

**A Combination  
Back-Geared  
Screw Cutting  
Lathe - - -**

For Machining All  
Kinds of Metals,  
Woods, Hard Rubber,  
Fibres, Catalin, Bake-  
lite, Celluloid, Etc.

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Recommended for Use in  
Electrical Shops  
Repair Shops  
Automotive Repair Work  
Home Workshops  
Experimental Shops

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**SOUTH BEND  
LATHE WORKS**

425 EAST MADISON STREET  
SOUTH BEND, INDIANA, U.S.A.

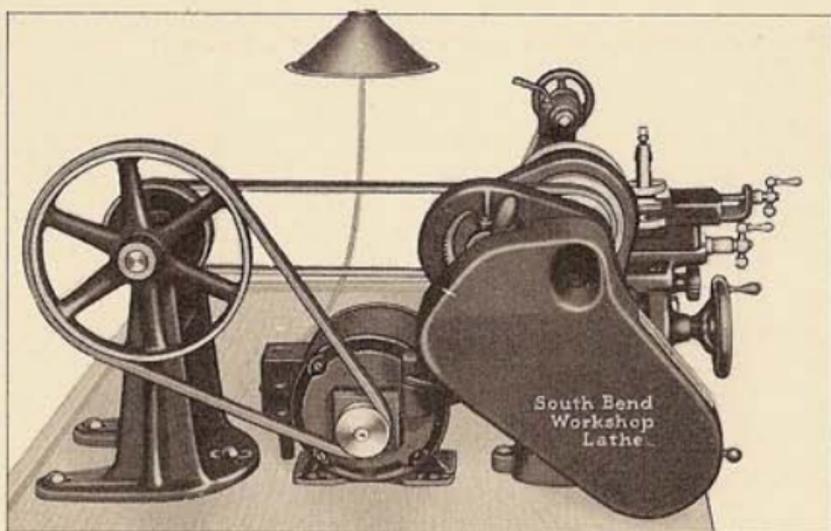


Fig. 1. VIEW OF LATHE FROM HEADSTOCK END.

The illustration above shows the arrangement of horizontal V-belt countershaft and motor for driving the lathe. A 1/4 H.P. start-and-stop type reversing motor and drum reversing switch, connected to an ordinary lamp socket, supplies the power. Power is transmitted from the motor to the countershaft by V-belt and by flat leather belt from countershaft to lathe spindle cone. The reversing motor and reversing switch enable the operator to reverse the carriage by power for cutting screw threads.

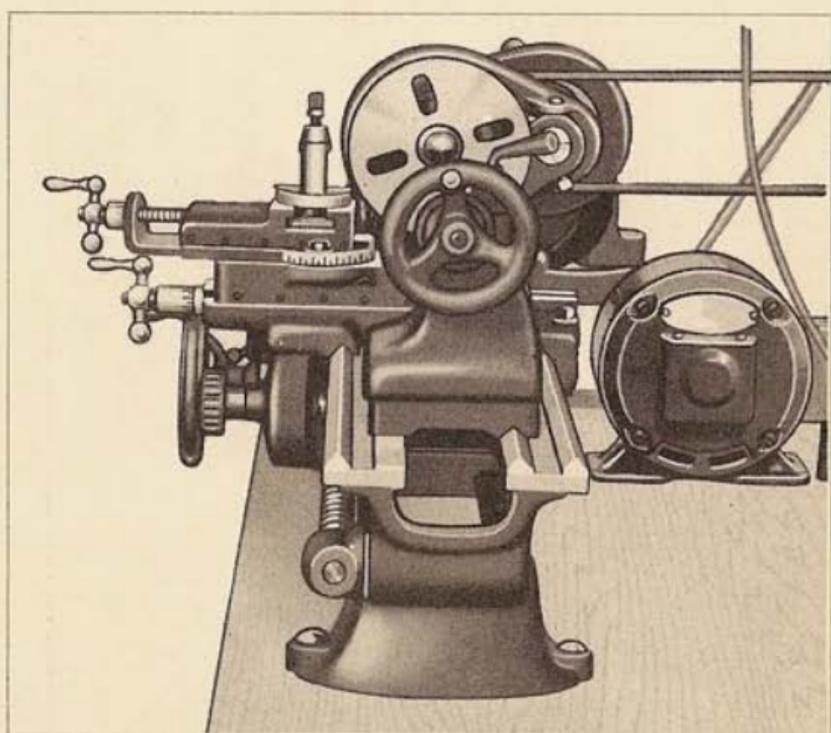


Fig. 2. VIEW OF LATHE FROM TAILSTOCK END.

The three V-ways and one flat way on the lathe bed, as shown in the illustration above, maintain accurate alignment of the headstock, carriage and tailstock. This type of design is used as a common practice on the larger size lathes. The illustration also shows the sturdy construction of the various units such as the compound rest, cross slide, saddle, apron, tailstock, bed, etc.



WE DO OUR PART

*Lathe Operates  
From an  
Electric Lamp  
Socket*

## South Bend No. 5—9" x 3' "Workshop" Back-Geared Screw Cutting Bench Lathe

A Combination Lathe for Working  
both Metal and Wood

**\$75<sup>00</sup>** with Graduated Compound Rest,  
But without Motor Drive.

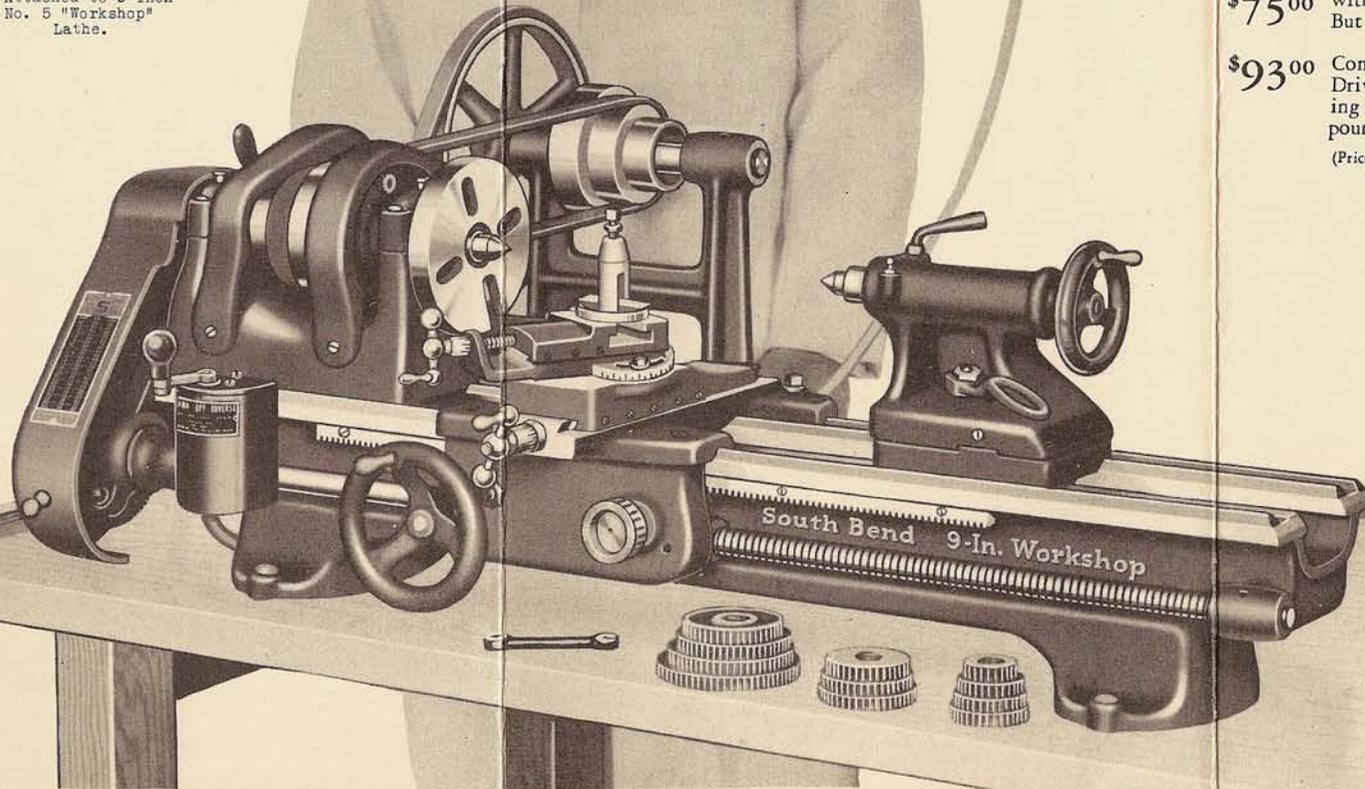
**\$93<sup>00</sup>** Complete as shown, with Motor  
Drive; Reversing Motor, Reversing  
Switch and Graduated Com-  
pound Rest.

(Prices do not include Bench)

THREAD	9-W	9-W	SCREW
4	2-1		32
5	2-1		40
6	2-1		48
7	1-1		56
8	1-1		64
9	1-1		72
10	1-1		80
11	1-1		88
11½	2-1		96
12	2-1		104
13	1-1		112
14	1-1		120
16	1-1		128
18	1-1		136
20	1-1		144
22	1-1		152
24	1-1		160
26	1-1		168
28	1-1		176
30	1-1		184
36	1-1		224
40	1-1		240

SOUTH BEND LATHE WORKS  
SOUTH BEND IND. U.S.A.

Chart for Threads  
Attached to 9-inch  
No. 5 "Workshop"  
Lathe.



(SEE OTHER SIDE FOR DESCRIPTION AND PRICES OF LATHE)

**NO. 5 - 9-inch "WORKSHOP" SOUTH BEND BACK-GEARED SCREW CUTTING LATHE**  
 For Machining All Kinds of Metals, Rubber, Fibres, etc.—Also Practical for  
 Wood Turning and Pattern Making

The 9-inch No. 5 "Workshop" South Bend Lathe illustrated on the opposite side and described herewith is offered to meet the demand for a moderate priced back-geared screw cutting lathe. We have been manufacturing lathes for twenty-seven years and in the little 9-inch "Workshop" Lathe you will find a good substantial, accurate lathe, practical for the small machine shop, repair shop and home work shop. This lathe is well constructed, and is guaranteed. Cuts standard screw threads and will machine all kinds of metals such as steel, cast iron, brass, etc., can also be used for wood working and pattern making.

**Materials Used.** The 9-inch No. 5 "Workshop" Lathe is built entirely of steel, cast iron and malleable iron. Bed is 50% steel and 50% gray iron. All gears are machine cut from the solid. Change gears are cast iron and steel. Apron gears are steel and malleable iron. Rack is steel with machine cut teeth. Lead screw is steel with coarse threads cut on a precision machine. No die-cast metal is used.

**Back-Geared Headstock** is lapped to lathe bed; has three-step cone pulley for 1-inch belt; six spindle speeds, 39 to 630 R.P.M. are provided, three direct and three back-geared; has reverse gear for left-hand screw threads and feeds; and wrenchless bull gear lock for engaging back gears.

**Headstock Spindle** is made of high carbon steel, finish ground; has 3/4" hole its entire length and No. 2 Morse Taper center.

**Tailstock** is lapped to bed; has set-over for taper turning; No. 2 Morse Taper hardened center, which is self-ejecting; and improved spindle lock.

**Compound Rest** is graduated 180°; swivels to any angle. Compound rest screw and cross feed screw have micrometer collars graduated in thousandths of an inch. Compound rest and cross slide have adjustable gibs.

**FEATURES OF LATHE**

Back-geared headstock, six spindle speeds.  
 Hollow spindle, 3/4" hole.  
 Tailstock set-over for taper turning.  
 Bed has 3 V-ways and one flat-way.  
 Carriage lock for accurate facing.  
 Micrometer collar on cross feed screw.  
 Micrometer collar on compound rest screw.  
 Precision lead screw for cutting threads.  
 Index plate for screw thread cutting.  
 Automatic longitudinal screw feed to carriage .0055"  
 Wrenchless bull gear lock. [per rev. of spindle.  
 Semi-steel seasoned lathe bed.  
 Change gears for threads and feeds.

**SPECIFICATIONS OF LATHE**

Swing over bed of lathe ..... 9-1/8 in.  
 Swing over carriage ..... 8-1/8 in.  
 Hole through spindle ..... 3/4 in.  
 Thread cutting range ..... 4 to 40 per in.  
 Spindle speeds for Metal ..... 39 to 630 R.P.M.  
 Spindle speeds for wood ..... 79 to 1225 R.P.M.  
 Countershaft pulley ..... 6-7/8 in. x 2-3/16 in.  
 Width of cone pulley belt ..... 1 in.  
 Head and Tailstock centers ..... No. 2 Morse Taper.  
 Lead screw, Acme thread, 3/4" diam., 8 thread.  
 Size of lathe tool shank ..... 3/8 x 13/16 in.  
 Back gear ratio ..... 5 to 1.  
 Tailstock set-over ..... 5/8 in.

**Screw Thread Cutting.** Change gears provide for automatic longitudinal feeds and for cutting standard screw threads from 4 to 40 per inch, right or left-hand, including 1 1/2 pipe thread. See index plate on opposite side. The reversing motor and drum reversing switch enable the operator to reverse the carriage by power when cutting screw threads.

**Automatic Longitudinal Feed** to carriage on the 9-inch No. 5 "Workshop" Lathe is .0055" of an inch per revolution of lathe spindle.

**Bed.** Three V-ways and one flat-way on lathe bed maintain accurate alignment of headstock, tailstock and carriage. See Fig. 2, other side.

**The Horizontal Motor Drive** countershaft is mounted on the bench back of the lathe as shown in Fig. 1 on other side (may also be mounted on wall or ceiling). Lathe operates from a 1/4 H.P. start-and-stop reversing motor which may be connected to any 60-cycle, A.C. electric lamp socket. A drum reversing switch controls the motor. Power is supplied by V-belt from the motor to the V-belt countershaft and by flat leather belt to cone pulley of lathe.

**Regular Equipment** included in price of lathe consists of: Graduated compound rest; face plate; tool post; two 60° lathe centers; spindle sleeve; wrenches; change gears for screw thread cutting and feeds; installation plan and book, "How to Run a Lathe."

**Countershafts for Lathes.** Any of the following types of countershafts may be used in lieu of the countershaft priced in the large tabulation at bottom of page for operating the 9-inch No. 5 "Workshop" Lathe:

Double Friction Countershaft ..... \$ 10.00  
 2-Speed Countershaft for Wood and Metal ..... \$ 10.00

**Automotive Servicing.** The 9-inch No. 5 "Workshop" Lathe, fitted with attachments, is practical for truing armature commutators, undercutting mica, grinding valves, machining pistons, making bushings, and making other repair parts for automobiles, buses, trucks, etc.

**Gasoline Motor for Driving Lathe.** We can supply a 1/2 H.P. gasoline motor suitable for operating the 9-inch No. 5 "Workshop" Lathe in shops located in communities where electric current is not available. Prices on request.

**If You Wish to Use Your Own Motor** and build your own drive, we can supply you with a three-step cone pulley suitable for the drive unit. Price of three-step cone pulley only, \$3.00.

**NET FACTORY PRICES OF 9-inch No. 5 "WORKSHOP" SOUTH BEND BENCH LATHE**

Description	9" x 3'	9" x 3 1/2'	9" x 4'
9-inch No. 5 "Workshop" South Bend Bench Lathe with Graduated Compound Rest and Regular Equipment, but not Bench.....	\$75.00	\$87.00	\$99.00
<b>Prices of Motor Drive Equipment</b>			
Horizontal Countershaft, Plain Type.....	5.00	5.00	5.00
1/4 H.P. Start-and-Stop Reversing Split-Phase Motor, 1725 R.P.M. (1-phase, 60-cycle, A.C. 110-volt).....	7.75	7.75	7.75
V-Groove Pulley for Motor.....	.50	.50	.50
Reversing Switch (Drum Type).....	3.00	3.00	3.00
V-Belt, Motor to Drive Unit.....	.75	.75	.75
Flat Leather Belt (1" x 45").....	1.00	1.00	1.00
Price, Lathe and Equipment, Complete.....	\$93.00	\$105.00	\$117.00
Cash Down Payment.....	\$24.00	\$ 28.00	\$ 29.00
Monthly Payments Each.....	\$ 7.00	\$ 7.00	\$ 8.00
Distance Between Spindle Centers of Lathe.....	18 in.	24 in.	30 in.
Shipping Weight, Lathe and Motor Drive Equipment.....	300 lbs.	325 lbs.	350 lbs.

**EASY PAYMENT TERMS**

Any of our customers in the United States may purchase a 9-inch No. 5 "Workshop" South Bend Lathe on the easy payment plan by making a small down payment with the order and paying the balance monthly.

If your Order Amounts To	Add for Financing	Down Payment	Payment each Month	No. of Payments
\$ 80.00 to 90.00	\$6.50	\$21.00	\$7.00	10
90.01 to 100.00	7.00	24.00	7.00	11
100.01 to 110.00	7.50	28.00	7.00	12
110.01 to 120.00	7.50	29.00	8.00	12
120.01 to 130.00	8.00	30.00	8.50	12
130.01 to 140.00	8.50	31.00	9.00	12
140.01 to 150.00	9.00	32.00	10.00	12

**CHUCK AND TOOL ASSORTMENT - PRICE EXTRA**

6" 4-Jaw "Watson" Independent Lathe Chuck. \$ 8.00  
 Fitting chuck to lathe, including semi-machined chuck back..... 4.00  
 1/2" 3-Jaw "Almond" Drill Chuck..... 4.25  
 Arbor, fitted to drill chuck..... .60  
 Straight Shank Tool Holder, 1/4" Bit..... 1.25  
 Six 1/4" Ground Cutters, for tool holders.. 1.10  
 Boring Tool, Style "D"..... 2.50  
 Cutting-Off Tool, right-hand..... 1.50  
 Four Malleable Lathe Dogs, sizes include 1/2", 3/4", 1" and 1 1/4" capacity..... 2.20  
 Assortment, Complete..... \$25.40

**SOUTH BEND LATHE WORKS**  
 425 E. Madison St. South Bend, Ind.

(SEE OTHER SIDE FOR PHOTOS OF LATHE)