

## INSPECTION RECORD of Model G0509G Precision Lathe



No.	Diagram of Measuring Method	Allowed Tolerances	Typical Measured Value (mm)	Typical Measured Value (inch)
G1		a. Alignment of longitudinal bed slide ways in vertical plane: 0.04mm (0.0015")	0.018mm	0.0007"
		b. Parallelism of transverse direction: 0.04mm (0.0015") in 1000mm (39.370")	0.03mm	0.0012"
G2		Parallelism of tailstock to longitudinal motion carriage: a. In vertical plane 0.02mm in 500mm b. In horizontal plane 0.02mm (0.0008") in 500mm (19.685")	0.01mm 0.01mm	0.0004" 0.0004"
G3		Cam action of spindle 0.015mm (0.0006")	0.008mm	0.0003"
G4		Spindle nose runout 0.01mm (.0004")	0.005mm	0.0002"
G5		Spindle taper runout: a. At end of spindle nose 0 to 0.01mm (0.0004") b. At end of 300mm (11.811") test bar 0 to 0.02mm (0.0007")	0.005mm 0.018mm	0.0002" 0.0007"
G6		Parallelism of spindle center line to longitudinal motion of carriage: a. In vertical plane: 0.02mm (0.0007") in 300mm (11.811") b. In horizontal plane: 0.015mm (0.0006") in 300mm	0.005mm 0.013mm	0.0002" 0.0005"
G7	- C	Spindle center runout: 0.015mm (0.0006")	0.01mm	0.0003"



No.	Diagram of Measuring Method	Allowed Tolerances	Typical Measured Value (mm)	Typical Measured Value (inch)
G8		Parallelism of center line of tailstock spindle to longitudinal motion of carriage: a. In vertical plane: 0.02mm (0.0007") in 100mm (3.937") b. In horizontal plane: 0.015mm (0.0006")	0.007mm 0.005mm	0.00027" 0.0002"
G9	□ <sup>a</sup> ⊢⊗ ⊗0-□ ь	Parallelism of center line of tailstock spindle hole to longitudinal motion of carriage:		
		a. In vertical plane: 0.03mm (0.001") in 300mm (11.811") b. In horizontal plane: 0.03mm (0.001") in 300mm (11.811")	0.015mm 0.01mm	0.0006" 0.0003"
G10		Difference in center height between headstock and tailstock: 0.04mm (0.0015")	0.04mm	0.0015"
G11		Parallelism of spindle axis with longitudinal movement of upper slide 0.015mm (0.0006") in 150mm (5.905")	0.01mm	0.0003"
G12		Cross slide alignment to face follow or conave only on 160mm (6.300") diameter 0.02mm (0.0007")	0.008mm	0.0003"
G13		Lead screw parallel with ways 0 to 0.10mm horizontal (0.004" 0 to 0.10mm vertical (0.004")	0.05mm 0.07mm	0.0019" 0.0027"
G14		Lead screw alignment of half nut 0 to 0.10mm horizontal (0.004") 0 to 0.10mm vertical (0.004")	0.07mm 0.08mm	0.0027" 0.0031"

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G15		Lead screw cam action 0.015mm (0.0006")	0.01mm	0.0003"
P1		Accuracy of outside round cutting: a. Roundness: 0.005mm b. Cylindricity: 0.02mm (0.0007") in 200mm (7.874")	0.003mm 0.01mm	0.0001" 0.0003"
P2	4 0 0 0 0 0 0 0 0 0 0 0 0 0	Flatness of face for finishing cutting: 0.025mm (0.001") on the diameter of 300mm (11.811")	0.015mm	0.0005"
P3		Accuracy of pitch of leadscrew thread 0.04mm (0.0015") in 200mm (7.874") 0.02mm (0.0007") in 50mm (1.968")	0.02mm 0.01mm	.0007" .0003"

