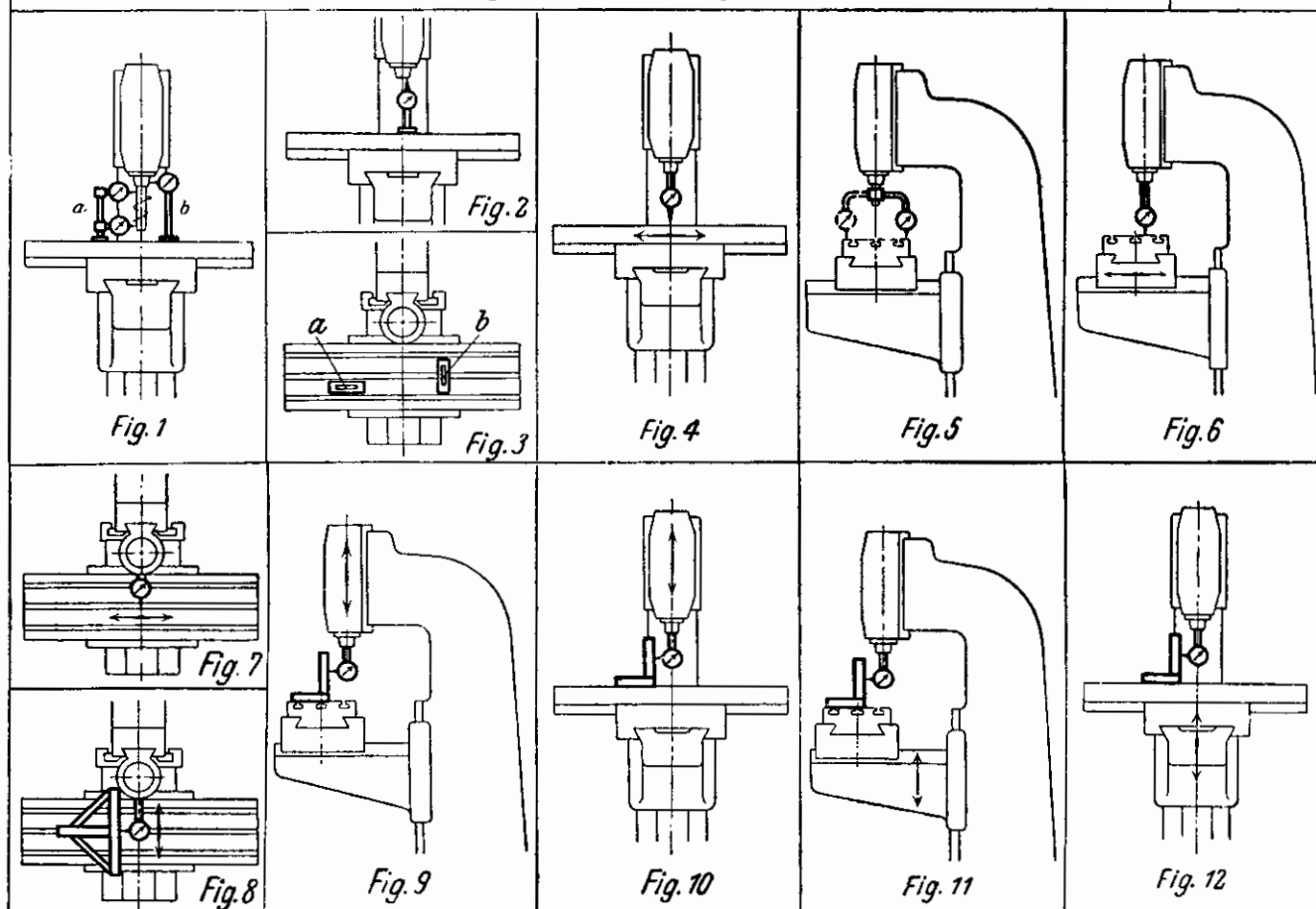




Test Chart for Vertical Milling Machines

No. 3
Chart 1

Test to be Applied	Fig. No.	Permissible Error
Levelling of work table:		
Work table flat or level in longitudinal direction	3a	mm. ± 0.04 per 1,000 mm.
Ditto, in transverse direction	3b	± 0.04 per 1,000 mm.
Cutter spindle:		
Internal taper of cutter spindle runs true:		
(1) Nearest to spindle nose	1a	0.01
(2) At a distance of 300 mm. (12 in.)		0.02
External taper runs out of truth	1b	0.01
Cutter spindle for axial slip in machines with up to 50 mm. (2 in.) dia. of front bearing	2	0.01
Over 50 mm. (2 in.) dia. of front bearing		0.02
Work table:		
Rise and fall of table, in its longitudinal movement	4	0.02 per 500 mm.
Addition: over 500 mm. movement 0.01 per 500 mm.		0.01 per 500 mm.
Work table square with cutter spindle in plane through longitudinal axis of machine (turn round method; table rising towards the front side only)	5	0 to 0.02 per 300 mm.
Work table square with cutter spindle in plane perpendicular to that through longitudinal axis (turn round method)	5	0.02 per 300 mm.

Test Chart for Vertical Milling Machines

No. 3
Chart 2

Test to be Applied	Fig. No.	Permissible Error
Surface of work table parallel with its transverse movement	6	mm. 0.02 per 300 mm.
Centre T-slot parallel with longitudinal table movement	7	0.02 per 300 mm.
Centre T-slot square with transverse table movement	8	0.02 per 300 mm.
Width of T-slots:		
From 10 to 12 mm. ($\frac{3}{8}$ to $\frac{1}{2}$ in.)	..	0 to +0.015
From 14 to 18 mm. ($\frac{1}{2}$ to $\frac{3}{4}$ in.)	..	0 to +0.02
Over 18 mm. ($\frac{3}{4}$ in.)	..	0 to +0.025
Column:		
Vertical adjustment of cutter slide square with work table in plane through longitudinal axis of machine (table rising towards the front side)	9	0 to 0.02 per 300 mm.
Ditto, in plane perpendicular to that through longitudinal axis	10	0.02 per 300 mm.
Column ways for knee square with work table, incline towards front and rear side, respectively	11	0.02 per 300 mm.
Ditto, lateral incline	12	0.02 per 300 mm.

For Table of Equivalents in English Measure see page 51