R155F MANUAL TRANSMISSION

SERVICE DATA

Synchronizer ring outer No. 3 to gear spline piece No. 5 clearance	STD	0.68 to 1.32 mm (0.0267 to 0.0610 in.)
Hub sleeve No. 3 to shift fork No. 3 clearance	STD	0.62 to 0.84 mm (0.0102 to 0.0331 in.)
Counter 5th gear inner diameter	STD Max.	38.015 to 38.040 mm (1.4967 to 1.4976 in.) 38.040 mm (1.4976 in.)
Reverse idler gear inner diameter	STD Max.	24.040 to 24.061 mm (0.9465 to 0.9473 in.) 24.061 mm (0.9473 in.)
Reverse idler gear shaft outer diameter	STD Min.	23.979 to 24.000 mm (0.9441 to 0.9449 in.) 23.979 mm (0.9441 in.)
Reverse idler gear to reverse idler gear shaft clearance	STD	0.040 to 0.082 mm (0.0016 to 0.0032 in.)
Reverse idler gear to reverse shift arm	STD	0.05 to 0.35 mm (0.0020 to 0.0138 in.)
Counter gear snap ring thickness Rear	STD Mark A Mark B Mark C Mark D Mark E Mark F Mark G	0.1 mm (0.0039 in.) or less 2.80 to 2.85 mm (0.1102 to 0.1122 in.) 2.85 to 2.90 mm (0.1122 to 0.1142 in.) 2.90 to 2.95 mm (0.1142 to 0.1161 in.) 2.95 to 3.00 mm (0.1161 to 0.1181 in.) 3.00 to 3.05 mm (0.1181 to 0.1201 in.) 3.05 to 3.10 mm (0.1201 to 0.1220 in.) 3.10 to 3.15 mm (0.1220 to 0.1240 in.)
Counter 5th gear thrust clearance	STD	0.10 to 0.35 mm (0.0039 to 0.0138 in.)
Counter 5th gear radial clearance	STD	0.015 to 0.068 mm (0.0006 to 0.0027 in.)
Output shaft snap ring thickness Snap ring	STD Mark A Mark B Mark C Mark D Mark E Mark F Mark G Mark H Mark J Mark K Mark L Mark M Mark N Mark P Mark Q Mark R Mark S	0.1 mm (0.0039 in.) or less 2.65 to 2.70 mm (0.1043 to 0.1063 in.) 2.70 to 2.75 mm (0.1063 to 0.1083 in.) 2.75 to 2.80 mm (0.1083 to 0.1102 in.) 2.80 to 2.85 mm (0.1102 to 0.1122 in.) 2.85 to 2.90 mm (0.1122 to 0.1142 in.) 2.90 to 2.95 mm (0.1142 to 0.1161 in.) 2.95 to 3.00 mm (0.1161 to 0.1181 in.) 3.00 to 3.05 mm (0.1181 to 0.1201 in.) 3.05 to 3.10 mm (0.1201 to 0.1220 in.) 3.10 to 3.15 mm (0.1220 to 0.1240 in.) 3.15 to 3.20 mm (0.1240 to 0.1260 in.) 3.20 to 3.25 mm (0.1260 to 0.1280 in.) 3.25 to 3.30 mm (0.1280 to 0.1299 in.) 3.30 to 3.35 mm (0.1299 to 0.1319 in.) 3.35 to 3.40 mm (0.1319 to 0.1339 in.) 3.40 to 3.45 mm (0.1339 to 0.1358 in.) 3.45 to 3.50 mm (0.1358 to 0.1378 in.)
Front bearing retainer oil seal drive in depth	-	11.2 to 12.2 mm (0.4409 to 0.4803 in.)
Extension housing oil seal drive in depth	-	- 0.5 to 0.5 mm (- 0.020 to 0.020 in.)
Transfer adapter oil sea drive in depth	-	45.4 to 46.4 mm (1.7874 to 1.8268 in.)
Synchronizer ring No. 2 to input shaft clearance	STD	0.70 to 1.70 mm (0.0276 to 0.0669 in.)
Input shaft snap ring thickness Snap ring	STD Mark A Mark B Mark C Mark D Mark E Mark F Mark G	0.1 mm (0.0039 in.) or less 2.10 to 2.15 mm (0.0827 to 0.0846 in.) 2.15 to 2.20 mm (0.0846 to 0.0866 in.) 2.20 to 2.25 mm (0.0866 to 0.0886 in.) 2.25 to 2.30 mm (0.0886 to 0.0906 in.) 2.30 to 2.35 mm (0.0906 to 0.0925 in.) 2.35 to 2.40 mm (0.0925 to 0.0945 in.) 2.40 to 2.45 mm (0.0945 to 0.0965 in.)
1st gear thrust clearance	STD	0.20 to 0.45 mm (0.0079 to 0.0177 in.)
2nd gear thrust clearance	STD	0.10 to 0.25 mm (0.0039 to 0.0098 in.)
3rd gear thrust clearance	STD	0.10 to 0.25 mm (0.0039 to 0.0098 in.)
1st gear radial clearance	STD	0.020 to 0.073 mm (0.0008 to 0.0029 in.)
2rd gear radial clearance	STD	0.015 to 0.068 mm (0.0006 to 0.0027 in.)
3rd gear radial clearance	STD	0.015 to 0.068 mm (0.0006 to 0.0027 in.)

Output shaft circle runout	Max.	0.03 mm (0.0012 in.)
Output shaft outer diameter	(A) STD (B) STD (C) STD (A) Min. (B) Min. (C) Min.	38.979 to 38.995 mm (1.5334 to 1.5352 in.) 46.984 to 47.000 mm (1.8498 to 1.8504 in.) 37.984 to 38.000 mm (1.4954 to 1.4961 in.) 38.979 mm (1.5334 in.) 46.984 mm (1.8498 in.) 37.984 mm (1.4954 in.)
Output shaft flange	STD	4.8 to 5.2 mm (0.1890 to 0.2047 in.)
3rd gear inner diameter	STD Max.	44.015 to 44.040 mm (1.7329 to 1.7339 in.) 44.040 mm (1.7339 in.)
2rd gear inner diameter	STD Max.	53.015 to 53.040 mm (2.0872 to 2.0881 in.) 53.040 mm (2.0881 in.)
1st gear inner diameter	STD Max.	46.015 to 46.046 mm (1.812 to 1.8126 in.) 46.040 mm (1.8126 in.)
1st gear thrust washer thickness	STD	5.95 to 6.05 mm (0.2346 to 0.2382 in.)
Synchronizer ring set No. 1 to 1st gear clearance	STD	0.75 to 1.65 mm (0.0295 to 0.0649 in.)
Synchronizer ring set No. 1 to 2nd gear clearance	STD	0.65 to 1.75 mm (0.0256 to 0.0689 in.)
Synchronizer ring No. 2 to 3rd gear clearance	STD	0.75 to 1.65 mm (0.0295 to 0.0649 in.)
Reverse gear to shift fork No. 1	STD	0.15 to 0.41 mm (0.0060 to 0.0161 in.)
Hub sleeve No. 2 to shift fork No. 2 clearance	STD	0.15 to 0.35 mm (0.0059 to 0.0138 in.)
Output shaft snap ring thickness (clutch hub No. 2) Snap ring	STD Mark A Mark B Mark C Mark D Mark E Mark F Mark G	0.1 mm (0.0039 in.) or less 1.80 to 1.85 mm (0.0709 to 0.0728 in.) 1.85 to 1.90 mm (0.0728 to 0.0748 in.) 1.90 to 1.95 mm (0.0748 to 0.0768 in.) 1.95 to 2.00 mm (0.0768 to 0.0787 in.) 2.00 to 2.05 mm (0.0787 to 0.0807 in.) 2.05 to 2.10 mm (0.0807 to 0.0827 in.) 2.10 to 2.15 mm (0.0827 to 0.0846 in.)
Output shaft snap ring thickness (clutch hub No. 1)	STD Mark A Mark B Mark C Mark D Mark E Mark F Mark G	0.1 mm (0.0039 in.) or less 2.30 to 2.35 mm (0.0906 to 0.0925 in.) 2.35 to 2.40 mm (0.0925 to 0.0945 in.) 2.40 to 2.45 mm (0.0945 to 0.0965 in.) 2.45 to 2.50 mm (0.0965 to 0.0984 in.) 2.50 to 2.55 mm (0.0984 to 0.1004 in.) 2.55 to 2.60 mm (0.1004 to 0.1024 in.) 2.60 to 2.65 mm (0.1024 to 0.1043 in.)