SERVICE SPECIFICATIONS

SERVICE DATA

MX00Z–02

Input shaft 3rd and 4th gear journal diameter	
Limit	35.950 mm (1.4154 in.)
Input shaft 5th gear journal diameter	
Limit	27.950 mm (1.1004 in.)
Input shaft runout	
Limit	0.05 mm (0.0020 in.)
Output shaft 1 st and 2nd gear journal diameter	
Limit	38.950 mm (1.5335 in.)
Output shaft runout	
Limit	0.06 mm (0.0024 in.)
Gear thrust clearance 1 st	
STD	0.10 – 0.35 mm (0.0039 – 0.0138 in.)
Limit	0.40 mm (0.0157 in.)
Gear thrust clearance 2nd	
STD	0.10 – 0.45 mm (0.0039 – 0.0177 in.)
Limit	0.50 mm (0.0197 in.)
Gear thrust clearance 3rd	
STD	0.10 – 0.45 mm (0.0039 – 0.0177 in.)
Limit	0.50 mm (0.0197 in.)
Gear thrust clearance 4th	
STD	0.10 – 0.55 mm (0.0039 – 0.0217 in.)
Limit	0.60 mm (0.0236 in.)
Gear thrust clearance 5th	
STD	0.10 – 0.57 mm (0.0039 – 0.0224 in.)
Limit	0.65 mm (0.0256 in.)
Gear oil clearance 1 st	
STD	0.009 – 0.051 mm (0.0004 – 0.0020 in.)
Limit	0.070 mm (0.0028 in.)
Gear oil clearance 2nd	
STD	0.009 – 0.053 mm (0.0004 – 0.0021 in.)
Limit	0.070 mm (0.0028 in.)
Gear oil clearance 3rd	
STD	0.009 – 0.053 mm (0.0004 – 0.0021 in.)
Limit	0.070 mm (0.0028 in.)
Gear oil clearance 4th	
STD	0.009 – 0.051 mm (0.0004 – 0.0020 in.)
Limit	0.070 mm (0.0028 in.)
Gear oil clearance 5th	
STD	0.009 – 0.050 mm (0.0004 – 0.0020 in.)
Limit	0.070 mm (0.0028 in.)
Shift fork to hub sleeve clearance	
Limit	1.0 mm (0.039 in.)
Synchronizer ring to gear clearance 1 st, 4th and 5th	
Limit	0.6 mm (0.024 in.)
Synchronizer ring to gear clearance 2nd and 3rd	
Limit	0.7 mm (0.028 in.)

Input shaft snap ring thickness		
No.2 clutch hub	Mark H	2.30 mm (0.0906 in.)
No.2 clutch hub	Mark J	2.35 mm (0.0925 in.)
No.2 clutch hub	Mark K	2.40 mm (0.0945 in.)
No.2 clutch hub	Mark L	2.45 mm (0.0965 in.)
No.2 clutch hub	Mark M	2.50 mm (0.0984 in.)
No.2 clutch hub	Mark N	2.55 mm (0.1004 in.)
No.2 clutch hub	Mark P	2.60 mm (0.1024 in.)
No.3 clutch hub	Mark Cl	2.25 mm (0.0886 in.)
No.3 clutch hub	Mark R	2.30 mm (0.0906 in.)
No.3 clutch hub	Mark S	2.35 mm (0.0925 in.)
No.3 clutch hub	Mark T	2.40 mm (0.0945 in.)
No.3 clutch hub	Mark U	2.45 mm (0.0965 in.)
No.3 clutch hub	Mark V	2.50 mm (0.0984 in.)
No.3 clutch hub	Mark W	2.55 mm (0.1004 in.)
No.3 clutch hub	Mark X	2.60 mm (0.1024 in.)
No.3 clutch hub	Mark *	2.65 mm (0.1043 in.)
Ball bearing	Mark 1	2.35 mm (0.0925 in.)
Ball bearing	Mark 2	2.40 mm (0.0945 in.)
Ball bearing	Mark 3	2.45 mm (0.0965 in.)
Ball bearing	Mark 4	2.50 mm (0.0984 in.)
Ball bearing	Mark 5	2.55 mm (0.1004 in.)
Ball bearing	Mark 6	2.60 mm (0.1024 in.)
Ball bearing	Mark 7	2.65 mm (0.1043 in.)
Ball bearing	Mark 8	2.70 mm (0.1063 in.)
Output shaft snap ring thickness		
No.1 clutch hub	Mark A	2.80 mm (0.1102 in.)
No.1 clutch hub	Mark6	2.85 mm (0.1122 in.)
No.1 clutch hub	Mark C	2.90 mm (0.1142 in.)
No. 1 clutch hub	Mark D	2.95 mm (0.1161 in.)
No.1 clutch hub	Mark E	3.00 mm (0.1181 in.)
No.1 clutch hub	Mark F	3.05 mm (0.1201 in.)
No.1 clutch hub	Mark G	3.10 mm (0.1220 in.)
Oil pump body clearance		
	STD	0.10 – 0.16 mm (0.0039 – 0.0063 in.)
	Limit	0.30 mm (0.0118 in.)
Oil pump tip clearance		
	STD	0.08 – 0.15 mm (0.0031 – 0.0059 in.)
	Limit	0.30 mm (0.0118 in.)
Oil pump side clearance		
	STD	0.03 – 0.08 mm (0.0012 – 0.0031 in.)
	Limit	0.15 mm (0.0059 in.)
Control shaft cover oil seal drive in depth		0 – 1.0 mm (0 – 0.039 in.)

Differential pinion to side gear backlash	0.05 – 0.20 mm (0.0020 – 0.0079 in.)
Differential side gear thrust washer thickness	
None Mark	0.80 mm (0.0315 in.)
None Mark	0.90 mm (0.0354 in.)
None Mark	1.00 mm (0.0394 in.)
None Mark	1.10 mm (0.0433 in.)
None Mark	1.20 mm (0.0472 in.)
None Mark	1.30 mm (0.0512 in.)
None Mark	1.40 mm (0.0551 in.)
Differential case side bearing preload (at starting)	
New bearing (add output shaft preload)	0.2 – 0.4 N·m (2.0 – 4.1 kgf·cm, 1.7 – 3.6 in.·lbf)
Reused bearing (add output shaft preload)	0.1 – 0.2 N·m (1.3 – 2.5 kgf·cm, 1.1 – 2.2 in.·lbf)
Differential side bearing adjusting shim thickness	
Mark 0	2.00 mm (0.0787 in.)
Mark 1	2.05 mm (0.0807 in.)
Mark 2	2.10 mm (0.0827 in.)
Mark 3	2.15 mm (0.0846 in.)
Mark 4	2.20 mm (0.0866 in.)
Mark 5	2.25 mm (0.0886 in.)
Mark 6	2.30 mm (0.0906 in.)
Mark 7	2.35 mm (0.0925 in.)
Mark 8	2.40 mm (0.0945 in.)
Mark 9	2.45 mm (0.0965 in.)
Mark A	2.50 mm (0.0984 in.)
Mark B	2.55 mm (0.1004 in.)
Mark C	2.60 mm (0.1024 in.)
Mark D	2.65 mm (0.1043 in.)
Mark E	2.70 mm (0.1063 in.)
Mark F	2.75 mm (0.1083 in.)
Mark G	2.80 mm (0.1102 in.)
Mark H	2.85 mm (0.1122 in.)
Output shaft bearing preload (at starting)	
New bearing	0.8 – 1.6 N·m (8 – 16 kgf·cm, 6.9 – 13.9 in.·lbf)
Reused bearing	0.5 – 1.0 N·m (5 – 10 kgf·cm, 4.3 – 8.7 in.·lbf)

Output shaft rear bearing adjusting shim thickness	
Mark 0	1.30 mm (0.0512 in.)
Mark 1	1.35 mm (0.0531 in.)
Mark 2	1.40 mm (0.0551 in.)
Mark 3	1.45 mm (0.0571 in.)
Mark 4	1.50 mm (0.0591 in.)
Mark 5	1.55 mm (0.0610 in.)
Mark 6	1.60 mm (0.0630 in.)
Mark 7	1.65 mm (0.0650 in.)
Mark 8	1.70 mm (0.0669 in.)
Mark 9	1.75 mm (0.0689 in.)
Mark A	1.80 mm (0.0709 in.)
Mark B	1.85 mm (0.0728 in.)
Mark C	1.90 mm (0.0748 in.)
Mark D	1.95 mm (0.0768 in.)
Mark E	2.00 mm (0.0787 in.)
Mark F	2.05 mm (0.0807 in.)
Mark G	2.10 mm (0.0827 in.)
Mark H	2.15 mm (0.0846 in.)
Mark J	2.20 mm (0.0866 in.)
Mark K	2.25 mm (0.0886 in.)
Mark L	2.30 mm (0.0906 in.)
Mark M	2.35 mm (0.0925 in.)
Mark N	2.40 mm (0.0945 in.)
Mark P	2.45 mm (0.0965 in.)
Mark 0	2.50 mm (0.0984 in.)

MX010–03

TORQUE SPECIFICATIONS

Part tightened	N–m	kgf–cm	ft–lbf
Transaxle x Engine			
12 mm bolt	64	650	47
10 mm bolt	46	470	34
Rear end plate set bolt	9	95	82 in.·lbf
Stiffener plate x Engine	37	380	27
Stiffener plate x Transaxle	37	380	27
Engine LH mounting set bolt	64	650	47
Suspension crossmember x Body	113	1,150	83
Suspension arm x Rear axle hub	103	1,050	76
Lower arm x Suspension crossmember	132	1,350	98
Engine rear mounting x Transaxle	77	790	57
Engine rear mounting x Crossmember	64	650	47
Engine rear mounting through bolt	87	890	64
Clutch release cylinder x Transaxle	12	120	9
Engine front mounting x Transaxle	77	790	57
Engine front mounting x Body	73	740	54
Engine front mounting through bolt	96	980	71
Front exhaust pipe x Tail Pipe	62	630	46
Front exhaust pipe x Exhaust manifold	62	630	46
Transaxle x Starter	39	400	29
LH engine mounting stay x Body	73	740	54
LH engine mounting stay x Transaxle	25	250	18
Strut bar x Body (Bolt)	73	740	54
Strut bar x Body (Nut)	64	650	47
Transaxle x Transaxle case receiver	7.4	75	65 in.·lbf
Oil pump x Cover	10	105	8
Transaxle case x Transaxle case cover	54	550	40
Differential ring gear x Differential case	124	1,260	91
Transaxle case x Oil pump	17	175	13
Transaxle case x Transmission case	29	300	22
Reverse idler gear shaft retaining bolt	29	300	22
Transmission case x Rear bearing retainer	42	430	31
5th driven gear lock nut	123	1,250	90
Transmission case x Transmission case cover	29	300	22
Shift and select lever shaft assembly x Transmission case	20	200	14
Shift lever lock bolt	49	500	36
Breather plug	49	500	36
Selecting bellcrank assembly x Transmission case	20	200	14
Back–up light switch	40	410	30
Vehicle speed pulse generator set bolt	7.4	75	65 in.·lbf
Shift fork set bolt	24	240	17
Screw plug	25	250	18
Reverse shift arm bracket x Transaxle case	17	175	13
No.2 oil pipe x Transaxle case	17	175	13