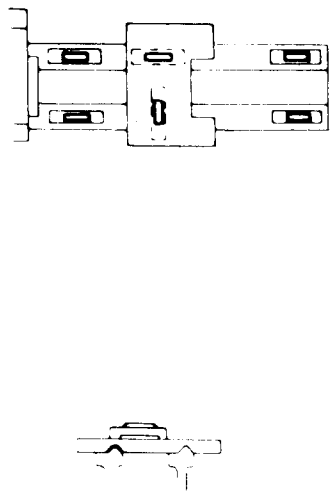
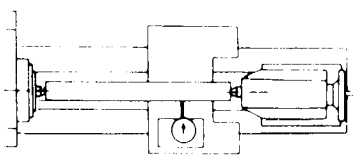
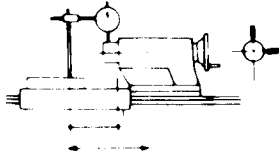
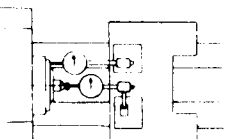
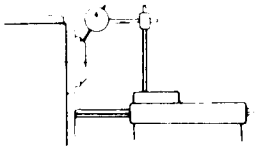
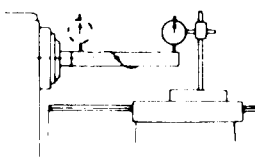
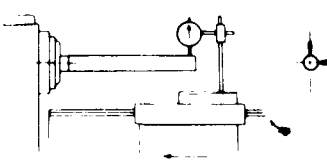



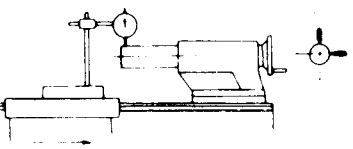
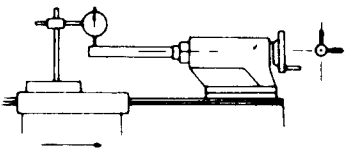
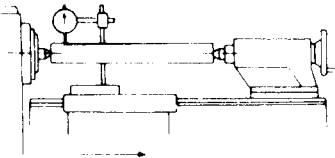
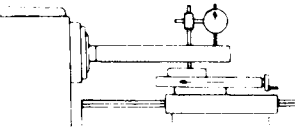
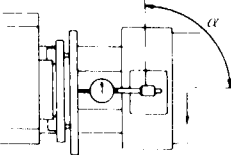
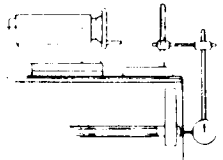
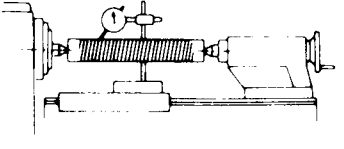
HARRISON
CENTRE LATHES

STANDARD ACCURACY
CHART

INCH EDITION

No.	Diagram	Test to be Applied	Permissible Deviation inch	Observations
G1		Straightness of Slideways (a) Longitudinal (b) Transverse	(a) $DC \leq 20''$ $0.0004''$ convex. $20'' < DC \leq 40''$ $0.0008''$ convex. Local tolerance: $0.0003''$ for any length of $10''$ $40'' < DC \leq 80''$ $0.0012''$ convex. $DC > 80''$ $0.0016''$ convex. Local tolerance: $0.0006''$ for any length of $20''$ (b) $0.0016''/40''$	Measurements made at positions equally distributed throughout the length of the bed. a) $0.00078''$ b) $0.00157''$ The level to be placed on the transverse slide.
G2		Straightness of Carriage movement in the horizontal plane.	$DC \leq 20''$ $0.0006''$ $20'' < DC \leq 40''$ $0.0008''$ $40'' < DC \leq 80''$ $0.001''$ $DC > 80''$ $0.0012''$	$0.00039''$
G3		Parallelism of the Tailstock guides to carriage movement. (a) Horizontal plane. (b) Vertical plane.	(a) & (b) $DC \leq 59''$ $0.0012''$ Local tolerance: $0.0008''$ for any length of $20''$ (a) & (b) $DC > 59''$ $0.0016''$ Local tolerance: $0.0012''$ for any length of $20''$	With tailstock as close as possible to the carriage, readings taken when they are moved together. Tailstock sleeve should remain locked so that the dial gauge fixed on carriage always touches at same point. a) $0.00039''$ b) $0.000196''$
G4		(a) Periodic axial slip. (b) Camming of face plate resting surface.	(a) $0.0004''$ (b) $0.0008''$ including periodical axial slip.	a) $0.000196''$ b) $0.000196''$
G5		Run-out of spindle nose.	$0.0004''$	$0.00031''$
G6		Run-out of axis of work spindle taper. (a) Measured at spindle nose. (b) Measured at a distance from spindle nose.	(a) $0.0004''$ (b) $0.0008''$ for $12''$	a) $0.000196''$ b) $0.00039''$
G7		Parallelism of spindle axis to carriage longitudinal movement. (a) Horizontal plane (b) Vertical plane.	(a) $0.0006''/12''$ frontwards. (b) $0.0008''/12''$ upwards.	a) $0.00039''$ b) $0.00047''$

DC: Distance between centres.

No.	Diagram	Test to be Applied	Permissible Deviation inch	Observations
G8		Run-out of spindle nose centre.	0.0006"	The dial gauge shall be placed perpendicular to the generating line of the taper. <i>0.000196"</i>
G9		Parallelism of the axis of tailstock sleeve to carriage movement. (a) Horizontal plane. (b) Vertical plane.	(a) 0.0006"/4" frontwards. (b) 0.0008"/4" upwards.	With tailstock sleeve extended it should be locked as under normal working conditions. <i>a) 0.00039"</i> <i>b) 0.00055"</i>
G10		Parallelism of taper bore of tailstock sleeve to carriage movement. (a) Horizontal plane. (b) Vertical plane.	(a) 0.0012"/12" frontwards. (b) 0.0012"/12" upwards.	With tailstock sleeve withdrawn and locked as under normal working conditions. <i>a) 0.00078"</i> <i>b) 0.00086"</i>
G11		Difference in height between headstock and tailstock centres.	0.0016" tailstock centre higher than headstock centre.	Readings taken at the extremities of the test mandrel with the tailstock sleeve withdrawn as in normal working conditions. <i>0.0027"</i>
G12		Parallelism of the longitudinal movement of top slide to spindle axis.	0.0016"/12"	Measurements are made in a vertical plane (after setting top slide parallel with the spindle axis in the horizontal plane). <i>0.000196"</i>
G13		Squareness of the transverse movement of the cross slide to the spindle axis.	0.0008"/12" direction of error $\alpha \geq 90^\circ$	<i>0.00039"</i>
G14		Axial displacement due to camming of each thrust bearing.	0.0006"	<i>0.00039"</i>
G15		Accuracy of pitch generated by leadscrew. (a) over any length of 12" (b) over any length of 2"	(a) DC $\leq 80^\circ$ 0.0016"/12" DC $> 80^\circ$ 0.0018"/12" (b) 0.0006"/2"	Measured by means of a dial gauge feeling the flanks of a master leadscrew. <i>ok</i>
1000 Volts flast test		500 Volts resistance test		Earth continuity test
<i>ok</i>		<i>ok</i>		<i>ok</i>

TESTS AND ACCURACIES

The tests and accuracies shown in this chart conform to ISO/R1708. BS4656: Part 1. DIN 8606.

Test conditions for general purpose lathes, testing of accuracy.

CONDITION OF MACHINE

Tests are to be applied when the lathe is at normal operating temperature as defined in ISO/R230, BS3800.

LATHE 15" x 50" GEARED HEAD

MODEL 8043

SERIAL NUMBER

JG 0737