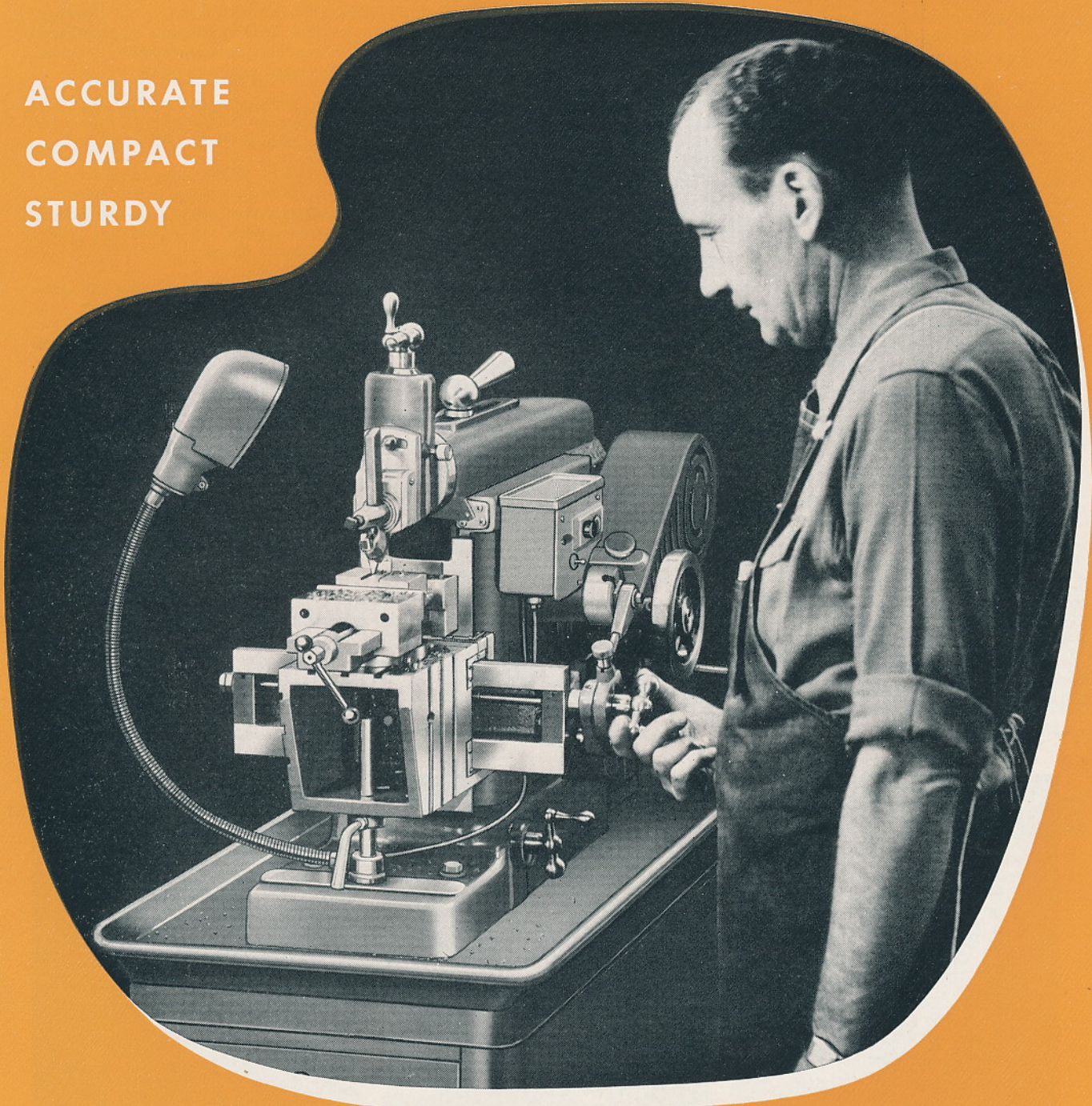


SOUTH BEND

7" *Precision* SHAPER

ACCURATE
COMPACT
STURDY



SOUTH BEND LATHE WORKS

BUILDING BETTER TOOLS SINCE 1906

425 E. MADISON STREET, SOUTH BEND 22, INDIANA, U. S. A.



South Bend 7-inch Precision Bench Shaper

The South Bend 7" Shaper has been developed to meet tool-room and industrial demands for an accurate, compact bench shaper that is precision engineered and sturdily constructed. It has the built-in accuracy and versatility for rapid machining on small parts. The stroke rate per minute is higher than on larger shapers, permitting greater production on work within its capacity. The ease of setting up work in the bench shaper, its high operating speeds, and the low power consumption of the fractional h.p. motor, keep costs to a minimum. Built to the same high standards that have made South Bend Lathes famous for their precision and durability, this shaper is capable of the most exacting work on parts within its capacity.

Ram has long dovetail bearings which provide rigid support for the cutting tool, even in the extreme forward position. Gib adjustment is provided, and dovetail ways are fitted with felt wipers on both ends of column. Length of stroke is regulated by crank gear eccentric adjustment, and rocker arm is graduated to indicate length of stroke in inches. A large handwheel is provided for adjusting the ram which is locked in position by a conveniently located binding lever. The crank gear is precision made for quiet operation. Oil impregnated bearings are used for both the crank gear and the countershaft.

Tool head swivels to any angle, and has 3½" diameter mounting with accurately cut graduations 0 to 90° right and left. The tool slide screw has a clear cut graduated collar reading in thousandths of an inch. The clapper box swivels on the tool slide and may be adjusted for clearance, regardless of the

tool slide angle. A tool slide lock is provided so that extreme accuracy and flatness can be maintained.

Table has holes and slots on top and on each side for clamping work. A V-groove is also provided on one side of the table. The cross-feed screw has a clear cut graduated collar reading in thousandths of an inch. The cross rail on which table slides is substantially constructed with large widely spaced bearing ways. Gib adjustment is provided for take-up. Provision is made for locking the vertical adjustment. For safety, the cross-feed screw is so constructed that the nut will run off the thread when it has traveled the maximum distance in either direction. An adjustable front end support assures rigidity.

Vise swivels to any angle, with base graduated 0 to 90° right and left, and can be mounted on the top or right side of the table. Vise jaw inserts are made of heat-treated steel.

Motor required is ⅓ or ½ h.p., 1725 r.p.m., and is mounted on a cradle at the back of the shaper. Power is transmitted by V-belts. A quick acting belt tension release is provided for easy shifting of the belt to change speeds. All V-belts and pulleys are enclosed in substantial metal guards.

CS100. South Bend 7" Precision Bench Shaper with vise, drive unit for ⅓ h.p. motor, motor pulley, V-belts, guards, work light, and switches, but without motor, steel stand, or tool holder. Shipping weight crated 330 lbs. Boxed weight 400 lbs., cubic feet boxed 12.

Specifications of South Bend 7" Precision Shaper

Ram

Length of Ram Stroke..... 0 to 7"
 Strokes Per Minute, approximate..... 42-75-120-195
 Cutting Speeds..... 3 to 114 feet per minute

Tool

Length of Feed..... 3"

Head

Tool Post Takes Tool Holder Shank..... ⅜" x 1⅜"
 Swivels..... 360°

Vise

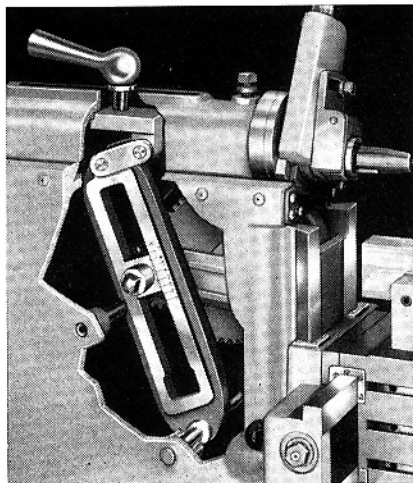
Width of Jaws..... 4"
 Depth of Jaws..... 1"
 Maximum Opening..... 4"

Table

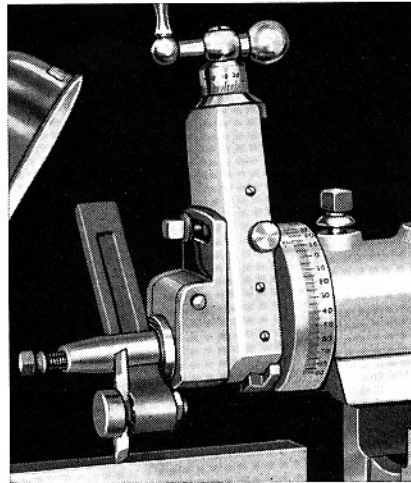
Length of Top..... 6⅝"
 Width of Top..... 5"
 Depth of Table..... 5⅜"
 Horizontal Travel..... 9½"
 Vertical Travel..... 5"
 Distance from Ram..... ½" to 5½"
 Power Cross-Feeds (reversible)..... .002" to .012"
 Width of Slots..... ⅝"
 Holes for Clamp Bolts..... ⅜"

Motor

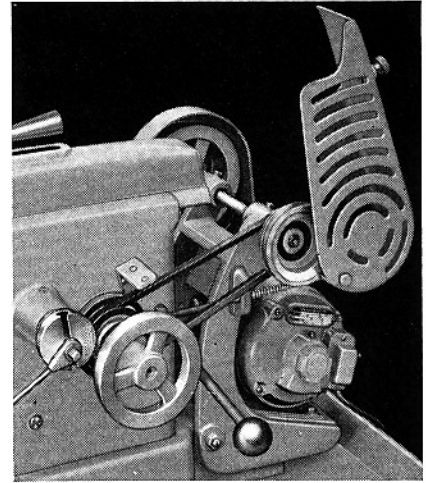
Size Recommended..... ⅓ or ½ h.p.



Rocker and crank with graduated eccentric adjustment for stroke



Tool head locks in any position. Rugged clapper box also adjustable



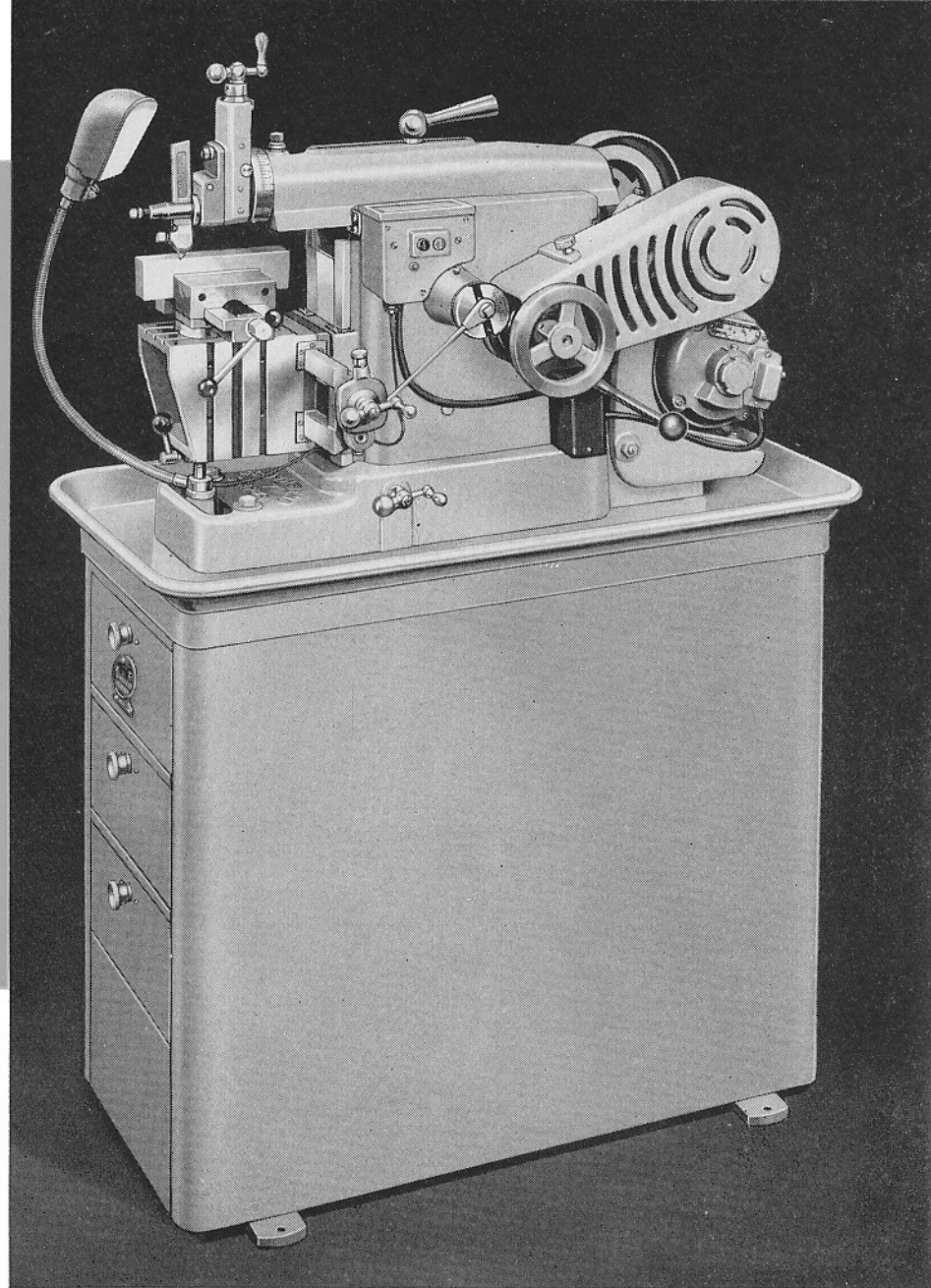
Guards on all belts and pulleys. Quick-acting belt tension release

FEATURES

- Built-in work light prevents eye strain.
- Reversible power cross-feeds .002" to .012".
- Built-in motor drive with quick acting belt tension release for changing speeds.
- Swivel vise graduated in degrees.
- Swivel tool head graduated in degrees.
- Convenient stroke adjustment 0 to 7".



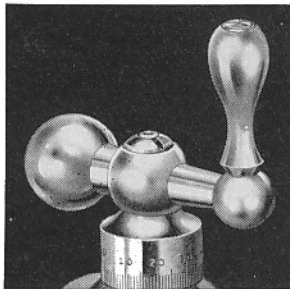
Note: Motor, tool holder, and steel stand shown in illustration are not included in regular equipment of shaper. See page 4.



Swiveling Machine Handles

Swiveling machine handles for the shaper can be supplied in lieu of the solid machine handles furnished as regular equipment, provided they are specified when the shaper is ordered.

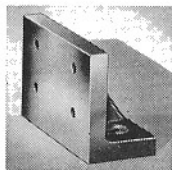
CS9636. Swiveling Machine Handles for tool head feed screw, table cross-feed screw, and table vertical feed screw, in lieu of solid machine handles if ordered with shaper.



Angle Plate

A heavy cast iron angle plate for clamping work on shaper, drill press, milling machine, face plate of lathe, etc. Size 4½" x 3" x 2".

CE9640. Ship. wt. 4 lbs.

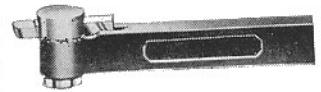


SOUTH BEND LATHE WORKS

Shaper Tool Holder

An extremely rigid forged steel tool holder for ¼" square cutter bits. Adjustable to work at all angles. Head can be swiveled and locked at eight different positions for machining many odd shapes and for cutting various angles without shifting the work. Shipping weight 1 lb.

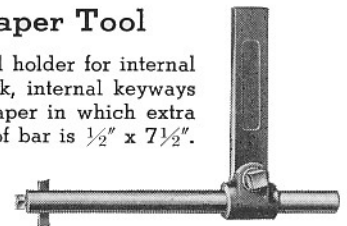
CS9630. Adjustable Shaper Tool Holder.



Extension Shaper Tool

A rigid forged steel tool holder for internal work. Adapted for die work, internal keyways or for any work on the shaper in which extra clearance is needed. Size of bar is ½" x 7½". Takes cutter bit ⅜" x ⅜". Shipping weight 2 pounds.

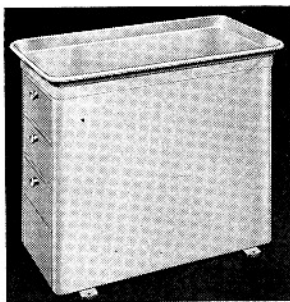
CS9631. Extension Shaper Tool.



SOUTH BEND 22, INDIANA, U.S.A.

Steel Machine Stand

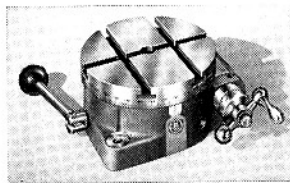
This sturdy, welded steel stand provides rigid support for a bench shaper, drill press, vise, jig saw, or other machine. Top has bolt holes punched for mounting shaper. A built-in chip pan forms the top of the stand permitting the use of coolant if desired. Three drawers 10½" x 5½" x 15¾" inside, with key locks provide plenty of storage space for work, tools and accessories. Nicely finished with gray wrinkle enamel. Width 19", depth 36", height 28¾". Shipping weight 150 pounds.



CS9600. Steel Stand for Shaper.

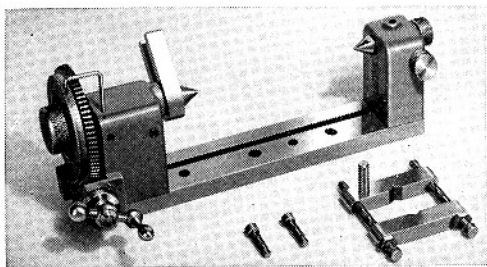
Indexing Table

You will find this rotary indexing table a great convenience for mounting small work on the milling machine, drill press, or shaper. Used for accurately spacing bolt holes, indexing clutch teeth, machining square, hexagonal or octagonal shapes, milling circular grooves or T-slots, etc. Table is 4½" in diameter and has three T-slots for clamping work. Edge of table is graduated 360°. Table is turned by worm gearing having graduated collar and ball crank. Thumb screw on front of ball crank locks graduated collar in any position. Each graduation indicates a table movement of 3 minutes. One complete revolution of the ball crank turns the table 5 degrees. Clamping device is provided for locking table in any position. Top of table is precision ground. Base has two bolt holes for clamping to machine table. Price includes eight clamping bolts with nuts and washers.



PATENT APPLIED FOR

CE9144. Indexing Table. Shipping weight 14 lbs.



PATENT APPLIED FOR

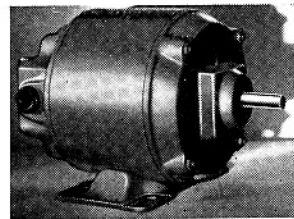
Indexing Centers

This is an indispensable device for cutting splines or flutes in shafts, laying out work, accurate cross drilling, gear cutting, milling or shaping hexagons, squares, etc. Base has bolt holes for clamping on table of drill press, milling machine or shaper. Takes work between centers up to 5" in diameter, 6" long. Revolving center has large dial graduated 360°. Center is turned by worm gearing having graduated collar and ball crank. Each graduation indicates a center movement of 3 minutes. One complete revolution of the ball crank turns the center 5°. Worm gear can be disengaged for quick positioning of indexing center. Clamping device is provided for locking center in any position. Base has two bolt holes for clamping to machine table. Price includes two clamping bolts.

CE9635. Indexing Centers. Shipping weight 12 lbs.

Motors for South Bend Shapers

Motors listed below are recommended for use with South Bend 7" Shapers. These are all ball-bearing motors with the exception of No. CS3256B, which is a sleeve bearing motor. All single phase motors are capacitor type with the exception of the No. CS3256B, which is split-phase. Prices of ½ h.p. motors include special mounting base. Prices of 230 V., single phase and D.C. motors include 230 V. lamp in lieu of 115 V. lamp which is regularly supplied with shaper.



Remote control equipment described below the motor table is optional for motors operating on two phase or three phase alternating current. Information on motors for current characteristics not listed will be supplied on request. Approximate ship. wts.: ⅓ h.p. motors 40 lbs., ½ h.p. motors 50 lbs.

Motors for South Bend 7" Bench Shapers

Cat. No.	H.P.	Current	Volts	Phase	Cycle
CS4910B	⅓	A.C.	115	1	60
CS3256B	⅓	A.C.	115	1	60
CS4910D	⅓	A.C.	230	1	60
CS4911A	⅓	A.C.	115	1	50
CS4911C	⅓	A.C.	230	1	50
CS4912D	⅓	A.C.	220	3	60
CS4912C	⅓	A.C.	220	3	50
CS4913S	⅓	A.C.	380	3	50
CS4913F	⅓	A.C.	440	3	60
CS4913E	⅓	A.C.	440	3	50
CS4920B	½	A.C.	115	1	60
CS4920D	½	A.C.	230	1	60
CS4921A	½	A.C.	115	1	50
CS4921C	½	A.C.	230	1	50
CS4916R	½	A.C.	125	1	50
CS4915Q	½	A.C.	250	1	50
CS4922Y	½	A.C.	115	1	40
CS4922Z	½	A.C.	230	1	40
CS4914D	½	A.C.	220	2	60
CS4914C	½	A.C.	220	2	50
CS4914F	½	A.C.	440	2	60
CS4914E	½	A.C.	440	2	50
CS4924D	½	A.C.	220	3	60
CS4924C	½	A.C.	220	3	50
CS4924S	½	A.C.	380	3	50
CS4924F	½	A.C.	440	3	60
CS4924E	½	A.C.	440	3	50
CS4930	½	D.C.	115
CS4931	½	D.C.	230

Controls for Two and Three Phase Motors

Remote control equipment includes step-down transformers and relays which reduce the current to the operating switch to 110 volts. This equipment is optional for motors operating on two phase or three phase alternating current.

CE9609E. Remote Control for two phase or three phase, 220 v. or 440 v., 50 cycle A.C. motors. Shipping weight 14 lbs.

CE9609F. Remote control for two phase or three phase, 220 v. or 440 v., 60 cycle A.C. motors. Shipping weight 14 lbs.

CE9609S. Remote control for three phase 380 v. A.C. motors. Shipping weight 14 lbs.

Plastic Cover for Shaper

Keep your shaper clean and in good condition by protecting it overnight and whenever not in use with this waterproof oil resistant service cover. Attractive maroon color. Size 21" wide, 37" long, 24" high, large enough to cover the entire shaper. (For other sizes see pages 70 and 81.)

CE2694. Waterproof Service Cover for Shaper, shipping weight 2 lbs.

