

# Service data

Unit: mm (in)

Item	Standard	Service limit
<b>Cylinder/Piston</b>		
Cylinder I.D.	78.000 – 78.015 (3.0709 - 3.0715)	78.04 (3.0724)
Taper	-	0.05 (0.002)
Out-of- round	-	0.05 (0.002)
Warpage	-	0.05 (0.002)
Piston O.D.	77.970 – 77.980 (3.0696 - 3.07008)	77.89 (3.0665)
Measurement point	5 (0.2) from bottom of skirt	-
Pin bore I.D.	16.002 – 16.008 (0.6300 – 0.6302)	16.03 (0.631)
Piston pin O.D.	15.994 – 16.000 (0.6297 – 0.6299)	15.98 (0.629)
Piston ring End gap		
Top	0.15 – 0.25 (0.008 - 0.0098425)	0.39 (0.01535)
Second	0.30 – 0.45 (0.012 - 0.0018)	0.59 (0.02323)
Oil (side rail)	0.20 – 0.70 (0.008 – 0.028)	0.90 (0.035)
Ring-to-groove clearance		
Top	0.065 – 0.100 (0.0026 – 0.0039)	0.15 (0.0059)
Second	0.015 – 0.050 (0.0006 – 0.0020)	0.065 (0.0026)
Cylinder-to-piston clearance	0.020 – 0.045 (0.008 – 0.0018)	0.18 (0.007)
Piston-to-piston pin clearance	0.002 – 0.014 (0.0001 – 0.0006)	0.04 (0.002)
Connecting rod small end I.D.	16.016 – 16.038 (0.6305 – 0.6314)	16.04 (0.631)
<b>Clutch/Gearshift Linkage</b>		
Recommended clutch fluid	DOT 4 brake fluid	-
Clutch spring free length	27.6 (1.09)	26.8 (1.06)
Clutch disc thickness	3.22 – 3.38 (0.127 – 0.133)	3.15 (0.124)
Clutch plate warpage	-	0.10 (0.004)
Clutch slave cylinder I.D.	27.000 – 27.021 (1.0630 – 1.0638)	-
Clutch slave piston O.D.	26.940 – 26.960 (1.0606 – 1.0614)	-
Kickstarter Spindle O.D.	16.466 – 16.484 (0.6483 – 0.6490)	16.46 (0.648)
Pinion gear I.D.	16.516 – 16.534 (0.6502 – 0.6509)	16.55 (0.652)
Idle gear I.D.	17.016 – 17.034 (0.6699 – 0.6706)	17.06 (0.672)
Countershaft O.D. at kickstarter idle gear	16.983 – 16.994 (0.6686 – 0.6691)	16.97 (0.668)

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Item	Standard	Service limit
<b>Crankshaft/Transmission</b>		
Crankshaft runout	Right Left	0.03 (0.001) 0.05 (0.002)
Connecting rod big end		
Side clearance	0.30 – 0.75 (0.012 – 0.030)	0.8 (0.03)
Radial clearance	0.06 – 0.18 (0.002 – 0.007)	0.05 (0.002)
Transmission gear I.D.	M4 M5	23.020 – 23.041 (0.9063 – 0.9071) 23.020 – 23.041 (0.9063 – 0.9071)
	C1 C2	20.020 – 20.041 (0.7882 – 0.7890) 25.020 – 25.041 (0.9850 – 0.9859)
	C3	25.020 – 25.041 (0.9850 – 0.9859)
Gear bushing D.I.	M5 C1 C2 C3	20.000 – 20.021 (0.7886 – 0.7882) 17.000 – 17.018 (0.6693 – 0.6700) 22.000 – 22.021 (0.8661 – 0.8670) 22.000 – 22.021 (0.8661 – 0.8670)
O.D.	M4 M5 C1 C2 C3	22.979 – 23.000 (0.9047 – 0.9055) 22.979 – 23.000 (0.9047 – 0.9055) 19.979 – 20.000 (0.7866 – 0.7874) 24.979 – 25.000 (0.9834 – 0.9843) 24.979 – 25.000 (0.9834 – 0.9843)
Countershaft O.D.		
at C1 bushing	16.983 – 16.994 (0.6686 – 0.6691)	16.97 (0.668)
at C2/C3 bushing	21.959 – 21.980 (0.8645 – 0.8654)	21.94 (0.864)
at kickstarter idle gear	16.983 – 16.994 (0.6686 – 0.6691)	16.97 (0.668)
Shift fork I.D.	C R, L	11.003 – 11.024 (0.4332 – 0.4330) 12.035 – 12.056 (0.4738 – 0.4746)
Shift fork claw thickness	C R, L	4.93 – 5.00 (0.194 – 0.197) 4.93 – 5.00 (0.194 – 0.197)
Shift fork shaft O.D.	C R, L	10.983 – 10.994 (0.4324 – 0.4328) 11.966 – 11.984 (0.4711 – 0.4718)
Oil pump		
Tip clearance	-	0.20 (0.008)
Body clearance	0.15 – 0.20 (0.006 – 0.008)	-
Side clearance	0.05 – 0.12 (0.002 – 0.004)	-