

MANUAL TRANSAXLE

SECTION **MT**

MODIFICATION NOTICE:

- The RS5F32A transaxle has been adopted on SR20DE engine models.

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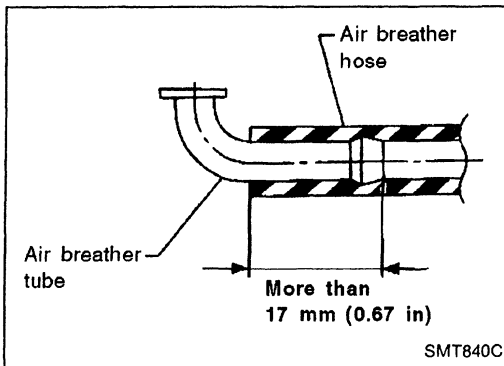
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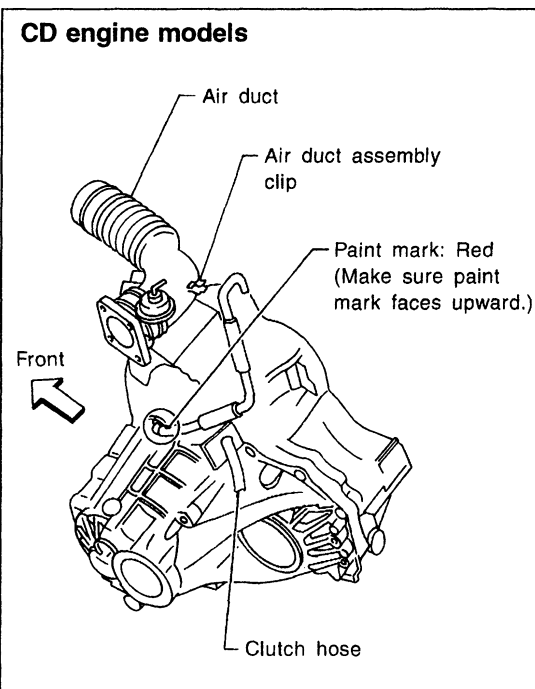
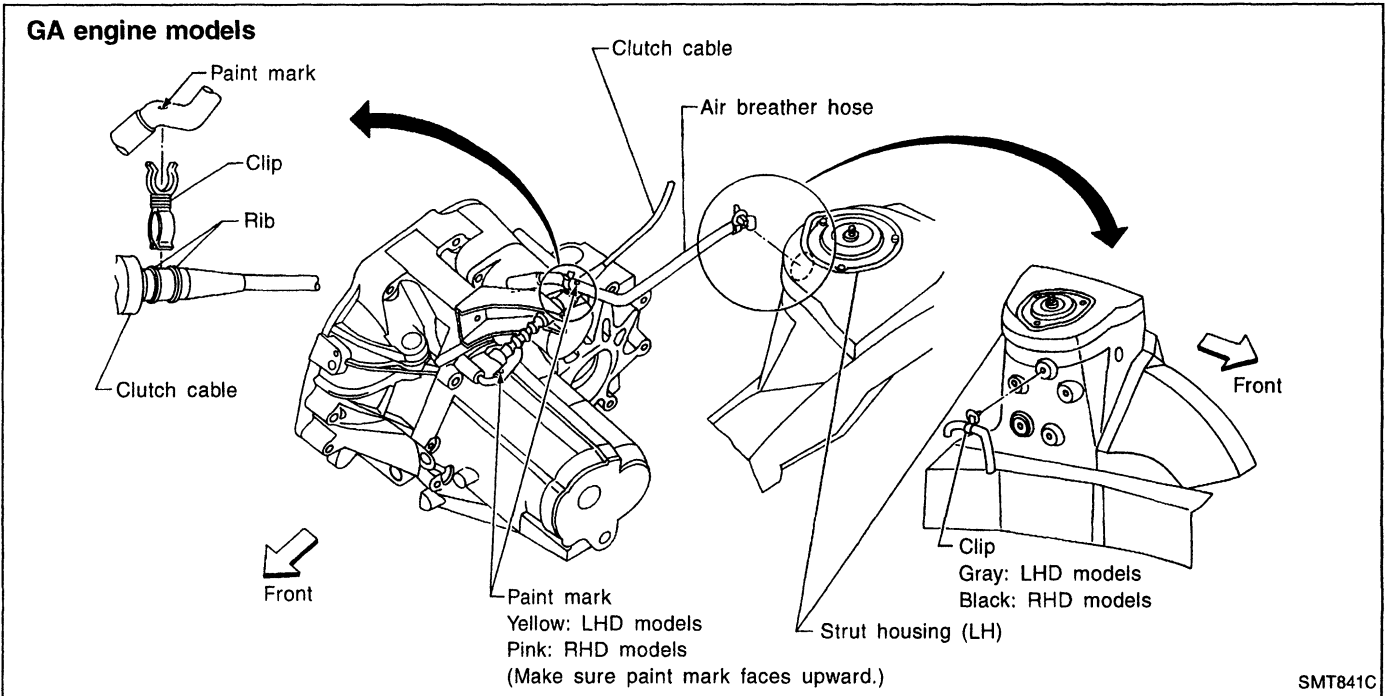
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ON-VEHICLE SERVICE

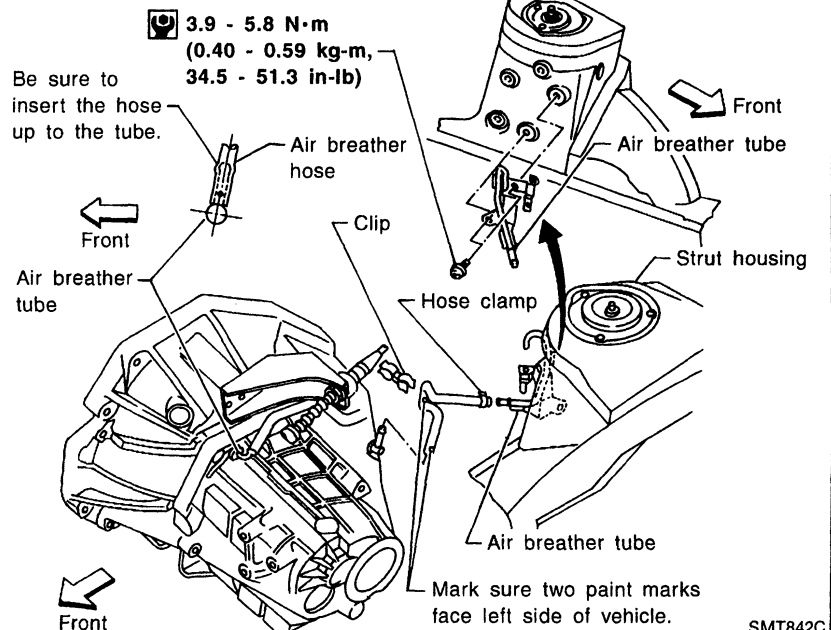


Air Breather Hose

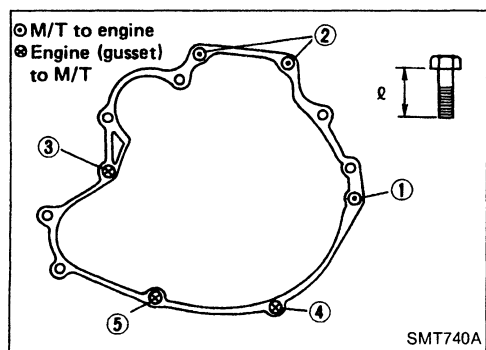
- Refer to the figure below for removal and installation procedures of air breather hose.
- When re-installing air breather hose after removal, install it to the original position as shown in the figure below.
- The hose margin to insert air breather tube should be more than 17 mm (0.67 in). (Insert the hose to the R curve of air breather tube.)



SR engine models



REMOVAL AND INSTALLATION



Installation

Tighten bolts securing transaxle and install any part removed.

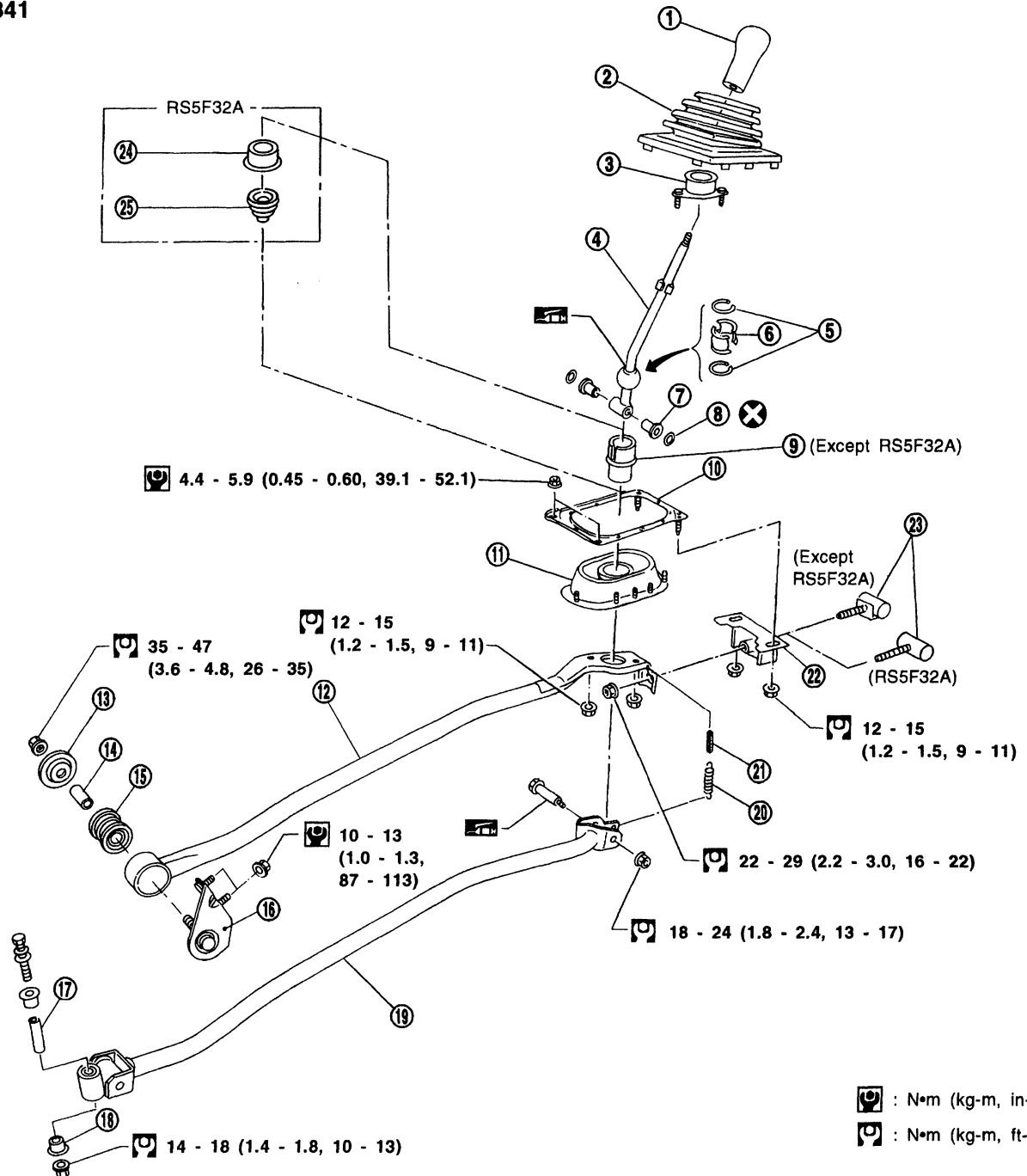
● CD20E engine models

Bolt No.	Tightening torque N·m (kg-m, ft-lb)	"L" mm (in)
①	30 - 40 (3.1 - 4.1, 22 - 30)	120 (4.72)
②	30 - 40 (3.1 - 4.1, 22 - 30)	85 (3.35)
③	75 - 85 (7.6 - 8.7, 55 - 63)	75 (2.95)
④	16 - 21 (1.6 - 2.1, 12 - 15)	30 (1.18)
⑤	16 - 21 (1.6 - 2.1, 12 - 15)	25 (0.98)
Front gusset to engine	30 - 40 (3.1 - 4.1, 22 - 30)	35 (1.38)
Rear gusset to engine	30 - 40 (3.1 - 4.1, 22 - 30)	40 (1.57)

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TRANSAXLE GEAR CONTROL

SEC. 341



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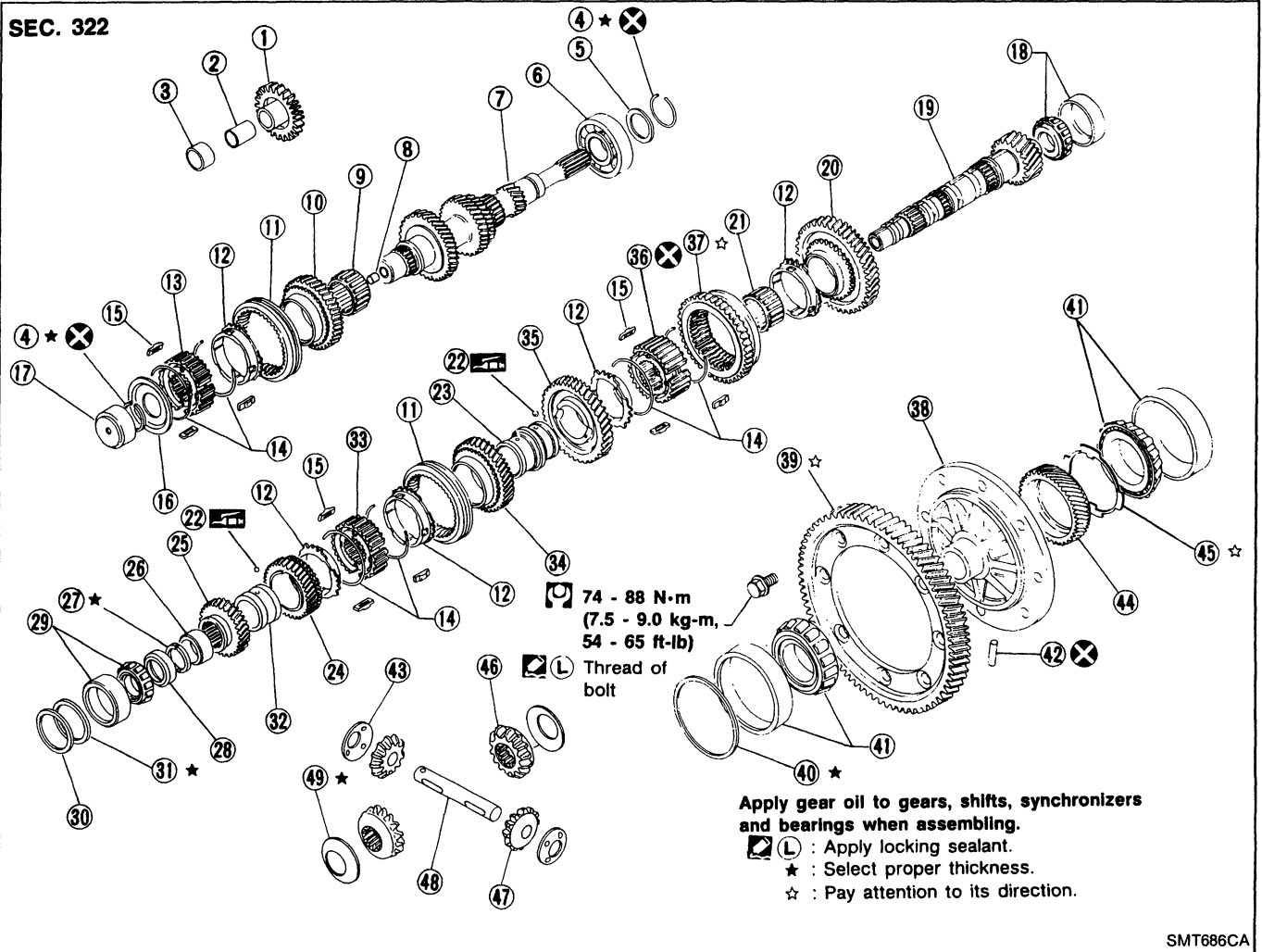
- | | | |
|--|------------------------|------------------------|
| ① Control lever knob | ⑨ Hand lever socket | ⑱ Bushing |
| ② Boot | ⑩ Plate bolt | ⑲ Control rod |
| ③ Control lever socket | ⑪ Transaxle hole cover | ⑳ Return spring |
| ④ Control lever | ⑫ Support rod | ㉑ Return spring rubber |
| ⑤ Bearing seat spring (Except RS5F32A) | ⑬ Plate | ㉒ Holder bracket |
| ⑥ Seat | ⑭ Collar | ㉓ Mass damper |
| ⑦ Bushing | ⑮ Bushing | ㉔ Seat bearing set |
| ⑧ O-ring | ⑯ Support rod bracket | ㉕ Hand lever dust boot |
| | ⑰ Collar | |

SEC. 320

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|------------------------|-------------------------|-------------------------------|
| ① Clutch housing | ⑨ Welch plug | ⑰ Reverse idler shaft |
| ② Input shaft oil seal | ⑩ O-ring | ⑱ Oil channel |
| ③ Oil pocket | ⑪ Case cover | ⑲ Striking rod oil seal |
| ④ Bearing retainer | ⑫ Back-up lamp switch | ⑳ Boot |
| ⑤ Bearing retainer | ⑬ Differential oil seal | ㉑ Neutral position switch |
| ⑥ Torx screw | ⑭ Drain plug | ㉒ Differential oil seal |
| ⑦ Filler plug | ⑮ Transmission case | ㉓ O-ring |
| ⑧ Air breather tube | ⑯ Oil gutter | ㉔ Speedometer pinion assembly |

Gear Components

SEC. 322



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|-----------------------------|----------------------------|--|---|
| ① Reverse idler gear | ⑭ Spread spring | ②⑨ C-ring holder | ④⑩ Differential side bearing adjusting shim |
| ② Reverse idler bushing | ⑮ Shifting insert | ③⑩ Mainshaft rear bearing | ④① Differential side bearing |
| ③ Reverse idler spacer | ⑯ 5th stopper | ④① Mainshaft bearing adjusting shim | ④② Retaining pin |
| ④ Snap ring | ⑰ Input shaft rear bearing | ④② 4th bushing | ④③ Pinion mate thrust washer |
| ⑤ Spacer | ⑱ Mainshaft front bearing | ④③ 3rd & 4th synchronizer hub | ④④ Speedometer drive gear |
| ⑥ Input shaft front bearing | ⑲ Mainshaft | ④④ 3rd main gear | ④⑤ Speedometer stopper |
| ⑦ Input shaft | ⑲ 1st main gear | ④⑤ 2nd main gear | ④⑥ Side gear |
| ⑧ Oil plug | ⑲ 1st gear needle bearing | ④⑥ 1st & 2nd synchronizer hub | ④⑦ Pinion mate gear |
| ⑨ 5th gear needle bearing | ⑲ Steel ball | ④⑦ Reverse main gear (Coupling sleeve) | ④⑧ Pinion mate shaft |
| ⑩ 5th input gear | ⑲ 2nd & 3rd bushing | ④⑧ Differential case | ④⑨ Side gear thrust washer |
| ⑪ Coupling sleeve | ⑲ 4th main gear | ④⑨ Final gear | |
| ⑫ Baulk ring | ⑲ 5th main gear | | |
| ⑬ 5th synchronizer hub | ⑲ Thrust washer | | |
| | ⑲ Mainshaft C-ring | | |

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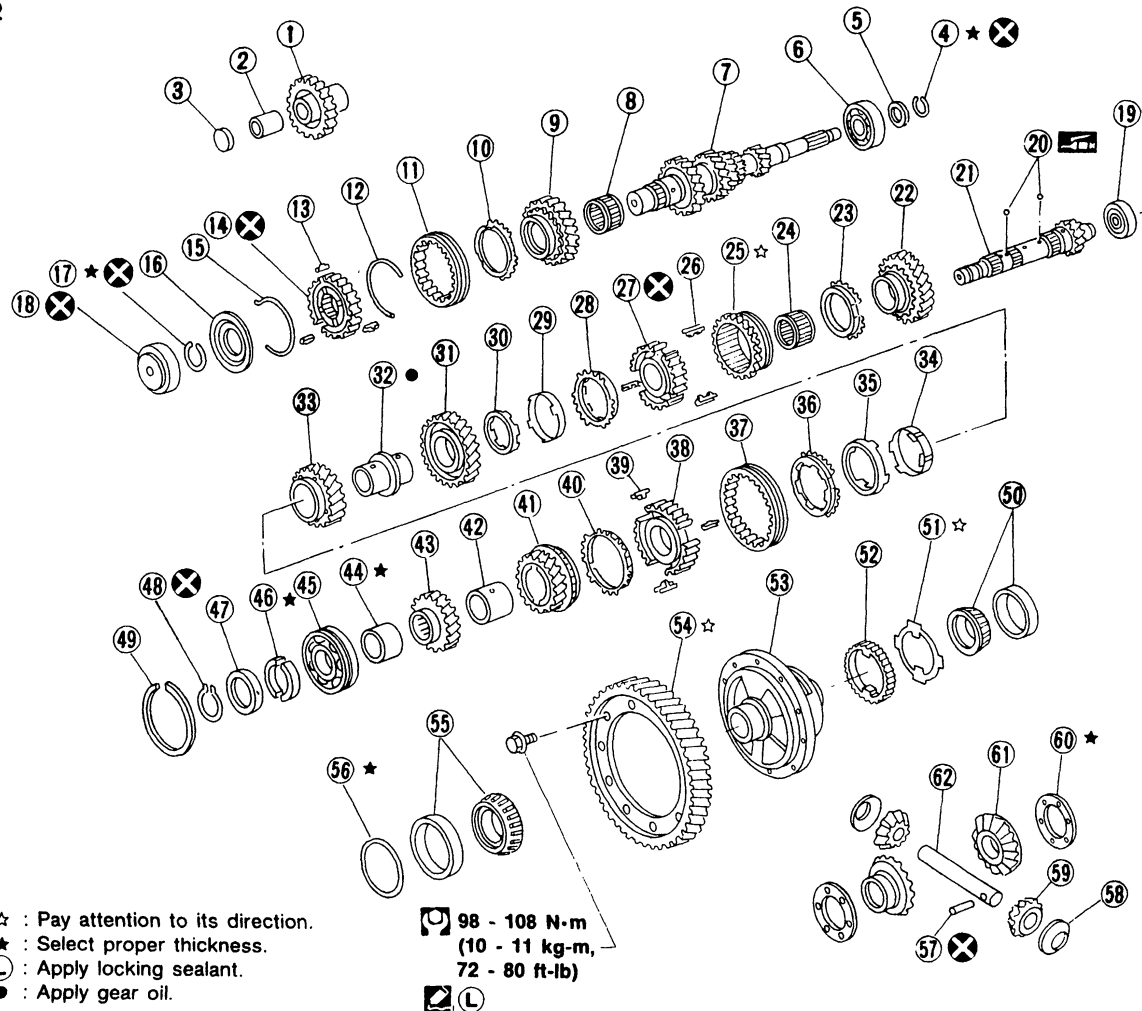


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Gear Components

SEC. 322



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|-----------------------------|--|---|
| ① Reverse idler gear | ②② 1st main gear | ④③ 5th main gear |
| ② Reverse idler bushing | ②③ Baulk ring | ④④ Spacer |
| ③ Reverse idler spacer | ②④ 1st gear needle bearing | ④⑤ Mainshaft rear bearing |
| ④ Snap ring | ②⑤ Reverse main gear (Coupling sleeve) | ④⑥ Mainshaft C-ring |
| ⑤ Spacer | ②⑥ Insert spring | ④⑦ C-ring holder |
| ⑥ Input shaft front bearing | ②⑦ 1st & 2nd synchronizer hub | ④⑧ Snap ring |
| ⑦ Input shaft | ②⑧ 2nd outer baulk ring | ④⑨ Snap ring |
| ⑧ 5th gear needle bearing | ②⑨ 2nd synchronizer cone | ⑤① Differential side bearing |
| ⑨ 5th input gear | ③① 2nd inner baulk ring | ⑤② Speedometer stopper |
| ⑩ Baulk ring | ③② 2nd main gear | ⑤③ Speedometer drive gear |
| ⑪ Coupling sleeve | ③③ 2nd & 3rd bushing | ⑤④ Differential case |
| ⑫ Spread spring | ③④ 3rd main gear | ⑤⑤ Final gear |
| ⑬ Shifting insert | ③⑤ 3rd inner baulk ring | ⑤⑥ Differential side bearing |
| ⑭ 5th gear synchronizer hub | ③⑥ 3rd synchronizer cone | ⑤⑦ Differential side bearing adjusting shim |
| ⑮ Spread spring | ③⑦ 3rd outer baulk ring | ⑤⑧ Retaining pin |
| ⑯ 5th stopper | ③⑧ Coupling sleeve | ⑤⑨ Pinion mate thrust washer |
| ⑰ Snap ring | ③⑨ 3rd & 4th synchronizer hub | ⑤⑩ Pinion mate gear |
| ⑱ Input shaft bearing | ④① Insert spring | ⑥① Thrust washer |
| ⑲ Mainshaft front bearing | ④② Baulk ring | ⑥② Side gear |
| ⑳ Steel ball | ④③ 4th main gear | ⑥③ Pinion mate shaft |
| ㉑ Mainshaft | ④④ 4th bushing | |

SERVICE DATA AND SPECIFICATIONS (SDS)

General Specifications

TRANSAXLE

Applied model			Europe							
			GA14DE		GA16DE		SR20DE	CD20E		
			With catalyzer							
Transaxle model			RS5F30A		RS5F31A		RS5F32A		RS5F31A	
Number of speeds			5							
Synchromesh type			Warner							
Shift pattern			135 H N H 24R							
Gear ratio	1st		3.333		3.063		3.063		3.333	
	2nd		1.955		1.826		1.826		1.955	
	3rd		1.286		1.286		1.286		1.286	
	4th		0.902		0.975		0.975		0.902	
	5th		0.733		0.810		0.756		0.756	
	Reverse		3.417		3.417		3.153		3.417	
Number of teeth	Input gear	1st	15		16		16		15	
		2nd	22		23		23		22	
		3rd	28		28		28		28	
		4th	41		40		40		41	
		5th	45		42		45		45	
		Rev.	12		12		13		12	
	Main gear	1st	50		49		49		50	
		2nd	43		42		42		43	
		3rd	36		36		36		36	
		4th	37		39		39		37	
		5th	33		34		34		34	
		Rev.	41		41		41		41	
	Reverse idler gear		30				31		30	
	Oil level mm (in)			58 - 66 (2.28 - 2.60)		57 - 66 (2.24 - 2.60)		40 - 45 (1.57 - 1.77)		54 - 61 (2.13 - 2.40)
Oil capacity (Reference) ℓ (Imp pt)			2.8 - 3.0 (4-7/8 - 5-1/4)		2.9 - 3.2 (5-1/8 - 5-5/8)		3.6 - 3.8 (6-3/8 - 6-3/4)		2.9 - 3.2 (5-1/8 - 5-5/8)	
Remarks			—		—		2nd and 3rd double baulk ring type syn-chronizer		—	

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FINAL GEAR

Engine		GA14DE	GA16DE	SR20DE	CD20E
Final gear ratio		4.167	4.167	4.176	3.650
Number of teeth	Final gear/Pinion	75/18	75/18	71/17	73/20
	Side gear/Pinion mate gear	14/10	16/10	14/10	16/10

SERVICE DATA AND SPECIFICATIONS (SDS)

Inspection and Adjustment — RS5F30A & RS5F31A

AVAILABLE SHIMS

— MAINSHAFT AND DIFFERENTIAL SIDE BEARING PRELOAD AND ADJUSTING SHIM

Bearing preload (Reused bearing)

Unit: mm (in)

	Mainshaft bearing	Differential side bearing
RS5F30A	0.18 - 0.23 (0.0071 - 0.0091)	0.24 - 0.32 (0.0094 - 0.0126)
RS5F31A	0.18 - 0.27 (0.0071 - 0.0106)	0.24 - 0.32 (0.0094 - 0.0126)