



Allison MT Series - Checklist for Adaptation

Adaptation measurements need to be completed to ensure proper transmission and engine alignment.

	MT 643/653	MT 644/654
Flywheel Housing: Bore Diameter	17.625 $\frac{+0.005}{-0.000}$ in.	17.625" $\frac{+0.005}{-0.000}$ in.
	(447.68 $\frac{+0.13}{-0.00}$ mm)	(447.68 $\frac{+0.13}{-0.00}$ mm)
Bore Eccentricity (Limits are for installed engines)	0.020 in. T.I.R.* (0.51 mm)	0.020 in. T.I.R. (0.51 mm)
Face Squareness (Limits are for installed engines)	0.020 in. T.I.R.* (0.51 mm)	0.020 in. T.I.R. (0.51 mm)
*Transmissions prior to s/n 2410033458 (have not been updated w/ converter pump bushing, p/n 6881926, or converter pump hub roller bearings, p/n 7451944, bore eccentricity & face squareness limits are 0.008 in. (0.20 mm) T.I.R.)		
Crankshaft Hub and/or Adaptor: Converter Pilot Diameter	1.703 - 1.705 in. (43.26 - 43.31 mm)	1.703 - 1.705 in. (43.26 - 43.31 mm)
Face Squareness (T.I.R. per inch of diameter or 25 mm of diameter)	0.0005 in. (0.013 mm)	0.0005 in. (0.013 mm)
Pilot Eccentricity (with respect to crankshaft center of rotation)	0.010 in.* T.I.R. (0.25 mm)	0.010 in.* T.I.R. (0.25 mm)
*Transmissions prior to s/n 2410033458 (have not been updated w/ converter pump bushing, p/n 6881926, or converter pump hub roller bearings, p/n 7451944, pilot eccentricity is 0.005 in. (0.13 mm) T.I.R.)		
Flexplate:		
Check for radial cracks		
Check for elongated mounting holes		
Check for signs of distress or wear		
Converter Axial Location	2.854 - 3.014 in (72.49 - 76.56 mm)	4.331 - 4.491 in. (110.01 - 114.07 mm)
Flatness (Area adjacent to each Converter mounting hole)		
Formed Plates*	0.039 in. (0.99 mm)	0.039 in. (0.99mm)
Flat Plates	0.157 in. (3.99 mm)	0.157 in. (3.99 mm)

*A formed plate will not be flat, it may have raised areas at the bolt holes and/or have offset bends in the plate.