

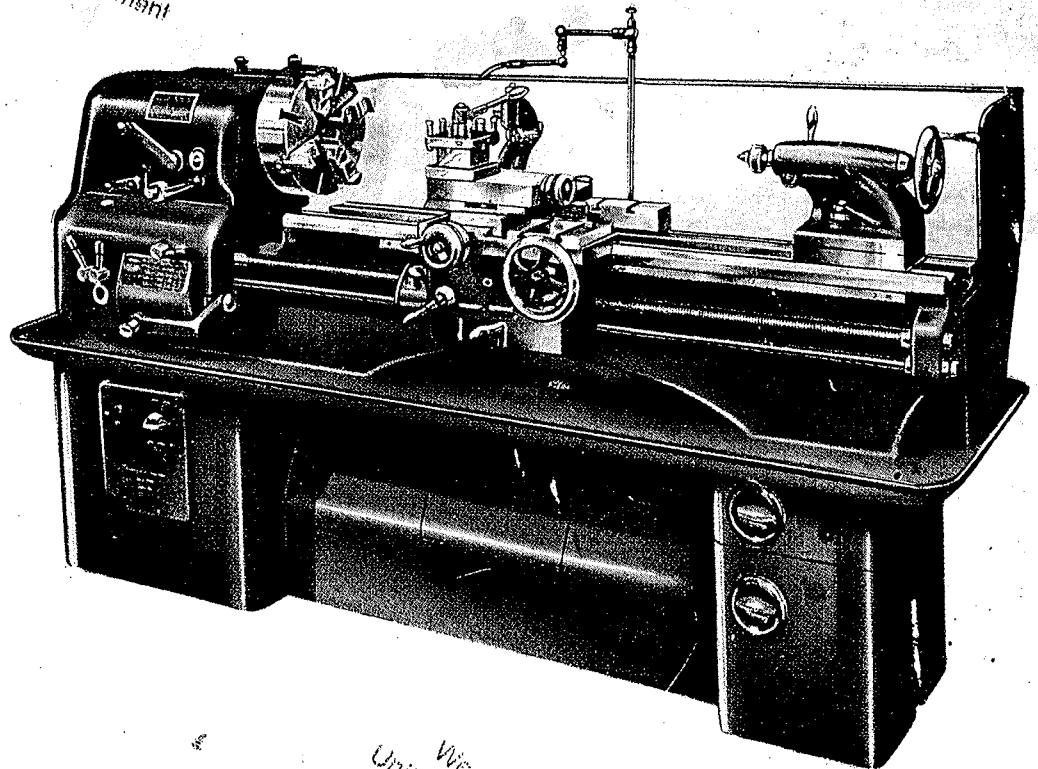
STANDARD ACCURACY CHART FOR

COLCHESTER LATHES

TO AMERICAN TOOLROOM LATHE STANDARDS

Westermans International
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Markfield Road, Groby
Leicestershire, LE6 0FS U.K.
www.westermans.com
welding@westermans.com
machining@westermans.com
Toolroom Welding & Cutting Equipment

THE LIMITS
SHOWN ARE
EQUIVALENT TO
OR CLOSER THAN
THE SCHLESINGER
LIMITS OF
ACCURACY



MANUFACTURED IN NINE RANGES

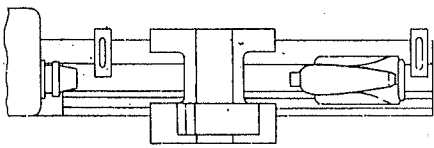
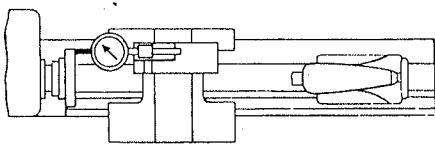
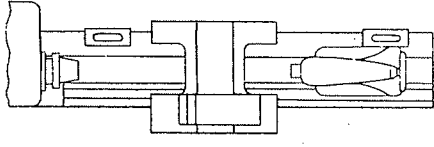
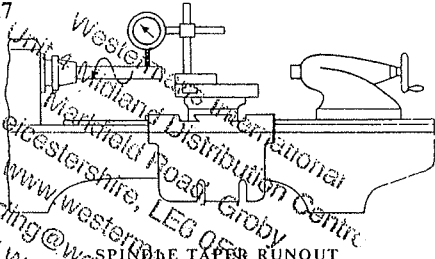
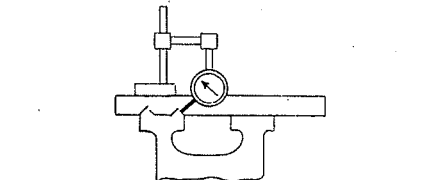
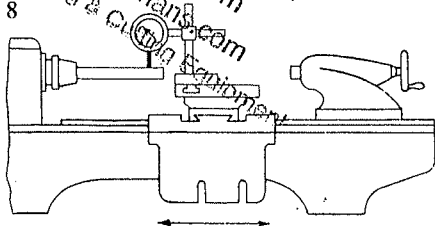
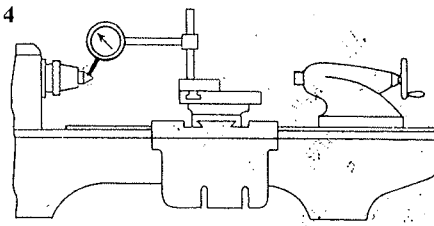
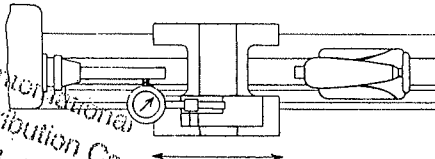
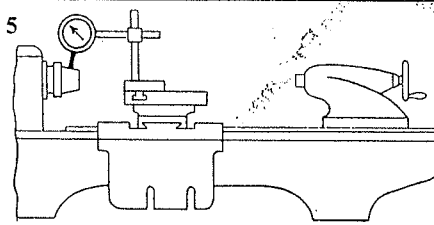
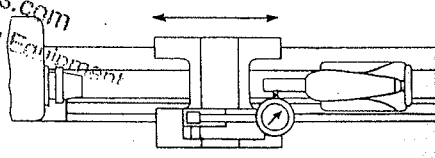
CHIPMASTER	Straight bed high speed		
STUDENT	5in. centre height	× 20in.	
MASTER	Gap bed 6in. centre height		
TRIUMPH	" " 6½in. " "	× 26in.	48in.
MASCOT	" " 7½in. " "	× 30in.	48in.
DOMINION	" " 8½in. " "	× 54in.	78in.
	Straight bed 12in. swing	× 24in.	Safr-lathe
	" " 13in. " "	× 36in.	
	" " 15in. " "	× 30in.	48in.
	" " 17in. " "	× 78in.	

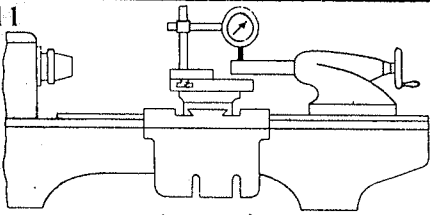
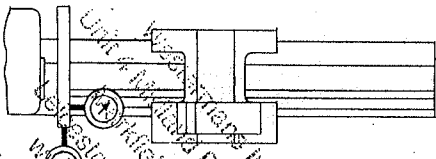
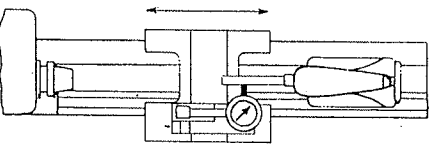
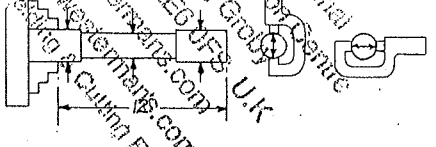
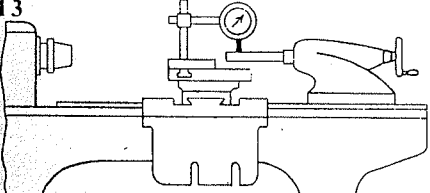
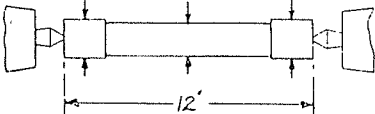
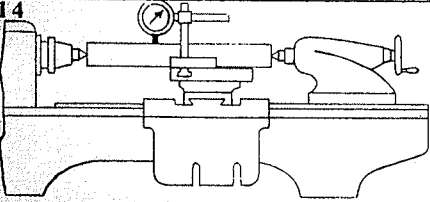
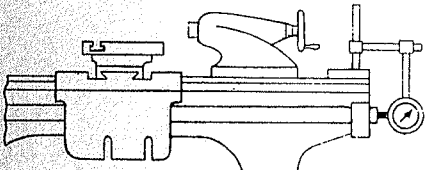
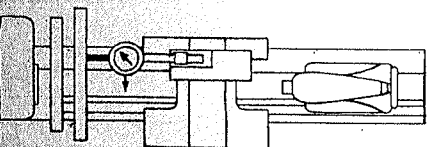
SOLD THROUGH
Kerrys (Great Britain), Ltd
Oxford.

SIZE OF MACHINE
6" Student. Colt.

SERIAL NO. 2.46119.

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TEST	PERMISSIBLE ERROR ACTUAL ERROR	TEST	PERMISSIBLE ERROR ACTUAL ERROR
1  BED LEVEL—TRANSVERSE DIRECTION	When using Precision Level all Readings to be within 0.0006 in 12 in. of Bed Length .0004.	6  CAM ACTION OF SPINDLE	Total Indicator Reading with Indicator on rear side of Test Plate 0 to 0.0003 .0002.
2  BED LEVEL—LONGITUDINAL DIRECTION	When using Precision Level along Bed Maximum Reading to be within 0.0005 in 12 in. of Bed Length .0003.	7  SPINDLE TAPER RUNOUT	Total Indicator Reading at end of 12 in. Test Bar 0 to 0.0006 at end of Spindle Nose 0 to 0.0003 .0003. .0003.
3  TAILSTOCK WAY ALIGNMENT	Maximum Reading along length of Bed 0.0005 in 48 in. .0002.	8  HEADSTOCK ALIGNMENT—VERTICAL	High at end of 12 in. Test Bar rising towards Tailstock End 0 to 0.0005 .0005.
4  SPINDLE CENTER RUNOUT	Total Indicator Reading 0 to 0.0004 .0002.	9  HEADSTOCK ALIGNMENT—HORIZONTAL	At end of 12 in. Test Bar 0 to ± 0.0003 .0002.
5  SPINDLE NOSE RUNOUT	Total Indicator Reading 0 to 0.0003 .0002.	 TAILSTOCK SPINDLE ALIGNMENT—HORIZONTAL	Forward at end of Spindle when fully extended 0 to 0.0005 .0005.

TEST	PERMISSIBLE ERROR ACTUAL ERROR	TEST	PERMISSIBLE ERROR ACTUAL ERROR
11  TAILSTOCK SPINDLE ALIGNMENT— VERTICAL	High at end of Spindle when fully extended 0 to 0.0005 .0002.	17  FACE PLATE RUNOUT	On diameter 0 to 0.0005 on face at normal diameter 0 to 0.001 .0005. .001.
12  TAILSTOCK TAPER ALIGNMENT—HORIZONTAL	End of 12 in. Test Bar 0 to ± 0.0005 .0002.	18  WORK MOUNTED IN CHUCK	Maximum deviation from true roundness 0.0003 Must turn cylindrical on 12in. length of workpiece 0.0008 .00009.
13  TAILSTOCK TAPER ALIGNMENT— VERTICAL	High at end of 12 in. Test Bar 0 to 0.0005 .0005.	19  WORK MOUNTED IN CENTERS	.0004. Must turn cylindrical on a 12 in. length of workpiece 0.0004 .0004.
14  VERTICAL ALIGNMENT OF HEAD AND TAIL CENTERS	High at Tailstock 0 to 0.001 .001.	20 LEAD SCREW LEAD PER FT. LEAD IN ANY	± 0.001 .001. ± 0.0004 .0003.
15  LEAD SCREW CAM ACTION	Maximum 0.0003 .0003.	21 BACK LASH ON CROSS FEED SCREW ON COMPOUND REST SCREW	0.004 .002. 0.004 .004.
16  CROSS SLIDE ALIGNMENT	To face hollow or concave only on 12 in. diameter 0 to 0.0005 .0005.	22 INDEXING OF SQUARE TURRET	Indicator Reading 0.001 .

Inspected by S. J. Hale

SPECIFICATIONS

Straight Bed Machines	5in. CHIPMASTER	12in. SWING	13in. SWING	15in. SWING	17in. SWING
Swing over bed	11½in.	12in.	13in.	15in.	17in.
Swing over carriage	6in.	9in.	9in.	9in.	12in.
Distance between centres	20in.	2ft. 0in.	3ft. 0in.	2ft. 6in. - 4ft.	6ft. 6in.
Spindle bored to pass	1½in.	1½in.	1½in.	2in.	3in.
No. of spindle speeds	Infinitely variable *	8	8	8	8
Range of spindle speeds	35-3000 r.p.m.*	54 to 1200 r.p.m.	54 to 1200 r.p.m.	50 to 1000 r.p.m.	37 to 600 r.p.m.
Length of bed	3ft. 8½in.	4ft. 4½in.	5ft. 4½in.	5ft. 2in. - 6ft. 7in.	10ft.
Width of bed	8in.	8½in.	8½in.	10in.	12½in.
Depth of bed	10in.	7in.	7½in.	11in.	11½in.
Centres	No. 3 Morse	No. 3 Morse	No. 3 Morse	No. 3 Morse	No. 4 Morse
No. of threads given by gearbox	44	45	45	45	45
Range	2-60 T.P.I.	4-120 T.P.I.	4-120 T.P.I.	4-120 T.P.I.	4-120 T.P.I.
No. of feeds	27	45	45	45	45
Range	125-1000 per inch (0.001in. to 0.008in. per rev.)	15-400 per inch (0.068in. to 0.0025in. per rev.)	15-400 per inch (0.068in. to 0.0025in. per rev.)	20-666 per inch (0.048in. to 0.0015in. per rev.)	20-666 per inch (0.050in. to 0.0015in. per rev.)
Motor	1½ h.p.	3 h.p.	3 h.p.	5 h.p.	7½ h.p.

*An alternative model having 6 spindle speeds from 75-3000 r.p.m. is also available.

Gap Bed Machines	6in. STUDENT	6½in. MASTER	7½in. TRIUMPH	8½in. MASCOT
Swing over bed	12in.	13in.	15in.	17in.
Swing over carriage	9in.	9in.	9in.	12in.
Distance between centres	2ft.	3ft.	2ft. 6in. - 4ft.	4ft. 6in. - 6ft. 6in.
Swing in gap	18in.	19in.	2ft. 1in.	2ft. 5in.
Length of gap in front of face plate	4½in.	4½in.	6in.	9½in.
Spindle bored to pass	1½in.	1½in.	2in.	3in.
No. of spindle speeds	8	8	8	8
Range of spindle speeds	54 to 1200 r.p.m.	54 to 1200 r.p.m.	50 to 1000 r.p.m.	37 to 600 r.p.m.
Alternative spindle speeds	—	—	30 to 600 r.p.m.	25 to 410 r.p.m.
Length of bed	4ft. 4½in.	5ft. 4½in.	5ft. 2in. - 6ft. 7in.	8ft. - 10ft.
Width of bed	8½in.	8½in.	10in.	12½in.
Depth of bed	7½in.	8in.	10½in.	11in. - 12in.
Centres	No. 3 Morse	No. 3 Morse	No. 3 Morse	No. 4 Morse
No. of threads given by gearbox	45	45	45	45
Range	4-120 T.P.I.	4-120 T.P.I.	4-120 T.P.I.	4-120 T.P.I.
No. of feeds	45	45	45	45
Range	15-400 per inch (0.068in. to 0.0025in. per rev.)	15-400 per inch (0.068in. to 0.0025in. per rev.)	20-666 per inch (0.048in. to 0.0015in. per rev.)	20-666 per inch (0.050in. to 0.0015in. per rev.)
No. of Metric threads	12	12	12	12
Range	0.25-6.00 mm.	0.25-6.0 mm.	0.25-6.0 mm.	0.25-6.0 mm.
Motor	3 h.p.	3 h.p.	5 h.p.	7½ h.p. (Standard) 3 h.p. (Slow speed range)

We retain the right to change the above specifications without notice

THE COLCHESTER LATHE COMPANY LIMITED

Hythe, Colchester, England : COLCHESTER 5161

Printed in England