

TRANSMISSION/TRANSAXLE TECHNICAL DATA

B3E055001030A01

Item				Mazda 3	Mazda 6
Automatic transaxle type				FN4A-EL	
Oil pump	Bushing inner diameter (torque converter side)	(mm {in})	Standard	40.015-40.040 {1.57539-1.57637}	
			Maximum	40.060 {1.57716}	
	Bushing inner diameter (Forward clutch side)	(mm {in})	Standard	19.000-19.021 {0.74803-0.74885}	
			Maximum	19.041 {0.74964}	
	Clearance between the end of the oil pump housing and the outer rotor and inner rotor	(mm {in})	Standard	0.04-0.05 {0.0015-0.0019}	
			Maximum	0.06 {0.0023}	
	Clearance between the outer rotor and the inner rotor	(mm {in})	Standard	0.02-0.13 {0.0008-0.0051}	
			Maximum	0.14 {0.0055}	
Forward clutch	Number of drive/driven plates			4/4	
	Drive plate thickness	(mm {in})	Standard	1.60 {0.063}	
			Maximum	1.45 {0.057}	
	Forward clutch clearance		(mm {in})	1.50-1.80 {0.059-0.071}	
	Snap ring size		(mm {in})	1.2 {0.047}, 1.4 {0.055}, 1.6 {0.063}, 1.8 {0.071}, 2.0 {0.079}, 2.2 {0.087}	
Front sun gear	Bushing inner diameter	(mm {in})	Standard	18.000-18.018 {0.70866-0.70936}	
			Maximum	18.038 {0.71016}	
Rear sun gear	Bushing inner diameter	(mm {in})	Standard	29.900-29.921 {1.17717-1.17799}	
			Maximum	29.941 {1.17878}	
End cover	Bushing inner diameter	(mm {in})	Standard	23.600-23.621 {0.92913-0.92995}	
			Maximum	23.641 {0.93075}	
Reverse clutch	Number of drive/driven plates			2/2	
	Drive plate thickness	(mm {in})	Standard	1.60 {0.063}	
			Maximum	1.45 {0.057}	
	Reverse clutch clearance		(mm {in})	1.00-1.30 {0.039-0.051}	
	Snap ring size		(mm {in})	1.2 {0.047}, 1.4 {0.055}, 1.6 {0.063}, 1.8 {0.071}, 2.0 {0.079}, 2.2 {0.087}	
3-4 clutch	Number of drive/driven plates			3/3	
	Drive plate thickness [FN11 19370]	(mm {in})	Standard	1.60 {0.063}	-
			Minimum	1.45 {0.057}	-
	Drive plate thickness [FNE1 19370]	(mm {in})	Standard	-	2.55 {0.100}
			Minimum	-	2.40 {0.094}
	3-4 clutch clearance		(mm {in})	1.00-1.30 {0.039-0.051}	1.10-1.40 {0.043-0.055}

	Snap ring size		(mm {in})	1.2 {0.047}, 1.4 {0.055}, 1.6 {0.063}, 1.8 {0.071}, 2.0 {0.079}, 2.2 {0.087}	
	3-4 clutch hub busing inner diameter	(mm {in})	Standard	18.000-18.018 {0.70866-0.70936}	
			Minimum	18.038 {0.71016}	
Low and reverse brake	Number of drive/driven plates			5/5	
	Drive plate thickness	(mm {in})	Standard	1.60 {0.063}	
			Minimum	1.45 {0.057}	
	Low and reverse clearance		(mm {in})	2.20-2.50 {0.087-0.098}	
	Snap ring size		(mm {in})	1.8 {0.071}, 2.0 {0.079}, 2.2 {0.087}, 2.4 {0.094}, 2.6 {0.102}, 2.8 {0.110}, 3.0 {0.118}	
2-4 brake band	Stroke adjust band strut		(mm {in})	36.0 {1.417}, 36.5 {1.437}, 37.0 {1.457}, 37.5 {1.476}, 38.0 {1.496}, 38.5 {1.516}, 39.0 {1.535}	
	2-4 brake drum bushing inner diameter	(mm {in})	Standard	55.005-55.030 {2.16555-2.16653}	
			Maximum	55.050 {2.16732}	
Total end play	End play adjust race		(mm {in})	1.8 {0.071}, 2.0 {0.079}, 2.2 {0.087}, 2.4 {0.094}, 2.6 {0.102}	
Primary gear	Primary gear bearing preload	(N·m kgf·cm, in·lbf)		0.25-0.60 {2.55-6.12, 2.21-5.31}	
Secondary gear	Secondary gear bearing preload	(N·m kgf·cm, in·lbf)		1.5-2.4 {15-25, 13-21}	
	Preload adjust shims		(mm {in})	0.50 {0.020}, 0.55 {0.022}, 0.60 {0.024}, 0.65 {0.026}, 0.70 {0.028}, 0.75 {0.030}, 0.80 {0.031}, 0.85 {0.033}, 0.90 {0.035}, 0.95 {0.037}, 1.00 {0.039}, 1.05 {0.041}, 1.10 {0.043}, 1.15 {0.045}, 1.20 {0.047}, 1.25 {0.049}, 1.30 {0.051}	
Differential	Differential bearing preload	(N·m kgf·cm, in·lbf)		1.4-2.3 {14-24, 12-20}	
	Preload adjust shims		(mm {in})	0.50 {0.020}, 0.55 {0.022}, 0.60 {0.024}, 0.65 {0.026}, 0.70 {0.028}, 0.75 {0.030}, 0.80 {0.031}, 0.85 {0.033}, 0.90 {0.035}, 0.95 {0.037}, 1.00 {0.039}, 1.05 {0.041}, 1.10 {0.043}, 1.15 {0.045}, 1.20 {0.047}, 1.25 {0.049}, 1.30 {0.051}, 1.35 {0.053}, 1.40 {0.055}, 1.45 {0.057}, 1.50 {0.059}, 1.55 {0.061}	
	Backlash of side gear and pinion	(mm {in})	Standard	0.05-0.15 {0.002-0.005}	
			Maximum	0.5 {0.020}	
Distance A between end of torque converter and face of converter housing			(mm {in})	31.4 {1.24}	21.4 {0.84}

Spring name	Outer diameter (mm {in})	Free length (mm {in})	No. of coils	Wire diameter (mm {in})
Accumulators				
Servo apply accumulator small spring	13.0 {0.512}	67.8 {2.669}	17.1	2.2 {0.087}
Servo apply accumulator large spring	21.0 {0.827}	67.8 {2.669}	10.3	3.5 {0.138}
Forward accumulator small spring	15.6 {0.614}	49.0 {1.929}	7.7	2.4 {0.094}
Forward accumulator large spring	21.0 {0.827}	75.0 {2.953}	10.7	2.3 {0.091}
Forward clutch				
Spring and retainer component	-	17.2 {0.677}	-	-
3-4 clutch				
Spring and retainer component	-	17.2 {0.677}	-	-
Band servo				
Servo return spring	34.0 {1.340}	36.4 {1.430}	2.5	4.0 {0.160}
Control valve body				
Low and reverse shift valve spring	8.7 {0.343}	31.3 {1.232}	9.0	0.8 {0.031}
Solenoid reducing valve spring	8.7 {0.343}	44.2 {1.740}	16.0	1.1 {0.043}
Pressure regulator valve spring	7.9 {0.311}	36.3 {1.429}	13.2	0.9 {0.035}
Solenoid shift valve spring	8.3 {0.327}	35.1 {1.382}	12.0	0.6 {0.024}
Converter relief valve spring	9.0 {0.354}	42.5 {1.673}	14.2	1.3 {0.051}
Torque converter clutch control valve spring	8.7 {0.343}	31.3 {1.232}	9.0	0.8 {0.031}
Bypass valve spring	8.7 {0.343}	31.3 {1.232}	9.0	0.8 {0.031}
3-4 shift valve spring	8.7 {0.343}	31.3 {1.232}	9.0	0.8 {0.031}
Pressure modifier accumulator spring	11.0 {0.433}	23.0 {0.906}	6.6	1.5 {0.059}