

SERVICE SPECIFICATIONS

MT010-02

SERVICE DATA

Output shaft 2nd gear journal diameter			
	Limit	42.975 mm	1.6919 in.
Output shaft 3rd gear journal diameter			
	Limit	31.969 mm	1.2586 in.
Output shaft flange thickness			
	Limit	5.60 mm	0.2205 in.
Output shaft runout			
	Limit	0.06 mm	0.0024 in.
1 st gear inner race flange thickness			
	Limit	4.87 mm	0.1882 in.
1 st gear inner race outer diameter			
	Limit	42.975 mm	1.6919 in.
Counter gear bearing journal diameter			
	Limit	29.950 mm	1.1791 in.
Counter 5th gear journal diameter			
	Limit	26.975 mm	1.6919 in.
1st, 2nd and 3rd Gear thrust clearance			
	STD	0.10 – 0.25 mm	0.0039 – 0.0098 in.
	Limit	0.30 mm	0.0118 in.
Counter 5th gear thrust clearance			
	STD	0.10 – 0.41 mm	0.0039 – 0.0161 in.
	Limit	0.46 mm	0.0181 in.
1 st, 2nd and counter 5th gear oil clearance			
	STD	0.009 – 0.060 mm	0.0004 – 0.0024 in.
	Limit	0.15 mm	0.0059 in.
3rd gear oil clearance			
	STD	0.015 – 0.066 mm	0.0006 – 0.0026 in.
	Limit	0.20 mm	0.0079 in.
Reverse idler gear to shift arm shoe			
	STD	0.041 – 0.074 mm	0.0016 – 0.0029 in.
	Limit	0.194 mm	0.0076 in.
Shift fork to hub sleeve clearance			
	Limit	1.0 mm	0.039 in.
Synchronizer ring to 1 st and 4th gear clearance			
	Limit	0.5 mm	0.020 in.
Synchronizer ring to 2nd and 3rd gear clearance			
	Limit	0.7 mm	0.028 in.
Input shaft snap ring thickness			
	Mark 1	2.05 – 2.10 mm	0.0807 – 0.0827 in.
	Mark 2	2.10 – 2.15 mm	0.0827 – 0.0846 in.
	Mark 3	2.15 – 2.20 mm	0.0846 – 0.0866 in.
	Mark 4	2.20 – 2.25 mm	0.0866 – 0.0886 in.
	Mark 5	2.25 – 2.30 mm	0.0886 – 0.0906 in.
	Mark 11	2.30 – 2.35 mm	0.0906 – 0.0925 in.
	Mark 12	2.35 – 2.40 mm	0.0925 – 0.0945 in.

Output shaft snap ring thickness			
No.2 clutch hub	Mark C-1	1.75 – 1.80 mm	0.0689 – 0.0709 in.
No.2 clutch hub	Mark 11	1.86 – 1.91 mm	0.0732 – 0.0752 in.
No.2 clutch hub	Mark 12	1.92 – 1.97 mm	0.0756 – 0.0776 in.
No.2 clutch hub	Mark 13	1.98 – 2.03 mm	0.0780 – 0.0799 in.
No.2 clutch hub	Mark 14	2.04 – 2.09 mm	0.0803 – 0.0823 in.
No.2 clutch hub	Mark 15	2.10 – 2.15 mm	0.0827 – 0.0846 in.
Rear bearing	Mark 8	2.31 – 2.36 mm	0.0909 – 0.0929 in.
Rear bearing	Mark 9	2.37 – 2.42 mm	0.0933 – 0.0953 in.
Rear bearing	Mark 10	2.43 – 2.48 mm	0.0957 – 0.0976 in.
Rear bearing	Mark 11	2.49 – 2.54 mm	0.0980 – 0.1000 in.
Rear bearing	Mark 12	2.55 – 2.60 mm	0.1004 – 0.1024 in.
Rear bearing	Mark 13	2.61 – 2.66 mm	0.1028 – 0.1047 in.
Rear bearing	Mark 14	2.68 – 2.73 mm	0.1055 – 0.1075 in.
Rear bearing	Mark 15	2.74 – 2.79 mm	0.1079 – 0.1098 in.
Reverse gear	Mark 5	2.25 – 2.30 mm	0.0886 – 0.0906 in.
Reverse gear	Mark 11	2.30 – 2.35 mm	0.0906 – 0.0925 in.
Reverse gear	Mark 12	2.35 – 2.40 mm	0.0925 – 0.0945 in.
Reverse gear	Mark 13	2.40 – 2.45 mm	0.0945 – 0.0965 in.
Reverse gear	Mark 14	2.45 – 2.50 mm	0.0965 – 0.0984 in.
Reverse gear	Mark 15	2.50 – 2.55 mm	0.0984 – 0.1004 in.
Reverse gear	Mark 16	2.55 – 2.60 mm	0.1004 – 0.1024 in.
Reverse gear	Mark 17	2.61 – 2.66 mm	0.1028 – 0.1047 in.
Reverse gear	Mark 18	2.67 – 2.72 mm	0.1051 – 0.1071 in.
Reverse gear	Mark 19	2.73 – 2.78 mm	0.1075 – 0.1094 in.
Reverse gear	Mark 20	2.79 – 2.84 mm	0.1098 – 0.1118 in.
Reverse gear	Mark 21	2.85 – 2.90 mm	0.1122 – 0.1142 in.
Reverse gear	Mark 22	2.91 – 2.96 mm	0.1146 – 0.1165 in.
Reverse gear	Mark 23	2.97 – 3.02 mm	0.1169 – 0.1189 in.
Counter gear snap ring thickness			
Front bearing	Mark A	2.05 – 2.10 mm	0.0807 – 0.0827 in.
Front bearing	Mark B	2.10 – 2.15 mm	0.0827 – 0.0846 in.
Front bearing	Mark C	2.15 – 2.20 mm	0.0846 – 0.0866 in.
Front bearing	Mark D	2.20 – 2.25 mm	0.0866 – 0.0886 in.
Front bearing	Mark E	2.25 – 2.30 mm	0.0886 – 0.0906 in.
Front bearing	Mark F	2.30 – 2.35 mm	0.0906 – 0.0925 in.
Front bearing	Mark G	2.35 – 2.40 mm	0.0925 – 0.0945 in.
No.3 clutch hub	Mark 2	2.06 – 2.11 mm	0.0811 – 0.0831 in.
No.3 clutch hub	Mark 3	2.12 – 2.17 mm	0.0835 – 0.0854 in.
No.3 clutch hub	Mark 4	2.18 – 2.23 mm	0.0858 – 0.0878 in.
No.3 clutch hub	Mark 5	2.24 – 2.29 mm	0.0882 – 0.0902 in.
Rear bearing	Mark 1	1.90 – 1.95 mm	0.0748 – 0.0768 in.
Rear bearing	Mark 2	1.96 – 2.01 mm	0.0772 – 0.0791 in.
Rear bearing	Mark 3	2.02 – 2.07 mm	0.0795 – 0.0815 in.
Rear bearing	Mark 4	2.08 – 2.13 mm	0.0819 – 0.0839 in.
Rear bearing	Mark 5	2.14 – 2.19 mm	0.0843 – 0.0862 in.
Rear bearing	Mark 6	2.20 – 2.25 mm	0.0866 – 0.0886 in.
Rear bearing	Mark 7	2.26 – 2.31 mm	0.0890 – 0.0909 in.

Oil seal drive in depth	
Front bearing retainer (from retainer end)	11.4 – 12.0 mm 0.449 – 0.472 in.

TORQUE SPECIFICATIONS

MT011-02

Part tightened	N·m	kgf·cm	ft·lbf	
Transfer x Transfer adaptor	39	400	29	
Engine rear mounting x Transmission	25	260	19	
Transmission x Engine	72	730	53	
Transmission x Stiffener plate	37	380	27	
Transmission x Starter	39	400	29	
Clutch tube bracket x Transmission	72	730	53	
Frame auxiliary crossmember	95	970	70	
Engine rear mounting bracket x Support member	58	590	43	
Engine rear mounting bracket x Engine rear mounting	29	300	22	
No.2 crossmember x Frame	95	970	70	
No.2 crossmember x Engine rear mounting	13	130	9	
Stabilizer bracket	29	300	22	
Exhaust pipe x Exhaust manifold	62	630	46	
Exhaust- pipe x bracket x Clutch housing				
	Upper	19	195	14
	Lower	69	700	51
Exhaust pipe clamp	19	195	14	
Clutch release cylinder x Transmission	12	120	9	
Front propeller shaft x Front differential	74	750	54	
Front propeller shaft x Transfer	74	750	54	
Rear propeller shaft x Transfer	74	750	54	
Rear propeller shaft center bearing x Frame	37	370	27	
Shift fork set bolt	20	200	14	
Straight screw plug	25	250	18	
Reverse idler gear shaft stopper bolt	25	250	18	
Oil separator x Intermediate plate	18	185	13	
Front bearing retainer set bolt	25	250	18	
Extension housing x Intermediate plate or Transfer adaptor	37	375	27	
Restrict pin	40	410	30	
Shift lever housing x Shift and select lever shaft	39	400	29	
Shift lever retainer x Extension housing or Transfer adaptor	18	185	13	
Drain and filler plugs	40	410	30	
Back-up light switch	40	410	30	
Clutch housing x Transmission case	37	375	27	
Rear bearing retainer x Intermediate plate	13	130	9	