

1. Automatic Transmission and Differential

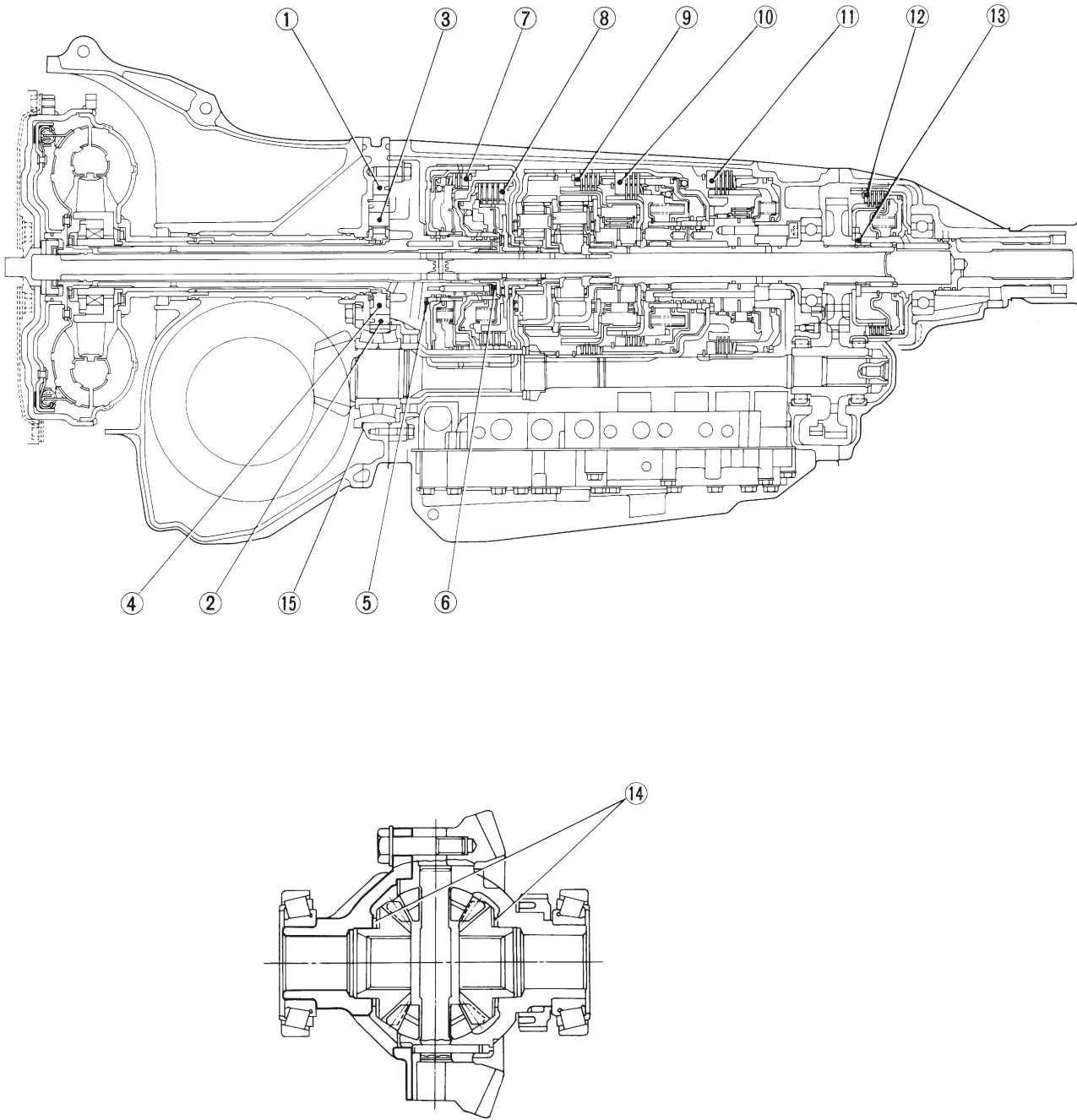
A: SPECIFICATIONS

Torque converter clutch	Type		Symmetric, 3 element, single stage, 2 phase torque converter clutch coupling				
	Stall torque ratio	2200 cc	2.1 — 2.3				
		2500 cc	1.8 — 2.0				
		OUTBACK	2.2 — 2.4				
	Nominal diameter	2200 cc	236 mm (9.29 in)				
		2500 cc	246 mm (9.69 in)				
	Stall speed (at sea level)	2200 cc	2,200 — 2,600 rpm				
		2500 cc	2,200 — 2,600 rpm				
OUTBACK		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	2200 cc	2.785		
				2500 cc	3.027		
			2nd	2200 cc	1.545		
				2500 cc	1.619		
			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	2200 cc	42		
				2500 cc	37		
			Rear pinion	2200 cc	17		
				2500 cc	19		
		Rear internal gear		75			
		Clutch number of reverse clutch		Drive plate & driven plate		2	
		Clutch number of high clutch		Drive plate & driven plate		2200 cc ... 4 2500 cc ... 5	
		Clutch number of forward clutch		Drive plate & driven plate		5	
Clutch number of overrunning clutch		Drive plate & driven plate		3			
Clutch number of low & reverse brake		Drive plate & driven plate		Except OUTBACK ... 5 OUTBACK ... 6			
Selector position	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 or Dexron III type Automatic transmission fluid	
		Fluid capacity	2200 cc	7.9 ℓ (8.4 US qt, 7.0 Imp qt)	
	2500 cc		9.5 ℓ (10.0 US qt, 8.4 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		FWD ... 11 poles AWD ... 13 poles	
	Transfer	Transfer clutch		Hydraulic multi-plate clutch	
		Clutch number of transfer clutch		Drive plate & driven plate	5
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	2200 cc	4.111 (37/9)
		2500 cc		4.444 (40/9)	
	Speedometer gear ratio	2200 cc & LSi		0.83 (19/23)	
		GT		0.80 (20/25)	
		OUTBACK		0.76 (19/25)	
	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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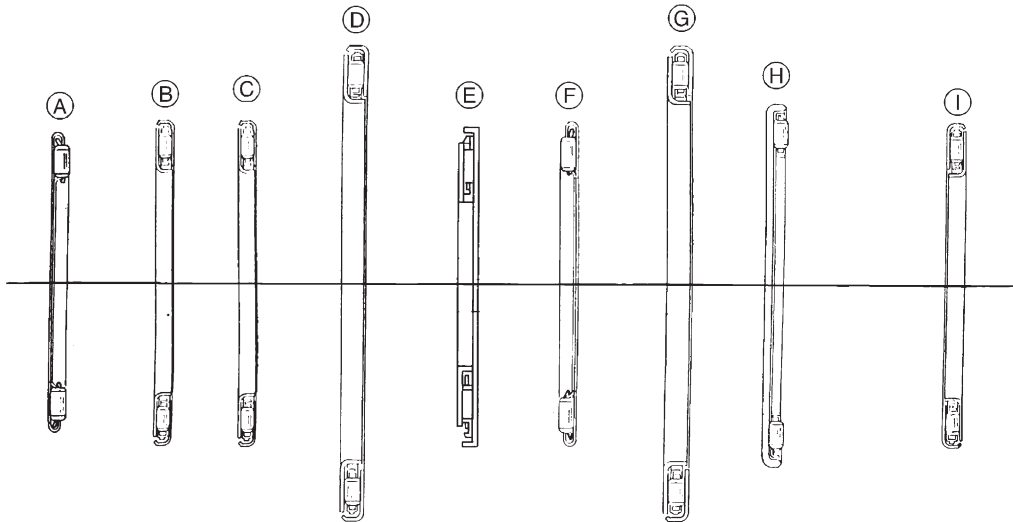
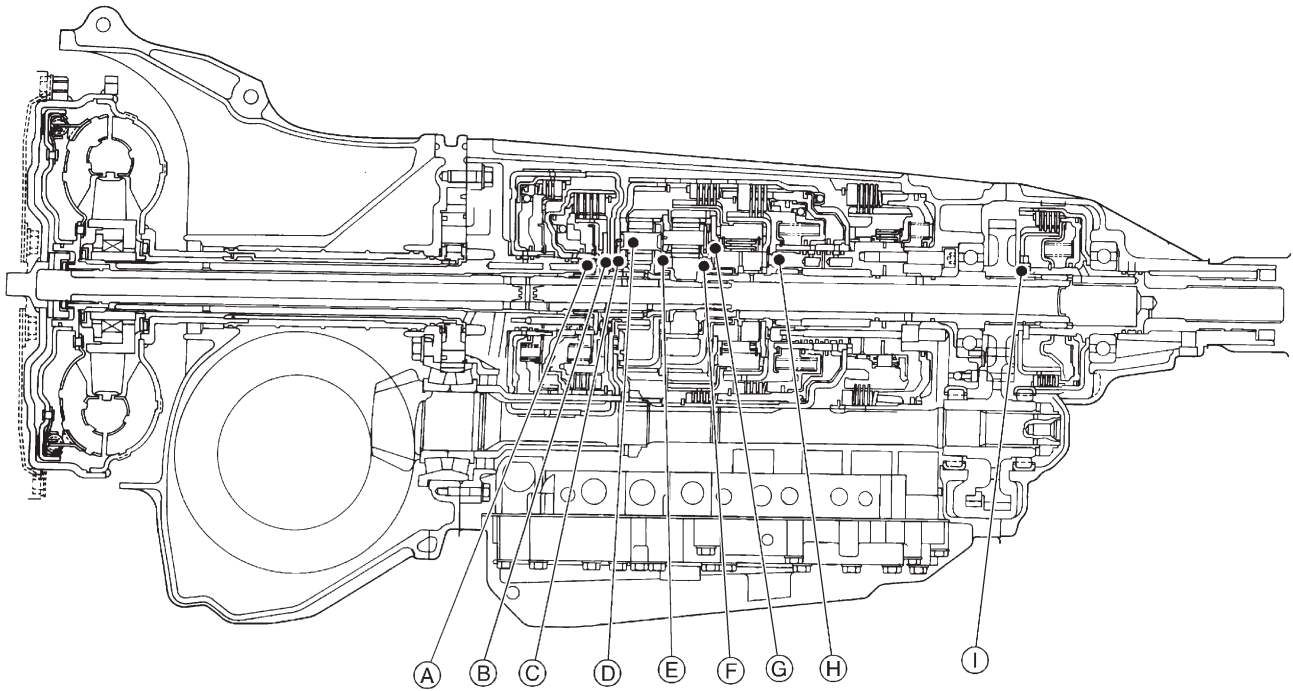
SPECIFICATIONS AND SERVICE DATA

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1. Automatic Transmission and Differential

No.	Part Name	Part Number	Dimension mm (in)	Application	
1	Control piston	2500 cc	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
		2200 cc	31235AA040 — 070		
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 ^{+0.0004} _{+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	31567AA340, 31567AA190 — 260	3.4, 3.6, 3.8, 4.0, 4.2, 4.4, 4.6, 4.8, 5.0 (0.134, 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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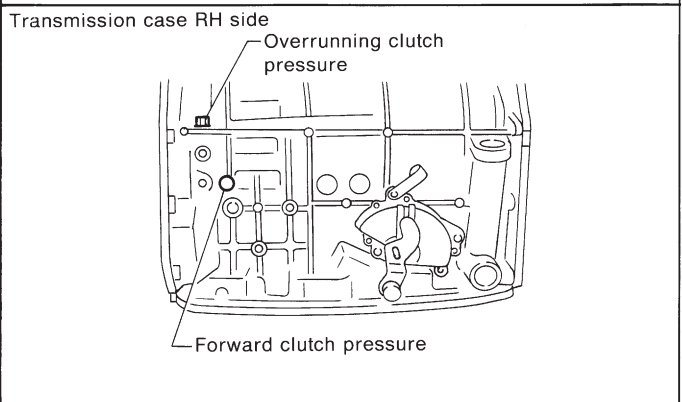
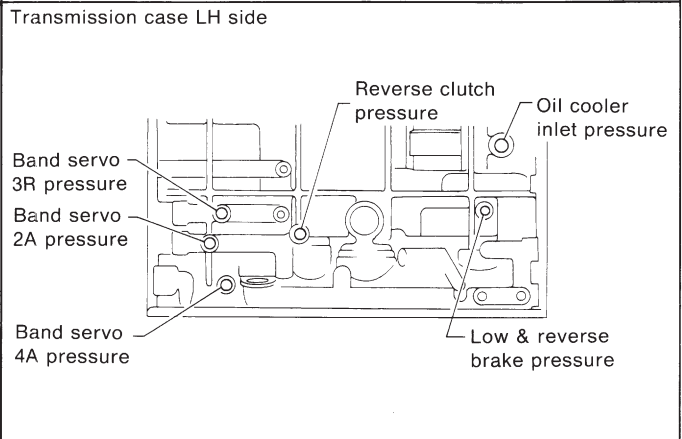
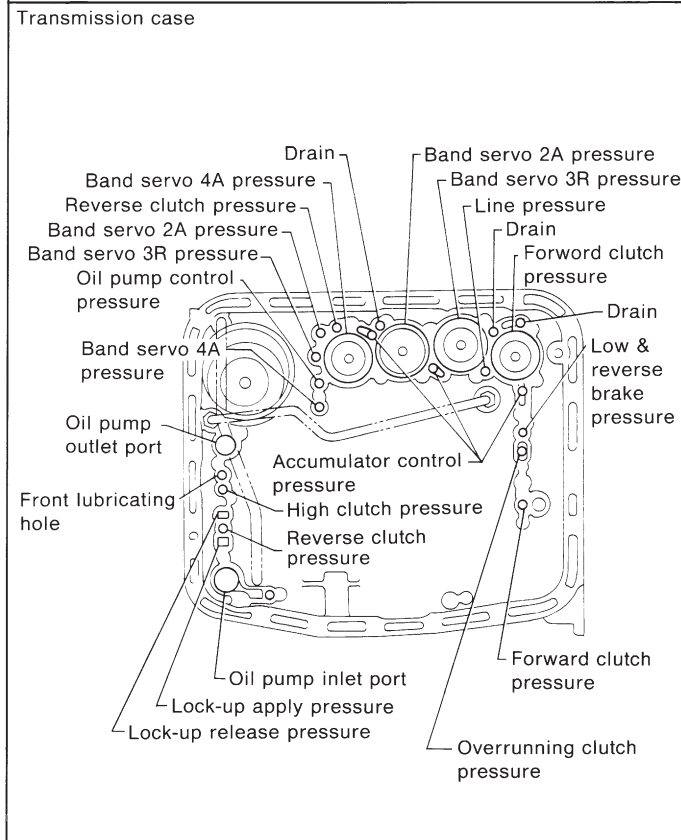
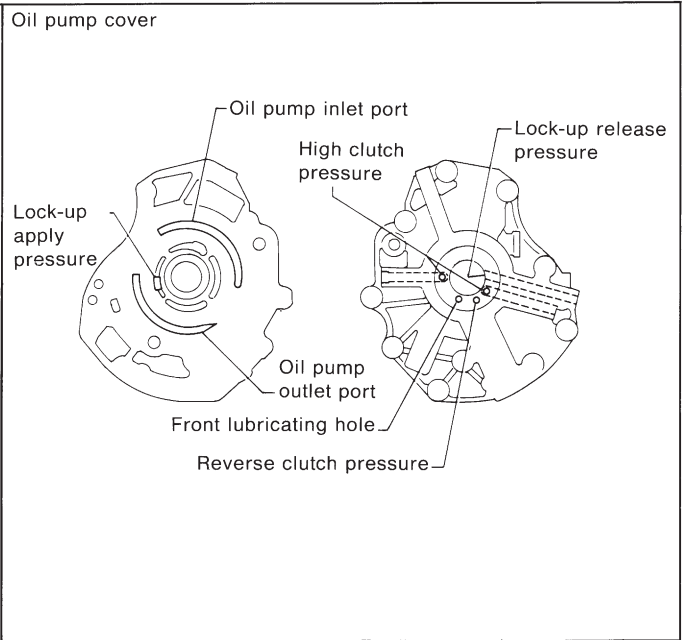
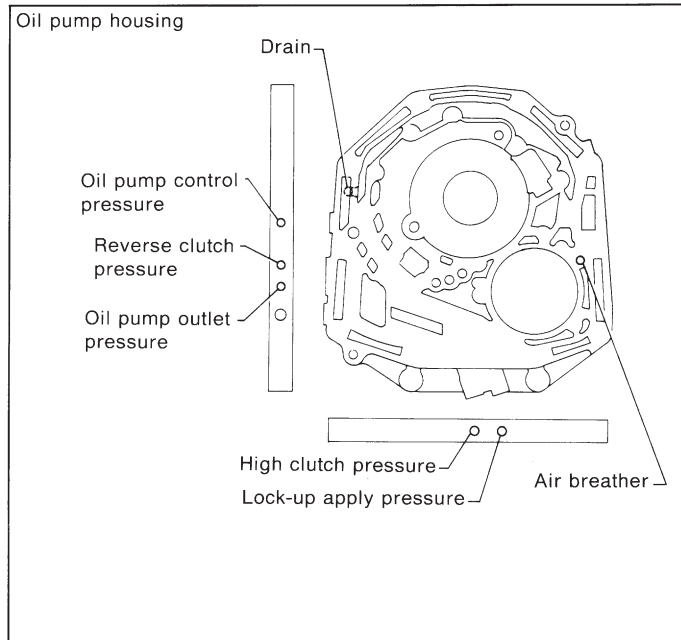
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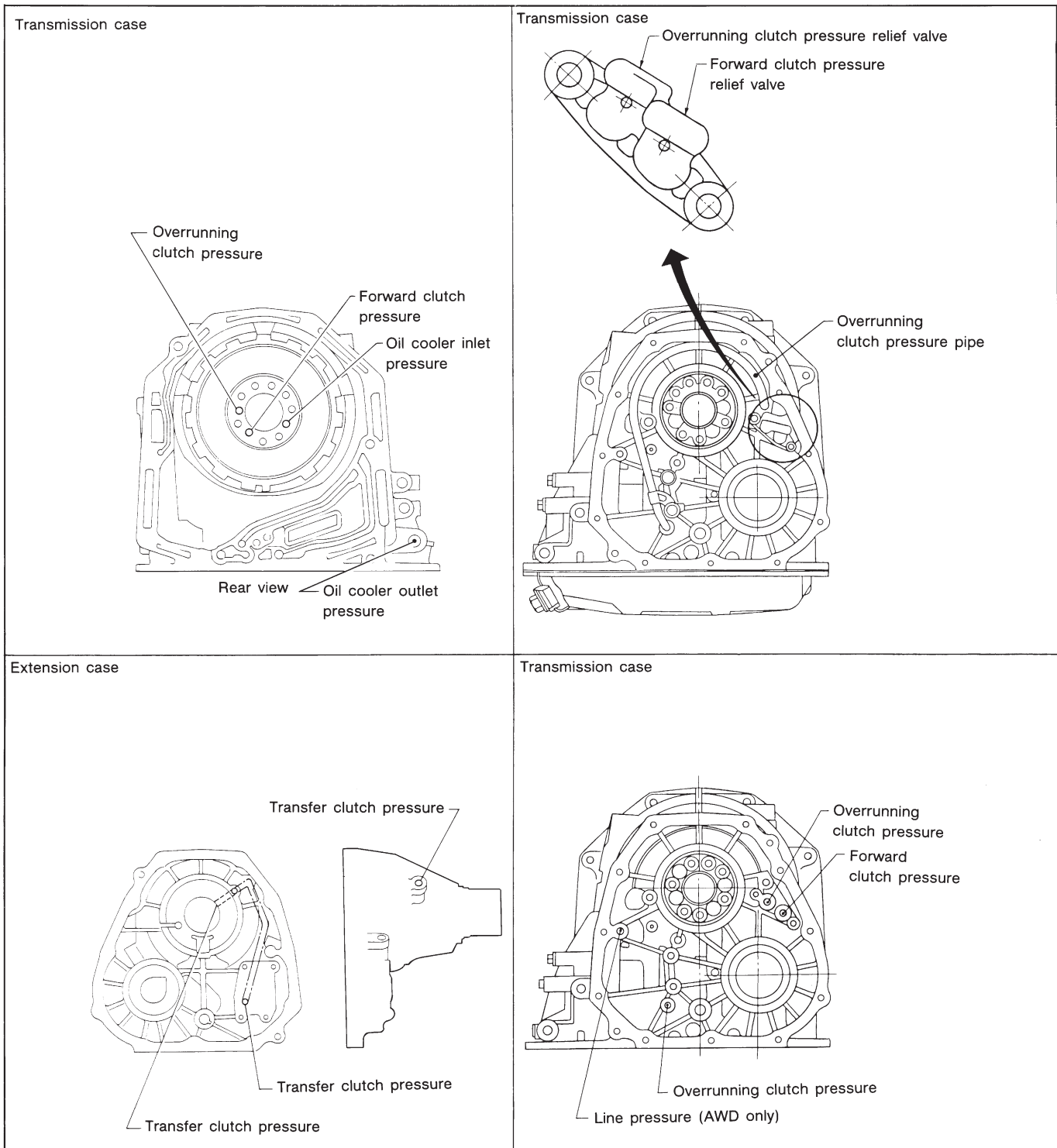
Unit: mm (in)

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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