

1. Automatic Transmission and Differential

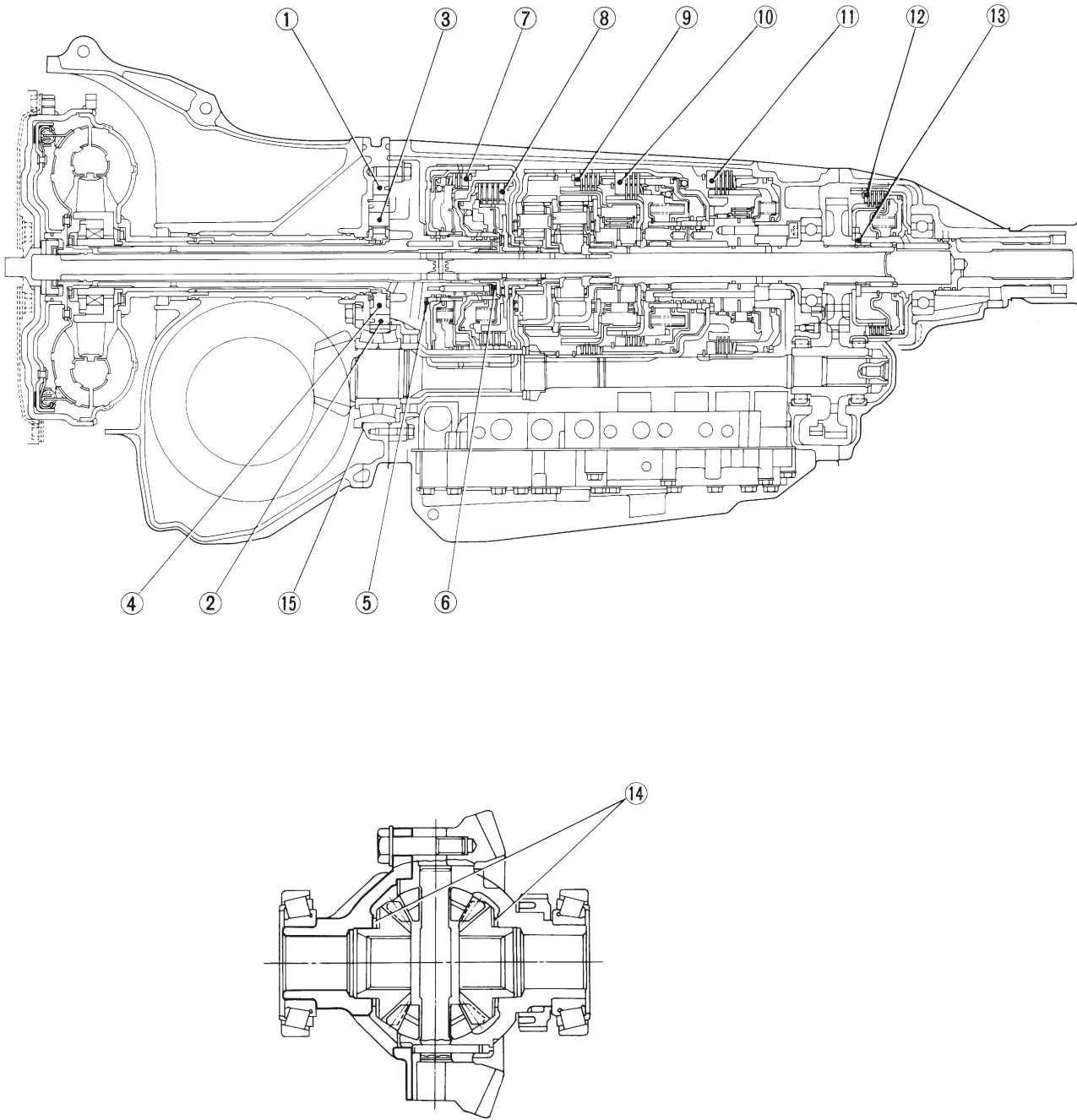
A: SPECIFICATIONS

Torque converter clutch	Type		Symmetric, 3 element, single stage, 2 phase torque converter clutch coupling			
	Stall torque ratio		2.1 — 2.3			
	Nominal diameter		236 mm (9.29 in)			
	Stall speed (at sea level)		2,300 — 2,700 rpm			
	One-way clutch		Sprague type one-way clutch			
Automatic transmission	Transmission	Type		4-forward, 1-reverse, double-row planetary gears		
		Control element	Multi-plate clutch		4 sets	
			Multi-plate brake		1 set	
			Band brake		1 set	
			One-way clutch (sprague type)		2 sets	
		Gear ratio	1st		2.785	
			2nd		1.545	
			3rd		1.000	
			4th		0.694	
			Reverse		2.272	
		Tooth number of planetary gear	Front sun gear		33	
			Front pinion		21	
			Front internal gear		75	
			Rear sun gear		42	
			Rear pinion		17	
		Selector position	Rear internal gear		75	
			P (Park)		Transmission in neutral, output member immovable, and engine start possible	
			R (Reverse)		Transmission in reverse for backing	
			N (Neutral)		Transmission in neutral, and engine start possible	
			D (Drive)		Automatic gear change 1st ⇌ 2nd ⇌ 3rd ⇌ 4th	
			3 (3rd)		Automatic gear change 1st ⇌ 2nd ⇌ 3rd ← 4th	
2 (2nd)			2nd gear locked (Deceleration possible 4th → 3rd → 2nd)			
1 (1st)		1st gear locked (Deceleration possible 4th → 3rd → 2nd → 1st)				
Control method		Hydraulic remote control				

Automatic transmission	Oil pump	Type		Variable-capacity type vane pump	
		Driving method		Driven by engine	
		Number of vanes		9 pieces	
	Hydraulic control	Type		Electronic/hydraulic control [Four forward speed changes by electrical signals of car speed and accelerator (throttle) opening]	
		Fluid		Dexron II type Automatic transmission fluid	
		Fluid capacity		7.9 ℓ (8.4 US qt, 7.0 Imp qt)	
	Lubrication	Lubrication system		Forced feed lubrication with oil pump	
		Oil		Automatic transmission fluid (above mentioned.)	
	Cooling	Cooling system		Liquid-cooled cooler incorporated in radiator	
	Harness	Inhibitor switch		12 poles	
		Transmission harness		poles	FWD ... 11 AWD ... 13
	Transfer	Transfer clutch		Hydraulic multi-plate clutch	
		Control method		Electronic, hydraulic type	
		Lubricant		The same Automatic Transmission Fluid used in automatic transmission.	
1st reduction gear ratio		1.000 (53/53)			
Final reduction	Final gear ratio	Front drive	FWD	3.900 (39/10)	
			AWD	4.111 (37/9)	
	Speedometer gear ratio			0.83 (19/23)	
	Lubrication oil			API, GL-5	
	Oil capacity	Front drive		1.2 ℓ (1.3 US qt, 1.1 Imp qt)	
ATF cooling system	Radiation capacity		1.651 kW (1,420 kcal/h, 5,635 BTU/h)		

B: ADJUSTING PARTS

AWD



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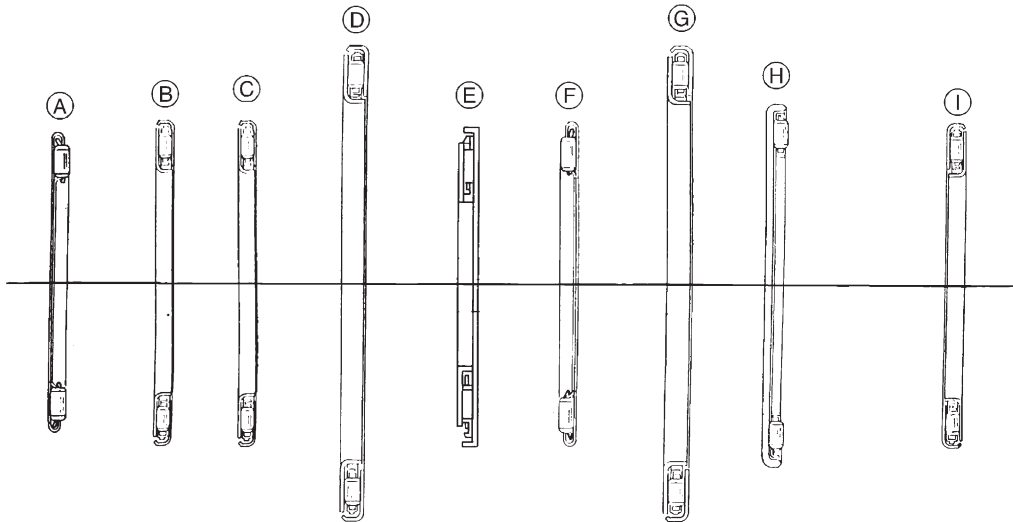
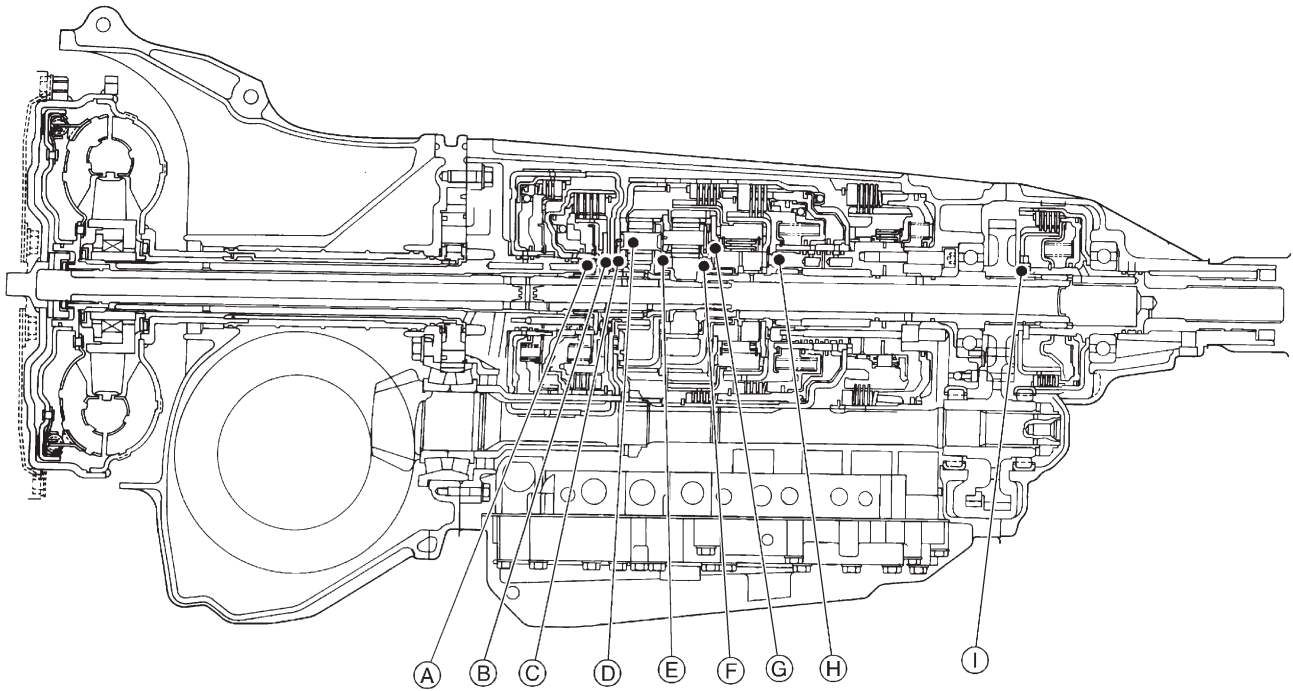
SPECIFICATIONS AND SERVICE DATA

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1. Automatic Transmission and Differential

No.	Part Name	Part Number	Dimension mm (in)	Application
1	Control piston	31235AA000 — 030	13.5 ^{-0.030} _{-0.037} (0.5315 ^{-0.0012} _{-0.0015}), 13.5 ^{-0.023} _{-0.030} (0.5315 ^{-0.0009} _{-0.0012}), 13.5 ^{-0.016} _{-0.023} (0.5315 ^{-0.0006} _{-0.0009}), 13.5 ^{-0.009} _{-0.016} (0.5315 ^{-0.0004} _{-0.0006})	Adjusting side clearance of oil pump
2	Cam ring	31241AA001 — 031	17 ^{-0.010} _{-0.017} (0.6693 ^{-0.0004} _{-0.0007}), 17 ^{-0.003} _{-0.010} (0.6693 ^{-0.0001} _{-0.0004}), 17 ^{+0.004} _{-0.003} (0.6693 ^{+0.0002} _{-0.0001}), 17 ^{+0.011} _{+0.004} (0.6693 ^{+0.0004} _{+0.0002})	Adjusting side clearance of oil pump
3	Vane (Oil pump)	31243AA000 — 030	17 ^{-0.030} _{-0.037} (0.6693 ^{-0.0012} _{-0.0015}), 17 ^{-0.023} _{-0.030} (0.6693 ^{-0.0009} _{-0.0012}), 17 ^{-0.016} _{-0.023} (0.6693 ^{-0.0006} _{-0.0009}), 17 ^{+0.009} _{+0.016} (0.6693 ^{+0.0006} _{+0.0006})	Adjusting side clearance of oil pump
4	Rotor (Oil pump)	31240AA000 — 030	17 ^{-0.030} _{-0.037} (0.6693 ^{-0.0012} _{-0.0015}), 17 ^{-0.023} _{-0.030} (0.6693 ^{-0.0009} _{-0.0012}), 17 ^{-0.016} _{-0.023} (0.6693 ^{-0.0006} _{-0.0009}), 17 ^{+0.009} _{+0.016} (0.6693 ^{+0.0004} _{+0.0006})	Adjusting side clearance of oil pump
5	Thrust washer (Reverse clutch)	31299AA000 — 060	0.7, 0.9, 1.1, 1.3, 1.5, 1.7, 1.9 (0.028, 0.035, 0.043, 0.051, 0.059, 0.067, 0.075)	Adjusting end play of reverse clutch drum
6	Bearing race	803031021 — 027	0.8, 1.0, 1.2, 1.4, 1.6, 1.8, 2.0 (0.031, 0.039, 0.047, 0.055, 0.063, 0.071, 0.079)	Adjusting total end play
7	Retaining plate	31567AA350 — 400	4.6, 4.8, 5.0, 5.2, 5.4, 5.6 (0.181, 0.189, 0.197, 0.205, 0.213, 0.220)	Adjusting clearance of reverse clutch
8	Retaining plate	31567AA190 — 260	3.6, 3.8, 4.0, 4.2, 4.4, 4.6, 4.8, 5.0 (0.142, 0.150, 0.157, 0.165, 0.173, 0.181, 0.189, 0.197)	Adjusting clearance of high clutch
9	Retaining plate	31567AA010, 31567AA060 — 110	4.0, 4.2, 4.4, 4.6, 4.8, 5.0, 5.2 (0.157, 0.165, 0.173, 0.181, 0.189, 0.197, 0.205)	Adjusting clearance of forward clutch
10	Retaining plate	31567AA410 — 470	8.0, 8.2, 8.4, 8.6, 8.8, 9.0, 9.2 (0.315, 0.323, 0.331, 0.339, 0.346, 0.354, 0.362)	Adjusting clearance of overrunning clutch
11	Retaining plate No. 2	31667AA180 — 250	6.5, 6.8, 7.1, 7.4, 7.7, 8.0, 8.2, 8.4 (0.256, 0.268, 0.280, 0.291, 0.303, 0.315, 0.323, 0.331)	Adjusting clearance of low and reverse brake
12	Pressure plate (Front)	31593AA151 — 181	3.3, 3.7, 4.1, 4.5 (0.130, 0.146, 0.161, 0.177)	Adjusting clearance of transfer clutch
13	Thrust bearing (35 x 53 x T)	806536020, 806535030 — 070, 090	3.8, 4.0, 4.2, 4.4, 4.6, 4.8, 5.0 (0.150, 0.157, 0.165, 0.173, 0.181, 0.189, 0.197)	Adjusting end play of transfer clutch
14	Washer (38.1 x 50 x T)	803038021 — 023	0.95, 1.00, 1.05 (0.0374, 0.0394, 0.0413)	Adjusting backlash of differential bevel gear
15	Drive pinion shim	31451AA050 — 100	0.150, 0.175, 0.200, 0.225, 0.250, 0.275 (0.0059, 0.0069, 0.0079, 0.0089, 0.0098, 0.0108)	Adjusting drive pinion height

C: LOCATION AND INSTALLING DIRECTION OF THRUST NEEDLE BEARING



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SPECIFICATIONS AND SERVICE DATA

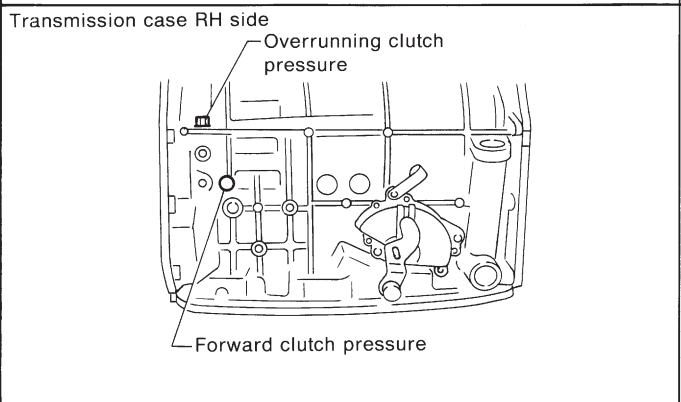
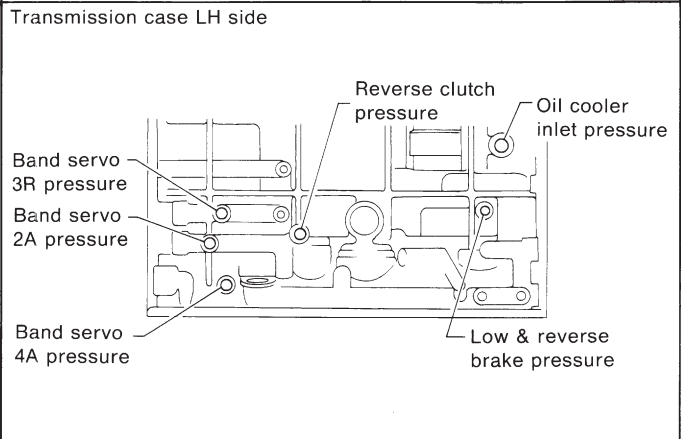
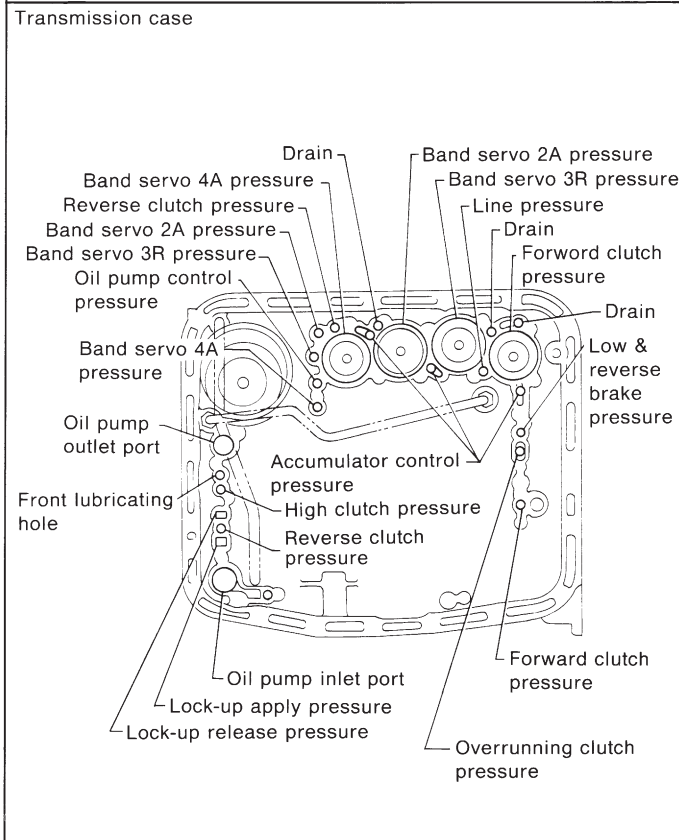
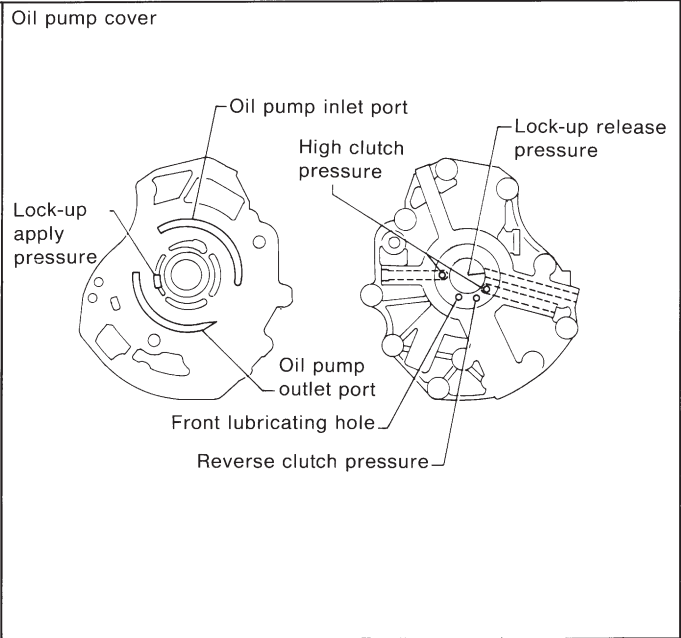
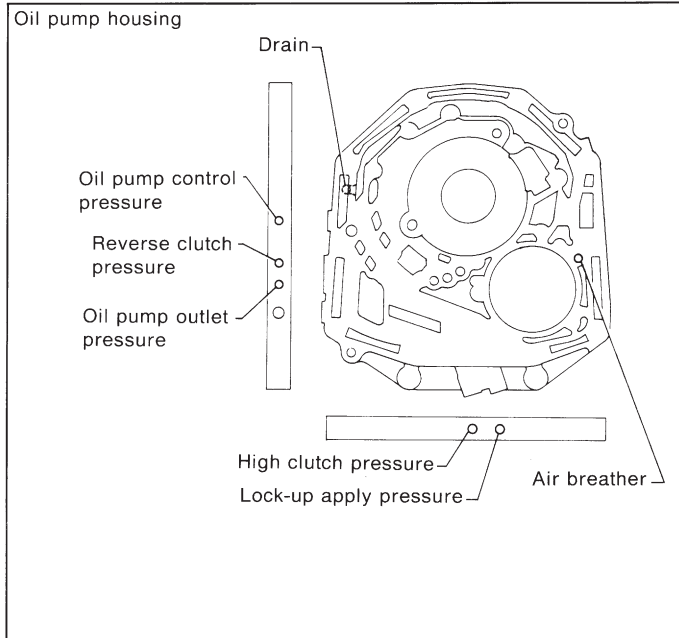
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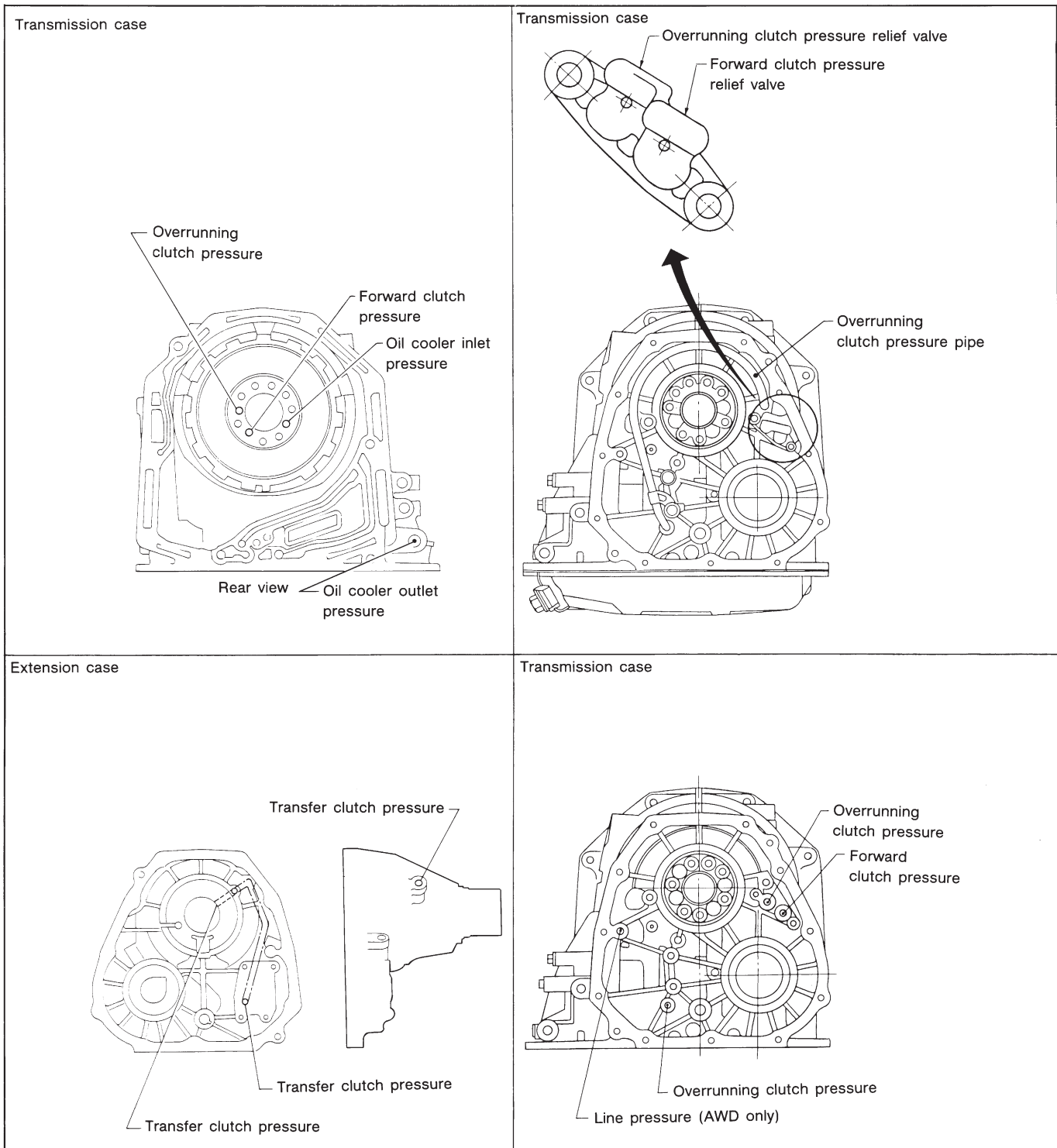
Unit: mm (in)

No.	Part Name	Part Number	Inside diameter	Outside diameter	Dimension	Application
A	Thrust needle bearing	806530020	30 (1.18)	47 (1.85)	3.3 (0.130)	A place of high clutch
B	Thrust needle bearing	806537010	38 (1.50)	53 (2.09)	3.2 (0.126)	A place of high clutch hub
C	Thrust needle bearing	806537010	38 (1.50)	53 (2.09)	3.2 (0.126)	A place of front sun gear
D	Thrust needle bearing	806558020	58 (2.28)	78 (3.07)	4.0 (0.157)	A place of front planetary carrier
E	Thrust needle bearing	806535120	35 (1.38)	53 (2.09)	4.8 (0.189)	A place of rear sun gear
F	Thrust needle bearing	806534010	34 (1.34)	53 (2.09)	3.37 (0.1327)	A place of rear internal gear
G	Thrust needle bearing	806558020	58 (2.28)	78 (3.07)	4.0 (0.157)	A place of overrunning clutch hub
H	Thrust needle bearing	806542010	42 (1.65)	59 (2.32)	3.6 (0.142)	A place of low & reverse brake
I	Thrust needle bearing	806536020 806535030 806535070 806535090	36 (1.42)	53 (2.09)	3.8, 4.0, 4.2, 4.4, 4.6, 4.8, 5.0 (0.150, 0.157, 0.165, 0.173, 0.181, 0.189, 0.197)	Adjusting end play of transfer clutch

D: FLUID PASSAGES



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