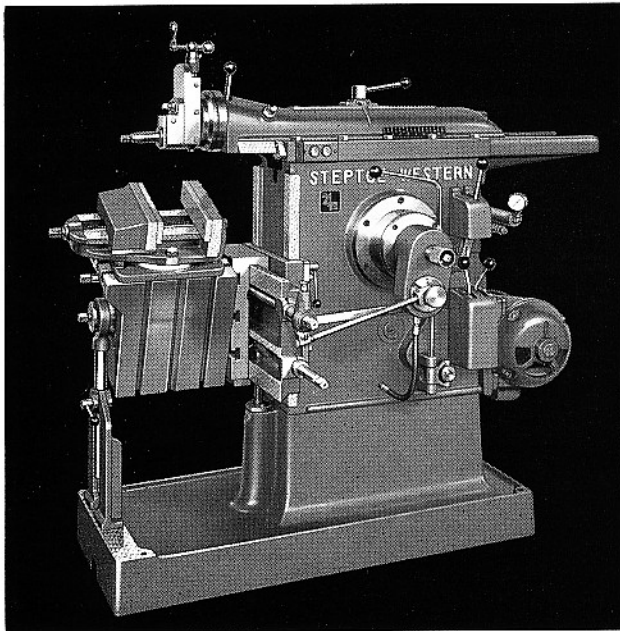


STEPTOE-WESTERN 12" & 15" SHAPERS

4, 9, OR 18 SPEEDS — TO 200 STROKES PER MINUTE

TIMKEN BEARING EQUIPPED



STEPTOE-WESTERN Shapers, with a selection of ram speeds and number of strokes, are available in 12" and 15" sizes. All sliding surfaces and Vee type ram are planed, hand-scraped, and adjustably gibbed for accuracy. All drive shafts and helical bull gear and pinion are mounted on Timken precision bearings. Transmission gears of alloy steel, oil lubricated, and all speed changes made through sliding gears on involute splines. All machines are back-gearred for ample power. Filtered pressure lubrication available to all bearings, ram, and gearing. Entire drive mechanism enclosed within the column, with centralized speed control shifters at operator's position. Silent 3 Vee belt drive with adjustable centers, completely guarded. Plain table with Tee slots on top and sides, supplied as standard equipment, with 10" wide heavy duty, steel-jawed vise. Universal table with outboard bearing available on demand. Rotates through 90°, tilting top swivels 15° each side of center. Outboard support available for all model tables, on demand, at low cost.

Lubricated one-piece rocker arm block, with stroke settings made by squared shaft through the bull gear. Stroke settings indicated on large scale on top of ram ways, and locked from operator's position.

Eight automatic reversible power cross feeds .006-.053 to the table, with extra long down feed to tool head slide. Tool head graduated to swivel 120°, and micrometer dials for all feed motions. Clapper block is angularly adjustable through 45° arc. Outboard table support and tilting table top available on all models. Oversize starting clutch, synchronized with ram brake, is adjustable for wear and completely guarded. Machines equipped with either 2 or 3 H.P. 1800 R.P.M. motors, at customer's demand. First and only 18 speed, all-gearred, shaper in America. Speeds production, lowers costs.

STEPTOE — FIRST IN SHAPERS FOR OVER 100 YEARS

SPECIFICATIONS

Machine Size	12"	15"
Extreme Length Stroke	12 $\frac{3}{4}$ "	15 $\frac{3}{4}$ "
Length of Ram	35 $\frac{7}{8}$ "	35 $\frac{7}{8}$ "
Keyseating Capacity Thru Column—Diameter	2 $\frac{1}{2}$ "	2 $\frac{1}{2}$ "
Number Ram Speeds	4, 9, or 18	4, 9, or 18
Strokes Per Minute—18 Speeds	17 - 200	17 - 200
Strokes Per Minute—9 Speeds	30 - 105	30 - 105
Strokes Per Minute—4 Speeds	27 - 130	27 - 130
Number Feeds	8	8
Range of Feeds	.006 - .053	.006 - .053
Vise—Width x Depth Jaws	10" x 2 $\frac{1}{2}$ "	10" x 2 $\frac{1}{2}$ "
—Maximum Opening	9 $\frac{1}{8}$ "	9 $\frac{1}{8}$ "
Diameter of Tool Head	6 $\frac{7}{8}$ "	6 $\frac{7}{8}$ "
Travel of Tool Head	6"	6"
Size Tool Shank	5 $\frac{1}{8}$ " x 1 $\frac{3}{8}$ "	5 $\frac{1}{8}$ " x 1 $\frac{3}{8}$ "
Table to Ram—Maximum	15 $\frac{1}{8}$ "	15 $\frac{1}{8}$ "
Horizontal Travel to Table	19 $\frac{1}{2}$ "	19 $\frac{1}{2}$ "
Vertical Travel to Table	12 $\frac{1}{4}$ "	12 $\frac{1}{4}$ "
Length x Width x Depth of Table—Plain	16 $\frac{1}{8}$ " x 9 $\frac{7}{8}$ " x 13 $\frac{3}{4}$ "	18 $\frac{1}{8}$ " x 9 $\frac{7}{8}$ " x 13 $\frac{3}{4}$ "
Motor Recommended—1800 R.P.M.—60 Cycles	2 H.P. or 3 H.P.	3 H.P.
Net Weight—Approx. Lbs.	2150	2225
Boxed Weight—Export—Lbs.	2900	2900
Floor Space Required—Maximum	34" x 58" Long	34" x 58" Long
Volume—Boxed for Export	95 cu. ft.	95 cu. ft.

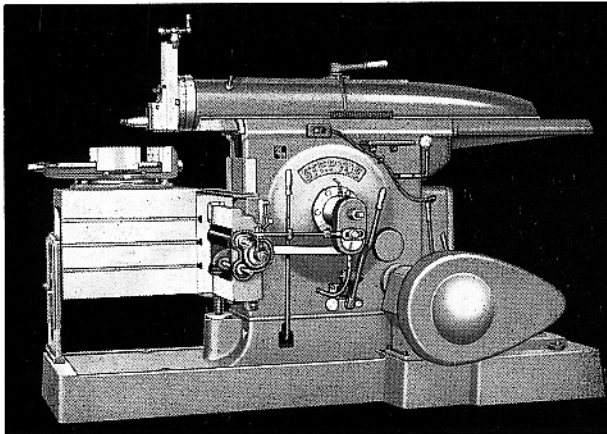
Individual Catalogs and Prices on Application

WESTERN MACHINE TOOL WORKS
HOLLAND, MICHIGAN, U. S. A.

STEPTOE SHAPERS

HEAVY DUTY — TIMKEN BEARING EQUIPPED

— 4 OR 8 SPEEDS —



A CONSTANT succession of improvements over a great many years, with proved production and accuracy features, are embodied in the latest type of Steptoe Shapers. The simplicity of component parts, and the absence of gadget attachments, finds reflection in very low maintenance cost and long life.

All drive shafts, and the bull gear, are mounted on Timken bearings within dust proof housings, and are supplied with an automatic forced feed lubricating system, when so ordered.

All gears within the speed box are of generous proportions, of alloy steel; generated on Fellows Shapers, and chamfered where required for easy sliding engagement. All sliding gears are mounted on involute splined shafts, and all gearing is spray lubricated with oil. An efficient brake, synchronized with the adjustable Twin

Disc driving clutch, brings the ram quickly to rest.

Vee belt or geared motor drive is optional, being quoted as extra over the base price.

One-piece bull gear construction, of semi-steel, and helical tooth form provides for smoothness of action and fine finish.

Four speed changes within the speed box, combined with sliding back gears within the column, produce eight ram speeds in progression. Convenient levers and centralized controls are an inducement to the operator to use Steptoe features to a maximum advantage. Oil reservoir for lubrication pump is integral with the base. All speed changes may be made while machine is running, without clashing of different gear ratios.

Ram of vee type is hand scraped to master gages, and pressure lubricated. Full ram stroke is obtainable with head set at any angle up to 60° either side of center. Ramway vees are protected with adequate bronze and felt wipers, and a substantial guard gives protection from the reciprocating ram. Oil pressure gage for automatic lubricating system is supplied. Simple, trouble-free ratchet feed is supplied to the crossrail; power vertical feed to the table is regular equipment. Ram strokes are indicated on a scale on the column. Outboard table support standard equipment on 20" and 24" sizes; available on demand for 14" and 16" sizes. Power rapid traverse to the table can be supplied as an extra, on demand. Machine can be arranged for single pulley drive, vee belt drive, or geared motor drive, through speedbox, at option. Full line of accessories is available on demand i. e. universal table, tilting table top, double screw vise, mold makers vise, power down feed to head, and index centers. Machine made in 14", 16", 20" and 24" sizes with 4 or 8 ram speeds.

STEPTOE — FIRST IN SHAPERS FOR OVER 100 YEARS

SPECIFICATIONS

Size Machine	14" S.G.	14" B.G.	16" S.G.	16" B.G.	20" S.G.	20" B.G.	24" B.G.
Extreme Length Stroke - - - - -	14¾"	14¾"	16¾"	16¾"	20¾"	20¾"	24¾"
Keyseating Capacity—Diam. through Column - - -	1½"	1½"	2"	2"	3"	3"	4"
Strokes per Minute—							
Forced Feed Lubrication—							
Motor or Single Pulley Drive	41 - 130	18 - 130	44 - 132	17 - 132	44 - 132	12 - 132	11 - 130
Plain Lubrication—							
Motor or Single Pulley Drive	31 - 94	13 - 100	33 - 99	13 - 99	33 - 99	9 - 99	8 - 98
Forced Feed Lubrication—							
Countershaft Cone Pulley Drive	34 - 115	13 - 115	35 - 119	15 - 119	33 - 136	9 - 136	9 - 124
Plain Lubrication—							
Countershaft Cone Pulley Drive	26 - 87	12 - 87	26 - 90	12 - 90	24 - 102	7 - 102	7 - 93
Speeds to Ram - - - - -	4	8	4	8	4	8	8
Table—Plain—Horizontal Travel - - - - -	19¾"	19¾"	21½"	21½"	24½"	24½"	27½"
Vertical Travel - - - - -	13"	13"	13½"	13½"	12"	12"	13¾"
Feeds—Standard							
Number - - - - -	7	7	7	7	7	7	7
Range - - - - -				.008 to .058"			
*Feeds—Special—On Demand							
Number - - - - -	18	18	18	18	18	18	19
Range - - - - -		.006 to .108	.006 to .108	.006 to .108	.006 to .108	.006 to .108	.008 to .146
Head—							
Vertical Travel - - - - -	4"	4"	6"	6"	7½"	7½"	9"
Size of Tool Shank - - - - -	¾ x 1¾"	¾ x 1¾"	¾ x 1¾"	¾ x 1¾"	¾ x 1¾"	¾ x 1¾"	¾ x 1¾"
Vise—Standard							
Width of Jaws - - - - -	9"	9"	10"	10"	12"	12"	12"
Depth of Jaws - - - - -	2½"	2½"	2½"	2½"	2½"	2½"	2¾"
Maximum Opening - - - - -	9"	9"	10"	10"	13"	13"	15"
Motor Drive Machines—							
Net Weight—Without Motor—Lbs.	2900	3000	3550	3650	4000	4150	5700
Boxed for Export—Lbs.	4000	4100	4800	4900	5450	5600	7350
Motor Recommended—1800 R.P.M.—60 Cycles - - -	3 - 5 H.P.	3 - 5 H.P.	5 - 7½ H.P.	5 - 7½ H.P.	5 - 7½ H.P.	5 - 7½ H.P.	7½ - 10 H.P.

Individual Catalogs and Prices on Application

WESTERN MACHINE TOOL WORKS

Circular 54S-1

HOLLAND, MICHIGAN, U. S. A.

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