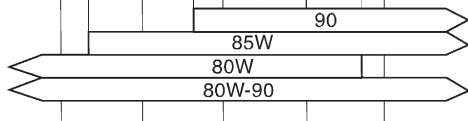


1. Automatic Transmission and Differential

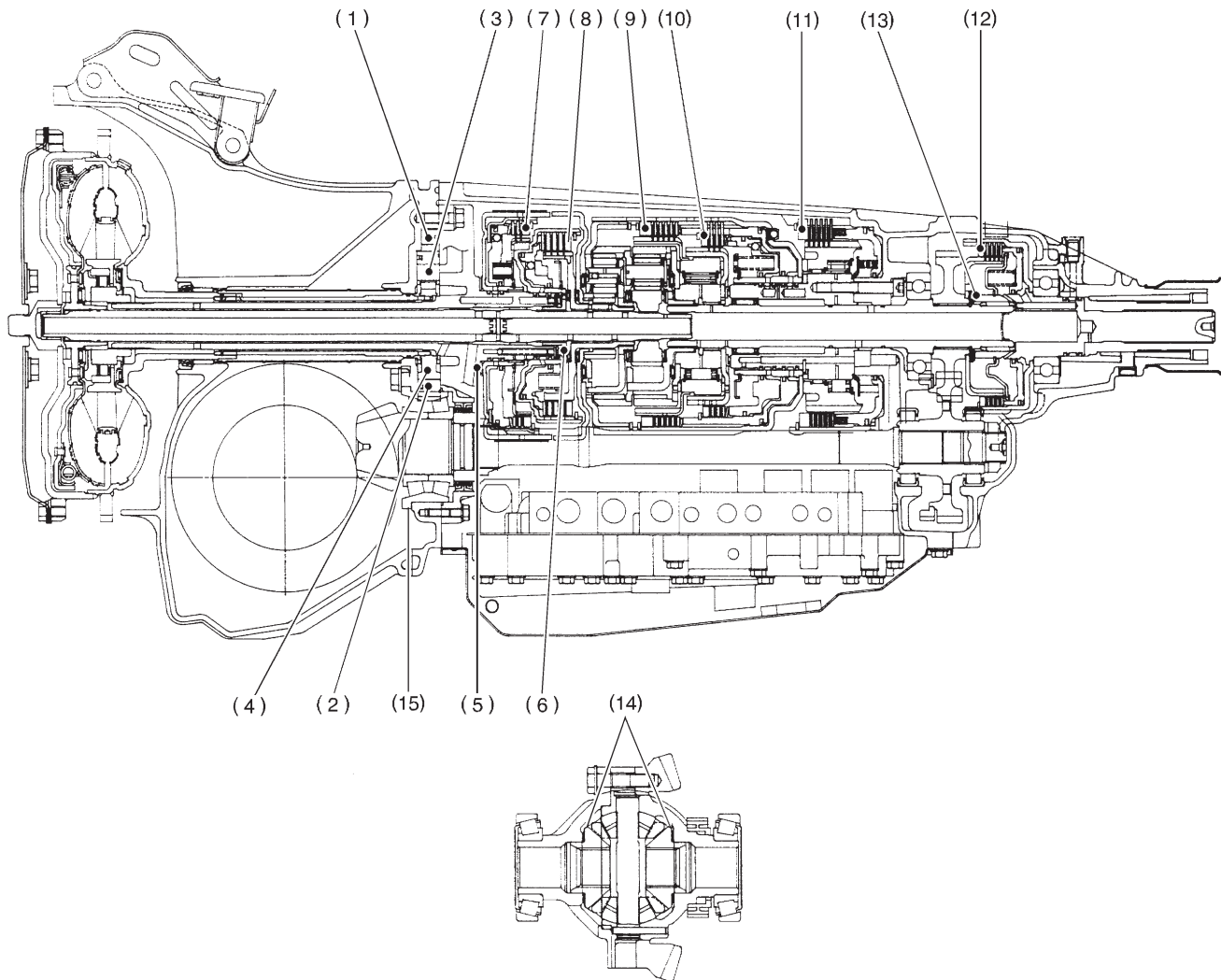
A: SPECIFICATIONS

Torque con- verter clutch	Type		Symmetric, 3 element, single stage, 2 phase torque converter clutch coupling		
	Stall torque ratio		2.1 — 2.3		
	Nominal diameter		246 mm (9.69 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	3.027	
			2nd	1.619	
			3rd	1.000	
			4th	0.694	
			Reverse	2.272	
		Tooth number of plan- etary gear	Front sun gear	33	
			Front pinion	21	
			Front internal gear	75	
			Rear sun gear	37	
			Rear pinion	19	
			Rear internal gear	75	
		Clutch number of reverse clutch	Drive plate & driven plate	2	
		Clutch number of high clutch	Drive plate & driven plate	5	
		Clutch number of for- ward clutch	Drive plate & driven plate	5	
		Clutch number of over- running clutch	Drive plate & driven plate	3	
		Clutch number of low & reverse brake	Drive plate & driven plate	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 $\leftarrow/\rightarrow$ 2nd $\leftarrow/\rightarrow$ 3rd $\leftarrow/\rightarrow$ 4th	
			3 (3rd)	Automatic gear change 1st $\leftarrow/\rightarrow$ 2nd $\leftarrow/\rightarrow$ 3rd $\leftarrow$ 4th	
			2 (2nd)	2nd gear locked (Deceleration possible 4th $\rightarrow$ 3rd $\rightarrow$ 2nd)	
			1 (1st)	1st gear locked (Deceleration possible 4th $\rightarrow$ 3rd $\rightarrow$ 2nd $\rightarrow$ 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	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	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.																			
Final reduction	Final gear ratio	1st reduction gear ratio	1.000 (53/53)																			
		Front drive	4.444 (40/9)																			
	Speedometer gear ratio		0.76 (19/25)																			
	Recommended oil		ITEM • Front differential gear oil API Classification GL - 5 SAE Viscosity No. and Applicable Temperature <table><tr><td>(°C)</td><td>-30</td><td>-26</td><td>-15</td><td>-5</td><td>0</td><td>15</td><td>25</td><td>30</td></tr><tr><td>(°F)</td><td>-22</td><td>-15</td><td>5</td><td>23</td><td>32</td><td>59</td><td>77</td><td>86</td></tr></table>  H3M1235A		(°C)	-30	-26	-15	-5	0	15	25	30	(°F)	-22	-15	5	23	32	59	77	86
	(°C)	-30	-26	-15	-5	0	15	25	30													
	(°F)	-22	-15	5	23	32	59	77	86													
	Oil capacity	Front drive	1.2 ℓ (1.3 US qt, 1.1 Imp qt)																			
ATF cooling system	Radiation capacity	1.97 kW (1,700 kcal/h, 6,746 BTU/h)																				

B: SERVICE DATA

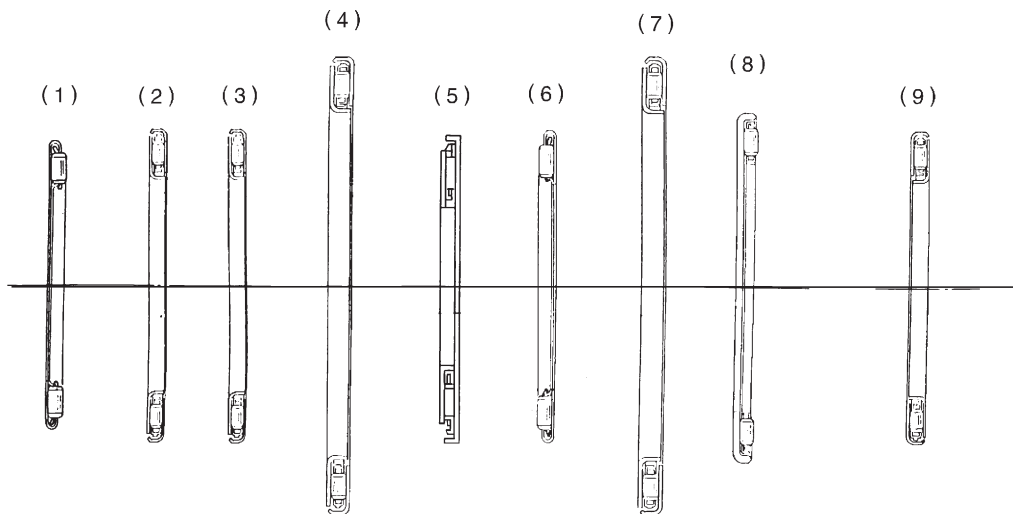
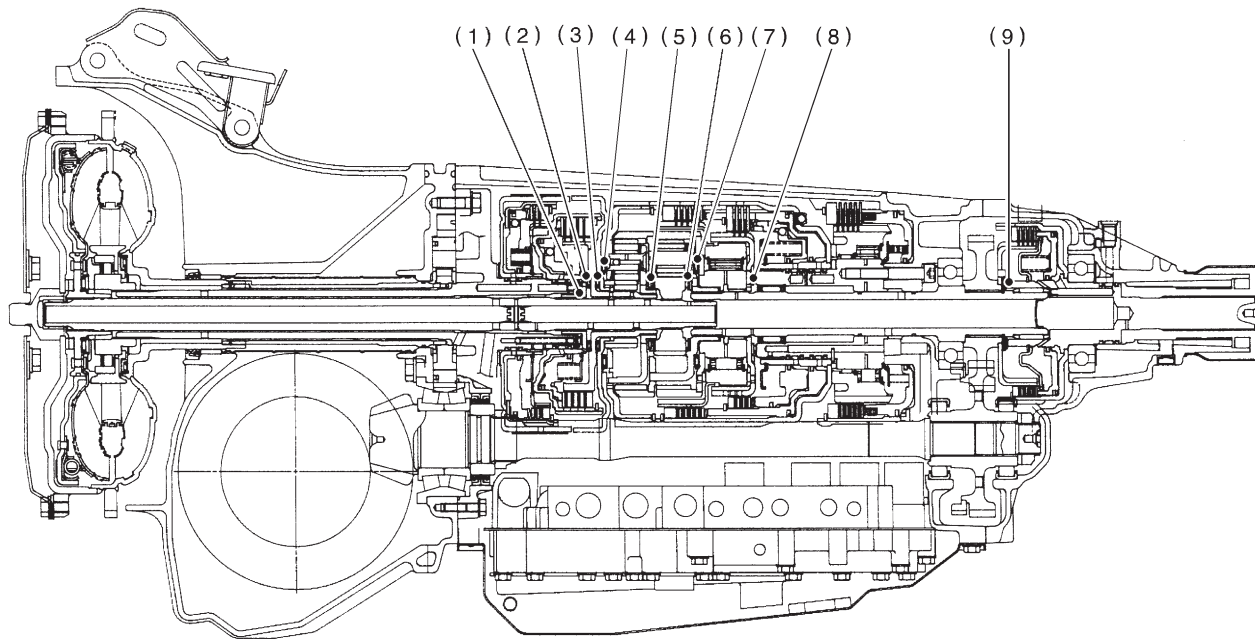
1. ADJUSTING PARTS



H3M1236B

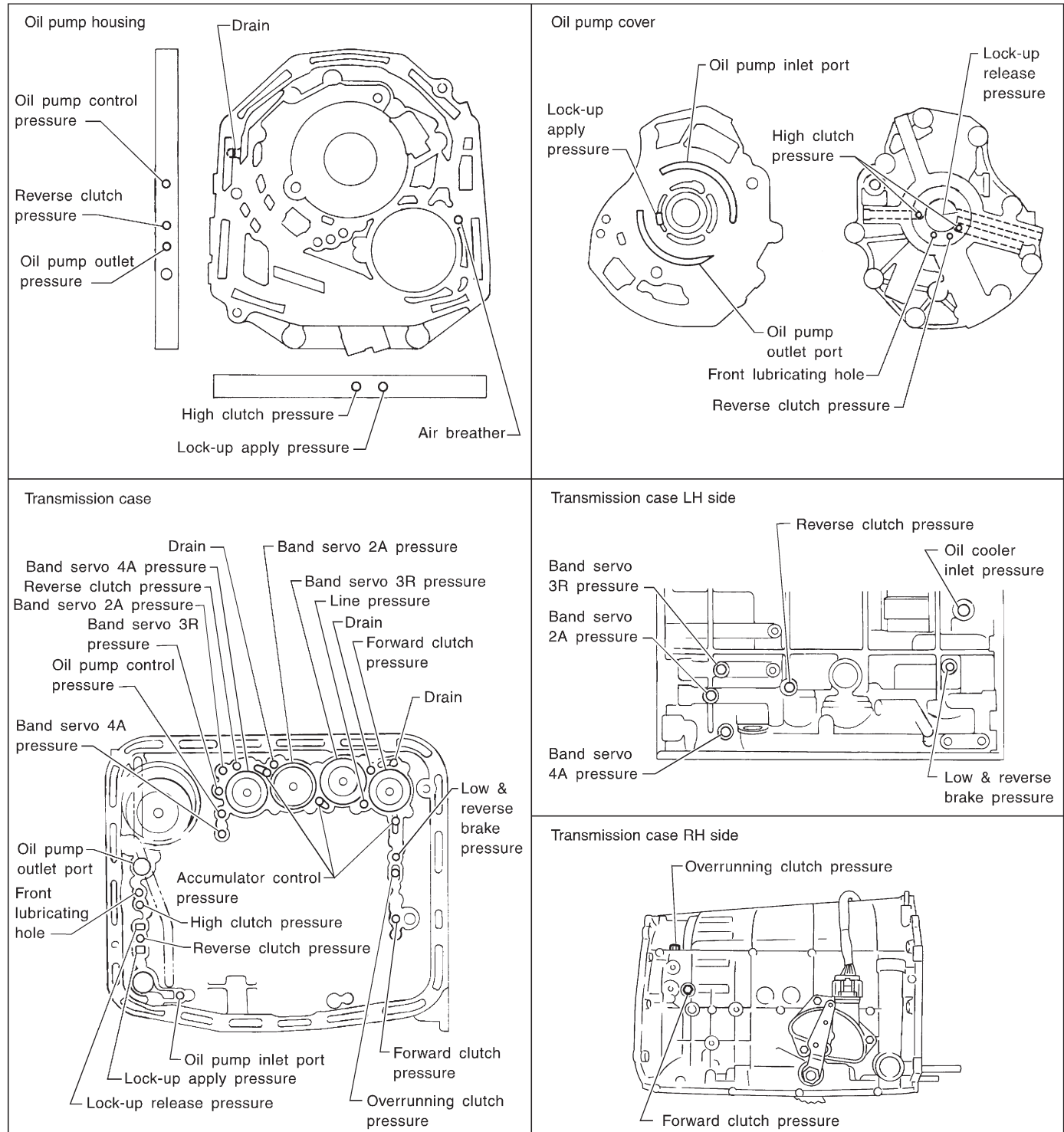
No.	Part Name	Part Number	Dimension mm (in)	Application
(1)	Control piston	31235AA000 — 030	$13.5^{+0.030}_{-0.037}$ ($0.5315^{+0.0012}_{-0.0015}$), $13.5^{+0.023}_{-0.030}$ ($0.5315^{+0.0009}_{-0.0012}$), $13.5^{+0.016}_{-0.023}$ ($0.5315^{+0.0006}_{-0.0009}$), $13.5^{+0.009}_{-0.016}$ ($0.5315^{+0.0004}_{-0.0006}$)	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	$17^{+0.030}_{-0.037}$ ($0.6693^{+0.0012}_{-0.0015}$), $17^{+0.023}_{-0.030}$ ($0.6693^{+0.0009}_{-0.0012}$), $17^{+0.016}_{-0.023}$ ($0.6693^{+0.0006}_{-0.0009}$), $17^{+0.009}_{+0.016}$ ($0.6693^{+0.0004}_{+0.0006}$)	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	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 31667AA310	6.5, 6.8, 7.1, 7.4, 7.7, 8.0, 8.2, 8.4, 8.6 (0.256, 0.268, 0.280, 0.291, 0.303, 0.315, 0.323, 0.331, 0.339)	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 × 53 × 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 × 50 × 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

2. LOCATION AND INSTALLING DIRECTION OF THRUST NEEDLE BEARING

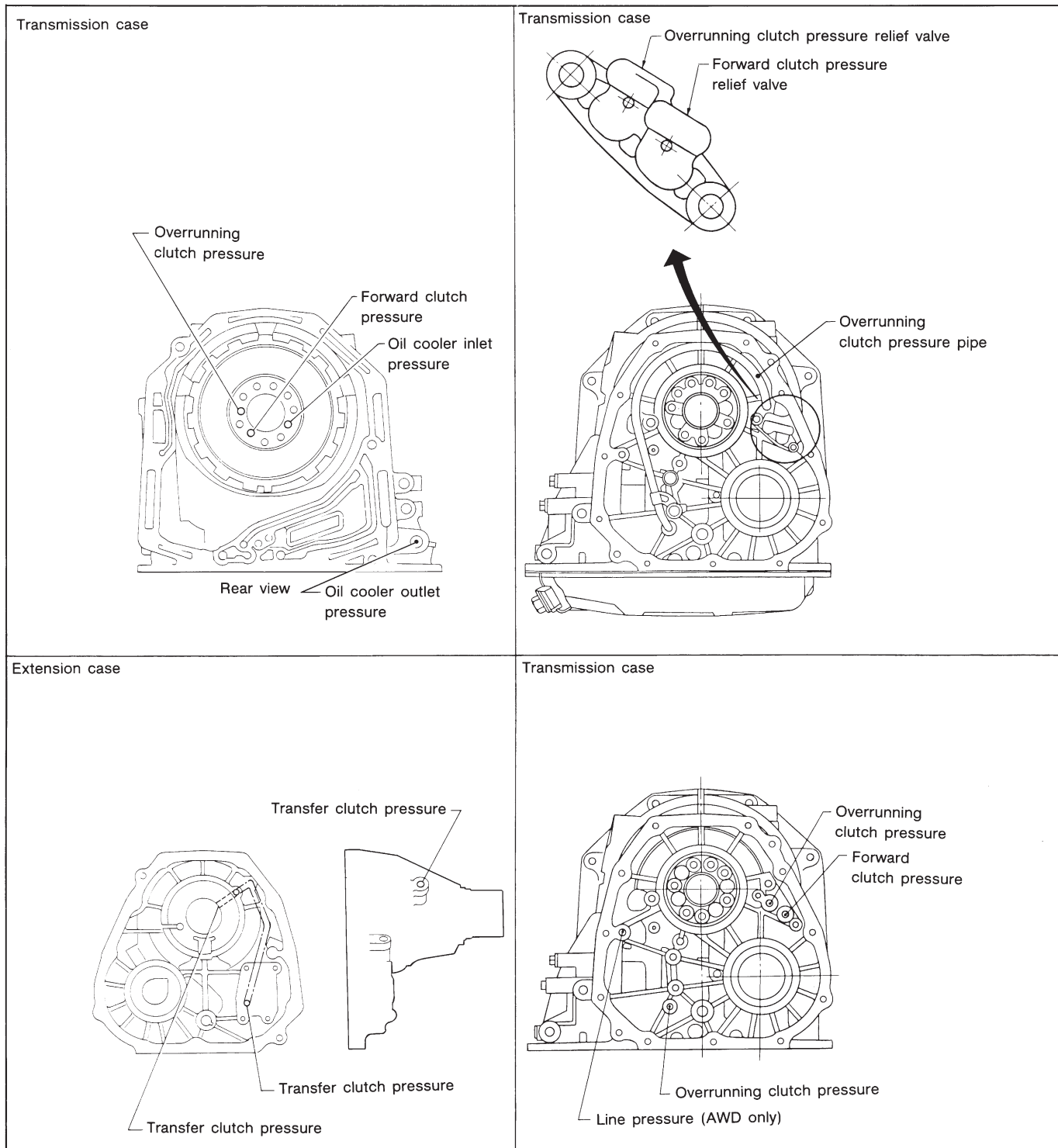


No.	Part Name	Part Number	Inside diameter mm (in)	Outside diameter mm (in)	Dimension mm (in)	Application
(1)	Thrust needle bearing	806530020	30 (1.18)	47 (1.85)	3.3 (0.130)	A place of high clutch
(2)	Thrust needle bearing	806537010	38 (1.50)	53 (2.09)	3.2 (0.126)	A place of high clutch hub
(3)	Thrust needle bearing	806537010	38 (1.50)	53 (2.09)	3.2 (0.126)	A place of front sun gear
(4)	Thrust needle bearing	806558020	58 (2.28)	78 (3.07)	4.0 (0.157)	A place of front planetary carrier
(5)	Thrust needle bearing	806535120	35 (1.38)	53 (2.09)	4.8 (0.189)	A place of rear sun gear
(6)	Thrust needle bearing	806534010	34 (1.34)	53 (2.09)	3.37 (0.1327)	A place of rear internal gear
(7)	Thrust needle bearing	806558020	58 (2.28)	78 (3.07)	4.0 (0.157)	A place of overrunning clutch hub
(8)	Thrust needle bearing	806542010	42 (1.65)	59 (2.32)	3.6 (0.142)	A place of low & reverse brake
(9)	Thrust needle bearing	806536020	36 (1.42)	53 (2.09)	3.8 (0.150)	Adjusting end play of transfer clutch
		806535030			4.0 (0.157)	
		806535040			4.2 (0.165)	
		806535050			4.4 (0.173)	
		806535060			4.6 (0.181)	
		806535070			4.8 (0.189)	
		806535090			5.0 (0.197)	

3. FLUID PASSAGES



H3M1238A



G3M0777