

MANUAL TRANSMISSION (G45, G52, G55 and G56)**Specifications**

Input shaft			
Synchronizer ring to gear clearance	STD	1.0 – 2.0 mm	0.039 – 0.079 in.
	Limit	0.8 mm	0.031 in.
Input shaft snap ring thickness	Mark		
	0	2.05 – 2.10 mm	0.0807 – 0.0827 in.
	1	2.10 – 2.15 mm	0.0827 – 0.0846 in.
	2	2.15 – 2.20 mm	0.0846 – 0.0866 in.
	3	2.20 – 2.25 mm	0.0866 – 0.0886 in.
	4	2.25 – 2.30 mm	0.0886 – 0.0906 in.
	5	2.30 – 2.35 mm	0.0906 – 0.0925 in.
Output shaft			
2nd gear journal diameter	Limit	37.984 mm	1.4954 in.
3rd gear journal diameter	Limit	34.984 mm	1.3773 in.
Flange thickness	Limit	4.80 mm	0.1890 in.
Runout	Limit	0.05 mm	0.0020 in.
Inner race flange thickness	Limit	3.99 mm	0.1571 in.
Inner race outer diameter	Limit	38.985 mm	1.5348 in.
Gear thrust clearance			
1st, 2nd & 3rd	STD	0.10 – 0.25 mm	0.0039 – 0.0098 in.
	Limit	0.25 mm	0.0098 in.
Gear oil clearance			
1st	STD	0.009 – 0.032 mm	0.0004 – 0.0013 in.
	Limit	0.032 mm	0.0013 in.
2nd & 3rd	STD	0.009 – 0.033 mm	0.0004 – 0.0013 in.
	Limit	0.033 mm	0.0013 in.
Shift fork to hub sleeve clearance	Limit	1.0 mm	0.039 in.
Synchronizer ring to gear clearance	STD	1.0 – 2.0 mm	0.039 – 0.079 in.
	Limit	0.8 mm	0.031 in.
Output shaft snap ring thickness			
Front	Mark		
	C-1	1.75 – 1.80 mm	0.0689 – 0.0709 in.
	D	1.80 – 1.85 mm	0.0709 – 0.0728 in.
	D-1	1.85 – 1.90 mm	0.0728 – 0.0748 in.
	E	1.90 – 1.95 mm	0.0748 – 0.0768 in.
	E-1	1.95 – 2.00 mm	0.0768 – 0.0787 in.
	F	2.00 – 2.05 mm	0.0787 – 0.0807 in.
	F-1	2.05 – 2.10 mm	0.0807 – 0.0827 in.

Specifications (Cont'd)

Output shaft snap ring thickness (cont'd)			
Rear	Mark		
	A	2.67 – 2.72 mm	0.1051 – 0.1071 in.
	B	2.73 – 2.78 mm	0.1075 – 0.1094 in.
	C	2.79 – 2.84 mm	0.1098 – 0.1118 in.
	D	2.85 – 2.90 mm	0.1122 – 0.1142 in.
	E	2.91 – 2.96 mm	0.1146 – 0.1165 in.
	F	2.97 – 3.02 mm	0.1169 – 0.1189 in.
	G	3.03 – 3.08 mm	0.1193 – 0.1213 in.
	H	3.09 – 3.14 mm	0.1217 – 0.1236 in.
	J	3.15 – 3.20 mm	0.1240 – 0.1260 in.
	K	3.21 – 3.26 mm	0.1264 – 0.1283 in.
	L	3.27 – 3.32 mm	0.1287 – 0.1307 in.
Counter gear and reverse idler gear			
Counter gear outer diameter of needle roller bearing race	STD	25.98 – 26.00 mm	1.0228 – 1.0236 in.
	Limit	25.86 mm	1.0181 in.
Gear thrust clearanse			
Counter 5th	STD	0.10 – 0.30 mm	0.0039 – 0.0118 in.
	Limit	0.30 mm	0.0118 in.
Gear oil clearance			
Counter 5th	STD	0.009 – 0.032 mm	0.0004 – 0.0013 in.
	Limit	0.032 mm	0.0013 in.
Reverse idler	STD	0.004 – 0.08 mm	0.0016 – 0.0031 in.
	Limit	0.13 mm	0.0051 in.
Shift fork to hub sleeve clearance	Limit	1.0 mm	0.039 in.
Synchronizer ring to gear clearance	STD	1.0 – 2.0 mm	0.039 – 0.079 in.
	Limit	0.8 mm	0.031 in.
Reverse idler gear to shift arm shoe clearance			
	STD	0.05 – 0.27 mm	0.0020 – 0.0106 in.
	Limit	0.5 mm	0.0197 in.
Counter gear snap ring thickness			
Front bearing	Mark		
	1	2.05 – 2.10 mm	0.0807 – 0.0827 in.
	2	2.10 – 2.15 mm	0.0827 – 0.0846 in.
	3	2.15 – 2.20 mm	0.0846 – 0.0866 in.
	4	2.20 – 2.25 mm	0.0866 – 0.0886 in.
	5	2.25 – 2.30 mm	0.0886 – 0.0906 in.
	6	2.30 – 2.35 mm	0.0906 – 0.0925 in.
Counter gear snap ring thickness			
Gear spline piece No.5 or oil separator	Mark		
	A	2.80 – 2.85 mm	0.110 – 0.112 in.
	B	2.85 – 2.90 mm	0.112 – 0.114 in.
	C	2.90 – 2.95 mm	0.114 – 0.116 in.
	D	2.95 – 3.00 mm	0.116 – 0.118 in.
	E	3.00 – 3.05 mm	0.118 – 0.120 in.
	F	3.05 – 3.10 mm	0.120 – 0.122 in.
	G	3.10 – 3.15 mm	0.122 – 0.124 in.
Transmission shift lever neutral position			
Instrument panel–Tip of shift lever		About 170 mm (6.69 in.)	

Torque Specifications

Part tightened	kg-cm	ft-lb	N·m
Transmission			
Straight screw plug	190	14	19
Extension housing x Transmission case (2WD)	380	27	37
Transfer adaptor x Transmission case (4WD)	380	27	37
Front bearing retainer x Transmission case	170	12	17
Rear bearing retainer x Intermediate plate	185	13	18
Reverse shift arm bracket	185	13	18
Shift fork x Shift fork shaft	200	14	20
Back-up light switch	380	27	37
Reverse idler gear shaft stopper bolt	175	13	17
Clutch housing x Transmission case	380	27	37
Shift lever shaft housing x Transmission case	170	12	17
Shift outer lever lock pin nut	120	9	12
Select outer lever lock pin nut	80	69 in.-lb	7.8
Drain plug and filler plug	380	27	37
Oil receiver x Extension housing (2WD)	115	8	11
Speedometer driven gear lock plate (2WD)	115	8	11
Installation of transmission			
Transfer adaptor x Transfer (4WD)	380	27	37
Transfer control cable bracket x Transfer adaptor (4WD)	400	29	39
Transmission x Engine	730	53	72
Stiffener plate x Engine or transmission			
RZH series	380	27	37
LH series Upper	700	51	69
Lower	380	27	37
Starter	400	29	39
Engine rear mounting x Transmission or transfer	480	35	47
Engine rear mounting set bolt	500	36	47
Propeller shaft x Transfer or differential	750	54	74
Exhaust pipe x Exhaust manifold	630	46	62
Exhaust front pipe x Exhaust rear pipe	440	32	43
Exhaust pipe clamp	670	48	66
Clutch release cylinder	120	9	12
Cross shaft assembly No.2 x Select outer lever	120	9	12
Cross shaft assembly No.2 x Clutch housing	360	27	36
Stabilizer bar bracket	185	13	18
Installation of shift lever and control link			
Shift lever assembly x Body	120	9	12
Shift lever assembly x Gear shifting rod assembly No.1	120	9	12
Gear shifting rod assembly No.2 x Cross shaft assembly No.1	120	9	12
Cross shaft assembly No.1 x Body	120	9	12
Cross shaft assembly No.2 x Select outer lever	120	9	12
Cross shaft assembly No.2 x Clutch housing	360	26	35
Cross shaft assembly No.2 x Body	360	26	35

Torque Specifications (Cont'd)

Part tightened	kg-cm	ft-lb	N·m
Cross shaft assembly No.2			
Gear selecting rod No.3 x Cross shaft subassembly	120	9	12
Gear shifting rod No.3 x Cross shaft subassembly	120	9	12
Gear shifting rod end	120	9	12
Heat insulator	50	43 in.-lb	4.9
Cross shaft assembly No.1			
Control rod end	120	9	12
Shift lever			
Shift lever set bolt	120	9	12
Select lever set bolt	195	14	19