 - 49 (4.0 - 5.0, 29 - 36)	65 (2.56)
2	39 - 49 (4.0 - 5.0, 29 - 36)	60 (2.36)
3	29 - 39 (3.0 - 4.0, 22 - 29)	55 (2.17)
4	29 - 39 (3.0 - 4.0, 22 - 29)	25 (0.98)

Shift Control Components—FS5W71C
Case Components — FS5W71C

: N·m (kg·m, ft·lb)
 : Apply recommended sealant
 (Nissan genuine part:
 KP610-00250) or equivalent.

Gear Components — FS5W71C

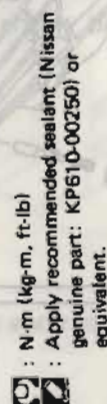


Apply gear oil to gears, shafts, synchronizers, and bearings when assembling.

- ★ Select with proper thickness.
- ☆ Pay attention to its direction.

Ⓜ : N·m (kg-m, ft-lb)

Remove control housing, check ball, return spring plug, select check plunger and return springs.



Case Components

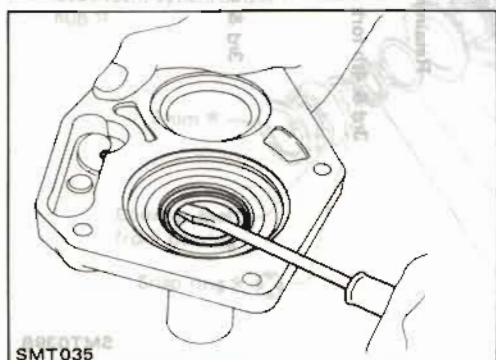
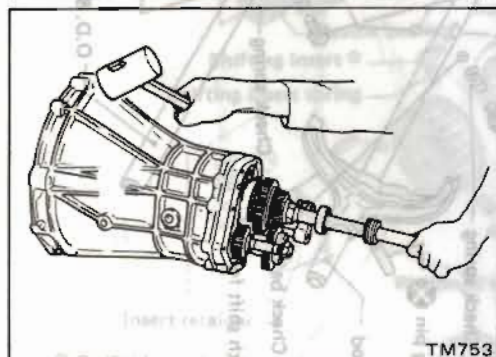
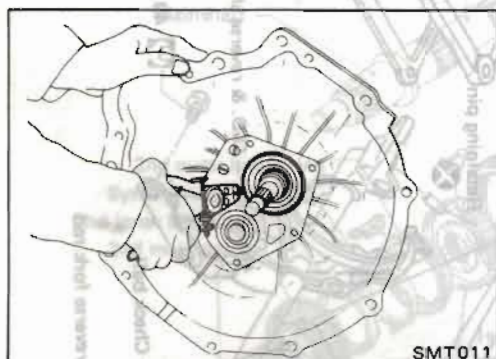
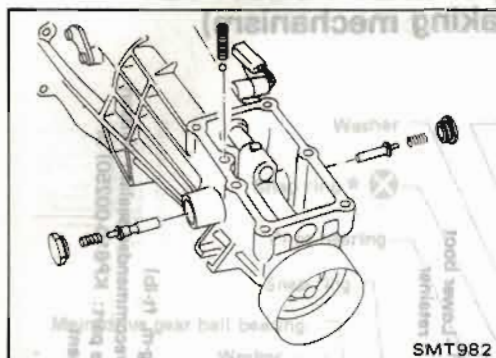
1. Remove rear extension.
 - a. Remove control housing, check ball, return spring plug, select check plunger and return springs.

- b. Remove rear extension by lightly tapping it.

2. Remove front cover, gasket, shim of countershaft front bearing, and snap ring of main drive gear ball bearing.

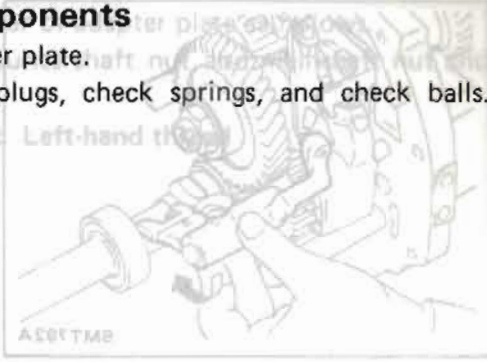
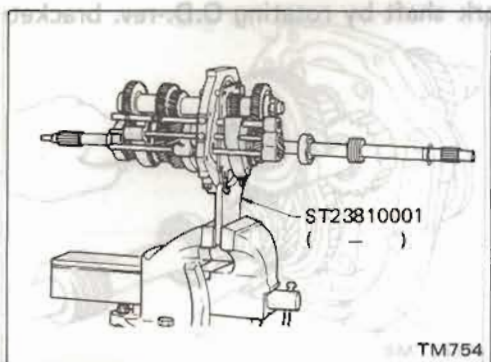
3. Separate transmission case from adapter plate.

4. Remove oil seal of front cover.
Be careful not to damage mating surface of front cover.

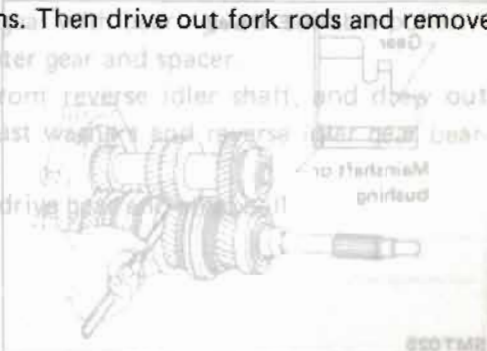
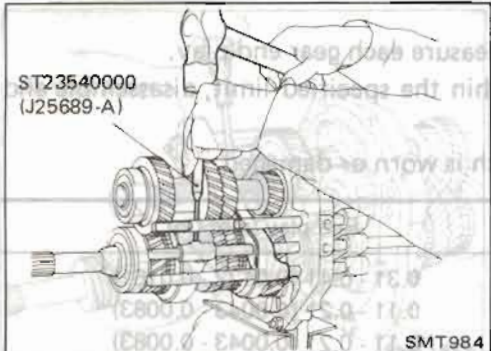


Shift Control Components

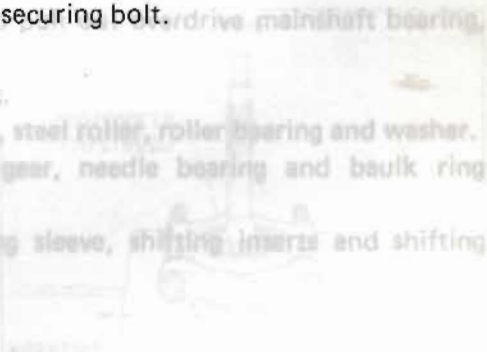
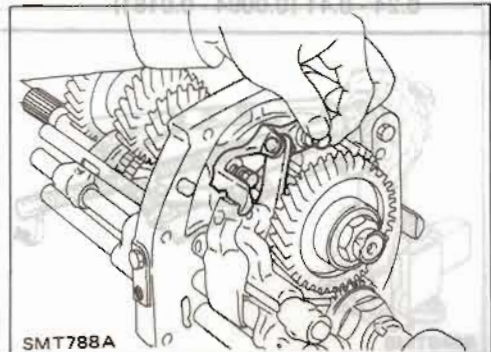
1. Set up Tool on adapter plate.
2. Remove check ball plugs, check springs, and check balls.



3. Drive out retaining pins. Then drive out fork rods and remove interlock balls.

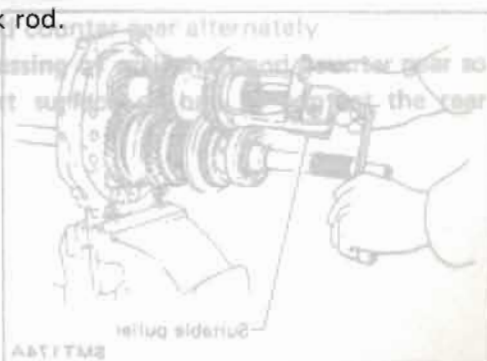
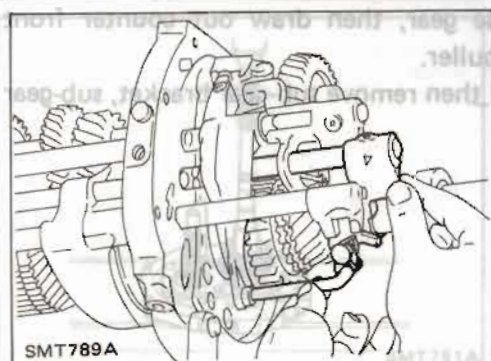


4. Remove lever bracket securing bolt.

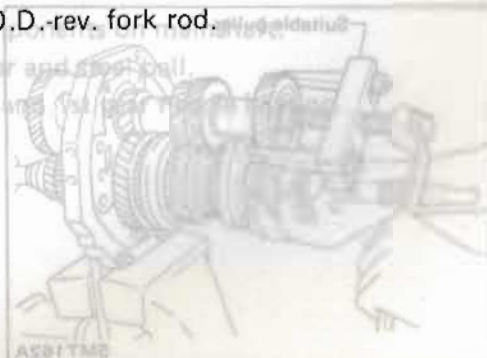
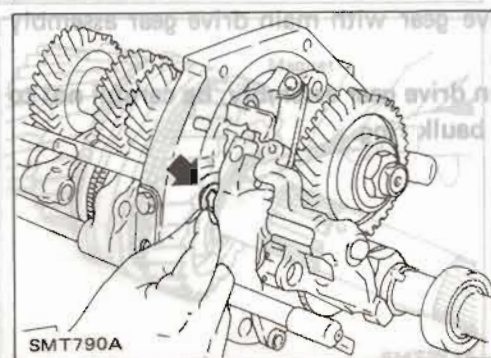


- a. Remove snap ring.
- b. Remove mainshaft nut.
- c. Remove thrust washer, steel roller, roller bearing and washer.
- d. Remove O.D. main gear, needle bearing and baulk ring (O.D.).
- e. Remove O.D. coupling sleeve, shifting inserts and shifting insert springs.

5. Draw out 3rd-4th fork rod.

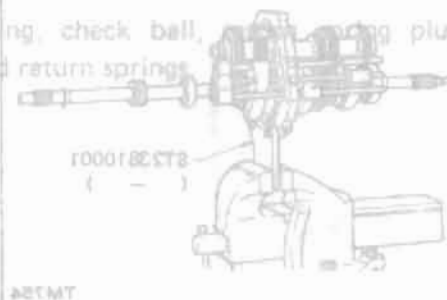
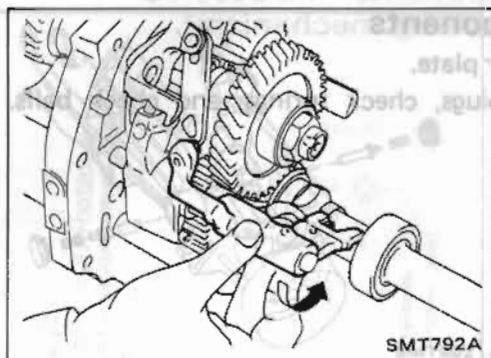


6. Remove E-ring from O.D.-rev. fork rod.



Shift Control Components (Cont'd)

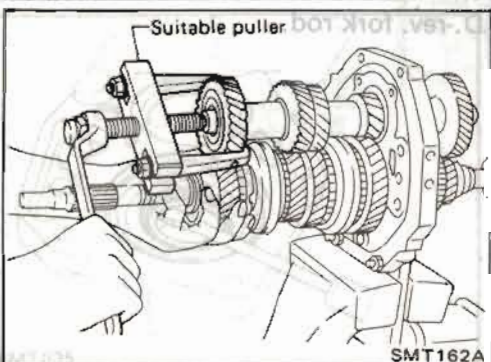
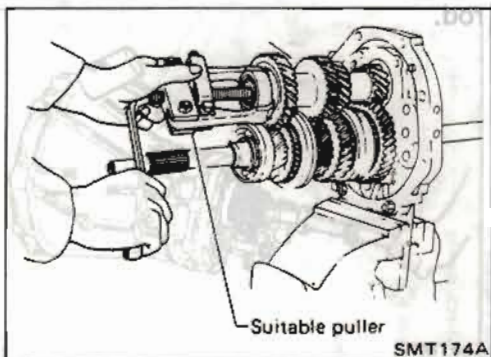
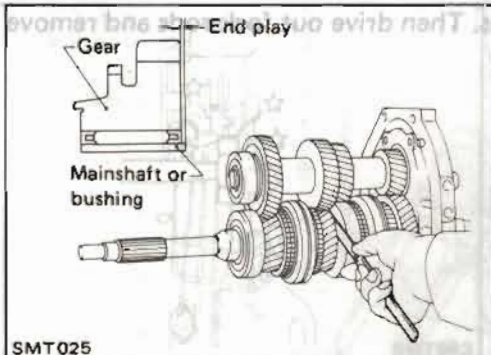
7. Draw out O.D.-rev. fork shaft by rotating O.D.-rev. bracket counterclockwise.



Gear Components

- Before disassembly, measure each gear end play.
 - If end play is not within the specified limit, disassemble and check the parts.
 - Replace any part which is worn or damaged.

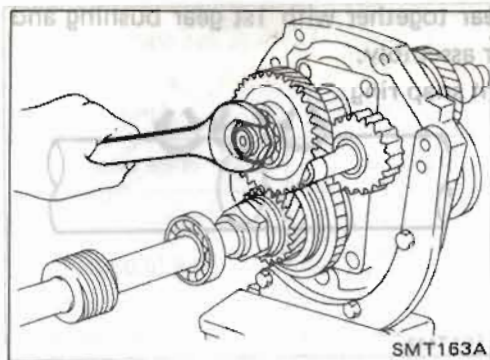
Gear	End play mm (in)
1st	0.31 - 0.41 (0.0122 - 0.0161)
2nd	0.11 - 0.21 (0.0043 - 0.0083)
3rd	0.11 - 0.21 (0.0043 - 0.0083)
O.D.	0.24 - 0.41 (0.0094 - 0.0161)



- Mesh 2nd and reverse gear, then draw out counter front bearing with suitable puller.
- Remove snap ring and then remove sub-gear bracket, sub-gear spring and sub-gear.

- Draw out counter drive gear with main drive gear assembly with suitable puller.
 - When drawing out main drive gear assembly, be careful not to drop pilot bearing and baulk ring.

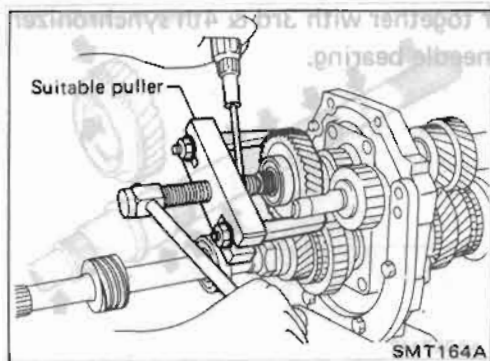
Gear Components (Cont'd)



5. Disassemble parts at rear of adapter plate as follows.

- a. Release staking on countershaft nut and mainshaft nut and loosen these nuts.

Mainshaft nut: Left-hand thread

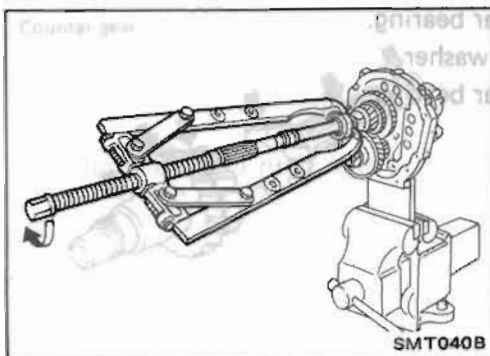
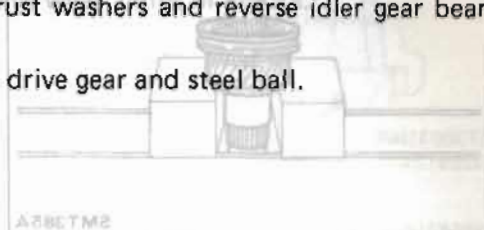


- b. Pull out O.D. counter gear with bearing with suitable puller.

- c. Draw out reverse counter gear and spacer.

- d. Remove snap rings from reverse idler shaft, and draw out reverse idler gear, thrust washers and reverse idler gear bearing.

- e. Remove speedometer drive gear and steel ball.



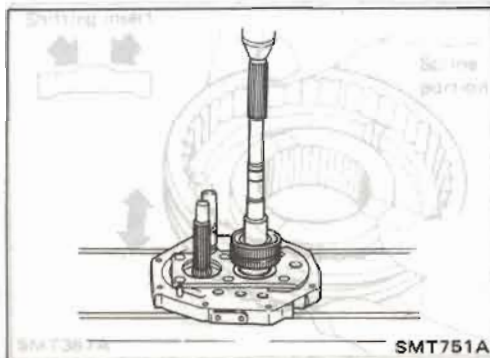
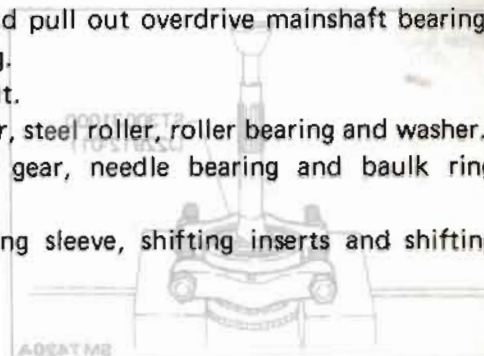
- f. Remove snap ring and pull out overdrive mainshaft bearing, then remove snap ring.

- g. Remove mainshaft nut.

- h. Remove thrust washer, steel roller, roller bearing and washer.

- i. Remove O.D. main gear, needle bearing and baulk ring (O.D.).

- j. Remove O.D. coupling sleeve, shifting inserts and shifting insert springs.

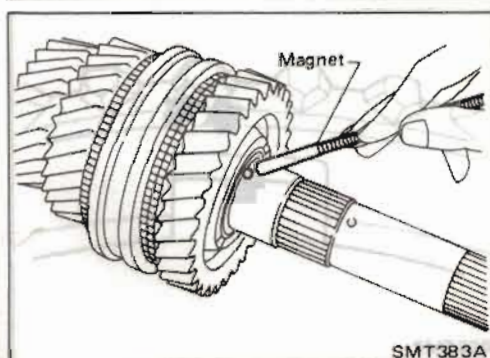


- k. Press out mainshaft and counter gear alternately.

Make sure to alternate pressing of mainshaft and counter gear so as not to allow the front surface of one to contact the rear surface of the other.

- Check shifting inserts for wear or deformation.

- Check insert springs for deformation.

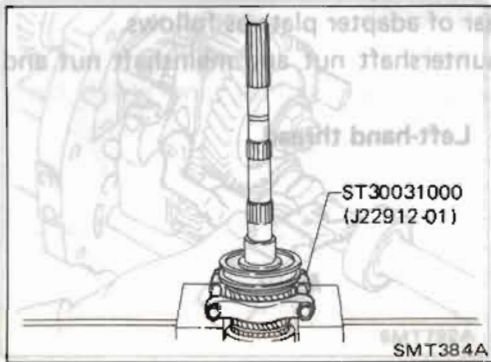


6. Remove front side components on mainshaft.

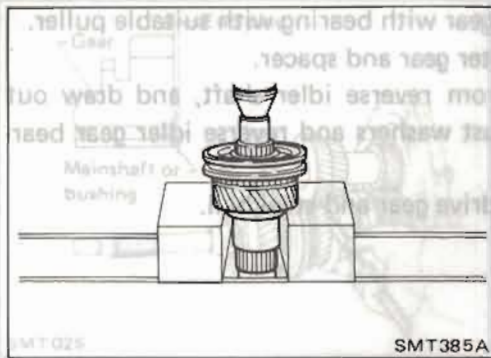
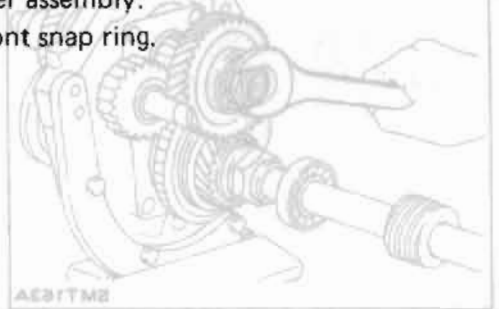
- a. Remove 1st gear washer and steel ball.

- b. Remove 1st main gear and 1st gear needle bearing.

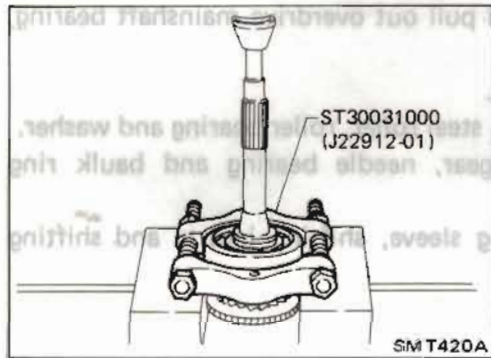
Gear Components (Cont'd)



- c. Press out 2nd main gear together with 1st gear bushing and 1st & 2nd synchronizer assembly.
- d. Remove mainshaft front snap ring.

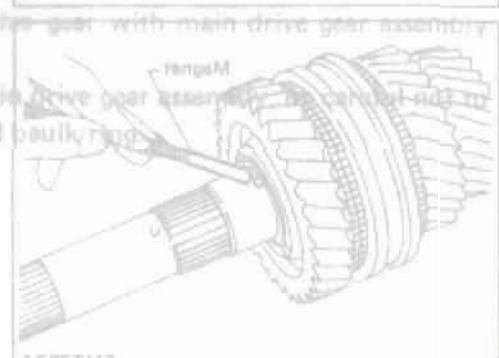
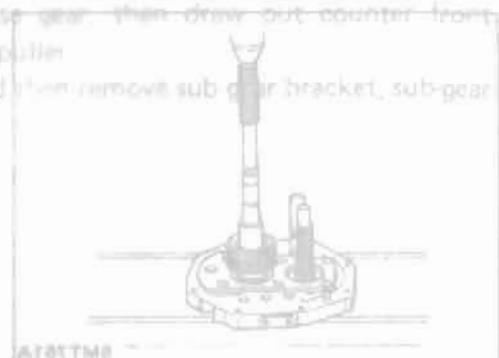
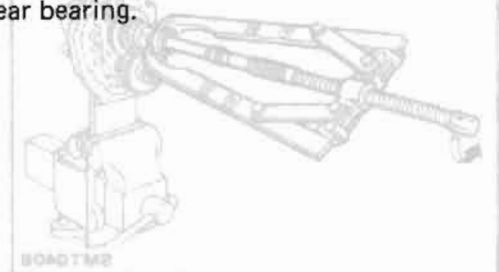


- e. Press out 3rd main gear together with 3rd & 4th synchronizer assembly and 3rd gear needle bearing.



7. Remove main drive gear bearing.

- a. Remove snap ring and washer.
- b. Remove main drive gear bearing.



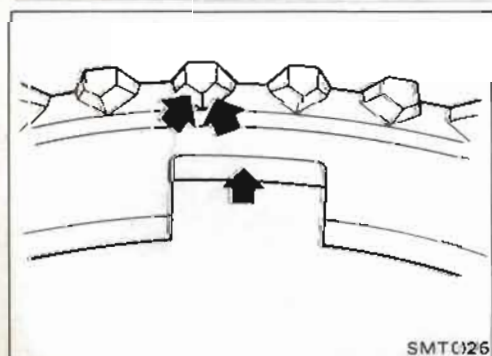
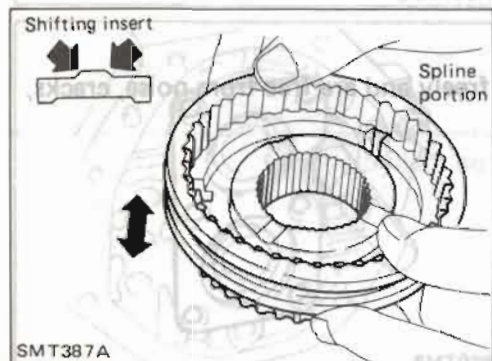
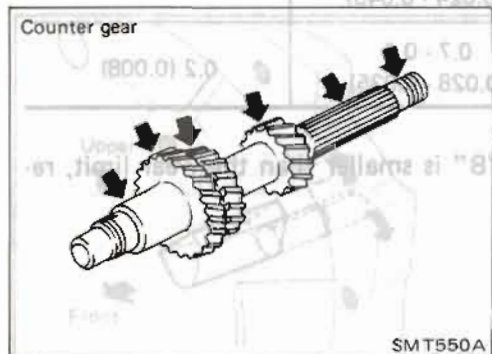
- Check contact surface and sliding surface of fork rods for wear, scratches, projections or other damage.



Gear Components

GEARS AND SHAFTS

- Check shafts for cracks, wear or bending.
- Check gears for excessive wear, chips or cracks.



SYNCHRONIZERS

- Check spline portion of coupling sleeves, hubs and gears for wear or cracks.
- Check baulk rings for cracks or deformation.
- Check shifting inserts for wear or deformation.
- Check insert springs for deformation.

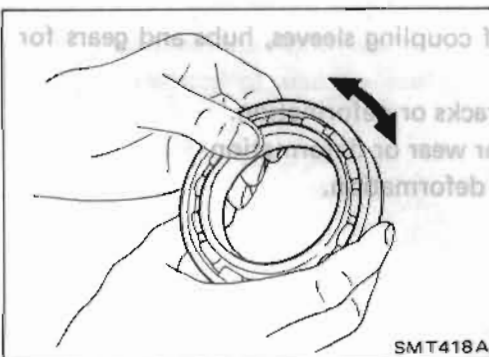
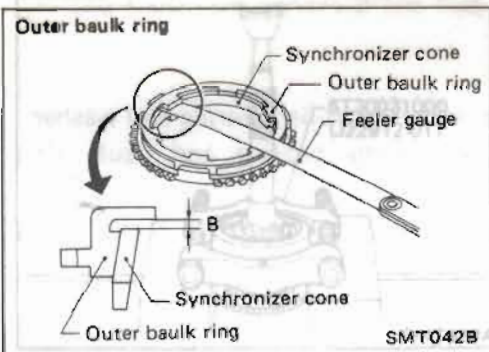
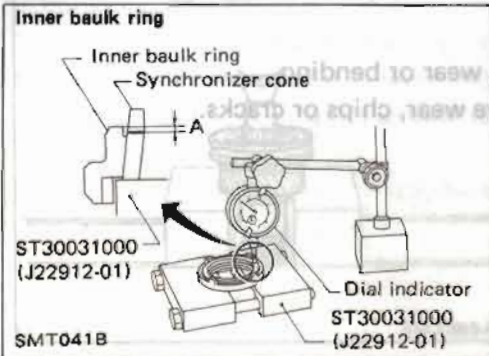
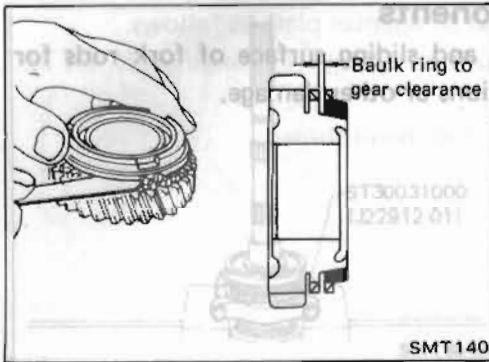
Gear Components (Cont'd)

- Measure clearance between baulk ring and gear.

Clearance between baulk ring and gear

Unit: mm (in)

	Standard	Wear limit
1st		
Main drive	1.2 - 1.6 (0.047 - 0.063)	0.8 (0.031)
O.D.		



- Measure wear of 2nd and 3rd baulk ring

- Place baulk rings in position on synchronizer cone.
- While holding baulk rings against synchronizer cone as far as it will go, measure dimensions "A" and "B".

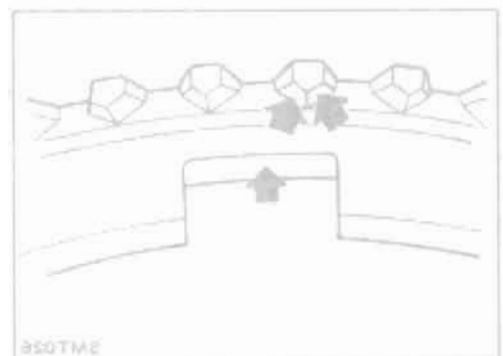
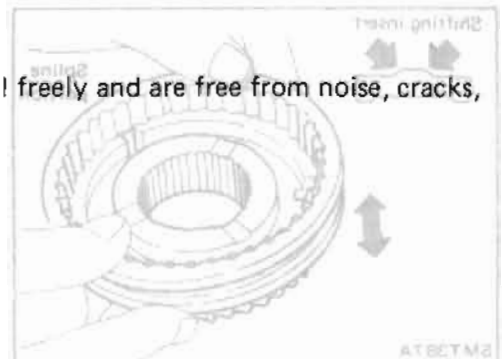
Unit: mm (in)

Dimension	Standard	Wear limit
A	0.6 - 1.1 (0.024 - 0.043)	0.2 (0.008)
B	0.7 - 0.9 (0.028 - 0.035)	0.2 (0.008)

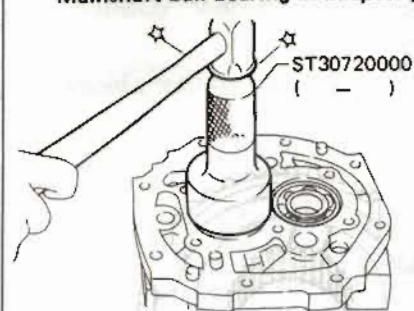
- If dimension "A" or "B" is smaller than the wear limit, replace baulk ring.

BEARINGS

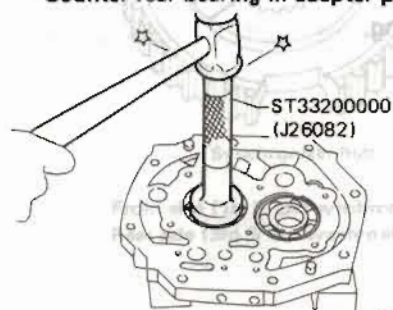
- Make sure bearings roll freely and are free from noise, cracks, pitting or wear.



Mainshaft ball bearing in adapter plate



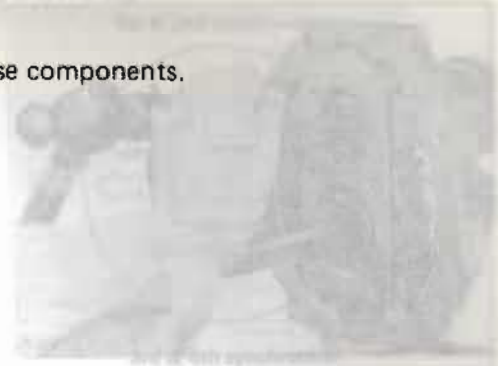
Counter rear bearing in adapter plate



SMT749A

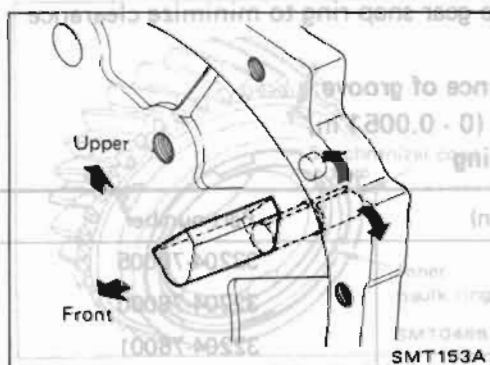
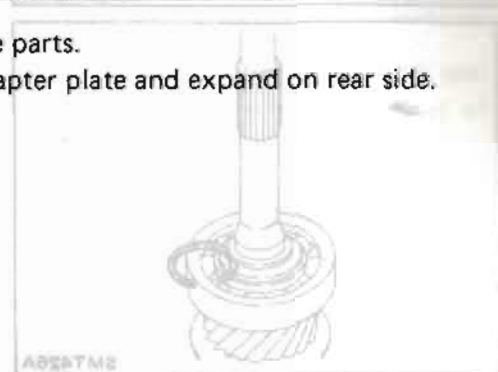
Gear Components

1. Install bearings into case components.



2. Assemble adapter plate parts.

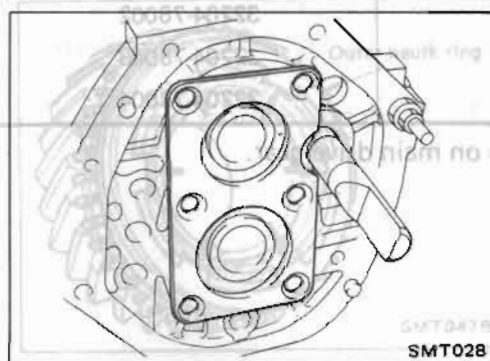
- Install oil gutter on adapter plate and expand on rear side.



SMT153A

- Install bearing retainer.

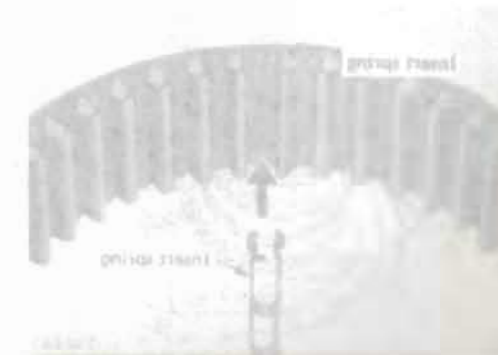
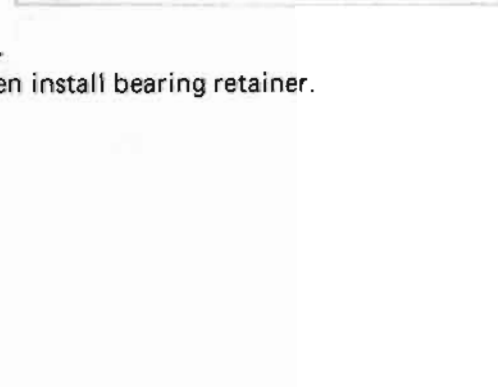
- a. Insert reverse shaft, then install bearing retainer.



SMT028

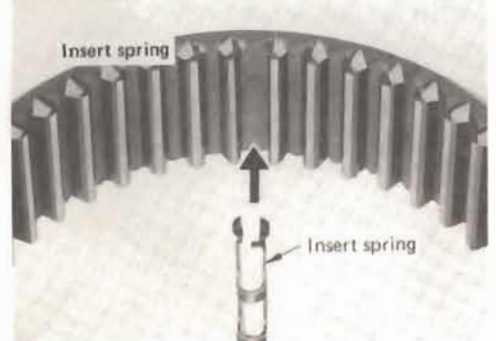
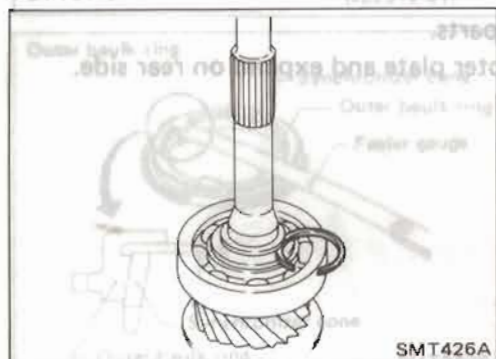
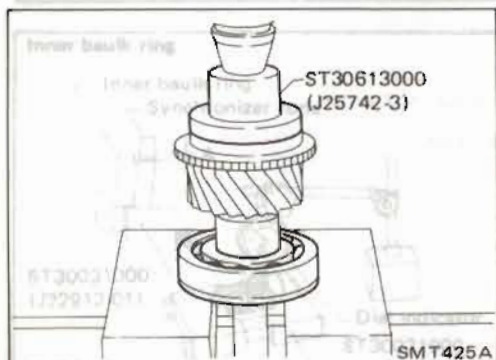
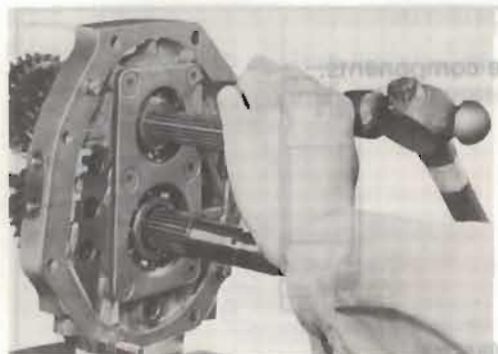


SMT028A



Gear Components (Cont'd)

- b. Tighten each screw, then stake it at two points.



3. Install main drive gear bearing.

- a. Press in main drive gear bearing.

- b. Install main drive gear spacer.

- c. Select proper main drive gear snap ring to minimize clearance of groove.

Allowable clearance of groove:

0 - 0.13 mm (0 - 0.0051 in)

Main drive gear snap ring

Thickness mm (in)	Part number
1.73 (0.0681)	32204-78005
1.80 (0.0709)	32204-78000
1.87 (0.0736)	32204-78001
1.94 (0.0764)	32204-78002
2.01 (0.0791)	32204-78003
2.08 (0.0819)	32204-78004

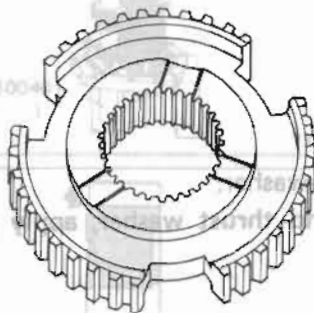
- d. Install selected snap ring on main drive gear.

4. Assemble synchronizers.

1st & 2nd, and 3rd & 4th synchronizer

Gear Components (Cont'd)

Hub and coupling sleeve



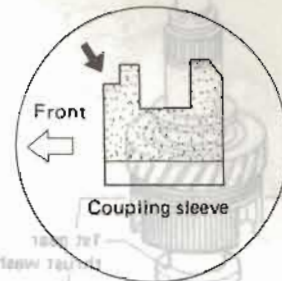
Synchronizer hub

Front side (1st & 2nd synchronizer hub)
Rear side (3rd & 4th synchronizer hub)

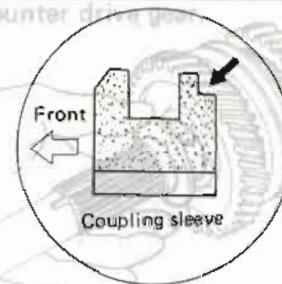


Coupling sleeve

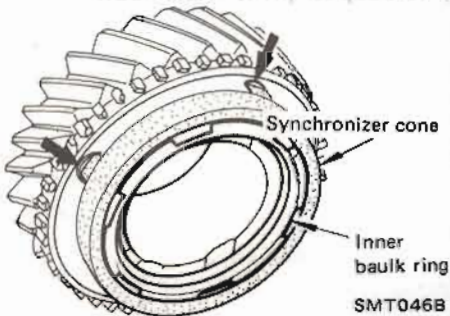
1st & 2nd synchronizer



3rd & 4th synchronizer



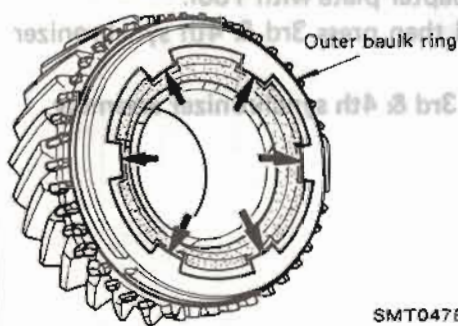
SMT411B



Synchronizer cone

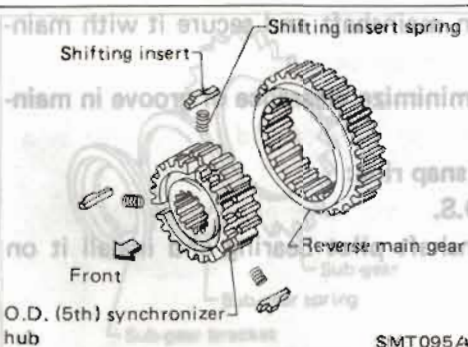
Inner baulk ring

SMT046B



Outer baulk ring

SMT047B



Shifting insert spring

Shifting insert

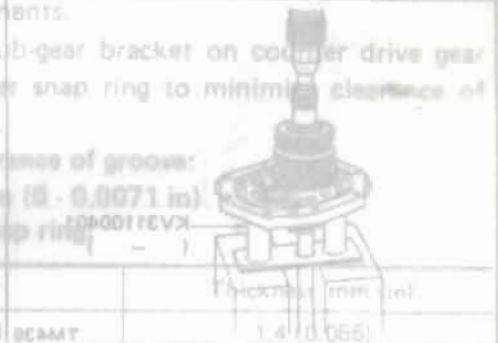
Reverse main gear

Front

O.D. (5th) synchronizer hub

SMT095A

O.D. synchronizer



1. Install sub-gear and sub-gear bracket on counter drive gear and then select proper snap ring to minimize clearance of groove in counter gear.

Allowable clearance of groove:

0 - 0.18 mm (0 - 0.0071 in)

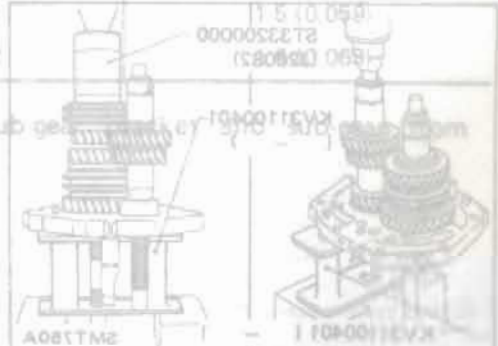
Counter drive gear snap ring

Parts number

32215-E9000

Thickness mm (in)

1.4 (0.055)

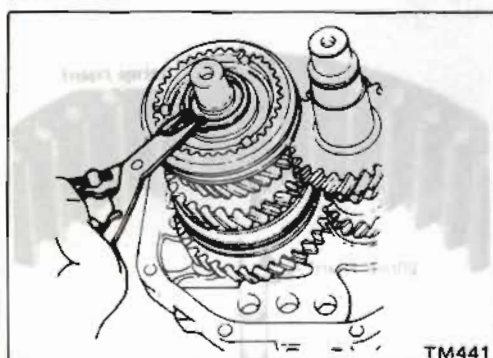
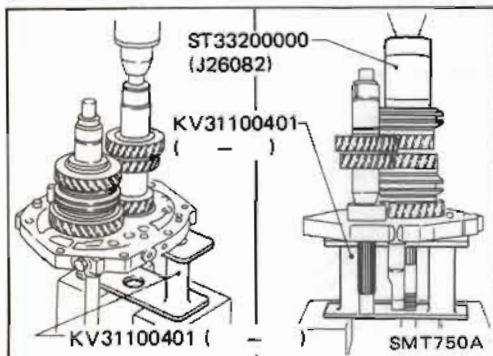
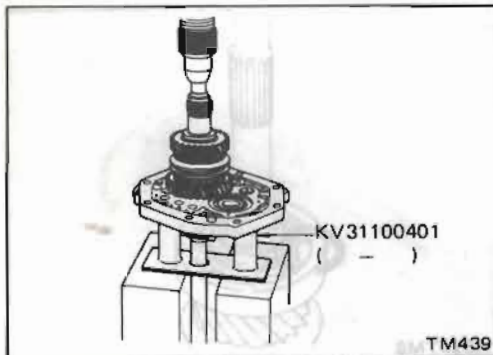
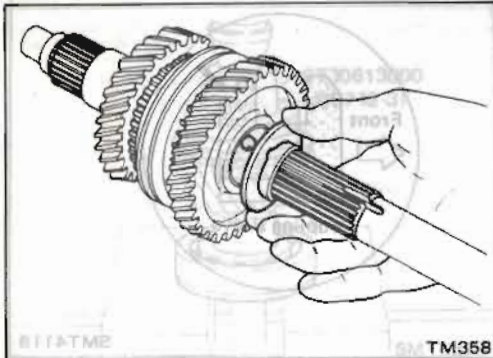
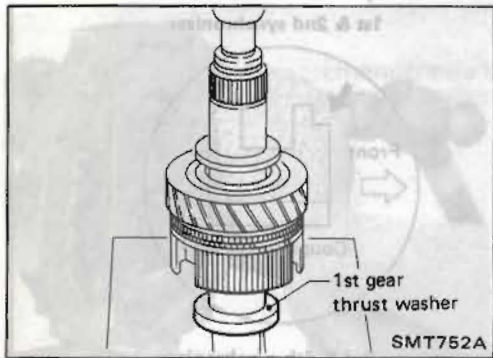


(b) Gear Components (Cont'd)

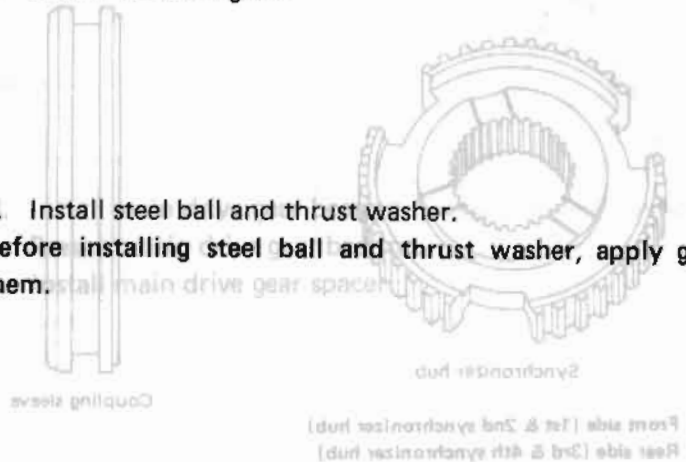
5. Assemble 2nd main gear, needle bearing and 1st & 2nd synchronizer assembly, then press 1st gear bushing on mainshaft.

Pay attention to direction of 1st & 2nd synchronizer assembly.

6. Install 1st main gear.



7. Install steel ball and thrust washer. Before installing steel ball and thrust washer, apply grease to them.



8. Press mainshaft assembly to adapter plate with Tool.

of groove

Allowable clearance of groove

0 - 0.13 mm (0 - 0.005 in)

Main drive gear snap ring

Thickness mm (in)

1.73 (0.0681)

1.80 (0.0709)

1.87 (0.0736)

9. Press counter gear into adapter plate with Tool.

10. Install 3rd main gear and then press 3rd & 4th synchronizer assembly.

Pay attention to direction of 3rd & 4th synchronizer assembly.

11. Install thrust washer on mainshaft and secure it with mainshaft front snap ring.

Select proper snap ring to minimize clearance of groove in mainshaft.

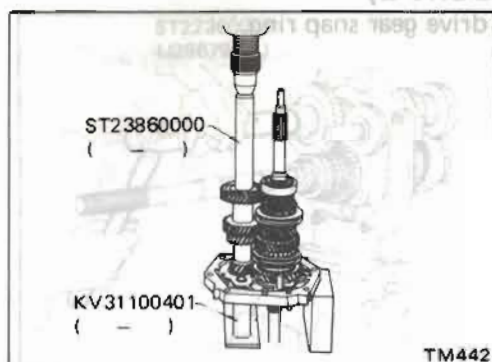
Mainshaft front snap ring:

Refer to S.D.S.

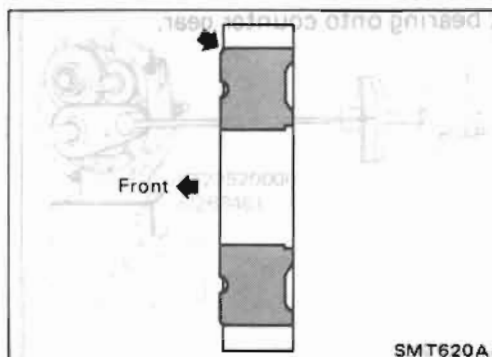
12. Apply gear oil to mainshaft pilot bearing and install it on mainshaft.

(b'noC) Gear Components (Cont'd)

13. Press counter drive gear with main drive gear with Tool.



TM442



SMT620A

Pay attention to direction of counter drive gear.

14. Install sub-gear components.

- a. Install sub-gear and sub-gear bracket on counter drive gear and then select proper snap ring to minimize clearance of groove in counter gear.

Allowable clearance of groove:

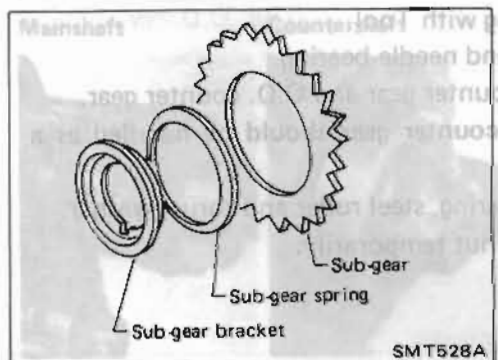
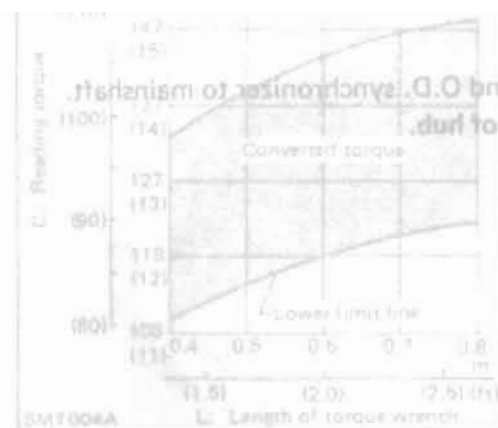
0 - 0.18 mm (0 - 0.0071 in)

Counter drive gear snap ring:

Parts number	Thickness mm (in)
32215-E9000	1.4 (0.055)
32215-E9001	1.5 (0.059)
32215-E9002	1.6 (0.063)

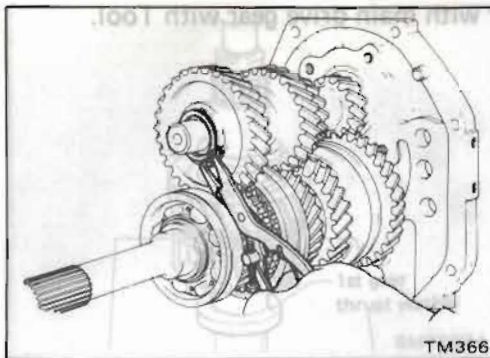
- b. Remove snap ring, sub-gear bracket and sub-gear from counter gear.

c. Reinstall sub-gear, sub-gear spring and sub-gear bracket.



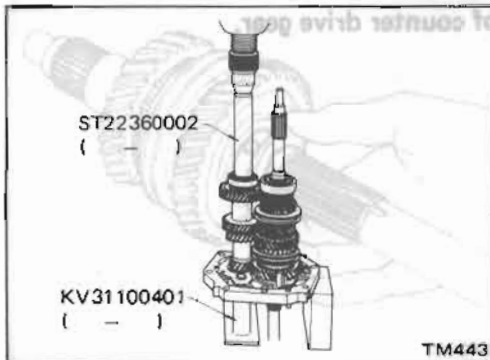
SMT528A

Gear Components (Cont'd)



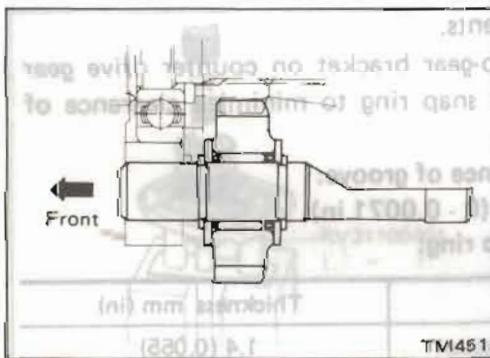
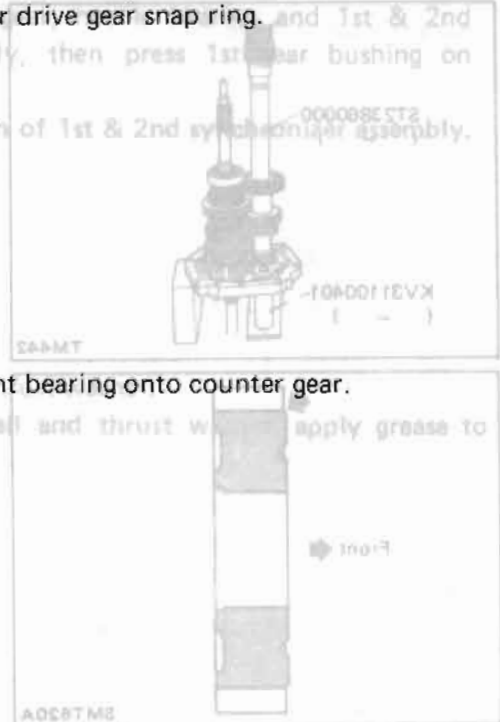
15. Install selected counter drive gear snap ring. Pay attention to direction of 1st & 2nd synchronizer assembly, then press 1st gear bushing on mainshaft.

6. Install 1st main gear.



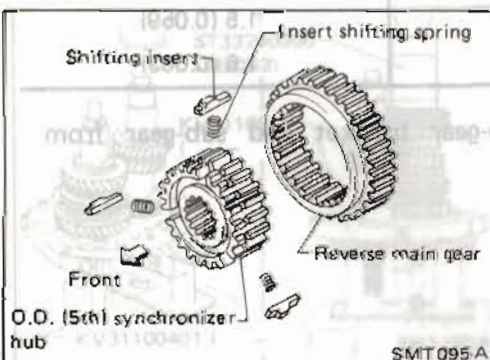
16. Press counter gear front bearing onto counter gear.

Before installing steel ball and thrust washer, apply grease to them.



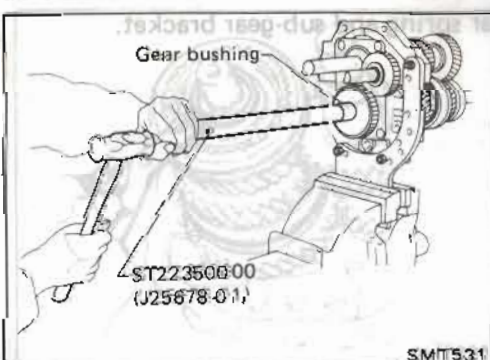
17. Assemble parts at rear of adapter plate as follows:

a. Install reverse idler gear to reverse idler shaft with spacers, snap rings and needle bearing.



b. Install insert retainer and O.D. synchronizer to mainshaft.

Pay attention to direction of hub.



c. Install O.D. gear bushing with Tool.

d. Install O.D. main gear and needle bearing.

e. Install spacer, reverse counter gear and O.D. counter gear. O.D. main gear and O.D. counter gear should be handled as a matched set.

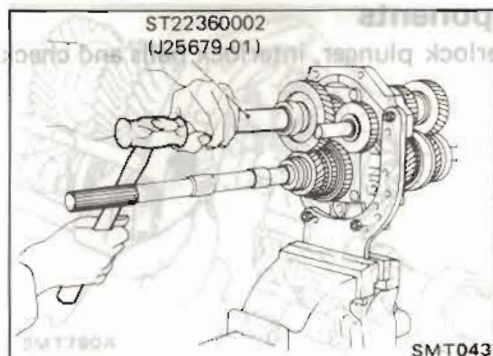
f. Install washer, roller bearing, steel roller and thrust washer.

g. Tighten mainshaft lock nut temporarily.

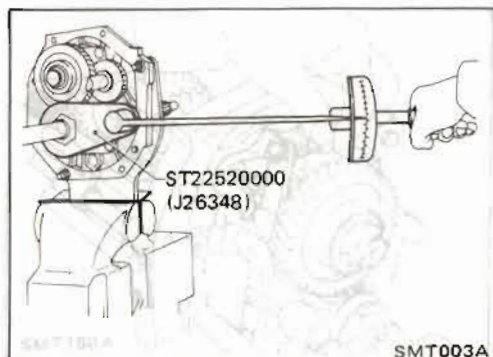
Always use new lock nut.

Gear Components (Cont'd)

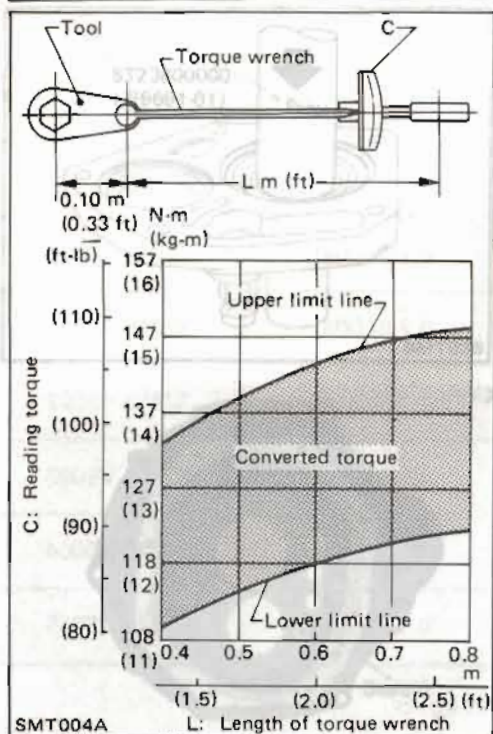
h. Install countershaft rear end bearing with Tool.



18. Mesh 2nd and reverse gears, then tighten mainshaft lock nut with Tool.



Use the left chart when deciding the reading torque.
(Length of torque wrench vs. setting or reading torque)
Apply multi-purpose grease to seal lip.

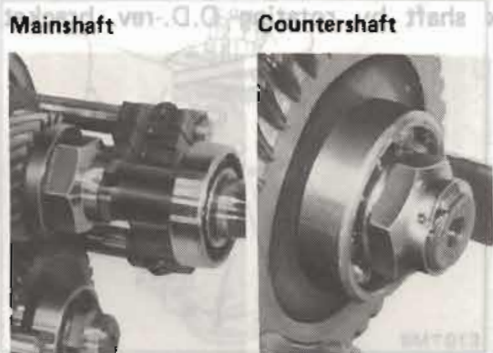


19. Tighten countershaft lock nut.

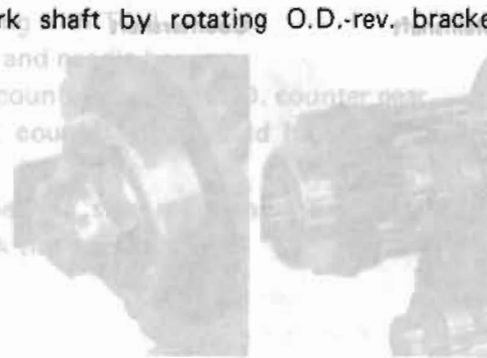
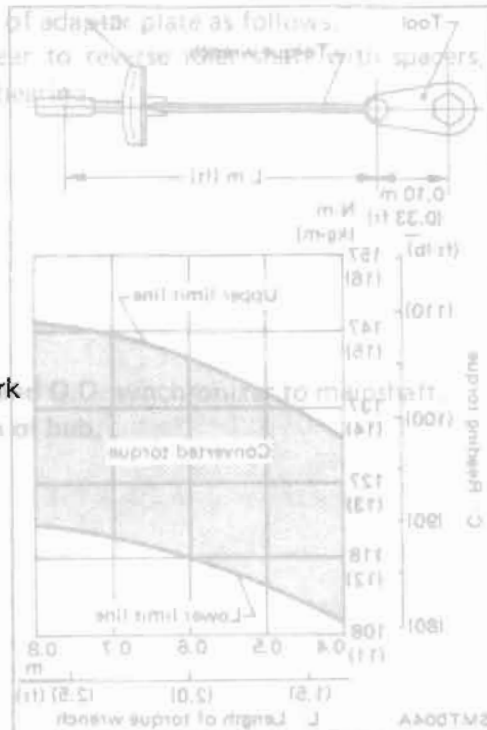
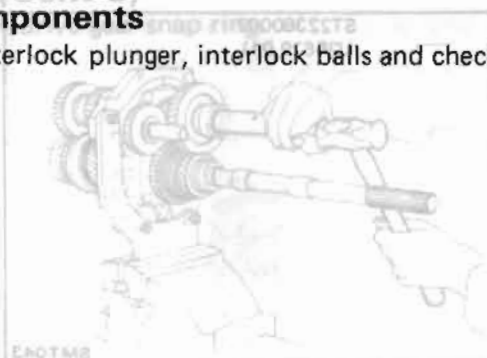
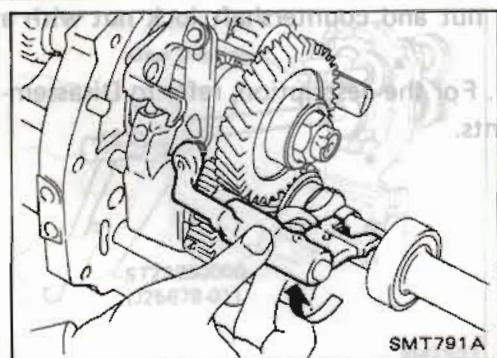
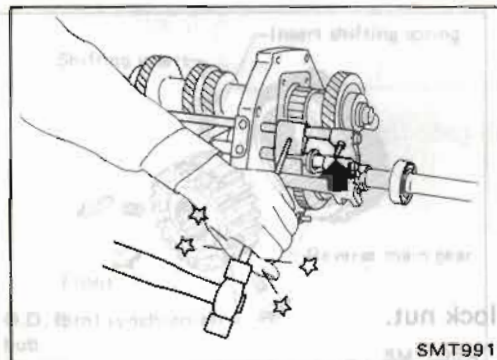
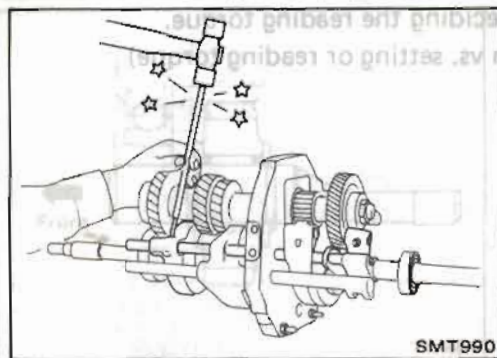
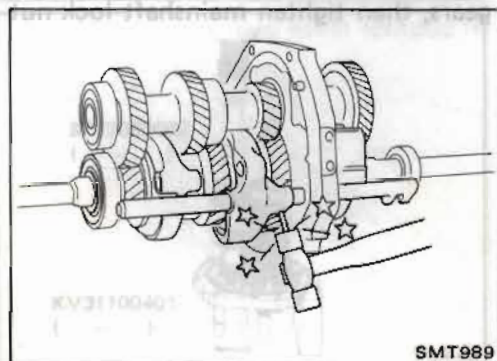
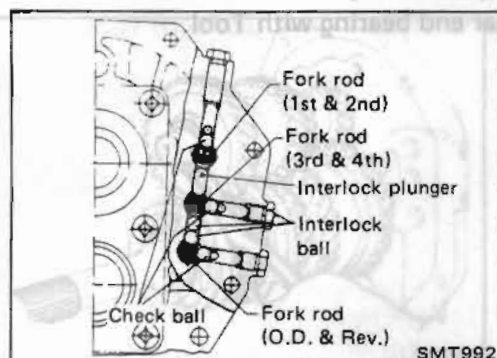
Always use new lock nut.

20. Stake mainshaft lock nut and countershaft lock nut with a punch.

21. Measure gear end play. For the description, refer to Disassembly of Gear Components.



1. Install shift rods, interlock plunger, interlock balls and check balls.



a. 1st-2nd shift fork

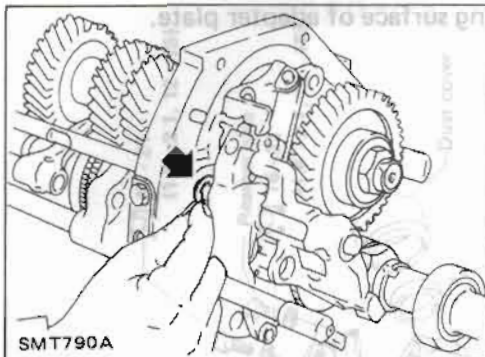
b. 3rd-4th shift fork

c. O.D.-reverse shift fork

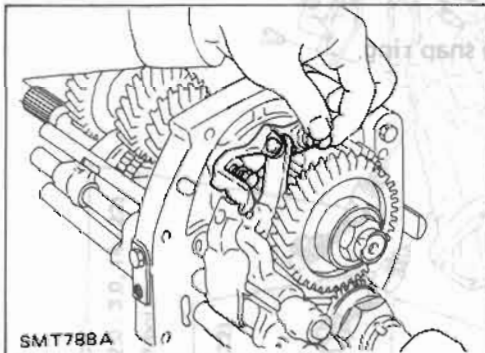
2. Install O.D.-rev. fork shaft by rotating O.D.-rev. bracket clockwise.

Shift Control Components (Cont'd)

3. Install E-ring on O.D.-rev. fork rod.

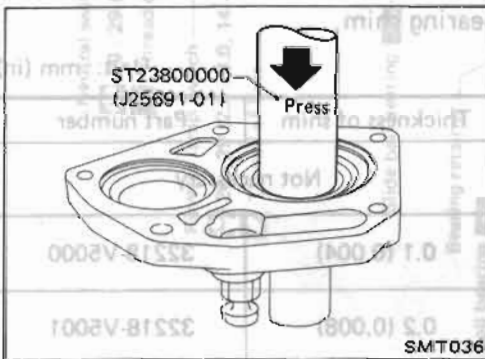


4. Install lever bracket securing bolt.

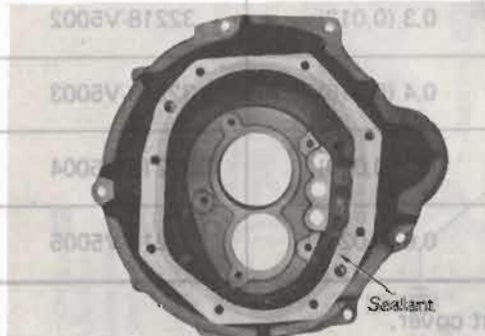


Case Components

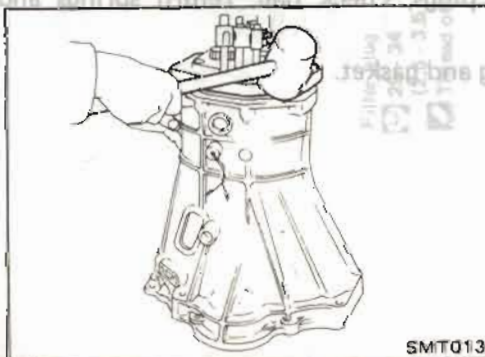
1. Install front cover oil seal.
Apply multi-purpose grease to seal lip.



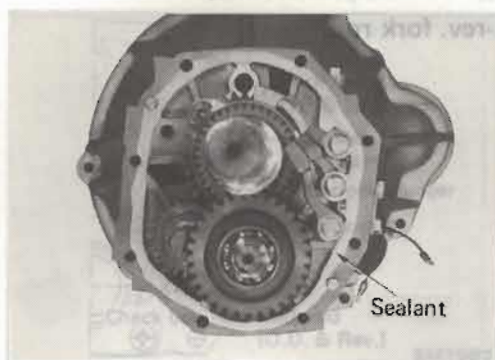
2. Apply sealant to mating surface of transmission case.



3. Slide gear assembly onto adapter plate by lightly tapping with a soft hammer.

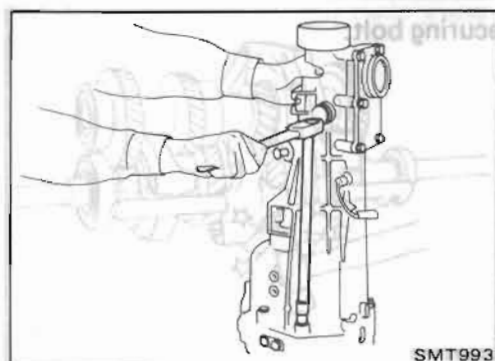
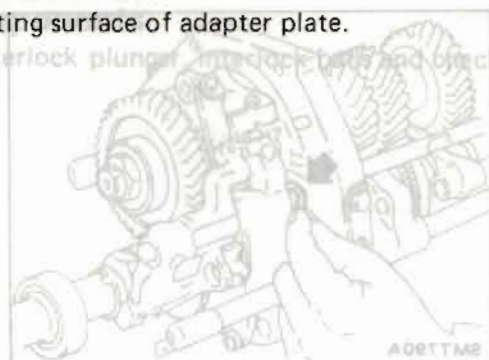


Case Components (Cont'd)



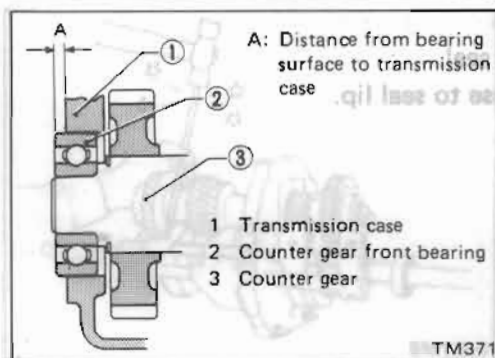
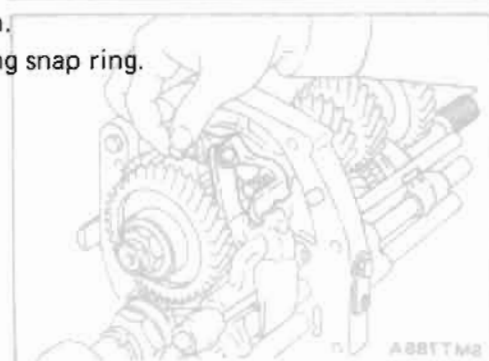
4. Apply sealant to mating surface of adapter plate.

1. Install shift rods, interlock plunger, interlock balls and check balls.



5. Install rear extension.

6. Fit main drive bearing snap ring.



7. Select counter front bearing shim.

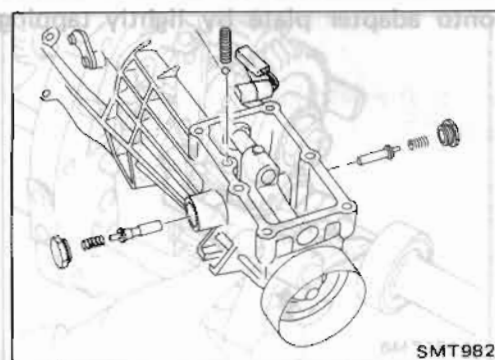
Unit: mm (in)

"A"	Thickness of shim	Part number
4.52 - 4.71 (0.1780 - 0.1854)	Not necessary	
4.42 - 4.51 (0.1740 - 0.1776)	0.1 (0.004)	32218-V5000
4.32 - 4.41 (0.1701 - 0.1736)	0.2 (0.008)	32218-V5001
4.22 - 4.31 (0.1661 - 0.1697)	0.3 (0.012)	32218-V5002
4.12 - 4.21 (0.1622 - 0.1657)	0.4 (0.016)	32218-V5003
4.02 - 4.11 (0.1583 - 0.1618)	0.5 (0.020)	32218-V5004
3.92 - 4.01 (0.1543 - 0.1579)	0.6 (0.024)	32218-V5005

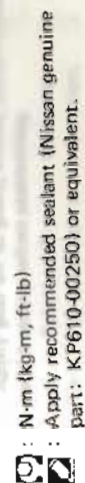
8. Install gasket and front cover.

9. Install return spring plugs, check ball, return springs and select check plunger.

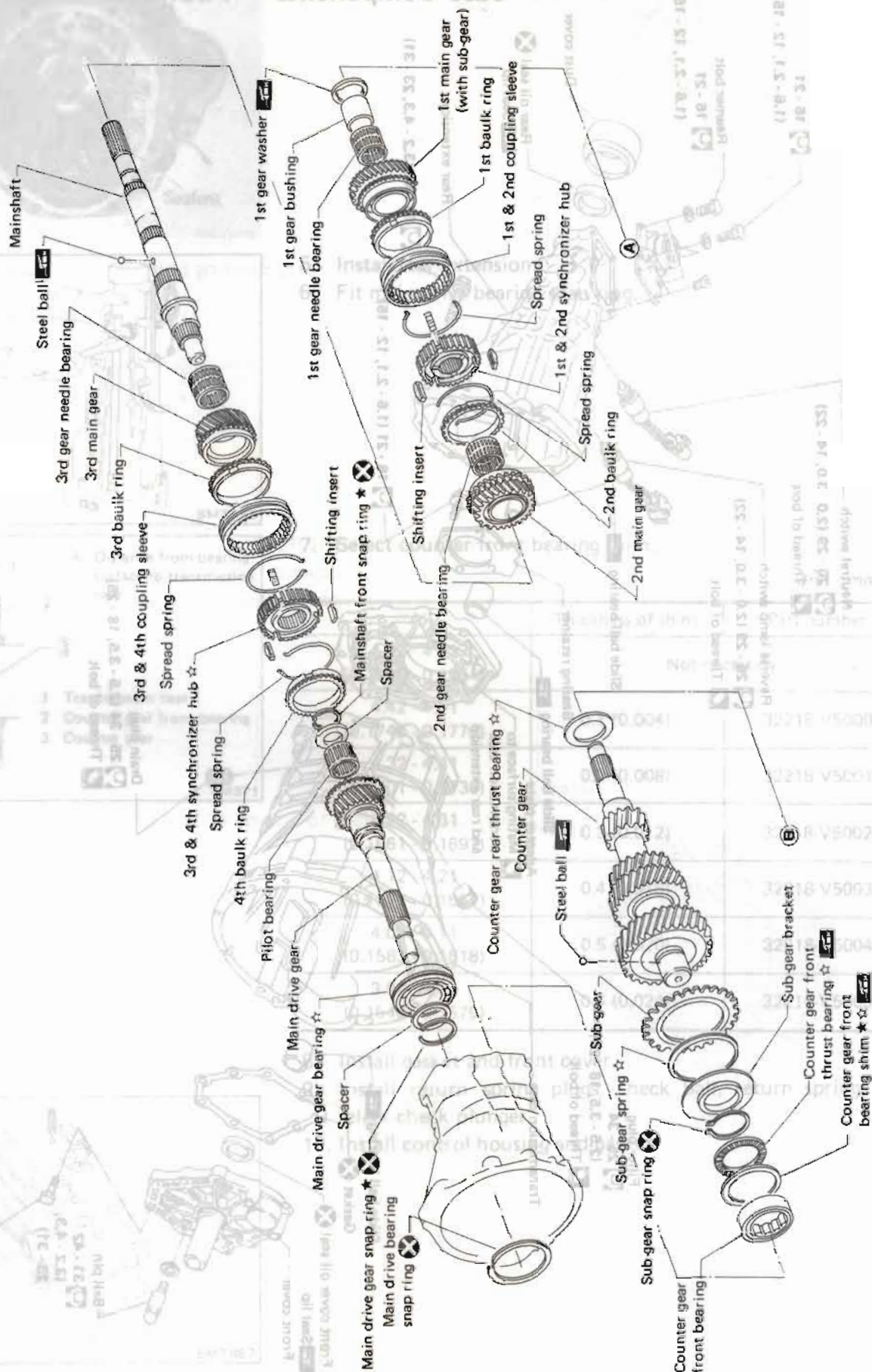
10. Install control housing and gasket.



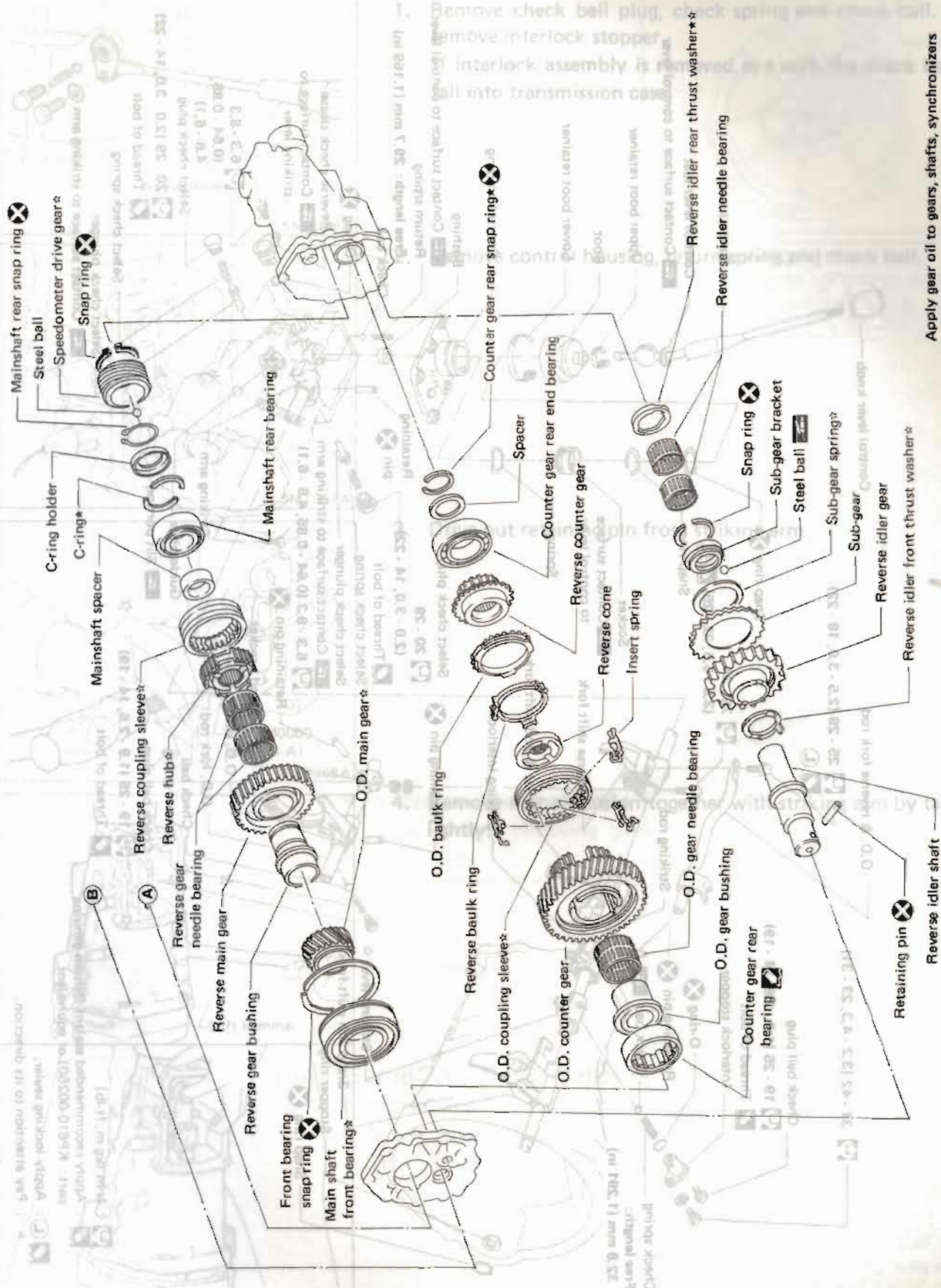
Case Components — FS5R30A



Gear Components — FS5R30A



Gear Components — FS5R30A (Cont'd)

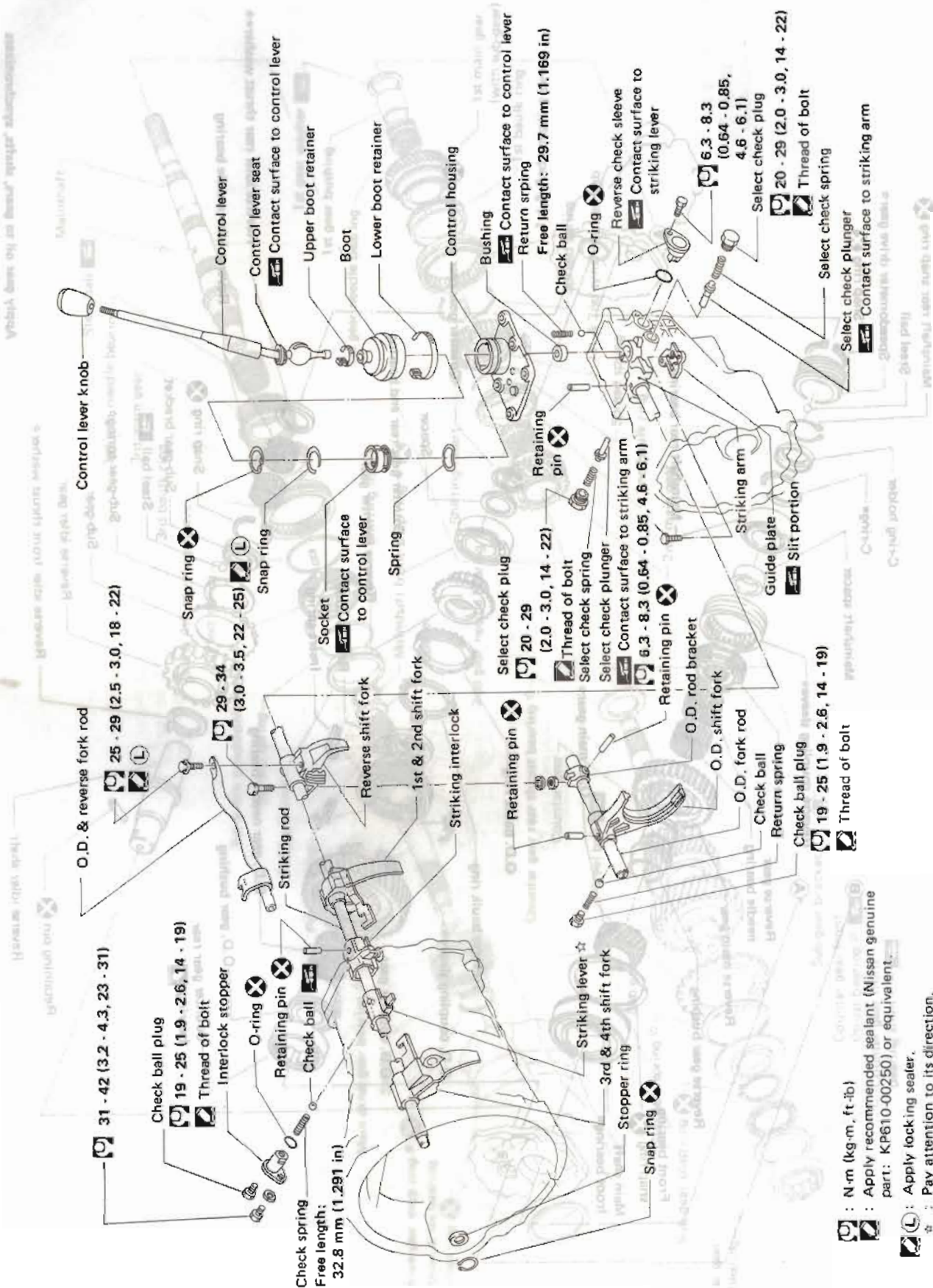


Apply gear oil to gears, shafts, synchronizers and bearings when assembling.

* : Select with proper thickness.

☆ : Pay attention to its direction.

Shift Control Components — FS5R30A



Ⓜ : N·m (kg·m, ft·lb)

☒ : Apply recommended sealant (Nissan genuine part: KP610-00250) or equivalent.

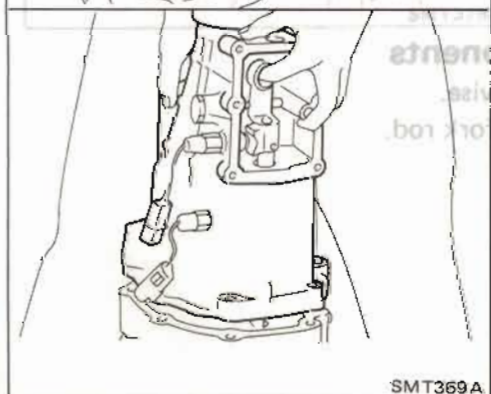
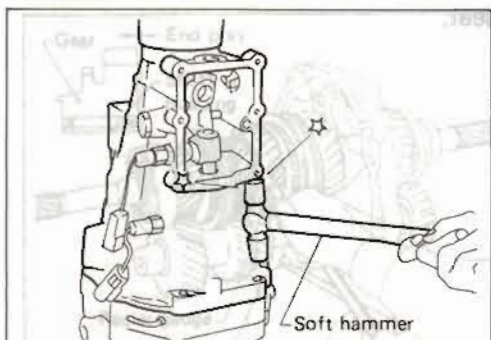
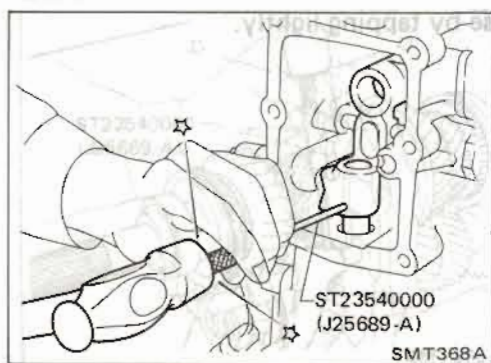
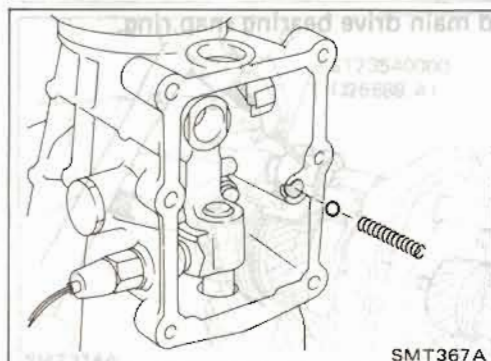
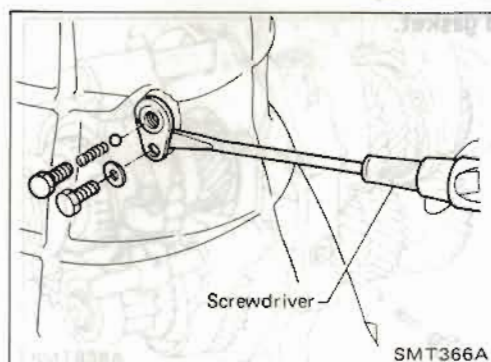
Ⓛ : Apply locking sealer.

☆ : Pay attention to its direction.

(b) moC) ammo9000 (Cont'd)

Case Components

1. Remove check ball plug, check spring and check ball. Then remove interlock stopper.
If interlock assembly is removed as a unit, the check ball can fall into transmission case.



2. Remove control housing, return spring and check ball.

5. While pulling out striking rod, remove striking lower and striking interlock. Then remove 1st and 4th and reverse shift fork.

3. Drive out retaining pin from striking arm.

7. Pull out O.D. fork rod and then remove O.D. fork.

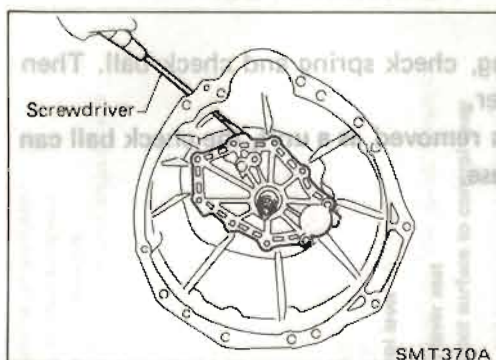
4. Remove rear extension together with striking arm by tapping lightly.

1. lightly removing gears and shafts, measure each gear end play

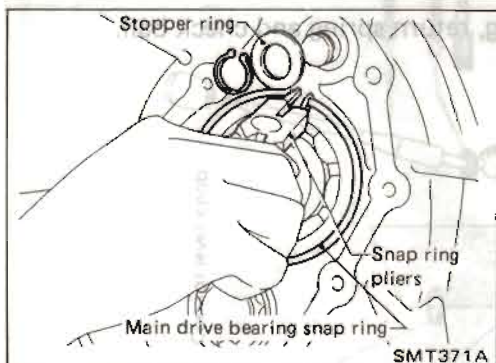
Gear	End play (mm)
1st main gear	0.23 - 0.23 (0.0091 - 0.0091)
2nd main gear	0.23 - 0.05 (0.0091 - 0.0019)
3rd main gear	0.23 - 0.37 (0.0091 - 0.0130)
O.D. counter gear	0.23 - 0.37 (0.0091 - 0.0130)
Reverse main gear	0.23 - 0.43 (0.0091 - 0.0169)

Case Components (Cont'd)

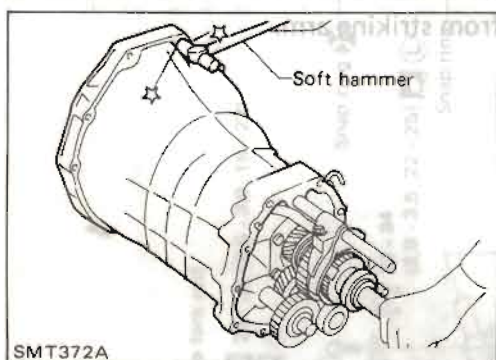
5. Remove front cover and gasket.



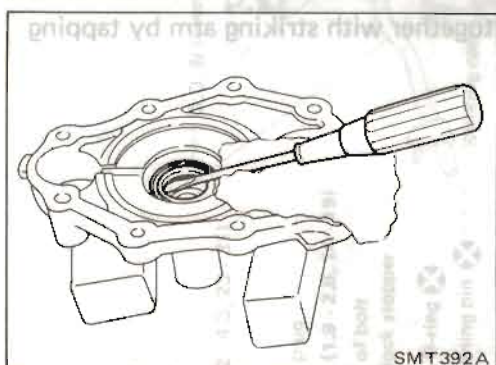
6. Remove stopper ring and main drive bearing snap ring.



7. Remove transmission case by tapping lightly.

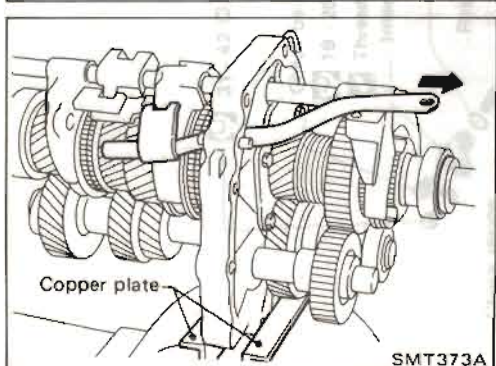


8. Remove front cover oil seal.



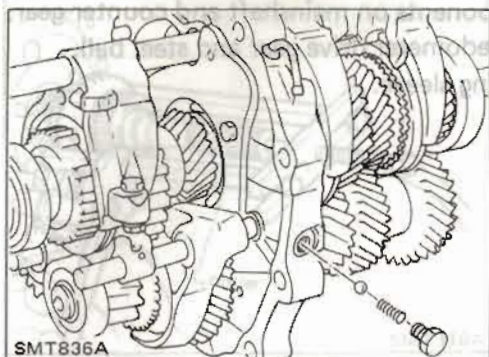
Shift Control Components

1. Mount adapter plate on vise.
2. Remove O.D. & reverse fork rod.

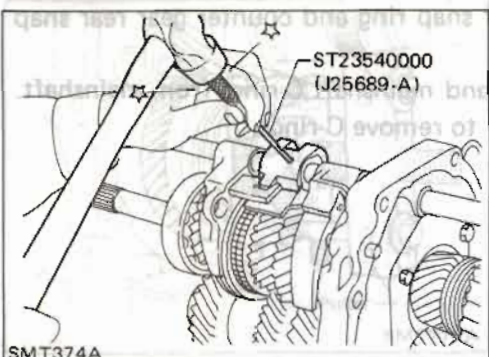


Shift Control Components (Cont'd)

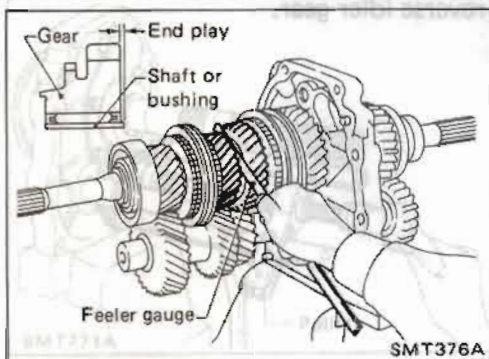
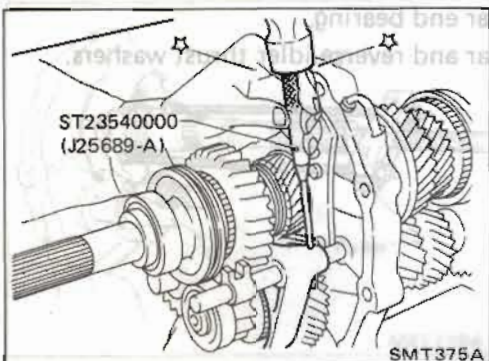
3. Remove check ball plug, check ball and return spring.



4. Drive out retaining pin from striking lever.
5. While pulling out striking rod, remove striking lever and striking interlock. Then remove 1st & 2nd, 3rd & 4th and reverse shift fork.



6. Drive out retaining pin from O.D. shift fork.
7. Pull out O.D. fork rod and then remove O.D. shift fork.



Gear Components

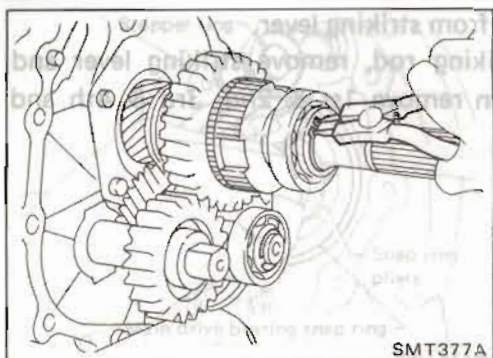
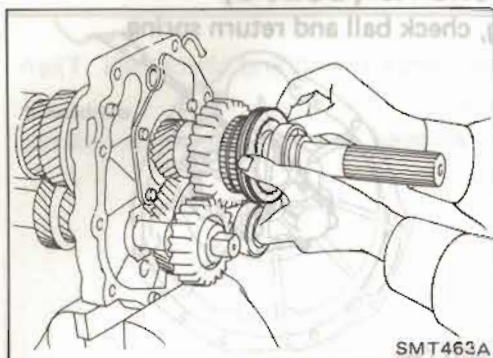
1. Before removing gears and shafts, measure each gear end play.

Gear	End play mm (in)
1st main gear	0.23 - 0.33 (0.0091 - 0.0130)
2nd main gear	0.23 - 0.33 (0.0091 - 0.0130)
3rd main gear	0.23 - 0.33 (0.0091 - 0.0130)
O.D. counter gear	0.23 - 0.33 (0.0091 - 0.0130)
Reverse main gear	0.33 - 0.43 (0.0130 - 0.0169)

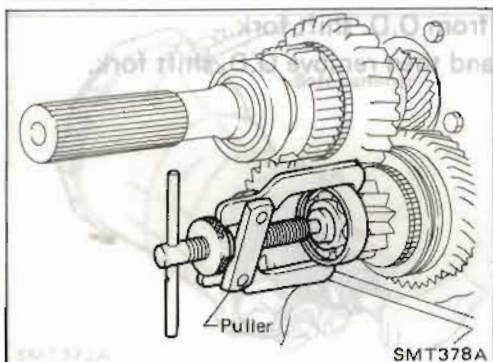
- If not within specification, disassemble and check contact surface of gear to hub, washer, bushing, needle bearing and shaft.

Gear Components (Cont'd)

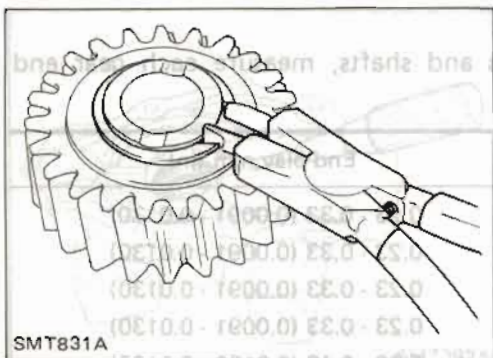
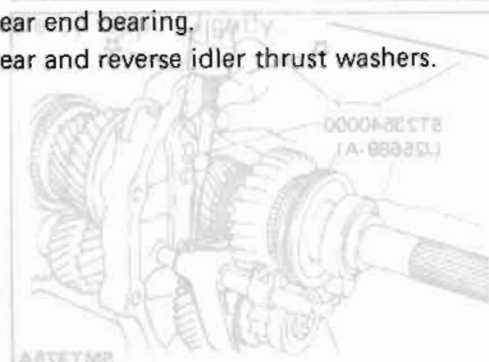
2. Remove rear side components on mainshaft and counter gear.
 - a. Remove snap ring, speedometer drive gear and steel ball.
 - b. Remove reverse coupling sleeve.



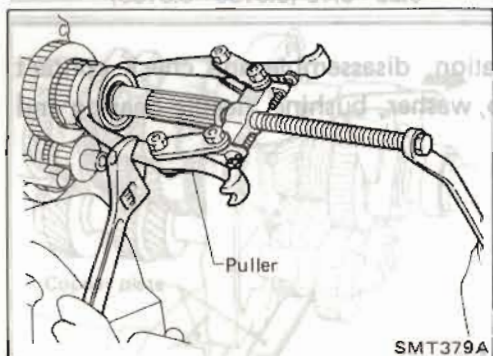
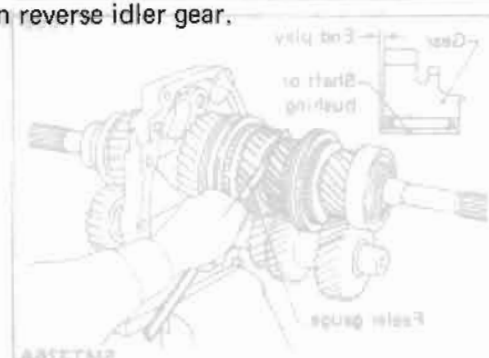
- c. Remove mainshaft rear snap ring and counter gear rear snap ring.
- d. Remove C-ring holder and mainshaft C-rings from mainshaft. Use punch and hammer to remove C-rings.



- e. Pull out counter gear rear end bearing.
- f. Remove reverse idler gear and reverse idler thrust washers.



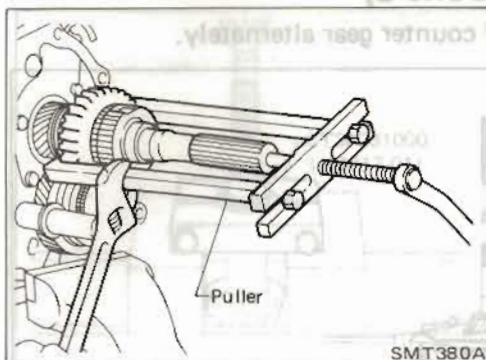
- g. Remove sub-gear from reverse idler gear.



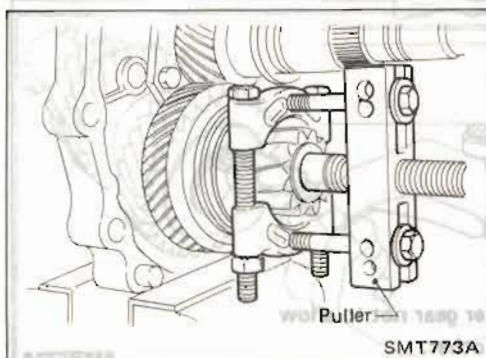
- h. Pull out mainshaft rear bearing (2WD model).

Gear Components (Cont'd)

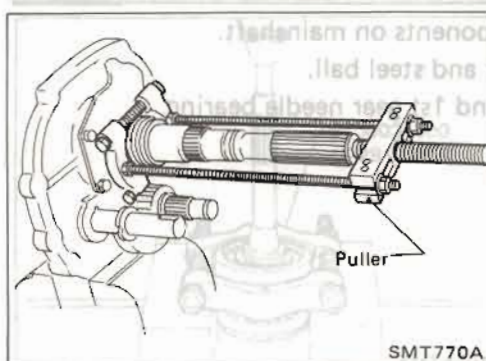
- i. Pull out reverse main gear together with mainshaft spacer and reverse synchronizer hub. Then remove reverse gear needle bearings.



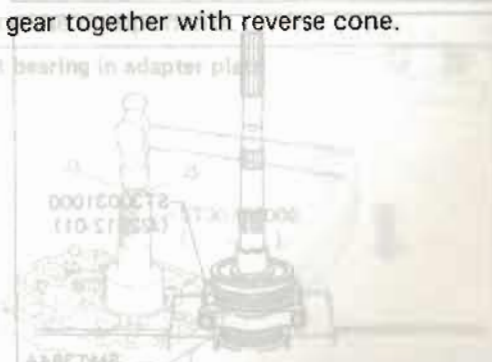
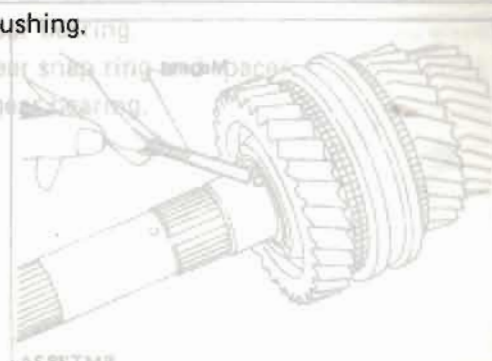
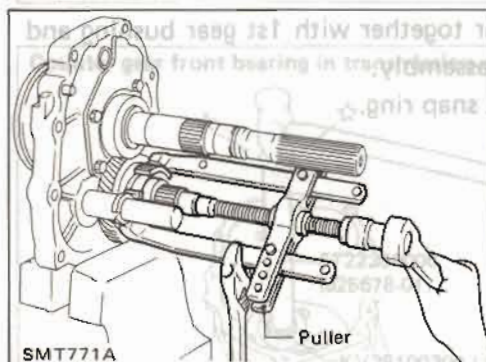
- j. Pull out reverse counter gear.
k. Remove O.D. coupling sleeve together with O.D. baulk ring, reverse baulk ring and spring inserts.



- l. Pull out reverse gear bushing.

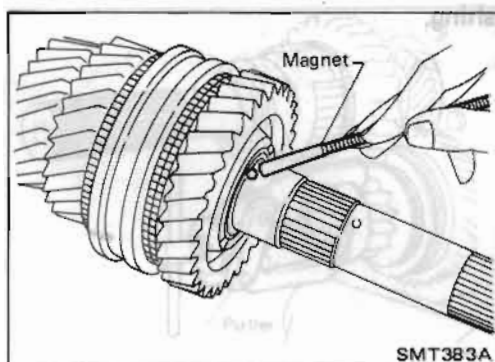
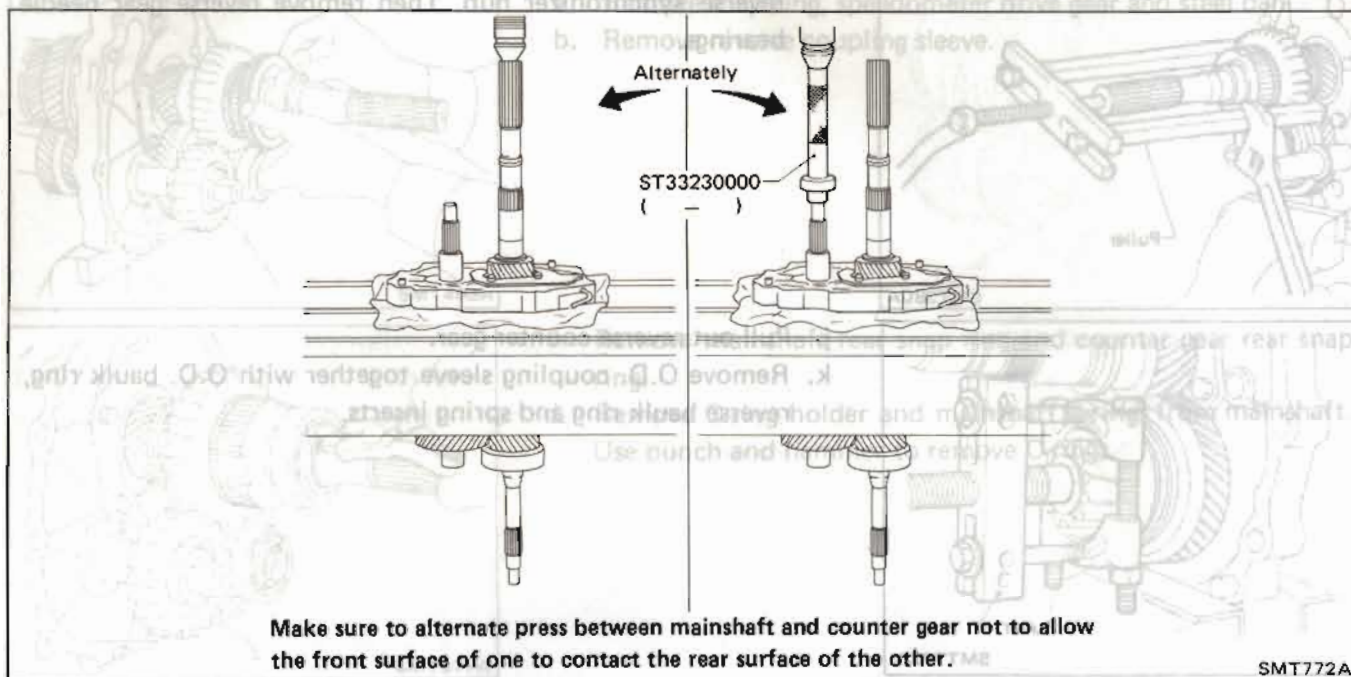


- m. Pull out O.D. counter gear together with reverse cone.

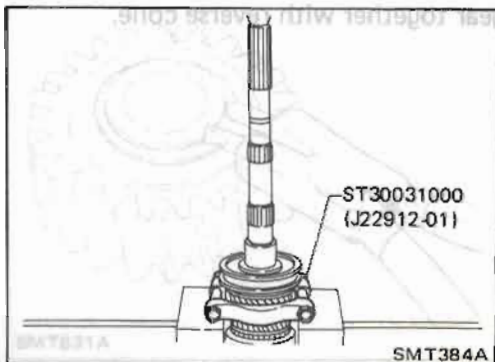


Gear Components (Cont'd)

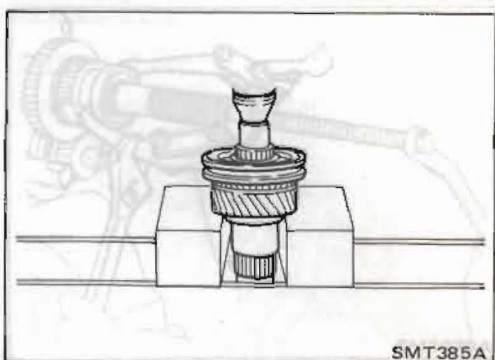
3. Press out mainshaft and counter gear alternately.



4. Remove front side components on mainshaft.
- Remove 1st gear washer and steel ball.
 - Remove 1st main gear and 1st gear needle bearing.



- Press out 2nd main gear together with 1st gear bushing and 1st & 2nd synchronizer assembly.
- Remove mainshaft front snap ring.

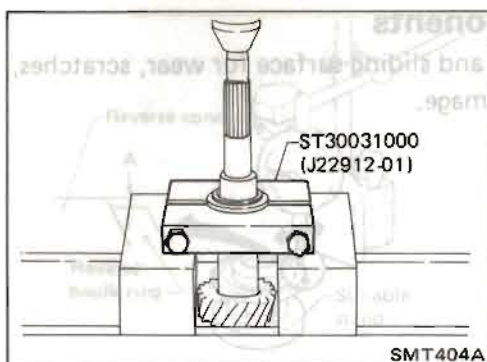


- Press out 3rd main gear together with 3rd & 4th synchronizer assembly and 3rd gear needle bearing.

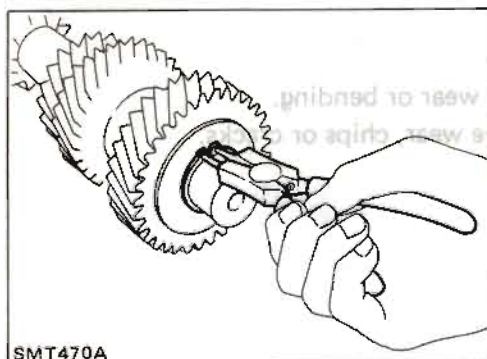
Gear Components (Cont'd)

5. Remove front side components on counter gear.

a. Remove counter gear rear thrust bearing.



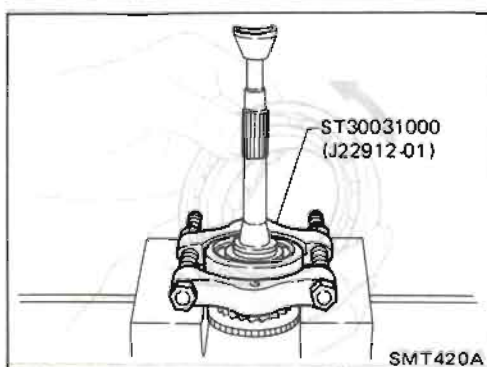
b. Remove sub gear components.



6. Remove main drive gear bearing.

a. Remove main drive gear snap ring and spacer.

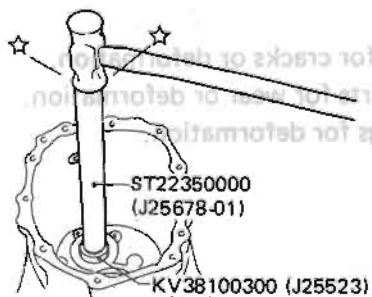
b. Press out main drive gear bearing.



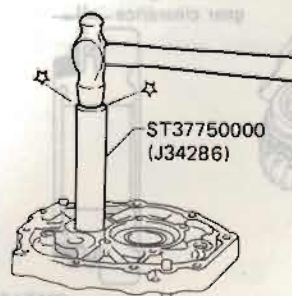
7. Remove bearings from case components.

Counter gear front bearing in transmission case

Mainshaft front bearing in adapter plate



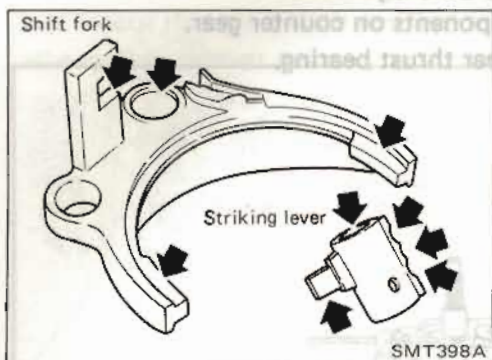
Counter gear rear bearing in adapter plate



Unit: mm (in)

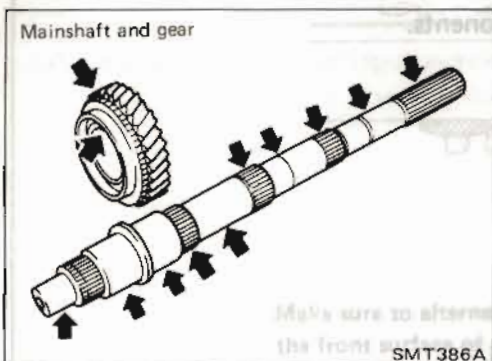
Wear limit	Standard	
0.7 (0.028)	1.05 - 1.3 (0.0413 - 0.0512)	1st & 2nd
0.7 (0.028)	1.05 - 1.3 (0.0413 - 0.0512)	3rd & main drive
0.7 (0.028)	1.05 - 1.3 (0.0413 - 0.0512)	O.D.

If the clearance is smaller than the wear limit, replace bush ring.



Shift Control Components

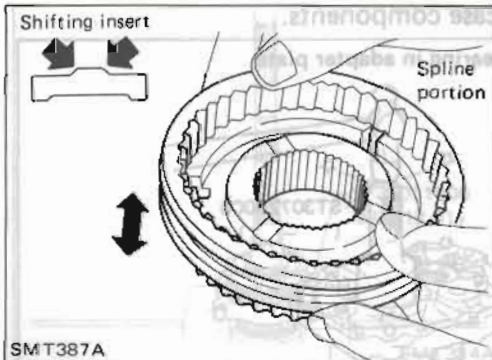
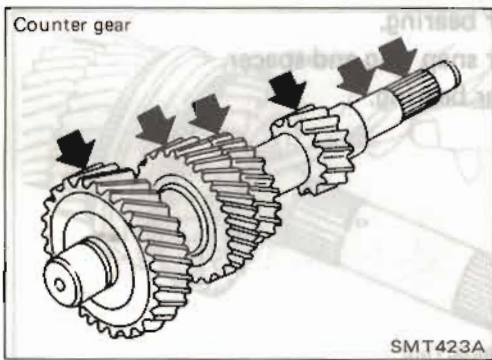
- Check contact surface and sliding surface for wear, scratches, projections or other damage.



Gear Components

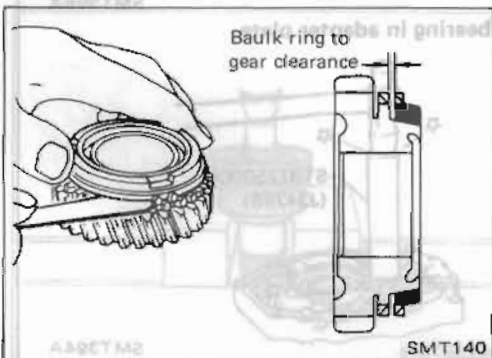
GEARS AND SHAFTS

- Check shafts for cracks, wear or bending.
- Check gears for excessive wear, chips or cracks.



SYNCHRONIZERS

- Check spline portion of coupling sleeves, hubs, and gears for wear or cracks.
- Check baulk rings for cracks or deformation.
- Check shifting inserts for wear or deformation.
- Check insert springs for deformation.



Clearance between baulk ring and gear

Unit: mm (in)

	Standard	Wear limit
1st & 2nd	1.05 - 1.3 (0.0413 - 0.0512)	0.7 (0.028)
3rd & main drive	1.05 - 1.3 (0.0413 - 0.0512)	0.7 (0.028)
O.D.	1.05 - 1.3 (0.0413 - 0.0512)	0.7 (0.028)

If the clearance is smaller than the wear limit, replace baulk ring.

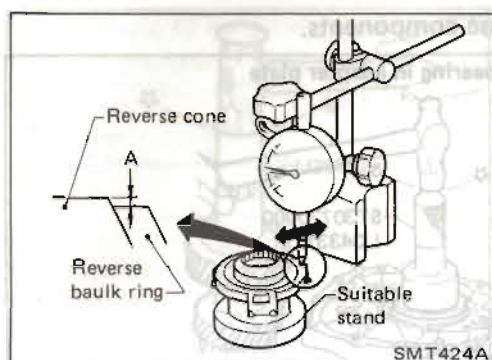
Gear Components (Cont'd)

- Measure wear of reverse baulk ring.
 - Place baulk ring in position on reverse cone.
 - While holding baulk ring against reverse cone as far as it will go, measure dimension "A" with dial indicator.

Unit: mm (in)

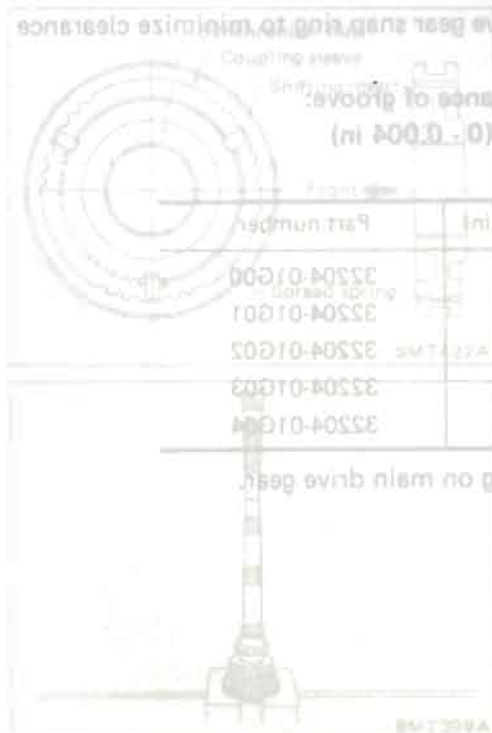
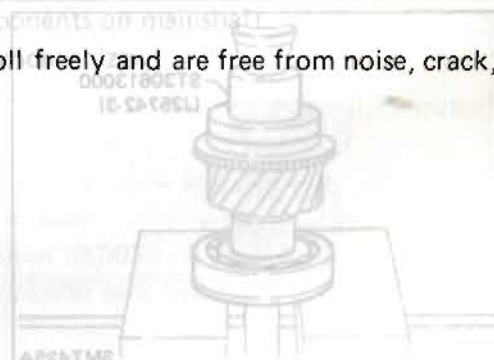
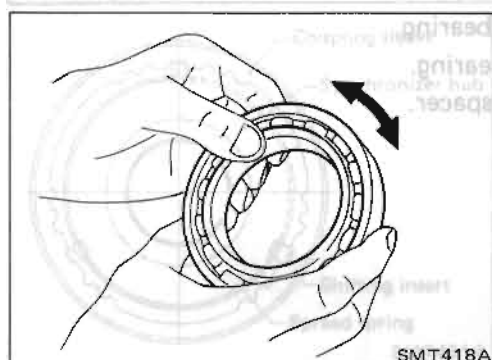
	Standard	Wear limit
Dimension "A"	-0.1 to 0.35 (-0.0039 to 0.0138)	0.7 (0.028)

- If dimension "A" is larger than the wear limit, replace baulk ring.



BEARINGS

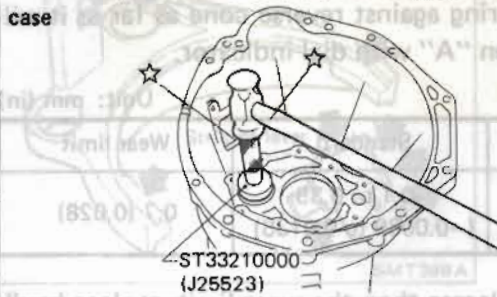
- Make sure bearings roll freely and are free from noise, crack, pitting or wear.



Gear Components

1. Install bearings into case components.

Counter gear front bearing in transmission case



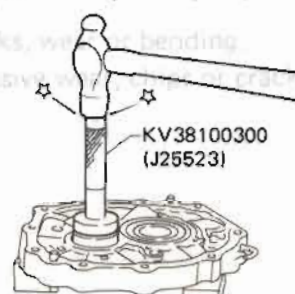
SMT389A

Mainshaft front bearing in adapter plate



SMT397A

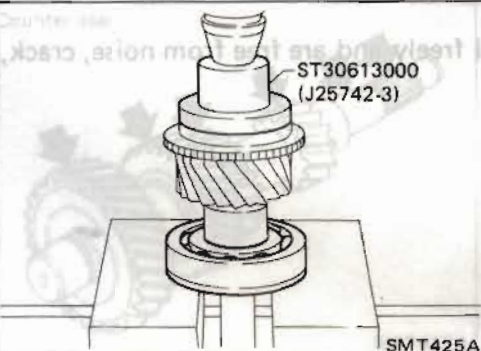
Counter gear rear bearing in adapter plate



SMT395A

2. Install main drive gear bearing.

- Press main drive gear bearing.
- Install main drive gear spacer.



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- Select proper main drive gear snap ring to minimize clearance of groove.

Allowable clearance of groove:

0 - 0.1 mm (0 - 0.004 in)

Main drive gear snap ring

Thickness mm (in)	Part number
1.89 (0.0744)	32204-01G00
1.98 (0.0780)	32204-01G01
2.05 (0.0807)	32204-01G02
2.12 (0.0835)	32204-01G03
2.19 (0.0862)	32204-01G04

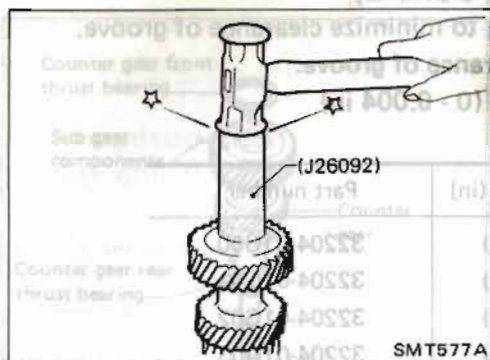
- Install selected snap ring on main drive gear.

Gear Components (Cont'd)

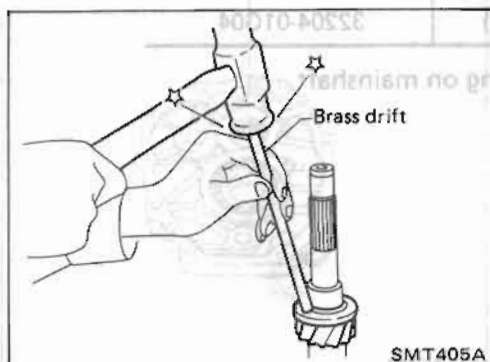
3. Install components on counter gear.

a. Install sub-gear components.

When installing sub-gear snap ring, tap sub-gear snap ring into position on counter gear.

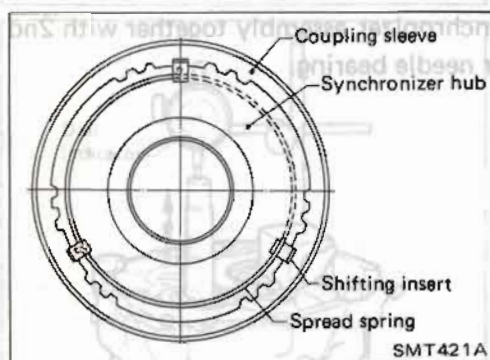


b. Install counter gear rear thrust bearing.

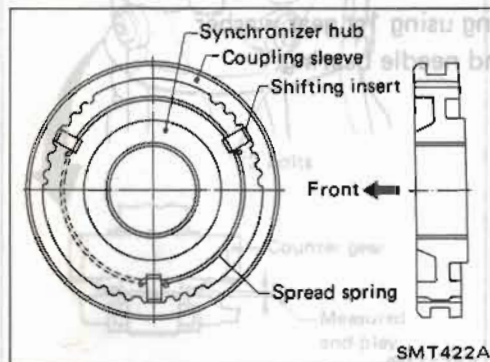


4. Install front side components on mainshaft.

a. Assemble 1st & 2nd synchronizer.

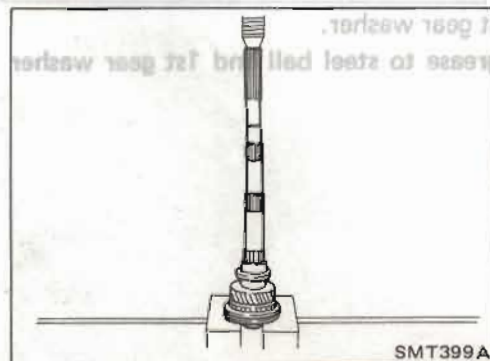


b. Assemble 3rd & 4th synchronizer.



c. Press on 3rd & 4th synchronizer assembly together with 3rd main gear and 3rd gear needle bearing.

Pay attention to direction of synchronizer assembly.



Counter gear end play:

0.10 - 0.25 mm (0.0039 - 0.0098 in)

Table for selecting proper counter gear front bearing shim

Dial indicator deflection	Thickness of shim	Part number
0.93 - 1.02 (0.0366 - 0.0402)	0.8 (0.031)	32218-01G00
1.03 - 1.12 (0.0406 - 0.0441)	0.9 (0.035)	32218-01G01
1.13 - 1.22 (0.0445 - 0.0480)	1.0 (0.039)	32218-01G02
1.23 - 1.32 (0.0484 - 0.0520)	1.1 (0.043)	32218-01G03
1.33 - 1.42 (0.0524 - 0.0559)	1.2 (0.047)	32218-01G04
1.43 - 1.52 (0.0563 - 0.0598)	1.3 (0.051)	32218-01G05
1.53 - 1.62 (0.0602 - 0.0638)	1.4 (0.055)	32218-01G06

Gear Components (Cont'd)

d. Select proper snap ring to minimize clearance of groove.

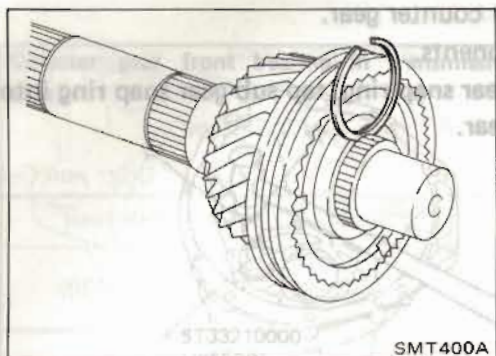
Allowable clearance of groove:

0 - 0.1 mm (0 - 0.004 in)

Mainshaft front snap ring

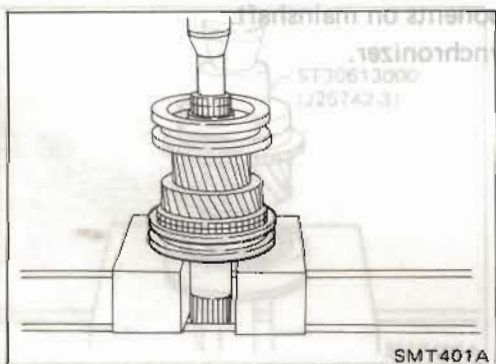
Thickness mm (in)	Part number
1.89 (0.0744)	32204-01G00
1.98 (0.0780)	32204-01G01
2.05 (0.0807)	32204-01G02
2.12 (0.0835)	32204-01G03
2.19 (0.0862)	32204-01G04

e. Install selected snap ring on mainshaft.



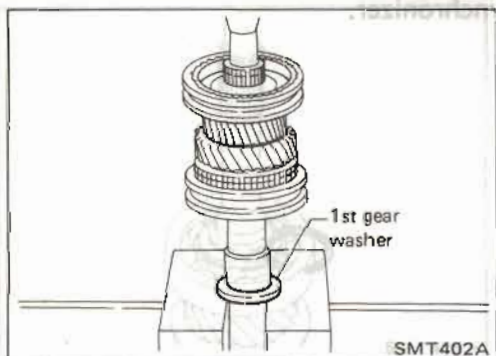
f. Press on 1st & 2nd synchronizer assembly together with 2nd main gear and 2nd gear needle bearing.

b. Install main drive gear snap ring.



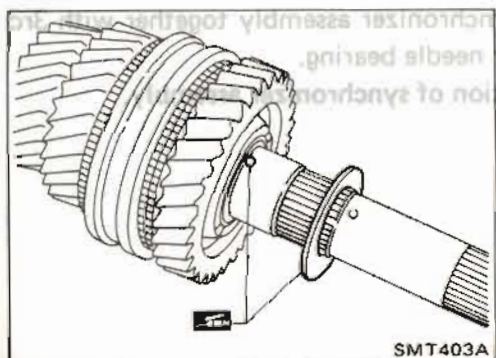
g. Press on 1st gear bushing using 1st gear washer.

h. Install 1st main gear and needle bearing.

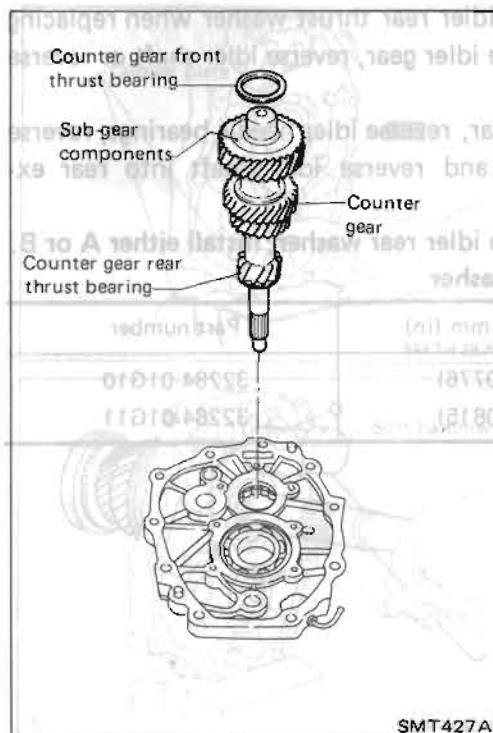


i. Install steel ball and 1st gear washer.

Apply multi-purpose grease to steel ball and 1st gear washer before installing.

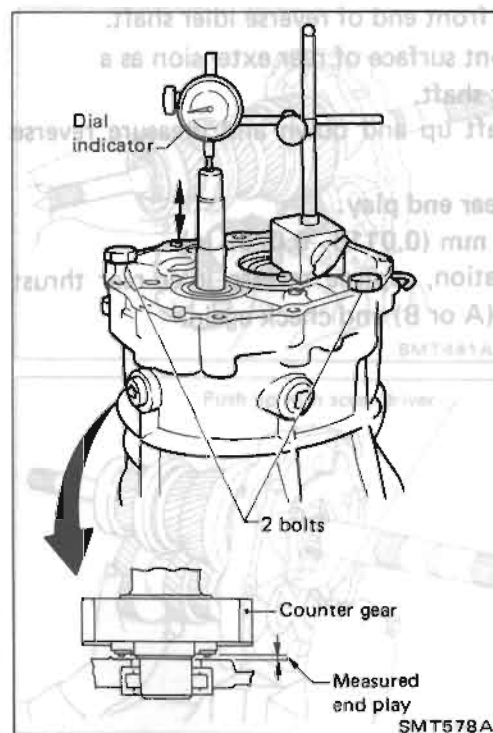


Gear Components (Cont'd)



5. Select proper counter gear front bearing shim when replacing transmission case, counter gear, counter gear thrust bearing or sub-gear components.

- Install counter gear with sub-gear components, counter gear front and rear thrust bearing on adapter plate.
- Remove counter gear front bearing shim from transmission case.
- Place adapter plate and counter gear assembly in transmission case (case inverted).



- Tighten adapter plate to transmission case using 2 bolts.
- Place dial indicator on rear end of counter gear.
- Move counter gear up and down and measure dial indicator deflection.
- Select proper shim using table below as a guide.

Counter gear end play:

0.10 - 0.25 mm (0.0039 - 0.0098 in)

Table for selecting proper counter gear front bearing shim

Dial indicator deflection mm (in)	Thickness of proper washer mm (in)	Part number
0.93 - 1.02 (0.0366 - 0.0402)	0.8 (0.031)	32218-01G00
1.03 - 1.12 (0.0406 - 0.0441)	0.9 (0.035)	32218-01G01
1.13 - 1.22 (0.0445 - 0.0480)	1.0 (0.039)	32218-01G02
1.23 - 1.32 (0.0484 - 0.0520)	1.1 (0.043)	32218-01G03
1.33 - 1.42 (0.0524 - 0.0559)	1.2 (0.047)	32218-01G04
1.43 - 1.52 (0.0563 - 0.0598)	1.3 (0.051)	32218-01G05
1.53 - 1.62 (0.0602 - 0.0638)	1.4 (0.055)	32218-01G06

- Install Tools (J26349 3) onto adapter plate and C-ring and C-ring holder on mainshaft.
- Install Tool (J34328) on mainshaft.

Gear Components (Cont'd)

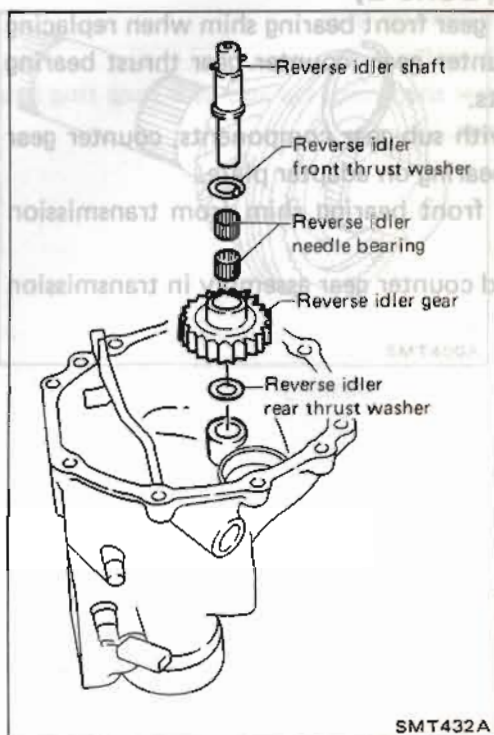
6. Select proper reverse idler rear thrust washer when replacing rear extension, reverse idler gear, reverse idler shaft or reverse idler thrust washer.

a. Install reverse idler gear, reverse idler needle bearings, reverse idler thrust washers and reverse idler shaft into rear extension.

When replacing reverse idler rear washer, install either A or B.

Reverse idler rear thrust washer

	Thickness mm (in)	Part number
A	1.97 (0.0776)	32284-01G10
B	2.07 (0.0815)	32284-01G11



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b. Place dial indicator on front end of reverse idler shaft.

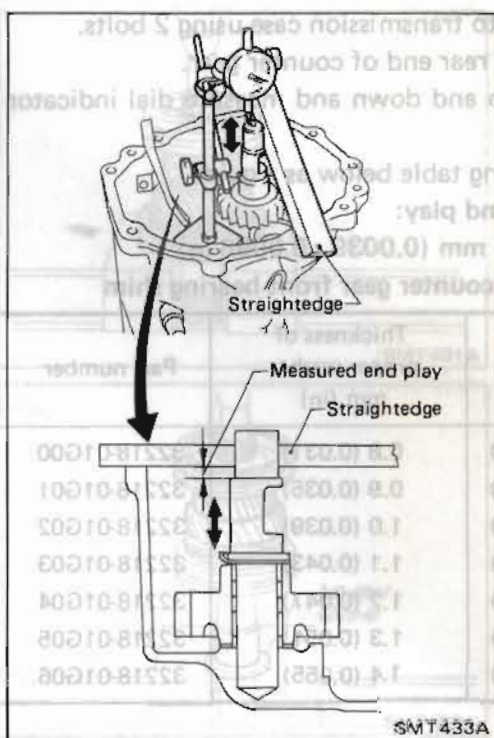
c. Put straightedge on front surface of rear extension as a stopper of reverse idler shaft.

d. Move reverse idler shaft up and down and measure reverse idler gear end play.

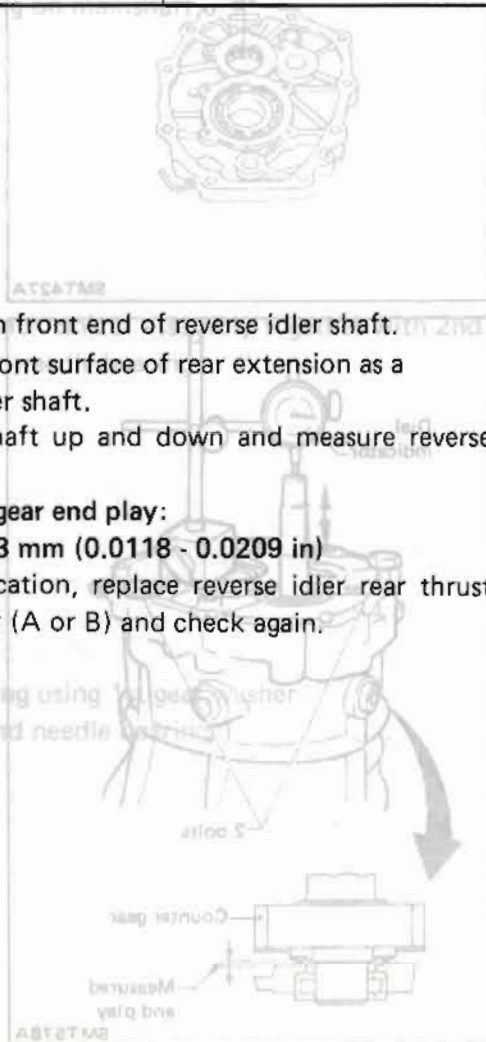
Reverse idler gear end play:

0.30 - 0.53 mm (0.0118 - 0.0209 in)

e. If not within specification, replace reverse idler rear thrust washer with the other (A or B) and check again.



SMT433A

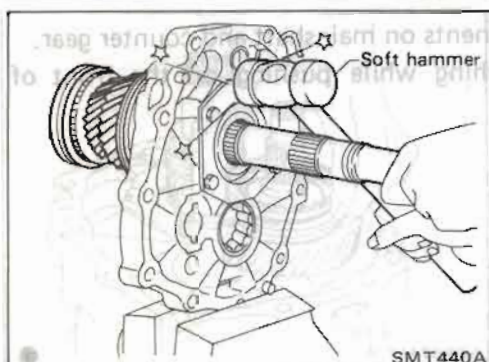
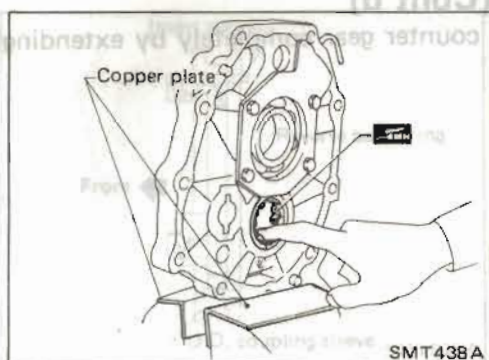


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Gear Components (Cont'd)

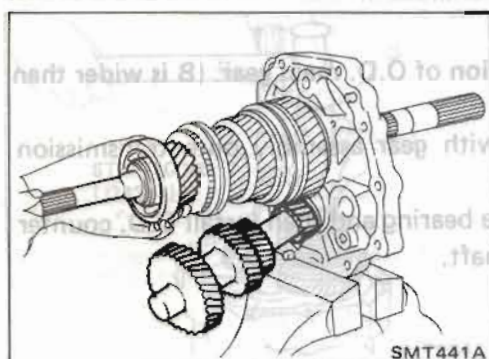
7. Install mainshaft and counter gear on adapter plate and main drive gear on mainshaft.

a. Mount adapter plate on vise and apply multi-purpose grease to counter gear rear bearing.

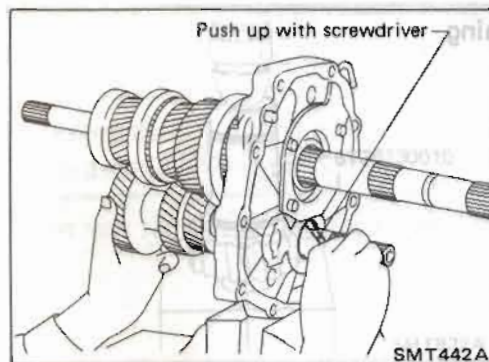


b. Install mainshaft a little on mainshaft front bearing.

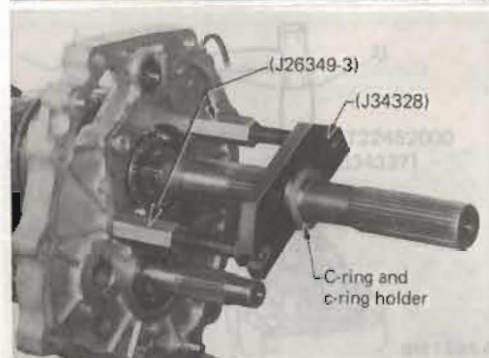
To allow for installation of counter gear, do not install mainshaft completely.



c. Install counter gear on counter gear rear bearing and install main drive gear, pilot bearing and spacer on mainshaft.



When installing counter gear into counter gear rear bearing, push up on upper roller of counter gear rear bearing with screwdriver.

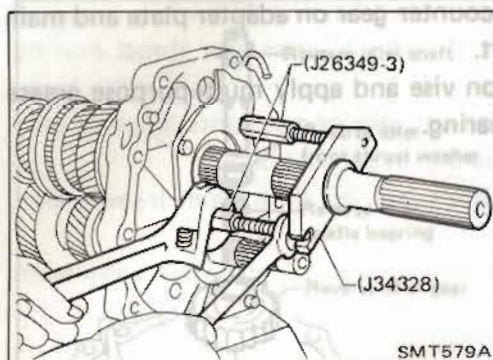


d. Install Tools (J26349-3) onto adapter plate and C-ring and C-ring holder on mainshaft.

e. Install Tool (J34328) on mainshaft.

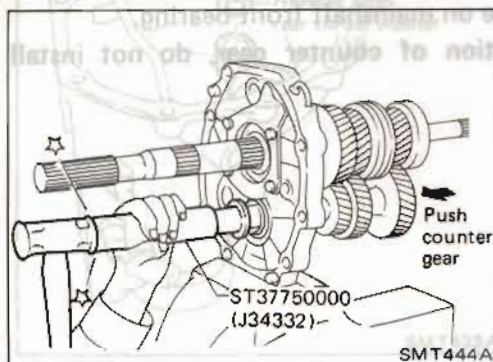
Gear Components (Cont'd)

- f. Install mainshaft and counter gear completely by extending length of J26349-3.

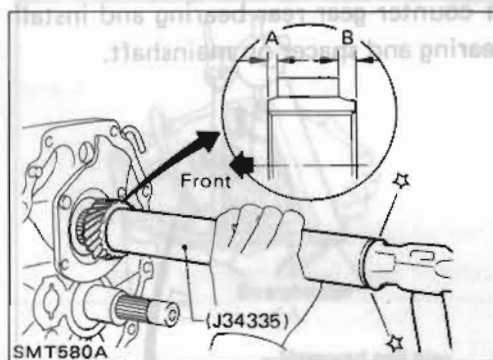


When replacing reverse idler rear washer, install either A or B.

Reverse idler rear thrust washer

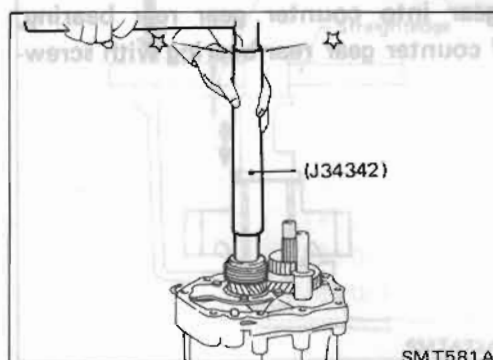


8. Install rear side components on mainshaft and counter gear.
 - a. Install O.D. gear bushing while pushing on the front of counter gear.

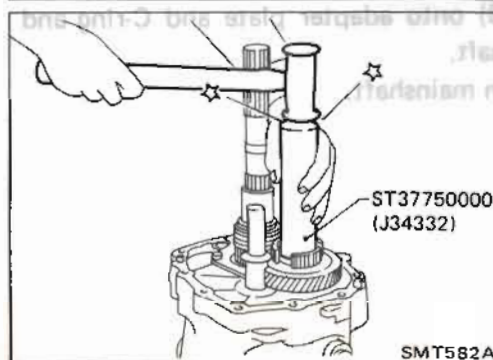


- b. Install O.D. main gear.

Pay attention to direction of O.D. main gear. (B is wider than A as shown at left.)
- c. Install adapter plate with gear assembly onto transmission case.
- d. Install O.D. gear needle bearing and then install O.D. counter gear and reverse idler shaft.



- e. Install reverse gear bushing.

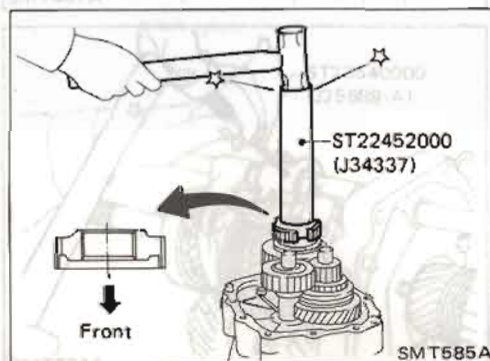
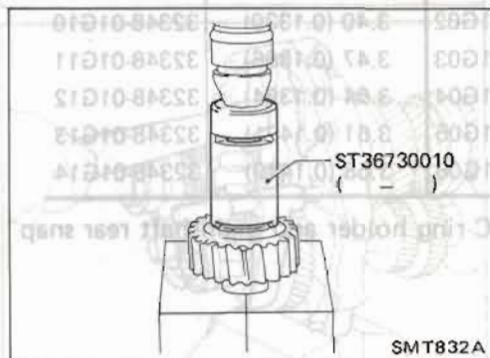
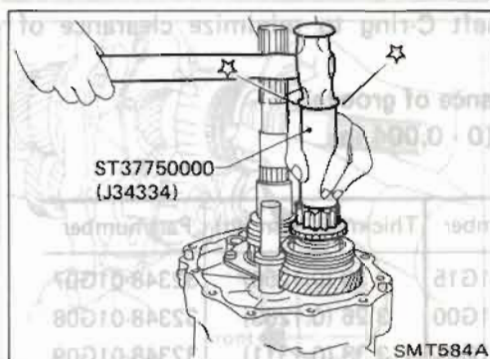
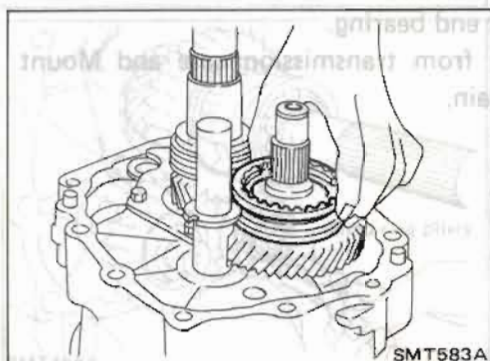
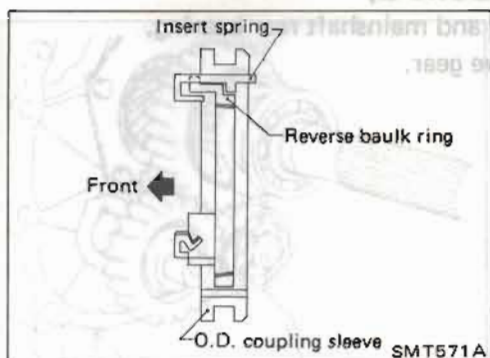


- f. Install reverse cone.

Gear Components (Cont'd)

- g. Install insert springs and reverse baulk ring on O.D. coupling sleeve. Then install them and O.D. baulk ring on O.D. counter gear.

Pay attention to direction of O.D. coupling sleeve.



- h. Install reverse counter gear.

Pay attention to its direction.

Each gear end must be checked. Refer to

LYBMS-0001 mm 1.000 ASSEMBLY

Mainshaft C-ring

Thick (mm) Part number

3.63 (0.1083) 32348-01G18

3.70 (0.1083) 32348-01G00

3.77 (0.1081) 32348-01G09

3.84 (0.1081) 32348-01G10

3.91 (0.1081) 32348-01G11

3.98 (0.1081) 32348-01G12

4.05 (0.1081) 32348-01G13

4.12 (0.1081) 32348-01G14

4.19 (0.1081) 32348-01G15

4.26 (0.1081) 32348-01G16

4.33 (0.1081) 32348-01G17

4.40 (0.1081) 32348-01G18

4.47 (0.1081) 32348-01G19

4.54 (0.1081) 32348-01G20

4.61 (0.1081) 32348-01G21

4.68 (0.1081) 32348-01G22

4.75 (0.1081) 32348-01G23

4.82 (0.1081) 32348-01G24

4.89 (0.1081) 32348-01G25

4.96 (0.1081) 32348-01G26

5.03 (0.1081) 32348-01G27

5.10 (0.1081) 32348-01G28

5.17 (0.1081) 32348-01G29

5.24 (0.1081) 32348-01G30

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15.81 (0.1081) 32348-01G181

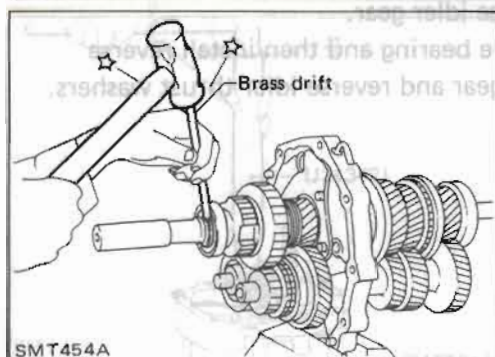
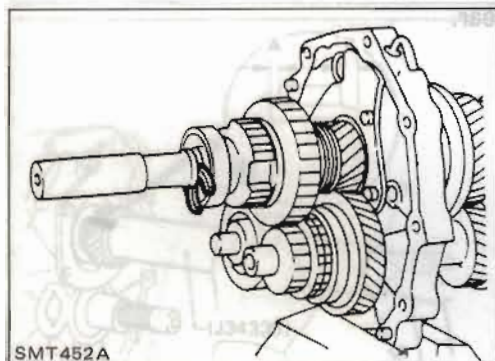
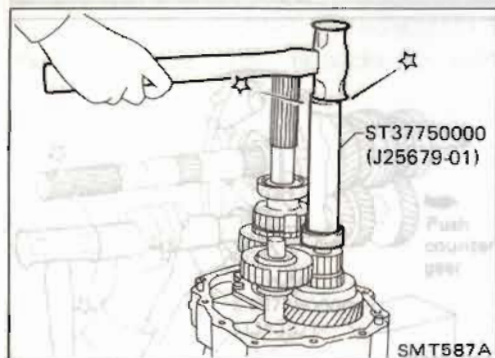
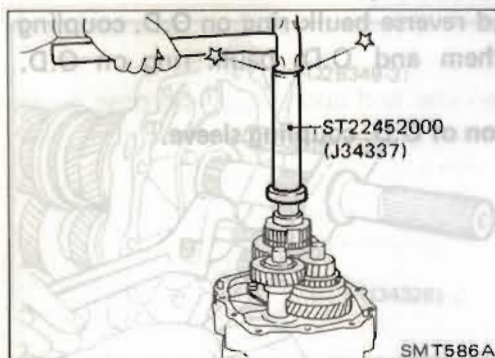
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15.95 (0.1081) 32348-01G183

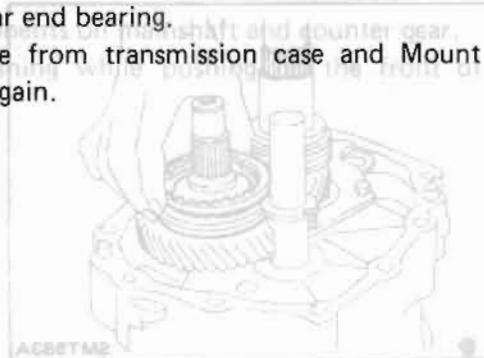
16.02 (0.1081) 32348-01G184

Gear Components (Cont'd)

- l. Install mainshaft spacer and mainshaft rear bearing.
m. Install speedometer drive gear.



- n. Install counter gear rear end bearing.
o. Separate adapter plate from transmission case and Mount adapter plate on vice again.



- p. Select proper mainshaft C-ring to minimize clearance of groove.

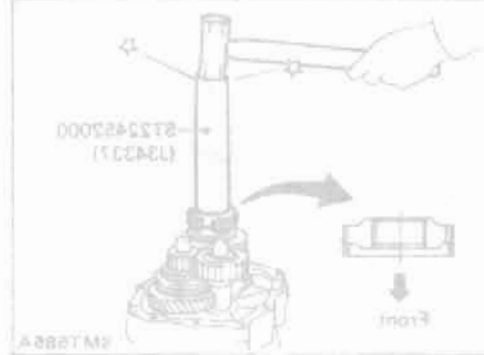
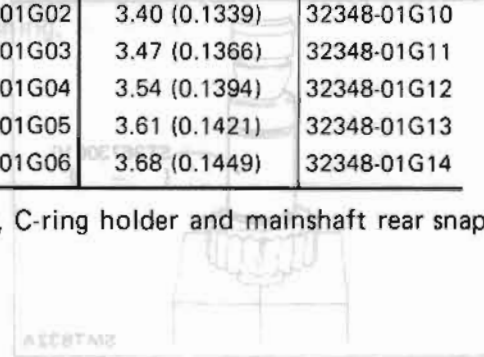
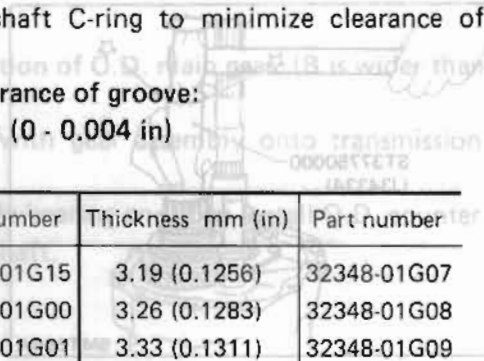
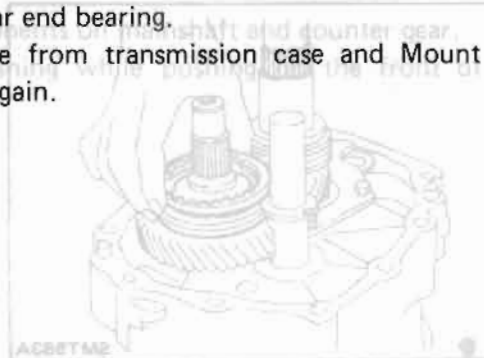
Allowable clearance of groove:

0 - 0.1 mm (0 - 0.004 in)

Mainshaft C-ring

Thickness mm (in)	Part number	Thickness mm (in)	Part number
2.63 (0.1035)	32348-01G15	3.19 (0.1256)	32348-01G07
2.70 (0.1063)	32348-01G00	3.26 (0.1283)	32348-01G08
2.77 (0.1091)	32348-01G01	3.33 (0.1311)	32348-01G09
2.84 (0.1118)	32348-01G02	3.40 (0.1339)	32348-01G10
2.91 (0.1146)	32348-01G03	3.47 (0.1366)	32348-01G11
2.98 (0.1173)	32348-01G04	3.54 (0.1394)	32348-01G12
3.05 (0.1201)	32348-01G05	3.61 (0.1421)	32348-01G13
3.12 (0.1228)	32348-01G06	3.68 (0.1449)	32348-01G14

- q. Install selected C-ring, C-ring holder and mainshaft rear snap ring.



Gear Components (Cont'd)

- r. Install spacer and then select proper counter gear rear snap ring to minimize clearance of groove.

Allowable clearance of groove:

0 - 0.1 mm (0 - 0.004 in)

Counter gear rear snap ring

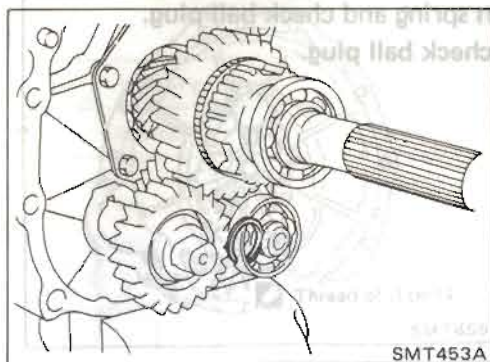
Thickness mm (in)	Part number
1.26 (0.0496)	32236-01G08
1.32 (0.0520)	32236-01G00
1.38 (0.0543)	32236-01G01
1.44 (0.0567)	32236-01G02
1.50 (0.0591)	32236-01G03
1.56 (0.0614)	32236-01G04
1.62 (0.0638)	32236-01G05
1.68 (0.0661)	32236-01G06
1.74 (0.0685)	32236-01G07

- s. Install selected counter gear rear snap ring.

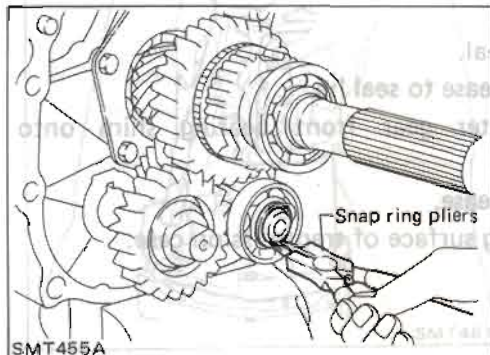
- t. Install reverse coupling sleeve.

Pay attention to its direction.

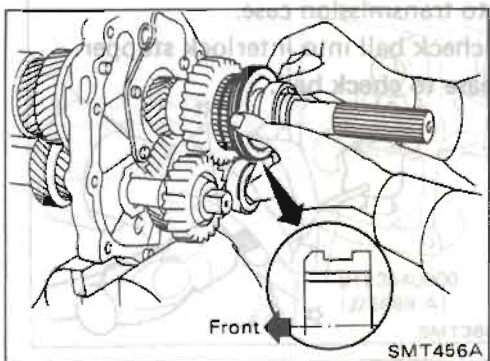
- u. Measure each gear end play as a final check — Refer to "DISASSEMBLY".



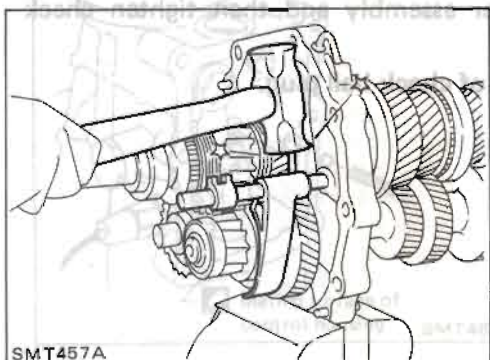
SMT453A



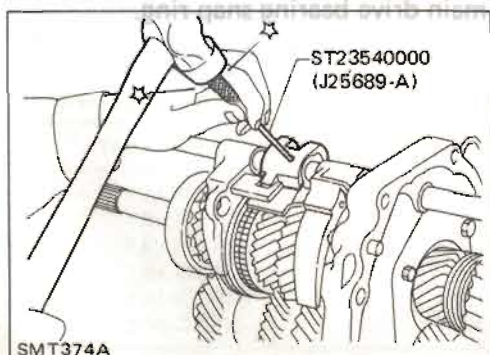
SMT455A



SMT456A



SMT457A



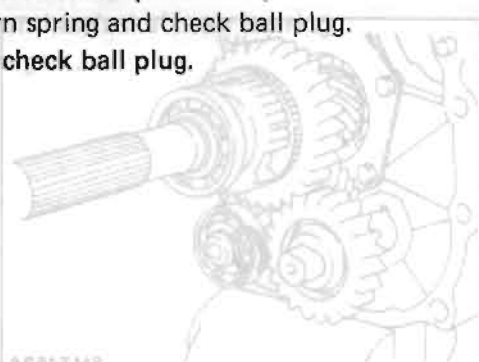
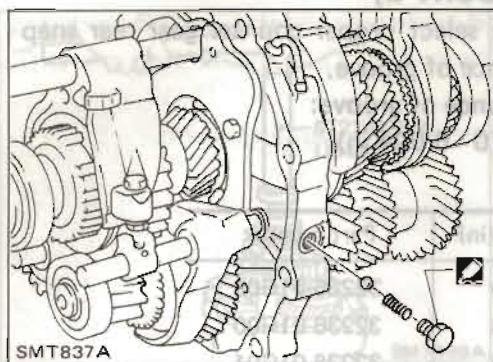
SMT374A

Shift Control Components

1. Install O.D. fork rod and O.D. shift fork. Then install retaining pin into O.D. shift fork.
2. Install 1st & 2nd, 3rd & 4th and reverse shift fork onto coupling sleeve.
3. Install striking rod into hole of shift forks, striking lever and interlock and then install retaining pin into striking lever. Make sure that striking rod moves smoothly.

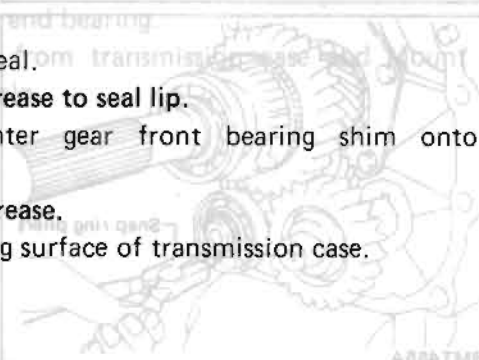
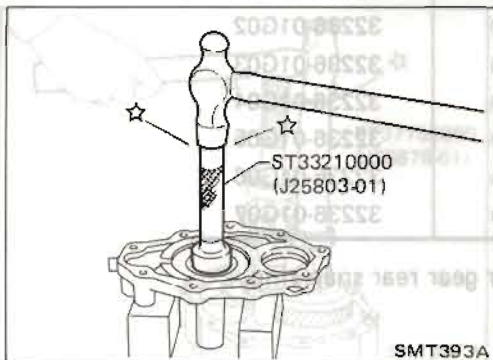
Shift Control Components (Cont'd)

4. Install check ball, return spring and check ball plug.
Apply sealant to thread of check ball plug.

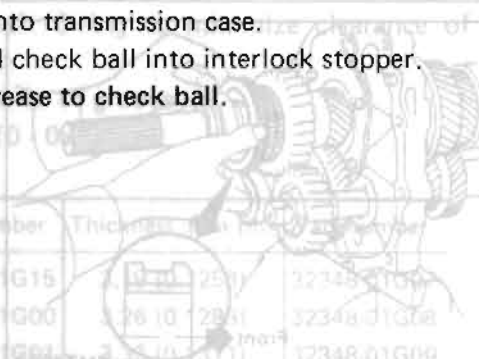
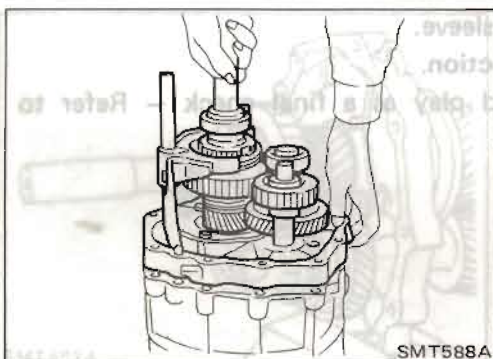


Case Components

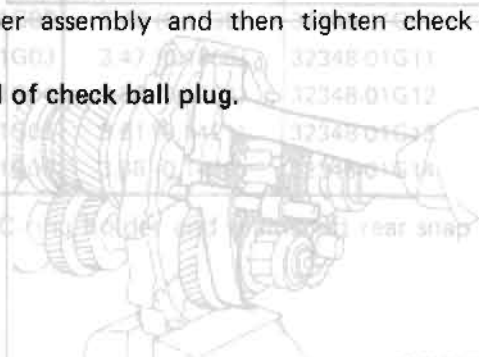
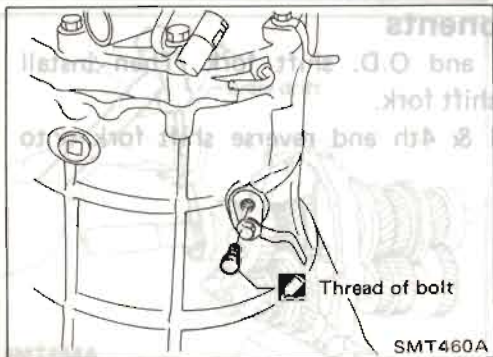
1. Install front cover oil seal.
Apply multi-purpose grease to seal lip.
2. Install selected counter gear front bearing shim onto transmission case.
Apply multi-purpose grease.
3. Apply sealant to mating surface of transmission case.



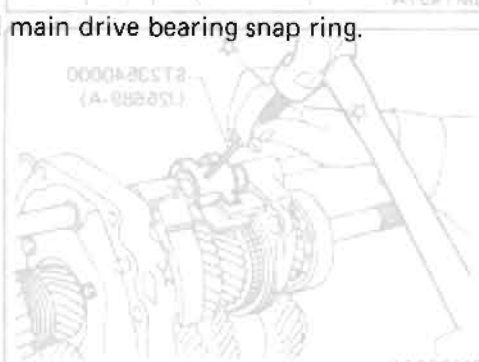
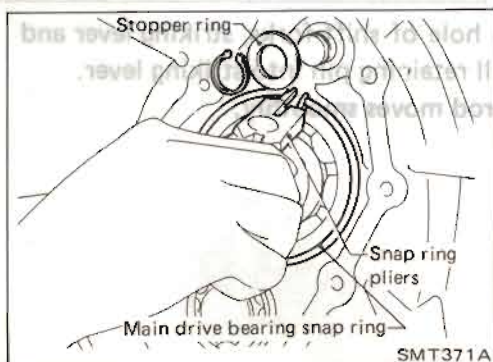
4. Install gear assembly onto transmission case.
5. Install check spring and check ball into interlock stopper.
Apply multi-purpose grease to check ball.



6. Install interlock stopper assembly and then tighten check ball plug.
Apply sealant to thread of check ball plug.



7. Install stopper ring and main drive bearing snap ring.

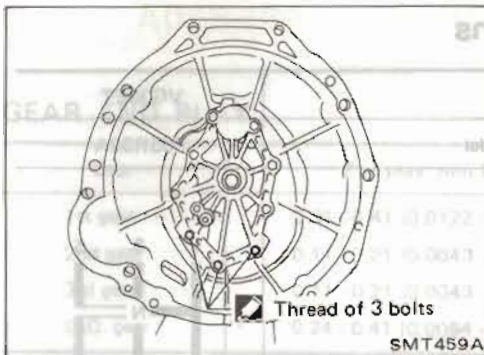


Case Components (Cont'd)

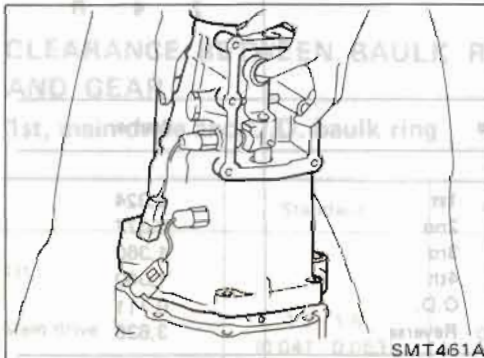
8. Install front cover and gasket.

Apply sealant to thread of 3 bolts shown left.

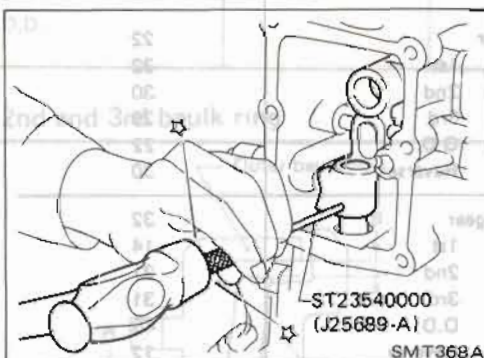
9. Apply sealant to mating surface of adapter plate.



10. Install rear extension together with striking arm.

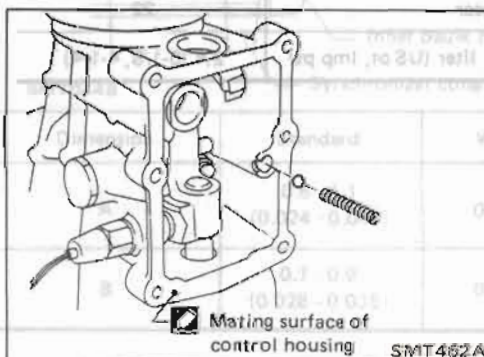


11. Install retaining pin into striking arm.



12. Install return spring and check ball and then install control housing.

Apply sealant to mating surface of rear extension.



13. Tighten control housing bolts.


AVAILABLE SNAP RINGS


Main drive gear bearing

Allowable clearance 0 - 0.13 mm (0 - 0.0051 in)

Thickness mm (in)	Part number
1.72 (0.0681)	32204-78005
1.80 (0.0709)	32204-78000
1.87 (0.0738)	32204-78001
1.94 (0.0764)	32204-78002
2.01 (0.0791)	32204-78003
2.08 (0.0819)	32204-78004

General Specifications

Engine	VG30E												
Transmission model	FS5W71C												
Shift pattern													
Synchromesh type	Warner												
Gear ratio	<table> <tr><td>1st</td><td>3.321</td></tr> <tr><td>2nd</td><td>1.902</td></tr> <tr><td>3rd</td><td>1.308</td></tr> <tr><td>4th</td><td>1.000</td></tr> <tr><td>O.D.</td><td>0.759</td></tr> <tr><td>Reverse</td><td>3.382</td></tr> </table>	1st	3.321	2nd	1.902	3rd	1.308	4th	1.000	O.D.	0.759	Reverse	3.382
1st	3.321												
2nd	1.902												
3rd	1.308												
4th	1.000												
O.D.	0.759												
Reverse	3.382												
Number of teeth													
Main drive gear	22												
Main gear													
1st	33												
2nd	27												
3rd	26												
O.D.	21												
Reverse	36												
Counter drive gear	31												
Counter gear													
1st	14												
2nd	20												
3rd	28												
O.D.	39												
Reverse	15												
Reverse idler gear	21												
Oil capacity	liter (US pt, Imp pt) 2.0 (4-1/4, 3-1/2)												

Engine	VG30ET												
Transmission model	FS5R30A												
Shift pattern													
Synchromesh type	Warner												
Gear ratio	<table> <tr><td>1st</td><td>3.324</td></tr> <tr><td>2nd</td><td>2.077</td></tr> <tr><td>3rd</td><td>1.360</td></tr> <tr><td>4th</td><td>1.000</td></tr> <tr><td>O.D.</td><td>0.711</td></tr> <tr><td>Reverse</td><td>3.636</td></tr> </table>	1st	3.324	2nd	2.077	3rd	1.360	4th	1.000	O.D.	0.711	Reverse	3.636
1st	3.324												
2nd	2.077												
3rd	1.360												
4th	1.000												
O.D.	0.711												
Reverse	3.636												
Number of teeth													
Main drive gear	22												
Main gear													
1st	32												
2nd	30												
3rd	29												
O.D.	22												
Reverse	30												
Counter drive gear	32												
Counter gear													
1st	14												
2nd	21												
3rd	31												
O.D.	45												
Reverse	12												
Reverse idler gear	22												
Oil capacity	liter (US pt, Imp pt) 2.4 (5-1/8, 4-1/4)												

Inspection and Adjustment — FS5W71C

GEAR END PLAY

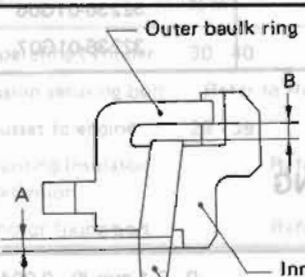
Gear	End play mm (in)
1st gear	0.31 - 0.41 (0.0122 - 0.0161)
2nd gear	0.11 - 0.21 (0.0043 - 0.0083)
3rd gear	0.11 - 0.21 (0.0043 - 0.0083)
O.D. gear	0.24 - 0.41 (0.0094 - 0.0161)

CLEARANCE BETWEEN BAULK RING AND GEAR

1st, main drive and O.D. baulk ring

	Standard	Wear limit
1st		
Main drive	1.2 - 1.6 (0.047 - 0.063)	0.8 (0.031)
O.D.		

2nd and 3rd baulk ring

		
SMT044B	Standard	Wear limit
Dimension		
A	0.6 - 1.1 (0.024 - 0.043)	0.2 (0.008)
B	0.7 - 0.9 (0.028 - 0.035)	0.2 (0.008)

AVAILABLE SNAP RINGS

Main drive gear bearing

Allowable clearance	0 - 0.13 mm (0 - 0.0051 in)	
Thickness mm (in)	Part number	
1.73 (0.0681)	32204-78005	
1.80 (0.0709)	32204-78000	
1.87 (0.0736)	32204-78001	
1.94 (0.0764)	32204-78002	
2.01 (0.0791)	32204-78003	
2.08 (0.0819)	32204-78004	

Mainshaft front

Allowable clearance	0 - 0.18 mm (0 - 0.0071 in)	
Thickness mm (in)	Part number	
2.4 (0.094)	32263-V5200	
2.5 (0.098)	32263-V5201	
2.6 (0.102)	32263-V5202	

Mainshaft rear end bearing

Allowable clearance	0 - 0.14 mm (0 - 0.0055 in)	
Thickness mm (in)	Part number	
1.1 (0.043)	32228-20100	
1.2 (0.047)	32228-20101	
1.3 (0.051)	32228-20102	
1.4 (0.055)	32228-20103	

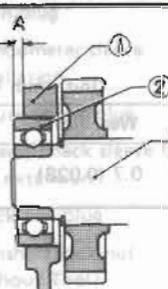
Counter drive gear

Allowable clearance	0 - 0.18 mm (0 - 0.0071 in)	
Thickness mm (in)	Part number	
1.4 (0.055)	32215-E9000	
1.5 (0.059)	32215-E9001	
1.6 (0.063)	32215-E9002	

AVAILABLE SHIMS

Counter front bearing

Unit: mm (in)

		
A	Distance from bearing surface to transmission case	
1	Transmission case	
2	Counter gear front bearing	
3	Counter gear	

TM371

Thickness of shim	Part number	
4.52 - 4.71 (0.1780 - 0.1854)	Not necessary	
4.42 - 4.51 (0.1740 - 0.1776)	0.1 (0.004)	32218-V5000
4.32 - 4.41 (0.1701 - 0.1736)	0.2 (0.008)	32218-V5001
4.22 - 4.31 (0.1661 - 0.1697)	0.3 (0.012)	32218-V5002
4.12 - 4.21 (0.1622 - 0.1657)	0.4 (0.016)	32218-V5003
4.02 - 4.11 (0.1583 - 0.1618)	0.5 (0.020)	32218-V5004
3.92 - 4.01 (0.1543 - 0.1579)	0.6 (0.024)	32218-V5005

Inspection and Adjustment — FS5R30A

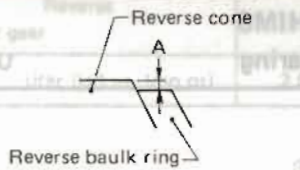
GEAR END PLAY

Gear	End play mm (in)
1st main gear	0.23 - 0.33 (0.0091 - 0.0130)
2nd main gear	0.23 - 0.33 (0.0091 - 0.0130)
3rd main gear	0.23 - 0.33 (0.0091 - 0.0130)
O.D. counter gear	0.23 - 0.33 (0.0091 - 0.0130)
Reverse main gear	0.33 - 0.43 (0.0130 - 0.0169)
Counter gear	0.10 - 0.25 (0.0039 - 0.0098)
Reverse idler gear	0.30 - 0.53 (0.0118 - 0.0209)

CLEARANCE BETWEEN BAULK RING AND GEAR

	Unit: mm (in)	
	Standard	Wear limit
1st & 2nd	1.05 - 1.3 (0.0413 - 0.0512)	0.7 (0.028)
3rd & main drive	1.05 - 1.3 (0.0413 - 0.0512)	0.7 (0.028)
O.D.	1.05 - 1.3 (0.0413 - 0.0512)	0.7 (0.028)

DISTANCE BETWEEN REAR SURFACE OF REVERSE CONE AND REVERSE BAULK RING

		
Dimension "A"	Unit: mm (in)	
	Standard	Wear limit
	-0.1 to 0.35 (-0.0039 to 0.0138)	0.7 (0.028)

AVAILABLE SNAP RING

Main drive gear snap ring

Allowable clearance 0 - 0.1 mm (0 - 0.004 in)	
Thickness mm (in)	Part number
1.89 (0.0744)	32204-01G00
1.98 (0.0780)	32204-01G01
2.05 (0.0807)	32204-01G02
2.12 (0.0835)	32204-01G03
2.19 (0.0862)	32204-01G04

Mainshaft front snap ring

Allowable clearance 0 - 0.1 mm (0 - 0.004 in)	
Thickness mm (in)	Part number
1.89 (0.0744)	32204-01G00
1.98 (0.0780)	32204-01G01
2.05 (0.0807)	32204-01G02
2.12 (0.0835)	32204-01G03
2.19 (0.0862)	32204-01G04

Counter gear rear snap ring

Allowable clearance 0 - 0.1 mm (0 - 0.004 in)	
Thickness mm (in)	Part number
1.26 (0.0496)	32236-01G08
1.32 (0.0520)	32236-01G00
1.38 (0.0543)	32236-01G01
1.44 (0.0567)	32236-01G02
1.50 (0.0591)	32236-01G03
1.56 (0.0614)	32236-01G04
1.62 (0.0638)	32236-01G05
1.68 (0.0661)	32236-01G06
1.74 (0.0685)	32236-01G07

AVAILABLE C-RING

Mainshaft C-ring

Allowable clearance 0 - 0.1 mm (0 - 0.004 in)			
Thickness mm (in)	Part number	Thickness mm (in)	Part number
2.63 (0.1035)	32348-01G15	3.19 (0.1256)	32348-01G07
2.70 (0.1063)	32348-01G00	3.26 (0.1283)	32348-01G08
2.77 (0.1091)	32348-01G01	3.33 (0.1311)	32348-01G09
2.84 (0.1118)	32348-01G02	3.40 (0.1339)	32348-01G10
2.91 (0.1146)	32348-01G03	3.47 (0.1366)	32348-01G11
2.98 (0.1173)	32348-01G04	3.54 (0.1394)	32348-01G12
3.05 (0.1201)	32348-01G05	3.61 (0.1421)	32348-01G13
3.12 (0.1228)	32348-01G06	3.68 (0.1449)	32348-01G14

SERVICE DATA AND SPECIFICATIONS (S.D.S.)

Inspection and Adjustment — FS5R30A (Cont'd)

AVAILABLE SHIM AND WASHER
Table for selecting proper counter gear
front bearing shim

Dial indicator deflection mm (in)	Thickness of proper washer mm (in)	Part number
0.93 - 1.02 (0.0366 - 0.0402)	0.8 (0.031)	32218-01G00
1.03 - 1.12 (0.0406 - 0.0441)	0.9 (0.035)	32218-01G01
1.13 - 1.22 (0.0445 - 0.0480)	1.0 (0.039)	32218-01G02
1.23 - 1.32 (0.0484 - 0.0520)	1.1 (0.043)	32218-01G03
1.33 - 1.42 (0.0524 - 0.0559)	1.2 (0.047)	32218-01G04
1.43 - 1.52 (0.0563 - 0.0598)	1.3 (0.051)	32218-01G05
1.53 - 1.62 (0.0602 - 0.0638)	1.4 (0.055)	32218-01G06

Reverse idler rear thrust washer

Thickness mm (in)	Part number
1.97 (0.0776)	32284-01G10
2.07 (0.0815)	32284-01G11

Tightening Torque

TRANSMISSION INSTALLATION

Unit	N·m	kg·m	ft·lb
Clutch operating cylinder	30 - 40	3.1 - 4.1	22 - 30
Transmission securing bolt	Refer to Removal and Installation.		
Engine gusset to engine	29 - 39	3.0 - 4.0	22 - 29
Rear mounting insulator to rear extension	Refer to section EM.		
Starter motor fixing bolt	Refer to section EM.		

GEAR ASSEMBLY — FS5W71C

Unit	N·m	kg·m	ft·lb
Rear extension to transmission case	16 - 20	1.6 - 2.0	12 - 14
Front cover to transmission case	16 - 21	1.6 - 2.1	12 - 15
Control housing to rear extension	14 - 18	1.4 - 1.8	10 - 13
Ball pin	20 - 34	2.0 - 3.5	14 - 25
Filler plug	25 - 34	2.5 - 3.5	18 - 25
Drain plug	25 - 34	2.5 - 3.5	18 - 25
Speedometer sleeve installation	4 - 5	0.4 - 0.5	2.9 - 3.6
Return spring plug	20 - 29	2.0 - 3.0	14 - 22
Reverse check sleeve to rear extension	4 - 5	0.4 - 0.5	2.9 - 3.6
Check ball plug	19 - 25	1.9 - 2.5	14 - 18
Mainshaft lock nut (without Tool)	137 - 167	14.0 - 17.0	101 - 123
Countershaft lock nut	98 - 127	10.0 - 13.0	72 - 94
Striking lever lock nut	9 - 12	0.9 - 1.2	6.5 - 8.7
Bearing retainer to adapter plate	19 - 25	1.9 - 2.5	14 - 18
Reverse lamp switch	20 - 29	2.0 - 3.0	14 - 22
Neutral switch	20 - 29	2.0 - 3.0	14 - 22

Tightening Torque (Cont'd)

GEAR ASSEMBLY — FS5R30A

Unit	N·m	kg·m	ft·lb
Rear extension to transmission case	31 - 42	3.2 - 4.3	23 - 31
Front cover to transmission case	16 - 21	1.6 - 2.1	12 - 15
Control housing to rear extension	16 - 21	1.6 - 2.1	12 - 15
Ball pin	31 - 42	3.2 - 4.3	23 - 31
Filler plug	25 - 34	2.5 - 3.5	18 - 25
Drain plug	25 - 34	2.5 - 3.5	18 - 25
Speedometer pinion installation	4 - 5	0.4 - 0.5	2.9 - 3.6
Interlock stopper fixing bolt	31 - 42	3.2 - 4.3	23 - 31
Check ball plug	19 - 25	1.9 - 2.6	14 - 19
Select check plug	20 - 29	2.0 - 3.0	14 - 22
Reverse check sleeve fixing bolt	6.3 - 8.3	0.64 - 0.85	4.6 - 6.1
O.D. & reverse fork rod to reverse shift fork	25 - 29	2.5 - 3.0	18 - 22
O.D. and reverse shift fork connecting bolt	29 - 34	3.0 - 3.5	22 - 25
Guide plate to rear extension	6.3 - 8.3	0.64 - 0.85	4.6 - 6.1
Bearing retainer to adaptor plate	16 - 21	1.6 - 2.1	12 - 15
Reverse lamp switch	20 - 29	2.0 - 3.0	14 - 22
Neutral switch	20 - 29	2.0 - 3.0	14 - 22

Mainshaft Shim and Washer

Front bearing shim		Allowable clearance
Part number Daiichi Industries (JIS)	Thickness mm	Thickness mm
0.03 - 1.03 (0.008 - 0.040)	0.8 (0.031)	33218-0100
1.03 - 1.75 (0.040 - 0.069)	0.9 (0.035)	33218-0101
1.75 - 2.50 (0.069 - 0.100)	1.0 (0.039)	33218-0102
2.50 - 3.25 (0.098 - 0.128)	1.1 (0.043)	33218-0103
3.25 - 4.00 (0.128 - 0.157)	1.2 (0.047)	33218-0104
4.00 - 4.75 (0.157 - 0.187)	1.3 (0.051)	33218-0105
4.75 - 5.50 (0.187 - 0.217)	1.4 (0.055)	33218-0106
5.50 - 6.25 (0.217 - 0.246)	1.5 (0.059)	33218-0107
6.25 - 7.00 (0.246 - 0.276)	1.6 (0.063)	33218-0108
7.00 - 7.75 (0.276 - 0.305)	1.7 (0.067)	33218-0109
7.75 - 8.50 (0.305 - 0.335)	1.8 (0.071)	33218-0110
8.50 - 9.25 (0.335 - 0.364)	1.9 (0.075)	33218-0111
9.25 - 10.00 (0.364 - 0.394)	2.0 (0.079)	33218-0112
10.00 - 10.75 (0.394 - 0.424)	2.1 (0.083)	33218-0113
10.75 - 11.50 (0.424 - 0.453)	2.2 (0.087)	33218-0114
11.50 - 12.25 (0.453 - 0.483)	2.3 (0.091)	33218-0115
12.25 - 13.00 (0.483 - 0.513)	2.4 (0.095)	33218-0116
13.00 - 13.75 (0.513 - 0.542)	2.5 (0.099)	33218-0117
13.75 - 14.50 (0.542 - 0.572)	2.6 (0.103)	33218-0118
14.50 - 15.25 (0.572 - 0.602)	2.7 (0.107)	33218-0119
15.25 - 16.00 (0.602 - 0.632)	2.8 (0.111)	33218-0120
16.00 - 16.75 (0.632 - 0.661)	2.9 (0.115)	33218-0121
16.75 - 17.50 (0.661 - 0.691)	3.0 (0.119)	33218-0122
17.50 - 18.25 (0.691 - 0.721)	3.1 (0.123)	33218-0123
18.25 - 19.00 (0.721 - 0.750)	3.2 (0.127)	33218-0124
19.00 - 19.75 (0.750 - 0.780)	3.3 (0.131)	33218-0125
19.75 - 20.50 (0.780 - 0.809)	3.4 (0.135)	33218-0126
20.50 - 21.25 (0.809 - 0.839)	3.5 (0.139)	33218-0127
21.25 - 22.00 (0.839 - 0.868)	3.6 (0.143)	33218-0128
22.00 - 22.75 (0.868 - 0.898)	3.7 (0.147)	33218-0129
22.75 - 23.50 (0.898 - 0.928)	3.8 (0.151)	33218-0130
23.50 - 24.25 (0.928 - 0.957)	3.9 (0.155)	33218-0131
24.25 - 25.00 (0.957 - 0.987)	4.0 (0.159)	33218-0132
25.00 - 25.75 (0.987 - 1.017)	4.1 (0.163)	33218-0133
25.75 - 26.50 (1.017 - 1.046)	4.2 (0.167)	33218-0134
26.50 - 27.25 (1.046 - 1.076)	4.3 (0.171)	33218-0135
27.25 - 28.00 (1.076 - 1.106)	4.4 (0.175)	33218-0136
28.00 - 28.75 (1.106 - 1.135)	4.5 (0.179)	33218-0137
28.75 - 29.50 (1.135 - 1.165)	4.6 (0.183)	33218-0138
29.50 - 30.25 (1.165 - 1.194)	4.7 (0.187)	33218-0139
30.25 - 31.00 (1.194 - 1.224)	4.8 (0.191)	33218-0140
31.00 - 31.75 (1.224 - 1.254)	4.9 (0.195)	33218-0141
31.75 - 32.50 (1.254 - 1.283)	5.0 (0.199)	33218-0142
32.50 - 33.25 (1.283 - 1.313)	5.1 (0.203)	33218-0143
33.25 - 34.00 (1.313 - 1.342)	5.2 (0.207)	33218-0144
34.00 - 34.75 (1.342 - 1.372)	5.3 (0.211)	33218-0145
34.75 - 35.50 (1.372 - 1.401)	5.4 (0.215)	33218-0146
35.50 - 36.25 (1.401 - 1.431)	5.5 (0.219)	33218-0147
36.25 - 37.00 (1.431 - 1.460)	5.6 (0.223)	33218-0148
37.00 - 37.75 (1.460 - 1.490)	5.7 (0.227)	33218-0149
37.75 - 38.50 (1.490 - 1.519)	5.8 (0.231)	33218-0150
38.50 - 39.25 (1.519 - 1.549)	5.9 (0.235)	33218-0151
39.25 - 40.00 (1.549 - 1.578)	6.0 (0.239)	33218-0152
40.00 - 40.75 (1.578 - 1.608)	6.1 (0.243)	33218-0153
40.75 - 41.50 (1.608 - 1.637)	6.2 (0.247)	33218-0154
41.50 - 42.25 (1.637 - 1.667)	6.3 (0.251)	33218-0155
42.25 - 43.00 (1.667 - 1.696)	6.4 (0.255)	33218-0156
43.00 - 43.75 (1.696 - 1.726)	6.5 (0.259)	33218-0157
43.75 - 44.50 (1.726 - 1.755)	6.6 (0.263)	33218-0158
44.50 - 45.25 (1.755 - 1.785)	6.7 (0.267)	33218-0159
45.25 - 46.00 (1.785 - 1.814)	6.8 (0.271)	33218-0160
46.00 - 46.75 (1.814 - 1.844)	6.9 (0.275)	33218-0161
46.75 - 47.50 (1.844 - 1.873)	7.0 (0.279)	33218-0162
47.50 - 48.25 (1.873 - 1.903)	7.1 (0.283)	33218-0163
48.25 - 49.00 (1.903 - 1.932)	7.2 (0.287)	33218-0164
49.00 - 49.75 (1.932 - 1.962)	7.3 (0.291)	33218-0165
49.75 - 50.50 (1.962 - 1.991)	7.4 (0.295)	33218-0166
50.50 - 51.25 (1.991 - 2.021)	7.5 (0.299)	33218-0167
51.25 - 52.00 (2.021 - 2.050)	7.6 (0.303)	33218-0168
52.00 - 52.75 (2.050 - 2.080)	7.7 (0.307)	33218-0169
52.75 - 53.50 (2.080 - 2.109)	7.8 (0.311)	33218-0170
53.50 - 54.25 (2.109 - 2.139)	7.9 (0.315)	33218-0171
54.25 - 55.00 (2.139 - 2.168)	8.0 (0.319)	33218-0172
55.00 - 55.75 (2.168 - 2.198)	8.1 (0.323)	33218-0173
55.75 - 56.50 (2.198 - 2.227)	8.2 (0.327)	33218-0174
56.50 - 57.25 (2.227 - 2.257)	8.3 (0.331)	33218-0175
57.25 - 58.00 (2.257 - 2.286)	8.4 (0.335)	33218-0176
58.00 - 58.75 (2.286 - 2.316)	8.5 (0.339)	33218-0177
58.75 - 59.50 (2.316 - 2.345)	8.6 (0.343)	33218-0178
59.50 - 60.25 (2.345 - 2.375)	8.7 (0.347)	33218-0179
60.25 - 61.00 (2.375 - 2.404)	8.8 (0.351)	33218-0180
61.00 - 61.75 (2.404 - 2.434)	8.9 (0.355)	33218-0181
61.75 - 62.50 (2.434 - 2.463)	9.0 (0.359)	33218-0182
62.50 - 63.25 (2.463 - 2.493)	9.1 (0.363)	33218-0183
63.25 - 64.00 (2.493 - 2.522)	9.2 (0.367)	33218-0184
64.00 - 64.75 (2.522 - 2.552)	9.3 (0.371)	33218-0185
64.75 - 65.50 (2.552 - 2.581)	9.4 (0.375)	33218-0186
65.50 - 66.25 (2.581 - 2.611)	9.5 (0.379)	33218-0187
66.25 - 67.00 (2.611 - 2.640)	9.6 (0.383)	33218-0188
67.00 - 67.75 (2.640 - 2.670)	9.7 (0.387)	33218-0189
67.75 - 68.50 (2.670 - 2.700)	9.8 (0.391)	33218-0190
68.50 - 69.25 (2.700 - 2.729)	9.9 (0.395)	33218-0191
69.25 - 70.00 (2.729 - 2.759)	10.0 (0.399)	33218-0192
70.00 - 70.75 (2.759 - 2.788)	10.1 (0.403)	33218-0193
70.75 - 71.50 (2.788 - 2.818)	10.2 (0.407)	33218-0194
71.50 - 72.25 (2.818 - 2.847)	10.3 (0.411)	33218-0195
72.25 - 73.00 (2.847 - 2.877)	10.4 (0.415)	33218-0196
73.00 - 73.75 (2.877 - 2.906)	10.5 (0.419)	33218-0197
73.75 - 74.50 (2.906 - 2.936)	10.6 (0.423)	33218-0198
74.50 - 75.25 (2.936 - 2.965)	10.7 (0.427)	33218-0199
75.25 - 76.00 (2.965 - 2.995)	10.8 (0.431)	33218-0200
76.00 - 76.75 (2.995 - 3.024)	10.9 (0.435)	33218-0201
76.75 - 77.50 (3.024 - 3.054)	11.0 (0.439)	33218-0202
77.50 - 78.25 (3.054 - 3.083)	11.1 (0.443)	33218-0203
78.25 - 79.00 (3.083 - 3.113)	11.2 (0.447)	33218-0204
79.00 - 79.75 (3.113 - 3.142)	11.3 (0.451)	33218-0205
79.75 - 80.50 (3.142 - 3.172)	11.4 (0.455)	33218-0206
80.50 - 81.25 (3.172 - 3.201)	11.5 (0.459)	33218-0207
81.25 - 82.00 (3.201 - 3.231)	11.6 (0.463)	33218-0208
82.00 - 82.75 (3.231 - 3.260)	11.7 (0.467)	33218-0209
82.75 - 83.50 (3.260 - 3.290)	11.8 (0.471)	33218-0210
83.50 - 84.25 (3.290 - 3.319)	11.9 (0.475)	33218-0211
84.25 - 85.00 (3.319 - 3.349)	12.0 (0.479)	33218-0212
85.00 - 85.75 (3.349 - 3.378)	12.1 (0.483)	33218-0213
85.75 - 86.50 (3.378 - 3.408)	12.2 (0.487)	33218-0214
86.50 - 87.25 (3.408 - 3.437)	12.3 (0.491)	33218-0215
87.25 - 88.00 (3.437 - 3.467)	12.4 (0.495)	33218-0216
88.00 - 88.75 (3.467 - 3.496)	12.5 (0.499)	33218-0217
88.75 - 89.50 (3.496 - 3.526)	12.6 (0.503)	33218-0218
89.50 - 90.25 (3.526 - 3.555)	12.7 (0.507)	33218-0219
90.25 - 91.00 (3.555 - 3.585)	12.8 (0.511)	33218-0220
91.00 - 91.75 (3.585 - 3.614)	12.9 (0.515)	33218-0221
91.75 - 92.50 (3.614 - 3.644)	13.0 (0.519)	33218-0222
92.50 - 93.25 (3.644 - 3.673)	13.1 (0.523)	33218-0223
93.25 - 94.00 (3.673 - 3.703)	13.2 (0.527)	33218-0224
94.00 - 94.75 (3.703 - 3.732)	13.3 (0.531)	33218-0225
94.75 - 95.50 (3.732 - 3.762)	13.4 (0.535)	33218-0226
95.50 - 96.25 (3.762 - 3.791)	13.5 (0.539)	33218-0227
96.25 - 97.00 (3.791 - 3.821)	13.6 (0.543)	33218-0228
97.00 - 97.75 (3.821 - 3.850)	13.7 (0.547)	33218-0229
97.75 - 98.50 (3.850 - 3.880)	13.8 (0.551)	33218-0230
98.50 - 99.25 (3.880 - 3.909)	13.9 (0.555)	33218-0231
99.25 - 100.00 (3.909 - 3.939)	14.0 (0.559)	33218-0232
100.00 - 100.75 (3.939 - 3.968)	14.1 (0.563)	33218-0233
100.75 - 101.50 (3.968 - 3.998)	14.2 (0.567)	33218-0234
101.50 - 102.25 (3.998 - 4.027)	14.3 (0.571)	33218-0235
102.25 - 103.00 (4.027 - 4.057)	14.4 (0.575)	33218-0236
103.00 - 103.75 (4.057 - 4.086)	14.5 (0.579)	33218-0237
103.75 - 104.50 (4.086 - 4.116)	14.6 (0.583)	33218-0238
104.50 - 105.25 (4.116 - 4.145)	14.7 (0.587)	33218-0239
105.25 - 106.00 (4.145 - 4.175)	14.8 (0.591)	33218-0240
106.00 - 106.75 (4.175 - 4.204)	14.9 (0.595)	33218-0241
106.75 - 107.50 (4.204 - 4.234)	15.0 (0.599)	33218-0242
107.50 - 108.25 (4.234 - 4.263)	15.1 (0.603)	33218-0243
108.25 - 109.00 (4.263 - 4.293)	15.2 (0.607)	33218-0244
109.00 - 109.75 (4.293 - 4.322)	15.3 (0.611)	33218-0245
109.75 - 110.50 (4.322 - 4.352)	15.4 (0.615)	33218-0246
110.50 - 111.25 (4.352 - 4.381)	15.5 (0.619)	33218-0247
111.25 - 112.00 (4.381 - 4.411)	15.6 (0.623)	33218-0248
112.00 - 112.75 (4.411 - 4.440)	15.7 (0.627)	33218-0249
112.75 - 113.50 (4.440 - 4.470)	15.8 (0.631)	33218-0250
113.50 - 114.25 (4.470 - 4.500)	15.9 (0.635)	33218-0251
114.25 - 115.00 (4.500 - 4.529)	16.0 (0.639)	33218-0252
115.00 - 115.75 (4.529 - 4.559)	16.1 (0.643)	33218-0253
115.75 - 116.50 (4.559 - 4.588)	16.2 (0.647)	33218-0254
116.50 - 117.25 (4.588 - 4.618)	16.3 (0.651)	33218-0255
117.25 - 118.00 (4.618 - 4.647)	16.4 (0.655)	33218-0256
118.00 - 118.75 (4.647 - 4.677)	16.5 (0.659)	33218-0257
118.75 - 119.50 (4.677 - 4.706)	16.6 (0.663)	33218-0258
119.50 - 120.25 (4.706 - 4.736)	16.7 (0.667)	33218-0259
120.25 - 121.00 (4.736 - 4.765)	16.8 (0.671)	33218-0260
121.00 - 121.75 (4.765 - 4.795)	16.9 (0.675)	33218-0261
121.75 - 122.50 (4.795 - 4.824)	17.0 (0.679)	33218-0262
122.50 - 123.25 (4.824 - 4.854)	17.1 (0.683)	33218-0263
123.25 - 124.00 (4.854 - 4.883)	17.2 (0.687)	33218-0264
124.00 - 124.75 (4.883 - 4.913)	17.3 (0.691)	33218-0265
124.75 - 125.50 (4.913 - 4.942)	17.4 (0.695)	33218-0266
125.50 - 126.25 (4.942 - 4.972)	17.5 (0.699)	33218-0267
126.25 - 127.00 (4.972 - 5.001)	17.6 (0.703)	33218-0268
127.00 - 127.75 (5.001 - 5.031)	17.7 (0.707)	33218-0269
127.7		