

Service data

Unit: mm (in)

Item	Standard	Service limit
Cylinder/Piston		
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	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)	0,115 (0,0045)
Second	0,015 – 0,050 (0,0006 – 0,0020)	0,065 (0,0026)
Cylinder-to-piston clearance	0,020 – 0,045 (0,0008 – 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 – 16,034 (0,6305 – 0,6313)	16,04 (0,631)
Clutch/Gearshift Linkage		
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)

Unit: mm (in)

Item	Standard	Service limit
Crankshaft/Transmission		
Crankshaft runout	–	0,03 (0,001)
Right	–	0,05 (0,002)
Left	–	–
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	23,020 – 23,041 (0,9063 – 0,9071)	23,07 (0,908)
M5	23,020 – 23,041 (0,9063 – 0,9071)	23,07 (0,908)
C1	20,020 – 20,041 (0,7882 – 0,7890)	20,06 (0,790)
C2	25,020 – 25,041 (0,9850 – 0,9859)	25,06 (0,987)
C3	25,020 – 25,041 (0,9850 – 0,9859)	25,06 (0,987)
M5	20,000 – 20,021 (0,7866 – 0,7882)	20,05 (0,789)
C1	17,000 – 17,018 (0,6693 – 0,6700)	17,04 (0,671)
C2	22,000 – 22,021 (0,8661 – 0,8670)	22,04 (0,868)
C3	22,000 – 22,021 (0,8661 – 0,8670)	22,04 (0,868)
M4	22,979 – 23,000 (0,9047 – 0,9055)	22,96 (0,904)
M5	22,979 – 23,000 (0,9047 – 0,9055)	22,96 (0,904)
C1	19,979 – 20,000 (0,7866 – 0,7874)	19,95 (0,785)
C2	24,979 – 25,000 (0,9834 – 0,9843)	24,95 (0,982)
C3	24,979 – 25,000 (0,9834 – 0,9843)	24,95 (0,982)
O.D.		
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	11,003 – 11,024 (0,4332 – 0,4330)	11,04 (0,435)
R, L	12,035 – 12,056 (0,4738 – 0,4746)	12,07 (0,475)
Shift fork claw thickness		
C	4,93 – 5,00 (0,194 – 0,197)	4,8 (0,19)
R, L	4,93 – 5,00 (0,194 – 0,197)	4,8 (0,19)
Shift fork shaft O.D.		
C	10,983 – 10,994 (0,4324 – 0,4328)	10,97 (0,432)
R, L	11,966 – 11,984 (0,4711 – 0,4718)	11,95 (0,470)
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)	–