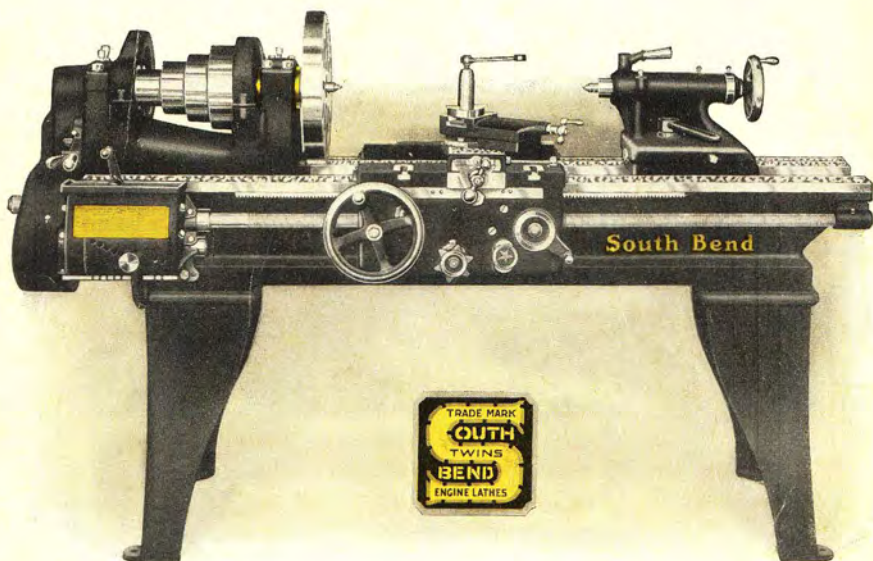


# The 1930 New Model South Bend Back Geared Screw Cutting Lathes

*for use in the*

Manufacturing Plant	Machine Shop
Tool Room	Service Station
General Repair Shop	Electrical Shop
Engineering Shop	Laboratory
and Industries of all kinds	



Catalog No. 91-A ~ ~ April 1, 1930

Cable Address: "Twins, South Bend"

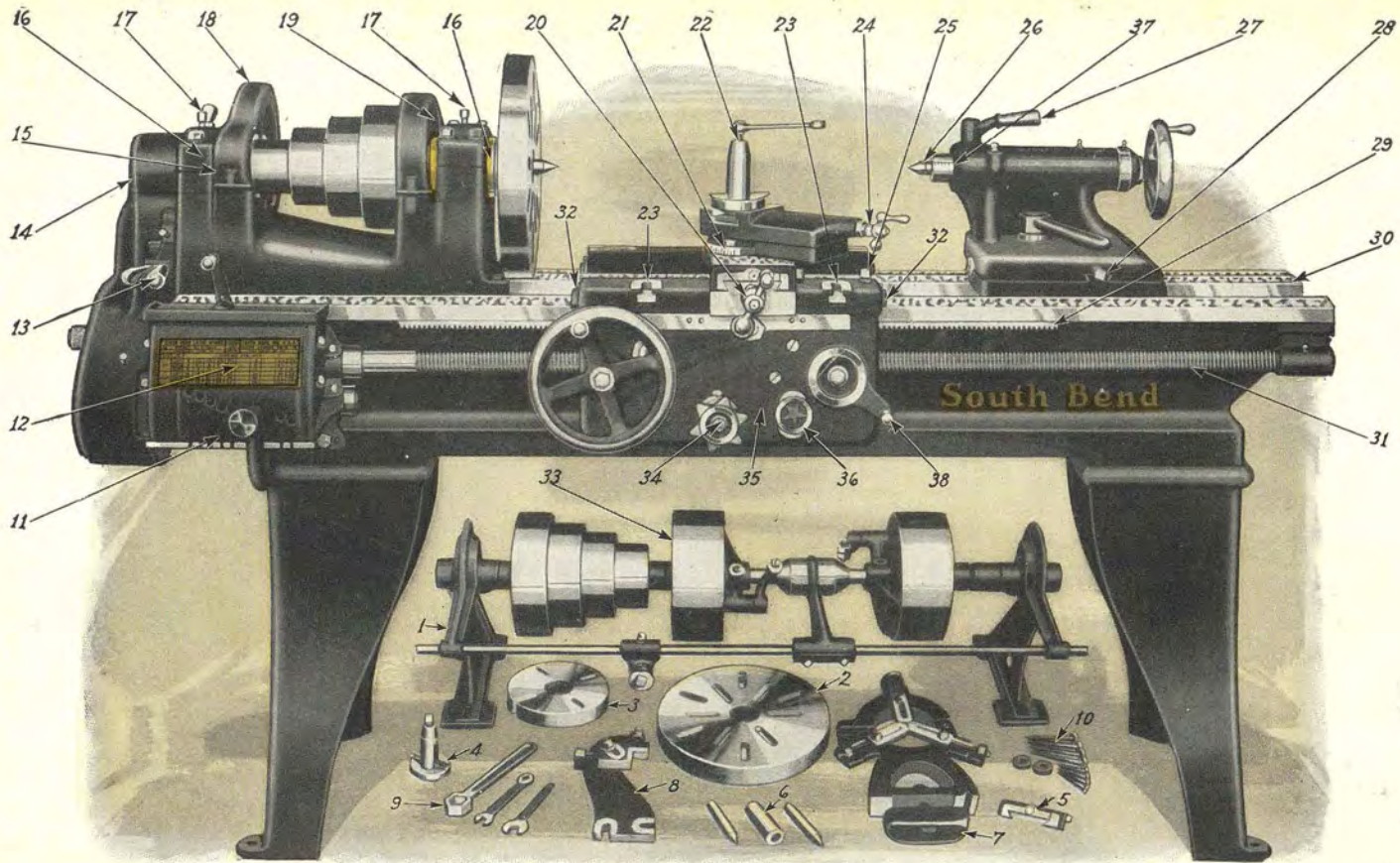
**CODES :**

Western Union Five Letter Edition,  
Western Union Universal Edition,  
A. B. C. Fifth Edition Improved,  
Bentley's, Lieber's Standard.

## South Bend Lathe Works

General Offices and Works:

425 East Madison Street, South Bend, Indiana, U. S. A.



### The Basic Design and Principal Features of All Types of New Model South Bend Lathes

- |   |  |  |   |
|---|--|--|---|
| 11—Quick Change Gear Box.                   | 18—Back Gears well guarded.                  | 25—Carriage Lock for facing.             | 32—Felt Shear Wipers and Oilers.              |
| 12—Index Plate for Threads and Feeds.       | 19—Wrenchless Bull Gear Clamp.               | 26—Tool Steel Lathe Centers.             | 33—Double Friction Countershaft. See Page 67. |
| 13—Quick-acting Latch Reverse.              | 20—Micrometer Collar on Cross Feed Screw.    | 27—Tailstock Spindle Lock.               | 34—Automatic Friction Feed Clutch.            |
| 14—Special Carbon Steel Hollow Spindle.     | 21—Compound Rest graduated 180 degrees.      | 28—Set-over Tailstock for taper turning. | 35—Safety Device for Threads and Feeds.       |
| 15—Hardened and Ground Steel Thrust Collar. | 22—Forged Steel Adjustable Tool Post.        | 29—Steel Rack, cut from the solid.       | 36—Knob for Automatic Feed.                   |
| 16—Large Phosphor Bronze Bearings.          | 23—"T" Slot for clamping work on Carriage.   | 30—Semi-steel seasoned Lathe Bed.        | 37—Graduated Tailstock Spindle.               |
| 17—Patent Oil Cups.                         | 24—Micrometer Collar on Compound Rest Screw. | 31—Precision Lead Screw, Acme Thread.    | 38—Half-nut Lever for Thread Cutting.         |



## The 1930 New Model South Bend Lathe

The New Model South Bend Back Geared Screw Cutting Lathe is built for the working of metals, in industry, manufacturing, tool room, machine shop, mine, textile mill, railroad shop, and in all shops where accurate machine work is desired. The New Model Lathe is a development of 24 years' experience in lathe building. Each of the 352 parts of the lathe has been improved.

### Features of the 1930 New Model South Bend Lathe

The illustration of the New Model South Bend Back Geared Screw Cutting Lathe on the opposite page shows the basic design of all New Model South Bend Lathes. The headstock, tailstock, carriage, apron, lead screw, etc., (differing only in dimensions for different sizes of lathes) are units that are used on each type of lathe shown in this catalog. The description of the lathe on this page applies to all types of New Model Lathes.



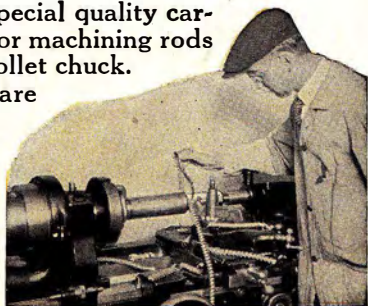
**The Lathe Bed** is a close grained casting of gray iron and steel mixture, containing 18 per cent steel, which gives it strength and wearing qualities. The bed is reinforced by box braces cast in at short intervals its entire length. The lathe beds are rough planed and thoroughly seasoned, then finish planed. The bed has three "V" ways and one flat way for aligning the carriage, headstock and tailstock.

**The Headstock Unit** is ruggedly constructed and scientifically braced to insure permanent alignment of the spindle bearings. It is equipped with a Quick Acting Reverse Lever for changing the direction of the automatic feeds. The gears are completely covered to comply with all State laws. A Quick Acting Bull Gear Clamp permits engaging or disengaging the back gears without the use of a wrench. See page 6.

**The Four-Step Spindle Cone** is used on all New Model Lathes, 13-inch size and larger, because of the wide speed range it provides. This feature is of prime importance in manufacturing because of the wide variety of work done on the lathe. The Three-Step Cone provides ample speed range on the smaller sizes. The Cone Pulley and Bull Gear are accurately balanced so that the lathe can be operated at high speed with the open belt on the smaller steps for finishing cuts, drilling, polishing, machining brass, aluminum, etc., without danger of vibration. The larger steps provide intermediate speeds for general work. The back gears furnish the slow speeds and power required for the heaviest roughing cuts.

**The New Headstock Spindle** is made of a special quality carbon spindle steel. It has a hole its entire length for machining rods and bars through the lathe chuck and draw-in collet chuck. Both of the spindle bearings are ground and are seated in phosphor bronze boxes of unusual strength. The steel thrust collar is hardened and ground. See page 8.

**The Phosphor Bronze Bearings** for the headstock spindle are of best quality—designed for heavy duty work and are adjustable for wear. The bearings are hand scraped to the



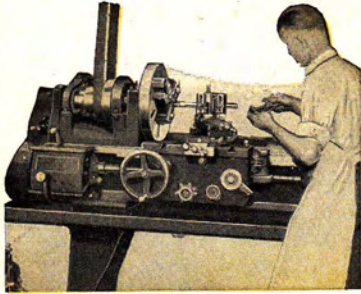
# Features of the 1930 New Model South Bend Lathe

(Continued)

spindle insuring a perfect fit. Patent oil cups lubricate the spindle and prevent dust and grit from working into the bearings. See page 8.

**The Tailstock** is heavy and has a long bearing on the lathe bed. It has a set-over for taper turning. It is designed to allow the compound rest to swivel parallel to the bed. The tailstock spindle is graduated in 16ths of an inch. A binding lever locks the tailstock spindle without disturbing the alignment.

**The Carriage** has a wide bridge and long bearings on the "V" ways of the bed. On the 13-inch size and larger it has "T" slots for clamping work for boring and reaming. The carriage is hand scraped to the lathe bed. Felt shear wipers keep the "V" ways oiled and clean. The cross feed screw has an Acme Thread and a micrometer graduated collar reading in 1/1000 of an inch. The back of the carriage is machined to receive the taper attachment. A locking device fastens the carriage to the bed when using cross feed.

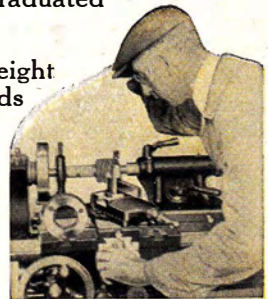


**The Apron** is provided with automatic friction cross feed and automatic friction longitudinal feed. The Apron is also provided with a double bracket which supports the steel feed worm. The Apron contains the half-nuts which are gibbed and scraped to a perfect bearing. An automatic safety interlock prevents the half-nuts and automatic feeds from being engaged at the same time. The half-nuts are used for screw thread cutting only and have no connection with the automatic cross or longitudinal feeds which are operated by the spline in the lead screw. See page 7.

**The Precision Lead Screw** is made of special steel and has Acme Thread cut on a special machine equipped with a Pratt & Whitney master lead screw. The lead screw is tested for form of thread and accuracy of lead and is guaranteed to meet the most exacting requirements in cutting the finest precision thread gauges, master taps and dies and on all work where accuracy is essential. The Lead Screw is splined which enables it to serve as a feed rod for operating the automatic friction cross and longitudinal feeds. **The threads of the Lead Screw are used only for cutting screw threads** and not for operating the automatic feeds. The threads of the lead screw should last a lifetime. See page 7.

**The Compound Rest** is graduated in degrees reading from 0 to 90° from center to each extremity of the arc. It swivels on a central stud and can be clamped and operated at any angle, and has an angular travel. The compound rest screw has Acme Thread and a micrometer collar graduated in 1/1000 of an inch. See page 6.

**The New Quick Change Gear Box** provides forty-eight changes for cutting right or left hand standard screw threads from 2 to 112 per inch. It also provides for various adjustments of the automatic cross feed and automatic longitudinal feed. This is the Flather Patent Quick Change Gear Box which has no superior in any back geared screw cutting lathe built. The index plate shows the arrangement of levers on the gear box for cutting screw threads and operating the automatic feeds. See page 5.

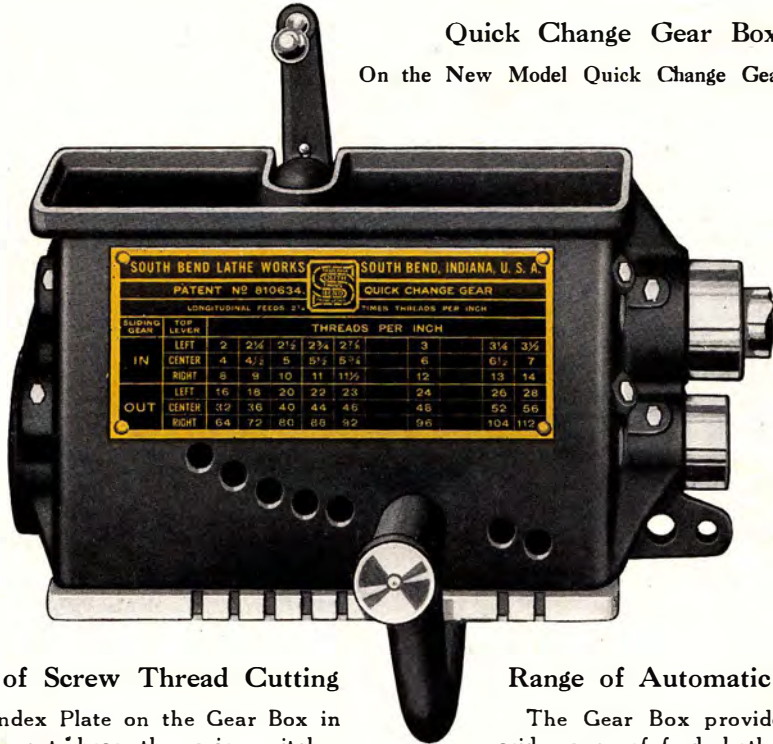




# Mechanical Features of South Bend Lathes

## Quick Change Gear Box

On the New Model Quick Change Gear Lathes



### Range of Screw Thread Cutting

The Index Plate on the Gear Box in the above cut shows the various pitches of threads that can be cut on South Bend Lathes. A range of 48 screw threads, right or left, from 2 to 112 pitch including 1 1/2 pipe thread, can be cut without removing a gear. One of these metal Index Plates is attached to each New Model South Bend Quick Change Gear Lathe in all sizes from 9-inch to 18-inch inclusive, both in Countershaft Drive and in all types of Motor Drive.

### Range of Automatic Feeds

The Gear Box provides for a wide range of feeds both fine and coarse for the Automatic Longitudinal Feed and the Automatic Cross Feed. All these feeds can be adjusted without removing a gear.

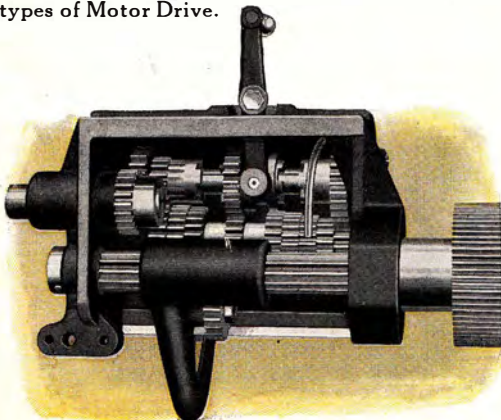
### Easy to Operate

The Quick Change Gear Box of the New South Bend Lathe is one of the most complete, compact and best designed on the market. It is simple, accurate, durable and easy to operate. The operation of the Quick Change Gear Box is fully explained in the book entitled "How to Run a Lathe," which is included with the equipment.

### Interior View of Gear Box

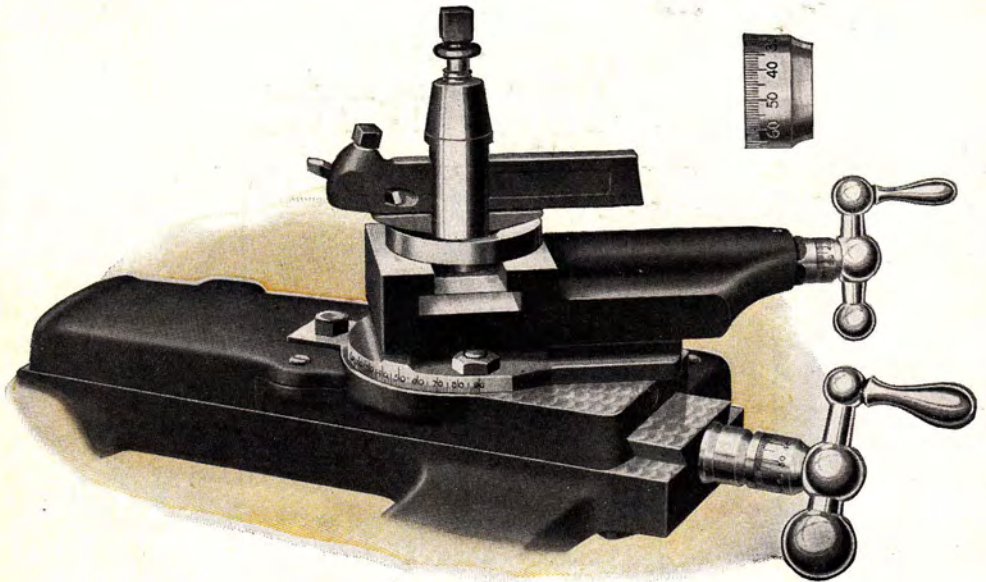
A group of eight steel gears is mounted on the center shaft, any one of which can be instantly engaged with the Lead Screw. The Tumbler Lever and the small Top Lever enable the operator to obtain 24 changes. By sliding the knob at the end of the lathe the number of changes is doubled, making 48 in all.

The Gear Box for Metric Lathes is similar to the one illustrated above, but has a slightly different gear mechanism. See pages 88 and 89.



Interior View of Gear Box

# Mechanical Features of South Bend Lathes



## Graduated Compound Rest on all New Model South Bend Lathes

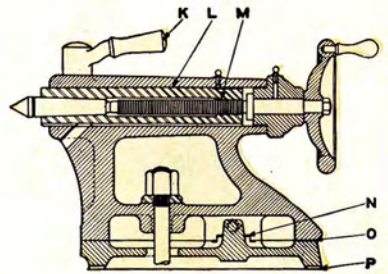
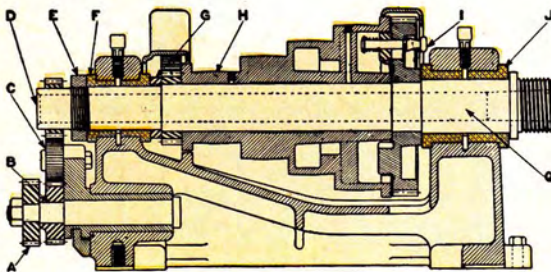
The illustration above shows the Compound Rest mounted on the saddle of the lathe, to show the advantage of the two feed screws—the compound rest screw and the cross feed screw of the saddle. The Compound Rest is used in turning or boring short tapers or bevels.

The Compound Rest Screw and the Cross Feed Screw permit the operator to do all kinds of straight or taper work because in combination these two screws permit the cutting tool to be fed in any direction.

The Compound Rest base is accurately graduated in degrees over an arc of 180° reading 0 to 90° from center to each extremity of the arc. It turns on a large central stud and can be rigidly clamped in any position after setting.

The Compound Rest Feed Screw and the Cross Feed Screw of the Saddle are both coarse Acme Thread and each has a micrometer graduated collar reading in one-thousandths of an inch for regulating the depth of the cut.

## Headstock and Tailstock on New Model South Bend Lathes



### Principal Parts of Headstock and Tailstock

For all sizes and types of New Model Lathes

- A—Steel Stud Gear
- B—Extra Long Reverse Shaft
- C—Quick Acting Reverse. All Gears Steel
- D—Hole Through Headstock Spindle
- E—Take-up Nut for End Play
- F—Bronze Spindle Bearings
- G—Hardened, Ground Steel Thrust Collar
- H—Balanced Cone Pulley
- I—Wrenchless Bull Gear Clamp

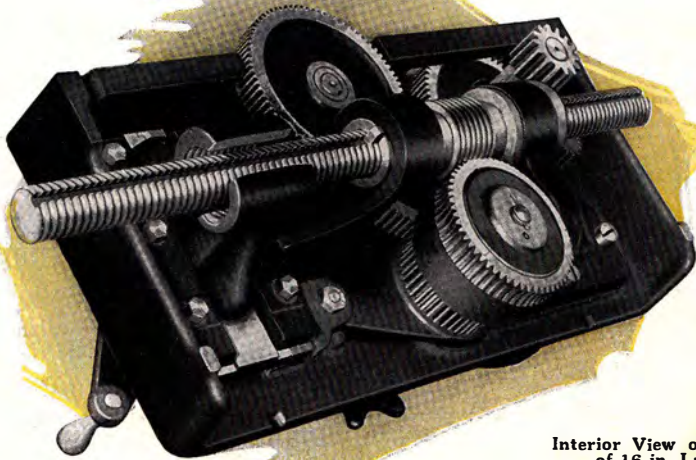
- J—Phosphor Bronze Bearings
- K—Improved Tall Spindle Lock
- L—Steel Tailstock Spindle
- M—Acme Thread Tailstock Screw
- N—Set-over for Taper Turning
- O—Tailstock Top Accurately Hand Scraped to Base
- P—Tailstock Base Hand Scraped to Bed
- Q—Special Carbon Steel Hollow Spindle



Graduated Tailstock Spindle



## Mechanical Features of South Bend Lathes



Interior View of Apron  
of 16-in. Lathe

### Apron and Lead Screw on the New Model South Bend Lathe

For Quick Change and Standard Change Gear Lathes

#### The New Apron

The Apron of the New Model South Bend Lathe is a marvel of power and simplicity. The above illustration of the Apron shows the double worm bracket which supports the steel worm while it is in operation. This is a valuable feature which explains the cutting power of the New Model South Bend Lathe.

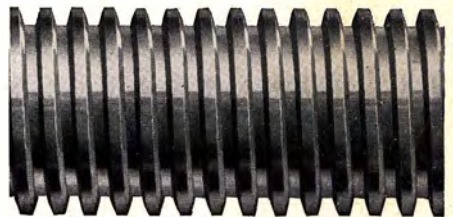
#### Automatic Feeds

The Lead Screw is splined which permits it to serve as a feed rod for operating the Automatic Cross Feed and Automatic Longitudinal Feed of the Lathe. See illustration of interior of the Apron shown above.

The Splined Lead Screw makes a positive drive feed rod as it is geared direct to the spindle and permits a variety of automatic feed changes.

#### Automatic Safety Device

The Automatic Safety Device in the Apron prevents the Automatic Feeds from being placed in action while the half nuts are clamped on the Lead Screw for cutting screw threads. Vice versa, it prevents the half nuts from being clamped on the Lead Screw while either of the Automatic Feeds are in action. When one feed is engaged the others are locked.



#### Acme Thread Lead Screw

Section of the Lead Screw for the 16-inch New Model Lathe. It is  $1\frac{1}{8}$  inches in diameter. 6 pitch—the illustration is actual size.

The New Lead Screws are made of steel, have coarse pitch Acme Thread and are cut with precision and accuracy on a special machine equipped with a Pratt and Whitney Master Lead Screw which insures accuracy.

#### Threads of Lead Screw Used Only

When Cutting Screw Threads

The Threads of the Lead Screw are used only when cutting screw threads. The threads of the Lead Screw are not used for operating the Automatic Cross Feed or the Automatic Longitudinal Feed. The Lead Screw of the Lathe should last a lifetime.

# Mechanical Features of South Bend Lathes



## Lathe Beds

### Machining, Seasoning and Scraping

The Lathe Bed is made of a hard, close-grained gray iron with 18 per cent steel mixture which resists wear. Note the heavy cross braces which are cast in at short intervals of the bed. Three "V" ways and one flat way afford large bearing surface for the carriage, headstock and tailstock.

After rough machining, the lathe beds are thoroughly seasoned, then they are finish machined and hand scraped.



Hand Scraping Tailstock Base to Lathe Bed

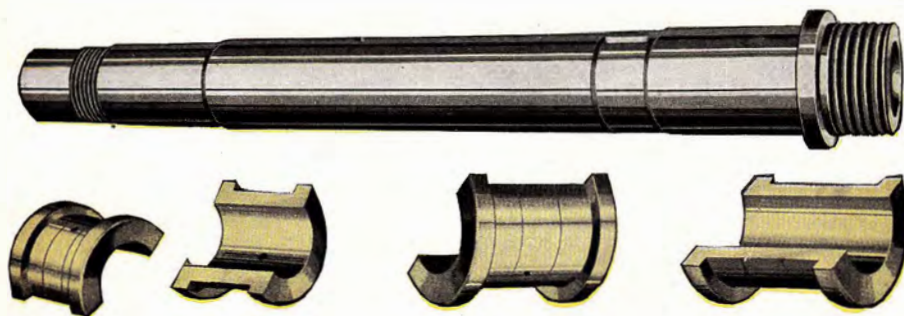
## Hand Scraping

The Lathe Units, for all sizes of South Bend Lathes, such as bed, headstock, tailstock, saddle, apron, and compound rest, in addition to being machined, are all hand scraped where a sliding fit is necessary.

This hand scraping insures accuracy, precision, durability and long life. The New Model South Bend Lathe when given proper care should last a lifetime.



Scraping Bronze Bearings to Receive the Spindle



## Steel Headstock Spindle and Phosphor Bronze Bearings

For all sizes and types of New Model South Bend Lathes

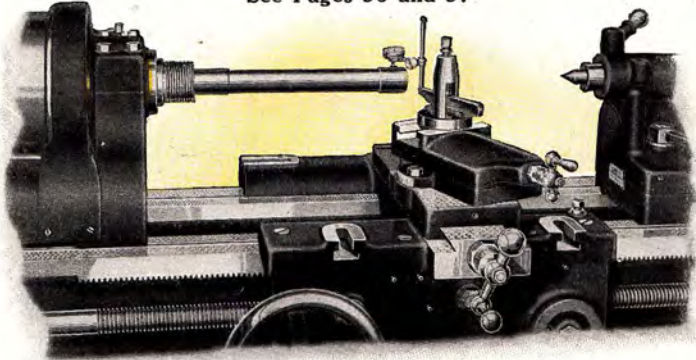
The Headstock Spindle is made of high carbon steel finished ground on all diameters with a hole through its entire length.

The Phosphor Bronze Head Spindle Bearings, front and rear, are hand scraped to a perfect bearing.



# Accuracy Tests of South Bend Lathes

See Pages 96 and 97



Testing Headstock Spindle with Test Bar and Test Indicator

## Testing Alignment of Spindle

The illustration above shows the spindle alignment test which is one of the 64 major accuracy tests that each South Bend Lathe is given. The test bar varies from 12 inches to 18 inches long, depending upon the size of the lathe. It is hardened and ground all over and fits into the taper of the spindle.

## Dial Test Indicator



A dial test indicator is fastened in the Tool Post. The face of this dial is so graduated that it will record an error of one ten-thousandth of an inch. Tests of this kind enable us to build lathes that are accurate in every detail.



## Testing the Cross-Slide

This test insures the axis of the Lathe Spindle being perpendicular and at right angles with the Cross-Slide of the Saddle.

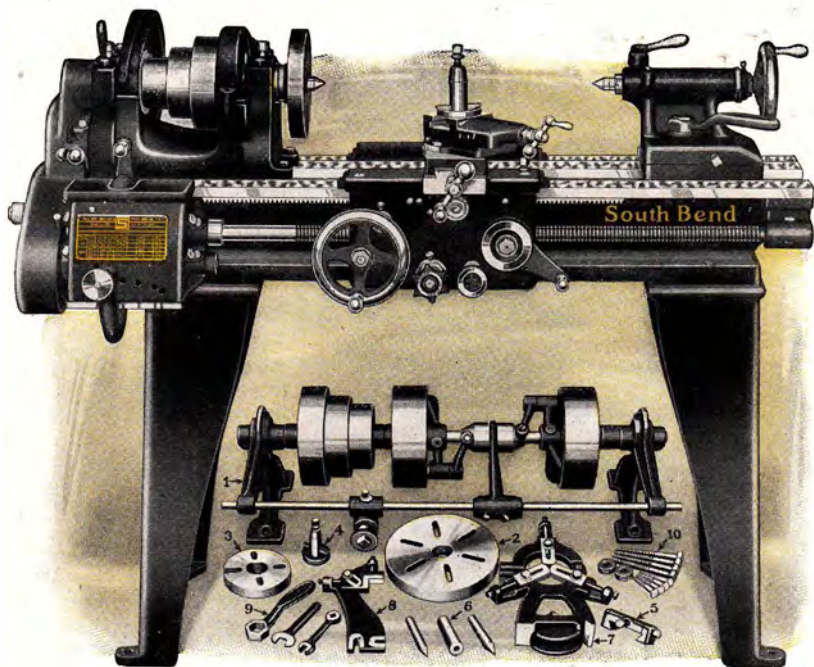
## Sixty-four Accuracy Tests

Most of the 64 accuracy tests on the South Bend Lathe are made during the process of manufacture. For example: When boring Headstock Bearings, every Headstock is tested as it comes from the machine to see that it is bored accurately. Similar tests are made on the Tailstock, Carriage, Saddle and other units.

FACTORY TEST CARD OF SOUTH BEND LATHE	
Size of Lathe <i>16 x 8</i> Cat. No. <i>92-C</i>	
Type of Lathe <i>O.C. &amp; S.</i> Serial No. <i>38361</i>	
Type of Drive <i>C-shaft</i> Type of Bed <i>Straight</i>	
TESTS	
HEAD STOCK SPINDLE TAPER	Test Record
Outer end of 12 Test Bar runs true	<i>.0002"</i>
12 Test Bar Parallel with Lathe Bed	<i>.000</i>
TAIL STOCK SPINDLE	
Parallel with Lathe Bed	<i>.0005"</i>
CENTERS	
Alignment	<i>.0005"</i>
FACE PLATE	
Concave	<i>.0005"</i>
CHUCK	
Tests	<i>OK</i>
LEAD SCREW	
Final lead test	<i>OK</i>
SADDLE	
Bearing on cross slide	<i>OK</i>
Bearing on Lathe Bed	<i>OK</i>
COUNTERSHAFT	
Clutch test	<i>OK</i>
Assembled by <i>H. J. Ernest</i> 3/14/27	
Tested by <i>R. S. Young</i> 3/16/27	
SOUTH BEND LATHE WORKS	

## Factory Test Card

The Factory Test Card records the principal tests made on each size South Bend Lathe. The illustrations on page 97 show the final Factory Precision Tests made on each lathe before it leaves the factory.



Regular equipment, as illustrated under Lathe, is included in price of Lathe

## 9-inch Quick Change Gear New Model South Bend Lathe

Back Geared, Screw Cutting Precision Lathe, Countershaft Drive

The New Model 9-inch Quick Change Back Geared Screw Cutting Precision Lathe is for the shop where light, accurate work is taken care of. It is capable of turning out work of the finest accuracy and precision.

The New Headstock is back geared, reinforced and webbed, insuring strength and rigidity. Six spindle speeds are provided, three direct and three back geared. See page 6.

The Headstock Spindle is made of high carbon steel finished ground with a  $\frac{3}{4}$ -inch hole its entire length. See page 8.

The Phosphor Bronze Bearings for Head Spindle are hand scraped to a perfect bearing, are adjustable for wear and are equipped with oilers. See page 8.

The Quick Change Gear Box provides 48 changes for cutting right or left hand screw threads from 2 to 112 per inch without removing a gear. An index plate shows the arrangement for cutting the following threads: 2, 2 $\frac{1}{2}$ , 2 $\frac{1}{2}$ , 2 $\frac{3}{4}$ , 2 $\frac{7}{8}$ , 3, 3 $\frac{1}{4}$ , 3 $\frac{1}{2}$ , 4, 4 $\frac{1}{2}$ , 5, 5 $\frac{1}{2}$ , 5 $\frac{3}{4}$ , 6, 6 $\frac{1}{2}$ , 7, 8, 9, 10, 11, 11 $\frac{1}{2}$ , 12, 13, 14, 16, 18, 20, 22, 23, 24, 26, 28, 32, 36, 40, 44, 46, 48, 52, 56, 64, 72, 80, 88, 92, 96, 104, 112. See page 5.

### LATHE FEATURES

Full quick change gear mechanism.  
 Back geared headstock gives 6 spindle speeds.  
 Automatic cross feed, automatic longitudinal feed.  
 Hollow spindle made of special carbon steel.  
 Spring latch reverse for feeds and threads.  
 Phosphor bronze bearings for spindle.  
 Graduated compound rest swivels to any angle.  
 Tailstock is arranged for set over for taper turning.  
 Graduated collar on cross feed and compound rest screws.  
 Precision lead screw for cutting accurate threads.

The New Tailstock has a set-over for taper turning. The binding lever locks the spindle without disturbing the alignment of centers. The center is hardened. See page 6.

The New Apron has automatic cross and longitudinal feeds, and half nuts for thread cutting. An automatic safety interlock prevents the half nuts and automatic feeds from being engaged at the same time. See page 7.

The Precision Lead Screw,  $\frac{3}{4}$ -inch diam., 8 threads per inch Acme Standard, is cut on a special machine equipped with a master lead screw which insures accuracy. The threads of the lead screw are used for thread cutting only, as the spline in the lead screw drives a worm in the apron which operates both automatic feeds. See page 7.

The Regular Equipment included with each 9-inch Quick Change Gear Lathe consists of: Double Friction Countershaft, Large Face Plate, Small Face Plate, Tool Post Complete, Adjustable Thread Cutting Stop, Two Lathe Centers and Spindle Sleeve, Center Rest, Follower Rest and Wrenches. See page 67.

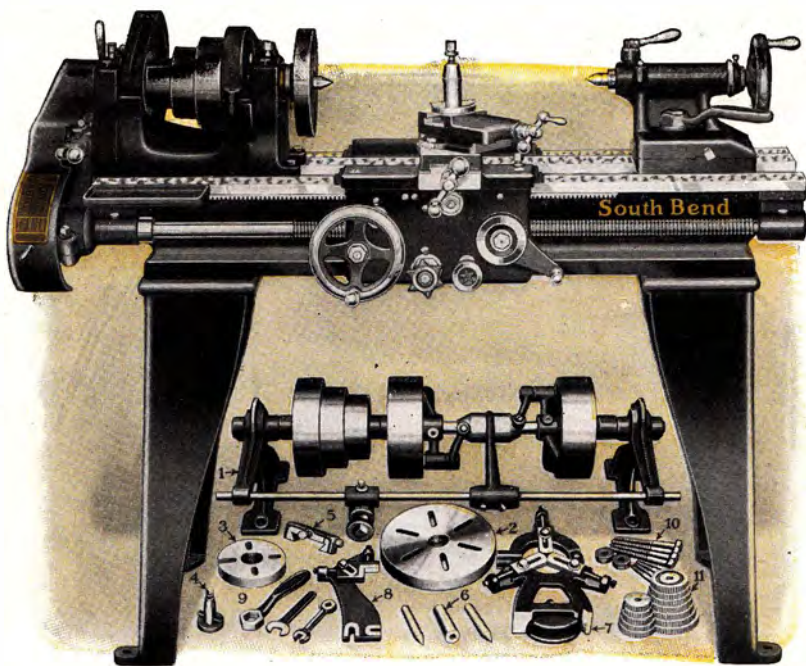
### LATHE SPECIFICATIONS

Head and Tail Spindle Centers..... No. 2. Morse Taper  
 Size of Spindle Nose.....  $\frac{1}{2}$  in. diam., 8 Threads  
 Precision Acme Lead Screw.....  $\frac{3}{4}$  in. diam., 8 Threads  
 Screw Thread Cutting Range..... 2 to 112 per inch  
 Width of Cone Pulley Belt.....  $\frac{1}{4}$  in.  
 Spindle Speeds..... 40, 75, 128, 246, 410, 700 R.P.M.  
 Countershaft Speed..... 300 R.P.M.  
 Countershaft Friction Clutch Pulleys.....  $\frac{6}{16}$  in. x  $2\frac{3}{8}$  in.  
 Angular Travel of Compound Rest Top.....  $17\frac{1}{2}$  in.  
 Size of Lathe Tool Shank.....  $\frac{3}{16}$  in. x  $\frac{1}{8}$  in.

### Net Factory Prices 9-inch Quick Change Gear Lathe Including Overhead Countershaft and Equipment

No. of Lathe	Swing Over Bed	Length of Bed	Between Centers	Hole Thru Spindle	Swing Over Carriage	Power Required	Weight Crated	Code Word	Net Factory Price
80-X	9 $\frac{1}{2}$ in.	2 $\frac{1}{2}$ ft.	10 $\frac{1}{4}$ in.	$\frac{3}{4}$ in.	6 $\frac{1}{2}$ in.	$\frac{1}{4}$ H.P.	470 lbs.	Bafol	\$288.00
80-Y	9 $\frac{1}{2}$ in.	3 ft.	17 $\frac{1}{4}$ in.	$\frac{3}{4}$ in.	6 $\frac{1}{2}$ in.	$\frac{1}{4}$ H.P.	490 lbs.	Bafum	294.00
80-Z	9 $\frac{1}{2}$ in.	3 $\frac{1}{2}$ ft.	22 $\frac{1}{4}$ in.	$\frac{3}{4}$ in.	6 $\frac{1}{2}$ in.	$\frac{1}{4}$ H.P.	510 lbs.	Bafyn	300.00
80-A	9 $\frac{1}{2}$ in.	4 ft.	28 $\frac{1}{4}$ in.	$\frac{3}{4}$ in.	6 $\frac{1}{2}$ in.	$\frac{1}{4}$ H.P.	530 lbs.	Bagaj	307.00
80-R	9 $\frac{1}{2}$ in.	4 $\frac{1}{2}$ ft.	35 $\frac{1}{4}$ in.	$\frac{3}{4}$ in.	6 $\frac{1}{2}$ in.	$\frac{1}{4}$ H.P.	550 lbs.	Bagek	315.00





Regular equipment, as illustrated under Lathe, is included in price of Lathe

## 9-inch Standard Change Gear New Model South Bend Lathe Back Geared, Screw Cutting Precision Lathe, Countershaft Drive

The New Model 9-inch Standard Change Back Geared Screw Cutting Precision Lathe is a practical tool for the shop on light accurate work. It is capable of turning out work of the finest accuracy and precision.

The New Headstock is back geared, reinforced and webbed, insuring strength and rigidity. Six spindle speeds are provided, three direct and three back geared. See page 6.

The Headstock Spindle is made of high carbon steel finished ground with a  $\frac{3}{4}$ -inch hole its entire length. See page 8.

The Phosphor Bronze Bearings for Head Spindle are hand scraped to a perfect bearing, are adjustable for wear and are equipped with oilers. See page 8.

The New Model Standard Change Gear Lathe is equipped with a set of independent change gears to cut the following screw threads per inch, right or left-hand, including  $1\frac{1}{2}$  pipe thread: 4, 5, 6, 7, 8, 9, 10, 11,  $11\frac{1}{2}$ , 12, 13, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 36 and 40. By compounding the gears furnished many other threads can be cut. See page 67.

The New Tail Stock has a set-over for taper turning. The binding lever locks the spindle without disturbing the alignment of centers. The center is hardened. See page 6.

The New Apron has automatic cross and longitudinal feeds, and half nuts for thread cutting. An automatic safety interlock prevents the half nuts and automatic feeds from being engaged at the same time. See page 7.

The Precision Lead Screw,  $\frac{3}{4}$ -inch diam., 8 threads per inch Acme Standard, is cut on a special machine equipped with a master lead screw which insures accuracy. The threads of the lead screw are used for thread cutting only as the spline in the lead screw drives a worm in the apron which operates both automatic feeds. See page 7.

The Regular Equipment included with each 9-inch Standard Change Gear Lathe consists of: Double Friction Countershaft, Set of Independent Change Gears, Large and Small Face Plates, Tool Post Complete, Adjustable Thread Cutting Stop, two Lathe Centers and Spindle Sleeve, Center Rest, Follower Rest and Wrenches. See page 67.

### LATHE FEATURES

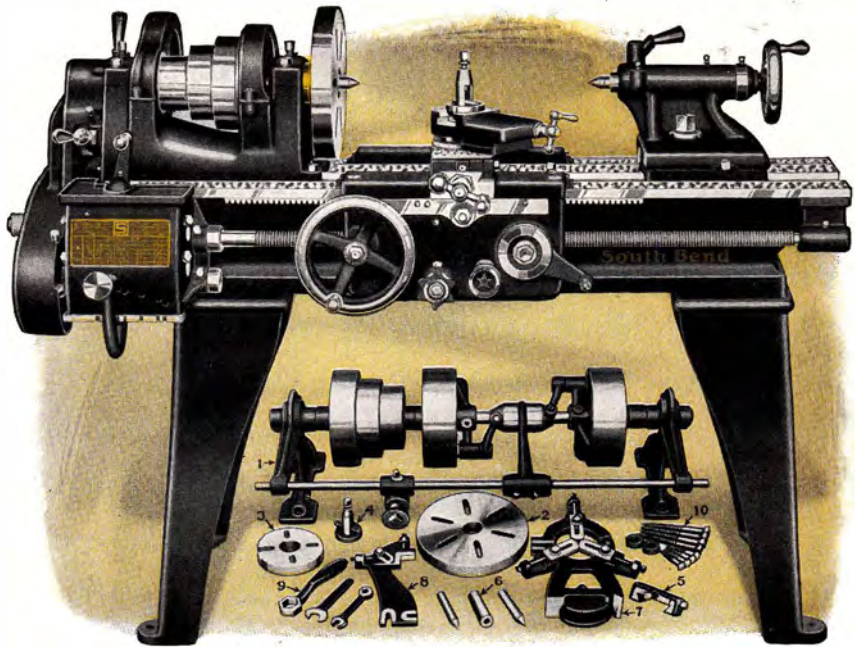
Independent change gears for threads and feeds.  
Back geared headstock gives 6 spindle speeds.  
Automatic cross feed, automatic longitudinal feed.  
Hollow spindle, made of special carbon steel.  
Spring latch reverse for feeds and threads.  
Phosphor bronze bearings for spindle.  
Graduated compound rest swivels to any angle.  
Tailstock is arranged for set-over for taper turning.  
Graduated collar on cross feed and compound rest screws.  
Precision lead screw for cutting accurate threads.

### LATHE SPECIFICATIONS

Head and Tail Spindle Centers..... No. 2, Morse Taper  
Size of Spindle Nose.....  $1\frac{1}{2}$  in. diam., 8 Threads  
Precision Acme Lead Screw.....  $\frac{3}{4}$  in. diam., 8 Threads  
Screw Thread Cutting Range..... 4 to 40 per inch  
Width of Cone Pulley Belt.....  $1\frac{1}{4}$  in.  
Spindle Speeds..... 40, 75, 128, 246, 410, 700 R.P.M.  
Countershaft Speed..... 300 R.P.M.  
Countershaft Friction Clutch Pulleys.....  $.6\frac{1}{8}$  in. x  $2\frac{1}{8}$  in.  
Angular Travel of Compound Rest Top.....  $17\frac{1}{2}$  in.  
Size of Lathe Tool Shank.....  $\frac{1}{2}$  in. x  $\frac{1}{4}$  in.

Net Factory Prices 9-inch Standard Change Gear Lathe Including Overhead Countershaft and Equipment

No. of Lathe	Swing Over Bed	Length of Bed	Between Centers	Hole Thru Spindle	Swing Over Carriage	Power Required	Weight Crated	Code Word	Net Factory Price
30-X	9 $\frac{1}{2}$ in.	2 $\frac{1}{2}$ ft.	10 $\frac{1}{2}$ in.	$\frac{3}{4}$ in.	6 $\frac{1}{2}$ in.	$\frac{1}{4}$ H.P.	460 lbs.	Bajal	\$243.00
30-Y	9 $\frac{1}{2}$ in.	3 ft.	17 $\frac{1}{2}$ in.	$\frac{3}{4}$ in.	6 $\frac{1}{2}$ in.	$\frac{1}{4}$ H.P.	480 lbs.	Bajem	249.00
30-Z	9 $\frac{1}{2}$ in.	3 $\frac{1}{2}$ ft.	22 $\frac{1}{2}$ in.	$\frac{3}{4}$ in.	6 $\frac{1}{2}$ in.	$\frac{1}{4}$ H.P.	500 lbs.	Bajyr	255.00
30-A	9 $\frac{1}{2}$ in.	4 ft.	28 $\frac{1}{2}$ in.	$\frac{3}{4}$ in.	6 $\frac{1}{2}$ in.	$\frac{1}{4}$ H.P.	520 lbs.	Bakam	262.00
30-R	9 $\frac{1}{2}$ in.	4 $\frac{1}{2}$ ft.	35 $\frac{1}{2}$ in.	$\frac{3}{4}$ in.	6 $\frac{1}{2}$ in.	$\frac{1}{4}$ H.P.	540 lbs.	Baken	270.00



Regular equipment, as illustrated under Lathe, is included in price of Lathe

## 11-inch Quick Change Gear New Model South Bend Lathe

### Back Geared, Screw Cutting Lathe, Countershaft Drive

The New Model 11-inch Quick Change Back Geared Screw Cutting Lathe is an excellent tool for light production work in manufacturing. It has the precision and accuracy for tool room work.

The New Headstock is back geared, reinforced and webbed, insuring strength and rigidity. Six spindle speeds are provided, three direct and three back geared. See page 6.

The Headstock Spindle is made of high carbon steel finished ground with a  $\frac{7}{8}$ -inch hole its entire length. See page 8.

The Phosphor Bronze Bearings for Head Spindle are hand scraped to a perfect bearing, are adjustable for wear and are equipped with patent oilers. See page 8.

The Quick Change Gear Box provides 48 changes for cutting right or left hand screw threads from 2 to 112 per inch without removing a gear. An index plate shows the arrangement for cutting the following threads: 2, 2  $\frac{1}{4}$ , 2  $\frac{1}{2}$ , 2  $\frac{3}{4}$ , 2  $\frac{7}{8}$ , 3, 3  $\frac{1}{4}$ , 3  $\frac{1}{2}$ , 4, 4  $\frac{1}{2}$ , 5, 5  $\frac{1}{2}$ , 5  $\frac{3}{4}$ , 6, 6  $\frac{1}{2}$ , 7, 8, 9, 10, 11, 11  $\frac{1}{2}$ , 12, 13, 14, 16, 18, 20, 22, 23, 24, 26, 28, 32, 36, 40, 44, 46, 48, 52, 56, 64, 72, 80, 88, 92, 96, 104, 112. See page 5.

#### LATHE FEATURES

Full quick change gear mechanism.  
 Back geared headstock gives 6 spindle speeds.  
 Automatic cross feed, automatic longitudinal feed.  
 Hollow spindle made of special carbon steel.  
 Spring latch reverse for feeds and threads.  
 Phosphor bronze bearings for spindle.  
 Graduated compound rest swivels to any angle.  
 Tailstock is arranged for set-over for taper turning.  
 Graduated collar on cross feed and compound rest screws.  
 Precision lead screw for cutting accurate threads.

The New Tailstock has a set-over for taper turning. The binding lever locks the spindle without disturbing the alignment of centers. The center is hardened. See page 6.

The New Apron has automatic cross and longitudinal feeds, and half nuts for thread cutting. An automatic safety interlock prevents the half nuts and automatic feeds from being engaged at the same time. See page 7.

The Precision Lead Screw,  $\frac{7}{8}$ -inch diam., 8 threads per inch Acme Standard, is cut on a special machine equipped with a master lead screw which insures accuracy. The threads of the lead screw are used for thread cutting only as the spline in the lead screw drives a worm in the apron which operates both automatic feeds. See page 7.

The Regular Equipment included with each 11-inch Quick Change Gear Lathe consists of: Double Friction Countershaft, Large Face Plate, Small Face Plate, Tool Post Complete, Adjustable Thread Cutting Stop, Two Lathe Centers and Spindle Sleeve, Center Rest, Follower Rest and Wrenches. See page 67.

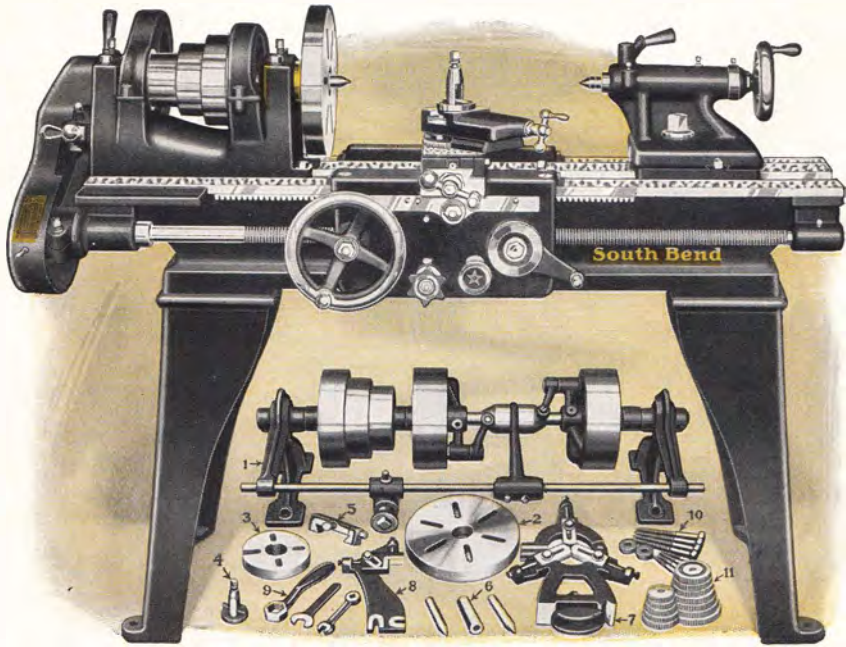
#### LATHE SPECIFICATIONS

Head and Tail Spindle Centers.....No. 2, Morse Taper  
 Size of Spindle Nose.....1  $\frac{1}{8}$  in. diam., 8 Threads  
 Precision Acme Lead Screw..... $\frac{7}{8}$  in. diam., 8 Threads  
 Screw Thread Cutting Range.....2 to 112 per inch  
 Width of Cone Pulley Belt.....1  $\frac{1}{2}$  in.  
 Spindle Speeds.....40, 60, 100, 230, 360, 595 R.P.M.  
 Countershaft Speed.....290 R.P.M.  
 Countershaft Friction Clutch Pulleys......6% in. x 2  $\frac{1}{4}$  in.  
 Angular Travel of Compound Rest Top.....2  $\frac{1}{4}$  in.  
 Size of Lathe Tool Shank..... $\frac{3}{8}$  in. x  $\frac{7}{8}$  in.

#### Net Factory Prices 11-inch Quick Change Gear Lathe Including Overhead Countershaft and Equipment

No. of Lathe	Swing Over Bed	Length of Bed	Between Centers	Hole Thru Spindle	Swing Over Carriage	Power Required	Weight Crated	Code Word	Net Factory Price
84-Y	11 $\frac{1}{2}$ in.	3 ft.	12 in.	$\frac{7}{8}$ in.	7 $\frac{1}{2}$ in.	$\frac{1}{4}$ H.P.	675 lbs.	Eabot	\$345.00
84-Z	11 $\frac{1}{2}$ in.	3 $\frac{1}{2}$ ft.	18 in.	$\frac{7}{8}$ in.	7 $\frac{1}{2}$ in.	$\frac{1}{2}$ H.P.	700 lbs.	Elken	352.00
84-A	11 $\frac{1}{2}$ in.	4 ft.	24 in.	$\frac{7}{8}$ in.	7 $\frac{1}{2}$ in.	$\frac{3}{4}$ H.P.	725 lbs.	Emdor	359.00
84-B	11 $\frac{1}{2}$ in.	5 ft.	36 in.	$\frac{7}{8}$ in.	7 $\frac{1}{2}$ in.	$\frac{1}{2}$ H.P.	805 lbs.	Eolin	375.00
84-S	11 $\frac{1}{2}$ in.	5 $\frac{1}{2}$ ft.	42 in.	$\frac{7}{8}$ in.	7 $\frac{1}{2}$ in.	$\frac{1}{2}$ H.P.	845 lbs.	Epmjo	384.00





Regular equipment, as illustrated under Lathe, is included in price of Lathe

## 11-inch Standard Change Gear New Model South Bend Lathe

### Back Geared, Screw Cutting Lathe, Countershaft Drive

The New Model 11-inch Standard Change Back Geared Screw Cutting Lathe is an excellent tool for light production work in manufacturing. It has the precision and accuracy for tool room work.

The New Headstock is back geared, reinforced and webbed, insuring strength and rigidity. Six spindle speeds are provided, three direct and three back geared. See page 6.

The Headstock Spindle is made of high carbon steel finished ground with a  $\frac{7}{8}$ -inch hole its entire length. See page 8.

The Phosphor Bronze Bearings for Head Spindle are hand scraped to a perfect bearing, are adjustable for wear and are equipped with patent oilers. See page 8.

The New Model Standard Change Gear Lathe is equipped with a set of independent change gears to cut the following screw threads per inch, right or left hand, including  $1\frac{1}{2}$  pipe thread: 4, 5, 6, 7, 8, 9, 10, 11,  $11\frac{1}{2}$ , 12, 13, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 36 and 40. By compounding the gears furnished many other threads can be cut. See page 67.

#### LATHE FEATURES

Independent change gears for threads and feeds.  
 Back geared headstock gives 6 spindle speeds.  
 Spindle cone balanced for operating at high speeds.  
 Automatic cross feed, automatic longitudinal feed.  
 Hollow spindle, made of special carbon steel.  
 Spring latch reverse for feeds and threads.  
 Phosphor bronze bearings for spindle.  
 Graduated compound rest swivels to any angle.  
 Tailstock is arranged for set-over for taper turning.  
 Graduated collar on cross feed and compound rest screw.  
 Precision lead screw for cutting accurate threads.

The New Tailstock has a set-over for taper turning. The binding lever locks the spindle without disturbing the alignment of centers. The center is hardened. See page 6.

The New Apron has automatic cross and longitudinal feeds, and half nuts for thread cutting. An automatic safety interlock prevents the half nuts and automatic feeds from being engaged at the same time. See page 7.

The Precision Lead Screw  $\frac{7}{8}$ -inch diam., 8 threads per inch Acme Standard, is cut on a special machine equipped with a master lead screw which insures accuracy. The threads of the lead screw are used for thread cutting only as the spline in the lead screw drives a worm in the apron which operates both automatic feeds. See page 7.

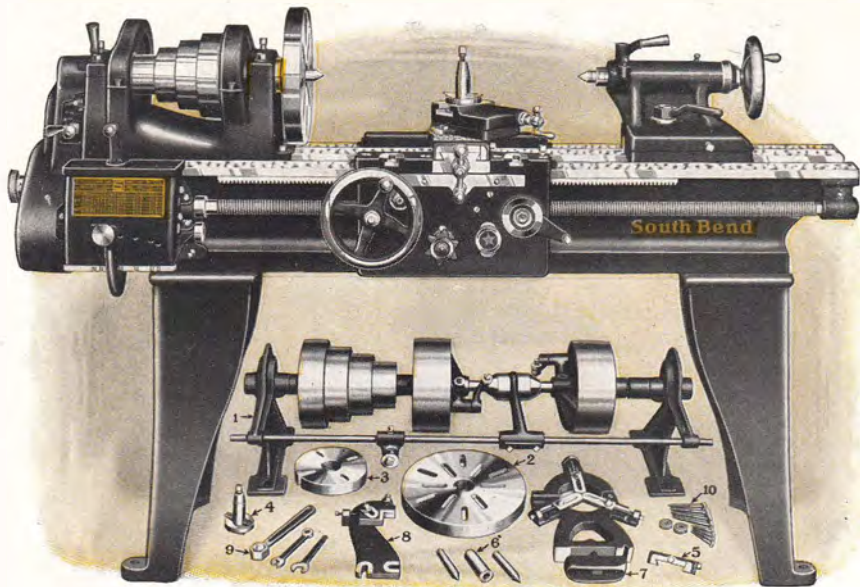
The Regular Equipment included with each 11-inch Standard Change Gear Lathe consists of: Double Friction Countershaft, Set of Independent Change Gears, Large and Small Face Plates, Tool Post Complete, Adjustable Thread Cutting Stop, Two Lathe Centers and Spindle Sleeve, Center Rest, Follower Rest and Wrenches. See page 67.

#### LATHE SPECIFICATIONS

Head and Tail Spindle Centers.....No. 2, Morse Taper  
 Size of Spindle Nose..... $\frac{1}{2}$  in. diam., 8 Threads  
 Precision Acme Lead Screw..... $\frac{7}{8}$  in. diam., 8 Threads  
 Screw Thread Cutting Range.....4 to 40 per inch  
 Width of Cone Pulley Belt..... $\frac{1}{2}$  in.  
 Spindle Speeds.....40, 60, 100, 230, 360, 595 R.P.M.  
 Countershaft Speed.....290 R.P.M.  
 Countershaft Friction Clutch Pulleys..... $\frac{6}{8}$  in. x  $2\frac{3}{8}$  in.  
 Angular Travel of Compound Rest Top..... $2\frac{1}{2}$  in.  
 Size of Lathe Tool Shank..... $\frac{1}{2}$  in. x  $\frac{7}{8}$  in.

#### Net Factory Prices 11-inch Standard Change Gear Lathe Including Overhead Countershaft and Equipment

No. of Lathe	Swing Over Bed	Length of Bed	Between Centers	Hole Thru Spindle	Swing Over Carriage	Power Required	Weight Crated	Code Word	Net Factory Price
33-Y	11 $\frac{1}{4}$ in.	3 ft.	12 in.	$\frac{7}{8}$ in.	7 $\frac{1}{2}$ in.	$\frac{1}{2}$ H.P.	660 lbs.	Eazir	\$295.00
33-Z	11 $\frac{1}{4}$ in.	3 $\frac{1}{2}$ ft.	18 in.	$\frac{7}{8}$ in.	7 $\frac{1}{2}$ in.	$\frac{1}{2}$ H.P.	685 lbs.	Ebuka	302.00
33-A	11 $\frac{1}{4}$ in.	4 ft.	24 in.	$\frac{7}{8}$ in.	7 $\frac{1}{2}$ in.	$\frac{1}{2}$ H.P.	710 lbs.	Eesty	309.00
33-B	11 $\frac{1}{4}$ in.	5 ft.	36 in.	$\frac{7}{8}$ in.	7 $\frac{1}{2}$ in.	$\frac{1}{2}$ H.P.	790 lbs.	Edres	325.00
33-S	11 $\frac{1}{4}$ in.	5 $\frac{1}{2}$ ft.	42 in.	$\frac{7}{8}$ in.	7 $\frac{1}{2}$ in.	$\frac{1}{2}$ H.P.	830 lbs.	Efmot	334.00



Regular equipment, as illustrated under Lathe, is included in price of Lathe

## 13-inch Quick Change Gear New Model South Bend Lathe

Back Geared, Screw Cutting Lathe, Countershaft Drive

The New Model 13-inch Quick Change Back Geared Screw Cutting Lathe is an ideal tool for the factory on production work. It has the precision and accuracy for fine tool room work.

The New Headstock is back geared, reinforced and webbed, insuring strength and rigidity. Eight spindle speeds are provided, four direct and four back geared. See page 6.

The Headstock Spindle is made of high carbon steel finished ground with a 1-inch hole its entire length. See page 8.

The Phosphor Bronze Bearings for Head Spindle are hand scraped to a perfect bearing, are adjustable for wear and are equipped with oilers. See page 8.

The Quick Change Gear Box provides 48 changes for cutting right or left-hand screw threads from 2 to 112 per inch without removing a gear. An index plate shows the arrangement for cutting the following threads: 2, 2 1/4, 2 1/2, 2 3/4, 2 7/8, 3, 3 1/4, 3 1/2, 4, 4 1/4, 5, 5 1/2, 5 3/4, 6, 6 1/4, 6 1/2, 6 3/4, 7, 8, 9, 10, 11, 11 1/2, 12, 13, 14, 16, 18, 20, 22, 23, 24, 26, 28, 32, 36, 40, 44, 46, 48, 52, 56, 64, 72, 80, 88, 92, 96, 104, 112. See page 5.

### LATHE FEATURES

- Full quick change gear mechanism.
- Back Geared headstock gives 8 spindle speeds.
- Automatic cross feed, automatic longitudinal feed.
- Hollow spindle made of special carbon steel.
- Spring latch reverse for feeds and threads.
- Phosphor bronze bearings for spindle.
- Graduated compound rest swivels to any angle.
- Tailstock is arranged for set-over for taper turning.
- Graduated collar on cross feed and compound rest screws.
- Precision lead screw for cutting accurate threads.

The New Tailstock has a set-over for taper turning. The binding lever locks the spindle without disturbing the alignment of centers. The center is hardened. See page 6.

The New Apron has automatic cross and longitudinal feeds, and half nuts for thread cutting. An automatic safety interlock prevents the half nuts and automatic feeds from being engaged at the same time. See page 7.

The Precision Lead Screw 1-inch diam., 6 threads per inch, Acme Standard, is cut on a special machine equipped with a master lead screw which insures accuracy. The threads of the lead screw are used for thread cutting only, as the spline in the lead screw drives a worm in the apron which operates both automatic feeds. See page 7.

The Regular Equipment included with each 13-inch Quick Change Gear Lathe consists of: Double Friction Countershaft, Large Face Plate, Small Face Plate, Tool Post Complete, Adjustable Thread Cutting Stop, Two Lathe Centers and Spindle Sleeve, Center Rest, Follower Rest and Wrenches. See page 67.

### LATHE SPECIFICATIONS

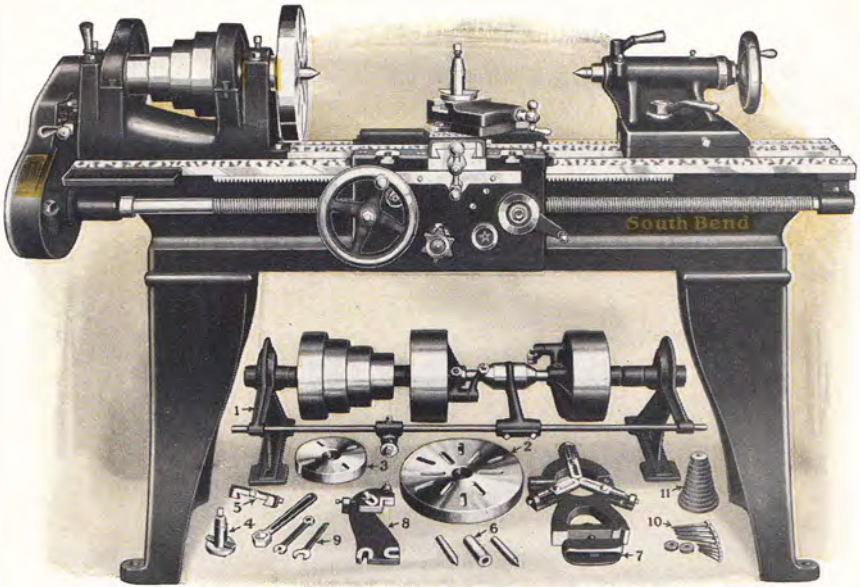
- Head and Tail Spindle Centers.....No. 3 Morse Taper
- Size of Spindle Nose.....1 1/2 in. diam., 8 Threads
- Precision Acme Lead Screw.....1 in. diam., 6 Threads
- Screw Thread Cutting Range......2 to 112 per inch
- Width of Cone Pulley Belt.....1 1/4 in.
- Spindle Speeds.....25, 40, 60, 100, 180, 275, 425, 685 R.P.M.
- Countershaft Speed.....275 R.P.M.
- Countershaft Friction Clutch Pulleys.....8 in. x 2 3/4 in.
- Angular Travel of Compound Rest Top......3 in.
- Size of Lathe Tool Shank......1/2 in. x 1 1/8 in.

### Net Factory Prices 13-inch Quick Change Gear Lathe Including Overhead Countershaft and Equipment

No. of Lathe	Swing Over Bed	Length of Bed	Between Centers	Hole Thru Spindle	Swing Over Carriage	Power Required	Weight Crated	Code Word	Net Factory Price
86-A	13 1/4 in.	4 ft.	16 in.	1 in.	9 in.	3/4 H.P.	1060 lbs.	Galup	\$428.00
86-B	13 1/4 in.	5 ft.	28 in.	1 in.	9 in.	3/4 H.P.	1110 lbs.	Gehos	443.00
86-C	13 1/4 in.	6 ft.	40 in.	1 in.	9 in.	3/4 H.P.	1160 lbs.	Gifts	458.00
86-D	13 1/4 in.	7 ft.	52 in.	1 in.	9 in.	3/4 H.P.	1210 lbs.	Gobli	475.00
86-E	13 1/4 in.	8 ft.	64 in.	1 in.	9 in.	3/4 H.P.	1260 lbs.	Guaik	494.00

If Bench Legs are wanted Instead of Floor Legs deduct \$10.00.





Regular equipment, as illustrated under Lathe, is included in price of Lathe

## 13-inch Standard Change Gear New Model South Bend Lathe Back Geared, Screw Cutting Lathe, Countershaft Drive

The New Model 13-inch Standard Change Back Geared Screw Cutting Lathe is an ideal tool for the factory on production work. It has the precision and accuracy for fine tool room work.

The New Headstock is back geared, reinforced and webbed, insuring strength and rigidity. Eight spindle speeds are provided, four direct and four back geared. See page 6.

The Headstock Spindle is made of high carbon steel finished ground with a 1-inch hole its entire length. See page 8.

The Phosphor Bronze Bearings for Head Spindle are hand scraped to a perfect bearing, are adjustable for wear and are equipped with oilers. See page 8.

The New Model Standard Change Gear Lathe is equipped with a set of independent change gears to cut the following screw threads per inch, right or left hand, including 11½ pipe thread: 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 11½, 12, 13, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 36 and 40. By compounding the gears furnished many other threads can be cut. See page 67.

### LATHE FEATURES

Independent change gears for threads and feeds.  
Back geared headstock gives 8 spindle speeds.  
Automatic cross feed, automatic longitudinal feed.  
Hollow spindle, made of special carbon steel.  
Spring latch reverse for feeds and threads.  
Phosphor bronze bearings for spindle.  
Graduated compound rest swivels to any angle.  
Tailstock is arranged for set-over for taper turning.  
Graduated collar on cross feed and compound rest screw.  
Precision lead screw for cutting accurate threads.

The New Tailstock has a set-over for taper turning. The binding lever locks the spindle without disturbing the alignment of centers. The center is hardened. See page 6.

The New Apron has automatic cross and longitudinal feeds, and half nuts for thread cutting. An automatic safety interlock prevents the half nuts and automatic feeds from being engaged at the same time. See page 7.

The Precision Lead Screw 1-inch diam., 6 threads per inch, Acme Standard, is cut on a special machine equipped with a master lead screw which insures accuracy. The threads of the lead screw are used for thread cutting only, as the spline in the lead screw drives a worm in the apron which operates both automatic feeds. See page 7.

The Regular Equipment included with each 13-inch Standard Change Gear Lathe consists of: Double Friction Countershaft, Set of Independent Change Gears, Large and Small Face Plates, Tool Post Complete, Adjustable Thread Cutting Stop, Two Lathe Centers and Spindle Sleeve, Center Rest, Follower Rest and Wrenches. See page 67.

### LATHE SPECIFICATIONS

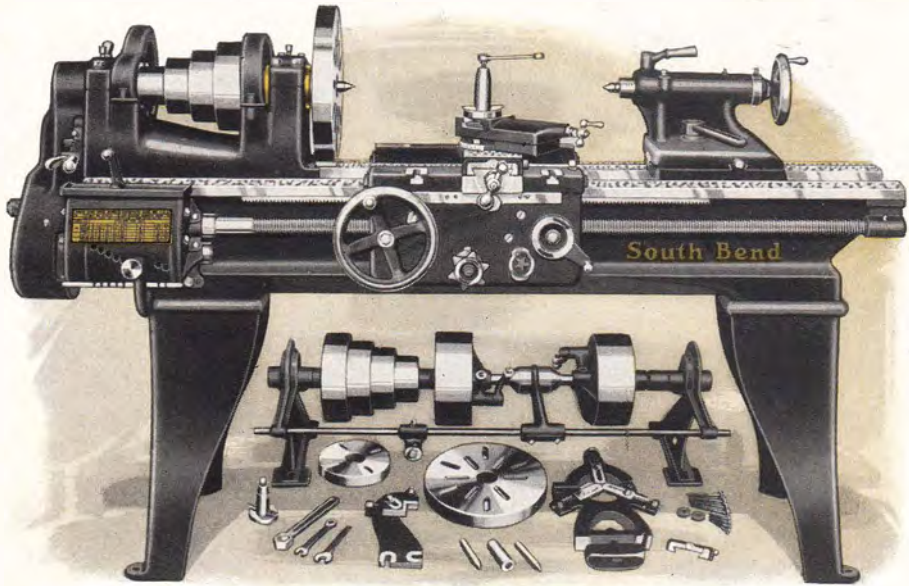
Head and Tail Spindle Centers.....No. 3, Morse Taper  
Size of Spindle Nose.....1½ in. diam., 8 Threads  
Precision Acme Lead Screw.....1 in. diam., 6 Threads  
Screw Thread Cutting Range.....2 to 40 per inch  
Width of Cone Pulley Belt.....1½ in.  
Spindle Speeds.....25, 40, 60, 100, 160, 275, 425, 685 R.P.M.  
Countershaft Speed.....275 R.P.M.  
Countershaft Friction Clutch Pulleys.....8 in. x 2½ in.  
Angular Travel of Compound Rest Top.....3 in.  
Size of Lathe Tool Shank.....½ in. x 1½ in.

### Net Factory Prices 13-inch Standard Change Gear Lathe Including Overhead Countershaft and Equipment

No. of Lathe	Swing Over Bed	Length of Bed	Between Centers	Hole Thru Spindle	Swing Over Carriage	Power Required	Weight Crated	Code Word	Net Factory Price
35-A	13¼ in.	4 ft.	16 in.	1 in.	9 in.	¾ H.P.	1040 lbs.	Gaget	\$368.00
35-B	13¼ in.	5 ft.	28 in.	1 in.	9 in.	¾ H.P.	1090 lbs.	Geldy	383.00
35-C	13¼ in.	6 ft.	40 in.	1 in.	9 in.	¾ H.P.	1140 lbs.	Gisot	398.00
35-D	13¼ in.	7 ft.	52 in.	1 in.	9 in.	¾ H.P.	1190 lbs.	Goldy	415.00
35-E	13¼ in.	8 ft.	64 in.	1 in.	9 in.	¾ H.P.	1240 lbs.	Guset	434.00

If Bench Legs are wanted instead of Floor Legs deduct \$10.00.

SOUTH BEND, INDIANA, U. S. A.



Regular equipment, as illustrated under Lathe, is included in price of Lathe

## 15-inch Quick Change Gear New Model South Bend Lathe

Back Geared, Screw Cutting Lathe, Countershaft Drive

The New Model 15-inch Quick Change Back Geared Screw Cutting Lathe has the power for production work in manufacturing, the precision and accuracy for fine tool work.

The New Headstock is back geared, reinforced and webbed, insuring strength and rigidity. Eight spindle speeds are provided, four direct and four back geared. See page 6.

The Headstock Spindle is made of high carbon steel finished ground with a 1 1/8-inch hole its entire length. See page 8.

The Phosphor Bronze Bearings for Head Spindle are hand scraped to a perfect bearing, are adjustable for wear and are equipped with oilers. See page 8.

The Quick Change Gear Box provides 48 changes for cutting right or left hand screw threads from 2 to 112 per inch without removing a gear. An index plate shows the arrangement for cutting the following threads: 2, 2 1/4, 2 1/2, 2 3/4, 3, 3 1/4, 3 1/2, 4, 4 1/2, 5, 5 1/2, 5 3/4, 6, 6 1/2, 7, 8, 9, 10, 11, 11 1/2, 12, 13, 14, 16, 18, 20, 22, 23, 24, 26, 28, 32, 36, 40, 44, 46, 48, 52, 56, 64, 72, 80, 88, 92, 96, 104, 112. See page 5.

### LATHE FEATURES

Full quick change gear mechanism.  
 Back geared headstock gives 8 spindle speeds.  
 Automatic cross feed, automatic longitudinal feed.  
 Hollow spindle made of special carbon steel.  
 Spring latch reverse for feeds and threads.  
 Phosphor bronze bearings for spindle.  
 Graduated compound rest swivels to any angle.  
 Tailstock is arranged for set-over for taper turning.  
 Graduated collar on cross feed and compound rest screw.  
 Precision lead screw for cutting accurate threads.

The New Tailstock has a set-over for taper turning. The binding lever locks the spindle without disturbing the alignment of centers. The center is hardened. See page 6.

The New Apron has automatic cross and longitudinal feeds, and half nuts for thread cutting. An automatic safety interlock prevents the half nuts and automatic feeds from being engaged at the same time. See page 7.

The Precision Lead Screw 1 1/8-inch diam., 6 threads per inch Acme Standard, is cut on a special machine equipped with a master lead screw which insures accuracy. The threads of the lead screw are used for thread cutting only, as the spline in the lead screw drives a worm in the apron which operates both automatic feeds. See page 7.

The Regular Equipment included with each 15-inch Quick Change Gear Lathe consists of: Double Friction Countershaft, Large and Small Face Plates, Tool Post Complete, Thread Cutting Stop, Two Lathe Centers and Spindle Sleeve, Center Rest, Follower Rest and Wrenches. See page 67.

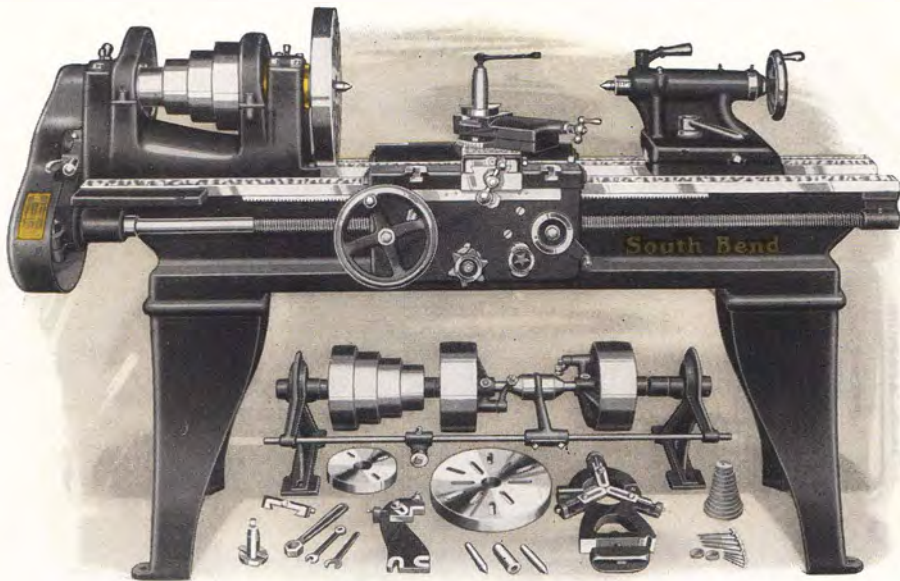
### LATHE SPECIFICATIONS

Head and Tail Spindle Centers.....No. 3 Morse Taper  
 Size of Spindle Nose.....2 1/4 in. diam., 6 Threads  
 Precision Acme Lead Screw.....1 1/8 in. diam., 6 Threads  
 Screw Thread Cutting Range.....2 to 112 per inch  
 Width of Cone Pulley Belt.....2 in.  
 Spindle Speeds, 22, 36, 58, 95, 160, 250, 395, 660 R.P.M.  
 Countershaft Speed.....250 R.P.M.  
 Countershaft Friction Clutch Pulleys.....10 in. x 3 3/8 in.  
 Angular Travel of Compound Rest Top.....3 3/8 in.  
 Size of Lathe Tool Shank.....1/2 in. x 1 1/8 in.

### Net Factory Prices 15-inch Quick Change Gear Lathe Including Overhead Countershaft and Equipment

No. of Lathe	Swing Over Bed	Length of Bed	Between Centers	Hole Thru Spindle	Swing Over Carriage	Power Required	Weight Crated	Code Word	Net Factory Price
88-B	15 1/4 in.	5 ft.	24 1/2 in.	1 1/8 in.	10 1/2 in.	1 H.P.	1475 lbs.	Latin	\$525.00
88-C	15 1/4 in.	6 ft.	36 1/2 in.	1 1/8 in.	10 1/2 in.	1 H.P.	1550 lbs.	Lemon	543.00
88-D	15 1/4 in.	7 ft.	48 1/2 in.	1 1/8 in.	10 1/2 in.	1 H.P.	1625 lbs.	Liquor	561.00
88-E	15 1/4 in.	8 ft.	60 1/2 in.	1 1/8 in.	10 1/2 in.	1 H.P.	1735 lbs.	Lower	581.00
88-G	15 1/4 in.	10 ft.	84 1/2 in.	1 1/8 in.	10 1/2 in.	1 H.P.	1900 lbs.	Lupin	625.00





Regular equipment, as illustrated under Lathe, is included in price of Lathe

## 15-inch Standard Change Gear New Model South Bend Lathe

### Back Geared, Screw Cutting Lathe, Countershaft Drive

The New Model 15-inch Standard Change Back Geared Screw Cutting Lathe has the power for production work in manufacturing; the precision and accuracy for fine tool work, and the capacity for general machine work.

The New Headstock is back geared, reinforced and webbed, insuring strength and rigidity. Eight spindle speeds are provided, four direct and four back geared. See page 6.

The Headstock Spindle is made of high carbon steel finished ground with a 1 1/8-inch hole its entire length. See page 8.

The Phosphor Bronze Bearings for Head Spindle are hand scraped to a perfect bearing, are adjustable for wear and are equipped with oilers. See page 8.

The New Model Standard Change Gear Lathe is equipped with a set of independent change gears to cut the following screw threads per inch, right or left-hand, including 1 1/2 pipe thread: 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 1 1/2, 12, 13, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 36 and 40. By compounding the gears furnished many other threads can be cut. See page 67.

#### LATHE FEATURES

Independent change gears for threads and feeds.  
 Back geared headstock gives 8 spindle speeds.  
 Automatic cross feed, automatic longitudinal feed.  
 Hollow spindle, made of special carbon steel.  
 Spring latch reverse for feeds and threads.  
 Phosphor bronze bearings for spindle.  
 Graduated compound rest swivels to any angle.  
 Tailstock is arranged for set-over for taper turning.  
 Graduated collar on cross feed and compound rest screw.  
 Precision lead screw for cutting accurate threads.

The New Tailstock has a set-over for taper turning. The binding lever locks the spindle without disturbing the alignment of centers. The center is hardened. See page 6.

The New Apron has automatic cross and longitudinal feeds, and half nuts for thread cutting. An automatic safety interlock prevents the half nuts and automatic feeds from being engaged at the same time. See page 7.

The Precision Lead Screw 1 1/8-inch diam., 6 threads per inch Acme Standard, is cut on a special machine equipped with a master lead screw which insures accuracy. The threads of the lead screw are used for thread cutting only, as the spline in the lead screw drives a worm in the apron which operates both automatic feeds. See page 7.

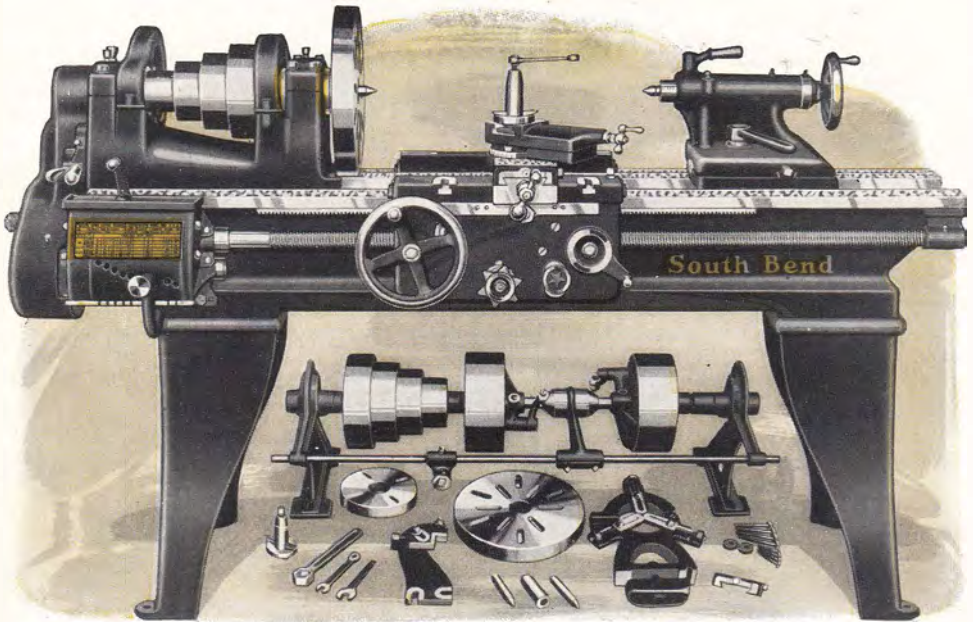
The Regular Equipment included with each 15-inch Standard Change Gear Lathe consists of: Double Friction Countershaft, Set of Independent Change Gears, Large and Small Face Plates, Tool Post Complete, Adjustable Thread Cutting Stop, Two Lathe Centers and Spindle Sleeve, Center Rest, Follower Rest and Wrenches. See page 67.

#### LATHE SPECIFICATIONS

Head and Tail Spindle Centers.....No. 3, Morse Taper  
 Size of Spindle Nose.....2 1/8 in. diam., 6 Threads  
 Precision Acme Lead Screw.....1 1/8 in. diam., 6 Threads  
 Screw Thread Cutting Range......2 to 40 per inch  
 Width of Cone Pulley Belt......2 in.  
 Spindle Speeds.....22, 36, 58, 95, 160, 250, 395, 660 R.P.M.  
 Countershaft Speed......250 R.P.M.  
 Countershaft Friction Clutch Pulleys.....10 in. x 3 3/8 in.  
 Angular Travel of Compound Rest Top.....3 3/8 in.  
 Size of Lathe Tool Shank.....1/2 in. x 1 1/8 in.

#### Net Factory Prices 15-inch Standard Change Gear Lathe Including Overhead Countershaft and Equipment

No. of Lathe	Swing Over Bed	Length of Bed	Between Centers	Hole Thru Spindle	Swing Over Carriage	Power Required	Weight Crated	Code Word	Net Factory Price
39-B	15 1/4 in.	5 ft.	24 1/2 in.	1 1/8 in.	10% in.	1 H.P.	1450 lbs.	Lance	\$450.00
39-C	15 1/4 in.	6 ft.	36 1/2 in.	1 1/8 in.	10% in.	1 H.P.	1525 lbs.	Lewis	468.00
39-D	15 1/4 in.	7 ft.	48 1/2 in.	1 1/8 in.	10% in.	1 H.P.	1000 lbs.	Liver	486.00
39-E	15 1/4 in.	8 ft.	60 1/2 in.	1 1/8 in.	10% in.	1 H.P.	1710 lbs.	Lovit	506.00
39-G	15 1/4 in.	10 ft.	84 1/2 in.	1 1/8 in.	10% in.	1 H.P.	1875 lbs.	Lunar	550.00



Regular equipment, as illustrated under Lathe, is included in price of Lathe

## 16-inch Quick Change Gear New Model South Bend Lathe

Back Geared, Screw Cutting Lathe, Countershaft Drive

The New Model 16-inch Quick Change Back Geared Screw Cutting Lathe has the power for heavy production work in manufacturing, the precision and accuracy for fine tool work and for a variety of general work.

The New Headstock is back geared, reinforced and webbed, insuring strength and rigidity. Eight spindle speeds are provided, four direct and four back geared. See page 6.

The Headstock Spindle is made of high carbon steel finished ground with a  $1\frac{3}{8}$ -inch hole its entire length. See page 8.

The Phosphor Bronze Bearings for Head Spindle are hand scraped to a perfect bearing, are adjustable for wear and are equipped with oilers. See page 8.

The Quick Change Gear Box provides 48 changes for cutting right or left hand screw threads from 2 to 112 per inch without removing a gear. An index plate shows the arrangement for cutting the following threads: 2,  $2\frac{1}{4}$ ,  $2\frac{1}{2}$ ,  $2\frac{3}{4}$ ,  $2\frac{7}{8}$ , 3,  $3\frac{1}{4}$ ,  $3\frac{1}{2}$ , 4,  $4\frac{1}{2}$ , 5,  $5\frac{1}{2}$ ,  $5\frac{3}{4}$ , 6,  $6\frac{1}{2}$ , 7, 8, 9, 10, 11,  $11\frac{1}{2}$ , 12, 13, 14, 16, 18, 20, 22, 23, 24, 26, 28, 32, 36, 40, 44, 46, 48, 52, 56, 64, 72, 80, 88, 92, 96, 104, 112. See page 5.

### LATHE FEATURES

Full quick change gear mechanism.  
 Back geared head stock, gives 8 spindle speeds.  
 Automatic cross feed, automatic longitudinal feed.  
 Hollow spindle made of special carbon steel.  
 Spring latch reverse for feeds and threads.  
 Phosphor bronze bearings for spindle.  
 Graduated compound rest swivels to any angle.  
 Tailstock is arranged for set-over for taper turning.  
 Graduated collar on cross feed and compound rest screws.  
 Precision lead screw for cutting accurate threads.

The New Tailstock has a set-over for taper turning. The binding lever locks the spindle without disturbing the alignment of centers. The center is hardened. See page 6.

The New Apron has automatic cross and longitudinal feeds, and half nuts for thread cutting. An automatic safety interlock prevents the half nuts and automatic feeds from being engaged at the same time. See page 7.

The Precision Lead Screw  $1\frac{1}{2}$ -inch diam., 6 threads per inch Acme Standard, is cut on a special machine equipped with a master lead screw which insures accuracy. The threads of the lead screw are used for thread cutting only as the spline in the lead screw drives a worm in the apron which operates both automatic feeds. See page 7.

The Regular Equipment included with each 16-inch Quick Change Gear Lathe consists of: Double Friction Countershaft, Large Face Plate, Small Face Plate, Tool Post Complete, Adjustable Thread Cutting Stop, Two Lathe Centers and Spindle Sleeve, Center Rest, Follower Rest and Wrenches. See page 67.

### LATHE SPECIFICATIONS

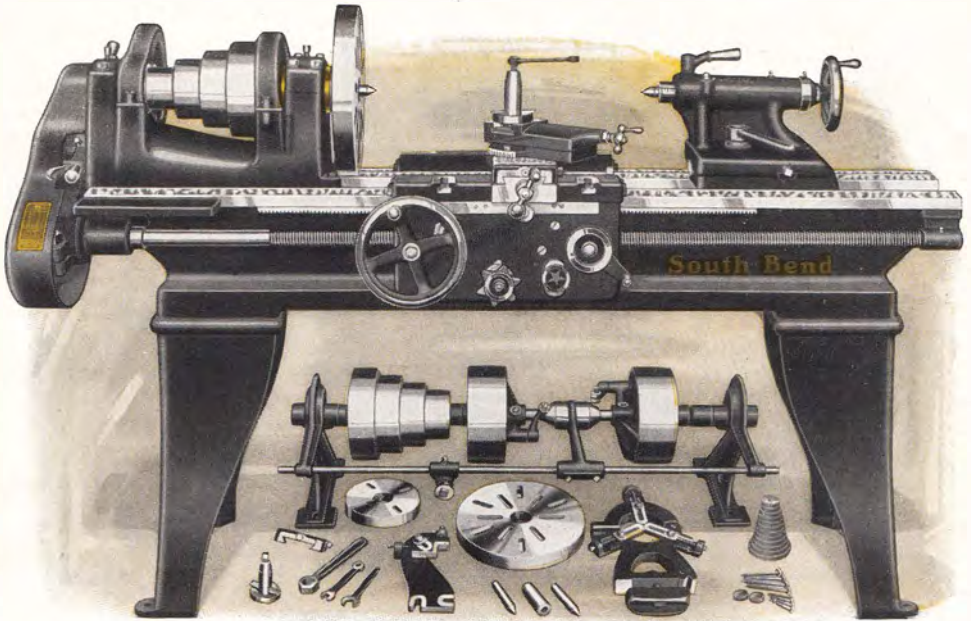
Head and Tail Spindle Centers.....No. 3, Morse Taper  
 Size of Spindle Nose..... $2\frac{3}{8}$  in. diam., 6 Threads  
 Precision Acme Lead Screw..... $1\frac{1}{2}$  in. diam., 6 Threads  
 Screw Thread Cutting Range.....2 to 112 per inch  
 Width of Cone Pulley Belt..... $2\frac{1}{2}$  in.  
 Spindle Speeds...20, 30, 50, 75, 140, 225, 360, 610 R.P.M.  
 Countershaft Speed .....225 R.P.M.  
 Countershaft Friction Clutch Pulleys.....10 in. x  $3\frac{1}{2}$  in.  
 Angular Travel of Compound Rest Top..... $3\frac{3}{4}$  in.  
 Size of Lathe Tool Shank..... $\frac{1}{2}$  in. x  $1\frac{1}{2}$  in.

### Net Factory Prices 16-inch Quick Change Gear Lathe Including Overhead Countershaft and Equipment

No. of Lathe	Swing Over Bed	Length of Bed	Between Centers	Hole Thru Spindle	Swing Over Carriage	Power Required	Weight Crated	Code Word	Net Factory Price
92-C	$16\frac{1}{4}$ in.	6 ft.	34 in.	$1\frac{3}{8}$ in.	$11\frac{1}{2}$ in.	1 H.P.	1875 lbs.	Malta	\$598.00
92-D	$16\frac{1}{4}$ in.	7 ft.	46 in.	$1\frac{3}{8}$ in.	$11\frac{1}{2}$ in.	1 H.P.	1955 lbs.	Melbo	618.00
92-E	$16\frac{1}{4}$ in.	8 ft.	58 in.	$1\frac{3}{8}$ in.	$11\frac{1}{2}$ in.	1 H.P.	2035 lbs.	Mitre	638.00
92-G	$16\frac{1}{4}$ in.	10 ft.	82 in.	$1\frac{3}{8}$ in.	$11\frac{1}{2}$ in.	1 H.P.	2195 lbs.	Movir	682.00
*92-H	$16\frac{1}{4}$ in.	12 ft.	106 in.	$1\frac{3}{8}$ in.	$11\frac{1}{2}$ in.	1 H.P.	2355 lbs.	Muday	745.00

\*Lathe with 12-foot bed is equipped with center leg which is included in the price of the lathe.





Regular equipment, as illustrated under Lathe, is included in price of Lathe

## 16-inch Standard Change Gear New Model South Bend Lathe

Back Geared, Screw Cutting Lathe, Countershaft Drive

The New Model 16-inch Standard Change Back Geared Screw Cutting Lathe has the power for heavy production work in manufacturing, the precision and accuracy for fine tool room work, and for a variety of general work.

The New Headstock is back geared, reinforced and webbed, insuring strength and rigidity. Eight spindle speeds are provided, four direct and four back geared. See page 6.

The Headstock Spindle is made of high carbon steel finished ground with a 1/8-inch hole its entire length. See page 8.

The Phosphor Bronze Bearings for Head Spindle are hand scraped to a perfect bearing, are adjustable for wear and are equipped with oilers. See page 8.

The New Model Standard Change Gear Lathe is equipped with a set of independent change gears to cut the following screw threads per inch, right or left-hand, including 1 1/2" pipe thread: 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 11 1/2, 12, 13, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 36 and 40. By compounding the gears furnished many other threads can be cut. See page 67.

### LATHE FEATURES

Independent change gears for threads and feeds.  
 Back geared headstock gives 8 spindle speeds.  
 Automatic cross feed, automatic longitudinal feed.  
 Hollow spindle, made of special carbon steel.  
 Spring latch reverse for feeds and threads.  
 Phosphor bronze bearings for spindle.  
 Graduated compound rest swivels to any angle.  
 Tailstock is arranged for set-over for taper turning.  
 Graduated collar on cross feed and compound rest screw.  
 Precision lead screw for cutting accurate threads.

The New Tailstock has a set-over for taper turning. The binding lever locks the spindle without disturbing the alignment of centers. The center is hardened. See page 6.

The New Apron has automatic cross and longitudinal feeds, and half nuts for thread cutting. An automatic safety interlock prevents the half nuts and automatic feeds from being engaged at the same time. See page 7.

The Precision Lead Screw 1 1/8-inch diam., 6 threads per inch Acme Standard, is cut on a special machine equipped with a master lead screw which insures accuracy. The threads of the lead screw are used for thread cutting only as the spline in the lead screw drives a worm in the apron which operates both automatic feeds. See page 7.

The Regular Equipment included with each 16-inch Standard Change Gear Lathe consists of: Double Friction Countershaft, Set of Independent Change Gears, Large and Small Face Plates, Tool Post Complete, Adjustable Thread Cutting Stop, Two Lathe Centers and Spindle Sleeve, Center Rest, Follower Rest and Wrenches. See page 67.

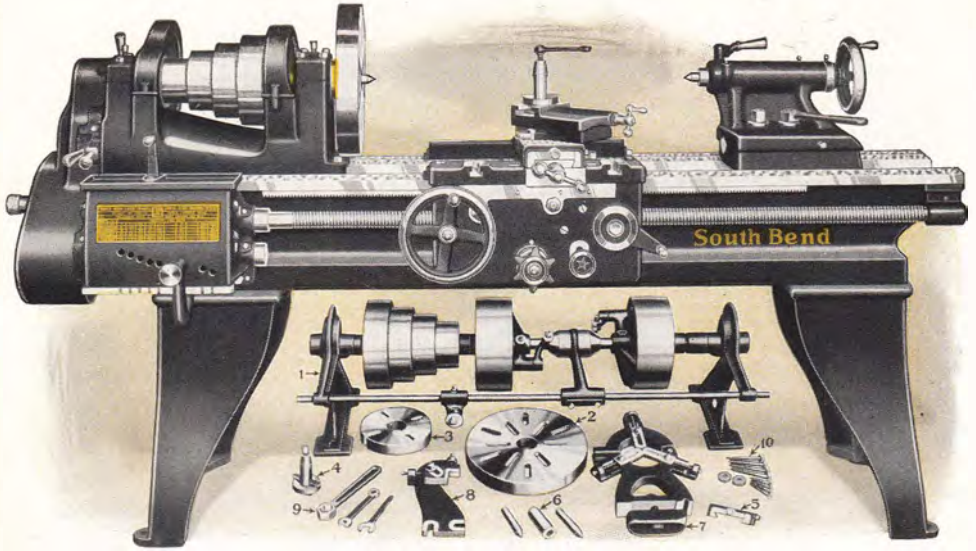
### LATHE SPECIFICATIONS

Head and Tail Spindle Centers.....No. 3, Morse Taper  
 Size of Spindle Nose.....2 3/8 in. diam., 6 Threads  
 Precision Acme Lead Screw.....1 1/8 in. diam., 6 Threads  
 Screw Thread Cutting Range......2 to 40 per inch  
 Width of Cone Pulley Belt......2 1/4 in.  
 Spindle Speeds.....20, 30, 50, 75, 140, 225, 360, 610 R.P.M.  
 Countershaft Speed......225 R.P.M.  
 Countershaft Friction Clutch Pulleys......10 in. x 3 3/8 in.  
 Angular Travel of Compound Rest Top......3 1/2 in.  
 Size of Lathe Tool Shank......1 1/2 in.

### Net Factory Prices 16-inch Standard Change Gear Lathe Including Overhead Countershaft and Equipment

No. of Lathe	Swing Over Bed	Length of Bed	Between Centers	Hole Thru Spindle	Swing Over Carriage	Power Required	Weight Crated	Code Word	Net Factory Price
41-C	16 1/4 in.	6 ft.	34 in.	1 1/8 in.	11 1/2 in.	1 H.P.	1840 lbs.	Mater	\$518.00
41-D	16 1/4 in.	7 ft.	46 in.	1 1/8 in.	11 1/2 in.	1 H.P.	1920 lbs.	Medow	538.00
41-E	16 1/4 in.	8 ft.	58 in.	1 1/8 in.	11 1/2 in.	1 H.P.	2000 lbs.	Milky	558.00
41-G	16 1/4 in.	10 ft.	82 in.	1 1/8 in.	11 1/2 in.	1 H.P.	2160 lbs.	Money	602.00
*41-H	16 1/4 in.	12 ft.	106 in.	1 1/8 in.	11 1/2 in.	1 H.P.	2320 lbs.	Mules	665.00

\*Lathe with 12-foot bed is equipped with center leg which is included in the price of the lathe.



Regular equipment, as illustrated under Lathe, is included in price of Lathe

## 18-inch Quick Change Gear New Model South Bend Lathe

### Back Geared, Screw Cutting Lathe, Countershaft Drive

The New Model 18-inch Quick Change Back Geared Screw Cutting Lathe has the power for heavy production work and manufacturing, and the precision and accuracy for fine tool room work. It is an excellent tool for all kinds of work in the machine shop.

The New Headstock is back geared, reinforced and webbed, insuring strength and rigidity. Eight spindle speeds are provided, four direct and four back geared. See page 6.

The Headstock Spindle is made of high carbon steel finished ground with a  $1\frac{1}{8}$ -inch hole its entire length. See page 8.

The Phosphor Bronze Bearings for Head Spindle are hand scraped to a perfect bearing, are adjustable for wear and are equipped with oilers. See page 8.

The Quick Change Gear Box provides 48 changes for cutting right or left-hand screw threads from 2 to 112 per inch without removing a gear. An index plate shows the arrangement for cutting the following threads: 2,  $2\frac{1}{4}$ ,  $2\frac{1}{2}$ ,  $2\frac{3}{4}$ ,  $2\frac{7}{8}$ , 3,  $3\frac{1}{4}$ ,  $3\frac{1}{2}$ , 4,  $4\frac{1}{2}$ , 5,  $5\frac{1}{2}$ ,  $5\frac{3}{4}$ , 6,  $6\frac{1}{2}$ , 7, 8, 9, 10, 11,  $11\frac{1}{2}$ , 12, 13, 14, 16, 18, 20, 22, 23, 24, 26, 28, 32, 36, 40, 44, 46, 48, 52, 56, 64, 72, 80, 88, 92, 96, 104, 112. See page 5.

#### LATHE FEATURES

Full quick change gear mechanism.  
Back geared headstock gives 8 spindle speeds.  
Automatic cross feed, automatic longitudinal feed.  
Hollow spindle made of special carbon steel.  
Spring latch reverse for feeds and threads.  
Phosphor bronze bearings for spindle.  
Graduated compound rest swivels to any angle.  
Tailstock is arranged for set-over for taper turning.  
Graduated collar on cross feed and compound rest screws.  
Precision lead screw for cutting accurate threads.

The New Tailstock has a set-over for taper turning. The binding lever locks the spindle without disturbing the alignment of centers. The center is hardened. See page 6.

The New Apron has automatic cross and longitudinal feeds, and half nuts for thread cutting. An automatic safety interlock prevents the half nuts and automatic feeds from being engaged at the same time. See page 7.

The Precision Lead Screw  $1\frac{3}{4}$ -inch diam., 4 threads per inch Acme Standard, is cut on a special machine equipped with a master lead screw which insures accuracy. The threads of the lead screw are used for thread cutting only, as the spline in the lead screw drives a worm in the apron which operates both automatic feeds. See page 7.

The Regular Equipment included with each 18-inch Quick Change Gear Lathe consists of: Double Friction Countershaft, Large Face Plate, Small Face Plate, Tool Post Complete, Adjustable Thread Cutting Stop, Two Lathe Centers and Spindle Sleeve, Center Rest, Follower Rest and Wrenches. See page 67.

#### LATHE SPECIFICATIONS

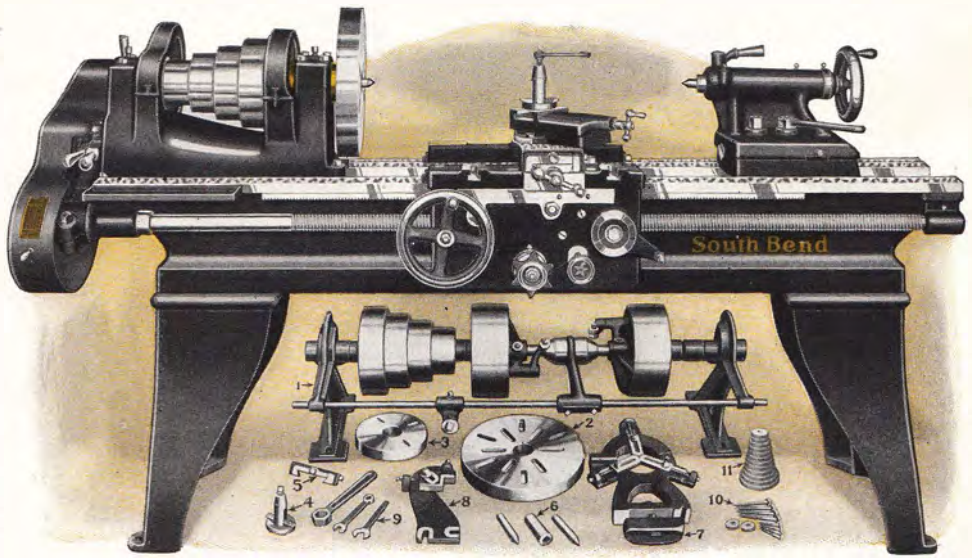
Head and Tail Spindle Centers.....No. 3, Morse Taper  
Size of Spindle Nose..... $2\frac{3}{8}$  in. diam., 6 Threads  
Precision Acme Lead Screw..... $1\frac{3}{4}$  in. diam., 4 Threads  
Screw Thread Cutting Range.....2 to 112 per inch  
Width of Cone Pulley Belt..... $2\frac{1}{2}$  in.  
Spindle Speeds.....18, 28, 45, 70, 135, 200, 300, 465 R.P.M.  
Countershaft Speed.....200 R.P.M.  
Countershaft Friction Clutch Pulleys.....12 in. x  $4\frac{1}{2}$  in.  
Angular Travel of Compound Rest Top..... $4\frac{3}{8}$  in.  
Size of Lathe Tool Shank..... $\frac{5}{8}$  in. x  $1\frac{1}{8}$  in.

### Net Factory Prices 18-inch Quick Change Gear Lathe Including Overhead Countershaft and Equipment

No. of Lathe	Swing Over Bed	Length of Bed	Between Centers	Hole Thru Spindle	Swing Over Carriage	Power Required	Weight Crated	Code Word	Net Factory Price
94-C	18 $\frac{1}{2}$ in.	6 ft.	29 $\frac{1}{2}$ in.	1 $\frac{1}{8}$ in.	12 $\frac{1}{2}$ in.	2 H.P.	2440 lbs.	Sapho	\$713.00
94-D	18 $\frac{1}{2}$ in.	7 ft.	41 $\frac{1}{2}$ in.	1 $\frac{1}{8}$ in.	12 $\frac{1}{2}$ in.	2 H.P.	2540 lbs.	Setra	738.00
94-E	18 $\frac{1}{2}$ in.	8 ft.	53 $\frac{1}{2}$ in.	1 $\frac{1}{8}$ in.	12 $\frac{1}{2}$ in.	2 H.P.	2640 lbs.	Sibar	763.00
94-G	18 $\frac{1}{2}$ in.	10 ft.	77 $\frac{1}{2}$ in.	1 $\frac{1}{8}$ in.	12 $\frac{1}{2}$ in.	2 H.P.	2840 lbs.	Socks	817.00
*94-H	18 $\frac{1}{2}$ in.	12 ft.	101 $\frac{1}{2}$ in.	1 $\frac{1}{8}$ in.	12 $\frac{1}{2}$ in.	2 H.P.	3140 lbs.	Subwa	895.00
*94-K	18 $\frac{1}{2}$ in.	14 ft.	125 $\frac{1}{2}$ in.	1 $\frac{1}{8}$ in.	12 $\frac{1}{2}$ in.	2 H.P.	3540 lbs.	Syogi	957.00

\*Lathes with 12-foot and 14-foot beds are equipped with center leg which is included in price of lathe.





Regular equipment, as illustrated under Lathe, is included in price of Lathe

## 18-inch Standard Change Gear New Model South Bend Lathe

### Back Geared, Screw Cutting Lathe, Countershaft Drive

The New Model 18-inch Standard Change Back Geared Screw Cutting Lathe has the power for heavy production work and manufacturing, and the precision and accuracy for fine tool room work. It is an excellent tool for all kinds of work in the machine shop.

The New Headstock is back geared, reinforced and webbed, insuring strength and rigidity. Eight spindle speeds are provided, four direct and four back geared. See page 6.

The Headstock Spindle is made of high carbon steel finished ground with a  $1\frac{1}{16}$ -inch hole its entire length. See page 8.

The Phosphor Bronze Bearings for Head Spindle are hand scraped to a perfect bearing, are adjustable for wear and are equipped with oilers. See page 8.

The New Model Standard Change Gear Lathe is equipped with a set of independent change gears to cut the following screw threads per inch, right or left-hand, including  $1\frac{1}{2}$  pipe thread: 2, 3, 4, 5, 6, 7, 8, 9, 10, 11,  $11\frac{1}{2}$ , 12, 13, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 36 and 40. By compounding the gears furnished many other threads can be cut. See page 67.

#### LATHE FEATURES

Independent change gears for threads and feeds. Back geared headstock gives 8 spindle speeds. Automatic cross feed, automatic longitudinal feed. Hollow spindle, made of special carbon steel. Spring latch reverse for feeds and threads. Phosphor bronze bearings for spindle. Graduated compound rest swivels to any angle. Tailstock is arranged for set-over for taper turning. Graduated collar on cross feed and compound rest screw. Precision lead screw for cutting accurate threads.

The New Tailstock has a set-over for taper turning. The binding lever locks the spindle without disturbing the alignment of centers. The center is hardened. See page 6.

The New Apron has automatic cross and longitudinal feeds, and half nuts for thread cutting. An automatic safety interlock prevents the half nuts and automatic feeds from being engaged at the same time. See page 7.

The Precision Lead Screw  $1\frac{3}{8}$ -inch diam., 4 threads per inch Acme Standard, is cut on a special machine equipped with a master lead screw which insures accuracy. The threads of the lead screw are used for thread cutting only, as the spline in the lead screw drives a worm in the apron which operates both automatic feeds. See page 7.

The Regular Equipment included with each 18-inch Standard Change Gear Lathe consists of: Double Friction Countershaft, Set of Independent Change Gears, Large and Small Face Plates, Tool Post Complete, Adjustable Thread Cutting Stop, Two Lathe Centers and Spindle Sleeve, Center Rest, Follower Rest and Wrenches. See page 67.

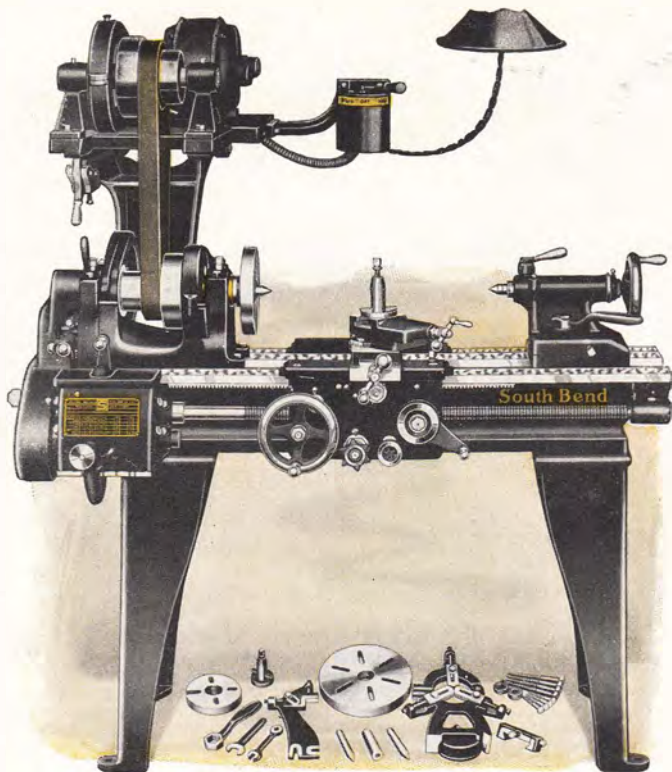
#### LATHE SPECIFICATIONS

Head and Tail Spindle Centers.....No. 3, Morse Taper  
 Size of Spindle Nose..... $2\frac{1}{8}$  in. diam., 6 Threads  
 Precision Acme Lead Screw..... $1\frac{3}{8}$  in. diam., 4 Threads  
 Screw Thread Cutting Range.....2 to 40 per inch  
 Width of Cone Pulley Belt..... $2\frac{1}{2}$  in.  
 Spindle Speeds.....18, 28, 45, 70, 135, 200, 300, 485 R.P.M.  
 Countershaft Speed.....200 R.P.M.  
 Countershaft Friction Clutch Pulleys.....12 in. x  $4\frac{1}{2}$  in.  
 Angular Travel of Compound Rest Top..... $4\frac{1}{4}$  in.  
 Size of Lathe Tool Shank..... $\frac{1}{2}$  in. x  $1\frac{1}{8}$  in.

#### Net Factory Prices 18-inch Standard Change Gear Lathe Including Overhead Countershaft and Equipment

No. of Lathe	Swing Over Bed	Length of Bed	Between Centers	Hole Thru Spindle	Swing Over Carriage	Power Required	Weight Crated	Code Word	Net Factory Price
43-C	18 $\frac{1}{2}$ in.	6 ft.	29 $\frac{1}{2}$ in.	1 $\frac{7}{8}$ in.	12 $\frac{1}{2}$ in.	2 H.P.	2400 lbs.	Sagah	\$623.00
43-D	18 $\frac{1}{2}$ in.	7 ft.	41 $\frac{1}{2}$ in.	1 $\frac{7}{8}$ in.	12 $\frac{1}{2}$ in.	2 H.P.	2500 lbs.	Sehoe	648.00
43-E	18 $\frac{1}{2}$ in.	8 ft.	53 $\frac{1}{2}$ in.	1 $\frac{7}{8}$ in.	12 $\frac{1}{2}$ in.	2 H.P.	2600 lbs.	Siati	673.00
43-G	18 $\frac{1}{2}$ in.	10 ft.	77 $\frac{1}{2}$ in.	1 $\frac{7}{8}$ in.	12 $\frac{1}{2}$ in.	2 H.P.	2800 lbs.	Sombu	727.00
*43-H	18 $\frac{1}{2}$ in.	12 ft.	101 $\frac{1}{2}$ in.	1 $\frac{7}{8}$ in.	12 $\frac{1}{2}$ in.	2 H.P.	3100 lbs.	Sumpt	805.00
*43-K	18 $\frac{1}{2}$ in.	14 ft.	125 $\frac{1}{2}$ in.	1 $\frac{7}{8}$ in.	12 $\frac{1}{2}$ in.	2 H.P.	3500 lbs.	Sylog	867.00

\*Lathes with 12-foot and 14-foot beds are equipped with center leg which is included in price of lathe,



Reversing Motor, Reversing Switch and Lathe Equipment are included in price

## 9-inch New Model Silent Chain Motor Driven Lathe

The 9-inch New Model South Bend Silent Chain Motor Driven Lathe is a practical tool for light accurate work. It is capable of turning out work with the finest accuracy and precision. The lathe is a complete unit requiring no extra driving equipment of any kind. It occupies only the same amount of floor space as the regular belt driven lathe and is ready to operate as soon as it is connected to the electric current.

The Silent Chain Motor Driven Lathe shown above is exactly the same as the 9-inch lathe illustrated and described on page 10 except that it is equipped with the Silent Chain Motor Drive which is completely illustrated and described on pages 28 and 29. This lathe is furnished in both quick change and standard change gear types. See pages 10 and 11.

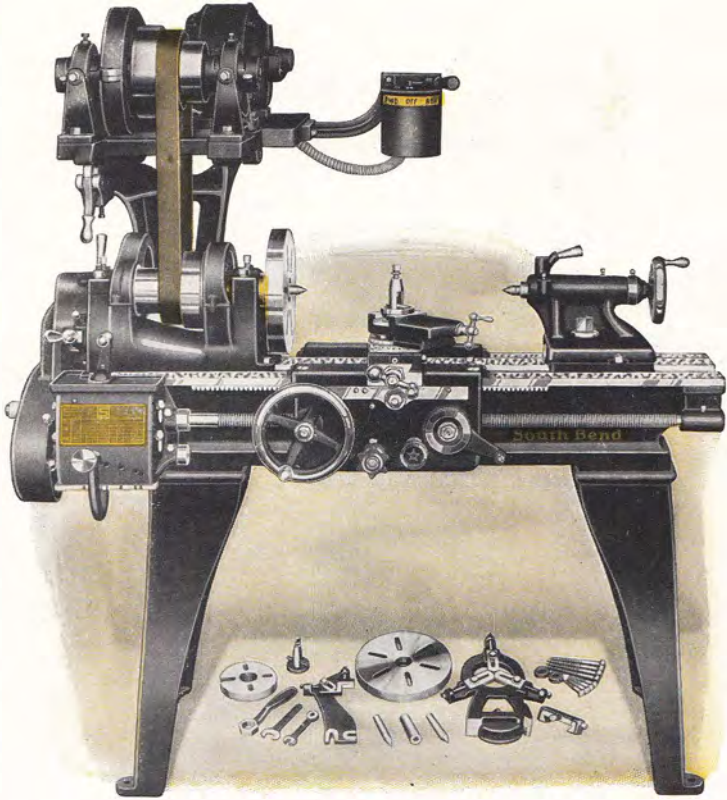
Regular Lathe Equipment included in the price of the 9-inch Silent Chain Motor Driven Lathe consists of: Large Face Plate, Small Face Plate, Tool Post Complete, Adjustable Thread Cutting Stop, two Lathe Centers and Spindle Sleeve, Center Rest, Follower Rest, Wrenches and Change Gears with Standard Change Gear Lathes. Also Installation Plans, Floor Plans and book, "How to Run a Lathe." See page 67.

Electrical Equipment included in the price of the 9-inch Silent Chain Motor Driven Lathe consists of a ¼ H. P. Reversing Motor 1200 R. P. M. (Westinghouse, General Electric or equal make), Reversing Switch (drum type), Wiring between Motor and Switch, Flexible Metal Conduit, Wiring Diagram and Leather Belt. For description of Motor Drive Lathe see pages 28 and 29.

Net Factory Prices of 9-inch New Model South Bend Silent Chain Motor Driven Lathes  
Prices Include Lathe Equipment, Reversing Motor, Reversing Switch and Leather Belt

Swing Over Bed	Length of Bed	Distance Between Centers	Size of Motor	Approx. Weight Crated	Hole Thru Spindle	Swing Over Carriage	Catalog Number of Lathe	Code Word	3 Phase 60 Cycle A.C. Motor	1 Phase 60-Cycle A.C. Motor	Direct Current Motor
<b>9-inch Quick Change Gear Silent Chain Motor Driven Lathes</b>											
9¼ in.	2½ ft.	10¼ in.	¼ H.P.	670 lb.	¾ in.	6¾ in.	380-X	Balus	\$ 392.00	\$ 407.00	\$ 400.00
9¼ in.	3 ft.	17¼ in.	¼ H.P.	690 lb.	¾ in.	6¾ in.	380-Y	Bamap	398.00	413.00	406.00
9¼ in.	3½ ft.	22¾ in.	¼ H.P.	710 lb.	¾ in.	6¾ in.	380-Z	Banut	404.00	419.00	412.00
9¼ in.	4 ft.	28¾ in.	¼ H.P.	730 lb.	¾ in.	6¾ in.	380-A	Bapar	411.00	426.00	419.00
9¼ in.	4½ ft.	35¼ in.	¼ H.P.	750 lb.	¾ in.	6¾ in.	380-R	Banuv	419.00	434.00	427.00
<b>9-inch Standard Change Gear Silent Chain Motor Driven Lathes</b>											
9¼ in.	2½ ft.	10¼ in.	¼ H.P.	660 lb.	¾ in.	6¾ in.	330-X	Bapit	\$ 347.00	\$ 362.00	\$ 355.00
9¼ in.	3 ft.	17¼ in.	¼ H.P.	680 lb.	¾ in.	6¾ in.	330-Y	Bapov	353.00	368.00	361.00
9¼ in.	3½ ft.	22¾ in.	¼ H.P.	700 lb.	¾ in.	6¾ in.	330-Z	Barev	359.90	374.00	367.00
9¼ in.	4 ft.	28¾ in.	¼ H.P.	720 lb.	¾ in.	6¾ in.	330-A	Baroy	366.00	381.00	374.00
9¼ in.	4½ ft.	35¼ in.	¼ H.P.	740 lb.	¾ in.	6¾ in.	330-R	Baruz	374.00	389.00	382.00





Reversing Motor, Reversing Switch and Lathe Equipment are included in price.

## 11-inch New Model Silent Chain Motor Driven Lathe

The 11-inch New Model South Bend Silent Chain Motor Driven Lathe is an excellent tool for light production work in manufacturing. It will meet the most exacting requirements in the tool room. The lathe is a complete unit requiring no extra driving equipment of any kind. It occupies only the same amount of floor space as the regular belt driven lathe and is ready to operate as soon as it is connected to the electric current.

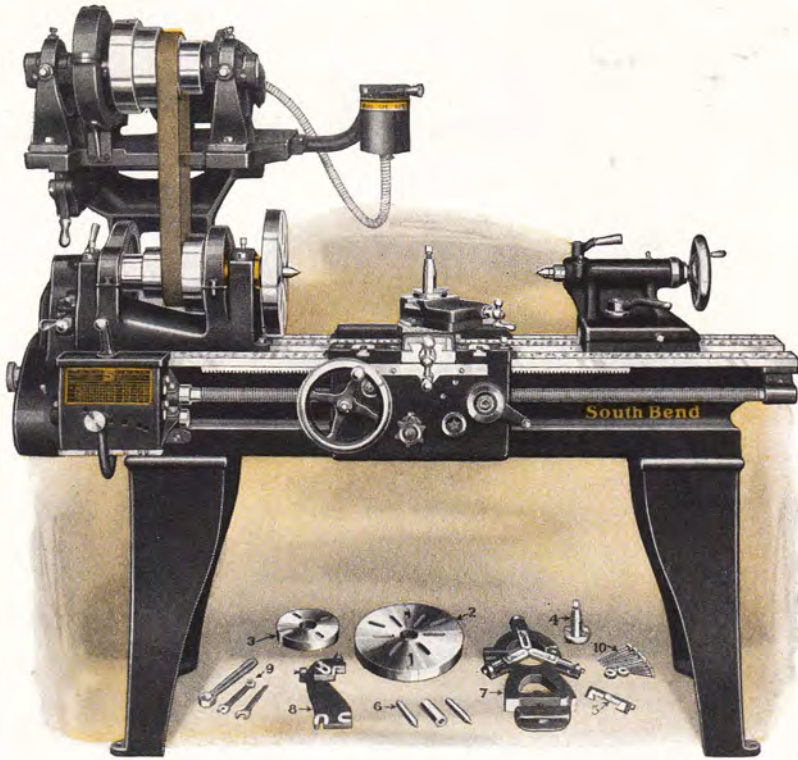
The Silent Chain Motor Driven Lathe shown above is exactly the same as the 11-inch lathe illustrated and described on page 12 except that it is equipped with the Silent Chain Motor Drive which is completely illustrated and described on pages 28 and 29. This lathe is furnished in both quick change and standard change gear types. See pages 12 and 13.

Regular Lathe Equipment included in the price of the 11-inch Silent Chain Motor Driven Lathe consists of: Large Face Plate, Small Face Plate, Tool Post Complete, Adjustable Thread Cutting Stop, two Lathe Centers and Spindle Sleeve, Center Rest, Follower Rest, Wrenches and Change Gears with Standard Change Gear Lathes. Also Installation Plans, Floor Plans and book, "How to Run a Lathe." See page 67.

Electrical Equipment included in the price of the 11-inch Silent Chain Motor Driven Lathe consists of a 1/2 H. P. Reversing Motor 1200 R. P. M. (Westinghouse, General Electric or equal make), Reversing Switch (drum type), Wiring between Motor and Switch, Flexible Metal Conduit, Wiring Diagram and Leather Belt. For description of Motor Drive Lathe see pages 28 and 29.

Net Factory Prices of 11-inch New Model South Bend Silent Chain Motor Driven Lathes  
Prices Include Lathe Equipment, Reversing Motor, Reversing Switch and Leather Belt

Swing Over Bed	Length of Bed	Distance Between Centers	Size of Motor	Approx. Weight Crated	Hole Thru Spindle	Swing Over Carriage	Catalog Number of Lathe	Code Word	3 Phase 60 Cycle A.C. Motor	1 Phase 60 Cycle A.C. Motor	Direct Current Motor
<b>11-inch Quick Change Gear Silent Chain Motor Driven Lathes</b>											
11 1/4 in.	3 ft.	12 in.	1/2 H.P.	870 lb.	3/8 in.	7 1/2 in.	384-Y	Eaow	\$ 484.00	\$ 512.00	\$ 495.00
11 1/4 in.	3 1/2 ft.	18 in.	1/2 H.P.	895 lb.	7/8 in.	7 1/2 in.	384-Z	Ebert	491.00	519.00	502.00
11 1/4 in.	4 ft.	24 in.	1/2 H.P.	920 lb.	7/8 in.	7 1/2 in.	384-A	Ecrow	498.00	526.00	509.00
11 1/4 in.	5 ft.	36 in.	1/2 H.P.	1035 lb.	7/8 in.	7 1/2 in.	384-B	Eaize	514.00	542.00	525.00
11 1/4 in.	5 1/2 ft.	42 in.	1/2 H.P.	1060 lb.	7/8 in.	7 1/2 in.	384-S	Efpik	523.00	551.00	534.00
<b>11-inch Standard Change Gear Silent Chain Motor Driven Lathes</b>											
11 1/4 in.	3 ft.	12 in.	1/2 H.P.	855 lb.	3/8 in.	7 1/2 in.	333-Y	Eflam	\$ 434.00	\$ 462.00	\$ 445.00
11 1/4 in.	3 1/2 ft.	18 in.	1/2 H.P.	880 lb.	7/8 in.	7 1/2 in.	333-Z	Eguil	441.00	469.00	452.00
11 1/4 in.	4 ft.	24 in.	1/2 H.P.	905 lb.	7/8 in.	7 1/2 in.	333-A	Ehams	448.00	476.00	459.00
11 1/4 in.	5 ft.	36 in.	1/2 H.P.	1020 lb.	7/8 in.	7 1/2 in.	333-B	Eioaw	464.00	492.00	475.00
11 1/4 in.	5 1/2 ft.	42 in.	1/2 H.P.	1045 lb.	7/8 in.	7 1/2 in.	333-S	Ejphx	473.00	501.00	484.00



Reversing Motor, Reversing Switch and Lathe Equipment are included in price

## 13-inch New Model Silent Chain Motor Driven Lathe

The 13-inch New Model South Bend Silent Chain Motor Driven Lathe is a practical tool for the factory on production work. It will handle the finest precision tool, die and gauge work. The lathe is a complete unit requiring no extra driving equipment of any kind. It occupies only the same amount of floor space as the regular belt driven lathe and is ready to operate as soon as it is connected to the electric current.

The Silent Chain Motor Driven Lathe shown above is exactly the same as the 13-inch lathe illustrated and described on page 14 except that it is equipped with the Silent Chain Motor Drive which is completely illustrated and described on pages 28 and 29. This lathe is furnished in both quick change and standard change gear types. See pages 14 and 15.

Regular Lathe Equipment included in the price of the 13-inch Silent Chain Motor Driven Lathe consists of: Large Face Plate, Small Face Plate, Tool Post Complete, Adjustable Thread Cutting Stop, two Lathe Centers and Spindle Sleeve, Center Rest, Follower Rest, Wrenches and Change Gears with Standard Change Gear Lathes; also Installation Plans, Floor Plans and book, "How to Run a Lathe." See page 67.

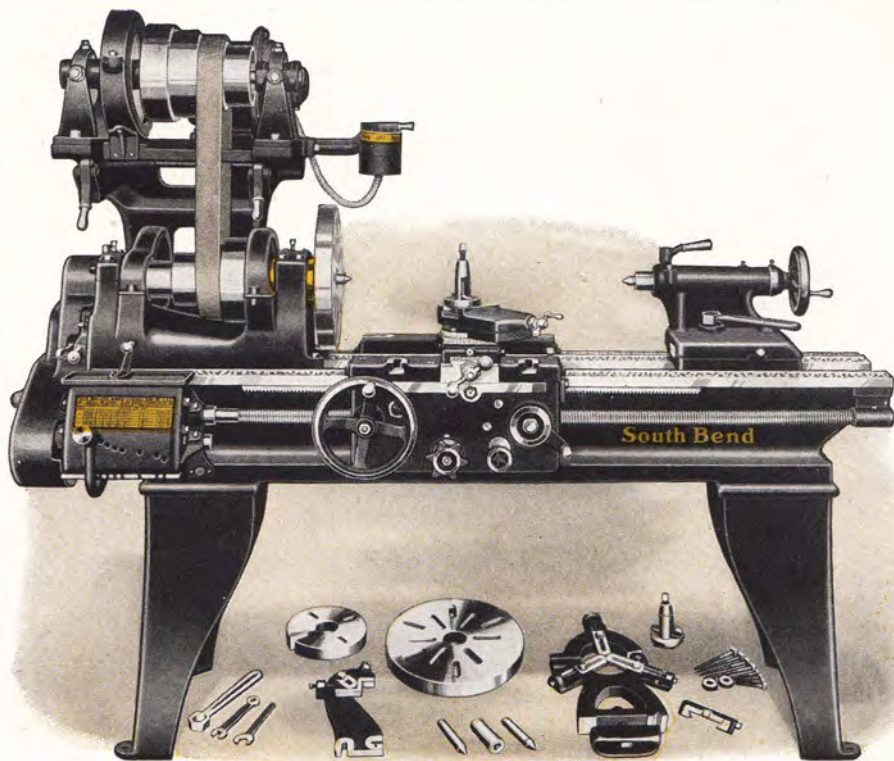
Electrical Equipment included in the price of the 13-inch Silent Chain Motor Driven Lathe consists of a 3/4 H. P. Reversing Motor 1200 R. P. M. (Westinghouse, General Electric or equal make), Reversing Switch (drum type), Wiring between Motor and Switch, Flexible Metal Conduit, Wiring Diagram and Leather Belt. For description of Motor Drive Lathe see pages 28 and 29.

### Net Factory Prices of 13-inch New Model South Bend Silent Chain Motor Driven Lathes

Prices include Lathe Equipment, Reversing Motor, Reversing Switch and Leather Belt

Swing Over Bed	Length of Bed	Distance Between Centers	Size of Motor	Approx. Weight Crated	Hole Thru Spindle	Swing Over Carriage	Catalog Number of Lathe	Code Word	3 Phase 60 Cycle A.C. Motor	1 Phase 60 Cycle A.C. Motor	Direct Current Motor
<b>13-inch Quick Change Gear Silent Chain Motor Driven Lathes</b>											
13 3/4 in.	4 ft.	16 in.	3/4 H.P.	1460 lb.	1 in.	9 in.	386-A	Gazed	\$ 587.00	\$ 630.00	\$ 598.00
13 3/4 in.	5 ft.	28 in.	3/4 H.P.	1510 lb.	1 in.	9 in.	386-B	Gemic	602.00	645.00	613.00
13 3/4 in.	6 ft.	40 in.	3/4 H.P.	1560 lb.	1 in.	9 in.	386-C	Giraf	617.00	660.00	628.00
13 3/4 in.	7 ft.	52 in.	3/4 H.P.	1610 lb.	1 in.	9 in.	386-D	Getam	634.00	677.00	645.00
13 3/4 in.	8 ft.	64 in.	3/4 H.P.	1685 lb.	1 in.	9 in.	386-E	Gneza	653.00	696.00	664.00
<b>13-inch Standard Change Gear Silent Chain Motor Driven Lathes</b>											
13 3/4 in.	4 ft.	16 in.	3/4 H.P.	1440 lb.	1 in.	9 in.	335-A	Glubr	\$ 527.00	\$ 570.00	\$ 538.00
13 3/4 in.	5 ft.	28 in.	3/4 H.P.	1490 lb.	1 in.	9 in.	335-B	(Guest)	542.00	585.00	553.00
13 3/4 in.	6 ft.	40 in.	3/4 H.P.	1540 lb.	1 in.	9 in.	335-C	Gramp	557.00	600.00	568.00
13 3/4 in.	7 ft.	52 in.	3/4 H.P.	1590 lb.	1 in.	9 in.	335-D	Grief	574.00	617.00	585.00
13 3/4 in.	8 ft.	64 in.	3/4 H.P.	1665 lb.	1 in.	9 in.	335-E	Gwilt	593.00	638.00	604.00





Reversing Motor, Reversing Switch and Lathe Equipment are included in price

## 15-inch New Model Silent Chain Motor Driven Lathe

The 15-inch New Model South Bend Silent Chain Motor Driven Lathe has the power for production work in manufacturing, the precision and accuracy for fine tool work. The lathe is a complete unit requiring no extra driving equipment of any kind. It occupies only the same amount of floor space as the regular belt driven lathe and is ready to operate as soon as it is connected to the electric current.

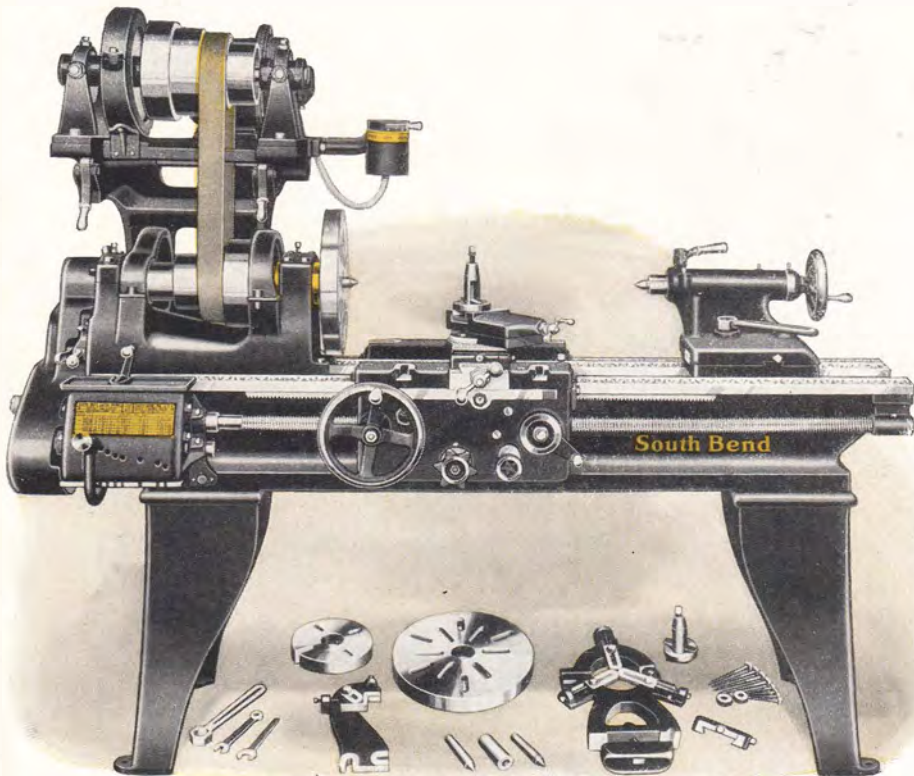
The Silent Chain Motor Driven Lathe shown above is exactly the same as the 15-inch lathe illustrated and described on page 16 except that it is equipped with the Silent Chain Motor Drive which is completely illustrated and described on pages 28 and 29. This lathe is furnished in both quick change and standard change gear types. See pages 16 and 17.

Regular Lathe Equipment included in the price of the 15-inch Silent Chain Motor Driven Lathe consists of: Large Face Plate, Small Face Plate, Tool Post Complete, Adjustable Thread Cutting Stop, two Lathe Centers and Spindle Sleeve, Center Rest, Follower Rest, Wrenches and Change Gears with Standard Change Gear Lathes. Also Installation Plans, Floor Plans and book, "How to Run a Lathe." See page 67.

Electrical Equipment included in the price of the 15-inch Silent Chain Motor Driven Lathe consists of a 1 H. P. Reversing Motor 1200 R. P. M. (Westinghouse, General Electric or equal make), Reversing Switch (drum type), Wiring between Motor and Switch, Flexible Metal Conduit, Wiring Diagram and Leather Belt. For description of Motor Drive Lathe see pages 28 and 29.

Net Factory Prices of 15-inch New Model South Bend Silent Chain Motor Driven Lathes  
Prices include Lathe Equipment, Reversing Motor, Reversing Switch and Leather Belt

Swing Over Bed	Length of Bed	Distance between Centers	Size of Motor	Approx. Weight Crated	Hole Thru Spindle	Swing Over Carriage	Catalog Number of Lathe	Code Word	3 Phase 60 Cycle A.C. Motor	1 Phase 60 Cycle A.C. Motor	Direct Current Motor
<b>15-inch Quick Change Gear Silent Chain Motor Driven Lathes</b>											
15¼ in.	5 ft.	24½ in.	1 H.P.	1925 lb.	1½ in.	10%	388-B	Labor	\$ 702.00	\$ 731.00	\$ 780.00
15¼ in.	6 ft.	30¾ in.	1 H.P.	2025 lb.	1½ in.	10%	388-C	Leone	720.00	749.00	798.00
15¼ in.	7 ft.	48¾ in.	1 H.P.	2075 lb.	1½ in.	10%	388-D	Leper	738.00	767.00	816.00
15¼ in.	8 ft.	60½ in.	1 H.P.	2150 lb.	1½ in.	10%	388-E	Licen	758.00	787.00	836.00
15¼ in.	10 ft.	84¾ in.	1 H.P.	2300 lb.	1½ in.	10%	388-G	Lindy	802.00	831.00	880.00
<b>15-inch Standard Change Gear Silent Chain Motor Driven Lathes</b>											
15¼ in.	5 ft.	24¾ in.	1 H.P.	1900 lb.	1½ in.	10%	339-B	Loane	\$ 627.00	\$ 656.00	\$ 705.00
15¼ in.	6 ft.	30¾ in.	1 H.P.	2000 lb.	1½ in.	10%	339-C	Longe	645.00	674.00	723.00
15¼ in.	7 ft.	48¾ in.	1 H.P.	2050 lb.	1½ in.	10%	339-D	Lotus	663.00	692.00	741.00
15¼ in.	8 ft.	60½ in.	1 H.P.	2125 lb.	1½ in.	10%	339-E	Luella	683.00	712.00	761.00
15¼ in.	10 ft.	84¾ in.	1 H.P.	2275 lb.	1½ in.	10%	339-G	Lyric	727.00	756.00	805.00



Reversing Motor, Reversing Switch and Lathe Equipment are included in price

## 16-inch New Model Silent Chain Motor Driven Lathe

The 16-inch New Model South Bend Silent Chain Motor Driven Lathe has the power for heavy production and general machine work and the precision for fine tool, die and gauge work. The lathe is a complete unit requiring no extra driving equipment of any kind. It occupies only the same amount of floor space as the regular belt driven lathe and is ready to operate as soon as it is connected to the electric current.

The Silent Chain Motor Driven Lathe shown above is exactly the same as the 16-inch lathe illustrated and described on page 18 except that it is equipped with the Silent Chain Motor Drive which is completely illustrated and described on pages 28 and 29. This lathe is furnished in both quick change and standard change gear types. See pages 18 and 19.

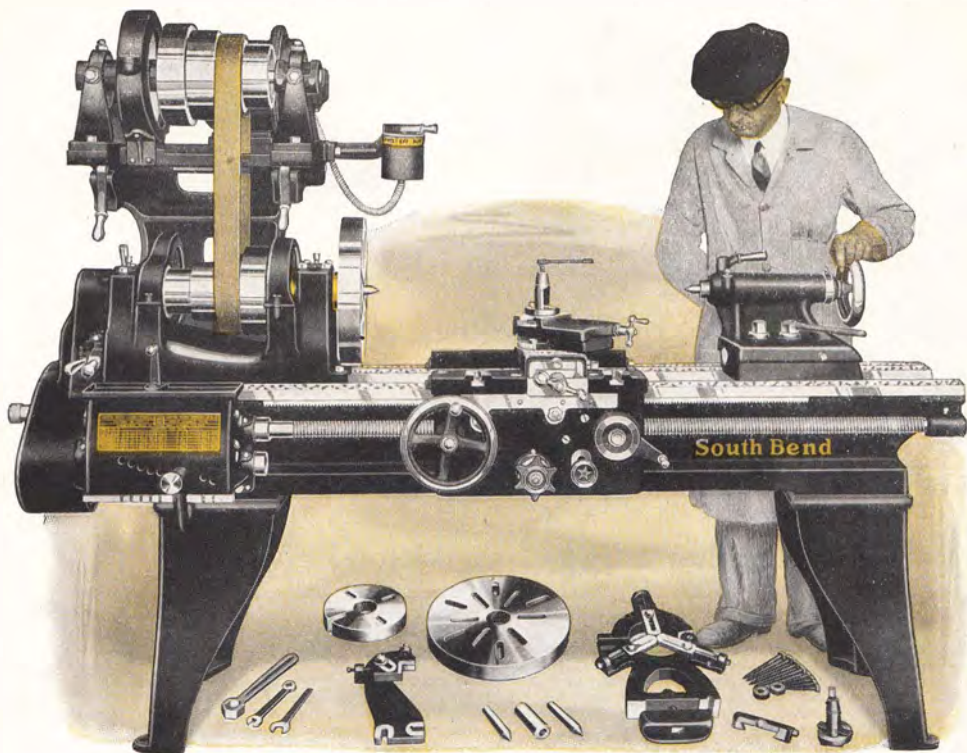
Regular Lathe Equipment included in the price of the 16-inch Silent Chain Motor Driven Lathe consists of: Large Face Plate, Small Face Plate, Tool Post Complete, Adjustable Thread Cutting Stop, two Lathe Centers and Spindle Sleeve, Center Rest, Follower Rest, Wrenches and Change Gears with Standard Change Gear Lathes. Also Installation Plans, Floor Plans and book, "How to Run a Lathe." See page 67.

Electrical Equipment included in the price of the 16-inch Silent Chain Motor Driven Lathe consists of a 1 H. P. Reversing Motor 1200 R. P. M. (Westinghouse, General Electric or equal make), Reversing Switch (drum type), Wiring between Motor and Switch, Flexible Metal Conduit, Wiring Diagram and Leather Belt. For description of Motor Drive Lathe see pages 28 and 29.

Net Factory Prices of 16-inch New Model South Bend Silent Chain Motor Driven Lathes  
Prices Include Lathe Equipment, Reversing Motor, Reversing Switch and Leather Belt

Swing Over Bed	Length of Bed	Distance Between Centers	Size of Motor	Approx. Weight Crated	Hole Thru Spindle	Swing Over Carriage	Catalog Number of Lathe	Code Word	3 Phase 60 Cycle A. C. Motor	1 Phase 60 Cycle A. C. Motor	Direct Current Motor
<b>16-inch Quick Change Gear Silent Chain Motor Driven Lathes</b>											
16¼ in.	6 ft.	34 in.	1 H.P.	2310 lb.	1¾ in.	11¼ in.	392-C	Madge	\$ 777.00	\$ 806.00	\$ 855.00
16¼ in.	7 ft.	46 in.	1 H.P.	2390 lb.	1¾ in.	11¼ in.	392-D	Magpi	797.00	826.00	875.00
16¼ in.	8 ft.	58 in.	1 H.P.	2470 lb.	1¾ in.	11¼ in.	392-E	Mears	817.00	846.00	895.00
16¼ in.	10 ft.	82 in.	1 H.P.	2630 lb.	1¾ in.	11¼ in.	392-G	Netro	861.00	890.00	939.00
16¼ in.	12 ft.	106 in.	1 H.P.	2890 lb.	1¾ in.	11¼ in.	392-H	Mires	924.00	953.00	1002.00
<b>16-inch Standard Change Gear Silent Chain Motor Driven Lathes</b>											
16¼ in.	6 ft.	34 in.	1 H.P.	2275 lb.	1¾ in.	11¼ in.	341-C	Mirac	\$ 697.00	\$ 726.00	\$ 775.00
16¼ in.	7 ft.	46 in.	1 H.P.	2355 lb.	1¾ in.	11¼ in.	341-D	Moats	717.00	746.00	795.00
16¼ in.	8 ft.	58 in.	1 H.P.	2435 lb.	1¾ in.	11¼ in.	341-E	Moral	737.00	766.00	815.00
16¼ in.	10 ft.	82 in.	1 H.P.	2595 lb.	1¾ in.	11¼ in.	341-G	Music	781.00	810.00	859.00
16¼ in.	12 ft.	106 in.	1 H.P.	2855 lb.	1¾ in.	11¼ in.	341-H	Mybeu	844.00	873.00	922.00





Reversing Motor, Reversing Switch and Lathe Equipment are included in price

## 18-inch New Model Silent Chain Motor Driven Lathe

The 18-inch New Model South Bend Silent Chain Motor Driven Lathe has the power, accuracy and precision for heavy machine work in the machine shop, tool room and manufacturing plant. The lathe is a complete unit requiring no extra driving equipment of any kind. It occupies only the same amount of floor space as the regular belt driven lathe and is ready to operate as soon as it is connected to the electric current.

The Silent Chain Motor Driven Lathe shown above is exactly the same as the 18-inch lathe illustrated and described on page 20 except that it is equipped with the Silent Chain Motor Drive which is completely illustrated and described on pages 28 and 29. This lathe is furnished in both quick change and standard change gear types. See pages 20 and 21.

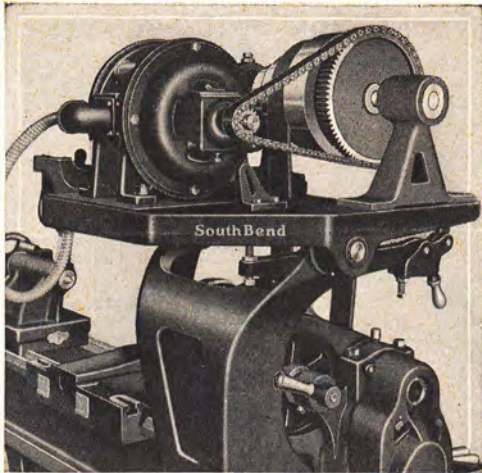
Regular Lathe Equipment included in the price of the 18-inch Silent Chain Motor Driven Lathe consists of: Large Face Plate, Small Face Plate, Tool Post Complete, Adjustable Thread Cutting Stop, two Lathe Centers and Spindle Sleeve, Center Rest, Follower Rest, Wrenches and Change Gears with Standard Change Gear Lathes; also Installation Plans, Floor Plans and book, "How to Run a Lathe." See page 67.

Electrical Equipment included in the price of the 18-inch Silent Chain Motor Driven Lathe consists of a 2 H. P. Reversing Motor 1200 R. P. M. (Westinghouse, General Electric or equal make), Reversing Switch (drum type), Wiring between Motor and Switch, Flexible Metal Conduit, Wiring Diagram and Leather Belt. For description of Motor Drive Lathe see pages 28 and 29.

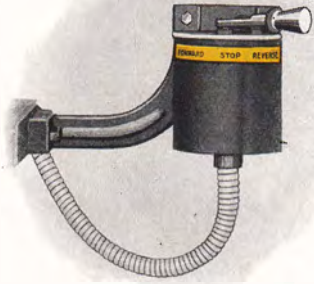
### Net Factory Prices of 18-inch New Model South Bend Silent Chain Motor Driven Lathes

Prices Include Lathe Equipment, Reversing Motor, Reversing Switch and Leather Belt

Swing Over Bed	Length of Bed	Distance Between Centers	Size of Motor	Approx. Weight Crated	Hole Thru Spindle	Swing Over Carriage	Catalog Number of Lathe	Code Word	3 Phase 60 Cycle A.C. Motor	1 Phase 60 Cycle A.C. Motor	Direct Current Motor
<b>18-inch Quick Change Gear Silent Chain Motor Driven Lathes</b>											
18¼ in.	6 ft.	29½ in.	2 H.P.	3040 lb.	1½ in.	12½ in.	391-C	Sacks	\$ 947.00	\$ 999.00	\$1044.00
18¼ in.	7 ft.	41½ in.	2 H.P.	3140 lb.	1½ in.	12½ in.	394-D	Sarge	972.00	1024.00	1069.00
18¼ in.	8 ft.	53½ in.	2 H.P.	3240 lb.	1½ in.	12½ in.	394-E	Semin	997.00	1049.00	1094.00
18¼ in.	10 ft.	77½ in.	2 H.P.	3440 lb.	1½ in.	12½ in.	394-G	Seoul	1051.00	1103.00	1148.00
18¼ in.	12 ft.	101½ in.	2 H.P.	3740 lb.	1½ in.	12½ in.	394-H	Simpe	1129.00	1181.00	1226.00
18¼ in.	14 ft.	125½ in.	2 H.P.	4140 lb.	1½ in.	12½ in.	394-K	Sinks	1191.00	1243.00	1288.00
<b>18-inch Standard Change Gear Silent Chain Motor Driven Lathes</b>											
18¼ in.	6 ft.	29½ in.	2 H.P.	3000 lb.	1½ in.	12½ in.	343-C	Sober	\$ 857.00	\$ 909.00	\$ 954.00
18¼ in.	7 ft.	41½ in.	2 H.P.	3100 lb.	1½ in.	12½ in.	343-D	Sorel	882.00	934.00	979.00
18¼ in.	8 ft.	53½ in.	2 H.P.	3200 lb.	1½ in.	12½ in.	343-E	Sanro	907.00	959.00	1004.00
18¼ in.	10 ft.	77½ in.	2 H.P.	3400 lb.	1½ in.	12½ in.	343-G	Sucire	961.00	1013.00	1058.00
18¼ in.	12 ft.	101½ in.	2 H.P.	3700 lb.	1½ in.	12½ in.	343-H	Sugar	1035.00	1091.00	1136.00
18¼ in.	14 ft.	125½ in.	2 H.P.	4100 lb.	1½ in.	12½ in.	343-K	Synth	1101.00	1153.00	1198.00



Silent Chain Mechanism with Gear Guard Removed Showing How the Motor Drives the Spindle Cone



Reversing Switch (Drum Type)

The lever operates the switch in a rotary motion, left for starting, center for stopping and right for reversing the rotation of the lathe spindle and lead screw. This switch is included in the price of all types of Motor Driven South Bend Lathes, 9-inch to 18-inch swing.

## The New Silent Chain Motor Drive Unit

Used on All New Model Silent Chain Motor Driven Lathes

The Reversing Motor is mounted above the lathe where it is free from dirt and chips. A flexible metal conduit encases wiring from motor to switch. The silent chain drive which connects the motor with the upper cone is provided with a felt wick oiler and is entirely enclosed by a gear guard made of cast iron.

The Motor Table which supports the motor and driving cone is held by a heavy bracket mounted directly on the lathe bed. A small lever convenient to the operator allows the motor table to tilt forward and relieve the belt tension for easy shifting. An independent adjustment is provided for taking up the stretch in belt.

The Drum Type Reversing Control Switch is the most practical switch for the efficient operation of a screw cutting lathe. This type of switch is necessary on a Motor Driven Screw Cutting Lathe because of the continual starting, stopping, and reversing of the lathe spindle. See illustration.

Start, Stop and Reverse positions are provided on the switch. Moving switch handle to the left runs the lathe forward, to the right reverses the motion of the lathe spindle, and in center is the neutral or stop position.

Push Button Control, using magnetic reversing switches instead of the drum type can be furnished on the New Model Silent Chain Motor Driven Lathes at extra cost. Prices of the various Motor Driven Lathes equipped with push button control and magnetic switches will be furnished on request. However, we recommend the drum type reversing switch for use on a South Bend Silent Chain Motor Driven Lathe.

Quick Change Gear Silent Chain Motor Driven Lathes from 9-inch to 18-inch swing are illustrated in this catalog on pages 22 to 27 inclusive. The Quick Change Gear Box provides a range of 48 screw threads, right or left, from 2 to 1 1/2 per inch. It also provides for a wide range of automatic longitudinal feeds and automatic cross feeds. The Gear Box is illustrated and described in detail on page 5.

Reversing Motors from 1/4 H. P. to 3 H. P. with current specifications as shown at bottom of page and on page 29 are carried in stock in our factory. Special electric motors of odd current characteristics, such as 25 cycle, 30 cycle, 40 cycle, 50 cycle, A. C., and 32-volt D. C., motors are not carried in stock but can be secured from the motor manufacturers on short notice.

Electrical Equipment Included in the Price of the Silent Chain Motor Driven Lathes, both Quick Change Gear and Standard Change Gear, consists of 1200 R. P. M. Reversing Motor (Westinghouse, General Electric, or equal make), Reversing Switch, wiring between motor and switch, flexible metal conduit, wiring diagram, and leather belt.

Regular Lathe Equipment included in price of Silent Chain Motor Driven Lathes, Quick Change and Standard Change Gear types, is illustrated on page 67.

Each Motor Driven Lathe is Thoroughly Tested before shipping. We connect the motor and switch, test and inspect the wiring, then operate and test the lathe under its own power. The wiring is encased in a flexible metal conduit and meets the requirements of Underwriter's Specifications. When the lathe arrives it will be ready to operate as soon as connected to current.

The General Design of the Silent Chain Drive used on Silent Chain Motor Driven Lathes 9-inch swing to 18-inch swing, in both straight bed and gap bed types, Standard and Quick Change, is the same on all sizes, although the actual dimensions of the drive unit vary according to the size lathe.

Standard Change Gear Silent Chain Motor Driven Lathes from 9-inch to 18-inch swing are priced on pages 22 to 27 inclusive. These lathes are equipped with Independent Change Gears which provide for cutting right or left hand screw threads from 4 to 40 per inch as shown by the index plate attached to each lathe. The Change Gears also provide for a range of automatic longitudinal feeds and automatic cross feeds.

### Horsepower of Motor Required for Driving South Bend Lathes

Size of Lathe.....	9 in.	11 in.	13 in.	15 in.	16 in.	18 in.
Horsepower of Motor.....	1/4	1/2	3/4	1	1	2
Speed of Motor, R.P.M.....	1150 to 1200	1150 to 1200	1150 to 1200	1150 to 1200	1150 to 1200	1150 to 1200



# The New Model Silent Chain Motor Driven Lathe

## Six Sizes—9-inch to 18-inch Swing—Standard and Quick Change Gear Lathes

The New Model South Bend Silent Chain Motor Driven Lathe is efficient and practical for use in manufacturing plant, tool room, and general machine shop. The lathe is a complete unit requiring no extra driving equipment of any kind. It occupies only the same amount of floor space as the regular belt driven lathe and is ready to operate as soon as it is connected to the electric current.

All Sizes of South Bend Quick Change Gear and Standard Change Gear Lathes illustrated and described on pages 10 to 21 inclusive and Gap Bed Lathes illustrated and described on pages 86 and 87 are furnished in the Silent Chain Motor Drive Pattern. The same specifications and descriptions apply to the Silent Chain Motor Driven Lathes that apply to the Countershaft Driven Lathes, as the only difference between them is in the form of drive.

The Cone Pulleys and Back Gears of the lathe headstock provide a wide range of spindle speeds, eliminating the expense of special variable and adjustable speed motors, allowing standard, constant speed reversing motors to be used.

The Silent Chain Motor Drive used on South Bend Lathes was developed in the shops of the General Electric Company several years ago. It is the ideal electric drive for the screw cutting lathe as it is practical and powerful and eliminates vibration and noise. Power is delivered from the motor through the silent chain and then by belt to the lathe spindle. Driving the spindle cone by the belt does away with all vibration and permits the cutting tool to work efficiently and to leave a smooth surface on the work. The Silent Chain Motor Drive is by far the most popular form of motor drive.

Reversing Motors and Reversing Switches are furnished on all South Bend Motor Driven Lathes in order to provide instantaneous starting, stopping and reversing of the lathe spindle which is so important on a back geared screw cutting lathe. A complete stock of reversing motors is carried at our plant so that prompt delivery can be made. When customers wish to supply their own motors there will be an extra charge made for the special work involved in fitting the motor to the lathe.

## How to Order Motor Driven Lathes—All Types

### Electric Current Specifications

When Ordering a Motor Driven Lathe give the following information regarding the electric current to be used, so that the proper style and type of reversing motor can be fitted to the lathe.

When giving voltage state the exact voltage of motor wanted. When ordering do not specify 110-220-volt motor as we cannot furnish motors for double voltage rating.

### Always Give the Following Information:

- If Alternating Current state exact voltage, phase, cycle, and number of wires.
- If Direct Current state exact voltage only.

You Can Secure your current specifications from the electric power company furnishing your current.

### Use Code Words

When Ordering Motor Driven Lathes by telegram or cablegram use code words to indicate motor specifications. The tabulation below shows code words which cover the popular motor specifications.

If your motor specifications differ from those that we list below, give us the exact voltage, phase and cycle.

### CODE WORD CURRENT SPECIFICATIONS

Zapin	1-phase, 60 cycle, 110-volt, A. C. Motor
Zbras	1-phase, 60 cycle, 220-volt, A. C. Motor
Zingo	3-phase, 60 cycle, 110-volt, A. C. Motor
Zompe	3-phase, 60 cycle, 220-volt, A. C. Motor
Zurik	115-volt D. C. Motor
Zuwel	230-volt D. C. Motor

### Example—Ordering by Code

For Example: When ordering No. 392-E, 16-inch x 8-foot Silent Chain Motor Driven Lathe equipped with 3-phase, 60 cycle, 220-volt, A. C. motor, specify the code words "Mears Zompe." The code word "Mears" covers the Lathe and the code word "Zompe" covers the motor specifications. Any South Bend Motor Driven Lathe can be ordered by code in the same manner.

Prices of Motor Driven Lathes are net f.o.b. South Bend, crated for domestic shipment and include the Regular Lathe Equipment, a 1200 R. P. M. Reversing Motor, Reversing Switch, Wiring between Motor and Switch, Flexible Metal Conduit, and Leather Belt.

### Wiring Diagram Furnished

Each Motor Driven Lathe is shipped with the motor wired to the switch and with lead wires from the switch ready to connect to the user's electric line. The customer need only connect the lead wires from switch to supply line. A flexible metal conduit encloses the wires between the motor and switch. We furnish a blue print showing how all wiring connections are made.

### Silent Chain Motor Driven Lathes with Double Gap Bed

The Double Gap Lathe with double bridge is illustrated, described and priced on pages 86 and 87. The lathe may be had in Quick Change Gear or Standard Change Gear types with overhead countershaft drive or silent chain motor drive.

The Silent Chain Motor Driven Gap Bed Lathe is especially practical for the shop not equipped with overhead lineshaft and that specializes in work of large diameter.

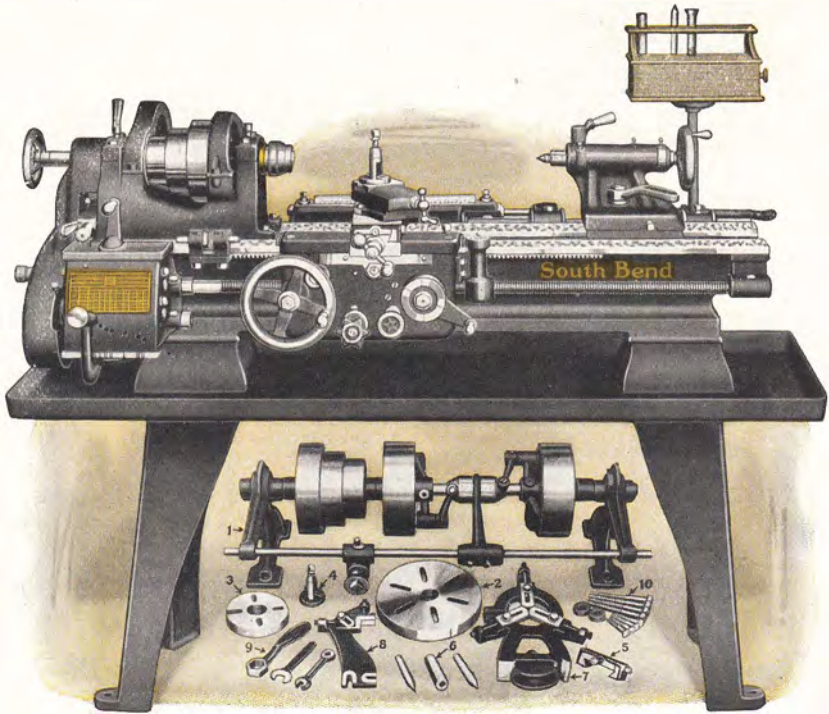


### Belt Guard for Silent Chain Motor Drive

The Special Belt Guard shown above can be furnished on all sizes of Silent Chain Motor Driven Lathes, 9-inch to 18-inch inclusive, as additional equipment. The guard completely covers the driving cone, beltting and spindle cone.

### Net Factory Prices Belt Guards for Silent Chain Motor Driven Lathes

Size of Lathe	Cat. No.	Code Word	Price	Size of Lathe	Cat. No.	Code Word	Price
9 in.	590	Kelat	\$12.00	15 in.	593	Kurey	\$18.00
11 in.	591	Keros	13.50	16 in.	594	Kimet	18.00
13 in.	592	Korid	15.00	18 in.	595	Kajot	22.00



Equipment illustrated under Lathe is included in price of Lathe

## 11-inch New Model Tool Room Precision Lathe Overhead Countershaft Drive

The 11-inch New Model South Bend Tool Room Precision Lathe illustrated above is recommended for the finest class of tool, jig and fixture work that comes up in the modern tool room where precision-accuracy is required. It will meet the demands of the expert mechanic on the most accurate work.

**Precision Lead Screw.** This lathe has a  $\frac{3}{8}$ -inch diameter Lead Screw, eight pitch, Acme Thread, cut on a special machine equipped with a Pratt and Whitney Master Lead Screw. It is a practical lathe for making precision master taps, thread gauges, special screws, dies, fixtures, tools, etc.

**For Features, Specifications** and detailed description applying to the 11-inch Tool Room Lathe see pages 2 to 9 and 12. This lathe differs only in that it is fitted with special attachments for tool room work.

**Tool Room Attachments** are listed and priced separately so that the customer can select only those required for his work. A complete line of attachments including Collet Chucks, Collet Cabinet, Taper Attachment, Thread Dial, Micrometer Carriage Stop, Oil Pan, etc., are illustrated and described on pages 54 to 66 of this catalog.

**Regular Lathe Equipment** included in the price of the 11-inch South Bend Tool Room Lathe with Overhead Countershaft Drive consists of: Double Friction Countershaft, Large Face Plate, Small Face Plate, Tool Post Complete, Adjustable Thread Cutting Stop, two Lathe Centers and Spindle Sleeve, Counter Rest, Follower Rest and Wrenches; also Installation Plans, Floor Plans and book, "How to Run a Lathe." See page 67.

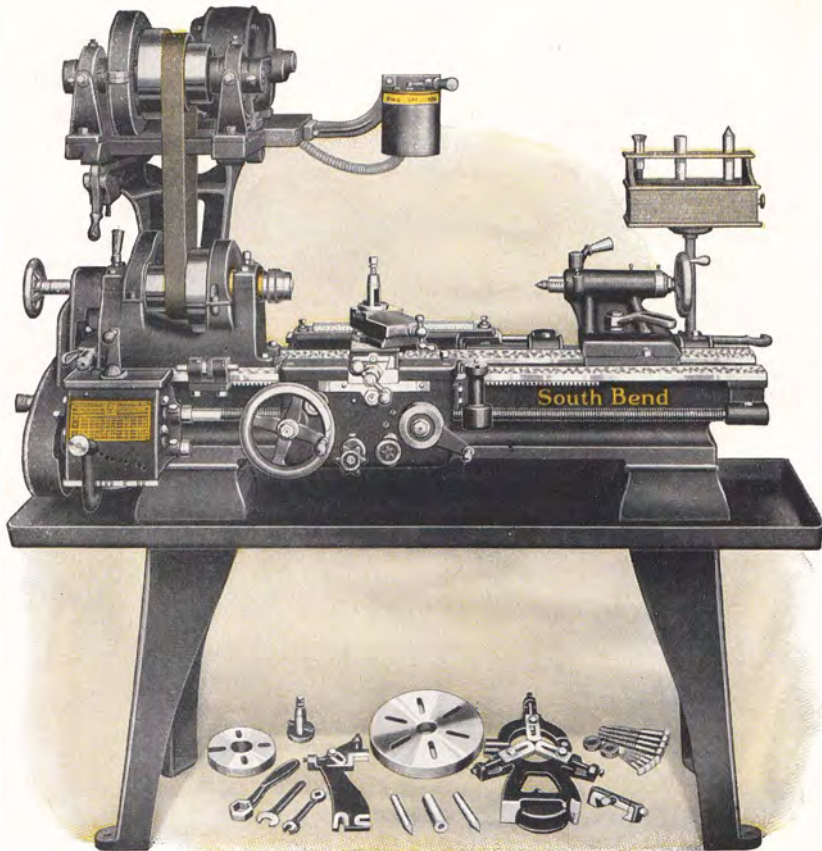
**Cabinet Legs**, instead of regular legs, can be used on the 11-inch Tool Room Lathe. For description and prices see page 66.

### Net Factory Prices 11-inch New Model South Bend Tool Room Precision Lathe—Countershaft Drive Each Attachment is Priced Individually So That the Customer May Select Only Those Required

Size and Catalog Number..... 11-inch Tool Room Quick Change Gear Precision Lathe, Countershaft Drive, with Regular Equipment but without Tool Room Attachments .....	No. 884-A—11"x4'		No. 884-B—11"x5'		No. 884-S—11"x5' $\frac{1}{2}$ '	
	Code Word	Price	Code Word	Price	Code Word	Price
.....	Emdor	\$359.00	Eolin	\$375.00	Epmjo	\$384.00
<b>TOOL ROOM ATTACHMENTS (EXTRA)</b>						
Draw-in Collet Chuck (Hand Wheel Type) with One Collet	Abode	38.00	Abode	38.00	Abode	38.00
Extra Collets $\frac{1}{8}$ " up to $\frac{3}{8}$ " cap. with Regular Taper Attachment .....	Gello	4.40	Gello	4.40	Gello	4.40
Thread Indicator .....	Devor	60.00	Devor	60.00	Devor	60.00
Oil Pan .....	Acres	8.00	Acres	8.00	Acres	8.00
Micrometer Carriage Stop.....	Oidium	27.00	Ohern	29.00	Oekon	30.00
Collet Cabinet and Bracket.....	Ceded	12.00	Ceded	12.00	Ceded	12.00
	Crome	12.00	Crome	12.00	Crome	12.00
<b>Net Factory Prices Tool Room Lathe, Complete as Illustrated Above .....</b>	Ewhot	\$520.40	Eajun	\$538.40	Eilex	\$548.40

Cabinet Legs for use on Tool Room Lathes illustrated on page 66.





Equipment illustrated under Lathe is included in price of Silent Chain Motor Driven Lathe

## 11-inch New Model Tool Room Precision Lathe Silent Chain Motor Drive

The 11-inch New Model Silent Chain Motor Driven Tool Room Precision Lathe is exactly the same as the Countershaft Driven Tool Room Lathe shown on page 30 except that it is equipped with the Silent Chain Motor Drive, as illustrated and described on pages 28-29.

For Features, Specifications and detailed description applying to the 11-inch Tool Room Lathe see pages 2 to 9 and 12.

Regular Equipment included in the price of lathe consists of: Large Face Plate, Small Face Plate, Tool Post complete, Thread Cutting Stop,

two Lathe Centers and Spindle Sleeve, Center Rest, Follower Rest and Wrenches; also Installation Plans, Floor Plans and book, "How to Run a Lathe." See page 67.

Electrical Equipment included in the price of lathe consists of: ½ H.P. Reversing Motor, 1200 R.P.M. (Westinghouse, General Electric or equal make), Reversing Switch (Drum type), Wiring between Motor and Switch, Flexible Metal Conduit, Wiring Diagram and Leather Belt.

When Ordering give the required information on Electric Current as specified on page 29.

Net Factory Prices 11-inch New Model South Bend Tool Room Precision Lathe—Motor Drive  
Each Attachment is Priced Individually So That the Customer May Select Only Those Required

Catalog No. 3884-A—11"x4' Tool Room, Quick Change Gear Precision Lathe, Silent Chain Motor Drive, with Regular Equipment and Electrical Equipment but without Tool Room Attachments.

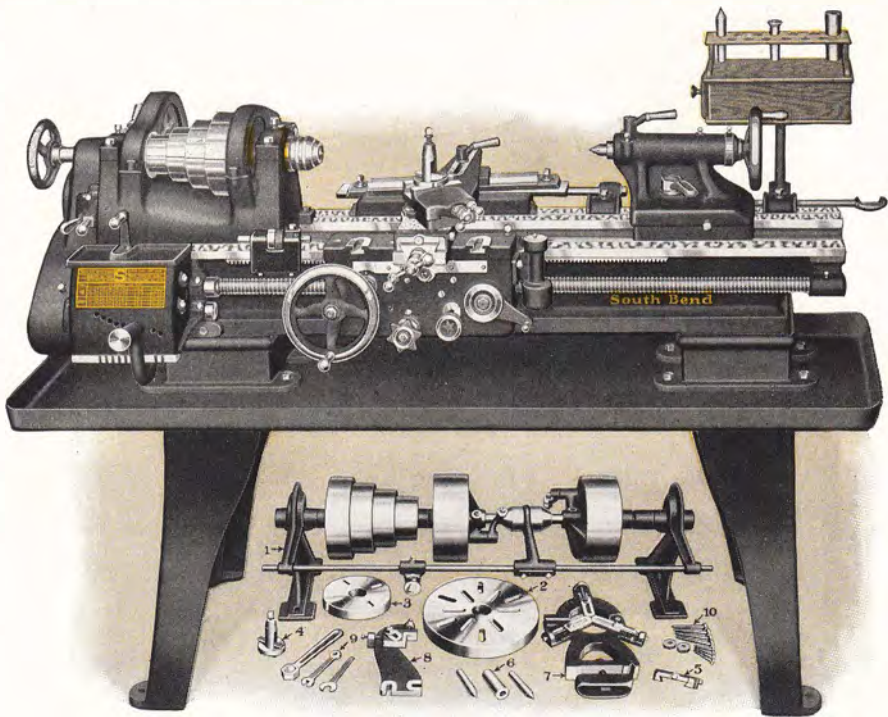
### TOOL ROOM ATTACHMENTS (EXTRA)

Draw-in Collet Chuck (Hand Wheel Type) with One Collet .....  
Extra Collets ⅜" up to ⅝" cap. by 64ths. Each .....  
Taper Attachment .....  
Thread Indicator .....  
Oil Pan .....  
Micrometer Carriage Stop .....  
Collet Cabinet and Bracket.....

Net Factory Prices Tool Room Lathe, Complete as Illustrated Above

Code Word	With 3 Phase-60 Cycle A.C. Motor		With 1 Phase-60 Cycle A.C. Motor		With Direct Current Motor	
	Code Word	Price	Code Word	Price	Code Word	Price
Eerow		\$498.00	Eerow	\$526.00	Eerow	\$509.00
Abode		38.00	Abode	38.00	Abode	38.00
Cello		4.40	Cello	4.40	Cello	4.40
Devor		60.00	Devor	60.00	Devor	60.00
Acres		8.00	Acres	8.00	Acres	8.00
Odiium		27.00	Odiium	27.00	Odiium	27.00
Ceded		12.00	Ceded	12.00	Ceded	12.00
Crome		12.00	Crome	12.00	Crome	12.00
Emios		\$659.40	Elite	\$687.40	Erund	\$670.40

For prices of 5 ft. bed Tool Room Lathe with attachments add \$18.00 to above prices. For 5½ ft. bed add \$28.00



Equipment illustrated under Lathe is included in price of Lathe

## 13-inch New Model Tool Room Precision Lathe Overhead Countershaft Drive

The 13-inch New Model South Bend Tool Room Precision Lathe illustrated above is recommended for the finest class of tool, jig and fixture work that comes up in the modern tool room where precision-accuracy is required. It will meet the demands of the expert mechanic on the most accurate work.

**Precision Lead Screw.** This lathe has 1-inch diameter Lead Screw, six pitch, Acme Thread, cut on a special machine equipped with a Pratt and Whitney Master Lead Screw. It is practical for making precision master taps, thread gauges, special screws, dies, fixtures, tools, etc.

**For Features, Specifications and detailed description** applying to the 13-inch Tool Room Lathe see pages 2 to 9, and 14. This lathe differs only in that it is fitted with special attachments for tool room work.

**Tool Room Attachments** are listed and priced separately so that the customer can select only those required for his work. A complete line of attachments including Collet Chucks, Collet Cabinet, Taper Attachment, Thread Dial, Micrometer Carriage Stop, Oil Pan, etc., are illustrated and described on pages 54 to 66 of this catalog.

**Regular Lathe Equipment** included in the price of the 13-inch South Bend Tool Room Lathe with Overhead Countershaft Drive consists of: Double Friction Countershaft, Large Face Plate, Small Face Plate, Tool Post complete, Adjustable Thread Cutting Stop, two Lathe Centers and Spindle Sleeve, Center Rest, Follower Rest and Wrenches; also Installation Plans, Floor Plans and book, "How to Run a Lathe." See page 67.

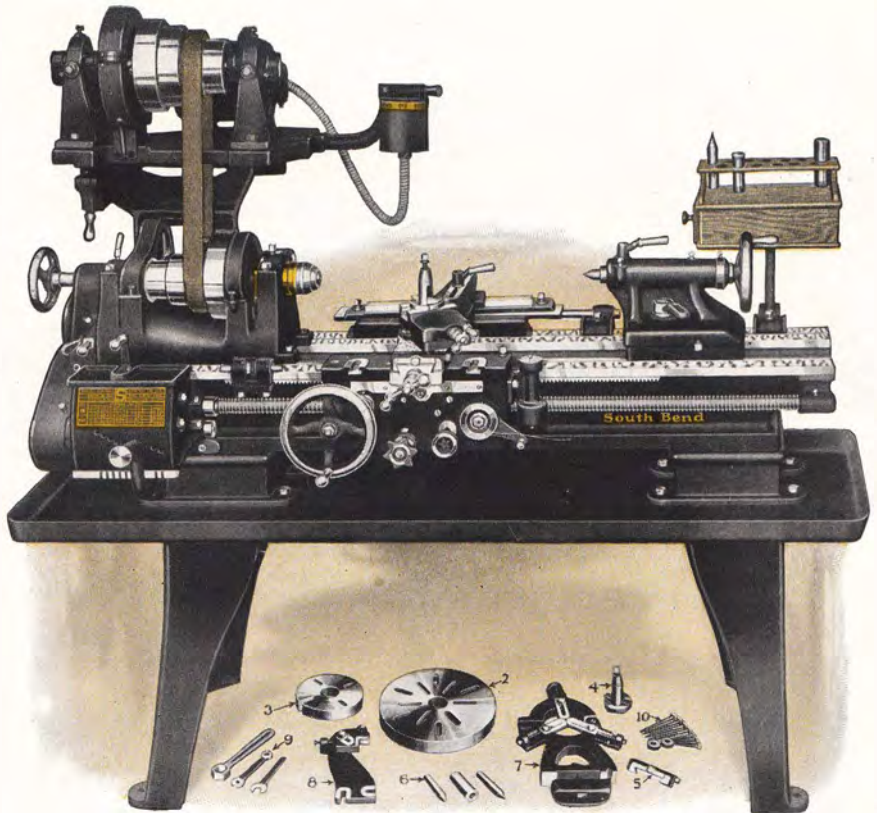
**Cabinet Legs** can be supplied instead of regular legs if desired. For prices see page 66.

### Net Factory Prices 13-inch New Model South Bend Tool Room Precision Lathe—Countershaft Drive

Each Attachment is Priced Individually So That the Customer May Select Only Those Required

Size and Catalog Number of Lathe.....	No. 886-B—13"x5'		No. 886-C—13"x6'		No. 886-D—13"x7'	
	Code Word	Price	Code Word	Price	Code Word	Price
13-inch Tool Room Quick Change Gear Precision Lathe, Countershaft Drive, with Regular Equipment but without Tool Room Attachments .....	Gehos	\$443.00	Gifts	\$458.00	Gobli	\$475.00
<b>TOOL ROOM ATTACHMENTS (EXTRA)</b>						
Draw-in Collet Chuck (Hand Wheel Type) with One Collet .....	About	44.00	About	44.00	About	44.00
Extra Collets $\frac{3}{4}$ " up to $\frac{1}{2}$ " cap. by 64ths. Each. Taper Attachment .....	Chose	5.00	Chose	5.00	Chose	5.00
Oil Pan .....	Digit	75.00	Digit	75.00	Digit	75.00
Thread Indicator .....	Actvis	10.00	Actvis	10.00	Actvis	10.00
Micrometer Carriage Stop .....	Olern	38.00	Olern	41.00	Olern	44.00
Collet Cabinet and Bracket .....	Chain	13.00	Chain	13.00	Chain	13.00
	Cnoko	12.00	Cnoko	12.00	Cnoko	12.00
<b>Net Factory Prices Tool Room Lathe, Complete as Illustrated Above .....</b>	<b>Grose</b>	<b>\$640.00</b>	<b>Gefop</b>	<b>\$658.00</b>	<b>Gobis</b>	<b>\$678.00</b>





Equipment illustrated under Lathe is included in price of Motor Driven Lathe

## 13-inch New Model Tool Room Precision Lathe Silent Chain Motor Drive

The 13-inch New Model Tool Room Precision Lathe, Silent Chain Motor Drive, is exactly the same as the Countershaft Driven Tool Room Lathe shown on page 32 except that it is equipped with the Silent Chain Motor Drive which is illustrated and described on pages 28 and 29.

For Features, Specifications and detailed description applying to the 13-inch Tool Room Lathe see pages 2 to 9, and 14.

Regular Equipment included in the price of the 13-inch New Model Silent Chain Motor Driven Tool Room Lathe consists of: Large Face Plate, Small Face Plate, Tool Post complete, Thread Cutting Stop, two Lathe Centers and

Spindle Sleeve, Center Rest, Follower Rest and Wrenches; also Installation Plans, Floor Plans and book, "How to Run a Lathe." See page 67.

Electrical Equipment included in the price of the New Model Silent Chain Motor Driven Tool Room Lathe consists of:  $\frac{3}{4}$  H.P. Reversing Motor 1200 R.P.M. (Westinghouse, General Electric or equal make), Reversing Switch (drum type), Wiring between Motor and Switch, Flexible Metal Conduit, Wiring Diagram and Leather Belt.

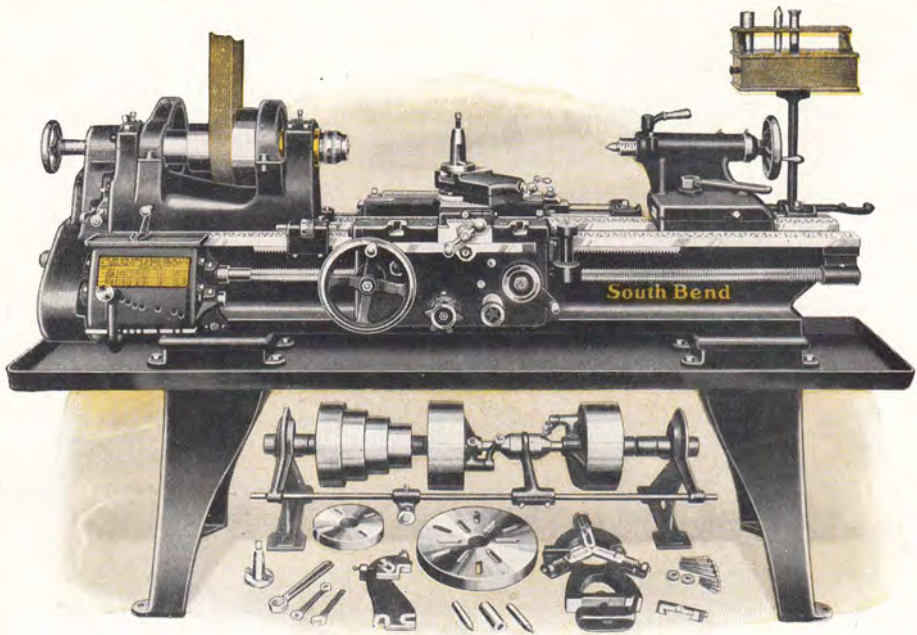
When Ordering the 13-inch Silent Chain Motor Driven Tool Room Lathe be sure to give the required information on Electric Current as specified on page 29.

### Net Factory Prices 13-inch New Model South Bend Tool Room Precision Lathe—Motor Drive

Each Attachment is Priced Individually So That the Customer May Select Only Those Required

Catalog No. 3886-B—13"x5' Tool Room, Quick Change Gear Precision Lathe, Silent Chain Motor Drive, with Regular Equipment and Electrical Equipment but without Tool Room Attachments.....	With 3 Phase-60 Cycle A.C. Motor		With 1 Phase-60 Cycle A.C. Motor		With Direct Current Motor	
	Code Word	Price	Code Word	Price	Code Word	Price
.....	Gemic	\$602.00	Gemic	\$645.00	Gemic	\$613.00
<b>TOOL ROOM ATTACHMENTS (EXTRA)</b>						
Draw-in Collet Chuck (Hand Wheel Type) with One Collet	About	44.00	About	44.00	About	44.00
Extra Collets $\frac{1}{4}$ " up to $\frac{3}{8}$ " cap. by 61115. Each.	Close	5.00	Close	5.00	Close	5.00
Taper Attachment	Digit	75.00	Digit	75.00	Digit	75.00
Thread Indicator	Advls	10.00	Advls	10.00	Advls	10.00
Oil Pan	Ohern	38.00	Ohern	38.00	Ohern	38.00
Micrometer Carriage Stop	Chain	13.00	Chain	13.00	Chain	13.00
Collet Cabinet and Bracket	Choke	12.00	Choke	12.00	Choke	12.00
<b>Net Factory Prices Tool Room Lathe, Complete as Illustrated Above</b>	<b>Gazor</b>	<b>\$799.00</b>	<b>Gesut</b>	<b>\$842.00</b>	<b>Gogir</b>	<b>\$810.00</b>

For prices of 6 ft. bed Tool Room Lathe with attachments add \$18.00 to above prices. For 7 ft. bed add \$38.00



Equipment illustrated under Lathe is included in price of Lathe

## 15-inch New Model Tool Room Precision Lathe Overhead Countershaft Drive

The 15-inch New Model South Bend Tool Room Precision Lathe illustrated above is recommended for the finest class of tool, jig and fixture work that comes up in the modern tool room where precision-accuracy is required. It is used by many of the largest manufacturing plants in the United States and will meet the demands of the expert mechanic on the most accurate work.

**Precision Lead Screw.** This lathe has a 1½-inch diameter Lead Screw, six pitch, Acme thread, cut on a special machine equipped with a Pratt and Whitney Master Lead Screw. It is a practical lathe for making precision master taps, thread gauges, special screws, dies, fixtures, tools, etc.

**For Features, Specifications** and detailed description applying to the 15-inch Tool Room Lathe see pages 2 to 9, and 16. This lathe differs only in that it is fitted with special attachments for tool room work.

**Tool Room Attachments** are listed and priced separately so that the customer can select only those required for his work. A complete line of attachments including Collet Chucks, Collet Cabinet, Taper Attachment, Thread Dial, Micrometer Carriage Stop, Oil Pan, etc., are illustrated and described on pages 54 to 66 of this catalog.

**Regular Lathe Equipment** included in the price of the 15-inch South Bend Tool Room Lathe with Overhead Countershaft Drive consists of: Double Friction Countershaft, Large Face Plate, Small Face Plate, Tool Post complete, Adjustable Thread Cutting Stop, two Lathe Centers and Spindle Sleeve, Center Rest, Follower Rest and Wrenches; also Installation Plans, Floor Plans and book, "How to Run a Lathe." See page 67.

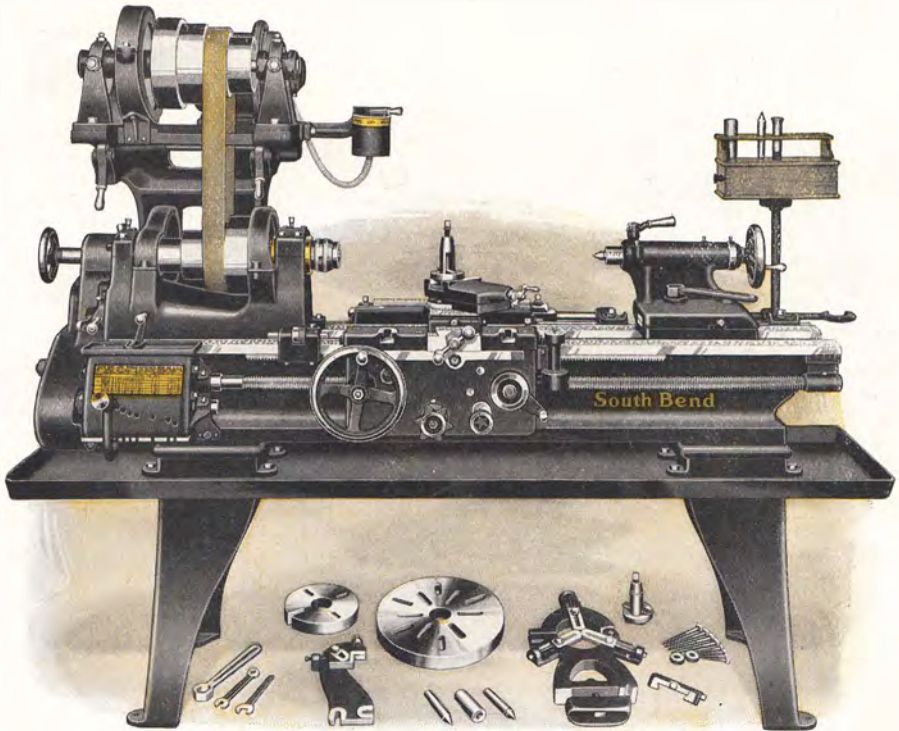
**Cabinet Legs** may be used on the 15-inch Tool Room Lathe instead of the regular legs if desired. Cabinet Legs are illustrated, described and priced on page 66 of this catalog.

### Net Factory Prices 15-inch New Model South Bend Tool Room Precision Lathe—Countershaft Drive Each Attachment Is Priced Individually So That the Customer May Select Only Those Required

Size and Catalog Number of Lathe.....	No. 888-B—15"x5'		No. 888-C—15"x6'		No. 888-D—15"x7'	
	Code Word	Price	Code Word	Price	Code Word	Price
15-inch Tool Room Quick Change Gear Precision Lathe, Countershaft Drive with Regular Equipment but without Tool Room Attachments .....	Latin	\$525.00	Lemon	\$543.00	Liquor	\$561.00
<b>TOOL ROOM ATTACHMENTS (EXTRA)</b>						
Draw-in Collet Chuck (Hand Wheel Type) with One Collet .....	Above	50.00	Above	50.00	Above	50.00
Extra Collets 3/8" up to 3/2" cap. by 6ths. Each Taper Attachment .....	Civit	5.50	Civit	5.50	Civit	5.50
Thread Indicator .....	Doted	80.00	Doted	80.00	Doted	80.00
Oil Pan .....	Aesop	10.00	Aesop	10.00	Aesop	10.00
Micrometer Carriage Stop .....	Other	45.00	Other	49.00	Other	53.00
Collet Cabinet and Bracket .....	Cigar	14.00	Cigar	14.00	Cigar	14.00
	Chart	15.00	Chart	15.00	Chart	15.00
<b>Net Factory Prices Tool Room Lathe, Complete as Illustrated Above</b>	Likos	<b>\$744.50</b>	Lomar	<b>\$766.50</b>	Lunes	<b>\$788.50</b>

Cabinet Legs for use on Tool Room Lathe illustrated on page 66.





Equipment illustrated under Lathe is included in price of Motor Driven Lathe

## 15-inch New Model Tool Room Precision Lathe Silent Chain Motor Drive

The 15-inch New Model Tool Room Precision Lathe, Silent Chain Motor Drive, is exactly the same as the Countershaft Driven Tool Room Lathe shown on page 34 except that it is equipped with Silent Chain Motor Drive which is illustrated and described on pages 28 and 29.

For Features, Specifications and detailed description applying to the 15-inch Tool Room Lathe see pages 2 to 9, and 16.

Regular Equipment included in the price of the 15-inch New Model Silent Chain Motor Driven Tool Room Lathe consists of: Large Face Plate, Small Face Plate, Tool Post complete, Thread Cutting Stop, two Lathe Centers and

Spindle Sleeve, Center Rest, Follower Rest and Wrenches; also Installation Plans, Floor Plans and book, "How to Run a Lathe." See page 67.

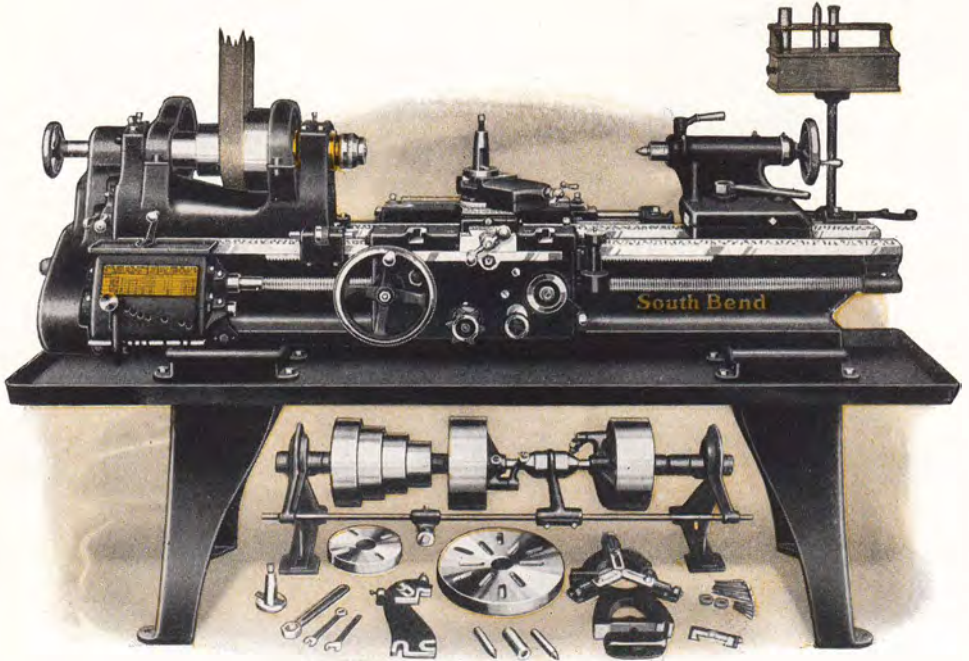
Electrical Equipment included in the price of the New Model Silent Chain Motor Driven Tool Room Lathe consists of: 1 H.P. Reversing Motor 1200 R.P.M. (Westinghouse, General Electric or equal make), Reversing Switch (drum type), Wiring between Motor and Switch, Flexible Metal Conduit, Wiring Diagram and Leather Belt.

When Ordering the 15-inch Silent Chain Motor Driven Tool Room Lathe be sure to give the required information on Electric Current as specified on page 29.

### Net Factory Prices 15-inch New Model South Bend Tool Room Precision Lathe—Motor Drive Each Attachment is Priced Individually So That the Customer May Select Only Those Required

Catalog No. 3888-B—15"x31" Tool Room, Quick Change Gear Precision Lathe, Silent Chain Motor Drive, with Regular Equipment and Electrical Equipment but without Tool Room Attachments.....	With 3 Phase-60 Cycle A.C. Motor		With 1 Phase-60 Cycle A.C. Motor		With Direct Current Motor	
	Code Word	Price	Code Word	Price	Code Word	Price
	Labor	\$702.00	Labor	\$731.00	Labor	\$780.00
<b>TOOL ROOM ATTACHMENTS (EXTRA)</b>						
Draw-in Collet Chuck (Hand Wheel Type) with One Collet	Above	50.00	Above	50.00	Above	50.00
Extra Collets 1/2" up to 3/4" dia. by 6ths. Each	Cvlt	5.50	Cvlt	5.50	Cvlt	5.50
Taper Attachment	Doted	80.00	Doted	80.00	Doted	80.00
Thread Indicator	Aesop	10.00	Aesop	10.00	Aesop	10.00
Oil Pan	Obern	45.00	Obern	45.00	Obern	45.00
Micrometer Carriage Stop	Cgar	14.00	Cgar	14.00	Cgar	14.00
Collet Cabinet and Bracket	Cnarl	15.00	Cnarl	15.00	Cnarl	15.00
<b>Net Factory Prices Tool Room Lathe, Complete as Illustrated Above</b>	Lafon	<b>\$921.50</b>	Legip	<b>\$950.50</b>	Lehas	<b>\$999.50</b>

For prices of 6 ft. bed Tool Room Lathe with attachments add \$22.00 to above prices. For 7 ft. bed add \$44.00 Cabinet Legs for use on Tool Room Lathes illustrated on page 66.



Equipment illustrated under Lathe is included in price of Lathe

## 16-inch New Model Tool Room Precision Lathe Overhead Countershaft Drive

The 16-inch New Model South Bend Tool Room Precision Lathe illustrated above is recommended for the finest class of tool, jig and fixture work that comes up in the modern tool room where precision-accuracy is required. It is used by many of the largest manufacturing plants in the United States and will meet the demands of the expert mechanic on the most accurate work.

**Precision Lead Screw.** This lathe has a  $1\frac{1}{8}$ -inch diameter Lead Screw, six pitch, Acme thread, cut on a special machine equipped with a Pratt and Whitney Master Lead Screw. It is a practical lathe for making precision master taps, thread gauges, special screws, dies, fixtures, tools, etc.

**For Features, Specifications** and detailed description applying to the 16-inch Tool Room Lathe see pages 2 to 9, and 18. This lathe differs only in that it is fitted with special attachments for tool room work.

**Tool Room Attachments** are listed and priced separately so that the customer can select only those required for his work. A complete line of attachments including Collet Chucks, Collet Cabinet, Taper Attachment, Thread Dial, Micrometer Carriage Stop, Oil Pan, etc., are illustrated and described on pages 54 to 66 of this catalog.

**Regular Lathe Equipment** included in the price of the 16-inch South Bend Tool Room Lathe with Overhead Countershaft Drive consists of: Double Friction Countershaft, Large Face Plate, Small Face Plate, Tool Post complete, Adjustable Thread Cutting Stop, two Lathe Centers and Spindle Sleeve, Center Rest, Follower Rest and Wrenches; also Installation Plans, Floor Plans and book, "How to Run a Lathe." See page 67.

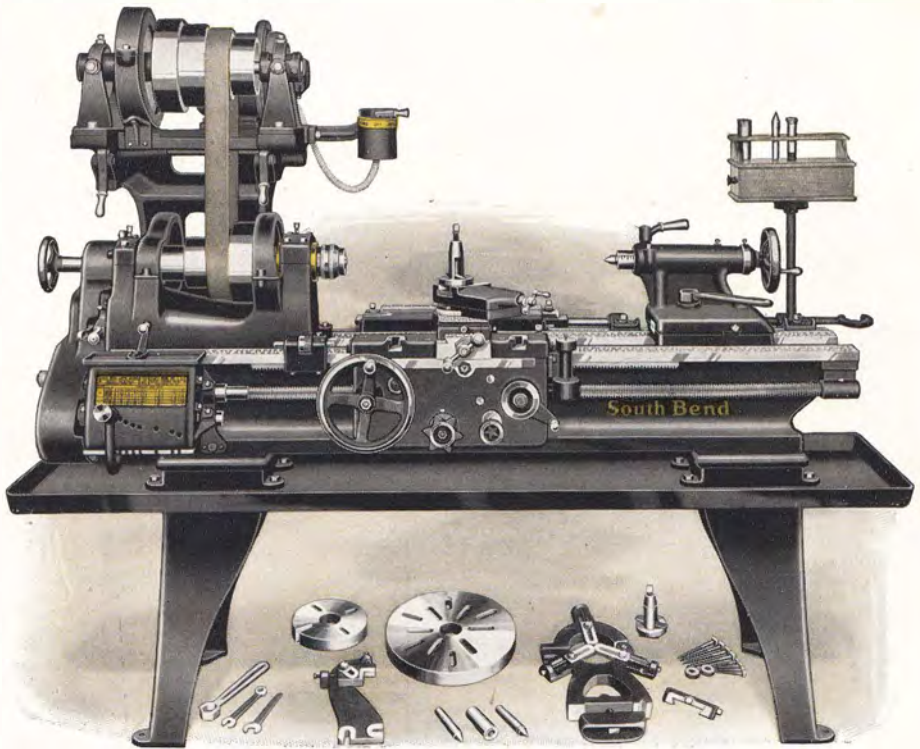
**Cabinet Legs** may be used on the 16-inch Tool Room Lathe instead of regular legs if desired. Cabinet Legs are illustrated, described and priced on page 66 of this catalog.

### Net Factory Prices 16-inch New Model South Bend Tool Room Precision Lathe—Countershaft Drive Each Attachment Is Priced Individually So That the Customer May Select Only Those Required

Size and Catalog Number of Lathe.....	No. 892-C—16"x6"		No. 892-D—16"x7"		No. 892-E—16"x8"	
	Code Word	Price	Code Word	Price	Code Word	Price
16-inch Tool Room Quick Change Gear Precision Lathe, Countershaft Drive with Regular Equipment but without Tool Room Attachments .....	Malta	\$598.00	Melbo	\$618.00	Mitre	\$638.00
<b>TOOL ROOM ATTACHMENTS (EXTRA)</b>						
Draw-in Collet Chuck (Hand Wheel Type) with One Collet .....	Adore	56.00	Adore	56.00	Adore	56.00
Extra Collets $\frac{3}{16}$ " up to $\frac{7}{8}$ " capacity by 64ths. Each .....	Clear	6.00	Clear	6.00	Clear	6.00
Taper Attachment .....	Dress	90.00	Dress	90.00	Dress	90.00
Thread Indicator .....	Aflot	12.00	Aflot	12.00	Aflot	12.00
Oil Pan .....	Okres	50.00	Oleau	55.00	Omens	60.00
Micrometer Carriage Stop .....	Climb	15.00	Climb	15.00	Climb	15.00
Collet Cabinet and Bracket .....	Cadro	15.00	Cadro	15.00	Cadro	15.00
<b>Net Factory Prices Tool Room Lathe, Complete as Illustrated Above .....</b>	<b>Mufat</b>	<b>\$842.00</b>	<b>Myajo</b>	<b>\$867.00</b>	<b>Myron</b>	<b>\$892.00</b>

Cabinet Legs for use on Tool Room Lathes illustrated on page 66.





Equipment illustrated under Lathe is included in price of Motor Driven Lathe

## 16-inch New Model Tool Room Precision Lathe Silent Chain Motor Drive

The 16-inch New Model Tool Room Precision Lathe, Silent Chain Motor Drive, is exactly the same as the Countershaft Driven Tool Room Lathe shown on page 36 except that it is equipped with Silent Chain Motor Drive which is illustrated and described on pages 28 and 29.

For Features, Specifications and detailed description applying to the 16-inch Tool Room Lathe see pages 2 to 9, and 18.

Regular Equipment included in the price of the 16-inch New Model Silent Chain Motor Driven Tool Room Lathe consists of: Large Face Plate, Small Face Plate, Tool Post complete, Thread Cutting Stop, two Lathe Centers and

Spindle Sleeve, Center Rest, Follower Rest and Wrenches; also Installation Plans, Floor Plan and book, "How to Run a Lathe." See page 67.

Electrical Equipment included in the price of the New Model Silent Chain Motor Driven Tool Room Lathe consists of: 1 H.P. Reversing Motor 1200 R.P.M. (Westinghouse, General Electric or equal make), Reversing Switch (drum type), Wiring between Motor and Switch, Flexible Metal Conduit, Wiring Diagram and Leather Belt.

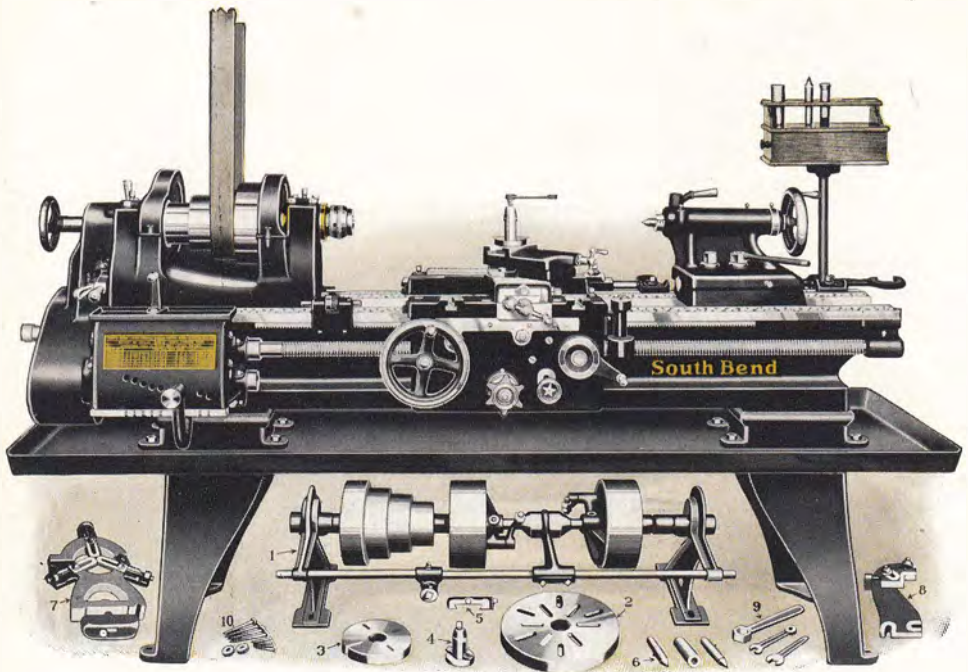
When Ordering the 16-inch Silent Chain Motor Driven Tool Room Lathe be sure to give the required information on Electric Current as specified on page 29.

### Net Factory Prices 16-inch New Model South Bend Tool Room Precision Lathe—Motor Drive Each Attachment is Priced Individually So That the Customer May Select Only Those Required

Catalog No. 3892-C—16"x6" Tool Room, Quick Change Gear Precision Lathe, Silent Chain Motor Drive, with Regular Equipment and Electrical Equipment but without Tool Room Attachments.....

	With 3 Phase-60 Cycle A.C. Motor		With 1 Phase-60 Cycle A.C. Motor		With Direct Current Motor	
	Code Word	Price	Code Word	Price	Code Word	Price
	Madge	\$ 777.00	Madge	\$ 806.00	Madgo	\$ 855.00
<b>TOOL ROOM ATTACHMENTS (EXTRA)</b>						
Draw-in Collet Chuck (Hand Wheel Type) with One Collet	Adore	56.00	Adore	56.00	Adore	56.00
Extra Collets $\frac{3}{8}$ " up to $\frac{1}{2}$ " cap. by 6ths. Each	Clear	6.00	Clear	6.00	Clear	6.00
Taper Attachment	Dress	90.00	Dress	90.00	Dress	90.00
Thread Indicator	Aflot	12.00	Aflot	12.00	Aflot	12.00
Oil Pan	Okres	50.00	Okres	50.00	Okres	50.00
Micrometer Carriage Stop	Climb	15.00	Climb	15.00	Climb	15.00
Collet Cabinet and Bracket	Cadro	15.00	Cadro	15.00	Cadro	15.00
<b>Net Factory Prices Tool Room Lathe, Complete as Illustrated Above</b> .....	<b>Mxate</b>	<b>\$1,021.00</b>	<b>Mrode</b>	<b>\$1,050.00</b>	<b>Myuse</b>	<b>\$1,099.00</b>

For prices of 7 ft. bed Tool Room Lathe with attachments add \$25.00 to above prices. For 8 ft. bed add \$50.00 Cabinet Legs for use on Tool Room Lathes illustrated on page 66.



Equipment illustrated under Lathe is included in price of Lathe

## 18-inch New Model Tool Room Precision Lathe Overhead Countershaft Drive

The 18-inch New Model South Bend Tool Room Precision Lathe illustrated above is recommended for the finest class of tool, jig and fixture work that comes up in the modern tool room where precision-accuracy is required. It is used by many of the largest manufacturing plants in the United States and will meet the demands of the expert mechanic on the most accurate work.

**Precision Lead Screw.** This lathe has a  $1\frac{3}{8}$ -inch diameter Lead Screw, four pitch, Acme thread, cut on a special machine equipped with a Pratt and Whitney Master Lead Screw. It is a practical lathe for making precision master taps, thread gauges, special screws, dies, fixtures, tools, etc.

**For Features, Specifications and detailed description** applying to the 18-inch Tool Room Lathe see pages 2 to 9, and 20. This lathe differs only in that it is fitted with special attachments for tool room work.

**Tool Room Attachments** are listed and priced separately so that the customer can select only those required for his work. A complete line of attachments including Collet Chucks, Collet Cabinet, Taper Attachment, Thread Dial, Micrometer Carriage Stop, Oil Pan, etc., are illustrated and described on pages 54 to 66 of this catalog.

**Regular Lathe Equipment** included in the price of the 18-inch South Bend Tool Room Lathe with Overhead Countershaft Drive consists of: Double Friction Countershaft, Large Face Plate, Small Face Plate, Tool Post complete, Adjustable Thread Cutting Stop, two Lathe Centers and Spindle Sleeve, Center Rest, Follower Rest and Wrenches; also Installation Plans, Floor Plans and book, "How to Run a Lathe." See page 67.

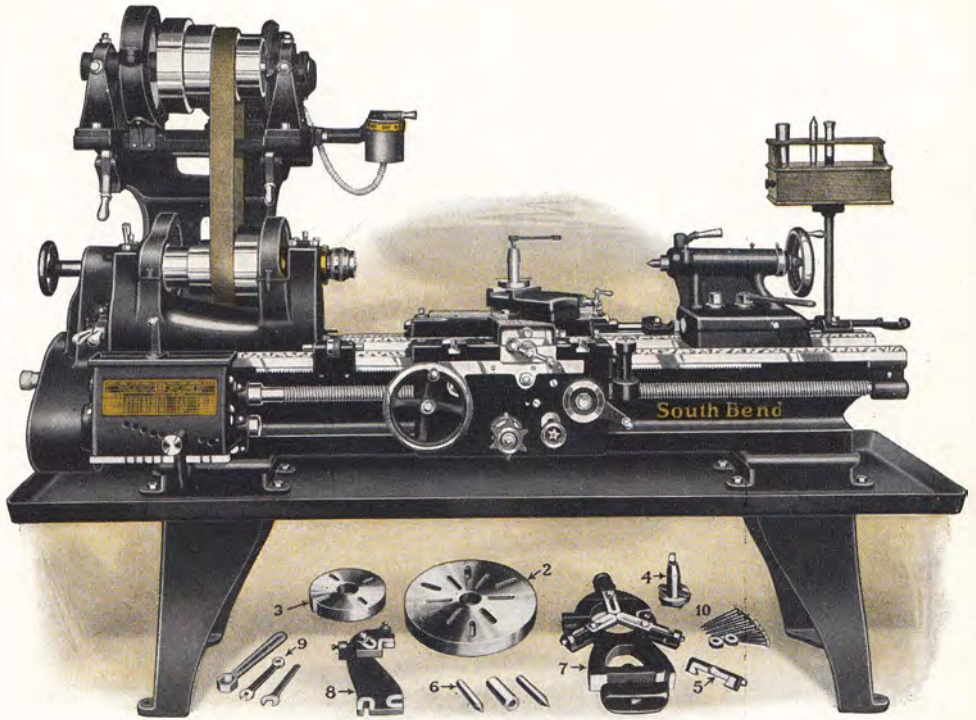
**Cabinet Legs** may be used on the 18-inch Tool Room Lathe instead of regular legs if desired. Cabinet Legs are illustrated, described and priced on page 66 of this catalog.

**Net Factory Prices 18-inch New Model South Bend Tool Room Precision Lathe—Countershaft Drive**  
Each Attachment is Priced Individually So That the Customer May Select Only Those Required

Size and Catalog Number of Lathe.....	No. 894-C—18"x6'		No. 894-E—18"x8'		No. 894-G—18"x10'	
	Code Word	Price	Code Word	Price	Code Word	Price
18-inch Tool Room Quick Change Gear Precision Lathe, Countershaft Drive, with Regular Equipment but without Tool Room Attachments.....	Sapho	\$713.00	Sibar	\$763.00	Soeks	\$817.00
<b>TOOL ROOM ATTACHMENTS (EXTRA)</b>						
Draw-in Collet Chuck (Hand Wheel Type) with One Collet.....	Adult	63.00	Adult	63.00	Adult	63.00
Extra Collets $\frac{3}{4}$ " up to 1" cap. by 64ths. Each.....	Comet	6.50	Comet	6.50	Comet	6.50
Taper Attachment.....	Dumms	95.00	Dumms	95.00	Dumms	95.00
Thread Indicator.....	Agrol	12.00	Agrol	12.00	Agrol	12.00
Oil Pan.....	Okres	55.00	Okres	65.00	Ouleh	75.00
Micrometer Carriage Stop.....	Coral	17.00	Coral	17.00	Coral	17.00
Collet Cabinet and Bracket.....	Catch	15.00	Catch	15.00	Catch	15.00
<b>Net Factory Prices Tool Room Lathe, Complete as Illustrated Above.....</b>	<b>Sexon</b>	<b>\$976.50</b>	<b>Stove</b>	<b>\$1036.50</b>	<b>Sedog</b>	<b>\$1100.50</b>

Cabinet Legs for use on Tool Room Lathes illustrated on page 66.





Equipment illustrated under Lathe is included in price of Motor Driven Lathe

## 18-inch New Model Tool Room Precision Lathe Silent Chain Motor Drive

The 18-inch New Model Tool Room Precision Lathe, Silent Chain Motor Drive, is exactly the same as the Countershaft Driven Tool Room Lathe shown on page 38 except that it is equipped with Silent Chain Motor Drive which is illustrated and described on pages 28 and 29.

**For Features, Specifications and detailed description** applying to the 18-inch Tool Room Lathe see pages 2 to 9, and 20.

**Regular Equipment** included in the price of the 18-inch New Model Silent Chain Motor Driven Tool Room Lathe consists of: Large Face Plate, Small Face Plate, Tool Post complete, Thread Cutting Stop, two Lathe Centers and

Spindle Sleeve, Center Rest, Follower Rest and Wrenches; also Installation Plans, Floor Plans and book, "How to Run a Lathe." See page 67.

**Electrical Equipment** included in the price of the New Model Silent Chain Motor Driven Tool Room Lathe consists of: 2 H.P. Reversing Motor 1200 R.P.M. (Westinghouse, General Electric or equal make), Reversing Switch (drum type), Wiring between Motor and Switch, Flexible Metal Conduit, Wiring Diagram and Leather Belt.

**When Ordering** the 18-inch Silent Chain Motor Driven Tool Room Lathe be sure to give the required information on Electric Current as specified on page 29.

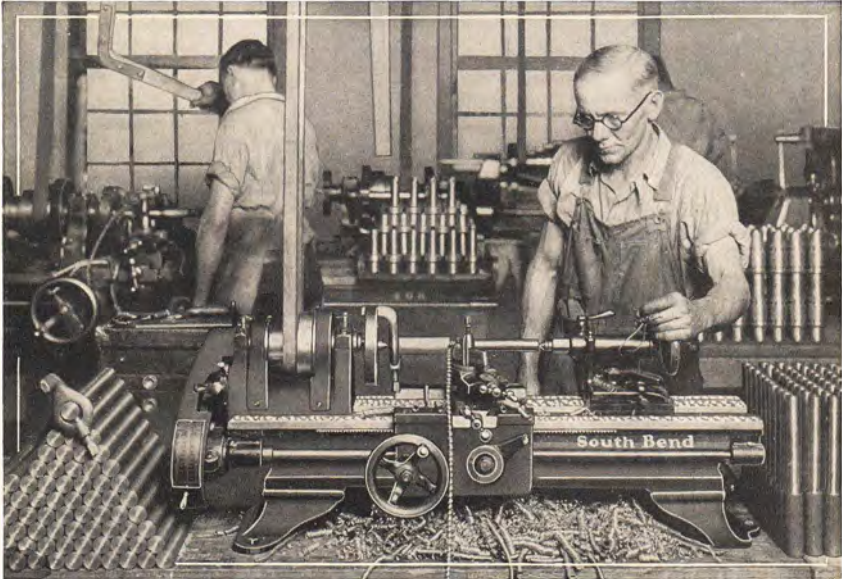
**Net Factory Prices 18-inch New Model South Bend Tool Room Precision Lathe—Motor Drive**  
Each Attachment is Priced Individually So That the Customer May Select Only Those Required

Catalog No. 3894-E—18"x8' Tool Room, Quick Change Gear Precision Lathe, Silent Chain Motor Drive, with Regular Equipment and Electrical Equipment but without Tool Room Attachments.....	With 3 Phase-60 Cycle A.C. Motor		With 1 Phase-60 Cycle A.C. Motor		With Direct Current Motor	
	Code Word	Price	Code Word	Price	Code Word	Price
	Semin	\$ 997.00	Semin	\$1049.00	Semin	\$1094.00
<b>TOOL ROOM ATTACHMENTS (EXTRA)</b>						
Draw-in Collet Chuck (Hand Wheel Type) with One Collet.....	Adult	63.00	Adult	63.00	Adult	63.00
Extra collets 1/8" up to 1" cap. by 64ths. Each..	Comet	6.50	Comet	6.50	Comet	6.50
Taper Attachment .....	Dunns	95.00	Dunns	95.00	Dunns	95.00
Thread Indicator .....	Agrol	12.00	Agrol	12.00	Agrol	12.00
Oil Pan .....	Omens	65.00	Omens	65.00	Omens	65.00
Micrometer Carriage Stop.....	Coral	17.00	Coral	17.00	Coral	17.00
Collet Cabinet and Bracket.....	Catch	15.00	Catch	15.00	Catch	15.00
<b>Net Factory Prices Tool Room Lathe, Complete as Illustrated Above.....</b>	<b>Srode</b>	<b>\$1,270.50</b>	<b>Stexa</b>	<b>\$1,322.50</b>	<b>Staid</b>	<b>\$1,367.50</b>

For prices of 7 ft. bed Tool Room Lathe with attachments deduct \$30.00 from above prices. For 10 ft. bed add \$64.00 Cabinet Legs for use on Tool Room Lathes illustrated on page 66.

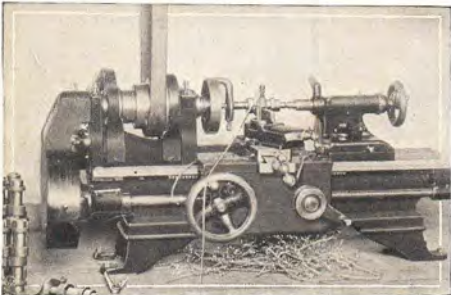
# The Small Lathe as a Manufacturing Tool

## In the Manufacture of Small Duplicate Parts on a Production Basis

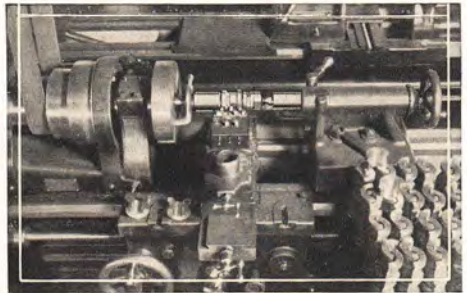


The Best Shop Practice is to manufacture small parts on a small lathe tooled to take care of the job, because of the speed and accuracy with which operations can be performed. Two or more small lathes are frequently operated on quantity production by one mechanic.

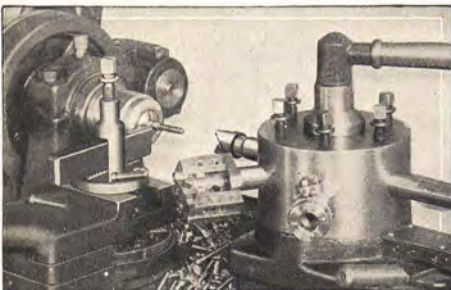
Production Engineers in large manufacturing plants making products such as: Sewing machines, typewriters, electrical parts, etc., are using small lathes in the manufacture of small metal parts that require the greatest accuracy because they must be interchangeable.



Manufacturing Small Bushings on a 9-inch South Bend Bench Lathe



Machining a Job on a Mandrel Between Centers Using Three Cutting Tools

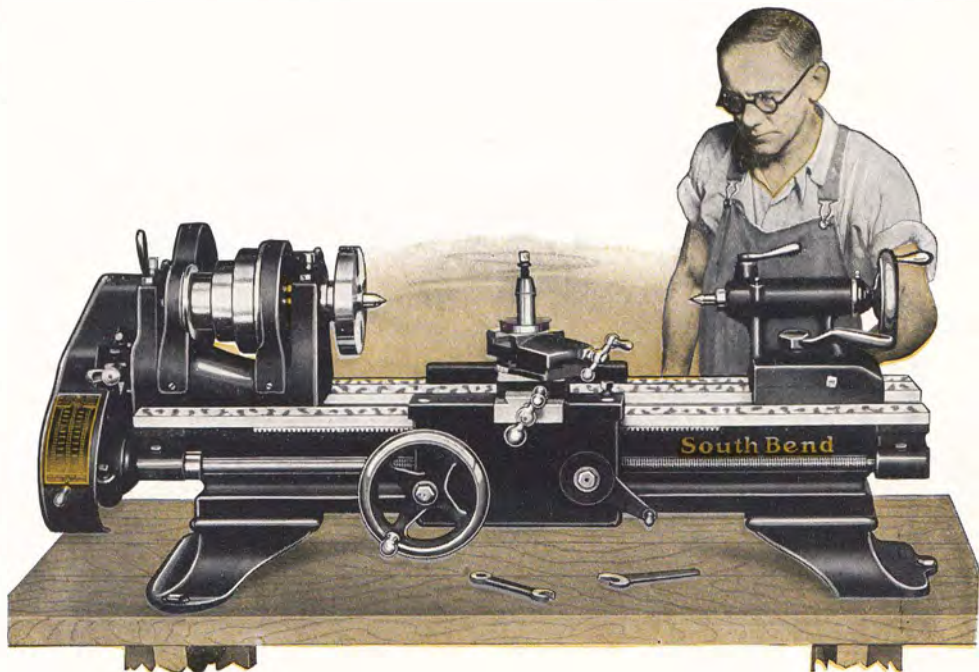


A Lathe Fitted with Hand Lever Draw-in Collet Chuck, and Hand Lever Turret for Making Small Screws



11-inch Lathe with Three Hand Lever-Type Attachments, Draw-in Chuck, Tailstock and Cross Slide





## 9-inch Junior New Model South Bend Bench Lathe

Back Geared Screw Cutting Precision Lathe—Countershaft Drive

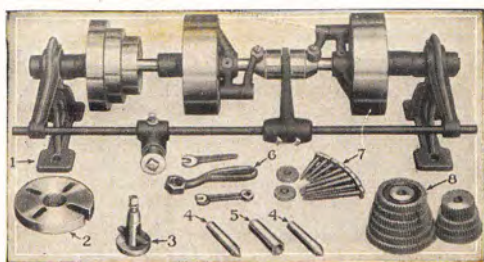
The 9-inch Junior Back Geared Screw Cutting Lathe is assembled from the units of the regular 9-inch Standard Change Gear Lathe that we have been making for twenty-four years. The compound rest, tailstock, bed and saddle are identical on these two lathes. Also the same accuracy and precision, hand scraping and inspection that our regular lathes receive is given to the 9-inch Junior Lathe.

Using the Regular Units of the 9-inch Standard Change Gear Lathe and omitting the friction Automatic Longitudinal Feed, Automatic Cross Feed and Friction Clutch from the apron, and the Large Face Plate, Follower Rest, Center Rest, and Thread Cutting Stop from the equipment (parts which are not always necessary for the work in the small shop), makes it possible for us to set a price as low as \$163.00 on the 9-inch Junior Lathe.

For Features of the 9-inch Junior New Model South Bend Lathe refer to page 46 as the only difference between this lathe and the 9-inch Junior Floor Leg Lathe illustrated and described on page 46 is in the type of legs.

### LATHE FEATURES

Back geared headstock gives six spindle speeds.  
Hollow spindle made of special carbon steel.  
Phosphor bronze bearings for spindle.  
Graduated compound rest swivels to any angle.  
Precision lead screw for cutting accurate threads.  
Micrometer collar on cross feed and compound rest screws.  
Tailstock set-over for turning and boring tapers.  
Quick-acting spring latch reverses carriage travel.  
Power longitudinal screw feed to the carriage.  
Graduated tailstock spindle.



The Lathe Equipment included in the price of each 9-inch New Model Junior Bench Lathe consists of: Double Friction Countershaft, Face Plate, Tool Post Complete, two Lathe Centers, Spindle Sleeve, Wrenches, Lag Screws and Washers, and a set of Change Gears, as illustrated above, for thread cutting and turning feeds, also Installation Plans and book, "How to Run a Lathe."

### LATHE SPECIFICATIONS

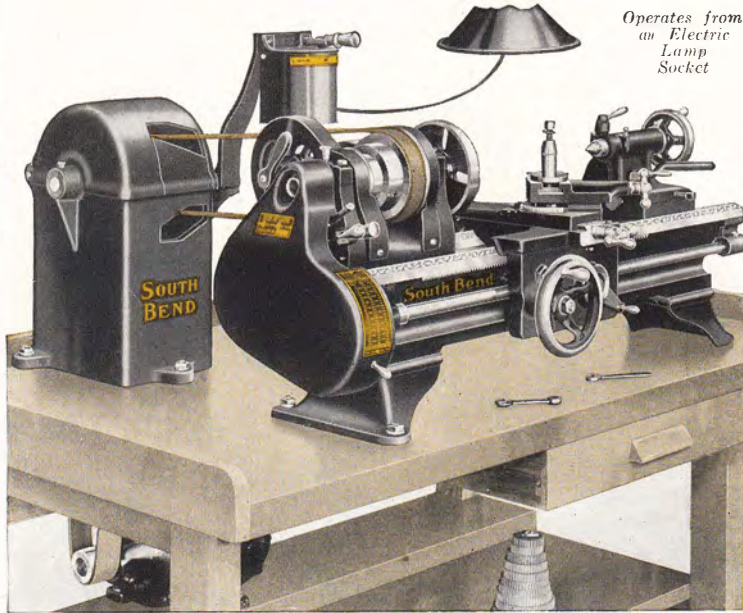
Countershaft Speed ..... 300 R.P.M.  
Spindle Speeds ..... 40, 75, 128, 246, 410, 700 R.P.M.  
Width of Cone Pulley Belt..... 1 inch  
Acme Thread Lead Screw..... 3/4-inch diam., 8 pitch  
Size of Lathe Centers..... No. 2 Morse Taper  
Screw Thread Cutting Range..... 4 to 40 per inch  
Draw-In Collet Chuck Capacity..... 1/2 inch to 1/2 inch  
Cross Slide Travel..... .7 inches  
Size of Tool Shank for Tool Post..... 3/32 inch x 1 1/8 inch  
Double Friction Countershaft Pulleys..... 6 5/8 inch x 2 1/2 inch

### Net Factory Prices of 9-inch Junior New Model Bench Lathe, Including Countershaft and Equipment\*

Cat. No. of Lathe	Swing Over Bed	Length of Bed	Between Centers	Hole Thru Spindle	Swing Over Carriage	Power Required	Weight Crated	Code Word	Net Factory Price
22-XB	9 1/4 in.	2 1/2 ft.	11 in.	3/4 in.	6 1/2 in.	1/4 HP.	350 lbs.	Bylow	\$163.00
22-YB	9 1/4 in.	3 ft.	18 in.	3/4 in.	6 1/2 in.	1/4 HP.	375 lbs.	Bhorn	169.00
22-ZB	9 1/4 in.	3 1/2 ft.	23 in.	3/4 in.	6 1/2 in.	1/4 HP.	400 lbs.	Bmatx	175.00
22-AB	9 1/4 in.	4 ft.	29 in.	3/4 in.	6 1/2 in.	1/4 HP.	425 lbs.	Blear	182.00
22-RB	9 1/4 in.	4 1/2 ft.	36 in.	3/4 in.	6 1/2 in.	1/4 HP.	450 lbs.	Broil	190.00

Note: If Countershaft is not wanted deduct \$12.00 from above prices.

\*Prices do not include Bench. For prices and description see page 73.



## 9-inch Junior New Model Horizontal Motor Driven Lathe

Back Geared, Screw Cutting Precision Tool, Bench Type

The 9-inch Junior New Model South Bend Horizontal Motor Driven Lathe, Bench Type, is identically the same as the 9-inch Junior Bench Lathe illustrated and described on pages 41 and 46, except that it is equipped with the Horizontal Motor Drive, instead of the countershaft drive. It will operate from an ordinary electric lamp socket at an average cost of about 2 cents per hour. This is an improved and efficient safety motor drive that is noiseless and powerful in operation. The cabinet top opens to permit shifting the belt. Both the lathe and drive cabinet have three point bearing on the bench.

A  $\frac{1}{4}$ -horsepower Reversing Motor placed on a shelf beneath the bench drives the jackshaft on which the drive pulley and countershaft cone are attached, all located within the cast iron cabinet. A  $1\frac{1}{4}$ -inch leather belt connects the motor with the drive pulley. A 1-inch leather belt from the countershaft cone drives the lathe spindle cone. Distance between center of jackshaft and lathe spindle 21 inches.

A Reversing Switch (Drum Type) conveniently located within easy reach of the operator, controls the motor and provides instantaneous starting, stopping and reversing of the lathe spindle. The switch has three positions: Left for forward motion of the lathe spindle; Center for stop; and Right for reverse.

The Electrical Equipment included with the drive unit for this lathe consists of:  $\frac{1}{4}$  H. P. Constant Speed Reversing Motor, 1200 R. P. M.; Reversing Switch (Drum Type); Wiring between Motor and Switch; Flexible Metal Conduit; Wiring Diagram; two Leather Belts; Cast Iron Cabinet with Horizontal Drive Mechanism.

The Lathe Equipment included in the price consists of: Face Plate, Tool Post Complete, two Lathe Centers and Spindle Sleeve, Wrenches, Independent Change Gears, Bolts, Nuts and Washers. Also Installation Plans and book, "How to Run a Lathe."

When Ordering a 9-inch Junior Horizontal Motor Driven Bench Lathe be sure to give the required information on electric current specified on page 29.

The Hard Maple Wooden Bench illustrated above is not included in the price of the 9-inch Junior Horizontal Motor Driven Lathe. For price and description see page 73.



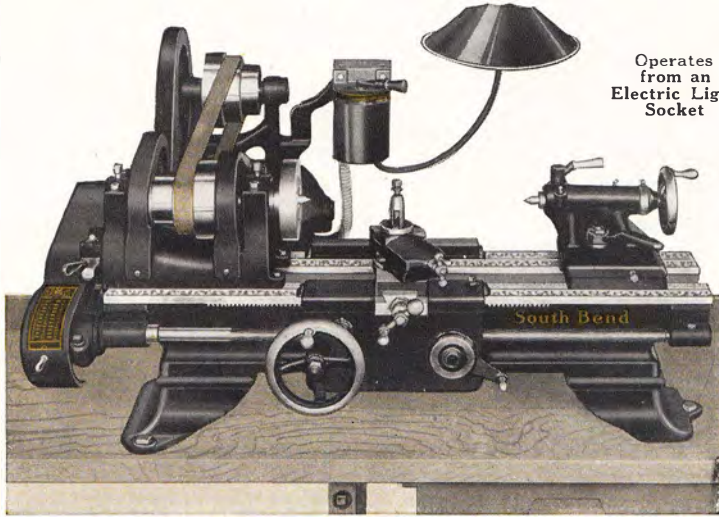
Phantom View of Motor Drive Unit

### Net Factory Prices 9-inch Junior Horizontal Motor Driven Lathe—Without Bench

Prices Include Lathe, Drive Cabinet, Lathe Equipment, Reversing Motor, Reversing Switch, Two Belts, But Not Bench

Catalog No. of Lathe	Swing Over Bed	Length of Bed	Between Centers	Size of Motor	Weight Crated	Code Word	3 Phase 60 Cycle A.C. Motor	Single Phase 60 Cycle A.C. Motor	Direct Current Motor
422-X	9 $\frac{1}{4}$ in.	2 $\frac{1}{2}$ ft.	11 in.	$\frac{1}{4}$ H.P.	435 lbs.	Badly	\$233.00	\$248.00	\$241.00
422-Y	9 $\frac{1}{4}$ in.	3 ft.	18 in.	$\frac{1}{4}$ H.P.	465 lbs.	Bijou	239.00	254.00	247.00
422-Z	9 $\frac{1}{4}$ in.	3 $\frac{1}{2}$ ft.	23 in.	$\frac{1}{4}$ H.P.	495 lbs.	Borax	245.00	260.00	253.00
422-A	9 $\frac{1}{4}$ in.	4 ft.	29 in.	$\frac{1}{4}$ H.P.	525 lbs.	Brawl	252.00	267.00	260.00
422-R	9 $\frac{1}{4}$ in.	4 $\frac{1}{2}$ ft.	36 in.	$\frac{1}{4}$ H.P.	555 lbs.	Bunco	260.00	275.00	268.00





Operates  
from an  
Electric Light  
Socket

## 9-inch Junior Self-Contained Motor Driven Bench Lathe

Back Geared, Screw Cutting Precision Lathe (New Model)

The 9-inch Junior Self-Contained Motor Driven Bench Lathe is practical for general work in the machine shop and for fine precision tool and instrument work. When mounted on a bench and connected to the current, the unit is ready for operation.

For Specifications and Descriptions of the 9-inch Junior Bench Lathes, refer to pages 41 and 46, as the only difference between the 9-inch Junior Self-Contained Motor Driven Bench Lathe and the Overhead Countershaft Driven Lathe is the form of drive.

**Operates from Lamp Socket.** A  $\frac{1}{4}$ -horsepower Reversing Motor driven from an ordinary lamp socket gives sufficient power to operate the 9-inch Junior Self-Contained Motor Driven Bench Lathe at maximum capacity. Operating cost averages two cents per hour.

The Reversing Switch (Drum Type) is conveniently located so that the operator can start, stop or reverse the motor from an easy working position in front of the lathe. The switch has three positions: Left for forward motion of the lathe spindle, center for stop, and right for reverse.

**Lathe Equipment** included in the price of each 9-inch Junior Self-Contained Motor Driven Bench Lathe consists of: Face Plate, Tool Post Complete, Two Lathe Centers and Spindle Sleeve, Change Gears for thread cutting, Lag Screws, Washers and Wrenches, also Installation Plans and book, "How to Run a Lathe."

The Hard Maple Wooden Bench illustrated above is not included in the price of the 9-inch Junior Self-Contained Motor Driven Bench Lathe but can be furnished at extra cost. For prices and descriptions of this bench, see page 73.

**Electrical Equipment** included in the price of each 9-inch Junior Self-Contained Motor Driven Bench Lathe consists of a  $\frac{1}{4}$ -horsepower Reversing Motor 1200 R.P.M. (Westinghouse, General Electric or equal make), Reversing Switch (Drum Type), wiring between motor and switch, Flexible Metal Conduit, Wiring Diagram, and a Leather Belt. For complete information see page 29.

When Ordering a 9-inch Junior Self-Contained Motor Driven Bench Lathe, be sure to specify the electric current. If alternating current, state exact voltage, phase, cycle and number of wires. If direct current, state exact voltage. When giving voltage of motor, state whether 110-volt motor or 220-volt motor is wanted. Do not specify 110-220-volt motor, as we cannot furnish motors for double voltage rating. See page 29.

### Motor Drive Unit Chain Guard Removed

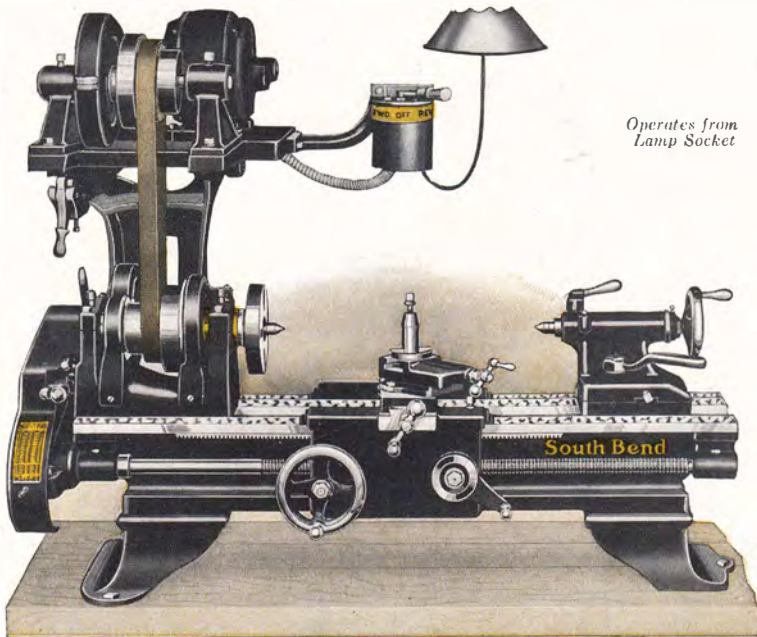
The Self-Contained Motor Drive Unit for the 9-inch Junior Lathe is illustrated at the right. The Unit is placed directly behind the lathe on the bench. The motor drives the countershaft cone through a silent chain and sprocket which gives a noiseless, efficient drive. The spindle cone is driven by a leather belt.



### Net Factory Prices 9-inch Junior Self-Contained Motor Driven Bench Lathe

Prices Include Lathe Equipment, Reversing Motor, Reversing Switch and Leather Belt, But Do Not Include Bench

No. of Lathe	Swing Over Bed	Length of Bed	Between Centers	Size of Motor	Weight Crated	Code Word	3 Phase 60 Cycle A. C. Motor	Single Phase 60 Cycle A. C. Motor	Direct Current Motor
722-X	9 $\frac{1}{4}$ in.	2 $\frac{1}{2}$ ft.	11 in.	$\frac{1}{4}$ H.P.	440 lbs.	Barbe	\$245.00	\$260.00	\$253.00
722-Y	9 $\frac{1}{4}$ in.	3 ft.	18 in.	$\frac{1}{4}$ H.P.	470 lbs.	Bezoz	251.00	266.00	259.00
722-Z	9 $\frac{1}{4}$ in.	3 $\frac{1}{2}$ ft.	23 in.	$\frac{1}{4}$ H.P.	500 lbs.	Boalt	257.00	272.00	265.00
722-A	9 $\frac{1}{4}$ in.	4 ft.	29 in.	$\frac{1}{4}$ H.P.	530 lbs.	Biase	264.00	279.00	272.00
722-R	9 $\frac{1}{4}$ in.	4 $\frac{1}{2}$ ft.	36 in.	$\frac{1}{4}$ H.P.	560 lbs.	Buble	272.00	287.00	280.00



Operates from  
Lamp Socket

## 9-inch Jr. New Model Silent Chain Motor Driven Lathe

Back Geared, Screw Cutting Precision Lathe (Bench Type)

The 9-inch Junior Silent Chain Motor Driven Bench Lathe is the regular Junior Bench Lathe, as illustrated on page 41, equipped with Silent Chain Motor Drive instead of Countershaft Drive. This lathe is an excellent tool for production work in light manufacturing and is practical for machining fine, accurate work. The powerful silent chain drive eliminates vibration and noise. A ¼ H.P. Reversing Motor, driven from an electric lamp socket, operates the lathe at an average cost of about two cents per hour.

For Specifications and Descriptions applying to the 9-inch Junior Silent Chain Motor Driven Bench Lathe see pages 41, 28 and 29.

The Reversing Switch (Drum Type) is conveniently located so that the operator can start, stop or reverse the motor from an easy working position in front of the lathe. The switch has three positions: Left for forward motion of the lathe spindle, center for stop, and right for reverse.

Electrical Equipment included in the price of each 9-inch Junior Silent Chain Motor Driven Bench Lathe consists of ¼ horsepower Reversing Motor (2000 R.P.M. (Westinghouse, General Electric or equal make), Reversing Switch (Drum Type), wiring between motor and switch, Flexible Metal Conduit, Wiring Diagram, and Leather Belt.

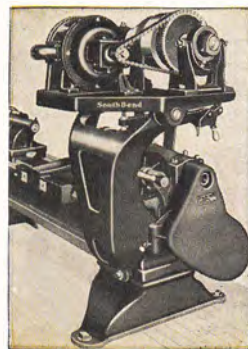
When Ordering the 9-inch Junior Silent Chain Motor Driven Bench Lathe give specifications of electric current as shown on page 29.

Lathe Equipment included in the price of each 9-inch Junior Silent Chain Motor Driven Bench Lathe consists of: Face Plate, Tool Post Complete, Two Lathe Centers and Spindle Sleeve, Change Gears for thread cutting, Lag Screws, Washers and Wrenches, also Installation Plans and book, "How to Run a Lathe." See page 67.

The Hard Maple Wooden Bench is not included in the price of the Lathe but is extra. For prices and description see page 73.

### Silent Chain Drive Chain Guard Removed

The Motor is mounted on a table above the lathe where it is free from dirt and chips. The Silent Chain Drive which connects the motor with the driving cone is as positive as though it were direct geared. The Spindle Cone is driven by belt. A small lever relieves belt tension for easy shifting. An adjustment is provided for taking up stretch in belt.

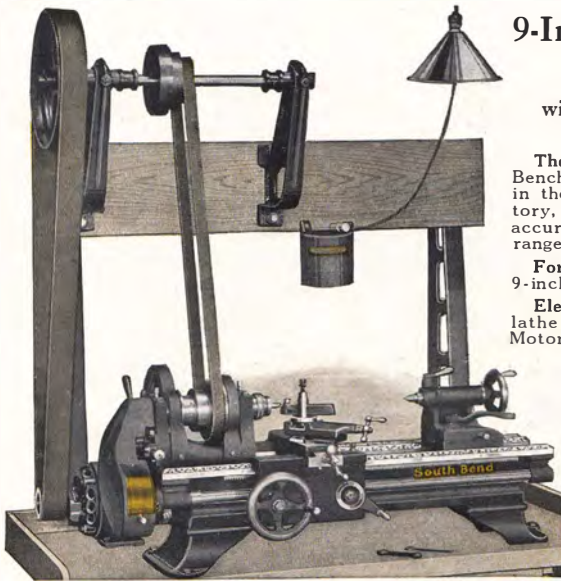


### Net Factory Prices of 9-inch Junior Silent Chain Motor Driven Bench Lathe

Prices Include Lathe Equipment, Reversing Motor, Reversing Switch and Leather Belt

No. of Lathe	Swing Over Bed	Length of Bed	Between Centers	Size of Motor	Weight Crated	Code Word	3 Phase 60 Cycle A.C. Motor	Single Phase 60 Cycle A.C. Motor	Direct Current Motor
322-XB	9¼ in.	2½ ft.	11 in.	¼ H.P.	565 lbs.	Bafes	\$269.50	\$284.50	\$277.50
322-YB	9¼ in.	3 ft.	18 in.	¼ H.P.	585 lbs.	Banur	275.50	290.50	283.50
322-ZB	9¼ in.	3½ ft.	23 in.	¼ H.P.	605 lbs.	Bemox	281.50	296.50	289.50
322-AB	9¼ in.	4 ft.	29 in.	¼ H.P.	625 lbs.	Bitun	288.50	303.50	296.50
322-RB	9¼ in.	4½ ft.	36 in.	¼ H.P.	645 lbs.	Bunaz	296.50	311.50	304.50





## 9-Inch Junior Simplex Motor Driven Bench Lathe

with Motor, Switch, Wiring, Conduit, and Belts

The 9-inch Junior Simplex Motor Driven Bench Lathe is practical for fine precision work in the manufacturing plant, tool room, laboratory, and engineering shop. It has the power, accuracy and precision for machining a wide range of work.

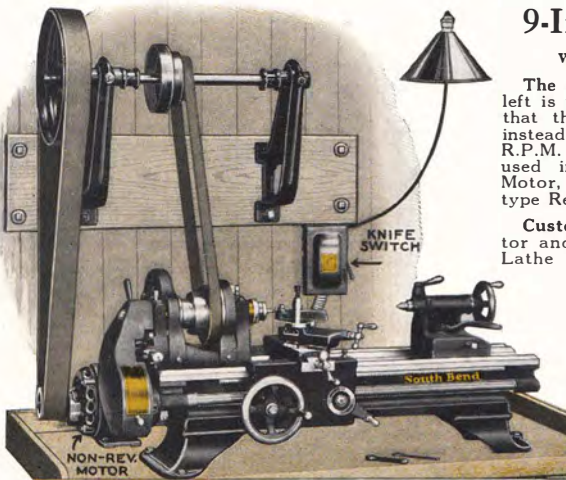
For Specifications and Descriptions of the 9-inch Junior Bench Lathe refer to page 41.

Electrical Equipment included in the price of lathe consists of:  $\frac{1}{4}$  horsepower Reversing Motor 1200 R.P.M. (Westinghouse, General Electric or equal make), Reversing Switch (drum type), Wiring between motor and switch, Flexible Metal Conduit, Wiring Diagram and two Leather Belts.

Lathe Equipment included in the price of Lathe consists of: Simplex Countershaft, Face Plate, Tool Post complete, two Lathe Centers and Spindle Sleeve, Change Gears for thread cutting, Lag Screws, Washers and Wrenches. Prices do not include Maple Bench, see page 73. Countershaft Standards for supporting Countershaft, per pair, drilled for bolts, \$12.50.

### Net Factory Prices 9-inch Junior Simplex Motor Driven Bench Lathe—Without Bench or Standards Prices include Simplex Countershaft, Lathe Equipment, Reversing Motor and Switch, Two Belts, But Not Bench or Standards

No. of Lathe	Swing Over Bed	Length of Bed	Between Centers	Size of Motor	Weight Crated	Code Word	3 Phase 60 Cycle A.C. Motor	Single Phase 60 Cycle A.C. Motor	Direct Current Motor
522-XB	9 $\frac{1}{4}$ in.	2 $\frac{1}{2}$ ft.	11 in.	$\frac{1}{4}$ H.P.	460 lbs.	Baxor	\$221.00	\$236.00	\$229.00
522-YB	9 $\frac{1}{4}$ in.	3 ft.	18 in.	$\frac{1}{4}$ H.P.	475 lbs.	Behra	227.00	242.00	235.00
522-ZB	9 $\frac{1}{4}$ in.	3 $\frac{1}{2}$ ft.	23 in.	$\frac{1}{4}$ H.P.	495 lbs.	BoDu	233.00	248.00	241.00
522-AB	9 $\frac{1}{4}$ in.	4 ft.	29 in.	$\frac{1}{4}$ H.P.	515 lbs.	Bimle	240.00	255.00	248.00
522-RB	9 $\frac{1}{4}$ in.	4 $\frac{1}{2}$ ft.	36 in.	$\frac{1}{4}$ H.P.	535 lbs.	Bugel	248.00	263.00	256.00



## 9-Inch Junior Bench Lathe with Simplex Wall Countershaft

The 9-inch Junior Lathe illustrated at the left is the same as the one shown above except that the countershaft is fastened to the wall instead of to upright standards. An 1800 R.P.M. Constant Speed Non-Reversing Motor is used instead of the 1200 R.P.M. Reversing Motor, and a Knife Switch instead of the Drum type Reversing Switch.

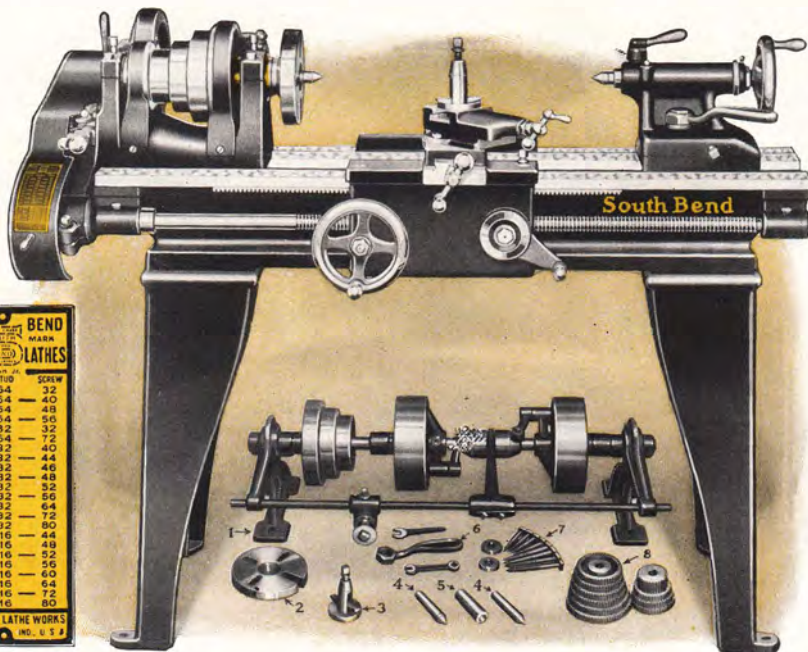
Customers Who Wish to Use their own motor and switch can purchase the 9-inch Junior Lathe with Simplex Wall Countershaft at the prices shown below. Speed of motor should be specified when ordering.

Equipment included in price of lathe is the same as on page 41 except that a wall type countershaft is supplied instead of double friction countershaft.

The Extra Parts for Motor Drive are listed and priced separately below so that the customer can select only those parts required for his needs. If the wall type countershaft is not wanted, deduct \$12.00 from the price of lathe.

### Prices of 9-inch Junior Bench Lathe with Simplex Countershaft and Lathe Equipment Prices do not include Motor, Switch, Belting, Conduit, Wiring or Bench

Size and Catalog No. of Lathe	9" x 2 $\frac{1}{2}$ '	9" x 3'	9" x 3 $\frac{1}{2}$ '	9" x 4'	9" x 4 $\frac{1}{2}$ '
	No. 1022-XB	No. 1022-YB	No. 1022-ZB	No. 1022-AB	No. 1022-RB
9-inch Junior New Model South Bend Bench Lathe, with Simplex Wall Countershaft and Lathe Equipment.....	\$163.00	\$169.00	\$175.00	\$182.00	\$190.00
Extra Parts for Drive					
$\frac{1}{4}$ H.P. Motor, 1800 R.P.M. Non-Reversing (1-Phase 60 Cycle A.C.) .....	34.00	34.00	34.00	34.00	34.00
Switch, Knife Type.....	2.50	2.50	2.50	2.50	2.50
Conduit and Wiring.....	4.00	4.00	4.00	4.00	4.00
Belting (Motor to Countershaft) 2" wide x 8 $\frac{3}{4}$ ' long.....	2.75	2.75	2.75	2.75	2.75
Belting (Lathe to Countershaft) 1 $\frac{1}{4}$ " wide x 6 $\frac{3}{4}$ ' long.....	1.25	1.25	1.25	1.25	1.25



THREAD	STUD	SCREW
4	64	32
5	64	40
6	64	48
7	64	56
8	32	32
9	64	72
10	32	40
11	32	44
11 1/2	32	46
12	32	48
13	32	52
14	32	56
16	32	64
18	32	72
20	32	80
22	16	44
24	16	48
26	16	52
28	16	56
30	16	60
32	16	64
36	16	72
40	16	80

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

Index Plate Regular equipment illustrated above is included in price of Lathe

## 9-inch Junior New Model South Bend Lathe

Back Geared, Screw Cutting Precision Lathe (Floor Legs), Countershaft Drive

The 9-inch Junior New Model South Bend Back Geared Screw Cutting Precision Lathe is practical for fine precision work in the manufacturing plant, tool room, laboratory, experimental shop and engineering shop. It has power, accuracy, and precision and will take care of the machining of all kinds of metals, such as steel, cast iron, wrought iron, forgings, brass, bronze, copper, aluminum, babbitt, etc., also for working of wood and compositions, such as hard rubber, fibre, etc.

### Features of the 9-inch Junior Lathe

**Back Geared Headstock** with 3-step Cone provides 6 spindle speeds—three direct, for machining light work, and 3 back geared for heavy work, including chucking, etc. See page 6.

**Ground Headstock Spindle** is made of special carbon steel and can be fitted with 6-inch Chuck. Has 3/4-inch hole its entire length for machining long bars and rods. See page 8.

**Phosphor Bronze Spindle Bearings** for Head Spindle are hand scraped to perfect bearing, are adjustable for wear and are equipped with Patent Oilers. See page 8.

**Compound Rest** is graduated 180 degrees and can be clamped at any angle. Feed Screw has Micrometer collar. See page 6.

**Precision Lead Screw** is 3/4-inch in diameter, has 8 threads per inch, Acme Standard, cut on a machine equipped with a Master Lead Screw, which insures accuracy. See page 7.

**Automatic Longitudinal Screw Feed.** The No. 22—9-inch Lathe is fitted with automatic longitudinal screw feed to the carriage by clamping the half nut on the lead screw. Various cutting feeds, fine or coarse, may be obtained through the gears furnished with the lathe.

The 9-inch Junior Back Geared Screw Cutting Lathe is assembled from the units of our regular 9-inch Standard Change Gear Lathe that we have been making for twenty-four years (see page 11). The Compound Rest, Tailstock, Bed and Saddle are identical on the 9-inch Junior Lathe and the 9-inch Lathe. This lathe receives the same hand scraping operations, the same accuracy and precision tests, and the same inspection as our regular lathes.

**Cutting Screw Threads.** An Index Plate is attached to each 9-inch Junior Lathe and shows the proper change gears to use to cut the following standard screw threads per inch, right or left: 4, 5, 6, 7, 8, 9, 10, 11, 11 1/2, 12, 13, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 36 and 40. (See Index Plate illustrated above.)

**The Countershaft and Equipment** included with each 9-inch Junior New Model Lathe consists of: Double Friction Countershaft, Face Plate, Tool Post Complete, Two Lathe Centers, Spindle Sleeve, Wrenches, Lag Screws and Washers and Change Gears for feeds and thread cutting. (Equipment is illustrated under lathe.)

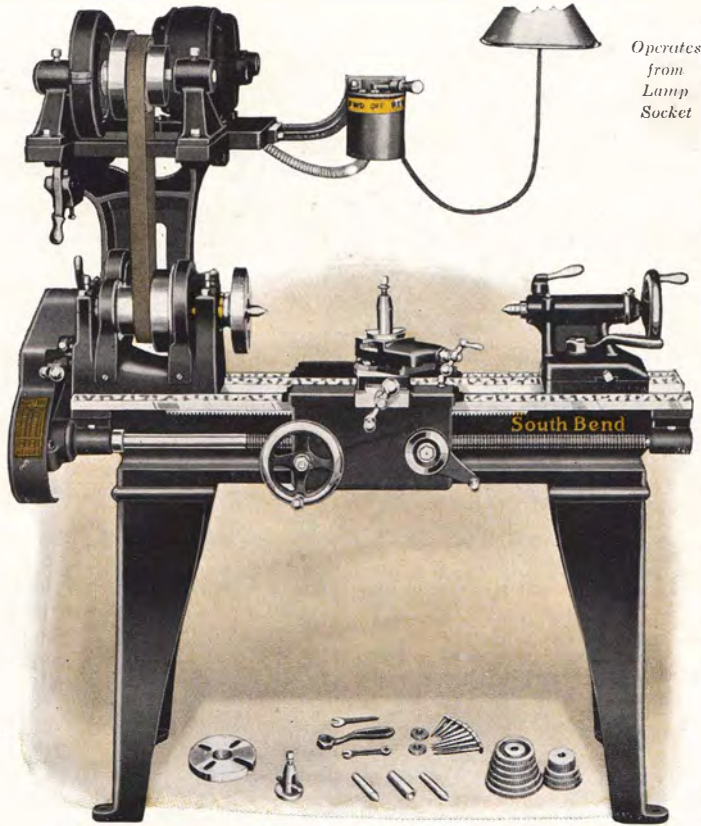
### SPECIFICATIONS OF THE 9-INCH JUNIOR LATHE

Screw Thread Cutting Range	4 to 40 per inch
Precision Acme Lead Screw	3/4 in. diam., 8 Threads
Head and Tail Spindle Centers	No. 2, Morse Taper
Size of Spindle Nose	1/2 in. diam., 8 Threads
Size of Hole through Spindle	3/4 in.
Width of Cone Pulley Belt	1 in.
Spindle Speeds	40, 75, 128, 246, 410, 700 R.P.M.
Countershaft Speed	300 R.P.M.
Countershaft Friction Clutch Pulleys	6 7/8 in. x 2 3/8 in.
Size of Lathe Tool Shank	1/2 in. x 1 1/8 in.

### Net Factory Prices of 9-inch Junior Lathe (Floor Leg Type), Including Countershaft and Equipment

No. of Lathe	Swing Over Bed	Length of Bed	Between Centers	Hole Thru Spindle	Swing Over Carriage	Power Required	Weight Crated	Code Word	Net Factory Price
22-X	9 1/4 in.	2 1/2 ft.	11 in.	3/4 in.	6 3/4 in.	1/4 H.P.	415 lbs.	Byato	\$173.00
22-Y	9 1/4 in.	3 ft.	18 in.	3/4 in.	6 3/4 in.	1/4 H.P.	440 lbs.	Bhunt	179.00
22-Z	9 1/4 in.	3 1/2 ft.	23 in.	3/4 in.	6 3/4 in.	1/4 H.P.	465 lbs.	Bmelo	185.00
22-A	9 1/4 in.	4 ft.	29 in.	3/4 in.	6 3/4 in.	1/4 H.P.	490 lbs.	Blunt	192.00
22-R	9 1/4 in.	4 1/2 ft.	36 in.	3/4 in.	6 3/4 in.	1/4 H.P.	515 lbs.	Bryan	200.00





Operates  
from  
Lamp  
Socket

## 9-inch Jr. New Model Silent Chain Motor Driven Lathe

Back Geared, Screw Cutting Precision Lathe (Floor Leg Type)

The 9-inch Junior Silent Chain Motor Driven Lathe is exactly the same as the regular Junior Floor Leg Lathe, illustrated and described on page 46, equipped with Silent Chain Motor Drive instead of Countershaft Drive. This lathe is an excellent tool for production work in light manufacturing and is practical for machining fine, accurate work. The powerful silent chain drive eliminates vibration and noise. For illustration and description of the motor drive unit see pages 28 and 29.

The Reversing Switch (Drum Type) is conveniently located so that the operator can start, stop or reverse the motor from an easy working position in front of the lathe. The switch has three positions: Left for forward motion of the lathe spindle; center for stop, and right for reverse.

When Ordering the 9-inch Junior Silent Chain Motor Driven Lathe be sure to give specifications of electric current as shown on page 29.

Operates from Lamp Socket. A  $\frac{1}{4}$  H.P. reversing motor driven from an electric lamp socket gives sufficient power to operate the 9-inch Junior Motor Driven Lathe at maximum capacity. Operating cost averages two cents per hour.

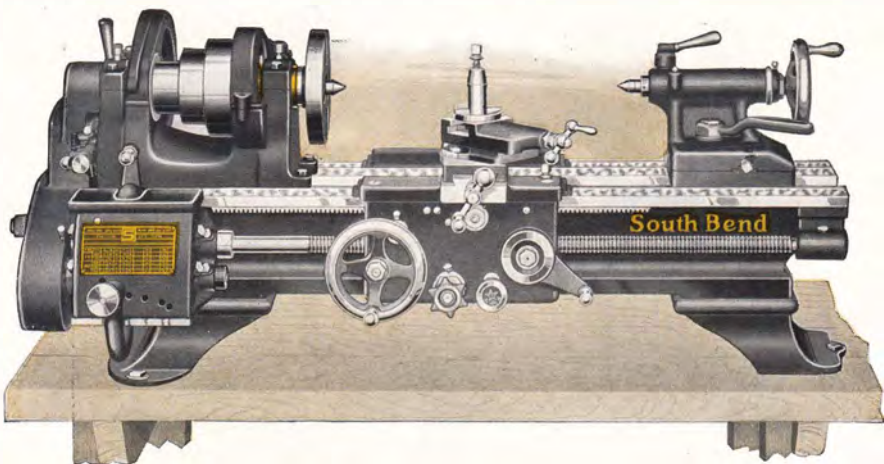
**Electrical Equipment** included in the price of each 9-inch Junior Silent Chain Motor Driven Lathe consists of a  $\frac{1}{4}$  horsepower Reversing Motor 1200 R.P.M. (Westinghouse, General Electric or equal make), Reversing Switch (Drum Type), wiring between motor and switch, Flexible Metal Conduit, Wiring Diagram, and a Leather Belt.

**Lathe Equipment** included in the price of each 9-inch Junior Silent Chain Motor Driven Lathe consists of: Face Plate, Tool Post Complete, Two Lathe Centers and Spindle Sleeve, Change Gears for thread cutting, Lag Screws, Washers and Wrenches, also Installation Plans and book, "How to Run a Lathe." See page 67.

### Net Factory Prices of 9-inch Junior Silent Chain Motor Driven Lathe with Floor Legs

Prices Include Lathe Equipment, Reversing Motor, Reversing Switch and Leather Belt

No. of Lathe	Swing Over Bed	Length of Bed	Between Centers	Size of Motor	Weight Crated	Code Word	3 Phase	Single Phase	Direct Current Motor
							60 Cycle A.C. Motor	60 Cycle A.C. Motor	
322-X	9 $\frac{1}{4}$ in.	2 $\frac{1}{2}$ ft.	11 in.	$\frac{1}{4}$ H.P.	630 lbs.	Bazin	\$277.00	\$292.00	\$285.00
322-Y	9 $\frac{1}{4}$ in.	3 ft.	18 in.	$\frac{1}{4}$ H.P.	650 lbs.	Beuty	283.00	298.00	291.00
322-Z	9 $\frac{1}{4}$ in.	3 $\frac{1}{2}$ ft.	23 in.	$\frac{1}{4}$ H.P.	670 lbs.	Bower	289.00	304.00	297.00
322-A	9 $\frac{1}{4}$ in.	4 ft.	29 in.	$\frac{1}{4}$ H.P.	690 lbs.	Biolo	296.00	311.00	304.00
322-R	9 $\frac{1}{4}$ in.	4 $\frac{1}{2}$ ft.	36 in.	$\frac{1}{4}$ H.P.	710 lbs.	Buton	304.00	319.00	312.00



## 9-inch New Model South Bend Bench Lathes

Quick Change and Standard, Back Geared Screw Cutting Lathes—Countershaft Drive

The 9-inch New Model South Bend Bench Lathe shown above is an excellent tool for light work in the manufacturing plant and for the large scale production of small metal parts. It has precision and accuracy for fine tool work. Bench lathes of this type are often arranged in groups and handled by a single operator.

For Specifications and description of the 9-inch Bench Lathe, Quick Change Gear or Standard Change Gear types, refer to the 9-inch lathe with floor legs illustrated on pages 10 and 11 of this catalog. The only difference is that Bench Legs are substituted for Floor Legs.

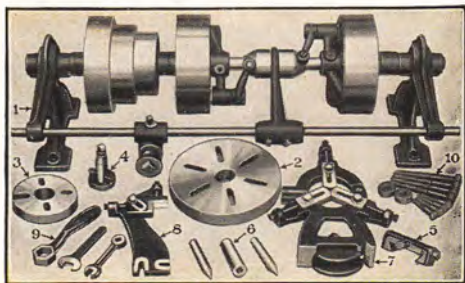
The Headstock is back geared, reinforced and webbed, insuring strength and rigidity. Six spindle speeds are provided, three direct and three back geared. See page 6.

The New Apron has automatic cross and longitudinal turning feeds, and half nuts for thread cutting. An automatic safety interlock prevents the half nuts and automatic feeds from being engaged at the same time. See page 7.

The Gear Box on Quick Change Gear Lathes provides 48 changes for cutting screw threads, right or left, from 2 to 112 per inch. See page 5.

The Independent Change Gears supplied with Standard Change Gear Lathes permit cutting standard screw threads, right or left, from 4 to 40 per inch, including 1½ pipe thread. See page 67.

The Hard Maple Bench is not included in the price of the Bench Lathe but can be furnished at extra cost. For prices and description of Bench see page 73.



Equipment illustrated above is included in the price of the Lathe

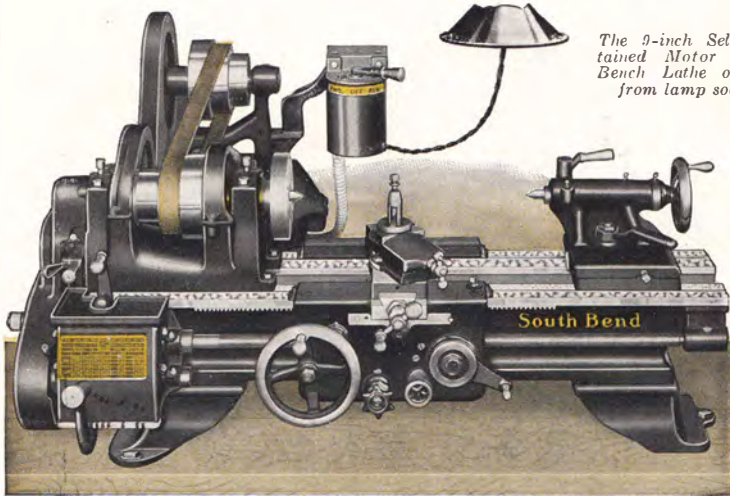
The Regular Equipment included with each 9-inch Bench Lathe consists of: Double Friction Countershaft, Large and Small Face Plates, Tool Post Complete, Adjustable Thread Cutting Stop, two Lathe Centers and Spindle Sleeve, Center Rest, Follower Rest, Wrenches, a set of Independent Change Gears with Standard Change Gear Lathe, also Installation Plans and book "How to Run a Lathe." See page 67.

Attachments. 9-inch Bench Lathes may be fitted with all the Attachments, Tools and Accessories that can be used on Floor Leg Lathes such as Draw-in Collet Chuck, Spring Collets, Taper Attachment, Milling and Keyway Cutting Attachment, Chucks, Turning and Boring Tools, etc.

### Net Factory Prices of 9-inch Bench Lathes Including Overhead Countershaft and Equipment

No. of Lathe	Swing Over Bed	Length of Bed	Between Centers	Hole Thru Spindle	Swing Over Carriage	Power Required	Weight Crated	Code Word	Net Factory Price
<b>9-inch Quick Change Gear Bench Lathes</b>									
80-XB	9¼ in.	2½ ft.	10¼ in.	¾ in.	6¾ in.	¼ H.P.	405 lbs.	Bahak	\$278.00
80-YB	9¼ in.	3 ft.	17¼ in.	¾ in.	6¾ in.	¼ H.P.	425 lbs.	Bagup	284.00
80-ZB	9¼ in.	3½ ft.	22¼ in.	¾ in.	6¾ in.	¼ H.P.	445 lbs.	Bahel	290.00
80-AB	9¼ in.	4 ft.	28¼ in.	¾ in.	6¾ in.	¼ H.P.	465 lbs.	Bahon	297.00
80-RB	9¼ in.	4½ ft.	35¼ in.	¾ in.	6¾ in.	¼ H.P.	490 lbs.	Bahup	305.00
<b>9-inch Standard Change Gear Bench Lathes</b>									
30-XB	9¼ in.	2½ ft.	10¼ in.	¾ in.	6¾ in.	¼ H.P.	395 lbs.	Bakip	\$233.00
30-YB	9¼ in.	3 ft.	17¼ in.	¾ in.	6¾ in.	¼ H.P.	415 lbs.	Bakur	239.00
30-ZB	9¼ in.	3½ ft.	22¼ in.	¾ in.	6¾ in.	¼ H.P.	435 lbs.	Bakys	245.00
30-AB	9¼ in.	4 ft.	28¼ in.	¾ in.	6¾ in.	¼ H.P.	455 lbs.	Balan	252.00
30-RB	9¼ in.	4½ ft.	35¼ in.	¾ in.	6¾ in.	¼ H.P.	480 lbs.	Balep	260.00





The 9-inch Self-Contained Motor Driven Bench Lathe operates from lamp socket.

## 9-inch Self-Contained Motor Driven Bench Lathes

Quick Change and Standard Change, Back Geared, Screw Cutting Lathes

The 9-inch Self-Contained Motor Driven Bench Lathe is practical for general light work in the machine shop and for fine precision tool and instrument work. When this unit is mounted on a bench and connected to a lamp socket, it is ready for operation.

For Specifications and Description of the 9-inch Bench Lathe, refer to page 48, as the only difference between the 9-inch Self-Contained Bench Lathe and the Overhead Countershaft Driven Lathe is the form of drive.

The Reversing Switch (Drum Type) is conveniently located so that the operator can start, stop or reverse the motor from an easy working position in front of the lathe. The switch has three positions: Left for forward motion of the lathe spindle; center for stop, and right for reverse.

Regular Lathe Equipment included in the price of each Self-Contained Motor Driven Bench Lathe consists of: Large and Small Face Plates, Tool Post Complete, Adjustable Thread Cutting Stop, Two Lathe Centers and Spindle Sleeve, Center Rest, Follower Rest, Wrenches, and Independent Change Gears with Standard Change Gear Lathes, also Installation Plans, Floor Plans and book, "How to Run a Lathe." See page 67.

Electrical Equipment included in the price of each Self-Contained Motor Driven Bench Lathe consists of: ¼ H. P. Reversing Motor 1200

R. P. M., (Westinghouse, General Electric or equal make), Reversing Switch (Drum Type), Wiring between motor and switch, Flexible Metal Conduit, Wiring Diagram and a Leather Belt.

When Ordering be sure to give specifications of the electric current to be used. For complete information see page 29.

The Hard Maple Wooden Bench is not included in the price of the Self-Contained Motor Driven Bench Lathe. For prices and description of this bench, see page 73.

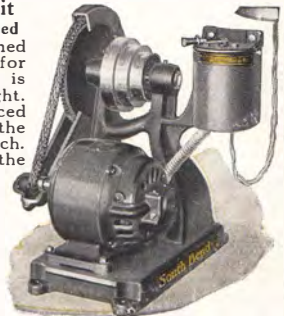
### Motor Drive Unit

Chain Guard Removed

The Self-Contained Motor Drive Unit for the 9-inch Lathe is illustrated at the right.

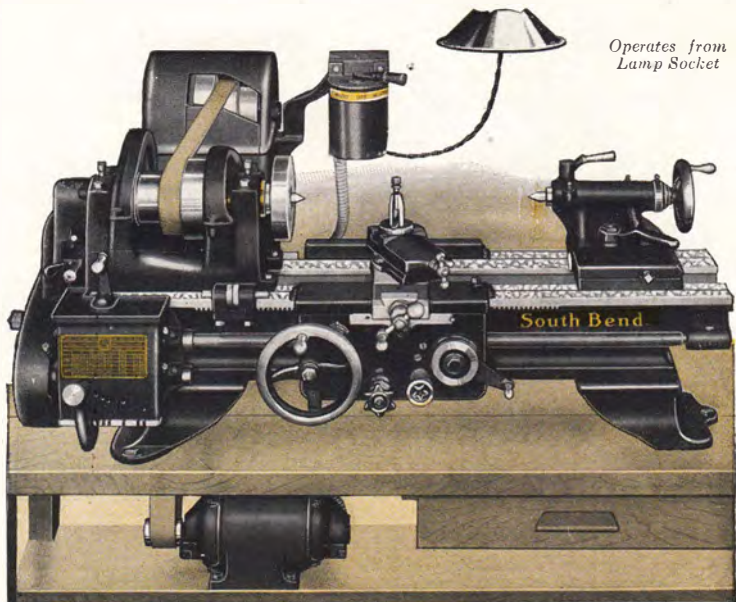
The Unit is placed directly behind the lathe on the bench.

The motor drives the countershaft cone through a silent chain and sprocket which gives a noiseless, efficient drive. The spindle cone is driven by a leather belt.



Net Factory Prices 9-inch New Model South Bend Self-Contained Motor Driven Bench Lathe  
Prices Include Lathe Equipment, Reversing Motor, Reversing Switch and Leather Belt, But Do Not Include Bench

Swing Over Bed	Length of Bed	Distance Between Centers	Size of Motor	Approx. Weight Crated	Hole Thru Spindle	Swing Over Carriage	Catalog Number of Lathe	Code Word	3 Phase 60 Cycle A.C. Motor	1 Phase 60 Cycle A.C. Motor	Direct Current Motor
<b>9-inch Quick Change Gear Self-Contained Motor Driven Bench Lathe</b>											
9¼ in.	2½ ft.	10¼ in.	¼ H.P.	490 lbs.	¾ in.	6¾ in.	780-X	Becel	\$360.00	\$375.00	\$368.00
9¼ in.	3 ft.	17¼ in.	¼ H.P.	520 lbs.	¾ in.	6¾ in.	780-Y	Becan	366.00	381.00	374.00
9¼ in.	3½ ft.	22¼ in.	¼ H.P.	550 lbs.	¾ in.	6¾ in.	780-Z	Becup	372.00	387.00	380.00
9¼ in.	4 ft.	28¼ in.	¼ H.P.	580 lbs.	¾ in.	6¾ in.	780-A	Bedal	379.00	394.00	387.00
9¼ in.	4½ ft.	35¼ in.	¼ H.P.	610 lbs.	¾ in.	6¾ in.	780-R	Bedem	387.00	402.00	395.00
<b>9-Inch Standard Change Gear Self-Contained Motor Driven Bench Lathe</b>											
9¼ in.	2½ ft.	10¼ in.	¼ H.P.	480 lbs.	¾ in.	6¾ in.	730-X	Bedop	\$315.00	\$330.00	\$323.00
9¼ in.	3 ft.	17¼ in.	¼ H.P.	510 lbs.	¾ in.	6¾ in.	730-Y	Bedyr	321.00	336.00	329.00
9¼ in.	3½ ft.	22¼ in.	¼ H.P.	540 lbs.	¾ in.	6¾ in.	730-Z	Befam	327.00	342.00	335.00
9¼ in.	4 ft.	28¼ in.	¼ H.P.	570 lbs.	¾ in.	6¾ in.	730-A	Befen	334.00	349.00	342.00
9¼ in.	4½ ft.	35¼ in.	¼ H.P.	600 lbs.	¾ in.	6¾ in.	730-R	Befip	342.00	357.00	350.00



Operates from Lamp Socket

## 9-inch Horizontal Motor Driven Bench Lathes

Quick Change and Standard Change, Back Geared Screw Cutting Lathes

The 9-inch New Model South Bend Horizontal Motor Driven Bench Lathe is identically the same as the lathes illustrated and described on pages 10, 11 and 48 except that it has Bench Legs and is equipped with the Horizontal Motor Drive instead of countershaft drive. It will operate from an ordinary electric lamp socket at an average cost of about two cents per hour. This improved safety motor drive is efficient, powerful and noiseless in operation. The cabinet top opens to permit shifting of belt. Both the lathe and drive cabinet have three point bearing on the bench.

A  $\frac{1}{4}$  Horsepower Reversing Motor placed on a shelf beneath the bench drives the jackshaft on which the drive pulley and countershaft cone are attached, all located within the cast iron cabinet. A reversing switch (Drum Type) is conveniently located so that the operator can start, stop or reverse the motor from an easy working position. The distance between center of jackshaft and the lathe spindle is 21 inches.

When Ordering a Horizontal Motor Driven Bench Lathe, be sure to specify the electric current being used. If alternating current, state exact voltage, phase, cycle and number of wires. If direct current, state exact voltage. When giving voltage of motor, state whether 110-volt motor or 220-volt motor is wanted. Do not specify 110-220-volt motor, as we cannot furnish motors for double voltage rating. See pages 28 and 29.

The Lathe Equipment included in the price of each 9-inch Horizontal Motor Driven Bench Lathe consists of: Large and Small Face Plates, Tool Post Complete, Adjustable Thread Cutting Stop, two Lathe Centers and Spindle Sleeve, Center Rest, Follower Rest, Wrenches and Independent Change Gears with Standard Change Gear Lathes, also Installation Plans, Floor Plans and book, "How to Run a Lathe." See page 67.

The Electrical Equipment included with the drive unit for this lathe consists of:  $\frac{1}{4}$  H.P. Constant Speed Reversing Motor, 1200 R.P.M.; Reversing Switch (Drum Type); Wiring between motor and switch; Flexible Metal Conduit; Wiring Diagram; two Leather Belts; Cast Iron Cabinet with Horizontal Drive Mechanism.



Phantom View of Drive Unit

The Hard Maple Wooden Bench is not included in the price of the Horizontal Motor Driven Bench Lathe. For prices and descriptions of this bench, see page 73.

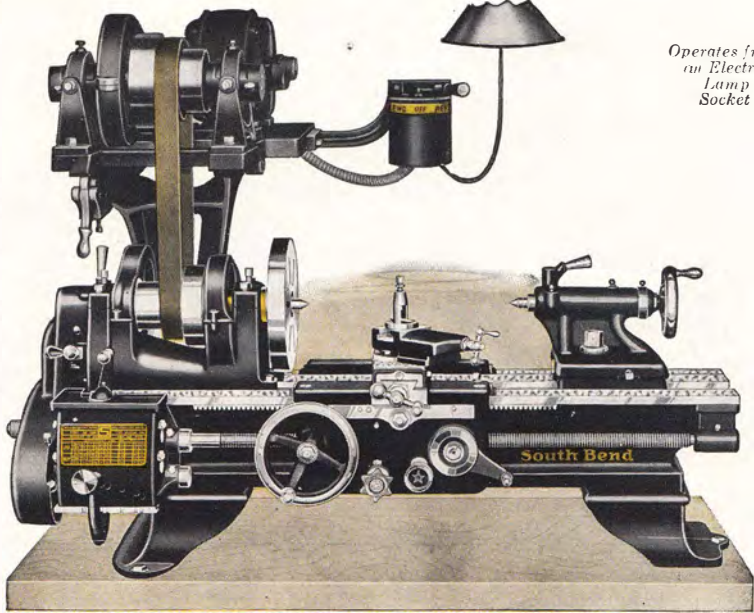
### Net Factory Prices, 9-inch Horizontal Motor Driven Bench Lathe

Prices Include Lathe, Drive Cabinet, Lathe Equipment, Reversing Motor, Reversing Switch, Two Belts, But Not Bench

Swing Over Bed	Length of Bed	Distance Between Centers	Size of Motor	Approx. Weight Crated	Hole Thru Spindle	Swing Over Carriage	Catalog Number of Lathe	Code Word	3 Phase 60 Cycle A.C. Motor	1 Phase 60 Cycle A.C. Motor	Direct Current Motor
<b>9-inch Quick Change Gear Horizontal Motor Driven Bench Lathe</b>											
9 $\frac{1}{4}$ in.	2 $\frac{1}{2}$ ft.	10 $\frac{1}{4}$ in.	$\frac{1}{4}$ H.P.	490 lbs.	$\frac{3}{8}$ in.	6 $\frac{3}{8}$ in.	480-X	Bazac	\$348.00	\$363.00	\$356.00
9 $\frac{1}{4}$ in.	3 ft.	17 $\frac{1}{4}$ in.	$\frac{1}{4}$ H.P.	510 lbs.	$\frac{3}{8}$ in.	6 $\frac{3}{8}$ in.	480-Y	Bazed	354.00	369.00	362.00
9 $\frac{1}{4}$ in.	3 $\frac{1}{2}$ ft.	22 $\frac{1}{4}$ in.	$\frac{1}{4}$ H.P.	530 lbs.	$\frac{3}{8}$ in.	6 $\frac{3}{8}$ in.	480-Z	Bazif	360.00	375.00	368.00
9 $\frac{1}{4}$ in.	4 ft.	28 $\frac{1}{4}$ in.	$\frac{1}{4}$ H.P.	550 lbs.	$\frac{3}{8}$ in.	6 $\frac{3}{8}$ in.	480-A	Bazog	367.00	382.00	375.00
9 $\frac{1}{4}$ in.	4 $\frac{1}{2}$ ft.	35 $\frac{1}{4}$ in.	$\frac{1}{4}$ H.P.	575 lbs.	$\frac{3}{8}$ in.	6 $\frac{3}{8}$ in.	480-R	Bazuh	375.00	390.00	383.00
<b>9-inch Standard Change Gear Horizontal Motor Driven Bench Lathe</b>											
9 $\frac{1}{4}$ in.	2 $\frac{1}{2}$ ft.	10 $\frac{1}{4}$ in.	$\frac{1}{4}$ H.P.	480 lbs.	$\frac{3}{8}$ in.	6 $\frac{3}{8}$ in.	430-X	Behaj	\$303.00	\$318.00	\$311.00
9 $\frac{1}{4}$ in.	3 ft.	17 $\frac{1}{4}$ in.	$\frac{1}{4}$ H.P.	500 lbs.	$\frac{3}{8}$ in.	6 $\frac{3}{8}$ in.	430-Y	Behak	309.00	324.00	317.00
9 $\frac{1}{4}$ in.	3 $\frac{1}{2}$ ft.	22 $\frac{1}{4}$ in.	$\frac{1}{4}$ H.P.	520 lbs.	$\frac{3}{8}$ in.	6 $\frac{3}{8}$ in.	430-Z	Behal	315.00	330.00	323.00
9 $\frac{1}{4}$ in.	4 ft.	28 $\frac{1}{4}$ in.	$\frac{1}{4}$ H.P.	540 lbs.	$\frac{3}{8}$ in.	6 $\frac{3}{8}$ in.	430-A	Behav	322.00	337.00	330.00
9 $\frac{1}{4}$ in.	4 $\frac{1}{2}$ ft.	35 $\frac{1}{4}$ in.	$\frac{1}{4}$ H.P.	565 lbs.	$\frac{3}{8}$ in.	6 $\frac{3}{8}$ in.	430-R	Behak	330.00	345.00	338.00

This Lathe is also furnished in 11-inch swing, prices on request.





Operates from  
an Electric  
Lamp  
Socket

## 9-inch Silent Chain Motor Driven Bench Lathes

Quick Change and Standard Change, Back Geared, Screw Cutting Lathes

The 9-inch New Model South Bend Silent Chain Motor Driven Bench Lathe is the regular 9-inch Bench Lathe, as illustrated and described on page 48, equipped with Silent Chain Motor Drive instead of Countershaft Drive. This lathe is efficient and practical for use in the Manufacturing Plant, Tool Room and General Machine Shop. A  $\frac{1}{4}$  H.P. Reversing Motor driven from an electric lamp socket, operates the lathe at an average cost of about two cents per hour.

The Reversing Switch (Drum Type) is conveniently located so that the operator can start, stop or reverse the motor from an easy working position in front of the lathe. The switch has three positions: Left for forward motion of the lathe spindle, center for stop, and right for reverse.

Electrical Equipment included in the price of the 9-inch Silent Chain Motor Driven Bench Lathe consists of a  $\frac{1}{4}$  H.P. Reversing Motor 1200 R.P.M. (Westinghouse, General Electric or equal make), Reversing Switch (drum type), Wiring between Motor and Switch, Flexible Metal Conduit, Wiring Diagram and Leather Belt. See pages 28 and 29.

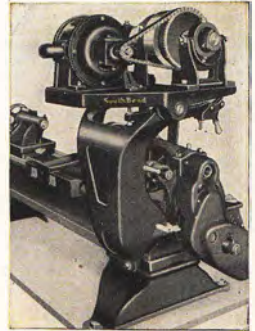
When Ordering give specifications of electric current to be used as shown on page 29.

Lathe Equipment consists of: Large and Small Face Plates, Tool Post Complete, Adjustable

Thread Cutting Stop, two Lathe Centers and Spindle Sleeve, Center Rest, Follower Rest, Wrenches and Change Gears with Standard Change Gear Lathes, also Installation Plans and book, "How to Run a Lathe." See page 67. Bench is extra. See page 73.

### Silent Chain Drive Chain Guard Removed

The Motor is mounted on a table above the lathe where it is free from dirt and chips. The Silent Chain Drive which connects the motor with the driving cone is as positive as though it were direct geared. The Spindle Cone is driven by belt. A small lever relieves belt tension for easy shifting. An adjustment provides for taking up the stretch in belt.

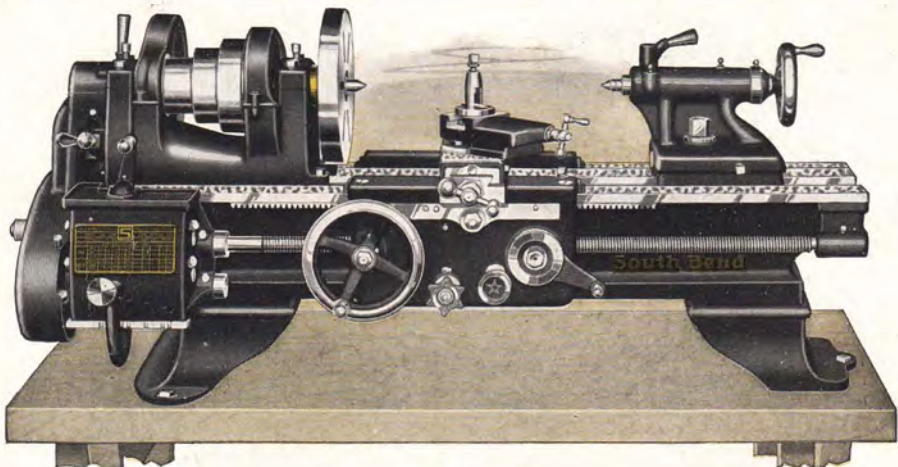


### Net Factory Prices 9-inch New Model South Bend Silent Chain Motor Driven Bench Lathe

Prices Include Lathe Equipment, Reversing Motor, Reversing Switch and Leather Belt, But Do Not Include Bench\*

Swing Over Bed	Length of Bed	Distance Between Centers	Size of Motor	Approx. Weight Crated	Hole Thru Spindle	Swing Over Carriage	Catalog Number of Lathe	Code Word	3 Phase 60 Cycle A.C. Motor	1 Phase 60 Cycle A.C. Motor	Direct Current Motor
<b>9-inch Quick Change Gear Silent Chain Motor Driven Bench Lathe</b>											
9 $\frac{1}{4}$ in.	2 $\frac{1}{2}$ ft.	10 $\frac{1}{4}$ in.	$\frac{1}{4}$ H.P.	605 lbs.	$\frac{3}{8}$ in.	6 $\frac{3}{8}$ in.	380-XB	Bawab	\$384.50	\$399.50	\$392.50
9 $\frac{1}{4}$ in.	3 ft.	17 $\frac{1}{4}$ in.	$\frac{1}{4}$ H.P.	625 lbs.	$\frac{3}{8}$ in.	6 $\frac{3}{8}$ in.	380-YB	Baweb	390.50	405.50	395.50
9 $\frac{1}{4}$ in.	3 $\frac{1}{2}$ ft.	22 $\frac{1}{4}$ in.	$\frac{1}{4}$ H.P.	645 lbs.	$\frac{3}{8}$ in.	6 $\frac{3}{8}$ in.	380-ZB	Bawic	396.50	411.50	404.50
9 $\frac{1}{4}$ in.	4 ft.	28 $\frac{1}{4}$ in.	$\frac{1}{4}$ H.P.	665 lbs.	$\frac{3}{8}$ in.	6 $\frac{3}{8}$ in.	380-AB	Bawod	403.50	418.50	411.50
9 $\frac{1}{4}$ in.	4 $\frac{1}{2}$ ft.	35 $\frac{1}{4}$ in.	$\frac{1}{4}$ H.P.	690 lbs.	$\frac{3}{8}$ in.	6 $\frac{3}{8}$ in.	380-RB	Bawuf	411.50	426.50	419.50
<b>9-inch Standard Change Gear Silent Chain Motor Driven Bench Lathe</b>											
9 $\frac{1}{4}$ in.	2 $\frac{1}{2}$ ft.	10 $\frac{1}{4}$ in.	$\frac{1}{4}$ H.P.	595 lbs.	$\frac{3}{8}$ in.	6 $\frac{3}{8}$ in.	330-XB	Baya b	\$339.50	\$354.50	\$347.50
9 $\frac{1}{4}$ in.	3 ft.	17 $\frac{1}{4}$ in.	$\frac{1}{4}$ H.P.	615 lbs.	$\frac{3}{8}$ in.	6 $\frac{3}{8}$ in.	330-YB	Bayec	345.50	360.50	353.50
9 $\frac{1}{4}$ in.	3 $\frac{1}{2}$ ft.	22 $\frac{1}{4}$ in.	$\frac{1}{4}$ H.P.	635 lbs.	$\frac{3}{8}$ in.	6 $\frac{3}{8}$ in.	330-ZB	Bayid	351.50	366.50	359.50
9 $\frac{1}{4}$ in.	4 ft.	28 $\frac{1}{4}$ in.	$\frac{1}{4}$ H.P.	655 lbs.	$\frac{3}{8}$ in.	6 $\frac{3}{8}$ in.	330-AB	Bayof	358.50	373.50	366.50
9 $\frac{1}{4}$ in.	4 $\frac{1}{2}$ ft.	35 $\frac{1}{4}$ in.	$\frac{1}{4}$ H.P.	680 lbs.	$\frac{3}{8}$ in.	6 $\frac{3}{8}$ in.	330-RB	Bayug	366.50	381.50	374.50

\*For price of Bench see page 73. This Lathe can be used on a bench as narrow as 24 inches.



## 11-inch New Model South Bend Bench Lathes

Quick Change and Standard, Back Geared Screw Cutting Lathes—Countershaft Drive

The 11-inch New Model South Bend Bench Lathe shown above is an excellent tool for light work in the manufacturing plant and for the large scale production of small metal parts. It has precision and accuracy for fine tool work. Bench lathes of this type are often arranged in groups and handled by a single operator.

For Specifications and description of the 11-inch Bench Lathe, Quick Change Gear or Standard Change Gear types, refer to the 11-inch lathe with floor legs illustrated on pages 12 and 13 of this catalog. The only difference is that Bench Legs are substituted for Floor Legs.

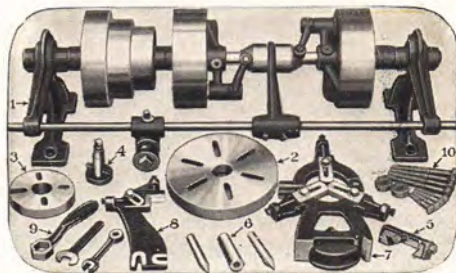
The Headstock is back geared, reinforced and webbed, insuring strength and rigidity. Six spindle speeds are provided, three direct and three back geared. See page 6.

The New Apron has automatic cross and longitudinal turning feeds, and half nuts for thread cutting. An automatic safety interlock prevents the half nuts and automatic feeds from being engaged at the same time. See page 7.

The Gear Box on Quick Change Gear Lathes provides 48 changes for cutting screw threads, right or left, from 2 to 112 per inch. See page 5.

The Independent Change Gears supplied with Standard Change Gear Lathes permit cutting standard screw threads, right or left, from 4 to 40 per inch, including 1½ pipe thread. See page 67.

The Hard Maple Bench is not included in the price of the Bench Lathe but can be furnished at extra cost. For prices and description of Bench see page 73.



Equipment illustrated above is included in the price of the Lathe

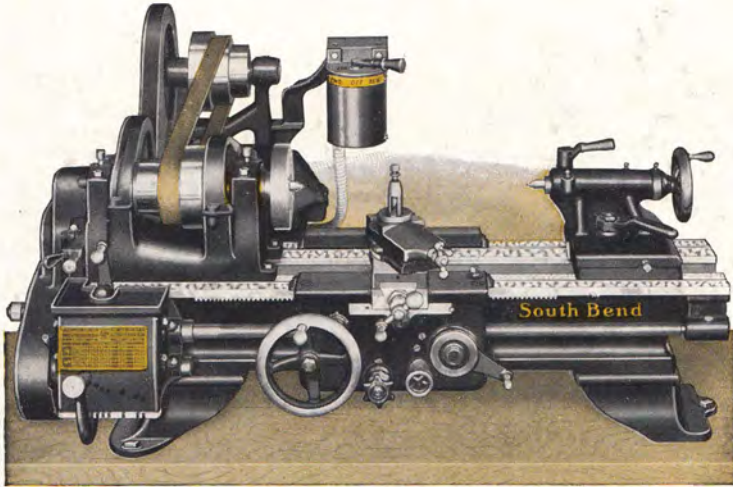
The Regular Equipment included with each 11-inch Bench Lathe consists of: Double Friction Countershaft, Large and Small Face Plates, Tool Post Complete, Adjustable Thread Cutting Stop, two Lathe Centers and Spindle Sleeve, Center Rest, Follower Rest, Wrenches, a set of Independent Change Gears with Standard Change Gear Lathe, also Installation Plans and book "How to Run a Lathe." See page 67.

Attachments. 11-inch Bench Lathes may be fitted with all the Attachments, Tools and Accessories that can be used on Floor Leg Lathes such as Draw-in Collet Chuck, Spring Collets, Taper Attachment, Milling and Keyway Cutting Attachment, Chucks, Turning and Boring Tools, etc.

### Net Factory Prices of 11-inch Bench Lathes Including Overhead Countershaft and Equipment

No. of Lathe	Swing Over Bed	Length of Bed	Between Centers	Hole Thru Spindle	Swing Over Carriage	Power Required	Weight Crated	Code Word	Net Factory Price
<b>11-inch Quick Change Gear Bench Lathes</b>									
84-YB	11¼ in.	3 ft.	12 in.	7⁄8 in.	7⁄8 in.	½ H.P.	575 lbs.	Ebony	\$335.00
84-ZB	11¼ in.	3½ ft.	18 in.	7⁄8 in.	7⁄8 in.	½ H.P.	600 lbs.	Echos	342.00
84-AB	11¼ in.	4 ft.	24 in.	7⁄8 in.	7⁄8 in.	½ H.P.	625 lbs.	Edwin	349.00
84-BB	11¼ in.	5 ft.	36 in.	7⁄8 in.	7⁄8 in.	½ H.P.	705 lbs.	Efort	365.00
84-SB	11¼ in.	5½ ft.	42 in.	7⁄8 in.	7⁄8 in.	½ H.P.	745 lbs.	Egpsu	374.00
<b>11-inch Standard Change Gear Bench Lathes</b>									
33-YB	11¼ in.	3 ft.	12 in.	7⁄8 in.	7⁄8 in.	½ H.P.	560 lbs.	Egast	\$285.00
33-ZB	11¼ in.	3½ ft.	18 in.	7⁄8 in.	7⁄8 in.	½ H.P.	585 lbs.	Ejorn	292.00
33-AB	11¼ in.	4 ft.	24 in.	7⁄8 in.	7⁄8 in.	½ H.P.	610 lbs.	Elong	299.00
33-BB	11¼ in.	5 ft.	36 in.	7⁄8 in.	7⁄8 in.	½ H.P.	690 lbs.	Emate	315.00
33-SB	11¼ in.	5½ ft.	42 in.	7⁄8 in.	7⁄8 in.	½ H.P.	730 lbs.	Enbuf	324.00





## 11-inch Self-Contained Motor Driven Bench Lathes

Quick Change and Standard Change, Back Geared, Screw Cutting Lathes

The 11-inch Self-Contained Motor Driven Bench Lathe is practical for general light work in the machine shop and for fine precision tool and instrument work. When this unit is mounted on a bench and connected to the electric current, it is ready for operation.

For Specifications and Description of the 11-inch Self-Contained Bench Lathe, refer to page 52, as the only difference between this lathe and the Countershaft Driven Bench Lathe is the form of drive.

The Reversing Switch (Drum Type) is conveniently located so that the operator can start, stop or reverse the motor from an easy working position in front of the lathe. The switch has three positions: Left for forward motion of the lathe spindle; center for stop, and right for reverse.

Regular Lathe Equipment included in the price of each Self-Contained Motor Driven Bench Lathe consists of: Large and Small Face Plates, Tool Post Complete, Adjustable Thread Cutting Stop, Two Lathe Centers and Spindle Sleeve, Center Rest, Follower Rest, Wrenches, and Independent Change Gears with Standard Change Gear Lathes; also Installation Plans, Floor Plans and book, "How to Run a Lathe." See page 67.

Electrical Equipment included in the price of each Self-Contained Motor Driven Bench Lathe consists of: 1/2 H. P. Reversing Motor 1200 R. P. M., (Westinghouse, General Electric or equal

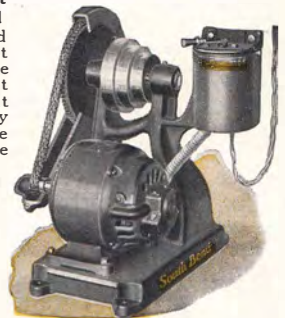
make), Reversing Switch (Drum Type), Wiring between motor and switch, Flexible Metal Conduit, Wiring Diagram and a Leather Belt.

When Ordering be sure to give specifications of the electric current to be used. For complete information see page 29.

The Hard Maple Wooden Bench is not included in the price of the Self-Contained Motor Driven Bench Lathe. For prices and description of this bench, see page 73.

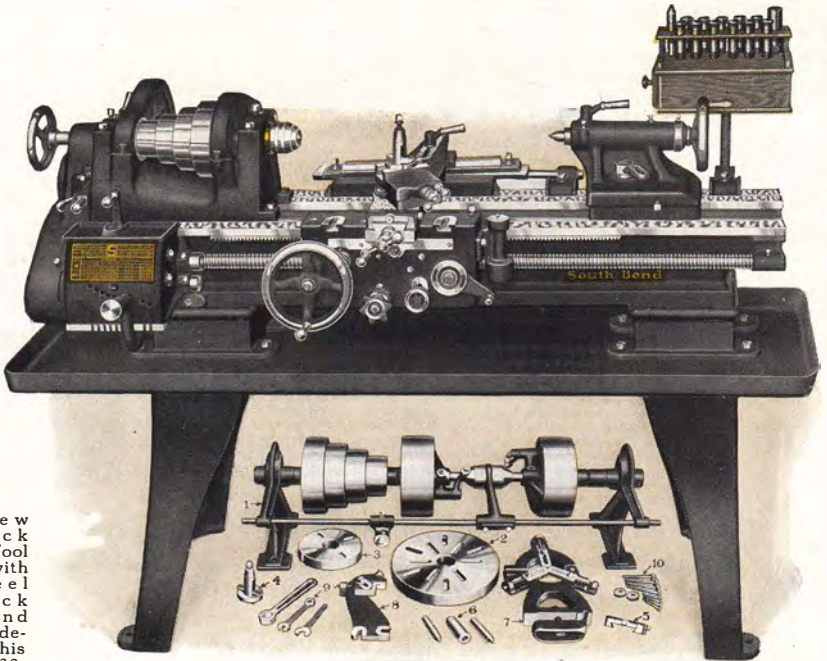
### Motor Drive Unit Chain Guard Removed

The Self-Contained Motor Drive Unit for the 11-inch Lathe is illustrated at the right. The Unit is placed directly behind the lathe on the bench. The motor drives the countershaft cone through a silent chain and sprocket which gives a noiseless, efficient drive. The spindle cone is driven by a leather belt.



Net Factory Prices 11-inch New Model South Bend Self-Contained Motor Driven Bench Lathe  
Prices Include Lathe Equipment, Reversing Motor, Reversing Switch and Leather Belt, But Do Not Include Bench

Swing Over Bed	Length of Bed	Distance Between Centers	Size of Motor	Approx. Weight Crated	Hole Thru Spindle	Swing Over Carriage	Catalog Number of Lathe	Code Word	3 Phase 60 Cycle A.C. Motor	1 Phase 60 Cycle A.C. Motor	Direct Current Motor
<b>11-inch Quick Change Gear Self-Contained Motor Driven Bench Lathe</b>											
11 1/4 in.	3 ft.	12 in.	1/2 H.P.	640 lbs.	7/8 in.	7 3/4 in.	784-Y	Eastn	\$446.00	\$474.00	\$457.00
11 1/4 in.	3 3/4 ft.	18 in.	1/2 H.P.	670 lbs.	7/8 in.	7 3/4 in.	784-Z	Euros	453.00	481.00	484.00
11 1/4 in.	4 ft.	24 in.	1/2 H.P.	700 lbs.	7/8 in.	7 3/4 in.	784-A	Eclip	460.00	488.00	471.00
11 1/4 in.	5 ft.	36 in.	1/2 H.P.	730 lbs.	7/8 in.	7 3/4 in.	784-B	Ednor	476.00	504.00	487.00
11 1/4 in.	5 1/2 ft.	42 in.	1/2 H.P.	760 lbs.	7/8 in.	7 3/4 in.	784-S	Efops	485.00	513.00	496.00
<b>11-inch Standard Change Gear Self-Contained Motor Driven Bench Lathe</b>											
11 1/4 in.	3 ft.	12 in.	1/2 H.P.	625 lbs.	7/8 in.	7 3/4 in.	733-Y	Efade	\$396.00	\$424.00	\$407.00
11 1/4 in.	3 3/4 ft.	18 in.	1/2 H.P.	655 lbs.	7/8 in.	7 3/4 in.	733-Z	Egrip	403.00	431.00	414.00
11 1/4 in.	4 ft.	24 in.	1/2 H.P.	685 lbs.	7/8 in.	7 3/4 in.	733-A	Ehows	410.00	438.00	421.00
11 1/4 in.	5 ft.	36 in.	1/2 H.P.	715 lbs.	7/8 in.	7 3/4 in.	733-B	Ejano	426.00	454.00	437.00
11 1/4 in.	5 1/2 ft.	42 in.	1/2 H.P.	745 lbs.	7/8 in.	7 3/4 in.	733-S	Ekbep	433.00	463.00	446.00



13" x 5' New Model Quick Change Gear Tool Room Lathe with Hand Wheel Draw-in Chuck Attachment and collets. For description of this lathe see page 32.

## Draw-in Collet Chuck Attachments For All Sizes and Types of South Bend Lathes

### For Tool Room Work

The Hand Wheel Type Draw-in Collect Chuck Attachment is used extensively in the Tool Room in making small tools and parts where accuracy is essential. It is the most accurate type of chuck made and is the choice of experienced tool makers and machinists for fine, accurate work.

### For Manufacturing

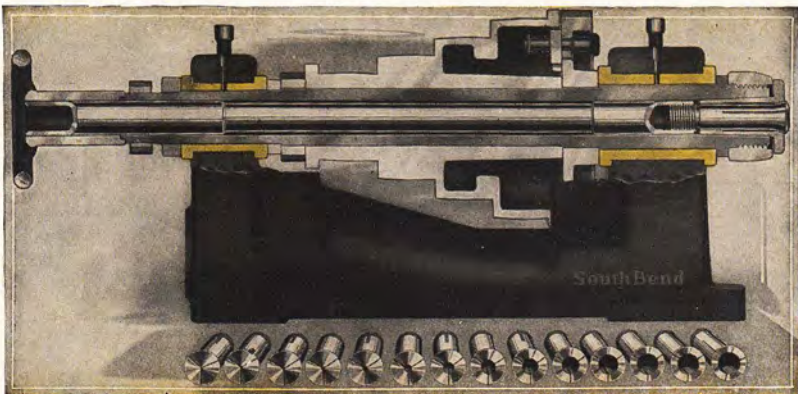
The Draw-in Collet Chuck, both Hand Wheel Type and Hand Lever Type, is used for manufacturing small, precision parts such as watches, typewriters, sewing machines, adding machines, radios, etc. The hollow draw bar permits bars and rods being passed through the lathe spindle and held in the chuck for machining. This method of manufacturing small parts is both rapid and economical.

### How the Draw-in Collet Chuck Operates

The hollow draw bar extending through the lathe spindle operates the hardened and ground steel split collet. As the draw bar is rotated the threads in the end of the draw bar cause the collet to tighten or release the work.

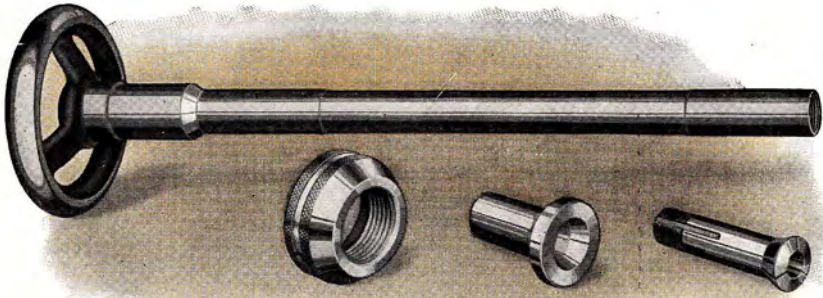
In the Hand Wheel Type Draw-in Collet Chuck the collet is operated by turning the hand wheel which causes it to grip or release the work held in the collet.

In the Hand Lever Type Draw-in Collet Chuck the collet is operated by means of the hand lever, permitting the work to be gripped or released while the spindle is in motion. A special adjustment is provided for changing the tension or gripping action of the collet.



A cross section of the Headstock showing Hand Wheel Draw-in Collet Chuck





Hand Wheel Type Draw-in Collet Chuck with One Split Collet, Tapered Closing Sleeve, and Nose Cap for Protecting Spindle Nose Threads

## Hand Wheel Type Draw-in Collet Chuck Attachment For All Sizes and Types of South Bend Lathes

### Made in Six Sizes

The Draw-in Collet Chuck Attachment is made in six (6) different sizes to conform to the six different sizes of New Model South Bend Lathes. The capacity of the Draw-in Collet Chuck is limited by the size of the hole in the spindle of the lathe on which it is used. For specifications and prices see tabulation below.

### What the Price Includes

The price of the Hand Wheel Draw-in Collet Chuck Attachment includes hand wheel and hollow draw bar, nose cap for protecting threads of spindle nose, tapered steel closing sleeve for attaching collet to headstock spindle, and one round, split collet of any size desired up to the maximum capacity of lathe. The tapered closing sleeve furnished with this attachment is made of tool steel, hardened and ground, to minimize wear and insure accuracy.

### For Manufacturing and Tool Room Work

The Draw-in Collet Chuck is used on the small lathe to great advantage for the manufacturing of small accurate metal parts. The skilled mechanic and tool maker are very partial to the draw-in collet chuck attachment as it permits the greatest accuracy in making small parts on such work as tool making and production work. The draw-in collet chuck is the most accurate type of chuck that can be used on a lathe.

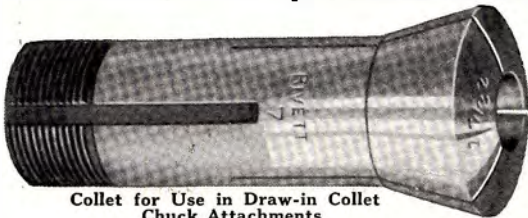
### Sizes and Types of Collets Furnished

Collets are furnished for the hand wheel draw-in collet chuck in sizes ranging from  $\frac{3}{8}$  inch hole diameter to hole capacity of lathe by 64ths, 32nds, and 16ths, as shown in the tabulation below. These sizes are regularly carried in stock. Collets of special hole sizes can be furnished as required. For complete information on collets see bottom of page, also next page.

Prices Hand Wheel Draw-in Chuck Attachment with One Collet

Size of Lathe	Catalog No.	Hole in Lathe Spindle	Collet Capacity in Sixty-Fourths (for Round Work)	Code Word	Price Each
9 in.	4309	$\frac{3}{8}$ in.	$\frac{3}{8}$ in. up to $\frac{1}{2}$ in.	Aaron	<b>\$33.00</b>
11 in.	4311	$\frac{7}{8}$ in.	$\frac{3}{8}$ in. up to $\frac{3}{4}$ in.	Abode	<b>38.00</b>
13 in.	4313	1 in.	$\frac{3}{8}$ in. up to $\frac{5}{8}$ in.	About	<b>44.00</b>
15 in.	4315	$1\frac{1}{8}$ in.	$\frac{3}{8}$ in. up to $\frac{3}{4}$ in.	Above	<b>50.00</b>
16 in.	4316	$1\frac{3}{8}$ in.	$\frac{3}{8}$ in. up to $\frac{7}{8}$ in.	Adore	<b>56.00</b>
18 in.	4318	$1\frac{7}{8}$ in.	$\frac{3}{8}$ in. up to 1 in.	Adult	<b>63.00</b>

## Split Collets for Round Work



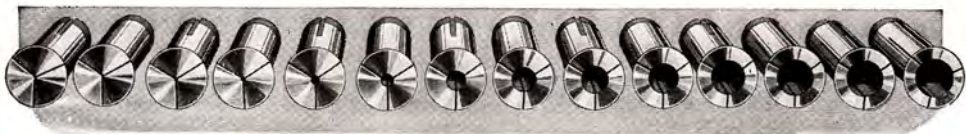
Collet for Use in Draw-in Collet Chuck Attachments

Net Factory Prices of Split Collets for Round Work

Size of Lathe	Catalog No.	Hole in Lathe Spindle	Collet Capacity in Sixty-Fourths (for Round Work)	Code Word	Price Each
9 in.	609	$\frac{3}{8}$ in.	$\frac{3}{8}$ in. up to $\frac{1}{2}$ in.	Cabot	<b>\$3.85</b>
11 in.	611	$\frac{7}{8}$ in.	$\frac{3}{8}$ in. up to $\frac{3}{4}$ in.	Cello	<b>4.40</b>
13 in.	613	1 in.	$\frac{3}{8}$ in. up to $\frac{5}{8}$ in.	Chose	<b>5.00</b>
15 in.	615	$1\frac{1}{8}$ in.	$\frac{3}{8}$ in. up to $\frac{3}{4}$ in.	Civit	<b>5.50</b>
16 in.	616	$1\frac{3}{8}$ in.	$\frac{3}{8}$ in. up to $\frac{7}{8}$ in.	Clear	<b>6.00</b>
18 in.	618	$1\frac{7}{8}$ in.	$\frac{3}{8}$ in. up to 1 in.	Comet	<b>6.50</b>

At the left is shown a split collet. All collets for Draw-in Collet Chuck Attachments used on the New Model South Bend Lathes are made of tool steel, hardened and tempered. They are ground both outside and inside to insure accuracy. The left end is threaded for the hollow draw bar and has a keyway to prevent the collet from turning while holding the work. The other end is tapered to conform to the tapered closing sleeve furnished with the attachment. Three slots permit the collet to close or release as the tension on the hollow draw bar is increased or decreased.

When Ordering Extra Collets for Draw-in Collet Chuck Attachments specify size of hole in collet and size of lathe for which collet is wanted. These collets fit both hand wheel and hand lever types of Draw-in Collet Chuck Attachments.



## Split Collets for Draw-in Chuck Attachments

### Range of Collet Sizes

The illustration above shows a group of collets ranging from the smallest size up to 1-inch size in steps of sixteenths (16ths) of an inch. The smallest collet is adapted to work  $\frac{1}{16}$ -inch in diameter. The next is adapted to work  $\frac{1}{8}$ -inch in diameter, etc.

Collets from  $\frac{1}{8}$ -inch diameter to hole capacity (shown in the price tabulation on page 55) by 64ths, 32nds, and 16ths of an inch are regularly carried in stock. Special hole sizes such as odd diameter drill and wire gauges, and metric sizes can be furnished if required.

This permits the manufacturer of tools and dies to use the correct size collets for all special tool and gauge work, and enables the manufacturer of duplicate parts to select the size and type collet to suit his exact requirements. This insures accuracy of the finished work and increases production.



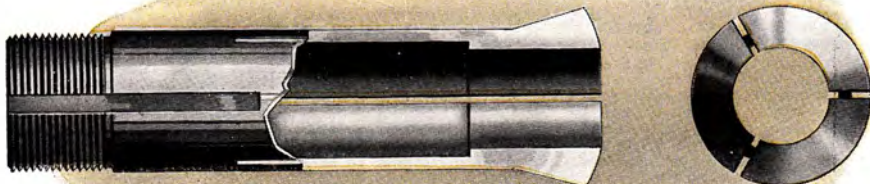
Square

Hexagon

Step Collet

### Types of Special Split Collets

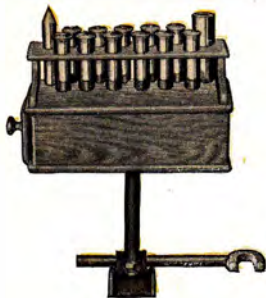
The illustrations above show three types of split collets used in the Hand Wheel and Hand Lever Draw-in Chuck Attachments to hold Square, Hexagonal or Round stock. Square, Hexagonal and Round Step collets are made to order. Prices quoted on request. Round collets are the most widely used for manufacturing and in the tool room, therefore we carry this type only, in stock. See page 55.



### Cross-Section of Split Collet from Side and Front View

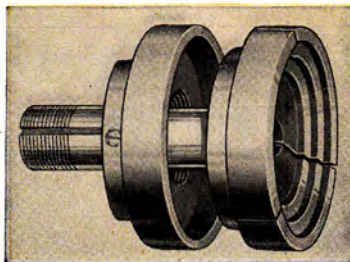
Above is illustrated a cross section of the hardened and ground tool steel collet. Notice the three slots which divide the tapered end of the collet into three segments. This permits the

collet to be contracted or expanded as it is drawn into or released from the tapered closing sleeves in the lathe spindle. This construction makes it the most accurate chuck on the market.



### Collet Cabinet

This cabinet provides an easy and convenient means of holding collets, centers, wrenches, small tools, etc. The cabinet is made of oak and is finished in natural color with two coats of shellac. Prices below include cabinet, hook for holding draw bar of draw-in collet chuck, and bracket for attaching cabinet to the lathe. Collets are not included in price.



### Step Chucks and Closer

The Step Chuck and Closer is used for holding discs and similar round, flat work. The closers are carried on the nose of the spindle and are interchangeable. The Step Chuck is split but not stepped. It is furnished blank so that it can be machined to fit the work. Either Type of Draw-in Collet Chuck Attachment can be equipped with the Step Chuck and Closer. In ordering give sizes of blanks to be machined. Prices on request.

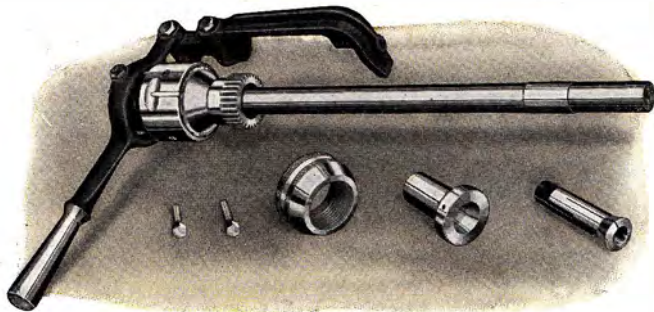
### Prices of Collet Cabinet

Size of Lathe	Cat. No.	Code Word	Net Price
9 in.	1081	Caged	\$12.00
11 in.	1082	Chrome	12.00
13 in.	1083	Choke	12.00
15 in.	1084	Cnarl	15.00
16 in.	1085	Adro	15.00
18 in.	1086	Catch	15.00



# Hand Lever Type Draw-in Collet Chuck Attachment

For All Sizes and Types of South Bend Lathes



The Hand Lever Draw-in Collet Chuck permits releasing and feeding bar stock through the collet, without stopping the lathe, by means of an adjustable chuck closer. The gripping action of the collet can be adjusted to any desired tension by regulating the cylinder of the adjustable chuck closer. Price includes one round collet; tapered closing sleeve, nose cap, hollow draw bar, and adjustable chuck closing mechanism ready to use.

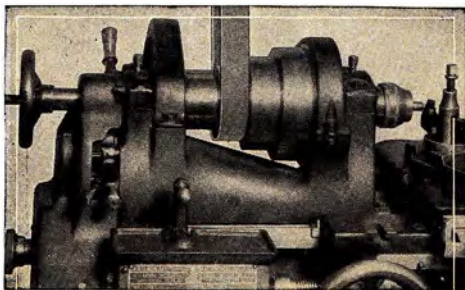
The Tapered Closing Sleeve furnished with the Hand Lever Draw-in Collet Chuck is made of tool steel, hardened and ground, to minimize wear and insure accuracy.

The Hand Lever Draw-in Collet Chuck Attachment is a very economical tool for use in manufacturing small interchangeable parts, where accuracy and precision are essential.

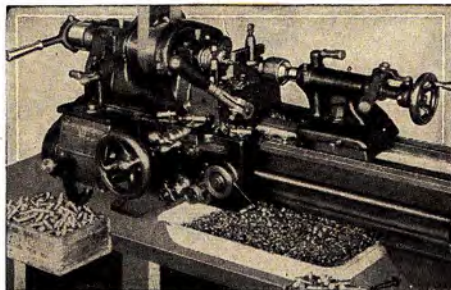
## Net Factory Prices of Hand Lever Draw-in Collet Chuck Attachment with One Collet

Size of Lathe	Catalog No.	Hole in Lathe Spindle	Collet Capacity in Sixty-fourths (for Round Work)	Code Words	Price Each
9 in.	5209	$\frac{3}{4}$ in.	$\frac{1}{8}$ in. up to $\frac{1}{2}$ in.	Allen	\$ 75.00
11 in.	5211	$\frac{7}{8}$ in.	$\frac{1}{8}$ in. up to $\frac{3}{8}$ in.	Among	85.00
13 in.	5213	1 in.	$\frac{1}{8}$ in. up to $\frac{5}{8}$ in.	Andes	105.00
15 in.	5215	$1\frac{1}{8}$ in.	$\frac{1}{8}$ in. up to $\frac{3}{4}$ in.	Askew	110.00
16 in.	5216	$1\frac{3}{8}$ in.	$\frac{1}{8}$ in. up to $\frac{7}{8}$ in.	Aster	120.00
18 in.	5218	$1\frac{7}{8}$ in.	$\frac{1}{8}$ in. up to 1 in.	Atoll	160.00

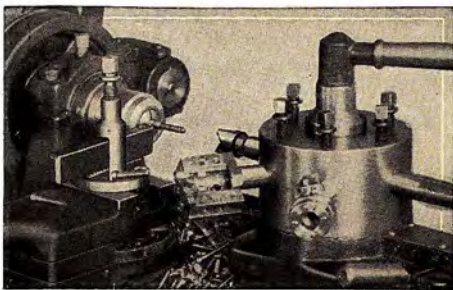
## Application of Draw-in Collet Chuck Attachments



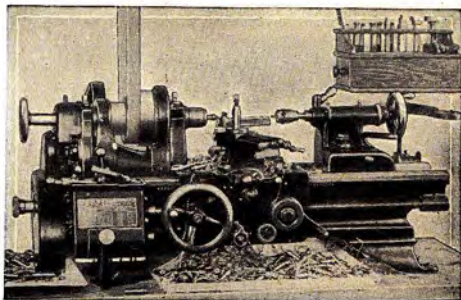
Hand Wheel Draw-in Collet Chuck Attachment on a Tool Making Job Machining Special Pins



Hand Lever Type Draw-in Collet Chuck Forming and Cutting Off Duplicate Parts from Bar Stock



Draw-in Collet Chuck Attachment Used with Turret Attachment for Making Duplicate Parts



9-inch Quick Change Gear Bench Lathe with Hand Wheel Draw-in Collet Chuck Manufacturing Small Screws

# Graduated Taper Attachment for South Bend Lathes

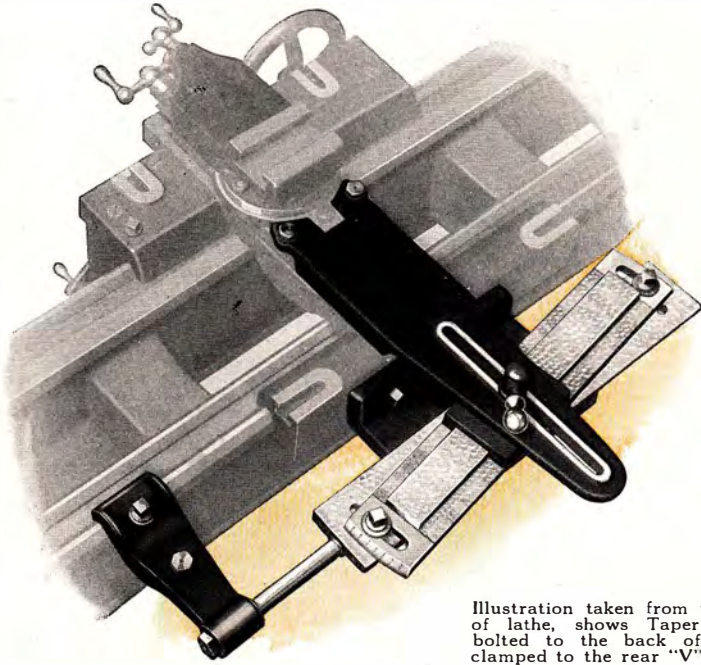


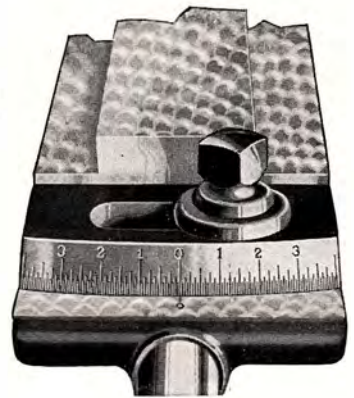
Illustration taken from the rear side of lathe, shows Taper Attachment bolted to the back of Saddle and clamped to the rear "V" way of bed.

## Graduated Taper Attachment Fitted to a 16-inch South Bend Lathe

The Taper Attachment is used for tool room work, manufacturing and production work for turning and boring all classes of taper work. It is especially practical on production work where a large number of duplicate parts are to be taper machined by turning or boring. The attachment may be left on the lathe at all times when doing either taper or straight work. It requires only a couple of minutes to change the taper attachment from straight to taper machining or vice versa. The taper attachment illustrated above on a 16-inch Lathe is the same design used on all size lathes, differing only in dimension.

## Taper Attachment Can Be Operated Entire Length of Bed

The Taper Attachment is bolted to the Lathe carriage and can be set for taper turning or boring at any position along the entire length of the lathe bed. The Taper Attachment does not interfere with straight turning as it does not operate unless the clamp on the back "V" of the bed is locked.



## Close-up of Graduation

On the End Showing Inches per Foot

The Swivel Bar, which controls the Taper, is graduated—one end in inches per foot of taper and the other end in degrees. The attachment can be set for any Taper up to 3 inches per foot.

It is advisable to order the Taper Attachment with the lathe, so that it can be fitted at the factory; although it may be ordered at any time and attached by the customer, as the saddle is machined to receive the Taper Attachment.

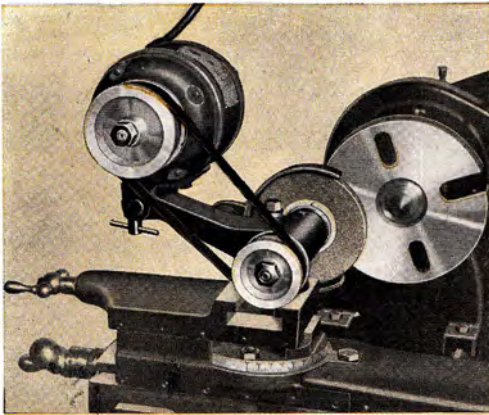
## Net Factory Prices

Size of Lathe	Catalog No.	Length of Taper at One Setting	Maximum Taper Per Foot	Maximum Taper in Degrees	Approximate Shipping Weight	Code Word	Price Taper Attachment
9 in.	209	9 in.	3 in.	14	40 lbs.	Dashe	\$50.00
11 in.	211	9 in.	3 in.	14	50 lbs.	Devor	60.00
13 in.	213	10 in.	3 in.	14	65 lbs.	Digit	75.00
15 in.	215	10 in.	3 in.	14	80 lbs.	Doted	80.00
16 in.	216	12 in.	3 in.	14	100 lbs.	Dress	90.00
18 in.	218	12 in.	3 in.	14	120 lbs.	Dunns	95.00



# No. 15 Electric Grinder for South Bend Lathes

For Grinding Hardened or Tempered Tools and Parts



No. 15 Grinder Mounted on Compound Rest of Lathe

## Practical for a Wide Variety of Grinding Work

An Electric Grinder Attachment makes a valuable addition to the Screw Cutting Lathe in any shop that is not equipped with a modern tool room cutter and reamer grinder. The No. 15 Electric Grinder is practical for grinding straight, taper or spiral reamers, lathe centers, milling cutters, taps, dies, valves, pistons, bushings, etc. If considerable stock is to be removed, use the turning tool of the lathe to reduce the work to within a few thousandths of the finished size. Two or three cuts with the Grinder will then produce a smooth, accurate surface.

## Operates from Electric Light Socket

The No. 15 Electric Grinder operates from an electric light socket. No special installation of electrical service is necessary. Specify electric current when ordering—if DIRECT current give voltage, if ALTERNATING current, give voltage, phase and cycle. The prices below include the No. 15 Electric Grinder as illustrated, with one Alundum Grinding wheel (Grain 46, Grade M), Extension Cord, Switch, and Clamp for mounting to Compound Rest.

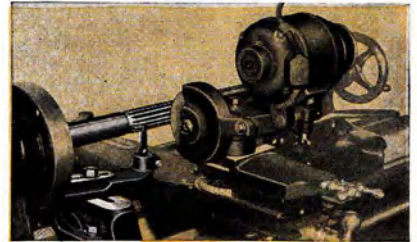
### Net Factory Prices of No. 15 Electric Grinder

Catalog No.	Size of Lathe	Size Grinding Wheel	Outside Diameter Will Grind	Size Motor	Code Word	Price, Each
15-I	9 in.	4" x 1/2"	4 3/4 in.	1/4 H.P.	Caret	\$75.00
15-J	11 in.	4" x 1/2"	7 1/2 in.	1/4 H.P.	Celts	75.00
15-K	13 in.	5" x 1/2"	9 in.	1/3 H.P.	Chums	90.00
15-L	15 in.	5" x 1/2"	10 1/2 in.	1/2 H.P.	Cinch	90.00
15-M	16 in.	5" x 1/2"	11 in.	1/2 H.P.	Clove	90.00
15-N	18 in.	5" x 1/2"	12 1/2 in.	1/2 H.P.	Coals	90.00

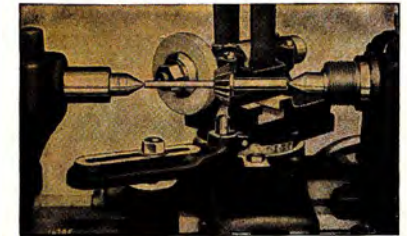
Prices of Special Grinding Wheels will be quoted on application.



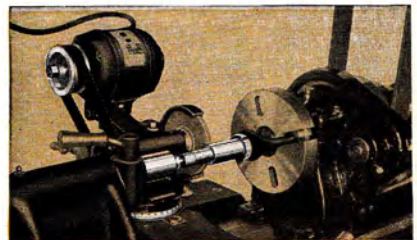
Truing a Hardened Lathe Center



Grinding a Straight Reamer. Spiral and Taper Reamers Can Also Be Ground



Grinding an Angular Cutter



Grinding a Hardened Steel Bushing



Truing a Grinding Wheel

## Adjustable Holding Fixture

The No. 19 Holding Fixture will hold the industrial diamond for truing wheels, and will also hold the cutter stop. A grinding wheel should be trued up frequently so that the cutting surface will run true. The Fixture clamps to the bed of the lathe, so that the carriage has free movement both when truing the grinding wheel and sharpening reamers and cutters.

### Prices of Holding Fixture

Size of Lathe	Cat. No.	Code Word	Price Each
9 in.	19	Querc	\$ 8.00
11 in.	19B	Quarz	9.00
13 in.	19C	Quest	10.00
15 in.	19D	Quick	12.00
16 in.	19E	Quirt	13.00
18 in.	19F	Quota	15.00



## Clamp Diamond Holder

The Clamp Diamond Holder holds the dressing diamond rigidly and can be clamped quickly on to the head or tailstock center or on the work itself for truing the grinding wheel.

1 1/4" Capacity Clamp Holder..\$1.75  
1 1/2" Capacity Clamp Holder. 2.25  
2 1/4" Capacity Clamp Holder. 3.00  
Diamond for above Holders.. 5.00



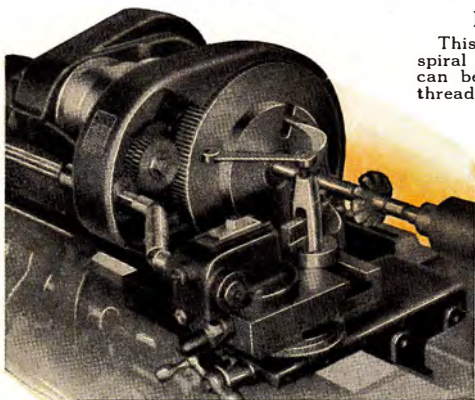
No. 18 Industrial Diamond, Special Metal Mount, 1/3 Carat. Price each (Code word "Quaft").....\$8.00

# Relieving Attachment for New Model South Bend Lathes

For Use on 15", 16" and 18" Lathes, All Types

## Handles Wide Range of Relieving Work

This Attachment does every kind of relieving except spiral and has an unlimited range for angular work. It can be changed quickly from relieving to plain turning, thread cutting, or vice versa.



Relieving a Formed Cutter on the Lathe

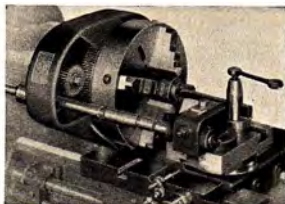
The class of work that can be relieved consists of: Milling cutters, reamers, taps, hobs, etc. This attachment is arranged for internal relieving of threading dies, etc. and has a graduated scale for amount of relief from 0 to  $\frac{3}{8}$  inch. The diameter of work that can be relieved on a 15-inch Lathe is 6 inches—on a 16-inch Lathe, 6 inches—on an 18-inch Lathe, 7 inches. This attachment should be ordered with the lathe so that it can be fitted correctly at the factory.

### Net Factory Prices of Relieving Attachment

Size of Lathe	Relieves Work Diam.	Cat. No.	Code Word	Price, Each
15 in.	6 in.	953	David	\$350.00
16 in.	6 in.	954	Delta	355.00
18 in.	7 in.	955	Diver	400.00



Relieving a Hob



Internal Relieving



Relieving a Right Hand Tap

# Speed Reducing and Indexing Attachment for South Bend Lathes

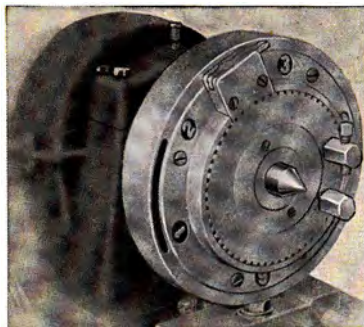
For Relieving, Thread Chasing and Indexing

This attachment provides unusually slow speeds required for relieving operations and precision thread chasing. Designed for mounting on the spindle nose, it is extremely simple to use and is attached or removed about as easily and quickly as an ordinary face plate. Planetary gearing is used to give a 6 to 1 speed reduction from whatever spindle speed is engaged.

Although the attachment was developed primarily for relieving operations it has many other uses such as cutting extremely long leads and for accurate indexing usually necessary with long leads. Leads up to 3 inches can be cut on our Quick Change Gear Lathes without using special change gears. See examples of work at bottom of page.

### Multiple Starts

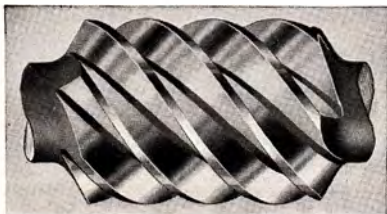
A plate with 60 notches gives every subdivision needed for ordinary work requiring multiple starts. It is possible to cut 1, 2, 3 and 6 starts simply by making use of the 6 to 1 speed reduction. For this purpose, six index numbers are placed on the face of the attachment, and by engaging the lead screw when the proper number is opposite the index mark the above numbers of starts can be obtained without the notches.



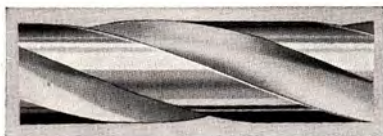
Pratt and Whitney Speed Reducer for Back Geared Lathes

### Complete Information and Prices

The Speed Reducing and Indexing Attachment can be supplied for all sizes and types of South Bend Lathes. Complete information and prices will be furnished on request.



A Large Diameter Multiple Worm Thread, Coarse Lead



A Shaft with 3 Starts or Grooves of 1 Turn in 3 Inches



# Milling and Keyway Cutting Attachment for South Bend Lathes

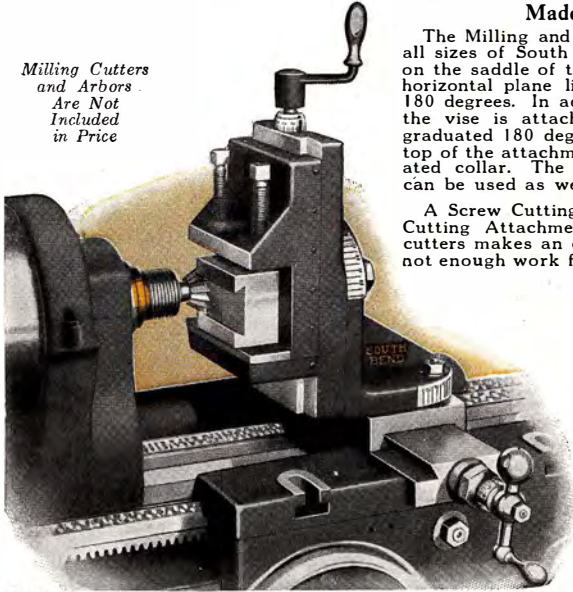
An Ideal Attachment for the Shop Not Equipped with Shaper or Milling Machine

Made for All Sizes of Lathes

The Milling and Keyway Cutting Attachment is made for all sizes of South Bend Lathes from 9 to 18 in. It fits on the saddle of the lathe, swivels all the way around in a horizontal plane like the compound rest and is graduated 180 degrees. In addition, the upright Angle Plate to which the vise is attached swivels in a vertical plane, and is graduated 180 degrees. The vertical adjusting screw at the top of the attachment is equipped with a micrometer graduated collar. The automatic cross and longitudinal feeds can be used as well as the hand feeds.

A Screw Cutting Lathe fitted with a Milling and Keyway Cutting Attachment and using various types of milling cutters makes an excellent tool for the small shop that has not enough work for an expensive milling machine.

Milling Cutters and Arbors Are Not Included in Price



Milling a Dovetail on a South Bend Lathe Equipped with Milling Attachment

## Equipment Included in Price

The Equipment consists of a Milling Attachment, two Standard "V" Blocks for holding round work, one Crank Handle for feed screws, one Double End Wrench, and T-bolts and Nuts for attaching to carriage. The Milling and Keyway Cutting Attachment is designed for use on South Bend Lathes and therefore we can not guarantee that it can be fitted to lathes of other makes.

## Milling Arbors and Cutters

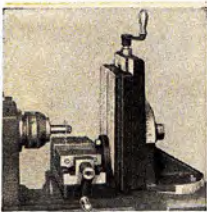
Milling Arbors and Cutters are not included in the price of the Milling and Keyway Cutting Attachment. The Arbor for Side and Plain Milling Cutters is illustrated and priced below. Prices of Milling Cutters furnished on request.

## Net Factory Prices of Milling and Keyway Cutting Attachment

Size of Attachment	Size of Lathe	Vertical Feed	Cross Feed	Vise Will Hold	Depth of Jaws	Width of Jaws	Width of Base	Weight Each	Code Word	Price Each
No. 1	9 in.	3 in.	7 in.	1½ in.	1½ in.	3½ in.	3½ in.	25 lbs.	Vagon	\$40.00
No. 2	11 in.	4 in.	8 in.	1½ in.	1½ in.	3½ in.	3½ in.	30 lbs.	Valet	45.00
No. 3	13 in.	4½ in.	9 in.	2¾ in.	1½ in.	4 in.	5 in.	40 lbs.	Victo	50.00
No. 4	15 in.	6 in.	11 in.	3½ in.	1½ in.	5½ in.	5½ in.	50 lbs.	Visit	65.00
No. 5	16 in.	6 in.	10¾ in.	4 in.	2 in.	5½ in.	5½ in.	65 lbs.	Varen	75.00
No. 5½	18 in.	6½ in.	14 in.	4 in.	2 in.	5½ in.	6½ in.	75 lbs.	Voxar	85.00

## Application of the Milling and Keyway Cutting Attachment

### Horizontal Vise Fixture



Horizontal Vise Fixture

The Milling Attachment at left is fitted with a Vertical Fixture to which is attached a Horizontal Angle Plate and Standard Vise. Prices include Vertical Fixture, Angle Plate and Vise, but not Milling Attachment.

Lathe Size	Cat. No.	Code Word	Net Price
13 in.	1306	Veal	\$46.50
15 in.	1307	Veget	47.50
16 in.	1308	Vekor	50.00
18 in.	1310	Velum	55.00

### Arbor for Side and Plain Milling Cutters

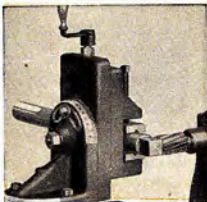


For holding cutters with standard 1-in. hole. Capacity between nut and shoulder is 1½ in. Three spacing collars and hardened nut

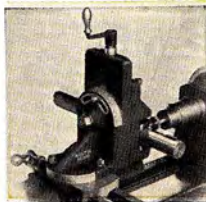
are furnished with each arbor. The Taper Shank is ground to fit the head spindle of the lathe.

### Net Factory Prices of Arbors for Milling Cutters

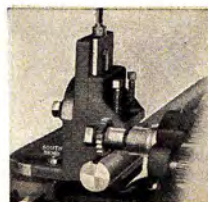
Size Lathe	Cat. No.	Morse Taper	Code Word	Price Each	Size Lathe	Cat. No.	Morse Taper	Code Word	Price Each
9 in.	109	No. 3	Kacel	\$9.00	15 in.	115	No. 3	Kdowl	\$ 9.00
11 in.	111	Special	Kbosh	9.00	16 in.	116	No. 3	Kempy	10.00
13 in.	113	No. 3	Kcite	9.00	18 in.	118	No. 3	Kferd	10.00



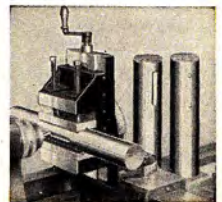
Squaring the End of a Shaft



Milling a Woodruff Keyway



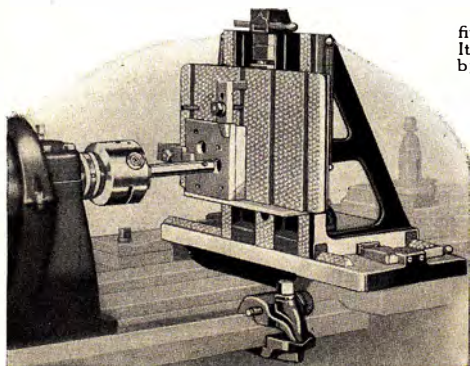
Milling a Standard Keyway



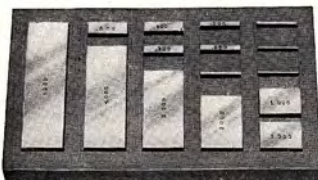
End-milling a Keyway in Shaft

# Jig Boring and Spacing Attachment for South Bend Lathes

For Use in Making Dies, Jigs, Tools, Fixtures, etc.



Boring a Jig Plate in the Jig Boring and Spacing Attachment Mounted on South Bend Lathe



Set of 15 Johansson Gage Blocks Price . . . . . \$118.50

### Gage Blocks

A set of 15 Johansson Gage Blocks, as illustrated, provides for all adjustments from 0 to the extreme limits of machine, without removing blocks while operating.

Cat. No. 268, Code Word, "Johan."

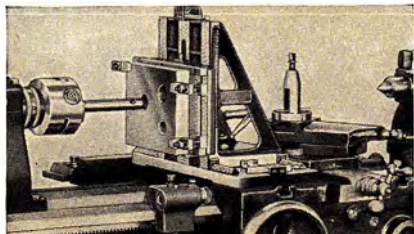
The Craley Jig Boring and Spacing Attachment is fitted to the carriage of the lathe as illustrated at left. It has horizontal and vertical adjustments controlled by gage blocks and by graduated taper wedges having a maximum adjustment of .050 inch, enabling the operator to get the most precise adjustments. This attachment will be found very valuable in making fine precision tools.

### Measuring System Used

The Gage Block Measuring System, such as the Johansson or Hoke, is used with this attachment. These systems are universally acknowledged as being the most accurate, and are the only methods accepted by those desiring absolute accuracy.

Cat. No. 50, Craley Jig Boring and Spacing Attachment for 16-inch South Bend Lathes, Code Word, "Craley." Price, F.O.B. South Bend . . . . . \$225.00\*

\*This Attachment must be fitted to the lathe at the factory. Fitting to Lathe is extra. Prices on application.



Boring Bar Head Is Not Included in Price. Information on Request

# Gear Cutting Attachment for South Bend Lathes

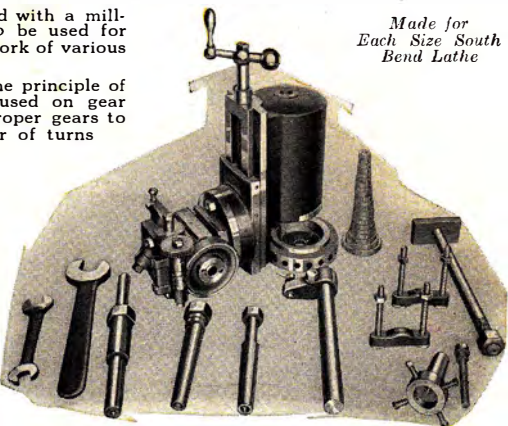
For Cutting Small Gears and for Light Milling Work

The Garrett Millerette Attachment is equipped with a milling machine dividing head which enables it to be used for cutting small gears and for milling small light work of various kinds on the screw cutting lathe.

The dividing head construction is based on the principle of interchangeable gears, the same as regularly used on gear cutting machines. The index plate shows the proper gears to use for division from 2 to 360 and the number of turns required of the index lever.

### Net Factory Prices of Gear Cutting Attachment

Size of Lathe	Cat. No.	Travel of Down Slide	Shipping Weight	Code Word	Price, Complete
9 in.	260	6½ in.	45 lbs.	Hilot	\$160.00
11 in.	261	6½ in.	45 lbs.	Heles	160.00
13 in.	262	6½ in.	45 lbs.	Hamin	160.00
15 in.	263	7½ in.	60 lbs.	Hajim	175.00
16 in.	264	7½ in.	60 lbs.	Helup	175.00
18 in.	265	9 in.	100 lbs.	Hineq	195.00

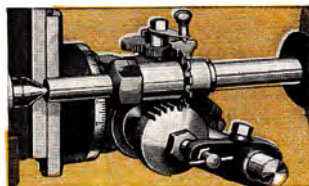


Made for Each Size South Bend Lathe

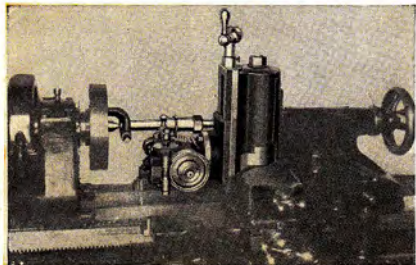
Attachment and the Equipment Included in Price

### Variety of Uses

The Garrett Millerette Attachment for the lathe will cut gears of all kinds—Spur, Bevel and Angle. It will do graduating and milling, external key seating and milling, of all kinds, cutting at angles, splining, slotting and all regular dividing head, milling machine work.



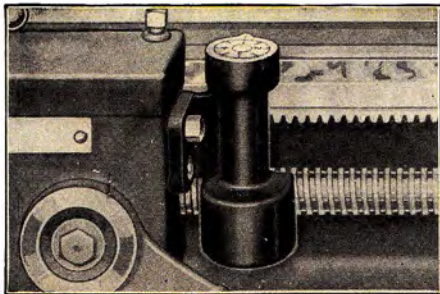
Millerette Cutting a Gear



Attachment Mounted on Compound Rest



## Thread Indicator for New Model South Bend Lathes



Thread Indicator Fitted to the Carriage of the New Model South Bend Lathe

The Thread Indicator eliminates the necessity of reversing the lathe to return the Carriage to the starting point to catch the thread at the beginning of each successive cut.

The Face of the Dial is numbered and graduated to show the exact time to clamp the Half Nuts on the Lead Screw for the next cut. When cutting even threads, the Half Nuts are closed at any graduation on the Dial and for odd threads at any numbered line on the Dial.

For pitches involving  $\frac{1}{2}$  of a thread, such as 11 $\frac{1}{2}$  per inch, the Half Nuts are closed at any odd numbered graduation.

### Net Factory Prices of Thread Indicator

Size of Lathe....	9 in.	11 in.	13 in.	15 in.	16 in.	18 in.
Catalog No.....	809	811	813	815	816	818
Code Word.....	Abaft	Aeres	Advis	Aesop	Afot	Agrol
Price, Each.....	\$8.00	\$8.00	\$10.00	\$10.00	\$12.00	\$12.00

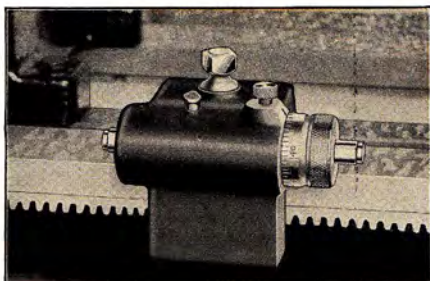
## Micrometer Carriage Stop for New Model South Bend Lathes

The Micrometer Carriage Stop, shown at right, is useful in manufacturing operations and tool room work in accurate facing. It can be used either as a permanent or an adjustable stop. Special means are provided for clamping the Micrometer Carriage Stop to the front "V" of the lathe bed, so that it does not damage the hand-scraped surface.

The Revolving Barrel is Graduated on one end in thousandths of an inch and knurled on the other so that it can be rotated easily. The adjusting bar or stop is hardened on both ends and is provided with a lock so that the bar can be fastened at any point for duplicate work.

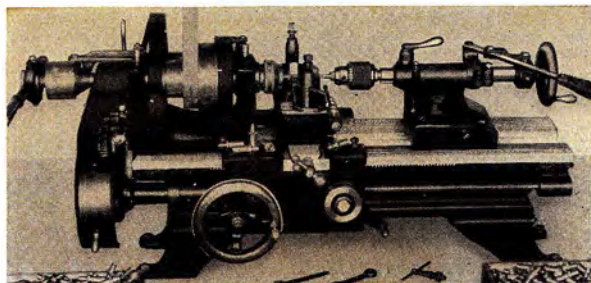
### Net Factory Prices of Micrometer Carriage Stop

Size of Lathe....	9 in.	11 in.	13 in.	15 in.	16 in.	18 in.
Catalog No.....	971	972	973	974	975	976
Code Word.....	Calef	Ceded	Chain	Cigar	Climb	Coral
Price, Each.....	\$10.00	\$12.00	\$13.00	\$14.00	\$15.00	\$17.00



Micrometer Carriage Stop Fitted to Lathe Bed as a Permanent or Adjustable Stop

## Lathe Attachments for Production and Manufacturing



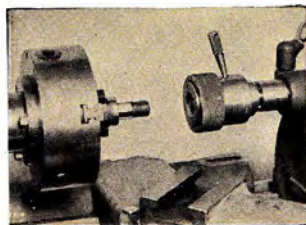
Lathe Equipped with Hand Lever Tailstock

### Hand Lever Tailstock for 9", 11" and 13" Lathes

This is a practical Attachment for quantity centering and drilling. Prices are for Hand Lever Tailstock in lieu of regular tailstock. Attachment must be ordered with lathe. For Draw-in Chuck Attachment and Double Tool Screw Slide see pages 57 and 65.

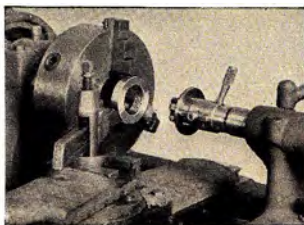
### Prices of Hand Lever Tailstock

Size of Lathe...	9 in.	11 in.	13 in.
Catalog No.....	900	901	902
Code Word.....	Jiden	Jilat	Jebot
Price .....	\$35.00	\$37.00	\$40.00



### Self-Opening Die Head

Threading a Bolt held in a Three Jaw Universal Chuck, using Self-Opening Die Head.



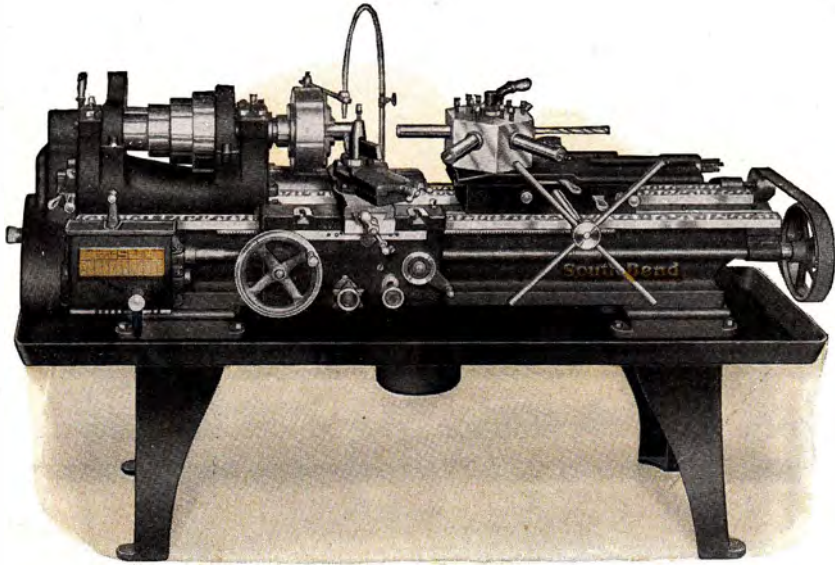
### Collapsible Tap

Cutting an Internal Thread Using a Collapsible Tap fitted in Tailstock of Lathe.



### Multiple Tool Block

Machining Four different Diameters on a Lathe fitted with a Multiple Tool Block.



## The New Model Lathe Equipped for Manufacturing Work

With Chuck, Turnstile Bed Turret, Special Boring Tool, Oil Pan and Pump

New Model South Bend Back Geared Screw Cutting Lathes can be fitted with attachments and used for many manufacturing operations. A lathe thus equipped serves the purpose of a special machine and when the special tools are removed the lathe can be used for regular work. The screw cutting lathe cannot be excelled for accuracy and precision.

The Screw Cutting Lathe equipped for manufacturing will show better production than a special or single purpose machine. When one job is finished the lathe can be set up for other jobs and kept in constant operation while the single purpose machine can do only one kind of a job which makes it an expensive and sometimes unprofitable investment.

### Pressed Steel Oil Pan

The Steel Oil Pan is of heavy one-piece construction which is oil-tight. It extends beyond the ends of the lathe bed so that there is no danger of oil or chips falling to the floor. The

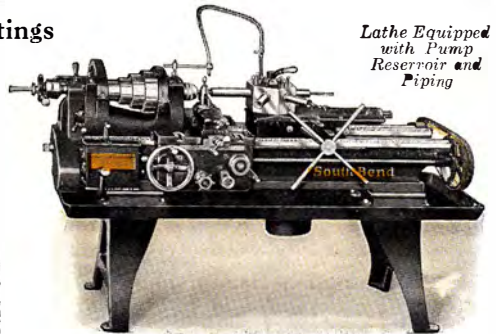
pan requires lathe legs of a special construction and should be ordered with the lathe and fitted at factory. Prices below are for Oil Pan and Special Legs instead of regular legs.

### Net Factory Prices Steel Oil Pan for South Bend Lathes

Size of Lathe	Cat. No.	LENGTH OF BED, IN FEET													
		2½	3	3½	4	4½	5	5½	6	7	8	10	12	14	
9 in.	282	\$19.00	\$20.00	\$21.00	\$22.00	\$23.00									
11 in.	284	.....	23.00	26.00	27.00		\$29.00	\$30.00							
13 in.	286	.....	.....	.....	35.00		38.00		\$41.00	\$44.00	\$47.00				
15 in.	288	.....	.....	.....	.....		45.00		49.00	53.00	57.00	\$65.00			
16 in.	292	.....	.....	.....	.....		.....		50.00	55.00	60.00	70.00	\$80.00		
18 in.	294	.....	.....	.....	.....		.....		55.00	60.00	65.00	75.00	85.00	\$95.00	
Code Words		Obac1	Oasis	Oback	Odiurn	Often	Oherm	Oekoi	Okres	Olean	Omens	Oaleh	Ouchia	Obald	

### Oil Pump, Reservoir and Pipe Fittings

The illustration at right shows a lathe equipped with Oil Pump, Reservoir and Piping. The Nozzle of the Flexible Steel Pipe is attached to a bracket mounted on the carriage of the lathe and travels with the lathe tool. A valve regulates the flow of liquid. The Reservoir is cast iron, and bolts on the steel pan. A sieve above the reservoir strains the liquid and prevents chips from entering. A screw plug in the bottom provides drainage.



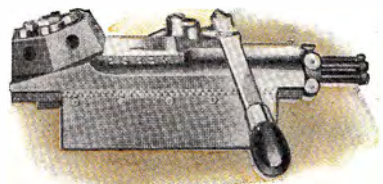
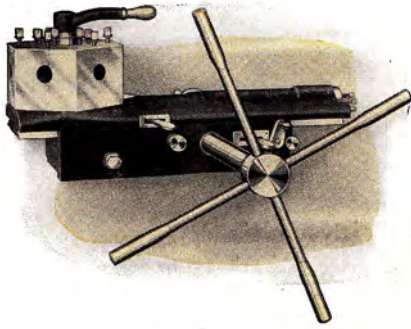
Lathe Equipped with Pump Reservoir and Piping

### Prices—Pump, Reservoir and Fittings Complete

Size of Lathe..	9 in.	11 in.	13 in.	15 in.	16 in.	18 in.
Catalog No. ....	1051	1052	1053	1054	1055	1056
Code Word ....	Habit	Hedge	Heron	Hopes	Huber	Hymen
Price, Complete.	\$35.00	\$35.00	\$40.00	\$40.00	\$45.00	\$45.00



# Turrets and Tool Slides for Manufacturing Work



## Hand Lever Bed Turret

The Semi-Automatic Hand Lever Bed Turret automatically indexes  $1/6$  of a turn by the backward movement of the hand lever. Adjustable stops are provided for each of the six faces of the turret for regulating the depth of each tool. The feed of the turret slide is controlled by the hand lever. Power feed cannot be supplied.

## Semi-Automatic Turnstile Bed Turret

The Turnstile Bed Turret illustrated above is called Semi-Automatic because the turret revolves automatically one-sixth of a turn on the return stroke of each hand revolution of the turnstile. Adjustable stops are provided for each of the six faces of the turret for regulating the depth of each tool operation. The feed of the turret slide is controlled by turning the turnstile by hand. Power Feed to the turret slide is extra. Prices on request.

## Prices of Semi-Automatic Bed Turret

Size of Lathe	Cat. No.	St. Hole	Length, Turret	Max. Turret Feed	Code Words	Price Not Fitted*	Price Fitted*
9 in.	150*	$\frac{5}{8}$ in.	9 $\frac{1}{2}$ in.	$\frac{1}{4}$ in.	Jaber	\$205.00	\$220.00
11 in.	1511	$\frac{3}{4}$ in.	9 $\frac{1}{2}$ in.	$\frac{1}{2}$ in.	Jenks	215.00	230.00
13 in.	1513	$\frac{3}{4}$ in.	9 $\frac{1}{2}$ in.	$\frac{1}{2}$ in.	Jilts	225.00	240.00

\*Price includes special base and fitting to lathe bed. Finish boring of the six holes is \$6.00 extra.

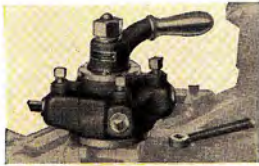
The Six Holes in each Turnstile Bed Turret and Hand Lever Bed Turret are rough drilled, sufficient stock being left for finish boring. Turret Holes should be finish bored in the shop where the turret is to be operated so that the mechanic can bore the turret holes to fit the tools available.

Fitting Either Style Bed Turret to lathe consists of fitting to lathe bed, but not finish boring of holes.

## Net Factory Prices of Turnstile Bed Turrets

Size of Lathe	Cat. No.	Hole Size Finished	Clear Hole to Top	Max. Feed	Code Words	Price Not Fitted	Price Fitted*
15 in.	415	1 in.	1 $\frac{1}{2}$ in.	9 in.	Fight	300.00	310.00
16 in.	416	1 in.	1 $\frac{1}{2}$ in.	9 in.	Flown	305.00	315.00
18 in.	418	1 $\frac{1}{4}$ in.	2 $\frac{1}{2}$ in.	12 in.	Forts	350.00	360.00

\*Price includes fitting to lathe bed only. Finish boring of the six turret holes is \$6.00 extra.



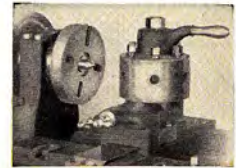
## Four-Cornered Turret

The Four-Cornered Tool Post Turret is clamped to the Compound Rest and carries four cutting tools. Bolt adjustment regulates height of tool. Three or four operations can be performed with one set up.



## Four-Way Tool Post Turret

The Turret is bolted direct to the Compound Rest base. A rocker provides individual adjustment for the height of each cutting tool. Standard tool holders may be used.



## Round Tool Post Turret

This Turret, which clamps to the Compound Rest, has six holes which are swung into position by hand. Turret holes are rough drilled, undersize in diameter.

## Prices of Four-Cornered Turret†

Size of Lathe	Catalog No.	Price Without Bits
13 in.	1530	\$ 50.00
15 in.	1531	50.00
16 in.	1532	53.00
18 in.	1533	53.00

## Prices of Four-Way Tool Post Turret†

Size of Lathe	Catalog No.	Price, Each
13 in.	5230	\$110.00
15 in.	5231	115.00
16 in.	5232	135.00
18 in.	5233	140.00

## Prices of Round Tool Post Turret†

Size of Lathe	Catalog No.	Price, Each
9 in.	9-E	\$65.00
11 in.	11-E	65.00
13 in.	13-E	75.00
15 in.	15-E	90.00
16 in.	16-E	90.00
18 in.	18-E	90.00

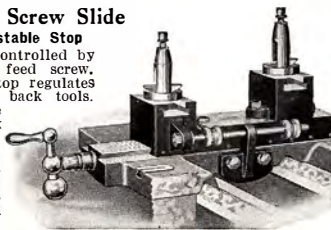
†A charge of \$2.00 is made for fitting turret to Compound Rest.

Finish boring six holes in Round Tool Post Turret \$6.00 extra.

## Double Tool Screw Slide

### With Adjustable Stop

This tool is controlled by the lathe cross feed screw. An adjustable stop regulates both front and back tools. Prices include front and back tool rest, adjustable stop and one tool post complete—the other tool post being furnished with the lathe.



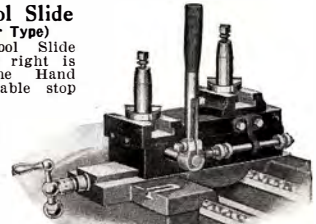
## Net Factory Prices of Double Tool Screw Slide

Size Lathe.	9 in.	11 in.	13 in.	15 in.	16 in.	18 in.
Cat. No. . . .	981	982	983	984	985	986
Code Word.	Dakin	Denis	Divot	Dobin	Drips	Duets
Price. Each	\$35.00	\$40.00	\$45.00	\$50.00	\$55.00	\$60.00

## Double Tool Slide

### (Hand Lever Type)

The Double Tool Slide illustrated at the right is controlled by the Hand Lever. An adjustable stop regulates both front and back tools. Prices include front and back tool rest, adjustable stop and one tool post complete—the other tool post being furnished with the lathe.

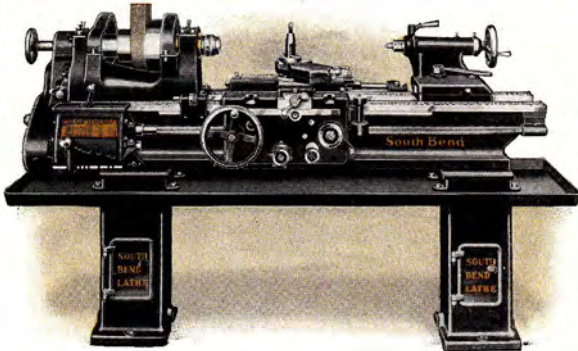


## Net Factory Prices of Double Tool Hand Lever Slide

Size Lathe.	9 in.	11 in.	13 in.	15 in.	16 in.	18 in.
Cat. No. . . .	999-A	999-B	999-C	999-D	999-E	999-F
Code Word.	Dapple	Debit	Diced	Doles	Drain	Dufer
Price. Each	\$60.00	\$65.00	\$75.00	\$80.00	\$85.00	\$90.00

# Cabinet Legs for New Model South Bend Lathes

For all Types of 9-inch to 18-inch Lathes with and without Oil Pan



Oil Pan Lathe Equipped with Two Cabinet Legs

## Cabinet Legs for Lathes

Equipped with Oil Pan

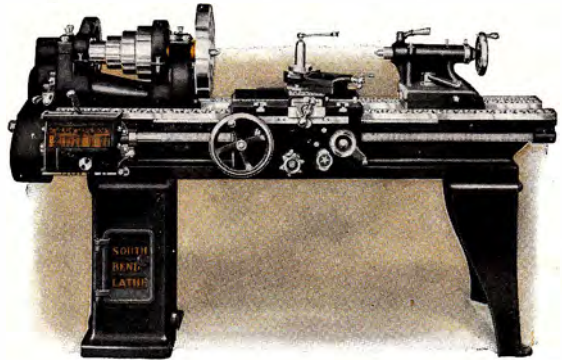
The illustration at the left shows the New Model South Bend Tool Room Lathe with Oil Pan equipped with two Cabinet Legs. For oil pan prices see page 64.

Cabinet Legs for 13-inch Lathes and larger are arranged with supports for shelves on the inside which can be used for storing small tools, attachments, etc.

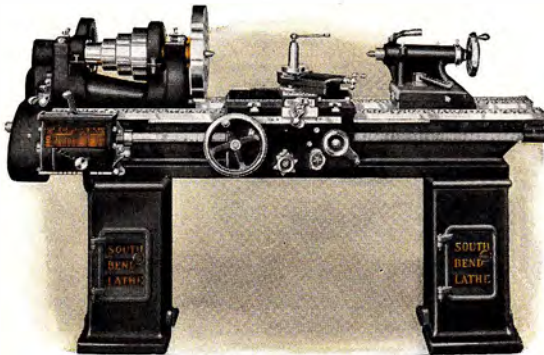
When The Lathe is ordered with Cabinet Legs instead of regular legs there is an extra charge made for the Cabinet Legs, as shown in the tabulation below.

## Lathe Fitted with One Cabinet Leg

Any Size or Type of Floor Leg Lathe, 9-inch to 18-inch, can be equipped with one Cabinet Leg and one Regular Leg as shown in the illustration at the right. The additional cost for the one Cabinet Leg instead of the regular leg is shown in the tabulation below.



Lathe Fitted with One Cabinet Leg



Lathe Fitted with Two Cabinet Legs

## Lathe Fitted with Two Cabinet Legs

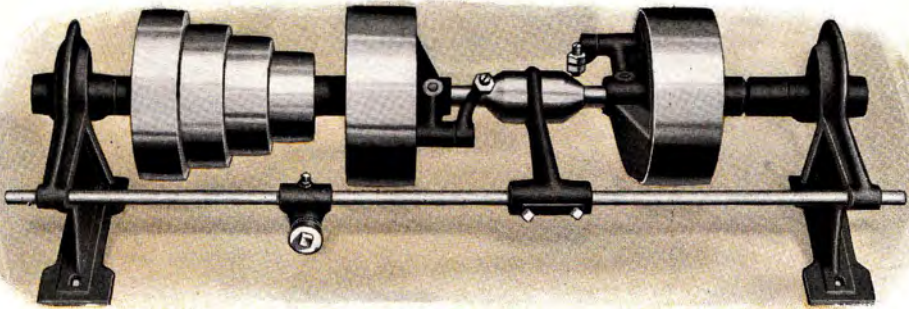
The 16-inch Quick Change Gear Lathe illustrated at left is equipped with two Cabinet Legs instead of regular legs. The additional cost for fitting any size South Bend Lathe with two Cabinet Legs instead of regular legs is shown in the tabulation below.

### Net Factory Prices of Cabinet Legs for Lathes With and Without Oil Pan

Size of Lathe	Cabinet Legs for Lathes with Oil Pan				Cabinet Legs for Lathes Without Oil Pan			
	One Cabinet Leg		Two Cabinet Legs		One Cabinet Leg		Two Cabinet Legs	
	Code Word	Price	Code Word	Price	Code Word	Price	Code Word	Price
9-inch.....	Pabfo	\$10.00	Pacac	\$20.00	Pagan	\$10.00	Padre	\$20.00
11-inch.....	Pabhy	11.00	Pacgo	22.00	Peter	11.00	Pekoe	22.00
13-inch.....	Pabid	13.00	Pacif	26.00	Phile	13.00	Pholk	26.00
15-inch.....	Pabof	15.00	Pacjy	30.00	Pints	15.00	Piles	30.00
16-inch.....	Pabug	16.00	Pacog	32.00	Plead	16.00	Plank	32.00
18-inch.....	Pabyh	18.00	Padah	36.00	Polar	18.00	Podge	36.00

Above prices are additional for Cabinet Legs (when ordered with Lathe) instead of Regular Legs.





## Double Friction Countershaft for South Bend Lathes

Furnished with All Types of Countershaft Driven South Bend Lathes

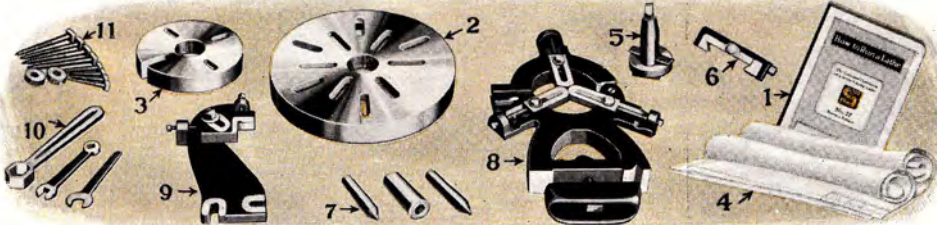
The New Double Friction Countershaft illustrated above is used for driving all New Model South Bend Lathes from the lineshaft. It is practical and powerful with all parts balanced, and can be operated at high speed without vibration.

The Two Friction Drive Pulleys are equipped with Friction Clutches which expand against the rim and are adjustable for any gripping tension desired. One of these pulleys is used for forward drive and the other for reversing the spindle through a cross belt.

The Countershaft Bearings are adjustable and self-aligning. Oil Reservoirs equipped with large felt wicks, distribute oil for lubricating hubs of clutch pulleys and countershaft bearings.

Four-step Cone Pulleys are furnished on countershafts for New Model South Bend Lathes 13-inch to 18-inch, inclusive. Three-step cone pulleys are furnished on countershafts for 9-inch and 11-inch lathes. The shaft on which the cone pulleys are mounted is made of finest quality ground steel shafting.

Two-Speed Countershaft. The Double Friction Countershaft may be arranged as a two-speed countershaft which permits sixteen speeds. This is obtained by attaching a pulley of large diameter on the lineshaft, to drive the friction pulley regularly used for the reverse. This arrangement gives eight higher speeds to the lathe spindle for machining brass, bronze, aluminum, etc.



## Equipment for Countershaft and Motor Drive Lathes

Each part shown in the above equipment is numbered and described below. This equipment is furnished with all Quick Change and Standard Change Gear Lathes, Countershaft and Motor Drive Types. Items 2, 6, 8 and 9 are not included in the equipment of 9-inch Junior Lathes.

1. Instruction Book "How to Run a Lathe."
2. Large Face Plate fitted to Spindle Nose.
3. Small Face Plate fitted to Spindle Nose.
4. Foundation and Erection Plans.
5. Tool Post, Ring and Wedge.
6. Adjustable Thread Cutting Stop.
7. Lathe Centers and Taper Sleeve for Headstock and Tailstock Spindles.
8. Center Rest.
9. Follower Rest.
10. Wrenches for Tailstock, Compound Rest and Tool Post.
11. Lag Screws for fastening the Countershaft to ceiling and Lathe to floor.

### Independent Change Gears For Threads and Feeds on Standard Change Gear Lathes

Independent Change Gears as illustrated below are supplied with all South Bend Standard Change Gear Lathes, in addition to the equipment above. These gears are used for cutting Standard Screw Threads from 2 to 40 per inch, right and left, as indicated by the Index Plate which is attached to each lathe. These gears also provide for the adjustment of the Automatic Cross and Longitudinal Feeds.

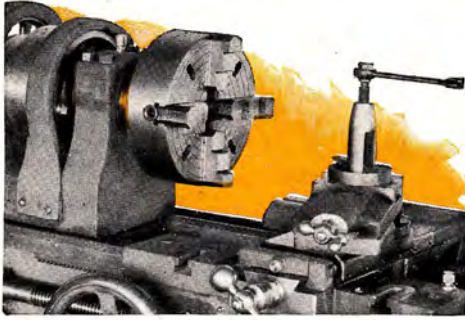


Independent Change Gears

SOUTH BEND TRADE MARK ENGINE DEED LATHES			
THREAD PER INCH	FEEDS	RIGHT	LEFT
2	.72	24	
3	.48	24	
4	.36	32	
6	.24	40	
8	.18	48	
10	.144	64	
12	.12	72	
16	.09	96	
20	.072	120	
24	.06	144	
30	.048	180	
36	.04	216	
40	.036	240	
2	.72		44
3	.48		48
4	.36		56
6	.24		64
8	.18		72
10	.144		80
12	.12		88
16	.09		96
20	.072		104
24	.06		112
30	.048		120
36	.04		128
40	.036		136

Index Plate

# Lathe Chucks for South Bend Lathes



Lathe Equipped with Four-Jaw Chuck

## Independent Lathe Chucks With Four Reversible Jaws (Iron Body)



The Independent Chuck has four independent solid jaws with individual screw adjustment which may be set as required for chucking round or irregular work, either in a concentric or in an eccentric position. The face of Chuck is ground true to a straight edge and is accurately graduated in inches. The jaws are reversible by running out at the edge and turning end for end. All chucks are made with hardened steel bearings for the screws. T-slots are furnished only on chucks 12 inches and larger.

Prices include wrench and four cap screws for fastening chuck back to chuck. Prices do not include chuck back or fitting of chuck to lathe. See page 69.

Net Factory Prices of the Independent Chuck					
Cat. No.	Rated Size of Chuck	Will Hold About	Shipping Weight	Code Word	Price Chuck
2104	4½ in.	6 in.	11 lbs.	Bawle	\$23.00
2106	6 in.	7½ in.	21 lbs.	Beach	28.00
2108	8 in.	9½ in.	35 lbs.	Buzir	32.00
2109	9 in.	11½ in.	42 lbs.	Baito	35.00
2110	10 in.	12½ in.	51 lbs.	Balda	40.00
2112	12 in.	14½ in.	90 lbs.	Baled	48.00
2114	14 in.	16½ in.	117 lbs.	Balks	52.00
2115	15 in.	18 in.	139 lbs.	Balmy	57.00
2116	16 in.	19 in.	147 lbs.	Bandu	62.00
2118	18 in.	21 in.	184 lbs.	Bankr	80.00

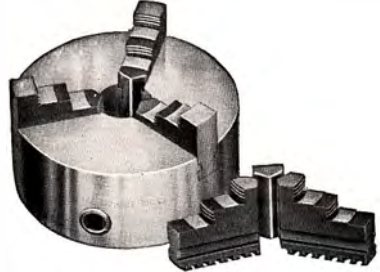
## The Practical Type of Chuck for the Lathe

If the lathe is to have one chuck, it should be an Independent Lathe Chuck with 4 reversible jaws, as this type will hold either round or irregular shaped work. If two chucks are to be fitted to the lathe, then a Universal Geared Scroll Chuck should be used in addition to the Independent 4-jaw reversible type. A Universal Geared Scroll Chuck is self-centering and therefore enables the operator to handle round and hexagonal stock without losing time in truing up the work.

## Information on Ordering Lathe Chucks

In ordering a chuck for the lathe, there are two important points to consider. These are (1) SIZE OF CHUCK best suited to your work and (2) FITTING CHUCK to the Lathe. These points are fully explained below and on page 69.

## Three-Jaw Universal Geared Scroll Chucks With Two Sets of Jaws (Iron Body)



The 3-Jaw Universal Geared Scroll Chuck is intended for holding round and hexagonal work in a concentric position. It is strictly a Universal Chuck, the jaws being moved simultaneously by the scroll threaded plate. This self-centering feature makes it unnecessary to center each piece of work to be chucked. Two sets of jaws are furnished with this type of chuck—the No. 1 or Common Jaws for gripping work on the outside—the No. 2 or Reverse Jaws for holding work internally.

Prices appearing below include wrench, two complete sets of Jaws and cap screws for fastening chuck back to chuck. Prices do not include chuck back or fitting of chuck to Lathe. See page 69.

Net Factory Prices Three-Jaw Universal Chuck					
Cat. No.	Rated Size of Chuck	Will Hold About	Shipping Weight	Code Word	Price Chuck
2403	3 in.	3½ in.	3½ lbs.	Panel	\$ 25.00
2404	4 in.	4½ in.	7½ lbs.	Paras	29.00
2405	5 in.	5 in.	11 lbs.	Parot	31.00
2406	6 in.	6½ in.	20 lbs.	Pasto	35.00
2407	7½ in.	7½ in.	32 lbs.	Patri	41.00
2409	9 in.	9 in.	45 lbs.	Pedal	49.00
2410	10½ in.	10½ in.	64 lbs.	Perag	55.00
2412	12 in.	12 in.	80 lbs.	Pensi	64.00
2415	15 in.	15 in.	143 lbs.	Perse	91.00
2418	18 in.	18 in.	180 lbs.	Perfu	119.00

## The Proper Sizes of Chucks for South Bend Lathes

To assist those who wish to select the proper sizes of chucks for South Bend Lathes we list in the table below the sizes of chucks most practical for general work with each size lathe. We also show the maximum sizes which are the largest possible to use on the lathe.

Size of Lathe	4-Jaw Independent Lathe Chuck		3-Jaw Universal Geared Scroll Chuck		3-Jaw Drill Chuck	
	Recommended	Maximum	Recommended	Maximum	Recommended	Maximum
9 in. lathe.....	6 in.	6 in.	4 in.	6 in.	½ in.	5/8 in.
11 in. lathe.....	6 in.	8 in.	5 in.	7½ in.	½ in.	5/8 in.
13 in. lathe.....	8 in.	10 in.	6 in.	9 in.	¾ in.	¾ in.
15 in. lathe.....	9 in.	12 in.	7½ in.	10½ in.	¾ in.	¾ in.
16 in. lathe.....	10 in.	12 in.	9 in.	10½ in.	1 in.	1 in.
18 in. lathe.....	12 in.	14 in.	10½ in.	12 in.	1 in.	1 in.



## Fitting a Lathe Chuck to the Lathe

In order to mount a lathe chuck on the lathe the chuck must be fitted with a chuck back.

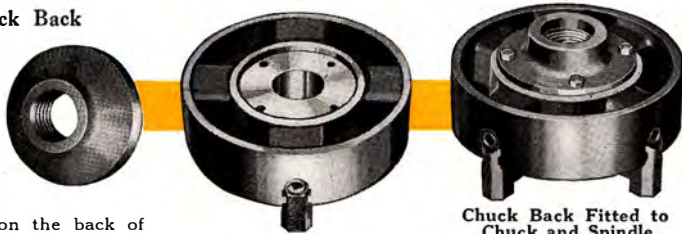
Fitting a chuck to the lathe is a difficult job for the small shop, especially if the mechanic lacks the special equipment of tools needed for the work.

In ordering your lathe we recommend that you order the chuck at the same time so that we can fit the chuck to the lathe here in our factory.

We have special machinery and tools for doing this work and years of experience in fitting chucks so that they will run true.

### Semi-machined Chuck Back

The illustration shows a Semi-machined Cast Iron Chuck Back which has been bored, faced and threaded to fit the spindle nose of the Lathe. Sufficient stock is left on the diameter of the flange so that it can be machined to fit the recess on the back of the chuck.



Rear Side of Chuck

Chuck Back Fitted to Chuck and Spindle Nose of Lathe

### Net Factory Prices of Semi-machined Chuck Backs—Also Fitting Chuck Back to Chuck and Lathe

Sizes of South Bend Lathes.....	9 in.	11 in.	13 in.	15 in.	16 in.	18 in.
Prices of Semi-machined Chuck Back.....	<b>\$4.00</b>	<b>\$4.25</b>	<b>\$4.50</b>	<b>\$4.75</b>	<b>\$5.00</b>	<b>\$5.50</b>
Code Word for Semi-machined Chuck Back	Conat	Cavor	Cekam	Cimer	Clame	Cuban
Fitting Semi-machined Chuck Back to Chuck and to Lathe.....	<b>\$3.00</b>	<b>\$3.25</b>	<b>\$3.50</b>	<b>\$3.75</b>	<b>\$4.00</b>	<b>\$4.50</b>
Total for Semi-machined Chuck Back fitted to Chuck and to Lathe.....	<b>\$7.00</b>	<b>\$7.50</b>	<b>\$8.00</b>	<b>\$8.50</b>	<b>\$9.00</b>	<b>\$10.00</b>
Code Word for Semi-machined Chuck Back fitted to Chuck and to Lathe.....	Efago	Eodar	Ender	Eldon	Eliza	Elsie

## Drill Chucks for South Bend Lathes



### Three-Jaw Drill Chuck

The geared sleeve and key enable this drill chuck to be easily operated with one hand and to assure a powerful grip. Prices include pinion key. Chuck arbor is not included in these prices.

#### Prices Three-Jaw Drill Chuck

Cat. No.	Capacity	Code Word	Price
1200	0 to 3/8 in.	Cleve	<b>\$ 5.00</b>
1201	0 to 1/2 in.	Wauko	<b>8.50</b>
1202	1/4 to 3/4 in.	Falao	<b>14.00</b>
1203	3/8 to 1 in.	Frank	<b>18.50</b>

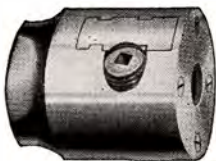


### Hollow Spindle Chuck

This is an ideal chuck for holding small rods and bar work for machining in the lathe. It can also be used for holding all kinds of engine valves, that are not centered, for refacing in the lathe. It is not intended for holding drills.

#### Prices Hollow Spindle Chuck

Cat No.	Capacity	Code Word	Price
1211	1/2 in.	Nedro	<b>\$9.50</b>
1212	3/8 in.	Nolan	<b>9.50</b>



### Two-Jaw Drill Chuck

A strong, simple chuck for straight shank drills, taps, reamers, etc. Jaws are tempered steel and operated by a heavy screw.

#### Prices Two-Jaw Drill Chuck

Cat. No.	Capacity	Code Word	Price
1300	3/8 in.	Oblig	<b>\$ 8.50</b>
1301	1/2 in.	Objec	<b>10.00</b>
1302	3/4 in.	Octav	<b>11.50</b>
1303	1 in.	Optio	<b>15.00</b>

Drill Chuck Prices do not include Spindles or Arbors.

## Finished Arbors, Solid and Hollow, for Drill Chucks



The steel Drill Chuck Arbor is used for fitting the Drill Chuck to the lathe. The short taper fits into socket of Drill Chuck and the long taper fits into the taper of both the headstock spindle and the tailstock spindle of the lathe.

When ordering Drill Chuck Arbor only, state size and make of Drill Chuck, diameter and depth of arbor socket, and size of lathe on which the chuck is to be used.

### Prices Finished Drill Chuck Arbors

Solid Arbor					Hollow Arbor			
Size Lathe	Morse Taper	Cat. No.	Code Word	Price Arbor	Cat. No.	Morse Taper	Code Word	Price Arbor
9 in.		2	709 Abner	<b>\$1.50</b>	1223	3	Hilda	<b>\$3.00</b>
11 in.		2	709 Abner	<b>1.50</b>	1228	Special	Hoval	<b>4.00</b>
13-15 in.		3	713 Adams	<b>2.00</b>	1223	3	Hilda	<b>3.00</b>
16-18 in.		3	716 Agate	<b>2.00</b>	1225	3	Hodge	<b>3.00</b>

The Solid Arbor must be ordered for the Three-Jaw Drill Chuck and Two-Jaw Drill Chuck; and the Hollow Arbor for the Hollow Spindle Drill Chuck as they are not interchangeable. Unless Arbor is ordered with chuck, a semi-finished Arbor fitted to Lathe Spindle only and not machined to fit Drill Chuck, will be furnished.

# Patent Tool Holders for South Bend Lathes

## Straight Shank Turning Tool



**Drop Forged Steel**  
Price includes Wrench and one high speed Steel Cutting Bit.

### Net Factory Prices

Size of Lathe, Inches	Catalog No.	Size of Shank, Inches	Size of Cutter, Inches	Code Word	Price Each
9	849-S	$\frac{1}{2} \times \frac{1}{2}$	$\frac{1}{4} \times \frac{1}{4}$	Azamm	\$2.40
11	851-S	$\frac{3}{8} \times \frac{3}{8}$	$\frac{1}{4} \times \frac{1}{4}$	Aybum	2.55
13, 15	852-S	$\frac{1}{2} \times 1\frac{1}{8}$	$\frac{3}{8} \times \frac{3}{8}$	Axeol	3.00
16, 18	853-S	$\frac{3}{4} \times 1\frac{1}{8}$	$\frac{3}{8} \times \frac{3}{8}$	Awdpk	3.60

## Left-Hand Off-Set Turning Tool



**Drop Forged Steel**  
Price includes Wrench and one high speed Steel Cutting Bit.

### Net Factory Prices

Size of Lathe, Inches	Catalog No.	Size of Shank, Inches	Size of Cutter, Inches	Code Word	Price Each
9	849-L	$\frac{1}{2} \times \frac{1}{2}$	$\frac{1}{4} \times \frac{1}{4}$	Aufri	\$2.40
11	851-L	$\frac{3}{8} \times \frac{3}{8}$	$\frac{1}{4} \times \frac{1}{4}$	Atgsh	2.55
13, 15	852-L	$\frac{1}{2} \times 1\frac{1}{8}$	$\frac{3}{8} \times \frac{3}{8}$	Ashtg	3.00
16, 18	853-L	$\frac{3}{4} \times 1\frac{1}{8}$	$\frac{3}{8} \times \frac{3}{8}$	Arluf	3.60

## Right-Hand Off-Set Turning Tool



**Drop Forged Steel**  
Price includes Wrench and one high speed Steel Cutting Bit.

### Net Factory Prices

Size of Lathe, Inches	Catalog No.	Size of Shank, Inches	Size of Cutter, Inches	Code Word	Price Each
9	849-R	$\frac{1}{2} \times \frac{1}{2}$	$\frac{1}{4} \times \frac{1}{4}$	Apkwd	\$2.40
11	851-R	$\frac{3}{8} \times \frac{3}{8}$	$\frac{1}{4} \times \frac{1}{4}$	Aolxc	2.55
13, 15	852-R	$\frac{1}{2} \times 1\frac{1}{8}$	$\frac{3}{8} \times \frac{3}{8}$	Amnyb	3.00
16, 18	853-R	$\frac{3}{4} \times 1\frac{1}{8}$	$\frac{3}{8} \times \frac{3}{8}$	Amnza	3.60

## Formed Threading Tool

**Drop Forged Steel**



Requires grinding on top only to sharpen. Price includes one Formed Cutter, V. U. S. S., or Whitworth Standard. Sharp V Cutter furnished unless otherwise ordered. Specify number of threads per inch wanted.

### Net Factory Prices

Size of Lathe, Inches	Size Holder, Inches	Tool Complete			Extra Cutters		
		Catalog No.	Code Word	Price Each	Catalog No.	Code Word	Price Each
9	$\frac{3}{8} \times \frac{3}{8}$	865	Afrgt	\$3.75	860	Akpbv	\$2.40
11	$\frac{3}{8} \times \frac{3}{8}$	866	Aeshs	3.75	863	Akqcx	2.40
13, 15	$\frac{1}{2} \times 1\frac{1}{8}$	867	Adtir	4.50	862	Airdw	2.85
16, 18	$\frac{3}{4} \times 1\frac{1}{8}$	868	Acujj	5.75	863	Ahgev	3.75

## Spring Threading Tool



**Drop Forged Steel**  
Price includes Holder with Headless Cam. Lock Nut. finished high speed Steel Cutter and Hardened Wrench.

### Net Factory Prices

Size of Lathe, Inches	Size Holder, Inches	Tool Complete			Extra Cutters		
		Catalog No.	Code Word	Price Each	Catalog No.	Code Word	Price Each
9	$\frac{3}{8} \times \frac{3}{8}$	873	Acfjn	\$3.75	870	Avcgk	\$ .40
13, 15	$\frac{1}{2} \times 1\frac{1}{8}$	874	Adgko	4.50	871	Azdjh	.50
16, 18	$\frac{3}{4} \times 1\frac{1}{8}$	875	Aedqj	5.75	872	Aheim	.65

## High Speed Steel Cutter Bits for Turning Tools



### Ground to Shape

A	B	C	D	E	F
Left Hand Turning Tool	Round Nose Turning Tool	Right Hand Turning Tool	Left Hand Side Tool	Threading Tool	Right Hand Side Tool
"Adhlp"	"Aeimq"	"Afinr"	"Agkos"	"Ahlpt"	"Aimqu"

Code words above indicate shape of the cutting edge.

Code words in table below indicate size of the cutter bit—use both code words when ordering.

The illustrations above show the cutting edge of six high speed steel hardened cutter bits, ground to shape, ready for use. This set of ground cutter bits covers the range of general lathe work, however, if other shapes of cutting edges are wanted the user may grind these bits as desired to suit the work that he has in hand. In using ground cutter bits it would be well for the operator to dress the cutting edge down with an oil stone. This increases the life of the cutting edge of the tool.

### Net Factory Prices

Cat. No.	Size, Square Inches	Length Cutter, Inches	Approx. Wt. per Dozen, Pounds	Single Bits		Set of Six Bits	
				Code Word	Price Each	Code Word	Price
1304	$\frac{1}{4}$	2	$\frac{1}{4}$	Athen	\$ .20	Asund	\$1.50
1311	$\frac{1}{4}$	2 1/2	$\frac{3}{8}$	Akosw	.30	Attcb	1.80
1313	$\frac{3}{8}$	2 1/2	1 1/4	Alptx	.45	Aquc	2.70
1316	$\frac{3}{8}$	3	1 3/4	Amquy	.65	Arvzd	3.90
1321	$\frac{3}{8}$	3 1/2	2 3/4	Anrvz	1.00	Aswae	6.00

## High Speed Steel Cutter Bits



Cutter Bit not ground to shape.

The above illustration shows the hardened high speed steel cutter bit before the cutting edge is ground to shape. The operator can grind the cutter bits to shape to suit his work. These cutter bits are supplied in the various dimensions to fit the different size of tool holders for various size lathes. These high speed steel cutter bits are of the finest quality high speed steel and will give excellent service.

### Net Factory Prices

Catalog No.	Size, Square Inches	Length Cutter, Inches	Wt. per Dozen, Pounds	Code Word	Price Each
1419	$\frac{1}{4}$	2	$\frac{1}{4}$	Atroc	\$ .15
1421	$\frac{1}{4}$	2 1/2	$\frac{3}{8}$	Auyeg	.20
1422	$\frac{3}{8}$	2 1/2	1 1/4	Avzdh	.35
1423	$\frac{3}{8}$	3	1 3/4	Awai	.55
1424	$\frac{3}{8}$	3 1/2	2 3/4	Axbfj	.90

## Spring Cutting-Off Tool

**Drop Forged Steel**



Price includes Wrench and one High Speed Steel Cutter Blade. Straight Cutting-off Tools can be furnished at same prices.

### Net Factory Prices

Size of Lathe, Inches	Size of Shank, Inches	Size of Cutter, Inches	Extra Cutter Blades			Tool Complete		
			Cat. No.	Code Word	Price Each	Cat. No.	Code Word	Price Each
9-11	$\frac{3}{8} \times \frac{3}{8}$	$\frac{3}{8} \times \frac{5}{8}$	877-S	Acard	\$ .60	841	Cader	\$4.00
13-15	$\frac{1}{2} \times 1\frac{1}{8}$	$\frac{1}{2} \times \frac{3}{4}$	878-S	Adelt	.80	842	Camel	4.75
16-18	$\frac{3}{4} \times 1\frac{1}{8}$	$\frac{1}{2} \times \frac{3}{4}$	879-S	Aerop	1.15	843	Candl	5.90



# Patent Tool Holders for South Bend Lathes

## Right-Hand Cutting-Off Tool Drop Forged Steel



Price includes Wrench and one High Speed Steel Cutter Blade.

Net Factory Prices

Size of Lathe, Inches	Size of Shank, Inches	Size of Cutter, Inches	Tool Complete			Extra Cutter Blades		
			Cat. No.	Code Word	Price Each	Cat. No.	Code Word	Price Each
9	$\frac{3}{8} \times \frac{3}{4}$	$\frac{3}{8} \times \frac{1}{2}$	S81-R	Cheld	\$2.60	876-R	Cabag	\$.55
11	$\frac{3}{8} \times \frac{7}{8}$	$\frac{3}{8} \times \frac{5}{8}$	S82-R	Chom	2.75	877-R	Cbent	.60
13, 15	$\frac{1}{2} \times 1\frac{1}{8}$	$\frac{3}{8} \times \frac{3}{4}$	S83-R	Clain	3.25	878-R	Cdart	.80
16, 18	$\frac{1}{2} \times 1\frac{1}{2}$	$\frac{3}{8} \times \frac{7}{8}$	S84-R	Cmolt	4.00	879-R	Ceatn	1.15

## Left-Hand Cutting-Off Tool



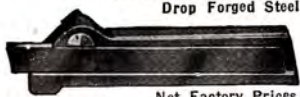
Drop Forged Steel

Price includes Wrench and one High Speed Steel Cutter Blade.

Net Factory Prices

Size of Lathe, Inches	Size of Shank, Inches	Size of Cutter, Inches	Tool Complete			Extra Cutter Blades		
			Cat. No.	Code Word	Price Each	Cat. No.	Code Word	Price Each
9	$\frac{3}{8} \times \frac{3}{4}$	$\frac{3}{8} \times \frac{1}{2}$	S81-L	Amary	\$2.60	876-L	Aleot	\$.55
11	$\frac{3}{8} \times \frac{7}{8}$	$\frac{3}{8} \times \frac{5}{8}$	S82-L	Aenim	2.75	877-L	Alern	.60
13, 15	$\frac{1}{2} \times 1\frac{1}{8}$	$\frac{3}{8} \times \frac{3}{4}$	S83-L	Alrok	3.25	878-L	Arote	.80
16, 18	$\frac{1}{2} \times 1\frac{1}{2}$	$\frac{3}{8} \times \frac{7}{8}$	S84-L	Allego	4.00	879-L	Amenx	1.15

## Straight Cutting-Off Tool



Price includes Wrench and one High Speed Steel Cutter Blade.

Net Factory Prices

Size of Lathe, Inches	Size of Shank, Inches	Size of Cutter, Inches	Tool Complete			Extra Cutter Blades		
			Cat. No.	Code Word	Price Each	Cat. No.	Code Word	Price Each
9	$\frac{3}{8} \times \frac{3}{4}$	$\frac{3}{8} \times \frac{1}{2}$	881-S	Agone	\$2.60	876-S	Abser	\$.55
11	$\frac{3}{8} \times \frac{7}{8}$	$\frac{3}{8} \times \frac{5}{8}$	882-S	Ahern	2.75	877-S	Acard	.60
13, 15	$\frac{1}{2} \times 1\frac{1}{8}$	$\frac{3}{8} \times \frac{3}{4}$	883-S	Alame	3.25	878-S	Adelt	.80
16, 18	$\frac{1}{2} \times 1\frac{1}{2}$	$\frac{3}{8} \times \frac{7}{8}$	884-S	Akilt	4.00	879-S	Aerop	1.15

## Knurling Tool

Drop Forged Steel

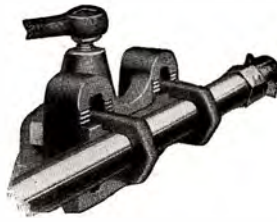


Price includes Holder and one set of Knurls. Knurls can be furnished coarse, medium, and fine, in either Straight Line or Diamond pattern. Medium Diamond Knurls will be furnished unless otherwise specified.

Net Factory Prices

Size of Lathe, Inches	Size of Shank, Inches	Dime stones of Knurls, Inches			Tool Complete			Extra Knurls		
		Dia.	Face	Hole	Cat. No.	Code Word	Price Each	Cat. No.	Code Word	Price Pair
9	$\frac{3}{8} \times \frac{3}{4}$	$\frac{3}{8}$	$\frac{7}{8}$	$\frac{1}{4}$	891	Dgelt	\$5.10	886	Dacos	\$.90
11	$\frac{3}{8} \times \frac{7}{8}$	$\frac{3}{8}$	$\frac{7}{8}$	$\frac{1}{4}$	892	Dhago	5.50	887	Dbord	.90
13, 15	$\frac{1}{2} \times 1\frac{1}{8}$	$\frac{3}{8}$	$\frac{7}{8}$	$\frac{1}{4}$	893	Dilge	6.00	888	Deram	1.00
16, 18	$\frac{1}{2} \times 1\frac{1}{2}$	$\frac{3}{8}$	$\frac{7}{8}$	$\frac{1}{4}$	894	Djoma	7.25	889	Demon	1.00

## Style "A" Boring Tool For Heavy Duty



Fits regular tool post by removing tool post ring and wedge only. Cutter bit is adjustable and may be set either straight or at a 45-degree angle.

Price includes Holder, Boring Bar, Wrench and one High Speed Steel Cutter Bit.

Net Factory Prices

Size of Lathe, Inches	Size of Shank, Inches	Size of Bar, Inches	Size of Cutter, Inches	Tool Complete			Extra Cutter Bits		
				Cat. No.	Code Word	Price Each	Cat. No.	Code Word	Price Each
13, 15	$\frac{1}{2} \times 1\frac{1}{8}$	$\frac{7}{8} \times 1\frac{1}{4}$	$\frac{3}{8}$	426	Faber	\$ 6.50	451	Faded	\$.35
16, 18	$\frac{1}{2} \times 1\frac{1}{2}$	$1\frac{1}{8} \times 1\frac{1}{2}$	$\frac{3}{8}$	427	Feast	8.50	452	Fedar	.55

## Style "B" Boring Tool

For Medium Work



Made of Drop Forged Steel. Cutting tool can be set either straight or at a 45-degree angle. Price includes Holder, Bar, one End Cap, two Cutters, and two Wrenches.

Net Factory Prices

Size of Lathe, Inches	Holder Size, Inches	Size of Square, Inches	Stand-ard Bar Size, Inches	Tool Complete			Extra Cutter Bits		
				Cat. No.	Code Word	Price Each	Cat. No.	Code Word	Price Each
9	$\frac{3}{8} \times \frac{3}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	429	Habor	\$4.40	454	Hadic	\$.15
11	$\frac{3}{8} \times \frac{7}{8}$	$\frac{3}{8}$	$\frac{1}{2}$	430	Hbaet	4.40	455	Hboya	.15
13, 15	$\frac{1}{2} \times 1\frac{1}{8}$	$\frac{1}{2}$	$\frac{3}{8}$	431	Hcoil	5.25	456	Hcino	.20
16, 18	$\frac{1}{2} \times 1\frac{1}{2}$	$\frac{3}{8}$	$\frac{3}{8}$	432	Hdeal	6.90	457	Hdazt	.35

## Style "C" Boring Tool

For Small Work



Made of Drop Forged Steel. Holder is reversible and can be used for right or left-hand work.

Price includes Holder, Wrench, two Boring Bars and one High Speed Cutter Bit.

Net Factory Prices

Size of Lathe, Inches	Size of Shank, Inches	Diameter of Bars Furnished, Inches	Size of Square Cutter, Inches	Tool Complete			Extra Cutter Bits		
				Cat. No.	Code Word	Price Each	Cat. No.	Code Word	Price Each
11	$\frac{3}{8} \times \frac{3}{4}$	$\frac{1}{2}$ and $\frac{1}{4}$	$\frac{3}{8}$	434	Ibero	\$3.75	459	Ibcol	\$.20
13, 15	$\frac{1}{2} \times 1\frac{1}{8}$	$\frac{1}{2}$ and $\frac{3}{8}$	$\frac{3}{8}$	435	Icole	4.75	460	Ihorm	.35
16, 18	$\frac{1}{2} \times 1\frac{1}{2}$	$\frac{1}{2}$ and $\frac{3}{8}$	$\frac{3}{8}$	436	Iadvy	6.10	461	Iidrat	.55

## Hand Forged Lathe Tools—Carbon and High Speed Steel

Properly forged to shape, tempered and ground. Ready for use. If ordering less than one complete set, be sure to state both the tool number and set number.

Net Factory Prices



1. Left-Hand Side Tool
2. Right-Hand Side Tool
3. Right-Hand Bent Tool
4. Right-Hand Diamond Point
5. Left-Hand Diamond Point
6. Round Nose Tool
7. Cutting-Off Tool
8. Threading Tool
9. Bent Threading Tool
10. Roughing Tool
11. Boring Tool
12. Inside Threading Tool

Size of Lathe, Inches	Size of Shank, Inches	Carbon Steel				High Speed Steel			
		Cat. No.	Price Each	Set of 12		Cat. No.	Price Each	Set of 12	
				Code Word	Price			Code Word	Price
9	$\frac{3}{8} \times \frac{5}{8}$	438-C	\$.60	Jaelo	\$ 7.00	438-HS	\$ 2.00	Jgher	\$ 20.00
11	$\frac{3}{8} \times \frac{3}{4}$	439-C	.70	Jbaux	8.00	439-HS	2.80	Jhrix	32.00
13	$\frac{1}{2} \times 1$	440-C	1.20	Jeen	14.00	440-HS	4.20	Jpupv	50.00
15	$\frac{5}{8} \times 1$	443-C	1.60	Jdolv	19.00	443-HS	5.85	Jkcep	70.00
16, 18	$\frac{5}{8} \times 1\frac{1}{2}$	441-C	2.00	Jerov	23.00	441-HS	7.20	Jieap	85.00

# Lathe Dogs and Tools for South Bend Lathes

## Standard Lathe Dogs



We furnish Lathe Dogs in two types, Standard and Safety. They are made of heavy malleable iron and are properly designed for strength and service. The Standard Lathe Dog has hardened steel set screw. The Safety Dog has

headless set screw, and is furnished with wrench.

### Net Factory Prices Standard and Safety Lathe Dogs

Capacity of Lathe Dog	STANDARD LATHE DOGS			SAFETY LATHE DOGS		
	Catalog No.	Code Word	Price Each	Catalog No.	Code Word	Price Each
3/8 in.	1-M	Xced	\$0.50	1-MH	Xzml	\$0.60
1/2 in.	2-M	Xcfe	.60	2-MH	Xanpm	.70
3/4 in.	4-M	Xdegf	.70	4-MH	Xcoqn	.85
1 in.	6-M	Xefhg	.80	6-MH	Xdpro	1.00
1 1/4 in.	8-M	Xfgh	.90	8-MH	Xeasp	1.10
1 3/4 in.	10-M	Xghij	1.05	10-MH	Xfrtq	1.25
2 in.	11-M	Xhikj	1.15	11-MH	Xgsur	1.40
2 1/2 in.	12-M	Xilkl	1.30	12-MH	Xhtvs	1.55
3 in.	14-M	Xijkl	1.50	14-MH	Xluwt	1.85
3 1/2 in.	15-M	Xlmno	1.65	15-MH	Xjvux	2.10
4 in.	16-M	Xlmno	1.85	16-MH	Xkwyv	2.25
	17-M	Xmnpd	2.15	17-MH	Xlxzw	2.60



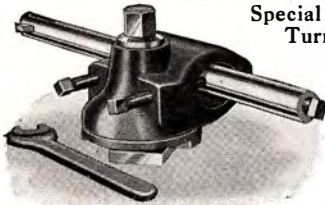
## Clamp Lathe Dogs

Made of heavy drop forged steel, carefully machined and hardened. Very practical for holding rectangular work. Each dog is boxed separately.

### Net Factory Prices

Catalog No.	Capacity Between Screws	Clamp Dog		Extra Sorews	
		Code Word	Price Each	Code Word	Price Each
160	1 1/2 in.	Xxspi	\$3.00	Xotle	\$0.20
161	2 1/4 in.	Xtyqj	4.00	Xpumf	.30
162	2 3/4 in.	Xuzrik	5.00	Xvng	.40
163	3 1/2 in.	Xvasi	7.00	Xrwih	.60

## Special Boring and Turning Tool



The special boring and turning tool is practical for turning brake drums of automobiles, buses and trucks. It is designed for turning large diameters and for heavy duty boring. Price includes holder, boring bar, wrench and one high speed cutter bit.

### Net Factory Prices

Size of Lathe	Diameter of Bar	Size of Cutter Bits	Tool Complete			Extra Cutter Bits		
			Cat. No.	Code Word	Price Each	Cat. No.	Code Word	Price Each
9"	3/4"	3/8"	469	Haxez	\$12.00	474	Hifer	\$0.25
11"	1 1/4"	3/8"	470	Hamed	14.00	475	Hilton	.65
13"	1 3/4"	3/8"	471	Hares	18.00	476	Hotey	1.00
15"	1 3/4"	3/8"	472	Hezok	22.00	477	Horor	1.10
16-18"	1 3/4"	3/8"	473	Hehoz	23.00	478	Huzeb	1.10
*No. 2	1 1/2"	3/8"	464-A	Hvrad	23.00	479	Huxit	1.60
*No. 3	1 3/4"	3/8"	465-A	Hindu	29.00	480	Huluz	2.20

\*No. 2 for 36" Brake Drum Lathe; No. 3 for 42" Lathe.

## Morse Taper Sleeve



Made of steel and machined to Morse Standard Taper Gauges. Used in fitting small tapers to large sockets and vice versa.

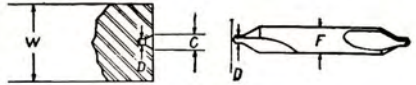
### Net Factory Prices

Cat. No.	Size Morse Taper	Taper of Bore	Outside Taper	Code Word	Price Each
118-A	No. 1 to 2	No. 1 Morse	No. 2 Morse	Corse	\$0.90
118-B	No. 1 to 3	No. 1 Morse	No. 3 Morse	Cesor	1.20
118-C	No. 1 to 4	No. 1 Morse	No. 4 Morse	Calun	1.50
118-D	No. 2 to 3	No. 2 Morse	No. 3 Morse	Clank	1.20
118-E	No. 2 to 4	No. 2 Morse	No. 4 Morse	Corap	1.50
118-F	No. 3 to 4	No. 3 Morse	No. 4 Morse	Carke	1.50

## Combination Center Drill and Countersink



For drilling center hole and countersinking 60 degree angle for lathe center. Made of carbon tool steel, hardened and ground. Table shows correct size center drill for various sizes of work.



### Net Factory Prices

Cat. No.	Diam. of Work "W"	Diam. of Countersink "C"	Diam. of Drill "D"	Body of Drill "F"	Code Word Each	Price Each	Code Word per Doz.	Price per Doz.
898-A	3/8" to 3/4"	1/8 in.	3/8 in.	3/8 in.	Xmqbl	\$0.25	Xqpa	\$2.25
898-B	3/8" to 1"	3/8 in.	3/8 in.	3/8 in.	Xnrjc	.30	Xrqg	2.75
898-C	1 1/4" to 2"	1/2 in.	1/2 in.	1/2 in.	Xoskd	.40	Xsrhc	2.75
898-D	2 1/4" to 4"	3/4 in.	3/4 in.	3/4 in.	Xpez	.40	Xtsid	3.50

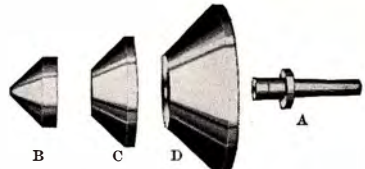
## Center Gauge, No. 650



For testing the angle of 60 degree lathe centers. Also used in setting threading tools for cutting 60 degree "V" or U. S. Standard screw threads.

No. 650, Center gauge for testing 60 degree Lathe Centers. Net Factory price, each.....\$0.50 Code word Xutie.

## Pipe Centers for Lathes



For machining pipes in the lathe. Taper Shank "A" fits within the head or taper spindle of the lathe. The Conical Dies "B", "C" and "D" revolve on the short shoulder of Taper Shank "A". Prices of larger dies on request.

### Net Factory Prices

ITEM	Catalog No.	Code Word	Price Each
Taper Shank "A" for 9", 11" lathes	910-B	Xwbtm	\$ 3.00
Taper Shank "A" for 13", 15" lathes	910-C	Xacun	4.00
Taper Shank "A" for 18", 18" lathes	910-E	Xydlv	4.50
Disc "B" takes from 1/2" to 3" pipe	911-B	Xafxq	6.00
Disc "C" takes from 1" to 8" pipe	912-C	Xgyr	9.00
Disc "D" takes from 5" to 8" pipe	913-D	Xdhzs	15.00

## Gear Holding Bracket



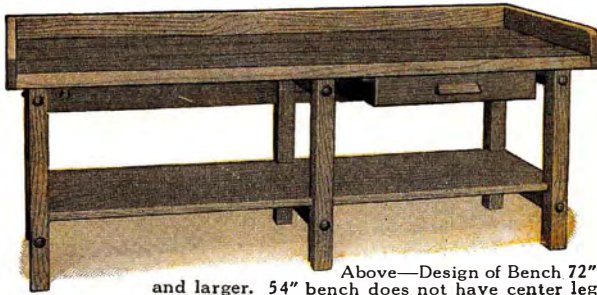
This bracket is practical for holding the loose, independent change gears furnished with Standard Change Gear Lathes, floor leg type. The bracket is made of cast iron and fits over the cross bar between the legs under the headstock or tallstock. Made for floor leg lathes of all sizes.

### Net Factory Prices

Size Lathe	9 in.	11 in.	13 in.	15 in.	16 in.	18 in.
Cat. No.	244	245	246	247	248	249
Code Word	Hullit	Hildun	Hoten	Hadey	Helad	Hifox
Price Each	\$3.00	\$3.50	\$3.50	\$5.00	\$5.00	\$5.00



## Hard Maple Bench with Drawer



Above—Design of Bench 72" and larger. 54" bench does not have center leg

### 60 Degree Head Spindle Lathe Center



Made of tool steel, accurately ground all over. For use in headstock spindle of the lathe. Not hardened.

#### Net Factory Prices

Size of Lathe	9 in.	11 in.	13 in.	15 in.	16 in.	18 in.
Cat. No. ....	725A	725B	725C	725D	725E	725F
Code Word...	Abest	Aetor	Aders	Aegan	Afre	Agoem
Price.....	\$2.00	\$2.25	\$2.75	\$2.75	\$2.75	\$2.75

### 60 Degree Tail Spindle Lathe Center



Made of tool steel, hardened and ground all over. For use in tailstock spindle of the lathe.

#### Net Factory Prices

Size of Lathe	9 in.	11 in.	13 in.	15 in.	16 in.	18 in.
Cat. No. ....	726A	726B	726C	726D	726E	726F
Code Word...	Caten	Cella	Cheat	Clena	Cfase	Cotin
Price.....	\$2.25	\$2.50	\$3.00	\$3.00	\$3.00	\$3.00



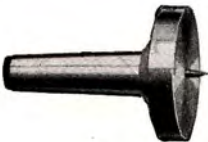
### Spur Center

Size Lathe	Cat. No.	Code Word	Net Price
9 in.	732A	Ibeck	\$3.00
11 in.	732B	Icous	3.00
13 in.	732C	Idols	4.00
15 in.	732D	Iguan	4.00
16 in.	732E	Ilong	4.00
18 in.	732F	Ikart	4.00



### Cup Center

Size Lathe	Cat. No.	Code Word	Net Price
9 in.	733A	Jacks	\$3.00
11 in.	733B	Jealt	3.00
13 in.	733C	Jiped	4.00
15 in.	733D	Jober	4.00
16 in.	733E	Juvin	4.00
18 in.	733F	Jvale	4.00



### Screw Center

Size Lathe	Cat. No.	Code Word	Net Price
9 in.	731A	Kabar	\$3.50
11 in.	731B	Kelso	3.50
13 in.	731C	Kinty	4.00
15 in.	731D	Klink	4.00
16 in.	731E	Koden	4.00
18 in.	731F	Kring	4.00



### Crotch Center

Size Lathe	Cat. No.	Code Word	Net Price
9 in.	728A	Faint	\$3.00
11 in.	728B	Fever	3.00
13 in.	728C	Fiats	4.00
15 in.	728D	Flota	4.00
16 in.	728E	Found	4.00
18 in.	728F	Frail	4.00



### Drill Pad

Size Lathe	Cat. No.	Code Word	Net Price
9 in.	727A	Dabed	\$3.00
11 in.	727B	Dears	3.00
13 in.	727C	Dingy	4.00
15 in.	727D	Dopet	4.00
16 in.	727E	Drunk	4.00
18 in.	727F	Dumbe	4.00

This bench may be used with all types of 9-inch and 11-inch bench lathes.

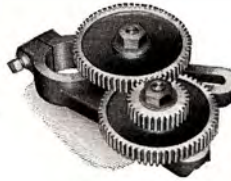
The bench illustrated is made of fine quality hard maple. Benches are shipped knocked down to save freight charges. Bolts are furnished for assembling bench. If you wish to make your own bench, we will supply the blue prints of detail drawings of benches.

#### Specifications and Prices of Benches

Length Bench Top	Width Bench Top	Length of Lathe Bed, Feet	Code Word	Cat. No.	Price
54 in.	32 in.	2½ to 3½	Cakes	128-X	\$45.00
72 in.	32 in.	4 to 5	Cedar	128-A	50.00
60 in.	40 in.	2½ to 4	Cheek	128-H	55.00
72 in.	40 in.	4½ to 5	Cords	128-J	60.00
86 in.	40 in.	5½	Color	128-G	80.00

\*Benches with top 40 inches wide required for 11-inch Self-Contained Motor Driven Lathe.

## Extra Equipment for 9-inch Junior Lathes



### Double Gear Bracket for 9-inch Lathes

With the double bracket it is possible to cut a greater variety of finer pitch threads than can be cut with the regular bracket furnished with the 9-inch Lathes.

No. 1050, Code Word "Fames," Price .....\$15.00



The Large Face Plate is threaded and fitted to the spindle nose of the lathe.

No. 40 Large Face Plate, Code Word, "Cryed," Price .....\$10.00

Center Rest supports long, slender work while being machined.

No. 125 Center Rest, Code Word, "Clift," Price...\$10.00



No. 130

Follower Rest travels with the cutting tool, and supports long, slender work, while being machined.

No. 130 Follower Rest, Code Word, "Cuive," Price .....\$6.00

Adjustable Thread Cutting Stop is used for regulating depth of chip in thread cutting.

No. 67 Threading Stop, Code Word, "Cobra," Price .....\$2.50

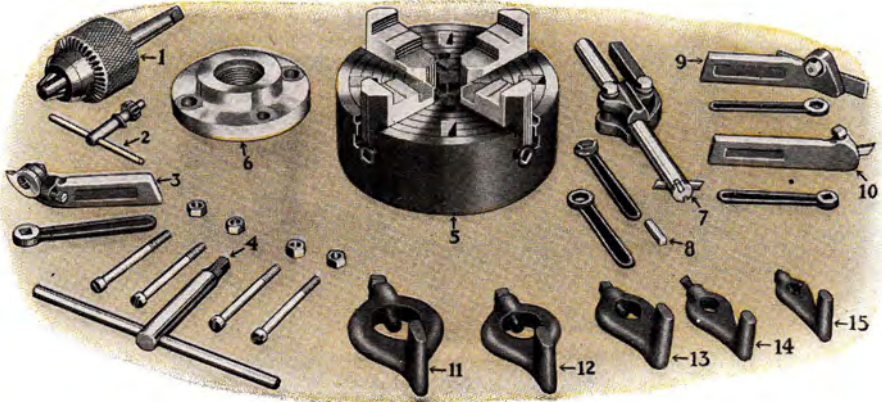


No. 67

### Hand Rest for Wood Turning

For irregular work and Pattern making. The hand rest clamps directly to the ways of the bed. Price includes hand rest complete with two "T" rests and clamp for attaching.

No. 1071—For 9-inch Lathe, Code Word, "Vanda," \$10.50  
No. 1072—For 11-inch Lathe, Code Word, "Vapor," 10.50



No. 109 Chuck and Tool Assortment for 9-inch Lathe, Consisting of:

- |   |   |  |
|---|---|--|
| 1. 3-Jaw Drill Chuck with Arbor Attached. | 5. 4-Jaw Independent Lathe Chuck.             | 9. Right Hand Patent Cutting-off Tool and Wrench.              |
| 2. Pinion Key for Drill Chuck.            | 6. Semi-Machined Chuck Back.                  | 10. Straight Shank Patent Turning Tool and Wrench.             |
| 3. Formed Threading Tool and Wrench.      | 7. Style "B" Patent Boring Tool and Wrenches. | 11 to 15. Malleable Lathe Dogs, 1/2 in. to 1 1/2 in. capacity. |
| 4. Wrench and Cap Screws for Chuck.       | 8. High Speed Steel Cutter Bit.               |  |

## Practical Chuck and Tool Assortments

An Assortment for Each Size and Type New Model South Bend Lathe

The Chuck and Tool Assortment illustrated above is the most practical size for use on the 9-inch New Model South Bend Lathe, for general machine work. These assortments represent the result of our 24 years of experience in equipping shops of various kinds.

We have specified the 4-Jaw Independent Lathe Chuck in some of the Assortments, but if much round work is to be done, then a 3-Jaw Universal Geared Chuck may be substituted. For information on chucks see pages 68 and 69.

Each size lathe requires a different Chuck and Tool Assortment as listed below. The parts in each Assortment are itemized so that the purchaser may add to or omit any tool not required for his work.

The Chuck and Tool Assortment is the basic equipment for general machine work and is not to be confused with the attachments and tools, shown in this catalog, which equip the lathe for production work and a wide variety of special machine work.

### No. 109 Assortment for 9-inch Lathes Junior, Quick Change and Standard Change Gear

Cat. No.	Description	Price
1 No. 2106	6-inch, 4-Jaw Independent Lathe Chuck Fitting Chuck to Lathe including Chuck Back	\$28.00
1 No. 1201	3-Jaw Drill Chuck, 1/2-inch capacity	8.50
1 No. 709	Drill Chuck Arbor, fitted to Chuck	1.50
1 No. 849-S	Patent Turning Tool, straight shank	2.40
1 No. 865	Patent Threading Tool	3.75
1 No. 429	Patent Boring Tool, Style B	4.40
1 No. 881-R	Patent Cutting Off Tool (Right Hand)	2.60
1 Set (5)	Malleable Lathe Dogs, 1/2", 3/4", 1", 1 1/4", 1 1/2"	4.05

Net Factory Price (Code word Celot).....\$62.20

### No. 111 Assortment for 11-inch Lathes Quick Change and Standard Change Gear Types

Cat. No.	Description	Price
1 No. 2106	6-inch, 4-Jaw Independent Lathe Chuck Fitting Chuck to Lathe including Chuck Back	\$28.00
1 No. 1201	3-Jaw Drill Chuck, 1/2-inch capacity	8.50
1 No. 709	Drill Chuck Arbor, fitted to Chuck	1.50
1 No. 851-S	Patent Turning Tool, straight shank	2.55
1 No. 866	Patent Threading Tool	3.75
1 No. 430	Patent Boring Tool, Style B	4.40
1 No. 822-R	Patent Cutting Off Tool (Right Hand)	2.75
1 Set (5)	Malleable Lathe Dogs, 1/2", 3/4", 1", 1 1/4", 1 1/2"	4.05

Net Factory Price (Code Word Denob).....\$63.00

### No. 113 Assortment for 13-inch Lathes Quick Change and Standard Change Gear Types

Cat. No.	Description	Price
1 No. 2108	8-inch, 4-Jaw Independent Lathe Chuck Fitting Chuck to Lathe including Chuck Back	\$32.00
1 No. 1201	3-Jaw Drill Chuck, 1/2-inch capacity	8.50
1 No. 713	Drill Chuck Arbor, fitted to Chuck	2.00
1 No. 852-S	Patent Turning Tool, straight shank	3.00
1 No. 867	Patent Threading Tool	4.50
1 No. 431	Patent Boring Tool, Style B	5.25
1 No. 883-R	Patent Cutting Off Tool (Right Hand)	3.25
1 Set (5)	Malleable Lathe Dogs, 1/2", 3/4", 1", 1 1/4", 1 1/2"	4.45

Net Factory Price (Code Word Enbal).....\$70.95

### No. 115 Assortment for 15-inch Lathes Quick Change and Standard Change Gear Types

Cat. No.	Description	Price
1 No. 2109	9-inch, 4-Jaw Independent Lathe Chuck Fitting Chuck to Lathe including Chuck Back	\$35.00
1 No. 1303	2-Jaw Drill Chuck, 1-inch capacity	15.00
1 No. 713	Drill Chuck Arbor, fitted to Chuck	2.00
1 No. 852-S	Patent Turning Tool, straight shank	3.00
1 No. 867	Patent Threading Tool	4.50
1 No. 431	Patent Boring Tool, Style B	5.25
1 No. 883-R	Patent Cutting Off Tool (Right Hand)	3.25
1 Set (5)	Malleable Lathe Dogs, 1/2", 3/4", 1", 1 1/4", 1 1/2", 2"	4.45

Net Factory Price (Code Word Goreb).....\$80.95

### No. 116 Assortment for 16-inch Lathes Quick Change and Standard Change Gear Types

Cat. No.	Description	Price
1 No. 2110	10-inch, 4-Jaw Independent Lathe Chuck Fitting Chuck to Lathe including Chuck Back	\$40.00
1 No. 1303	2-Jaw Drill Chuck, 1-inch capacity	15.00
1 No. 716	Drill Chuck Arbor, fitted to Chuck	2.00
1 No. 853-S	Patent Turning Tool, straight shank	3.60
1 No. 868	Patent Threading Tool	5.75
1 No. 432	Patent Boring Tool, Style B	6.90
1 No. 884-R	Patent Cutting Off Tool (Right Hand)	4.00
1 Set (5)	Malleable Lathe Dogs, 1/2", 3/4", 1", 1 1/4", 1 1/2", 2"	4.45

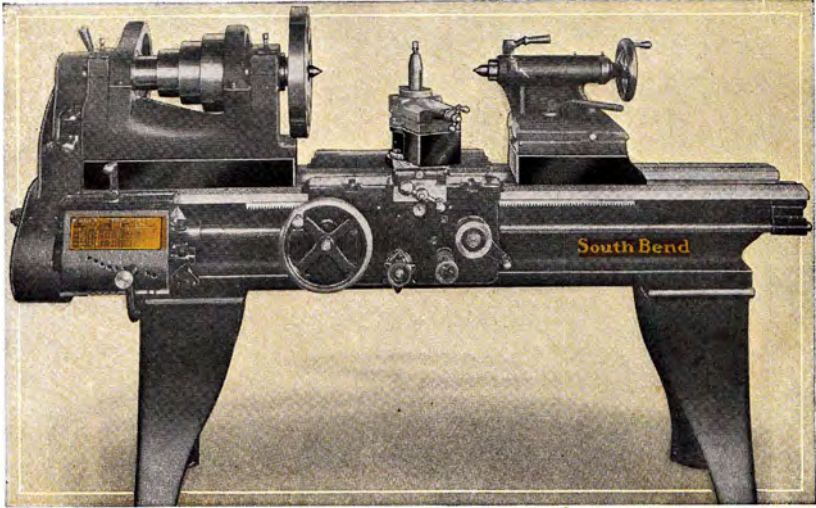
Net Factory Price (Code Word Margo).....\$90.70

### No. 118 Assortment for 18-inch Lathes Quick Change and Standard Change Gear Types

Cat. No.	Description	Price
1 No. 2112	12-inch, 4-Jaw Independent Lathe Chuck Fitting Chuck to Lathe including Chuck Back	\$48.00
1 No. 1303	2-Jaw Drill Chuck, 1-inch capacity	15.00
1 No. 716	Drill Chuck Arbor, fitted to Chuck	2.00
1 No. 853-S	Patent Turning Tool, straight shank	3.60
1 No. 868	Patent Threading Tool	5.75
1 No. 432	Patent Boring Tool, Style B	6.90
1 No. 884-R	Patent Cutting Off Tool (Right Hand)	4.00
1 Set (5)	Malleable Lathe Dogs, 1/2", 3/4", 1", 1 1/4", 1 1/2", 2", 2 1/2", 3"	6.20

Net Factory Price (Code Word Somer).....\$101.45





16-Inch New Model South Bend Lathe Equipped with Raising Blocks

## Improved Raising Blocks for South Bend Lathes

For Quick Change and Standard Change Gear Lathes, 9-Inch to 18-Inch

The illustration above shows a 16-inch New Model South Bend Lathe equipped with Improved Raising Blocks which increase the swing over the entire distance between centers and permit the lathe to be used for light machining on work of large diameter.

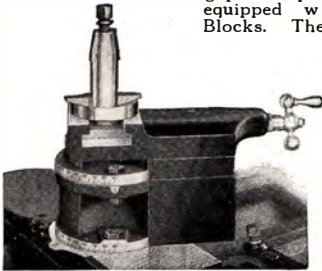
The Raising Blocks are placed under the headstock, tailstock, compound rest and center rest of the lathe. A bracket and gear for operating the automatic feeds of the carriage and for cutting screw threads, when Raising Blocks are used, are included with the Raising Block Equipment.

All Sizes of South Bend Lathes, Quick Change and Standard Change Gear types, straight and gap bed patterns, can be equipped with Raising Blocks. The specifications

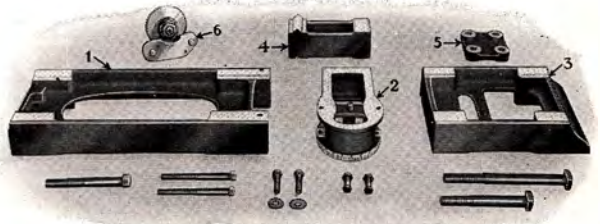
for these lathes, both with and without Raising Blocks are shown in the tabulation below.

The Regular Gear Guard at the end of the Quick Change Gear Lathe is not large enough to cover the gear mechanism when the lathe is equipped with Raising Blocks. A special gear guard is recommended, which is furnished at the additional prices as shown below.

Equipment Included in Prices of Raising Blocks shown below consists of: 1—Raising Block for headstock, 2—Raising Block for compound rest, 3—Raising Block for tailstock, 4—Raising Block for steady rest, 5—Raising Block for follower rest, 6—Bracket and Gear for operating automatic feeds of carriage and for thread cutting; and all necessary bolts for attaching Raising Blocks to lathe.



Raising Block for Compound Rest, showing Graduated Base



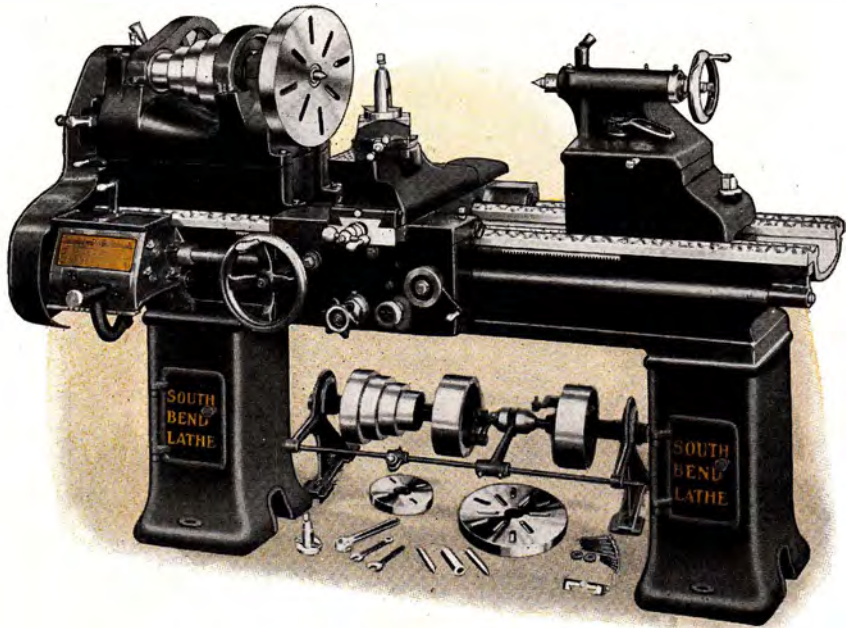
Improved Raising Blocks for South Bend Lathes

### PRICES OF RAISING BLOCKS FOR STRAIGHT AND GAP BED LATHES

Straight Bed Lathes		Gap Bed Lathes		Raising Blocks for Quick Change Gear Lathes			Raising Blocks for Standard Change Gear Lathes		
Swing Over Bed	Swing Over Bed with Raising Blocks	Swing Over Gap	Swing Over Gap with Raising Blocks	Catalog No.	Code Word	Price	Catalog No.	Code Word	Price
9½ in.	12 in.	.....	.....	1121	Cafer	\$ 40.00	1001	Cadie	\$35.00
11¼ in.	14 in.	.....	.....	1122	Ceare	46.00	1002	Cebro	40.00
13¼ in.	18 in.	19 in.	24 in.	1123	Charl	65.00	1003	Chink	55.00
15¼ in.	20 in.	22 in.	27 in.	1124	Cilov	77.00	1004	Citus	65.00
16¼ in.	22 in.	24 in.	30 in.	1125	Click	89.00	1005	Claro	75.00
18¼ in.	24 in.	26 in.	32 in.	1126	Coger	101.00	1006	Cobil	85.00

### GEAR GUARDS

For Quick Change Gear Lathes with Raising Blocks		
Size of Lathe	Cat. No.	Price
9 in.	1121-A	\$ 4.00
11 in.	1122-A	5.00
13 in.	1123-A	6.50
15 in.	1124-A	7.50
16 in.	1125-A	8.50
18 in.	1126-A	10.00



Regular Equipment, as Illustrated Under Lathe, is Included in Price of Lathe

## 24-Inch Large Swing New Model South Bend Lathe

Quick Change and Standard Change, Back Geared Screw Cutting Lathes

The 24-inch Large Swing Lathe illustrated above is designed to meet the demand of our trade for a lathe that will swing 24 inches over the bed and 17 inches over the saddle. This lathe has the advantage of the increased swing for the entire distance between centers, for work of large diameter on which only light and medium machining is required.

The 24-inch Large Swing Lathe is our regular 16-inch Lathe, as illustrated and described on pages 18 and 19, except that it is fitted with raising blocks under the headstock, tailstock and tool rest to obtain the increased swing. For features applying to this Lathe see pages 2 to 9.

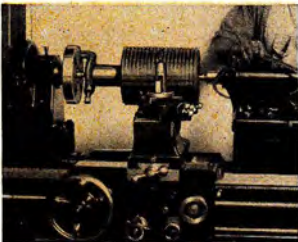
For General All-Around Work the Large Swing Lathe is very popular because it takes care of a great deal of light work of a general character that would otherwise require a large and expensive lathe. This lathe may be had in Quick Change or Standard Change Gear types.

The Regular Equipment included in price consists of: Double Friction Countershaft, Large and Small Face Plates, Tool Post complete, Adjustable Thread Cutting Stop, two Lathe Centers and Spindle Sleeve, Wrenches, a set of Independent Change Gears with Standard Change Gear Lathe, also Installation Plans and book "How to Run a Lathe."

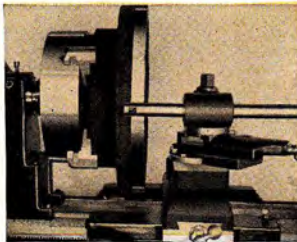
Net Factory Prices of 24-inch Large Swing Lathe Including Overhead Countershaft and Equipment

Specifications of Lathe						Standard Change Gear Lathes			Quick Change Gear Lathes			
Swing Over Bed	Length of Bed	Between Centers	Hole Through Spindle	Swing Over Carriage	Power Required	Weight Crated	Catalog No. of Lathe	Code Word	Net Factory Price	Catalog No. of Lathe	Code Word	Net Factory Price
24 1/4 in.	6 ft.	30 in.	1 3/8 in.	17 in.	1 H.P.	2035 lbs.	58-C	Wacuj	\$660.00	76-C	Wacud	\$740.00
24 1/4 in.	7 ft.	42 in.	1 3/8 in.	17 in.	1 H.P.	2115 lbs.	58-D	Wacyk	681.00	76-D	Wacya	761.00
24 1/4 in.	8 ft.	54 in.	1 3/8 in.	17 in.	1 H.P.	2195 lbs.	58-E	Wacyr	702.00	76-E	Wapyr	782.00
24 1/4 in.	10 ft.	78 in.	1 3/8 in.	17 in.	1 H.P.	2355 lbs.	58-G	Weirp	748.00	76-G	Waran	828.00
24 1/4 in.	12 ft.	102 in.	1 3/8 in.	17 in.	1 H.P.	2515 lbs.	*58-H	Weity	813.00	*76-H	Warep	893.00

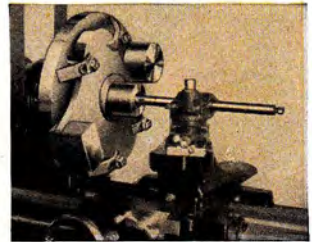
\*Lathe with 12-foot bed is equipped with center leg which is included in price of lathe.



Cutting a Screw Thread on Large Diameter Work

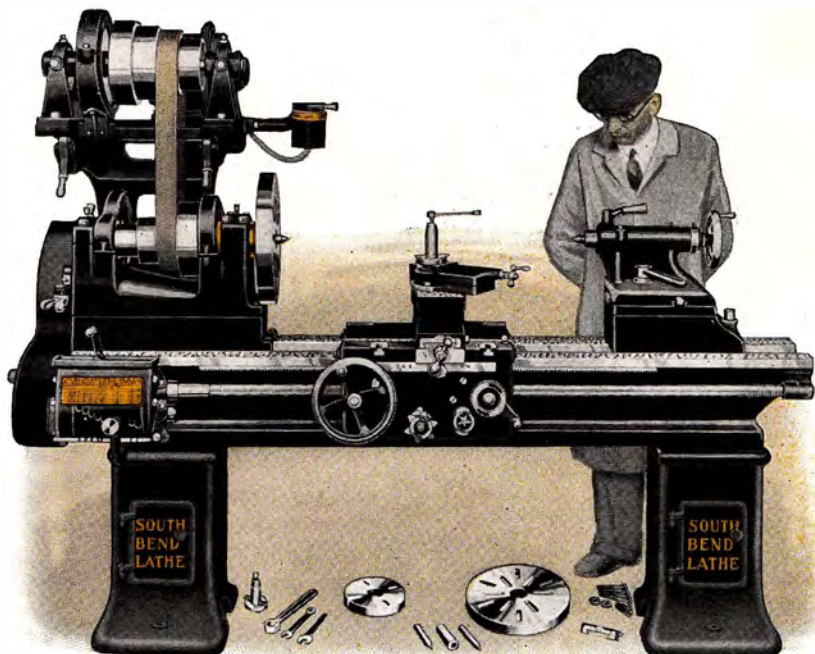


Machining outside diameter of a Balance Wheel 22" Diam.



Boring a Jig on Large Swing Lathe





Reversing Motor, Reversing Switch and Lathe Equipment Are Included in Price

## 24-Inch Large Swing Silent Chain Motor Driven Lathe

Quick Change and Standard Change Back Geared Screw Cutting Lathes

The 24-inch Large Swing Silent Chain Motor Driven Lathe illustrated above is exactly the same as the lathe shown on page 76 except, that instead of Countershaft Drive, it is equipped with the Silent Chain Motor Drive which is illustrated and described on pages 28 and 29. This lathe is furnished in both Quick Change and Standard Change Gear types.

The Regular Equipment included in the price of the 24-inch Large Swing Silent Chain Motor Driven Lathe consists of: Large Face Plate,

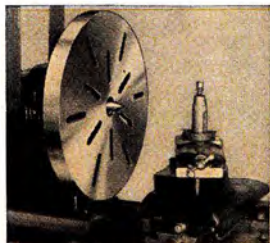
Small Face Plate, Tool Post Complete, Adjustable Thread Cutting Stop, two Lathe Centers and Spindle Sleeve, Wrenches and Change Gears with Standard Change Gear Lathes, also Installation Plans and book, "How to Run a Lathe."

Electrical Equipment included in price consists of: 1 H.P. Reversing Motor, 1200 R.P.M. (Westinghouse, General Electric or equal make), Reversing Switch (drum type), Wiring between Motor and Switch, Flexible Metal Conduit, Wiring Diagram and Leather Belt. See pages 28 and 29.

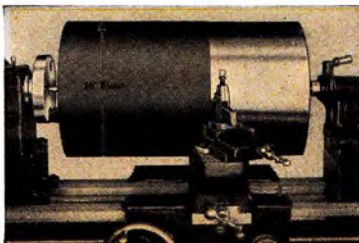
Net Factory Prices of 24-inch Large Swing New Model South Bend Lathe—Silent Chain Motor Drive  
Prices below include Lathe Equipment, 1 H.P. Reversing Motor, Reversing Switch and Leather Belt

Specifications of Lathe					Standard Change Gear Lathes					Quick Change Gear Lathes				
Swing Over Bed	Length of Bed	Distance Between Centers	Swing Over Carriage	Approx. Weight Crated	Catalog No. of Lathe	Code Word	3 Phase 60 Cycle A.C. Motor	1 Phase 60 Cycle A.C. Motor	Direct Current Motor	Catalog No. of Lathe	Code Word	3 Phase 60 Cycle A.C. Motor	1 Phase 60 Cycle A.C. Motor	Direct Current Motor
24 1/4 in.	6 ft.	30 in.	17 in.	2485 lbs.	358-C	Weofk	\$839.00	\$868.00	\$917.00	376-C	Wetzd	\$919.00	\$948.00	\$997.00
24 1/4 in.	7 ft.	42 in.	17 in.	2565 lbs.	358-D	Weofm	860.00	889.00	938.00	376-D	Wejak	940.00	969.00	1018.00
24 1/4 in.	8 ft.	54 in.	17 in.	2645 lbs.	358-E	Weoch	881.00	910.00	959.00	376-E	Wenut	961.00	990.00	1039.00
24 1/4 in.	10 ft.	78 in.	17 in.	2805 lbs.	358-G	Weopt	927.00	956.00	1005.00	376-G	Wanyv	1007.00	1036.00	1085.00
24 1/4 in.	12 ft.	102 in.	17 in.	3065 lbs.	358-H	Weesy	992.00	1021.00	1070.00	*376-H	Weoch	1072.00	1101.00	1150.00

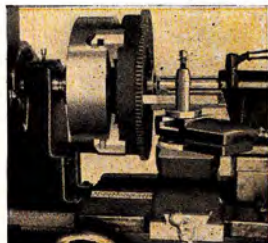
\*Lathe with 12-foot bed is equipped with center leg which is included in price of lathe.



No. 951 Large Face Plate for above Lathe, \$60.00

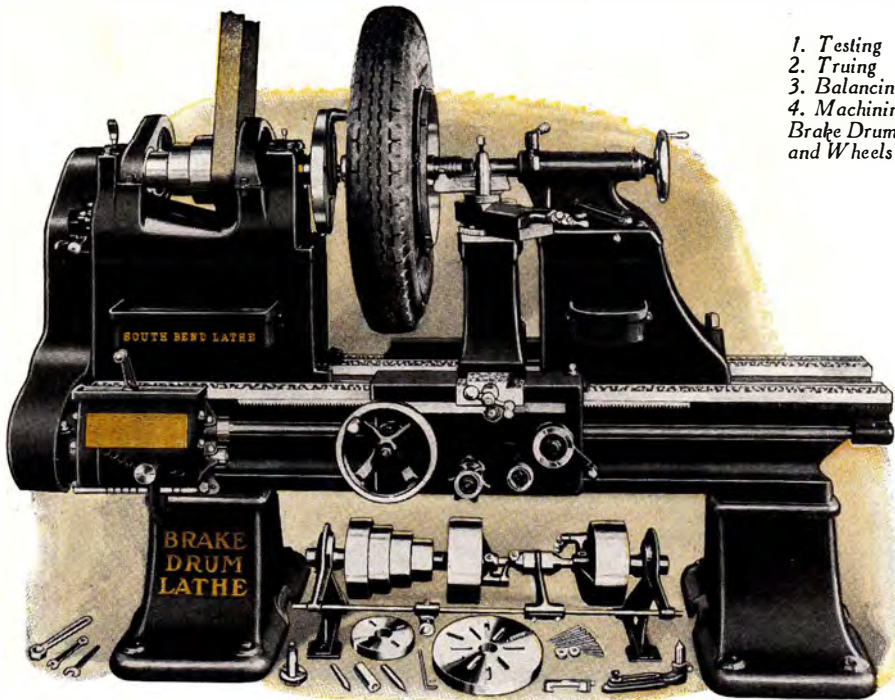


Machining a Steel Roll 16 inches in diameter, between Lathe Centers



Removing Teeth from Flywheel for New Ring Gear

1. Testing
  2. Truing
  3. Balancing
  4. Machining
- Brake Drums  
and Wheels



Countershaft and Equipment Included in Price of Lathe

## 36-inch New Model South Bend Brake Drum Lathe

Quick Change and Standard Change, Back Geared, Screw Cutting Lathes

For Truing Brake Drums, Machining Auto Wheels and General Manufacturing Work

The Brake Drum Lathe illustrated above will swing a wheel, with tire attached, up to 36 $\frac{1}{4}$  inches in diameter. It is a back geared screw cutting precision lathe for truing brake drums, refacing hubs and servicing auto wheels of all types and makes, front and rear, single or dual, which includes the wheels of all pleasure cars, buses and medium size trucks. This lathe trues brake drums up to 23 $\frac{1}{2}$  inches in diameter.

The Self-Centering Mandrel and Adapter Method is the correct, accurate and most economical method for truing brake drums, refacing hubs and machining wheels. The wheel mounted on the self-centering mandrel (fitted with adapters) between centers on the lathe permits machining the brake drum concentric with the axis of the hub.

### FEATURES OF BRAKE DRUM LATHE

Back geared headstock gives 8 spindle speeds.  
Automatic cross feed, automatic longitudinal feed.  
Hollow spindle made of special carbon steel.  
Phosphor bronze bearings scraped to spindle.  
Graduated compound rest swivels to any angle.  
Precision lead screw for cutting accurate threads.  
Self-centering mandrels and adapters. See page 83.  
Tailstock is arranged for set-over for taper work.

For the Service Station that services automobiles, medium size buses and trucks, where the tire diameter does not exceed 36 $\frac{1}{4}$  inches, this size Brake Drum Lathe is the most practical. It is also an excellent general purpose lathe for machine shop work. See page 82.

Lathe Equipment included in the price of the Brake Drum Lathe consists of: Double Friction Countershaft, Large Face Plate, Small Face Plate, Driver for Auto Wheels, Graduated Compound Rest, Tool Post, Ring and Wedge, Thread Cutting Stop, two Lathe Centers, Spindle Sleeve, Rubber Belts and Springs, Wrenches and a Set of Independent Change Gears (with Standard Change Gear Lathes only) for Cutting Standard Screw Threads and for operating the Automatic Feeds.

### SPECIFICATIONS OF BRAKE DRUM LATHE

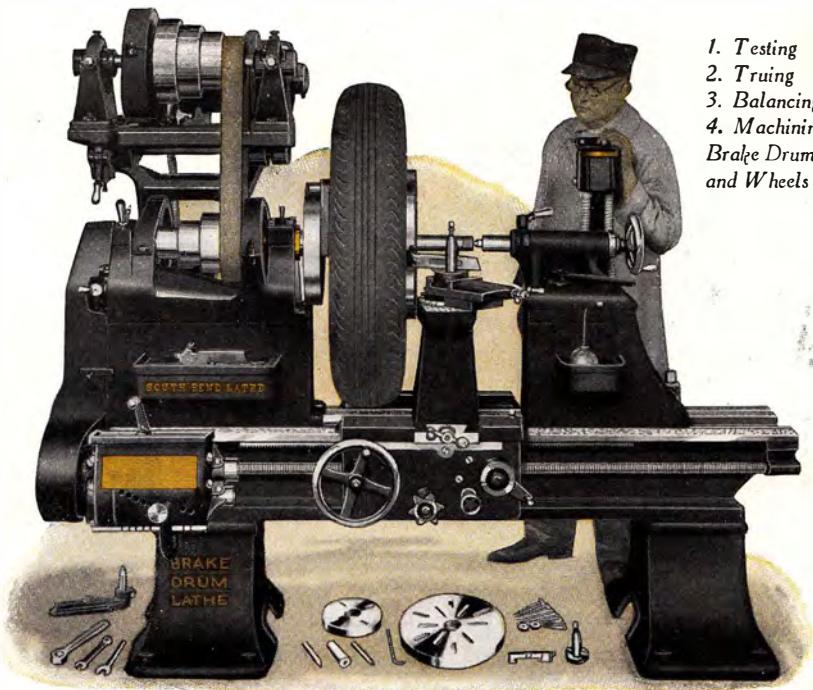
Thread cutting range, Q. Ch. Lathe.....2 to 112 per in.  
Thread cutting range, Std. Ch. Lathe.....2 to 40 per in.  
Width of cone pulley belt.....2 $\frac{1}{2}$  in.  
Spindle speeds.....12, 19, 30, 50, 94, 152, 240, 398 R.P.M.  
Precision Acme lead screw.....1 $\frac{1}{8}$  in. diam., 6 Threads  
Hole through spindle.....No. 3 Morse Taper  
Head and tail spindle centers.....3 in.  
Size of lathe tool shank..... $\frac{5}{8}$  in. x  $\frac{1}{8}$  in.

### Net Factory Prices of 36-inch Brake Drum Lathes Including Overhead Countershaft and Equipment

Cat No. of Lathe	Swings Wheel, Tire Attached, Clear	Length of Bed	Distance Between Centers	Hole Through Spindle	Countershaft Speed	Horse Power Required	Approx. Weight Crated	Code Word	Net Factory Price
<b>No. 4 South Bend Brake Drum Lathe—Quick Change Gear</b>									
No. 4-BC	36 $\frac{1}{4}$ in.	6 ft.	27 in.	1 $\frac{3}{8}$ in.	150 R.P.M.	1 H.P.	2195 lbs.	Caiga	\$768.00
No. 4-BD	36 $\frac{1}{4}$ in.	7 ft.	39 in.	1 $\frac{3}{8}$ in.	150 R.P.M.	1 H.P.	2275 lbs.	Caibe	789.00
No. 4-BE	36 $\frac{1}{4}$ in.	8 ft.	51 in.	1 $\frac{3}{8}$ in.	150 R.P.M.	1 H.P.	2355 lbs.	Caieg	810.00
No. 4-BG	36 $\frac{1}{4}$ in.	10 ft.	75 in.	1 $\frac{3}{8}$ in.	150 R.P.M.	1 H.P.	2515 lbs.	Caiko	856.00
<b>No. 2 South Bend Brake Drum Lathe—Standard Change Gear</b>									
No. 2-BC	36 $\frac{1}{4}$ in.	6 ft.	27 in.	1 $\frac{3}{8}$ in.	150 R.P.M.	1 H.P.	2160 lbs.	Cocoo	\$688.00
No. 2-BD	36 $\frac{1}{4}$ in.	7 ft.	39 in.	1 $\frac{3}{8}$ in.	150 R.P.M.	1 H.P.	2240 lbs.	Carlo	709.00
No. 2-BE	36 $\frac{1}{4}$ in.	8 ft.	51 in.	1 $\frac{3}{8}$ in.	150 R.P.M.	1 H.P.	2320 lbs.	Cuxom	730.00
No. 2-BG	36 $\frac{1}{4}$ in.	10 ft.	75 in.	1 $\frac{3}{8}$ in.	150 R.P.M.	1 H.P.	2480 lbs.	Cialr	776.00

Write for 20-page Bulletin No. 29 illustrating and describing the Brake Drum Lathe and the work it does. See page 85





1. Testing
  2. Truing
  3. Balancing
  4. Machining
- Brake Drums  
and Wheels

Reversing Motor, Reversing Switch and Lathe Equipment Are Included in Price

## 36-inch Silent Chain Motor Driven Brake Drum Lathe

Quick Change and Standard Change, Back Geared Screw Cutting Lathes

For Truing Brake Drums, Machining Auto Wheels and General Manufacturing Work

The Silent Chain Motor Driven Brake Drum Lathe illustrated above is the same as the Brake Drum Lathe shown on page 78, except that this Lathe is Motor Driven instead of Countershaft Driven. The Lathe is a complete unit requiring no extra driving equipment of any kind, and has eight spindle speeds. The Motor delivers power through the Silent Chain to the Driving Cone. This drive is a most practical method of driving a Screw Cutting Lathe as it is powerful and eliminates vibration and noise. See pages 28 and 29.

The Constant Speed Reversing Motor, 1200 R.P.M., enables the operator to start, stop and reverse the lathe spindle quickly.

The Drum Type Reversing Switch is the most practical switch for the efficient operation of a screw cutting lathe. It is mounted on the tail-stock of the lathe and enables the operator to control the starting, stopping and reversing of the lathe spindle from a convenient working position in front of lathe.

**Motor Specifications.** When ordering a Motor Driven Brake Drum Lathe, specify the electric current to be used.

- If alternating current, state exact voltage, phase, cycle and number of wires.
- If direct current, state voltage only.

**Electrical Equipment** included with the above Motor Driven Brake Drum Lathe consists of: 1 H.P. Reversing Motor 1200 R.P.M., Reversing Switch, Wiring between Motor and Switch, Flexible Metal Conduit, Wiring Diagram and Leather Belt.

**Lathe Equipment** included with each Silent Chain Motor Driven Brake Drum Lathe consists of: Graduated Compound Rest, Large and Small Face Plates, Adjustable Driver for Wheel, Tool Post Complete, Thread Cutting Stop, Two Lathe Centers, Spindle Sleeve, Rubber Belts and Springs, Wrenches, and Change Gears (with Standard Change Gear Lathes), for cutting Screw Threads and for Automatic Feeds. See page 67.

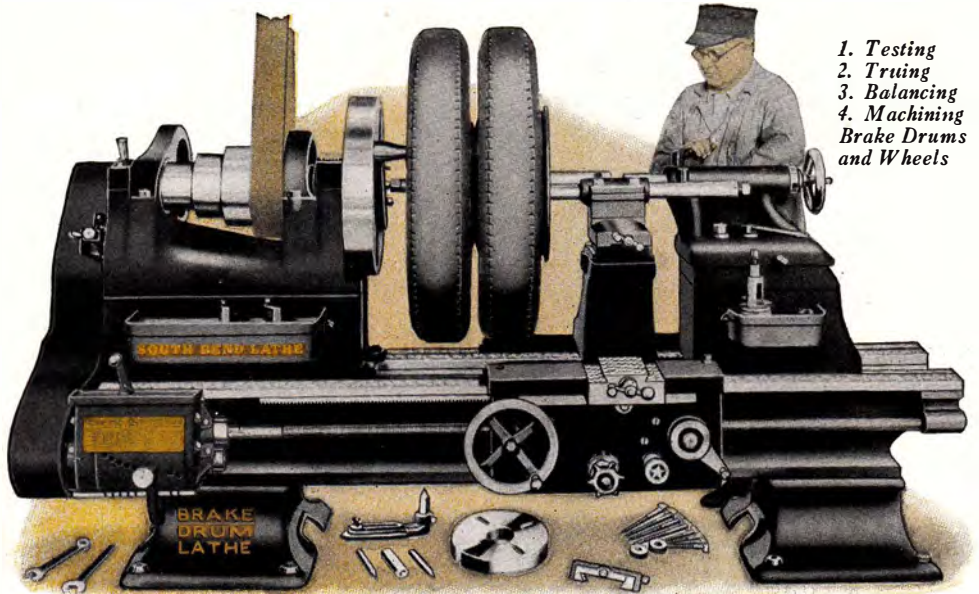
Mandrels and Adapters are extra. See page 83.

### Net Factory Prices of 36-inch Silent Chain Motor Driven Brake Drum Lathe

Prices Include Lathe Equipment, 1200 R.P.M. Reversing Motor, Reversing Switch and Leather Belt

Cat. No. of Lathe	Swings Wheel, Tire Attached, Clear	Length of Bed	Distance Between Centers	Hole Through Spindle	Horse Power Required	Approx. Weight Crated	Code Word	3 Phase 60 Cycle A.C. Motor	1 Phase 60 Cycle A.C. Motor	Direct Current Motor
<b>No. 304 Silent Chain Motor Driven Brake Drum Lathe—Quick Change Gear</b>										
304-BC	3 3/4 in.	6 ft.	27 in.	1 3/4 in.	1 H.P.	2620 lbs.	Cajul	\$ 947.00	\$ 976.00	\$1025.00
304-BD	3 3/4 in.	7 ft.	39 in.	1 3/4 in.	1 H.P.	2700 lbs.	Cakah	988.00	997.00	1046.00
304-BE	3 3/4 in.	8 ft.	51 in.	1 3/4 in.	1 H.P.	2780 lbs.	Cakik	989.00	1018.00	1067.00
304-BG	3 3/4 in.	10 ft.	75 in.	1 3/4 in.	1 H.P.	2940 lbs.	Cakje	1035.00	1064.00	1113.00
<b>No. 302 Silent Chain Motor Driven Brake Drum Lathe—Standard Change Gear</b>										
302-BC	3 3/4 in.	6 ft.	27 in.	1 3/4 in.	1 H.P.	2585 lbs.	Claud	\$ 867.00	\$896.00	\$ 945.00
302-BD	3 3/4 in.	7 ft.	39 in.	1 3/4 in.	1 H.P.	2665 lbs.	Coast	888.00	917.00	966.00
302-BE	3 3/4 in.	8 ft.	51 in.	1 3/4 in.	1 H.P.	2745 lbs.	Croze	909.00	938.00	987.00
302-BG	3 3/4 in.	10 ft.	75 in.	1 3/4 in.	1 H.P.	2905 lbs.	Cotlex	955.00	984.00	1033.00

Write for 20-page Bulletin No. 29 illustrating and describing the Brake Drum Lathe and the work it does. See page 85.



1. Testing
2. Truing
3. Balancing
4. Machining Brake Drums and Wheels

Countershaft and Equipment Included in Price of Lathe

## 42-inch New Model South Bend Brake Drum Lathe

Quick Change and Standard Change, Back Geared, Screw Cutting Lathes  
For Truing Brake Drums, Machining Auto Wheels and General Manufacturing Work

The Brake Drum Lathe illustrated above will swing a wheel, with tire attached, up to 42¼ inches in diameter. It is a back geared screw cutting precision lathe for truing brake drums, refacing hubs and servicing auto wheels of all types and makes, front and rear, single or dual, which includes the wheels of all pleasure cars, large buses and heavy duty trucks. This lathe trues brake drums up to 34 inches in diameter, with precision, speed and accuracy, using the self-centering mandrel and universal adapter method. See pages 82 and 83.

The Average Time to true a brake drum of a large bus or heavy duty truck on this lathe is from 15 to 20 minutes.

The Self-Centering Mandrel and Adapter Method is the correct, accurate and most economical method for truing brake drums, refacing hubs and machining wheels. The wheel mounted on the self-centering mandrel (fitted with adapters) between centers on the lathe permits machining the

brake drum concentric with the axis of the hub.

For the Service Station that services automobiles, large buses and heavy duty trucks where the tire diameter does not exceed 42¼ inches, this size Brake Drum Lathe is the most practical. It is also an excellent general purpose lathe for machine shop work.

Flywheels of all automobiles, buses and trucks can be machined for ring gears on this lathe. See page 82.

Lathe Equipment included in the price of the Brake Drum Lathe consists of: Double Friction Countershaft, Large Face Plate, Small Face Plate, Driver for Auto Wheels, Graduated Compound Rest, Tool Post, Ring and Wedge, Thread Cutting Stop, two Lathe Centers, Spindle Lubricator, Rubber Belts and Springs, Wrenches and a Set of Independent Change Gears (with Standard Change Gear Lathes only) for Cutting Standard Screw Threads and for operating the Automatic Feeds.

Mandrels and Adapters are extra. See page 83.

### FEATURES OF BRAKE DRUM LATHE

Back geared headstock gives 8 spindle speeds. Automatic cross feed, automatic longitudinal feed. Hollow spindle made of special carbon steel. Phosphor bronze bearings scraped to spindle. Graduated compound rest swivels to any angle. Precision lead screw for cutting accurate threads. Self-centering mandrel and adapter method. Tailstock is arranged for set-over for taper work.

### SPECIFICATIONS OF BRAKE DRUM LATHE

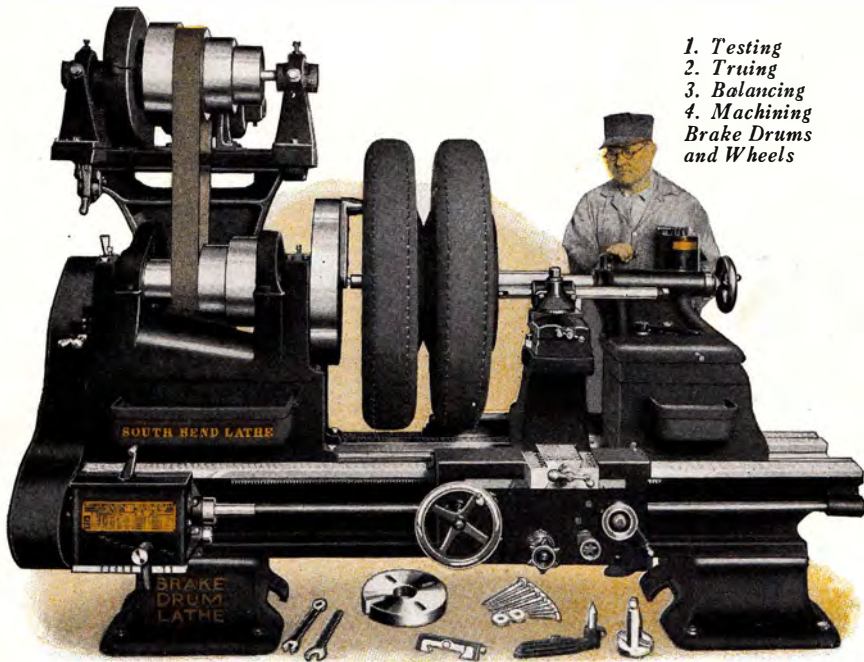
Thread cutting range, Q. Ch. Lathe.....2 to 112 per in.  
Thread cutting range, Std. Ch. Lathe.....2 to 40 per in.  
Width of cone pulley belt.....3½ in.  
Spindle speeds.....9, 13, 20, 32, 82, 126, 168, 289 R.P.M.  
Precision Acme lead screw.....1½ in. diam., 4 Threads  
Hole through spindle.....1½ in.  
Head and tail spindle centers.....No. 4 Morse Taper  
Size of lathe tool shank.....¾ in. x 1½ in.

### Net Factory Prices of 42-inch Brake Drum Lathes Including Overhead Countershaft and Equipment

Cat No. of Lathe	Swings Wheel, Tire Attached Clear	Length of Bed	Distance Between Centers	Hole Through Spindle	Counter-shaft Speed	Horse Power Required	Approx. Weight Crated	Code Word	Net Factory Price
<b>No. 5 South Bend Brake Drum Lathe—Quick Change Gear</b>									
No. 5-BE	42¼ in.	8 ft.	38 in.	1½ in.	125 R.P.M.	3 H.P.	4690 lbs.	Dajjd	\$1590.00
No. 5-BG	42¼ in.	10 ft.	62 in.	1½ in.	125 R.P.M.	3 H.P.	4940 lbs.	Dajlg	1672.00
No. 5-BH	42¼ in.	12 ft.	86 in.	1½ in.	125 R.P.M.	3 H.P.	5340 lbs.	Dajpk	1779.00
<b>No. 3 South Bend Brake Drum Lathe—Standard Change Gear</b>									
No. 3-BE	42¼ in.	8 ft.	38 in.	1½ in.	125 R.P.M.	3 H.P.	4650 lbs.	Daisy	\$1470.00
No. 3-BG	42¼ in.	10 ft.	62 in.	1½ in.	125 R.P.M.	3 H.P.	4900 lbs.	Debar	1552.00
No. 3-BH	42¼ in.	12 ft.	86 in.	1½ in.	125 R.P.M.	3 H.P.	5300 lbs.	Doubt	1659.00

Write for 20-page Bulletin No. 29 illustrating and describing the Brake Drum Lathe and the work it does. See page 85





1. Testing
2. Truing
3. Balancing
4. Machining Brake Drums and Wheels

Reversing Motor, Reversing Switch and Lathe Equipment Are Included in Price

## 42-inch Silent Chain Motor Driven Brake Drum Lathe

Quick Change and Standard Change, Back Geared, Screw Cutting Lathes

For Truing Brake Drums, Machining Auto Wheels and General Manufacturing Work

The Silent Chain Motor Driven Brake Drum Lathe illustrated above is the same as the Brake Drum Lathe shown on page 80, except that this Lathe is Motor Driven instead of Countershaft Driven. The Lathe is a complete unit requiring no extra driving equipment of any kind, and has eight spindle speeds. The Motor delivers power through the Silent Chain to the Driving Cone. This drive is a most practical method of driving a Screw Cutting Lathe as it is powerful and eliminates vibration and noise. See pages 28 and 29.

The Constant Speed Reversing Motor, 1200 R.P.M., enables the operator to start, stop and reverse the lathe spindle quickly.

The Drum Type Reversing Switch is the most practical switch for the efficient operation of a screw cutting lathe. It is mounted on the tail-stock of the lathe and enables the operator to control the starting, stopping and reversing of the lathe spindle from a convenient working position in front of lathe.

**Motor Specifications.** When ordering a Motor Driven Brake Drum Lathe, specify the electric current to be used.

- If alternating current, state exact voltage, phase, cycle and number of wires.
- If direct current, state voltage only.

**Electrical Equipment** Included with the above Motor Driven Brake Drum Lathe consists of: a 3 H.P. Reversing Motor 1200 R.P.M., Reversing Switch, Wiring between Motor and Switch, Flexible Metal Conduit, Wiring Diagram and Leather Belt.

**Lathe Equipment** Included with each Silent Chain Motor Driven Brake Drum Lathe consists of: Graduated Compound Rest, Large and Small Face Plates, Adjustable Driver for Wheel, Tool Post Complete, Thread Cutting Stop, Two Lathe Centers, Spindle Sleeve, Rubber Belts and Springs, Wrenches, and Change Gears (with Standard Change Gear Lathes) for cutting Screw Threads and for Automatic Feeds. See page 67.

Mandrels and Adapters are extra. See page 83.

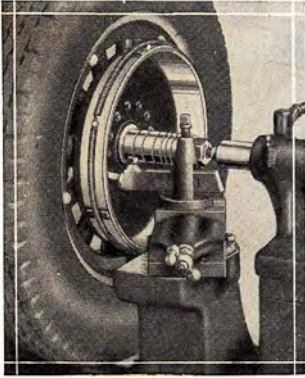
### Net Factory Prices of 42-inch Silent Chain Motor Driven Brake Drum Lathes

Prices Include Lathe Equipment, 1200 R.P.M. Reversing Motor, Reversing Switch and Leather Belt

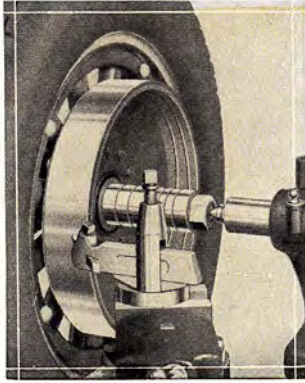
Cat. No. of Lathe	Swings Wheel, of Tire Attached Clear	Length of Bed	Distance Between Centers	Hole Through Spindle	Horse Power Required	Approx. Weight Crated	Cpde Word	3 Phase 60 Cycle A.C. Motor	1 Phase 60 Cycle A.C. Motor	Direct Current Motor
<b>No. 305 Silent Chain Motor Driven Brake Drum Lathe—Quick Change Gear</b>										
305-BE	42½ in.	8 ft.	38 in.	1¾ in.	3 H.P.	5565 lbs.	Dairn	\$1975.00	\$2046.00	\$2109.00
305-BG	42½ in.	10 ft.	62 in.	1¾ in.	3 H.P.	5815 lbs.	Dajab	2057.00	2128.00	2191.00
305-BH	42½ in.	12 ft.	86 in.	1¾ in.	3 H.P.	6215 lbs.	Dance	2164.00	2235.00	2298.00
<b>No. 303 Silent Chain Motor Driven Brake Drum Lathe—Standard Change Gear</b>										
303-BE	42½ in.	8 ft.	38 in.	1¾ in.	3 H.P.	5525 lbs.	Dawdy	\$1855.00	\$1926.00	\$1989.00
303-BG	42½ in.	10 ft.	62 in.	1¾ in.	3 H.P.	5775 lbs.	Ducat	1937.00	2008.00	2071.00
303-BH	42½ in.	12 ft.	86 in.	1¾ in.	3 H.P.	6175 lbs.	Drive	2044.00	2115.00	2178.00

Write for 20-page Bulletin No. 29 illustrating and describing the Brake Drum Lathe and the work it does. See page 85

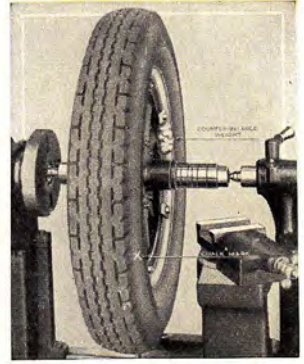
# Machining Jobs on the South Bend Brake Drum Lathe On Wheels, Brakes, Brake Drums, Flanges and Hub Assemblies



**Truing an Internal Brake Drum** mounted on a self-centering straight mandrel with universal bearing adapters mounted between centers in the lathe. Drum size 17 inches.



**Truing an External Band Brake** mounted on a self-centering straight mandrel with universal bearing adapters between centers in the Brake Drum Lathe.

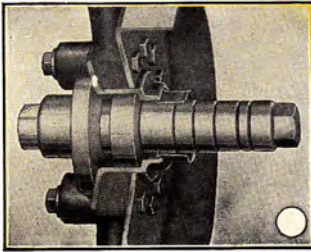


**Balancing an Automobile Wheel.** The automobile wheel can be balanced between centers in the South Bend Brake Drum Lathe with tire attached as shown.

## Average Time for Truing a Brake Drum

The average time required to true the Brake Drum of an automobile or medium size truck on the 36-inch swing Brake Drum Lathes is from 5 to 12 minutes, depending on the width of drum.

The average time required to true the Brake Drum of a large bus or heavy duty truck on the 42-inch swing Brake Drum Lathes is from 15 to 20 minutes, depending on the width of drum.



**Face Plate and Annular Adapter**

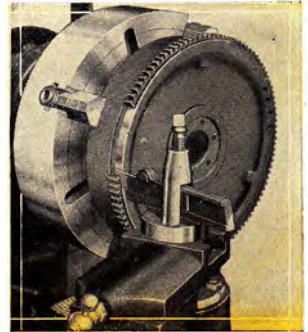
The face plate and annular adapter method is used for mounting rear wheels fitted with annular ball bearings used on Buick, Chandler, LaSalle, Willys-Knight, etc. The wheel is mounted on the self-centering mandrel and centered by the annular adapter. For more complete information and prices see No. 29 Brake Drum Bulletin.

## Machining Flywheels for Ring Gears One Operator Can Machine and Fit from 20 to 25 Flywheels for Ring Gears in Eight Hours

The machining of flywheels for ring gears is practical on the Large Swing Lathes shown on pages 76-77 and on the Brake Drum Lathes illustrated and described on pages 78 to 81.

The illustration at right shows a lathe in operation machining a flywheel, removing the teeth. The diameter is then turned to the correct size for fitting the ring gear. After removing the teeth the shoulder on the flywheel should be larger in diameter than the inside of the steel ring gear so there will be an ample seat.

This job shows the general utility of the South Bend Large Swing Lathe and Brake Drum Lathe for work in the service station, the electrical shop and the machine shop where large work is to be handled. It has the precision and accuracy so necessary in automotive and electrical work.



## Recommended Mandrel and Adapter Equipments

### —Assortment No. 2...\$53.50—

Two Taper Mandrels, One Straight Mandrel and Eight Adapters Service 45 Models

The following three self-centering mandrels and eight universal bearing adapters will service 17 makes and 45 models of automobiles, light buses and trucks.

- 1—No. 1822 Taper Mandrel .....\$ 9.00
- 1—No. 1823 Taper Mandrel ..... 9.50
- 1—No. 1800 Straight Mandrel ..... 15.00
- 8—No. 1801 Universal Bearing Adapters:
- 1 5/8" dia., 1 7/8" dia., 2" dia., 2 1/8" dia.,
- 2 3/8" dia., 2 1/2" dia., 2 3/8" dia., 2 7/8" dia., 20.00
- Total .....\$53.50

### —Assortment No. 3...\$93.00—

Two Straight Mandrels, One Taper Mandrel and Four Adapters Service 42 Models

The following three self-centering mandrels and four universal bearing adapters will service 42 models of trucks.

- 1—No. 1810 Straight Mandrel .....\$25.00
- 1—No. 1840 Straight Mandrel ..... 40.00
- 1—No. 1826 Taper Mandrel ..... 12.00
- 2—No. 1811 Universal Bearing Adapters:
- 2 1/2" dia., 3" dia..... 6.00
- 2—No. 1841 Universal Bearing Adapters:
- 4 1/4" dia., 4 1/2" dia..... 10.00
- Total .....\$93.00

Write for 20-page Bulletin No. 29 illustrating and describing the Brake Drum Lathe and the work it does. See page 85



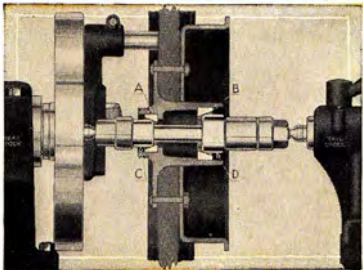
# Self-Centering Mandrel and Adapter Method

## For Truing, Testing and Machining Brake Drums and Wheels

The South Bend Self-Centering Mandrels and Bearing Adapters will take care of practically all front wheels, rear wheels, single and dual wheels for testing the wheels and for machining brake drums of all types—internal expanding and ex-

ternal contracting, two-wheel and four-wheel brakes and band brakes—on all types and makes of wheels for automobiles, buses and trucks. The mandrel and adapter method is illustrated and described below.

### Self-Centering Straight Mandrels for Front Wheels



**Timken Races and Universal Bearing Adapters**  
A front wheel with Timken roller races, mounted on the mandrel fitted with universal bearing adapters, between centers in the lathe ready for testing or machining.



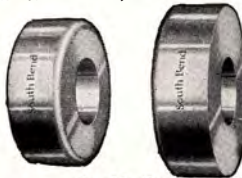
The self-centering straight mandrel will take care of all front and full-floating rear wheels (mounted on ball or roller bearings). Its ends are hardened to retain accurate centers. The mandrel is fitted with adjustable collars for use with the various types of bearing adapters allowing wheels of all widths to be mounted on the mandrel. The threaded nut presses the bearing adapters against the bearing cups of the hub making it line up accurately.

**Specifications and Prices of Straight Mandrels for Front Wheels**

Catalog Number	Diameter of Mandrel	Length of Mandrel	For All Adapters with	Code Word	Price Each
1800	1 1/4 in.	12 in.	1 1/4-in. hole	Narde	\$15.00
1810	1 3/4 in.	18 in.	1 3/4-in. hole	Nlaze	25.00
1840	2 1/4 in.	26 in.	2 1/4-in. hole	Nizee	40.00

### Universal Bearing Adapters for Front Wheels

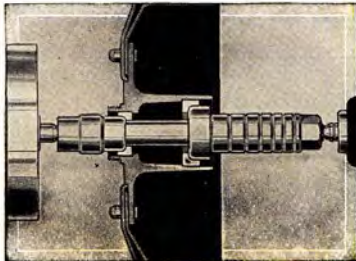
The illustration shows a pair of universal bearing adapters made of steel, used on the self-centering straight mandrels for mounting all types and makes of front wheels, and rear wheels with three-quarter and full-floating axles. The rounded corner of the universal bearing adapter conforms to the curve in the ball race cup and also to the angle of the Timken cup and will center either type of wheel accurately on the mandrel.



**Specifications and Prices of Universal Bearing Adapters**

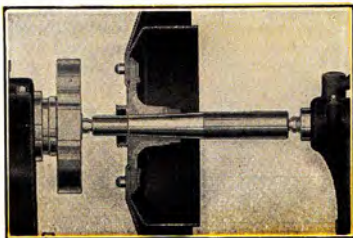
Catalog Number	To Fit Mandrel	Diameters Furnished	Diameter of Adapter Hole	Code Word	Price Per Pair*
1801	No. 1800	1 5/8" to 3 3/8" in eighths	1 1/4 in.	Nefas	\$ 5.00
1811	No. 1810	2 1/8" to 4 3/8" in quarters	1 3/4 in.	Negel	6.00
1841	No. 1840	3 1/4" to 7 1/4" in quarters	2 1/2 in.	Narug	10.00

\*Specify Catalog Number and Diameter of Adapters wanted when ordering.



**Ball Bearing Races and Universal Bearing Adapters**  
A front wheel with ball bearing races, mounted on the mandrel fitted with universal bearing adapters held between centers.

### Self-Centering Taper Mandrels for Rear Wheels



Set up of a rear wheel fitted with a taper mandrel, mounted between centers in the lathe for testing and machining.



The self-centering taper mandrel illustrated above is used for mounting semi-floating rear wheels (mounted on a taper) between centers in the lathe for testing, truing or machining brake drums and wheels. This mandrel is made in five sizes to fit the hubs of rear wheels of automobiles, buses and trucks.

**Specifications and Prices of Steel Taper Mandrels for Rear Wheels**

Catalog Number	Diameter of Mandrel	Length of Mandrel	Taper Per Foot	Code Word	Price Each
1820	1" to 1 1/8"	13 1/2 in.	3/4 in.	Numbe	\$8.00
1821	1 1/8" to 1 1/4"	11 1/2 in.	1 in.	Novel	8.00
1822	1 1/4" to 1 1/2"	13 1/2 in.	1 in.	Nasim	9.00
1823	1 1/2" to 1 3/4"	15 in.	1 in.	Nough	9.50
1824	1 3/4" to 1 7/8"	11 1/2 in.	1 1/4 in.	Nuper	8.00

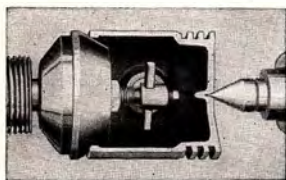
### Accessories, Tools and Attachments for South Bend Brake Drum Lathes

Name of Tool, Accessory or Attachment	For 36" Brake Drum Lathe				For 42" Brake Drum Lathe			
	Cat. No.	Size	Code Word	Price	Cat. No.	Size	Code Word	Price
Special Boring Bar Complete.....	464-A	1 1/2 in.	Hvrad	\$23.00	465-A	1 3/4 in.	Hindu	\$29.00
Right-hand Patent Turning Tool (extra long)	855-R	5/8 x 1 1/2 in.	Quker	5.50	856-R	3/4 x 1 1/2 in.	Quzas	7.00
Left-hand Patent Turning Tool (extra long)	855-L	5/8 x 1 1/2 in.	Qutih	5.50	856-L	3/4 x 1 1/2 in.	Qozaf	7.00
Center Rest .....	181	.....	Noath	25.00	182	.....	Noise	35.00
Follower Rest .....	186	.....	Nysta	12.50	187	.....	Niche	17.50

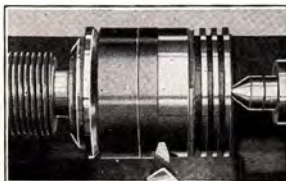
Write for 20-page Bulletin No. 29 illustrating and describing the Brake Drum Lathe and the work it does. See page 85

# Self-Centering Piston Adapters for South Bend Lathes

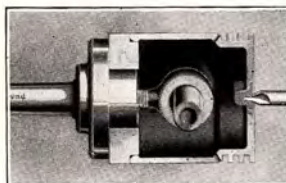
For Finishing All Types and Sizes of Pistons on the Lathe



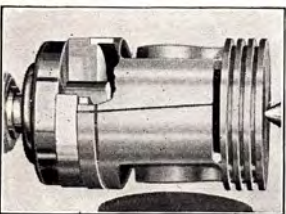
A Cross Section of a Piston on Adapter Ready for Machining



Machining a Piston to Finished Diameter, Using the No. 44 Piston Adapter



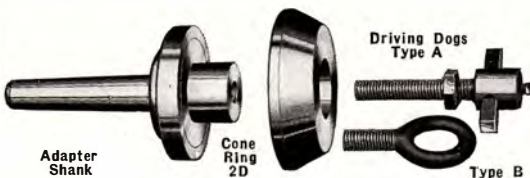
Centering a Piston Using Step Ring and Driving Dog, Type B



Close Up Showing Step Ring on Adapter Holding Split Skirt Piston (Aluminum or Alloy) for Finish Machining in Lathe. Details in Auto Mechanics' Service Book No. 66



Reaming the Bevel Skirt of a Warped Piston so That It Will Fit True on the Adapter



## No. 44 Self-Centering Piston Adapter

The No. 44 Self-Centering Piston Adapter Shank with one cone ring and two driving dogs, Type A and Type B, is shown above. One end of the adapter shank is tapered to fit the lathe spindle. The other end is machined to receive the adapter rings. The driving dog screws into the threaded hole in the end of the adapter shank and may be adjusted to drive any piston. Type A Driving Dog is used for pistons with center hole in head, the Type B Driving Dog for pistons without center hole in head. This Piston Adapter Shank, fitted with the correct type of adapter rings, will hold all sizes, all makes and all types of oversize and semi-machined pistons for machining in the lathe.

### Prices of No. 44 Self-Centering Piston Adapters

Size Lathe	Morse Taper of Shank	Cat. No.	Code Word	Price includes adapter shank, one driving dog, Type A, and one cone ring any size or type	Extra Driving Dog, Type B
9 in.	5	44-A	Hanov	\$12.00	\$0.50
11 in.	Special	44-B	Hbiot	12.00	.50
13 in.	3	44-C	Helay	12.00	.50
15 in.	3	44-D	Hdixc	13.00	.50
16 in.	3	44-E	Heota	13.00	.50

## Types of Adapter Rings Furnished



The Adapter Rings shown above are used on the one No. 44 Self-Centering Piston Adapter Shank as they are all interchangeable. Specifications of all types of adapter rings are shown in the tabulation below.

Cone Rings No. 1, 2, 3, and 4 for holding pistons with center hole in head. Cone Rings are finish machined and tapered in a 60 degree angle. One ring will hold and center many sizes of pistons.

Step Rings No. 1, 2, 3, and 4 are for holding pistons without center hole in head. Step Rings are rough turned on outside diameter. The step must be machined to size desired.

### Net Factory Prices and Specifications of Adapter Rings

Extra Cone Rings			Extra Step Rings			Capacity of Adapter Rings (All Types)
Cone Ring No.	Code Word	Price, Extra Rings	Step Ring No.	Code Word	Price, Extra Rings	For Pistons Outside Diameter
1D	Hudso	\$2.50	1C	Halex	\$2.50	2% to 3% in.
2D	Hwaki	2.50	2C	Hafod	2.50	3% to 3 3/4 in.
3D	Hyna	2.50	3C	Herim	2.50	3 3/4 to 4% in.
4D	Hzage	2.50	4C	Hecot	2.50	4 1/2 to 5 1/4 in.

## Piston Skirt Reamers

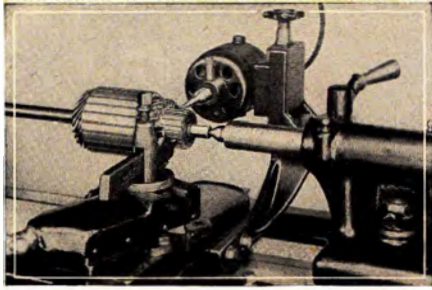
The Piston Reamers illustrated at the left are used on the No. 44 Piston Adapter Shank. The holes in the cone rings and the Reamers are the same size.

### Prices of Piston Skirt Reamers

Reamer Number	For Pistons Outside Dia.	Code Word	Price, Each Reamer
1R	2 1/2 to 3 1/4 in.	Hacke	\$ 7.50
2R	3 1/4 to 3 3/4 in.	Heine	9.00
3R	3 3/4 to 4 1/4 in.	Hiley	11.00
4R	4 1/4 to 5 in.	Holer	13.00



## Electric Mica Undercutter



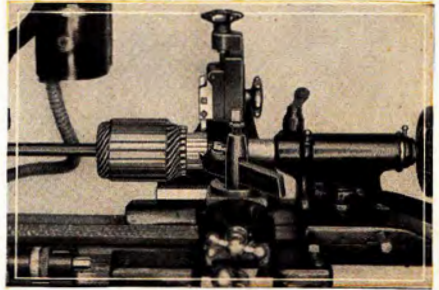
The Electric Mica Undercutter is practical for relieving mica insulation between segments of various size commutators, it is bolted to the saddle of the lathe and does not interfere with the turning tool when truing the commutator.

Price includes Motor, Bracket, Bolts for mounting on lathe and one set of 20 Disc Cutters (3/4 inch in diameter, 4 each—.015 in., .020 in., .025 in., .035 in.). When ordering specify either 110-volt or 220-volt current motor.

Net Factory Prices of Electric Mica Undercutter

Size of Lathe	Electric Undercutter with One Set of 20 Cutters			Extra Sets 20 Disc Cutters		
	Cat. No.	Code Word	Pr ce Each	Cat. No.	Code Word	Price Per Set
9 in.	527	Quer	\$50.00	201-C	Imork	\$6.00
11 in.	528	Qagh	50.00	201-C	Imork	6.00

## Shaper Mica Undercutter



The Shaper Type Mica Undercutter is practical for relieving mica insulation between segments of commutators. It is attached to a frame and fastens to the back of the lathe carriage out of the way of the turning tool. The commutator may be trued and the mica undercut without removing the armature from the lathe. Vertical adjustment of tool is obtained through the knob at top.

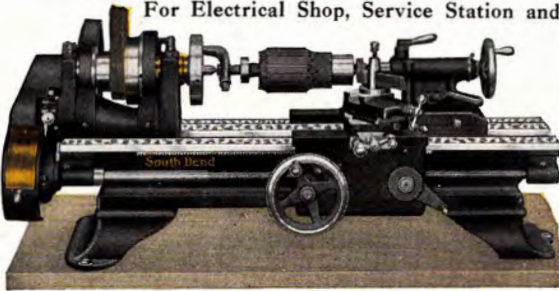
Price includes Frame, one Cutter Bit and Bolts for mounting on back of lathe carriage.

Net Factory Prices of Shaper Type Mica Undercutter

Size Lathe	Shaper Undercutter with One Cutter Bit			Extra Cutter Bits		
	Cat. No.	Code Word	Price Each	Cat. No.	Code Word	Price Each
9 in.	526-A	Nados	\$30.00	202-C	Nilos	\$0.50
11 in.	526-B	Nihad	30.00	202-D	Noble	.50

## 9-inch Junior New Model South Bend Bench Lathe

For Electrical Shop, Service Station and Automotive Repair Shop



Truing a Commutator on the 9-inch Junior Bench Lathe

The 9-inch Junior Bench Lathe shown in the illustration, at left, is a practical tool for truing commutators, undercutting mica on generator and starter armatures, making bushings and screws, refacing valves, machining pistons, and for general small automotive machine work where the finest accuracy and precision must be maintained. This lathe is shown in bench and floor leg types with overhead countershaft drive and various types of motor drive, on pages 41 to 47 of this catalog.

## Auto Mechanics Service Book No. 66

This book is especially for the automobile mechanic. It describes and illustrates the modern methods of machining all parts of the automobile motor in the Auto-Service Station, Garage, and Electrical Shop. A few jobs described are:

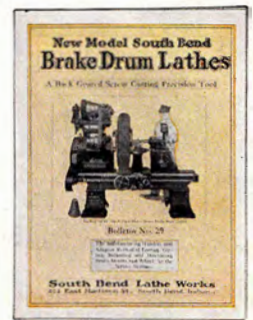
Truing Commutators  
Undercutting Mica  
Refinishing Valves  
Finishing Pistons  
Truing Brake Drums and Wheels  
Making Bushings  
Fitting Ring Gears  
And Many Others

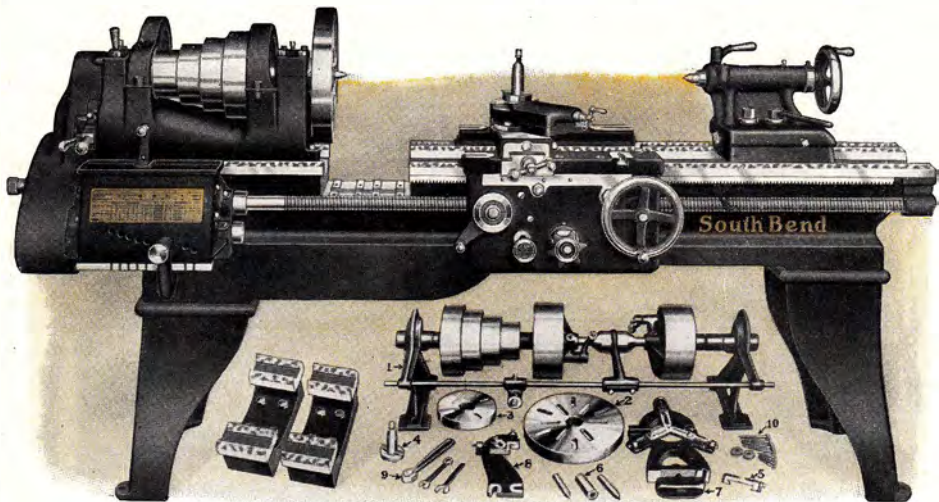


It is recommended by automobile manufacturers for use in their service stations throughout the world as a reliable guide for servicing motors with precision, speed and economy. Mailed anywhere in the world, Postpaid, Price 25 Cents.

## Brake Drum Bulletin No. 29

This Bulletin illustrates and describes the South Bend Brake Drum Lathes which are used as a combination lathe for brake drums, wheels and machine work in the service station or machine shop. It also describes the South Bend Mandrel and Adapter method for mounting brake drums and wheels between centers in the lathe for testing, truing and machining. This is recognized by automobile manufacturers as the most accurate and economical method for truing brake drums and mounting wheels in that they recommend it for their brake and wheel service stations in the United States and overseas. Mailed anywhere in the world, Postpaid, No Charge.





Regular equipment as illustrated under Lathe is included in the price

## New Model South Bend Gap Lathe with Double Bridge

Quick Change and Standard Change, Back Geared Screw Cutting Lathes

The New Model South Bend Gap Bed Lathe with double bridge, as illustrated above, is furnished in four sizes: 13-inch to 19<sup>1</sup>/<sub>2</sub>-inch swing; 15-inch to 22<sup>1</sup>/<sub>2</sub>-inch; 16-inch to 24<sup>1</sup>/<sub>2</sub>-inch; and 18-inch to 26<sup>1</sup>/<sub>2</sub>-inch (\* with bridge removed). They are supplied in Quick Change and Standard Change Gear types and with Countershaft or Silent Chain Motor Drive.

The Control Mechanism of the apron on Gap Lathes is transposed so that the carriage can be fed by hand or power over the gap for machining narrow work. The Gap Lathe is practical for boring and bushing flywheels, pulleys and for other work of large diameter.

For Features, Specifications and detailed description of any particular size of Gap Lathe refer to the corresponding size of straight bed lathe, as the only difference between the two is in the construction of the bed and apron.

Regular Equipment included with each Gap Lathe consists of: Double Bridge, Double Friction Countershaft, Large Face Plate, Small Face Plate, Tool Post complete, Adjustable Thread

Cutting Stop, two Lathe Centers and Spindle Sleeve, Center Rest, Follower Rest and Wrenches, also Installation Plans, Floor Plans and book, "How to Run a Lathe." See page 67.

The Double Bridge is made up of two sections of equal width, which completely fill the gap in the bed. The bridges are carefully finished and hand scraped to the lathe bed to insure accuracy. Each bridge has four holes through which it is clamped

to the bed of the lathe and located by dowel pins. Either one or both of the bridges may be removed quickly to accommodate the work to be machined. For examples see bottom of next page. For total width of gap and other specifications of the various size lathes see page 87.

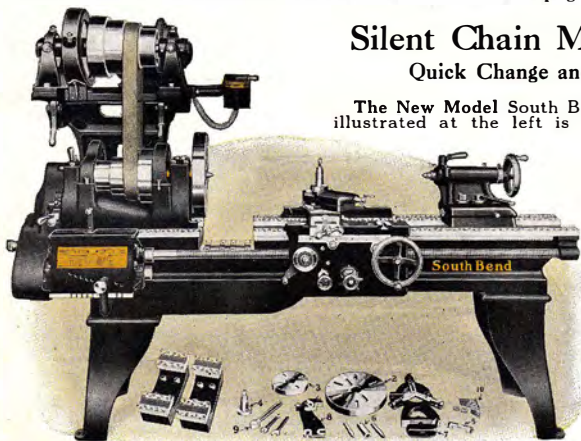


Double Bridge

## Silent Chain Motor Driven Gap Lathe

Quick Change and Standard Change Gear Types

The New Model South Bend Silent Chain Motor Driven Gap Lathe illustrated at the left is identically the same as the Gap Lathe shown above except that instead of Overhead Countershaft Drive it is equipped with Silent Chain Motor Drive which is illustrated and described on pages 28 and 29.



Equipment illustrated under Lathe is included in price

Electrical Equipment included in the price of the Silent Chain Motor Driven Gap Lathe consists of: Reversing Motor, 1200 R.P.M. (Westinghouse, General Electric or equal make), Reversing Switch (drum type), Wiring between Motor and Switch, Flexible Metal Conduit, Wiring Diagram and Leather Belt.

Regular Lathe Equipment included in the price of the Silent Chain Motor Driven Gap Lathe consists of the same equipment as listed for the Countershaft Lathe, less the Double Friction Countershaft.



# The New Model Double Gap Lathes with Double Bridge

Standard and Quick Change Gear Lathes, Countershaft Drive and Motor Drive Types

In the tabulation below we list the prices of the complete line of New Model Double Gap Lathes, Quick Change and Standard Change Gear types, Countershaft and Silent Chain Motor Drive patterns. These lathes range in size from 13-inch to 18-inch swing with different bed lengths for each swing. The prices listed are net factory prices f.o.b. South Bend, Ind., crated for domestic shipment.

The prices of the Countershaft Driven Gap Bed Lathes, Quick Change and Standard Change Gear types, include countershaft and regular lathe equipment as illustrated beneath the lathe at the top of page 86. The prices of the Silent Chain Motor Driven Gap Bed Lathes include the regular lathe equipment and complete electrical equipment as shown in the illustration of the lathe at the bottom of the preceding page.

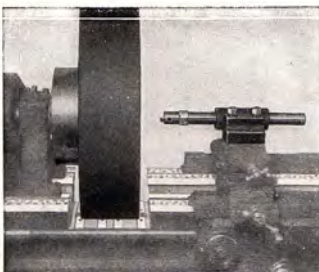
## Net Factory Prices and Specifications of Double Gap Lathes—Countershaft and Motor Drive Types

Specifications of Lathes							Countershaft Drive			Silent Chain Motor Drive					
Size of Lathe	Length of Bed	Between Centers	Swing Over Gap	Total Width of Gap	Power Required	Weight Crated, lbs.	Catalog No. of Lathe	Code Word	Net Factory Price	Catalog No. of Lathe	Code Word	3 Phase 60 Cycle A. C. Motor	1 Phase 60 Cycle Motor	Direct Current Motor	
<b>Quick Change Gear Double Gap Lathes</b>															
<b>13-inch—19-inch Quick Change Gear Double Gap Lathes</b>															
13 in.	5 ft.	28 in.	19 in.	7 in.	¾ H.P.	1210	686-B	Gestr	\$508.00	3686-B	Ganex	\$ 667.00	\$ 710.00	\$ 678.00	
13 in.	6 ft.	40 in.	19 in.	7 in.	¾ H.P.	1260	686-C	Giant	523.00	3686-C	Gapiz	682.00	725.00	693.00	
13 in.	7 ft.	52 in.	19 in.	7 in.	¾ H.P.	1310	686-D	Gicyn	540.00	3686-D	Glah	699.00	742.00	710.00	
13 in.	8 ft.	64 in.	19 in.	7 in.	¾ H.P.	1360	686-E	Gidan	559.00	3686-E	Gomik	718.00	761.00	729.00	
<b>15-inch—22-inch Quick Change Gear Double Gap Lathes</b>															
15 in.	5 ft.	24½ in.	22 in.	8 in.	1 H.P.	1600	688-B	Lacta	600.00	3688-B	Lamul	777.00	866.00	855.00	
15 in.	6 ft.	36½ in.	22 in.	8 in.	1 H.P.	1675	688-C	Lavor	618.00	3688-C	Labop	795.00	824.00	873.00	
15 in.	7 ft.	48½ in.	22 in.	8 in.	1 H.P.	1750	688-D	Links	636.00	3688-D	Lextaq	813.00	842.00	891.00	
15 in.	8 ft.	60½ in.	22 in.	8 in.	1 H.P.	1830	688-E	Lutry	656.00	3688-E	Letir	833.00	862.00	911.00	
15 in.	10 ft.	84½ in.	22 in.	8 in.	1 H.P.	2025	688-G	Lozen	760.00	3688-G	Lifus	877.00	906.00	955.00	
<b>16-inch—24-inch Quick Change Gear Double Gap Lathes</b>															
16 in.	6 ft.	34 in.	24 in.	8½ in.	2 H.P.	2015	692-C	Macorn	683.00	3692-C	Maabut	862.00	891.00	940.00	
16 in.	7 ft.	46 in.	24 in.	8½ in.	2 H.P.	2095	692-D	Maids	703.00	3692-D	Madock	882.00	911.00	960.00	
16 in.	8 ft.	58 in.	24 in.	8½ in.	2 H.P.	2175	692-E	Medic	723.00	3692-E	Mafor	902.00	931.00	980.00	
16 in.	10 ft.	82 in.	24 in.	8½ in.	2 H.P.	2335	692-G	Melte	767.00	3692-G	Megac	946.00	975.00	1024.00	
16 in.	12 ft.	106 in.	24 in.	8½ in.	2 H.P.	2495	692-H	Mezto	830.00	3692-H	Mehop	1009.00	1038.00	1087.00	
<b>18-inch—26-inch Quick Change Gear Double Gap Lathes</b>															
18 in.	6 ft.	29½ in.	26 in.	10 in.	2 H.P.	2610	694-C	Sabin	813.00	3694-C	Self	1047.00	1099.00	1144.00	
18 in.	7 ft.	41 in.	26 in.	10 in.	2 H.P.	2710	694-D	Salty	838.00	3694-D	Simad	1072.00	1124.00	1169.00	
18 in.	8 ft.	53½ in.	26 in.	10 in.	2 H.P.	2810	694-E	Sande	863.00	3694-E	Sidom	1097.00	1149.00	1194.00	
18 in.	10 ft.	77½ in.	26 in.	10 in.	2 H.P.	3010	694-G	Saint	917.00	3694-G	Soful	1151.00	1203.00	1248.00	
18 in.	12 ft.	101½ in.	26 in.	10 in.	2 H.P.	3310	694-H	Savor	995.00	3694-H	Segea	1229.00	1281.00	1326.00	
18 in.	14 ft.	125½ in.	26 in.	10 in.	2 H.P.	3710	694-K	Sawte	1057.00	3694-K	Sunet	1291.00	1343.00	1388.00	

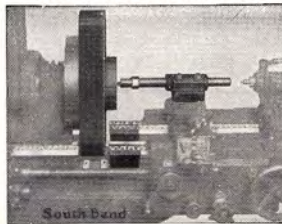
## Standard Change Gear Double Gap Lathes

<b>13-inch—19-inch Standard Change Gear Double Gap Lathes</b>															
13 in.	5 ft.	28 in.	19 in.	7 in.	¾ H.P.	1210	635-B	Gleta	448.00	3635-B	Gudel	607.00	650.00	618.00	
13 in.	6 ft.	40 in.	19 in.	7 in.	¾ H.P.	1260	635-C	Glost	463.00	3635-C	Gusom	622.00	665.00	633.00	
13 in.	7 ft.	52 in.	19 in.	7 in.	¾ H.P.	1310	635-D	Golfe	480.00	3635-D	Golaz	639.00	682.00	650.00	
13 in.	8 ft.	64 in.	19 in.	7 in.	¾ H.P.	1360	635-E	Gomez	499.00	3635-E	Gonet	658.00	701.00	669.00	
<b>15-inch—22-inch Standard Change Gear Double Gap Lathes</b>															
15 in.	5 ft.	24½ in.	22 in.	8 in.	1 H.P.	1600	639-B	Luber	525.00	3639-B	Lixot	702.00	731.00	780.00	
15 in.	6 ft.	36½ in.	22 in.	8 in.	1 H.P.	1675	639-C	Lucky	543.00	3639-C	Lorib	720.00	749.00	798.00	
15 in.	7 ft.	48½ in.	22 in.	8 in.	1 H.P.	1750	639-D	Lullo	561.00	3639-D	Lotac	738.00	767.00	816.00	
15 in.	8 ft.	60½ in.	22 in.	8 in.	1 H.P.	1830	639-E	Lufite	581.00	3639-E	Lopad	758.00	787.00	836.00	
15 in.	10 ft.	84½ in.	22 in.	8 in.	1 H.P.	2025	639-G	Lynch	625.00	3639-G	Lusaf	802.00	831.00	880.00	
<b>16-inch—24-inch Standard Change Gear Double Gap Lathes</b>															
16 in.	6 ft.	34 in.	24 in.	8½ in.	2 H.P.	2015	641-C	Mince	603.00	3641-C	Mekug	782.00	811.00	860.00	
16 in.	7 ft.	46 in.	24 in.	8½ in.	2 H.P.	2095	641-D	Mouse	623.00	3641-D	Milun	802.00	831.00	880.00	
16 in.	8 ft.	58 in.	24 in.	8½ in.	2 H.P.	2175	641-E	Mouth	643.00	3641-E	Minu	822.00	851.00	900.00	
16 in.	10 ft.	82 in.	24 in.	8½ in.	2 H.P.	2335	641-G	Mytha	687.00	3641-G	Misat	866.00	895.00	944.00	
16 in.	12 ft.	106 in.	24 in.	8½ in.	2 H.P.	2495	641-H	Mytko	750.00	3641-H	Moris	929.00	958.00	1007.00	
<b>18-inch—26-inch Standard Change Gear Double Gap Lathes</b>															
18 in.	6 ft.	29½ in.	26 in.	10 in.	2 H.P.	2610	643-C	Senso	723.00	3643-C	Sulax	957.00	1009.00	1054.00	
18 in.	7 ft.	41 in.	26 in.	10 in.	2 H.P.	2710	643-D	Sebal	748.00	3643-D	Satun	982.00	1034.00	1079.00	
18 in.	8 ft.	53½ in.	26 in.	10 in.	2 H.P.	2810	643-E	Sedri	773.00	3643-E	Secip	1007.00	1059.00	1104.00	
18 in.	10 ft.	77½ in.	26 in.	10 in.	2 H.P.	3010	643-G	Sefol	827.00	3643-G	Sirod	1061.00	1113.00	1158.00	
18 in.	12 ft.	101½ in.	26 in.	10 in.	2 H.P.	3310	643-H	Segme	905.00	3643-H	Sulos	1139.00	1191.00	1236.00	
18 in.	14 ft.	125½ in.	26 in.	10 in.	2 H.P.	3710	643-K	Selcha	967.00	3643-K	Sunen	1201.00	1253.00	1298.00	

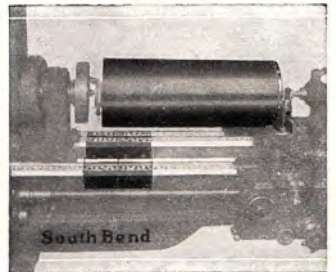
The above weights are for Countershaft Drive Lathes; weights of Motor Drive Lathes are approximately 450 lbs. heavier.



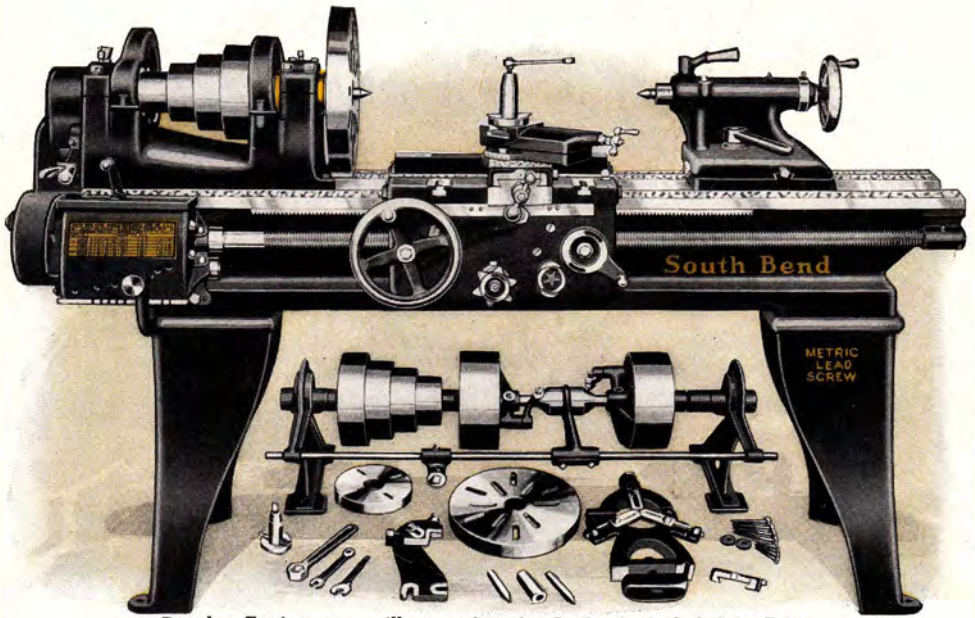
Double Bridge Removed from Gap for Extremely Wide Work



The Illustration Above Shows One Bridge Removed for Narrow Work; the Other Bridge Remains to Support the Carriage



Double Bridge in Place, Lathe Used as a Straight Bed



Regular Equipment as illustrated under Lathe is included in Price

## METRIC New Model South Bend Precision Lathes

Quick Change and Standard Change Gear Lathes, Countershaft Drive

The New Model South Bend Metric Lathe illustrated above is exactly the same as the regular line of South Bend Quick Change and Standard Change Gear Lathes except that it is equipped with a Metric Thread Lead Screw, Metric Thread Spindle Nose, and Metric Gear Box for cutting International Standard Metric Screw Threads. The Micrometer Graduated Collars are graduated in the Metric system.

Specifications, Weights and Measurements of the various size Countershaft Driven Metric Lathes, boxed for ocean shipment, are listed in the tabulation on page 90.

Prices of the various sizes and types of Metric Lathes are listed on pages 90 and 91. Prices are the same as for the regular lathes with English Lead Screw.

Quick Change Gear Metric Lathes are provided with a Quick Change Metric Gear Box, and will cut the following International Standard Metric Screw Threads: 8.5, 8., 7.5, 7., 6.5, 6., 5.5, 5., 4.5, 4.25, 4., 3.75, 3.5, 3.25, 3., 2.75, 2.5, 2.25, 2.125, 2., 1.875, 1.75, 1.625, 1.5, 1.375, 1.25, 1.125, 1., .85, .8, .75, .7, .65, .6, .55, .5, .45, .425, .4, .375, .35, .325, .3, .275, .25, .225, .2125, .2, .1875, .175, .1625, .15, .1375, .125, .1125, .1 m/m pitch. The Metric Gear Box also provides for a wide range of Automatic Cross and Longitudinal Feeds.

Standard Change Gear Metric Lathes are furnished with a set of independent change gears

for cutting the following International Standard Metric Screw Threads: 8., 7.5, 7., 6.5, 6., 5.5, 5., 4.5, 4., 3.5, 3., 2.5, 2., 1.75, 1.5, 1.25, 1., .75, .5 m/m pitch. These gears also provide for a wide range of Automatic Cross and Automatic Longitudinal Feeds.

Regular Equipment included in the price of Metric Lathes, with overhead countershaft drive, consists of: Double Friction Countershaft, Large Face Plate, Small Face Plate, Tool Post complete, Adjustable Thread Cutting Stop, two Lathe Centers and Spindle Sleeve, Center Rest, Follower Rest, Wrenches; also Installation Plans, Floor Plans and book, "How to Run a Lathe."

Attachments for Metric Lathes. All attachments shown in this catalog can be fitted to all size South Bend Metric Lathes. Attachments for Metric Lathes are furnished with micrometer graduated parts reading in the metric system.

### Independent Change Gears For Threads and Feeds on Standard Change Gear Lathes

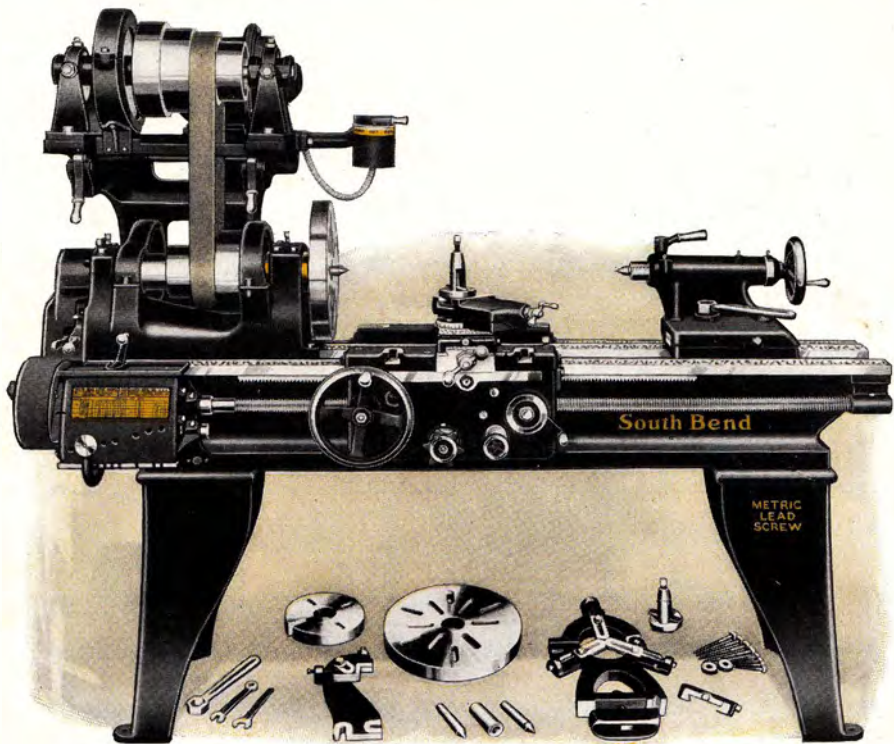
Independent Change Gears are supplied with South Bend Standard Change Gear Metric Lathes. These gears are used for cutting the International Standard Metric Pitches as indicated on the Metric Index Plate (at right) which is attached to each Standard Change Gear Metric Lathe. These gears also provide for the adjustment of the Automatic Cross and Longitudinal Feeds.

SOUTH BEND — LATHE — M/M THREAD METRIC LATHE		
THREAD	SPINDLE	SCREW
.50	— 30	1-2 120
.75	— 30	1-2 — 120
1.00	— 30	1-2 90
1.25	— 30	1-2 — 72
1.50	— 30	120
2.00	— 30	— 90
2.50	— 30	— 72
3.00	— 30	— 60
3.50	— 42	— 72
4.00	— 42	— 63
4.50	— 45	— 60
5.00	— 45	— 54
5.50	— 55	— 60
6.00	— 55	— 35
6.50	— 52	— 48
7.00	— 42	— 36
7.50	— 45	— 38
8.00	— 48	— 36

SOUTH BEND LATHE WORKS		SOUTH BEND, INDIANA, U.S.A.	
9 - INCH METRIC		QUICK CHANGE LATHE	
LONGITUDINAL FEEDS		3 TIMES PITCH	
MILLIMETER PITCH			
GEAR BOX (GEAR)	TOP LEVEL		
32 SIMPLE	LEFT	8.5	7 7/8
	CENTER	4.25	3.375
	RIGHT	2.125	1.6875
64 COM-POUND	LEFT	8.5	7 7/8
	CENTER	4.25	3.375
	RIGHT	2.125	1.6875

Index Plate on Quick Change Metric Gear Box Showing Threads and Feeds





Reversing Motor, Reversing Switch and Lathe Equipment are Included in Price

## METRIC Silent Chain Motor Driven Lathes

### Quick Change and Standard Change Gear Lathes

The New Model South Bend Silent Chain Motor Driven Metric Lathe, illustrated above, is exactly the same as the metric lathe shown and described on page 88 except that it is equipped with silent chain motor drive instead of countershaft drive. For illustrations and descriptions of the various size Silent Chain Motor Driven Lathes see pages 22 to 29. Motor Driven Bench Lathes are shown on pages 42 to 53.

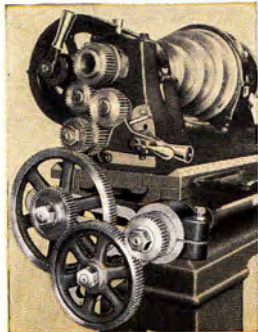
Specifications, Weights and Measurements of the various size Motor Driven Metric Lathes, boxed for ocean shipment, are listed in the tabulation on page 91. See also page 95.

Prices of Metric Lathes in the various sizes and types are listed on pages 90 and 91. These prices are the same as for the regular lathes with English Lead Screw.

Regular Lathe Equipment included in the price of Silent Chain Motor Driven Metric Lathes, consists of: Large Face Plate, Small Face Plate, Tool Post complete, Adjustable Thread Cutting Stop, two Lathe Centers and Spindle Sleeve, Center Rest, Follower Rest, Wrenches and Change Gears with Standard Change Gear Lathes; also Installation Plans, Floor Plans and book, "How to Run a Lathe." See page 67.

Electrical Equipment included in the price of Silent Chain Motor Driven Metric Lathes, consists of: Reversing Motor 1200 R.P.M. (Westinghouse, General Electric or equal make), Reversing Switch (drum type), Wiring between Motor and Switch, Flexible Metal Conduit, Wiring Diagram and Leather Belt. For description of Motor Drive Unit and Equipment see pages 28 and 29.

## Transposing Gear Attachment for Cutting Metric Threads

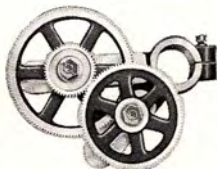


Attachment Fitted to Lathe

On 9- to 18-Inch South Bend Lathes Equipped with American Pitch Lead Screw

The Metric Transposing Gear Attachment permits the lathe to be used for cutting the following International Standard Metric Screw Threads: .5, .75, 1., 1.25, 1.5, 1.75, 2., 2.5, 3., 3.5, 4., 4.5, 5., 5.5, 6., 6.5, 7., 7.5, 8 m/m pitch.

The South Bend Lathe equipped with Metric Transposing Gears is capable of producing a Metric Thread that is equal in accuracy and precision to any thread cut on a regular Metric Lathe equipped with Metric Lead Screw.



Price of attachment includes bracket, two Transposing Gears, Idler Gear and set of Change Gears as illustrated, also Index Plate.



### Transposing Gear Attachment

Size Lathe	Quick Change		Standard Change	
	Cat. No.	Price	Cat. No.	Price
9 in.	1435	\$40.00	1442	\$35.00
11 in.	1436	45.00	1443	40.00
13 in.	1437	50.00	1444	45.00
15 in.	1438	55.00	1445	50.00
16 in.	1439	60.00	1446	55.00
18 in.	1440	65.00	1447	60.00

# Metric South Bend Lathes—Specifications and Prices

Also Weights and Measurements of Shipping Cases Boxed for Ocean Shipment

The Tabulation below shows prices and brief specifications of all size Metric Quick Change and Standard Change Gear Lathes, in the popular Bench and Floor Leg types, Countershaft Drive. For other important Metric Lathe Specifications, not shown below, see tabulation on page 95.

## Metric Quick Change and Standard Change, Back Geared Screw Cutting Lathes

Swing Over Bed		Length of Bed		Dimensions of Shipping Case		Weight Boxed for Export		Quick Change Gear Metric Lathe			Standard Change Gear Metric Lathe		
Inches	Milli-meters	Feet	mm.	Inches	Milli-meters	Lbs.	Kilos	Cat. No.	Code Word	Price F.A.S. New York	Cat. No.	Code Word	Price F.A.S. New York

## Metric South Bend Bench Lathes—Countershaft Drive\*

235 mm. (9-inch) Metric Junior New Model Bench Lathe (See page 41)													
9 1/4	235	2 1/2	625	48x23x24	1219x584x610	465	211				22-MXB	Bezali	\$163.00
9 1/4	235	3	914	48x23x24	1219x584x610	495	225				22-MYB	Beziki	169.00
9 1/4	235	3 1/2	1065	48x23x24	1219x584x610	515	234		Not Made in Quick Change Gear Type		22-MZB	Bezje	175.00
9 1/4	235	4	1219	60x23x24	1524x584x610	535	243				22-MAB	Bezlo	182.00
9 1/4	235	4 1/2	1372	66x23x24	1676x584x610	560	255				22-MRB	Bezum	190.00

235 mm. (9-inch) Metric Quick Change and Standard Change Gear Bench Lathe (See page 48)													
9 1/4	235	2 1/2	625	48x23x24	1219x584x610	465	211	80-MXB	Bicut	\$278.00	30-MXB	Biefs	\$233.00
9 1/4	235	3	914	48x23x24	1219x584x610	495	225	80-MYB	Bicvy	284.00	30-MYB	Biegt	239.00
9 1/4	235	3 1/2	1065	48x23x24	1219x584x610	515	234	80-MZB	Bider	290.00	30-MZB	Bieky	245.00
9 1/4	235	4	1219	60x23x24	1524x584x610	535	243	80-MAB	Biatto	297.00	30-MAB	Bielz	252.00
9 1/4	235	4 1/2	1372	66x23x24	1676x584x610	560	255	80-MRB	Biduv	305.00	30-MRB	Biemb	260.00

## Metric South Bend Floor Leg Lathes—Countershaft Drive\*

235 mm. (9-inch) Metric Junior New Model Lathe (See page 46)													
9 1/4	235	2 1/2	625	60x23x24	1524x584x610	530	241				22-MX	Bezyn	\$173.00
9 1/4	235	3	914	60x23x24	1524x584x610	560	254				22-MY	Biags	179.00
9 1/4	235	3 1/2	1065	60x23x24	1524x584x610	580	263		Not Made in Quick Change Gear Type		22-MZ	Biaht	185.00
9 1/4	235	4	1219	60x23x24	1524x584x610	600	272				22-MA	Bialy	192.00
9 1/4	235	4 1/2	1372	66x23x24	1676x584x610	620	282				22-MR	Biamz	200.00

235 mm. (9-inch) Metric Quick Change and Standard Change Gear Lathes (See pages 10 and 11)													
9 1/4	235	2 1/2	625	60x23x24	1524x584x610	530	241	80-MX	Benva	\$288.00	30-MX	Beofs	\$243.00
9 1/4	235	3	914	60x23x24	1524x584x610	560	254	80-MY	Benzo	294.00	30-MY	Beowj	249.00
9 1/4	235	3 1/2	1065	60x23x24	1524x584x610	580	263	80-MZ	Beohs	300.00	30-MZ	Bepbo	255.00
9 1/4	235	4	1219	60x23x24	1524x584x610	600	272	80-MA	Beojt	307.00	30-MA	Bepez	262.00
9 1/4	235	4 1/2	1372	66x23x24	1676x584x610	620	282	80-MR	Beonz	315.00	30-MR	Bepob	270.00

287 mm. (11-inch) Metric Quick Change and Standard Change Gear Lathes (See pages 12 and 13)													
11 1/4	287	3	914	60x23x24	1524x584x610	810	367	84-MY	Ebeup	\$345.00	33-MY	Ebepy	\$295.00
11 1/4	287	3 1/2	1065	60x23x24	1524x584x610	845	383	84-MZ	Ebdal	352.00	33-MZ	Eberb	302.00
11 1/4	287	4	1219	60x23x24	1524x584x610	880	400	84-MA	Ebdem	359.00	33-MA	Ebewg	309.00
11 1/4	287	5	1524	72x23x24	1829x584x610	950	430	84-MB	Ebdin	375.00	33-MB	Ebfam	325.00
11 1/4	287	5 1/2	1676	78x23x24	1981x584x610	1000	448	84-MS	Ebdup	384.00	33-MS	Ebfen	334.00

337 mm. (13-inch) Metric Quick Change and Standard Change Gear Lathes (See pages 14 and 15)													
13 1/4	337	4	1219	70x26x28	1778x660x711	1290	586	86-MA	Gabaj	\$428.00	35-MA	Gabmo	\$368.00
13 1/4	337	5	1524	70x26x28	1778x660x711	1360	618	86-MB	Gabek	443.00	35-MB	Gabpy	383.00
13 1/4	337	6	1829	82x26x28	2083x660x711	1420	643	86-MC	Gabil	458.00	35-MC	Gacac	398.00
13 1/4	337	7	2134	94x26x28	2388x660x711	1490	675	86-MD	Gabja	475.00	35-MD	Gacel	415.00
13 1/4	337	8	2438	106x26x28	2692x660x711	1560	708	86-ME	Gabke	494.00	35-ME	Gaeon	434.00

387 mm. (15-inch) Metric Quick Change and Standard Change Gear Lathes (See pages 16 and 17)													
15 1/4	387	5	1524	70x28x29	1778x711x737	1725	783	88-MB	Lacuv	\$525.00	39-MB	Labut	\$450.00
15 1/4	387	6	1829	82x28x29	2083x711x737	1810	822	88-MC	Ladar	543.00	39-MC	Labyv	468.00
15 1/4	387	7	2134	94x28x29	2388x711x737	1905	865	88-MD	Ladit	561.00	39-MD	Lacer	486.00
15 1/4	387	8	2438	106x28x29	2692x711x737	2000	910	88-ME	Ladov	581.00	39-ME	Lacre	506.00
15 1/4	387	10	3048	130x28x29	3302x711x737	2200	1000	88-MG	Labso	625.00	39-MG	Ladyx	550.00

414 mm. (16-inch) Metric Quick Change and Standard Change Gear Lathes (See pages 18 and 19)													
16 1/4	414	6	1829	82x28x30 1/2	2083x711x775	2145	975	92-MC	Mabak	\$598.00	41-MC	Macop	\$518.00
16 1/4	414	7	2134	94x28x30 1/2	2388x711x775	2245	1021	92-MD	Mabno	618.00	41-MD	Macry	538.00
16 1/4	414	8	2438	106x28x30 1/2	2692x711x775	2355	1071	92-ME	Mabup	638.00	41-ME	Madip	558.00
16 1/4	414	10	3048	130x28x30 1/2	3302x711x775	2565	1166	92-MG	Macal	682.00	41-MG	Madma	602.00
16 1/4	414	12	3658	154x28x30 1/2	3912x711x775	2925	1330	92-MH	Macern	745.00	41-MH	Madne	665.00

464 mm. (18-inch) Metric Quick Change and Standard Change Gear Lathes (See pages 20 and 21)													
18 1/4	464	6	1829	82x30x31	2083x762x787	2740	1245	94-MC	Sakyy	\$713.00	43-MC	Salid	\$623.00
18 1/4	464	7	2134	94x30x31	2388x762x787	2870	1305	94-MD	Sakza	738.00	43-MD	Salug	648.00
18 1/4	464	8	2438	106x30x31	2692x762x787	3000	1364	94-ME	Salab	763.00	43-ME	Salyh	673.00
18 1/4	464	10	3048	130x30x31	3302x762x787	3350	1523	94-MG	Salce	817.00	43-MG	Saenr	727.00
18 1/4	464	12	3658	154x30x31	3912x762x787	3660	1664	94-MH	Salfo	895.00	43-MH	Saerj	805.00
18 1/4	464	14	4267	178x30x31	4521x762x787	3950	1796	94-MK	Sulad	957.00	43-MK	Sents	867.00

\*Every lathe shown in this catalog can be supplied in the metric type at no additional cost.



# Metric South Bend Lathes—Specifications and Prices

Also Weights and Measurements of Shipping Cases Boxed for Ocean Shipment

The Tabulation below shows prices and brief specifications of all size Metric Quick Change and Standard Change Gear Lathes, Motor Drive, in the popular Bench and Floor Leg types. For other important Metric Lathe Specifications not shown below, see tabulation on page 95.

## Metric Quick Change and Standard Change, Back Geared Screw Cutting Lathes

Swing Over Bed		Length of Bed		Dimensions of Shipping Case		Weight Boxed for Export		Quick Change Gear Metric Lathe			Standard Change Gear Metric Lathe		
Inches	Milli-meters	Feet	mm.	Inches	Millimeters	Lbs.	Kilos	Cat. No.	Code Word	Price F.A.S. New York	Cat. No.	Code Word	Price F.A.S. New York

## Metric South Bend Bench Lathes—Self-Contained Motor Drive\*

235 mm. (9-inch) Metric Junior Self-Contained Motor Driven Bench Lathe (See page 43)													
9/4	235	2 1/2	625	68x25x25	1727x630x630	565	257	Not Made in Quick Change Gear Type			722-MX	Bianb	\$245.00
9/4	235	3	914	68x25x25	1727x630x630	595	271		722-MY	Biamk	251.00		
9/4	235	3 1/2	1065	68x25x25	1727x630x630	615	280		722-MZ	Biazm	257.00		
9/4	235	4	1219	74x25x25	1880x630x630	635	290		722-MA	Biban	264.00		
9/4	235	4 1/2	1372	80x25x25	2032x630x630	660	300		722-MR	Bibep	272.00		

235 mm. (9-inch) Metric Self-Contained Motor Driven Bench Lathe (See page 49)													
9/4	235	2 1/2	625	68x25x25	1727x630x630	565	257	780-MX	Bitah	\$360.00	730-MX	Bitus	\$315.00
9/4	235	3	914	68x25x25	1727x630x630	595	271	780-MY	Bitik	366.00	730-MY	Biuct	321.00
9/4	235	3 1/2	1065	68x25x25	1727x630x630	615	280	780-MZ	Bitje	372.00	730-MZ	Biugy	327.00
9/4	235	4	1219	74x25x25	1880x630x630	635	290	780-MA	Bitlo	379.00	730-MA	Biuhz	334.00
9/4	235	4 1/2	1372	80x25x25	2032x630x630	660	300	780-MR	Bitny	387.00	730-MR	Biuld	342.00

## Metric South Bend Floor Leg Lathes—Silent Chain Motor Drive\*

235 mm. (9-inch) Metric Junior Silent Chain Motor Driven Lathe† (See page 47)													
9/4	235	2 1/2	625	78x23x24	1981x584x610	880	400	Not Made in Quick Change Gear Type			322-MX	Bibna	\$277.00
9/4	235	3	914	78x23x24	1981x584x610	920	418		322-MY	Bibor	283.00		
9/4	235	3 1/2	1065	78x23x24	1981x584x610	955	434		322-MZ	Bieor	289.00		
9/4	235	4	1219	78x23x24	1981x584x610	980	445		322-MA	Bicos	296.00		
9/4	235	4 1/2	1372	84x23x24	2134x584x610	1010	459		322-MR	Bisco	304.00		

235 mm. (9-inch) Metric Silent Chain Motor Driven Lathe† (See page 22)													
9/4	235	2 1/2	625	78x23x24	1981x584x610	880	400	380-MX	Bigwo	\$392.00	330-MX	Bihta	\$347.00
9/4	235	3	914	78x23x24	1981x584x610	920	418	380-MY	Bigzy	398.00	330-MY	Bihez	353.00
9/4	235	3 1/2	1065	78x23x24	1981x584x610	955	434	380-MZ	Bihat	404.00	330-MZ	Biheve	359.00
9/4	235	4	1219	78x23x24	1981x584x610	980	445	380-MA	Bihev	411.00	330-MA	Bisok	366.00
9/4	235	4 1/2	1372	84x23x24	2134x584x610	1010	459	380-MR	Bihoy	419.00	330-MR	Bisul	374.00

287 mm. (11-inch) Metric Silent Chain Motor Driven Lathe (See page 23)													
11 1/4	287	3	914	78x23x24	1981x584x610	1145	521	384-MY	Ebfp	\$484.00	333-MY	Ebgor	\$434.00
11 1/4	287	3 1/2	1065	78x23x24	1981x584x610	1195	543	384-MZ	Ebfur	491.00	333-MZ	Ebgus	441.00
11 1/4	287	4	1219	78x23x24	1981x584x610	1215	552	384-MA	Ebfys	498.00	333-MA	Ebgwe	448.00
11 1/4	287	5	1524	90x23x24	2286x584x610	1300	591	384-MB	Ebgan	514.00	333-MB	Ebgyt	464.00
11 1/4	287	5 1/2	1676	96x23x24	2438x584x610	1300	607	384-MS	Ebgep	523.00	333-MS	Ebhap	473.00

337 mm. (13-inch) Metric Silent Chain Motor Driven Lathe (See page 24)													
13 1/4	337	4	1219	92x26x28	2337x660x711	1860	846	386-MA	Gacup	\$587.00	335-MA	Gaeks	\$527.00
13 1/4	337	5	1524	92x26x28	2337x660x711	1940	882	386-MB	Gadal	602.00	335-MB	Gaekl	542.00
13 1/4	337	6	1829	104x26x28	2642x660x711	2020	918	386-MC	Gadem	617.00	335-MC	Gaempy	574.00
13 1/4	337	7	2134	116x26x28	2946x660x711	2100	955	386-MD	Gadop	634.00	335-MD	Gaeqv	585.00
13 1/4	337	8	2438	128x26x28	3251x660x711	2180	991	386-ME	Gadry	653.00	335-ME	Gaerb	593.00

387 mm. (15-inch) Metric Silent Chain Motor Driven Lathe (See page 25)													
15 1/4	387	5	1524	94x28x29	2388x711x737	2475	1125	388-MB	Lajiz	\$702.00	339-MB	Lefux	\$627.00
15 1/4	387	6	1829	106x28x29	2692x711x737	2575	1171	388-MC	Lajob	720.00	339-MC	Lehod	645.00
15 1/4	387	7	2134	118x28x29	2997x711x737	2675	1216	388-MD	Lajuc	738.00	339-MD	Lento	663.00
15 1/4	387	8	2438	130x28x29	3302x711x737	2975	1352	388-ME	Lajwa	758.00	339-ME	Lernd	683.00
15 1/4	387	10	3048	154x28x29	3912x711x737	3175	1443	388-MG	Latun	802.00	339-MG	Letuk	727.00

414 mm. (16-inch) Metric Silent Chain Motor Driven Lathe (See page 26)													
16 1/4	414	6	1829	106x28x30 1/2	2692x711x775	3110	1414	392-MC	Madsy	\$777.00	341-MC	Maeny	\$697.00
16 1/4	414	7	2134	118x28x30 1/2	2997x711x775	3230	1468	392-MD	Madur	797.00	341-MD	Maepz	717.00
16 1/4	414	8	2438	130x28x30 1/2	3302x711x775	3350	1523	392-ME	Maejs	817.00	341-ME	Maerc	737.00
16 1/4	414	10	3048	154x28x30 1/2	3912x711x775	3570	1623	392-MG	Maect	861.00	341-MG	Maeyk	781.00
16 1/4	414	12	3658	178x28x30 1/2	4521x711x775	3970	1786	392-MH	Maelv	924.00	341-MH	Maetzg	844.00

464 mm. (18-inch) Metric Silent Chain Motor Driven Lathe (See page 27)													
18 1/4	464	6	1829	106x30x31	2692x762x787	4140	1882	394-MC	Saetl	\$ 947.00	343-MC	Sajez	\$ 857.00
18 1/4	464	7	2134	118x30x31	2997x762x787	4290	1950	394-MD	Saewn	972.00	343-MD	Sajib	882.00
18 1/4	464	8	2438	130x30x31	3302x762x787	4440	2018	394-ME	Safat	997.00	343-ME	Sajoc	907.00
18 1/4	464	10	3048	154x30x31	3912x762x787	4840	2200	394-MG	Safev	1051.00	343-MG	Sajud	961.00
18 1/4	464	12	3658	178x30x31	4521x762x787	5240	2382	394-MH	Sajay	1129.00	343-MH	Sacov	1039.00
18 1/4	464	14	4267	202x30x31	5131x762x787	5640	2564	394-MK	Sacse	1191.00	343-MK	Sadte	1101.00

\*Every lathe shown in this catalog can be supplied in the metric type at no additional cost.  
†If Bench Legs are wanted instead of Floor Legs deduct \$7.50. See pages 44 and 51.

# Export Information on South Bend Lathes

## Información de Exportación de Los Tornos South Bend

South Bend Lathes have been manufactured for more than twenty-four years. We have been exporting Lathes for twenty years. More than 48,000 South Bend Lathes are in use in 78 different countries throughout the world.



Los tornos South Bend han sido fabricados por más de veinte y cuatro (24) años. Los hemos exportado por veinte años. Hoy día hay en uso más de 48,000 tornos South Bend en 78 países del mundo.

### Boxing for Ocean Shipment

When boxing a Lathe for export shipment, the Lathe is dismantled and all removable parts are oiled, greased, wrapped and packed in one strong case, see illustration above. All parts are blocked and fastened solidly in the case to prevent moving while in transit. The box is lined on the inside with waterproof paper, and bound with steel tape outside.

### South Bend Lathe Boxed for Ocean Shipment

### Encajonados Para Transporte Marítimo

Cuando un Torno se encajona para envío por mar, se desarma y las partes removibles se aceitan, engrasan, envuelven y empacan en una caja sólida, véase ilustración arriba. Se aseguran solidamente en la caja de modo que no se muevan durante el viaje. La caja tiene forro impermeable adentro, y afuera se refuerza con cinchos de acero.

### Export Prices on South Bend Lathes F.A.S. Steamer, New York City, New York, Boxed for Ocean Shipment

The prices shown in this catalog apply only to countries outside the United States and include free delivery to steamship in New York City, New York, boxed securely for ocean shipment. Orders for tools and accessories which do not include lathes are priced f.o.b. cars South Bend, Indiana, instead of f.a.s. New York. The freight rate from South Bend to New York City is \$1.10 per hundred pounds.

### Precios de Exportación de Los Tornos South Bend F.A.S. en Nueva York, Encajonados Para Transporte Marítimo

Los precios que aparecen en éste catálogo corresponden a pedidos destinados a países extranjeros e incluyen todo costo por poner el pedido al lado del vapor en Nueva York, encajonado debidamente para transporte marítimo. Pedidos de piezas, repuestos y herramientas que no se despachan con un torno se consideran f.o.b. (franco a bordo) en South Bend, Indiana, en lugar de f.a.s. (al lado del vapor) en Nueva York. El tipo de flete desde South Bend a Nueva York es \$1.10 por 100 libras.

### Specifications of Shipping Cases for South Bend Lathes Boxed for Ocean Shipment

Weights and dimensions of shipping cases (English and Metric Systems) for South Bend Lathes boxed for ocean shipment are shown on pages 90 and 91 of this catalog. Refer to these tables when estimating ocean or inland transportation charges on any size or type of lathe.

### Datos de Cajas de Embarque Para Tornos Encajonados Para Exportación

Pesos y medidas de cajas de embarque (Sistemas Métrico e Inglés) para Tornos South Bend Embalados para Exportación, son indicados en las páginas 90 y 91 de éste catálogo, lo que permite calcular espacio cúbico de los Tornos South Bend encajonados para transporte por mar.

### Prompt Shipment on South Bend Lathes

Shipment on South Bend Lathes can be made within five days after receipt of order. We carry a complete stock of all lathes, assembled and ready for shipment. Most orders on South Bend Lathes are placed on board vessel at New York within two weeks after order is received.

### Embarque Inmediato de Tornos South Bend

El embarque de los Tornos puede ser hecho cinco días después del recibo del pedido. Tenemos surtido de todos los tornos armados y listos para envío. En la mayoría de los pedidos los Tornos South Bend son puestos a bordo del barco en Nueva York dentro de dos semanas después del recibo del pedido.

### Size of Lathe

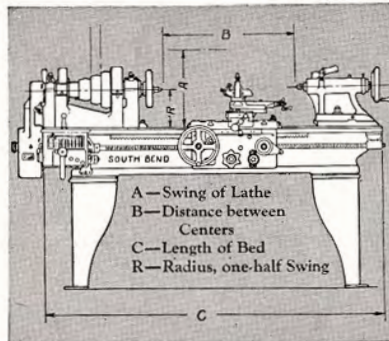
The size of a Screw Cutting Lathe is determined by the Swing over the Bed and the Length of the bed (see illustration).

A—represents the Swing Over Bed.  
B—The Radius, or one-half of the Swing.

C—represents the Length of the Bed.

E—represents the Distance between Centers when the end of the tail-stock is flush with the end of the Bed.

European tool manufacturers determine the size of a lathe by its radius or center distance: for example, an 8-inch center lathe is a lathe having a radius of 8 inches. What the European terms an 8-inch center lathe, United States manufacturers term a 16-inch swing lathe.



How to Determine the Size of Lathe

### Tamaño del Torno

El tamaño de un torno para cortar tornillos se determina por el volteo sobre el banco y por el largo de este.

A—representa el volteo sobre el banco.

B—el radio o una mitad del volteo.

C—representa el largo del banco.

E—representa la distancia entre los centros cuando la contrapunta queda al ras con el extremo del banco.

Los fabricantes Europeos determinan el tamaño de un torno por su radio o distancia del centro; por ejemplo un torno de ocho pulgadas de centro es aquel que tiene un radio de ocho pulgadas, llamándosele a este en los Estados Unidos un torno de 16 pulgadas de volteo.



# Export Information on South Bend Lathes

Información de Exportación de Los Tornos South Bend

## Types of Industries Overseas Using South Bend Lathes

Unas Cuantas Industrias Extranjeras que Usan Los Tornos South Bend

Power Plants	Bridge Builders	Talleres de Fuerza	Industria de teléfono y
Sugar Mills	Telephone and Telegraph	Molinos Azucareros	telégrafo
Textile Mills	Oil Refineries	Molinos textiles	Refinerías de aceite
Mine Shops	Refrigeration Plants	Talleres mineros	Instalaciones de refrig-
Saw Mills	Chemical Plants	Aserraderos	eración
Railroad Shops	Packing Plants	Talleres de ferrocarril	Laboratorios
Industrial Plants	Paper Mills	Talleres industriales	Talleres de empáque
Garage Service Stations	Ship Builders	Garages	Fábricas de papel
Plantation Shops	Foundries	Talleres de haciendas	Constructores de búques

## 78 Countries Where South Bend Lathes Are Used

78 Países Donde Se Usan Los Tornos South Bend

### AFRICA

British East Africa  
Egypt  
Liberia  
Nigeria  
South Africa  
Uganda

### ASIA

Ceylon  
China  
French Indo-China  
India  
Japan  
Manchuria  
Straits Settlements  
Syria

### AUSTRALASIA

Australia  
New Zealand

### CENTRAL AMERICA

British Honduras  
Canal Zone  
Costa Rica  
Guatemala  
Honduras  
Nicaragua  
Panama  
Salvador

### EUROPE

Belgium  
Denmark  
England  
Esthonia  
Finland  
France  
Germany  
Greece  
Holland  
Ireland  
Italy  
Malta

### EUROPE (contd.)

Norway  
Poland  
Portugal  
Russia  
Scotland  
Spain

### NORTH AMERICA

Alaska  
Canada  
Mexico  
Newfoundland  
Nova Scotia  
Prince Edward Island

### OCEANIA

Borneo  
British New Guinea  
Federated Malay States  
Hawaii  
Java  
Philippine Islands  
Sumatra

### SOUTH AMERICA

Argentina  
Bolivia  
Brazil  
British Guiana  
Chile  
Colombia  
Dutch Guiana  
Ecuador  
Peru  
Uruguay  
Venezuela

### WEST INDIES

Barbados  
Bermuda  
Curacao  
Cuba  
Dominican Republic  
Haiti  
Guadeloupe  
Isle of Pines  
Jamaica  
Martinique  
Porto Rico  
Trinidad  
Virgin Islands

## Export Quotations for South Bend Lathes

Cotizaciones Sobre Tornos South Bend Para Exportación

We gladly quote C. I. F. prices on New Model South Bend Lathes delivered to any port in the world. Let us know the size and type of lathe in which you are interested and our complete quotation will be mailed immediately, giving you the price delivered to your receiving port. When communicating by cable use code words listed under the specifications for each type of lathe to insure prompt attention to your inquiry or order. Correspondence in all languages.

**How to Order.** In those territories where we have no authorized representatives you can place your order through your machinery dealer or send it direct to us. If you regularly purchase through buying agents or Export Commission Merchants in the United States your order may also be placed with them. In any case your order will receive careful attention with prompt shipment assured.

**Special Attachments** for all types of New Model Lathes are illustrated, described and priced in this catalog. These attachments equip the lathe for various classes of work and can be fitted to the lathe at the time of shipment, or afterwards in the customer's own shop.

**List of Overseas Users.** If interested in the names of users and recent purchasers of South Bend Lathes in 78 countries write for booklet.

**Export Weights and Measurements** of shipping cases are listed on pages 90 and 91. Refer to these tables when estimating ocean or inland transportation charges.

### Boxing for Mule-Back Transportation

South Bend Lathes of any size can be boxed in several small cases suitable for mule-back transportation at a nominal additional cost. The lathe bed must be boxed in one case as it is cast in one piece.

**Gustosamente suministramos precios de tornos South Bend de nuevo modelo,** incluyendo todo costo por ponerlos en cualquier puerto del mundo. Informennos respecto al tamaño y tipo de torno en que se interesan, e inmediatamente les suministraremos una cotización completa conteniendo el precio del pedido puesto en el puerto que se prefiera. Cuando nos comuniquen por cable usen la clave respectiva según las especificaciones que aparecen bajo cada ilustración del catálogo. Correspondencia en todos los idiomas.

**En aquellos territorios de donde no tenemos representantes autorizados, pueden hacer los pedidos por conducto de sus vendedores de maquinaria o enviarlos directamente a nosotros.** Si compran ustedes por medio de agentes o exportadores de los Estados Unidos, pueden poner su pedido por medio de ellos. En todo caso su pedido recibirá la mayor atención y les aseguramos embarque inmediato.

**Dispositivos Especiales** para los tornos de Nuevo Modelo estan descritos e ilustrados con precios en éste catalogo. Estos dispositivos permiten que el torno haga varias clases de trabajo y pueden ser ajustados al mismo ya sea en la fábrica, o en el taller del comprador.

**Lista de Compradores Extranjeros.** Una lista de los nombres de recientes compradores de tornos South Bend en 78 países, será enviada a solicitud.

**Pesos y Dimensiones** de los tornos encajonados para la exportación aparecen en las páginas 90 y 91 para calcular costo de transporte por mar y tierra.

### Encajonado Para Transporte a Lomo de Mula

Tornos South Bend de cualquier tamaño pueden encajonarse en cajas pequeñas para transporte a lomo de mula, por costo adicional. La bancada del torno por ser una sola pieza se embarca en caja separada.

## Breves informes Sobre El Torno South Bend de nuevo modelo y la fábrica en donde se construye

El Torno South Bend de 1930. Modelo Nuevo, con engranajes de dobles velocidades, para filetear que se ilustra y describe en este catálogo está diseñado para la maquinación de metales en las fábricas y los talleres de reparaciones. Recomendamos el Torno South Bend de Nuevo Modelo para los talleres en donde se hacen piezas de precisión, calibres, dados maestros y terrajas, así como para las plantas manufactureras en donde se requiere la mayor velocidad, precisión y comodidad.

Los Tornos de Nuevo Modelo se fabrican en nueve distintos tamaños y siete estilos. Cualquiera tamaño o tipo de torno puede ser equipado con herramientas y aditamentos especiales para permitir el desempeño de todos los trabajos de producción y reparaciones que se presentan en el taller moderno. Los Tornos South Bend de Nuevo Modelo son muy populares en las fábricas más importantes de los Estados Unidos, y se usan en grupos de dos a cincuenta en cada taller. En la cubierta de atrás aparecen los nombres de unas cuantas de las más famosas empresas que usan Tornos South Bend.

**Historia.** La Casa South Bend Lathe Works fué establecida en South Bend, Indiana, E.U.A., en 1906 y desde ésa fecha há operado continuamente por 24 años bajo la misma dirección, dedicándose todo el tiempo a la fabricación de tornos South Bend para cortar tornillos con engranajes de dobles velocidades.

**Capacidad.** La capacidad de nuestros talleres para la fabricación de tornos nos permite fabricar cinco mil tornos South Bend cada año. La fábrica ocupa un terreno de cuatro acres (1.62 hectárea). Los edificios contienen un espacio de 1722 metros cuadrados que se usa enteramente para la producción de estos tornos modernos.

## Geschichte von die Neues Modell South Bend Drehbank und Werkzeugraum wo es gemacht ist.

Die 1930 Neues Modell South Bend Leitspindel Drehbank mit Raedervorgelege illustriert und beschrieben in diesem Katalog, ist fuer die Bearbeitung von Metallen in Industriellen Anlagen und Fabriken entworfen. Wir empfehlen die Neues Modell Leitspindel Drehbank fuer den Werkzeugraum um Werkzeuge, Messgeraete, Innengewindestahle, u.s.w. zu machen, bei denen die groesste Genauigkeit erforderlich ist, und auch fuer die Maschinenfabrik fuer Fabrikationsarbeit, wo es line ideale Drehbank ist, wen schnelligkeit, Genauigkeit und Sparsamkeit in besonderen Betracht kommen.

Die Neues Modell Drehbaenke sind in Neuen Groessen und Sieben verschiedenen Entwuerfen gebaut. Alle Groessen und Entwuerfe koennen mit Werkzeugen und Zubehoerteilen fuer Maschinen und Werkzeugfabrikation versehen werden, um den Anspruechen der modernen Fabrik zu genuegen. Sie sind die am meisten gebrauchten Drehbaenke in den groessten und bedeutendsten Fabriken in den Vereinigten Staaten von Amerika, wo die "Neues Modell Drehbaenke" in Gruppen von 2 bis 50 Drehbaenke in manchen Verkstaetten in Gebrauch sind. Einige unserer bedeutendsten Kunden sind auf dem Rueckumschlage abgebildet.

**Geschichte:** Die South Bend Lathe Works waren im Jahre 1906 in South Bend, Indiana Vereinigte Staaten von Amerika errichtet, und haben fuer 24 Jahre unter derselben Verwaltung ununterbrochen gearbeitet, und die ganze Zeit der Anfertigung von "South Bend Leitspindel Drehbaenken mit Raeder Vorgelegen" gewidmet.

**Faehigkeit:** Die Faehigkeit unserer Anlagen fuer die Anfertigung von "South Bend Drehbaenken" ist 5000 Maschinen im Jahre. Die ganze Anlage ist mehr als vier Acker gross. In Gebauden ist ueber 180,000 Quadrat Fuesse Arbeitsraum, welcher ausschliesslich zur Herstellung dieser modernen Drehbaenke benutzt wird.

## Descripção do Torno South Bend de novo modelo e da fabrica onde é feito

O Torno para 1930 de Novo Modelo de Engrenagem de Dobrar South Bend para abrir roscas, cuja descrição e ilustrações constam deste catalogo, é destinado para trabalho á machina de metaes em modernas installações fabris e industriaes. Recomendamos este Torno Mechanico Novo Modelo para o quarto de ferramentas para fazer ferramentas, calibres de roscas, matrizes de precisão, etc., em que se exija a maior precisão, assim como para installações fabris para produção de trabalhos, pois representa um torno incomparavel para toda a obra em que se exijam exactidão, velocidade e economia.

Os Tornos Mechanicos Novo Modelo são feitos em nove tamanhos basicos e em sete feitos diferentes. Sejam quaes forem os seus tamanhos e typos podem ser munidos de ferramentas e accessorios para produção fabril e trabalho de quarto de ferramentas, de modo a satisfazerem todas as exigencias de uma installação moderna. São tornos que tem grande acceitação nas fabricas mais importantes e acreditadas dos Estados Unidos, onde são empregados em grupos de dois a cincoenta tornos em algumas officinas. A capa trazeira apresenta alguns dos seus maiores possuidores.

**Historia.** A South Bend Lathe Works foi fundada no anno de 1906 em South Bend, Indiana, E. U. A., e ha vinte e quatro annos que faz negocios continuamente sob a mesma administração, devotando todo o seu tempo á manufactura de Tornos South Bend com engrenagem de dobrar.

**Capacidade.** A produção de nossa fabrica de Tornos South Bend é de cinco mil tornos por anno. A fabrica inteira cobre uma superficie de mais de 1,6 hectares. Em nossos edificios ha uma superficie total de 16.750 metros quadrados usada inteiramente na fabricação destes tornos modernos.

## Résumé sur le Tour Nouveau Modèle South Bend, et l'usine où il est construit.

Le Tour á Fileter avec contre arbre á harnais, nouveau modèle, de l'année 1930, illustré et décrit dans ce catalogue est conçu pour le travail des métaux dans les usines et manufactures modernes. Quand l'exactitude la plus grande est requise, comme pour outils, cabarits, outils á tarauder modèles, etc., nous recommandons le Tour nouveau modèle, aussi bien que pour la production en masse parceque ce Tour est idéal quand vitesse, justesse et économie sont essentielles.

Le Tour Nouveau Modèle est régulièrement construit en neuf différents grandeurs, et sept plans différents. Tous ces modèles peuvent être équipés avec outils et attachements pour la production en masse, ainsi que pour travaux de précision et donnent parfaite satisfaction. Ils sont très populaires dans les plus grandes et plus prospères usines des Etats Unis d'Amérique, où les différents modèles sont employés en groupes de 2 á 50. Quelques uns de nos principaux clients sont nommés sur le dos de la couverture.

**Historie—**Les établissements "South Bend Lathe Works," furent établis á South Bend, Indiana, Etats-Unis d'Amérique, en 1906 et ont été en opération durant 24 ans sous le même ménageement, dévouant tout ce temps á la construction des Tours á fileter á contre arbre á harnais débrayable.

**Rendement—**Le rendement de nos usines á South Bend est de cinq mille Tours par an. La superficie des usines couvre plus de quatre acres. Les bâtiments ont une surface de planché de 180,000 pouces carrés, employés uniquement á la construction de ces Tours modernes.

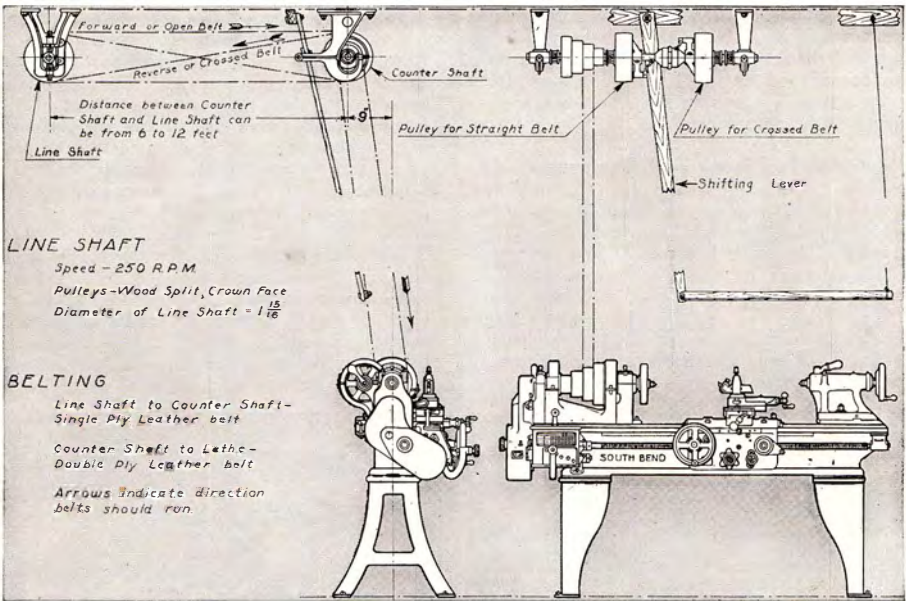


# Specifications of South Bend Lathes in Millimeters and Inches

9-inch to 18-inch Quick Change and Standard Change Gear, Back Geared Screw Cutting Lathes

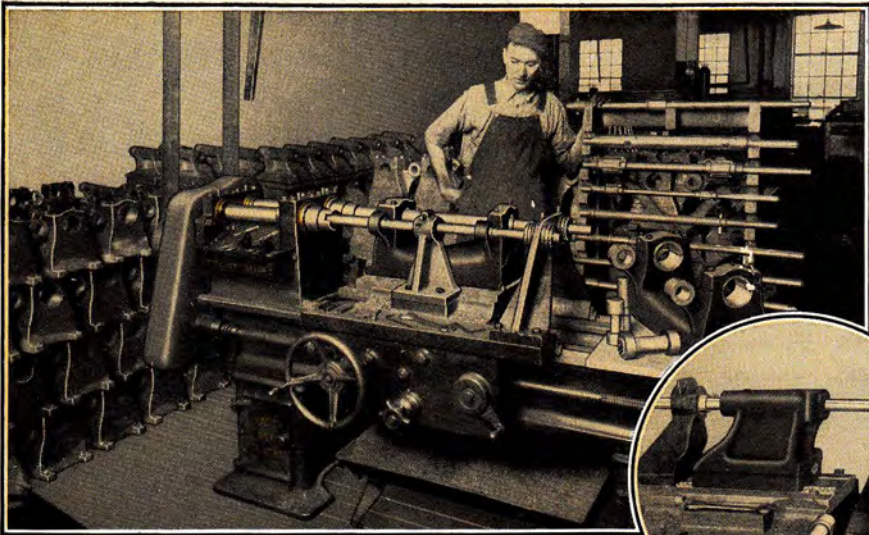
*For Weights of Lathes Boxed for Export and Dimensions of Cases see pages 90-91*

Size of Lathe		Distance Between Centers		Hole Through Spindle		Swing Over Carriage		Horse-power of Motor Required	
Swing Over Bed	Length of Bed	Inches	mm.	Inches	mm.	Inches	mm.		
	Feet							mm.	Inches
<b>9 inches</b> 235 mm.	2½	625	10½	260	¾	19	6¾	162	¼ H.P.
	3	914	17¼	438	¾	19	6¾	162	¼ H.P.
	3½	1065	22¼	565	¾	19	6¾	162	¼ H.P.
	4	1219	28¼	718	¾	19	6¾	162	¼ H.P.
<b>11 inches</b> 287 mm.	4½	1372	35¼	895	¾	19	6¾	162	¼ H.P.
	3	914	12	301	7⁄8	22	7¾	194	½ H.P.
	3½	1065	18	457	7⁄8	22	7¾	194	½ H.P.
	4	1219	24	610	7⁄8	22	7¾	194	½ H.P.
<b>13 inches</b> 337 mm.	5	1524	36	913	7⁄8	22	7¾	194	½ H.P.
	5½	1676	42	1067	7⁄8	22	7¾	194	½ H.P.
	4	1219	16	406	1	25	9	229	¾ H.P.
	5	1524	28	710	1	25	9	229	¾ H.P.
<b>15 inches</b> 387 mm.	6	1829	40	1015	1	25	9	229	¾ H.P.
	7	2134	52	1320	1	25	9	229	¾ H.P.
	8	2438	64	1626	1	25	9	229	¾ H.P.
	8	2438	64	1626	1	25	9	229	¾ H.P.
<b>16 inches</b> 414 mm.	5	1524	24½	623	1½	29	10½	270	1 H.P.
	6	1829	36½	927	1½	29	10½	270	1 H.P.
	7	2134	48½	1230	1½	29	10½	270	1 H.P.
	8	2438	60½	1537	1½	29	10½	270	1 H.P.
<b>18 inches</b> 464 mm.	10	3048	84½	2146	1½	29	10½	270	1 H.P.
	6	1829	34	863	1¾	35	11½	283	1 H.P.
	7	2134	46	1168	1¾	35	11½	283	1 H.P.
	8	2438	58	1473	1¾	35	11½	283	1 H.P.
<b>18 inches</b> 464 mm.	10	3048	82	2082	1¾	35	11½	283	1 H.P.
	12	3658	106	2692	1¾	35	11½	283	1 H.P.
	6	1829	29½	750	1⅞	37	12½	321	2 H.P.
	7	2134	41½	1055	1⅞	37	12½	321	2 H.P.
	8	2438	53½	1359	1⅞	37	12½	321	2 H.P.
	10	3048	77½	1989	1⅞	37	12½	321	2 H.P.
<b>18 inches</b> 464 mm.	12	3658	101½	2578	1⅞	37	12½	321	2 H.P.
	14	4267	125½	3188	1⅞	37	12½	321	2 H.P.



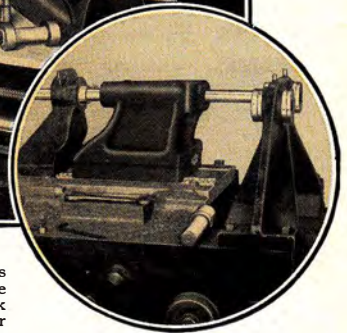
## Erection Plan for Countershaft Driven Lathes

The above illustration is taken from a 12x18 inch blue print, giving all necessary information for installing a 16-inch (414 mm.) lathe. A similar drawing is included with the equipment of each size lathe, bench and floor leg types. A Handbook is furnished giving instructions on leveling the lathe, figuring the size and speed of pulleys, oiling and other information on the installation, erection and care and operation of the lathe.



Machine for Boring Headstocks and Tailstocks

The illustration above shows one of our special machines equipped with two spindles, one for boring the holes for the headstock spindle and the other for boring the holes for the back gear quill shaft. Inset at right shows a similar machine for boring the tailstock. These machines insure accuracy and precision in the alignment of the headstock and tailstock spindles.



Boring a Tailstock

## Precision-Accuracy Built into South Bend Lathes

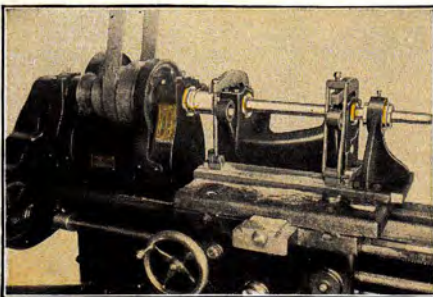
Every Size and Type 9-inch to 18-inch Built to Highest Standards

**Every South Bend Lathe** is built with precision-accuracy. From the rough planing of the lathe bed to the final inspection tests of the completed lathe in actual operation, every effort is made to maintain the highest standards of accuracy.

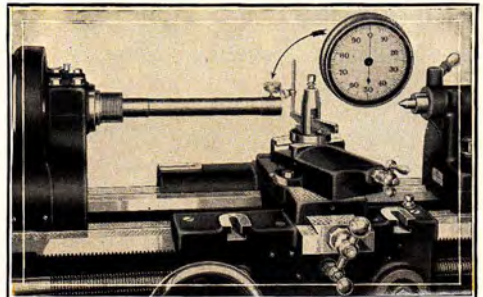
**Special Machinery and Equipment.** Our plant is equipped with a large number of special machines designed for the manufacture of South Bend Lathes, exclusively. This permits us to build units of the various sizes of lathes such as the headstock, tailstock, carriage, etc., in lots of 200, 300 and 500 at a time. There are usually about 1500 lathes in process of manufacture in the factory at all times. These methods insure accuracy, increase production and lower the cost.

**Sixty-four Major Accuracy Tests** are made on various parts and units of each South Bend Lathe during the process of manufacture. The most accurate measuring instruments, special gauges, test bars, master templets, etc., are used constantly throughout the process of construction to insure precision and interchangeability. These tests assure the highest degree of precision-accuracy in the finished lathe.

**The Headstock Spindle Bearings** are finish bored and hand scraped in exact alignment on a special machine used only for this purpose. After the lathe is assembled the alignment of the headstock spindle is tested with a dial test indicator which records an error of 1/10,000 of an inch.



Special Machine for Finish Boring Headstock Spindle Bearings in Exact Alignment

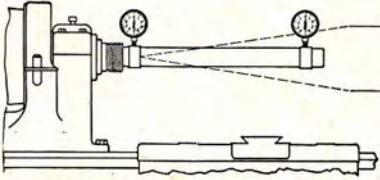


Testing Headstock Spindle with Test Bar and Test Indicator

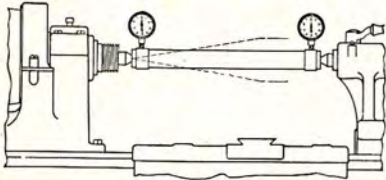


# A Few of the 64 Factory Inspection Tests

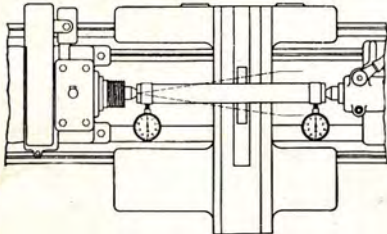
Made on Each Size South Bend Lathe, 9" to 18" Inclusive



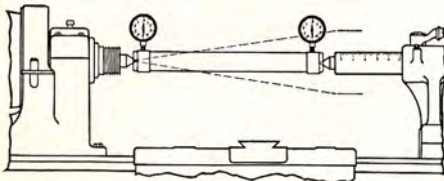
**Test No. 1**  
Testing Alignment of Headstock and Spindle  
A Similar Test is made in the Horizontal Plane



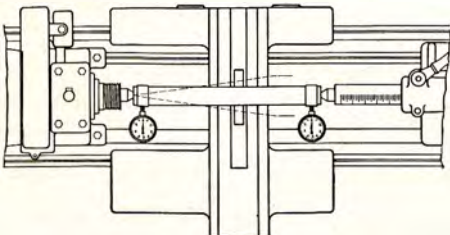
**Test No. 2**  
Testing Height of Headstock and Tailstock Spindles from Bed



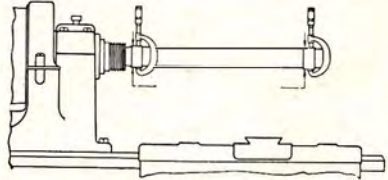
**Test No. 3**  
Testing Alignment of Headstock and Tailstock in Horizontal Plane



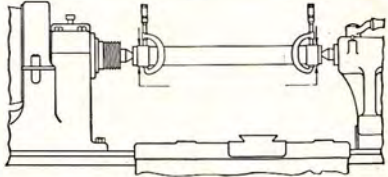
**Test No. 4**  
Testing Height of Headstock and Tailstock Spindles from Lathe Bed (Tailstock Spindle Extended)



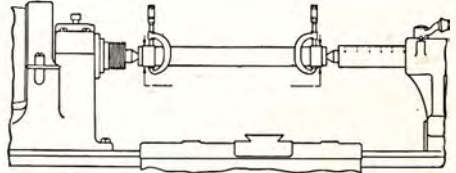
**Test No. 5**  
Testing Alignment of Headstock and Tailstock Spindles (Tailstock Spindle Extended)



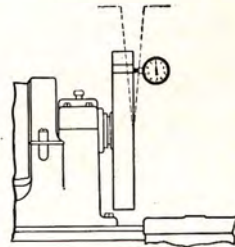
**Test No. 6**  
Trial Cut for Testing Alignment of Headstock and Spindle



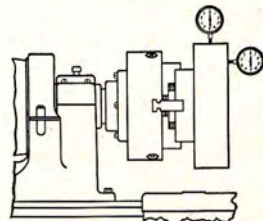
**Test No. 7**  
Trial Cut for Testing Alignment of Headstock and Tailstock Spindles



**Test No. 8**  
Trial Cut for Testing Alignment of Headstock and Tailstock Spindles (Tailstock Spindle Extended)



**Test No. 9**  
Testing Alignment of Face Plate  
If convex not accepted



**Test No. 10**  
Testing Accuracy of Chuck Jaws on Diameter and Face Using Master Ring Test Block

MAXIMUM ERROR ALLOWED IN ANY OF THE ABOVE TESTS IS .0005

# Screw Threads Cut on the New Model South Bend Lathe



Master Thread Gauge



Limit Thread Gauge



Cutting a Screw Thread



Acme Thread Tap



"V" Thread Tap



Internal Square Thread



Acme Screw Thread



Right Hand Acme Double Screw Thread



U.S. Standard Thread

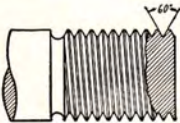


Internal U.S. Standard Thread

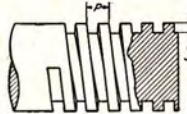
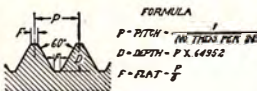


Special Screw Showing Various Types of Threads

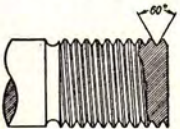
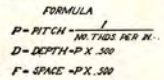
## STANDARD SCREW THREAD FORMULAS



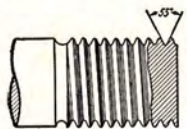
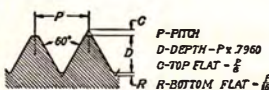
### U.S. STANDARD SCREW THREADS



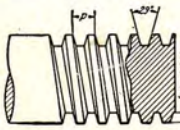
### SQUARE THREADS



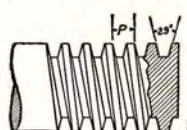
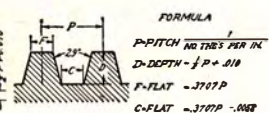
### INTERNATIONAL STANDARD METRIC SCREW THREAD



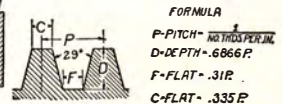
### WHITWORTH STANDARD SCREW THREADS



### ACME SCREW THREADS



### BROWN & SHARPE 29° WORM THREAD





# 96 Popular Sizes and Types of 1930 New Model South Bend Lathes

Net Factory Prices F.O.B. Cars, South Bend, Indiana; Crated for Domestic Shipment

Brief Specifications				Countershaft Drive Lathes				Silent Chain Motor Drive Lathes							
				Quick Change Gear Lathes		Standard Change Gear Lathes		Quick Change Gear Lathes				Standard Change Gear Lathes			
				Catalog No. of Lathe	Price	Catalog No. of Lathe	Price	Catalog No. of Lathe	3-Phase 60-Cycle A.C. Motor	1-Phase 60-Cycle A.C. Motor	Direct Current Motor	Catalog No. of Lathe	3-Phase 60-Cycle A.C. Motor	1-Phase 60-Cycle A.C. Motor	Direct Current Motor
9-inch Junior New Model South Bend Screw Cutting Bench Lathes.* See pages 41, 44															
9 1/4	2 1/2	11	1/4	Not Made in Quick Change Gear Type	22-XB	\$163.00	Not Made in Quick Change Gear Type	322-XB	\$269.50	\$284.50	\$277.50				
9 1/4	3	18	1/4		22-YB	169.00		322-YB	275.50	290.50	283.50				
9 1/4	3 1/2	23	1/4		22-ZB	175.00		322-ZB	281.50	296.50	289.50				
9 1/4	4	29	1/4		22-AB	182.00		322-AB	288.50	303.50	296.50				
9 1/4	4 1/2	36	1/4		22-RB	190.00		322-RB	296.50	311.50	304.50				
9-inch New Model South Bend Quick Change and Standard Change Gear Screw Cutting Lathes. See pages 10-11-22															
9 1/4	2 1/2	10 1/4	1/4	80-X	\$288.00	30-X	\$243.00	380-X	\$392.00	\$407.00	\$400.00	330-X	\$347.00	\$362.00	\$355.00
9 1/4	3	17 1/4	1/4	80-Y	294.00	30-Y	249.00	380-Y	398.00	413.00	406.00	330-Y	353.00	368.00	361.00
9 1/4	3 1/2	22 1/4	1/4	80-Z	300.00	30-Z	255.00	380-Z	404.00	419.00	412.00	330-Z	359.00	374.00	367.00
9 1/4	4	28 1/4	1/4	80-A	307.00	30-A	262.00	380-A	411.00	426.00	419.00	330-A	366.00	381.00	374.00
9 1/4	4 1/2	35 1/4	1/4	80-R	315.00	30-R	270.00	380-R	419.00	434.00	427.00	330-R	374.00	389.00	382.00
11-inch New Model South Bend Quick Change and Standard Change Gear Screw Cutting Lathes. See pages 12-13-23															
11 1/4	3	12	1/2	84-Y	\$345.00	33-Y	\$295.00	384-Y	\$484.00	\$512.00	\$495.00	333-Y	\$434.00	\$462.00	\$445.00
11 1/4	3 1/2	18	1/2	84-Z	352.00	33-Z	302.00	384-Z	491.00	519.00	502.00	333-Z	441.00	469.00	452.00
11 1/4	4	24	1/2	84-A	359.00	33-A	309.00	384-A	498.00	526.00	509.00	333-A	448.00	476.00	459.00
11 1/4	5	36	1/2	84-B	375.00	33-B	325.00	384-B	514.00	542.00	525.00	333-B	464.00	492.00	475.00
13-inch New Model South Bend Quick Change and Standard Change Gear Screw Cutting Lathes. See pages 14-15-24															
13 1/4	4	16	3/4	86-A	\$428.00	35-A	\$368.00	386-A	\$587.00	\$630.00	\$598.00	335-A	\$527.00	\$570.00	\$538.00
13 1/4	5	28	3/4	86-B	443.00	35-B	383.00	386-B	602.00	645.00	613.00	335-B	542.00	585.00	553.00
13 1/4	6	40	3/4	86-C	458.00	35-C	398.00	386-C	617.00	660.00	628.00	335-C	557.00	600.00	568.00
13 1/4	7	52	3/4	86-D	475.00	35-D	415.00	386-D	634.00	677.00	645.00	335-D	574.00	617.00	585.00
15-inch New Model South Bend Quick Change and Standard Change Gear Screw Cutting Lathes. See pages 16-17-25															
15 1/4	5	24 1/2	1	88-B	\$525.00	39-B	\$450.00	388-B	\$702.00	\$731.00	\$780.00	339-B	\$627.00	\$656.00	\$705.00
15 1/4	6	36 1/2	1	88-C	543.00	39-C	468.00	388-C	720.00	749.00	798.00	339-C	645.00	674.00	723.00
15 1/4	7	48 1/2	1	88-D	561.00	39-D	486.00	388-D	738.00	767.00	816.00	339-D	663.00	692.00	741.00
15 1/4	8	60 1/2	1	88-E	581.00	39-E	506.00	388-E	758.00	787.00	836.00	339-E	683.00	712.00	761.00
16-inch New Model South Bend Quick Change and Standard Change Gear Screw Cutting Lathes. See pages 18-19-26															
16 1/4	6	34	1	92-C	\$598.00	41-C	\$518.00	392-C	\$777.00	\$806.00	\$855.00	341-C	\$697.00	\$726.00	\$775.00
16 1/4	7	46	1	92-D	618.00	41-D	538.00	392-D	797.00	826.00	875.00	341-D	717.00	746.00	795.00
16 1/4	8	58	1	92-E	638.00	41-E	558.00	392-E	817.00	846.00	895.00	341-E	737.00	766.00	815.00
16 1/4	10	82	1	92-G	682.00	41-G	602.00	392-G	861.00	890.00	939.00	341-G	781.00	810.00	859.00
18-inch New Model South Bend Quick Change and Standard Change Gear Screw Cutting Lathes. See pages 20-21-27															
18 1/4	7	41 1/2	2	94-D	\$738.00	43-D	\$648.00	394-D	\$972.00	\$1024.00	\$1069.00	343-D	\$882.00	\$934.00	\$979.00
18 1/4	8	53 1/2	2	94-E	763.00	43-E	673.00	394-E	997.00	1049.00	1094.00	343-E	907.00	959.00	1004.00
18 1/4	10	77 1/2	2	94-G	817.00	43-G	727.00	394-G	1051.00	1103.00	1148.00	343-G	961.00	1013.00	1058.00
18 1/4	12	101 1/2	2	94-H	895.00	43-H	805.00	394-H	1129.00	1181.00	1226.00	343-H	1039.00	1091.00	1136.00
New Model South Bend Brake Drum and General Purpose Screw Cutting Lathes. See pages 78-81															
36 1/4	6	27	1	4-BC	\$768.00	2-BC	\$688.00	304-BC	\$947.00	\$976.00	\$1025.00	302-BC	\$867.00	\$896.00	\$945.00
36 1/4	8	51	1	4-BE	810.00	2-BE	730.00	304-BE	989.00	1018.00	1067.00	302-BE	909.00	938.00	987.00
42 1/4	8	38	3	5-BE	1590.00	3-BE	1470.00	305-BE	1975.00	2046.00	2109.00	303-BE	1855.00	1926.00	1989.00

\*The prices shown above are for 9-inch Junior Lathes with Bench Legs. If this lathe is desired with Floor Legs see pages 46 and 47.

# A Few Shop Views of the South Bend Lathe Works

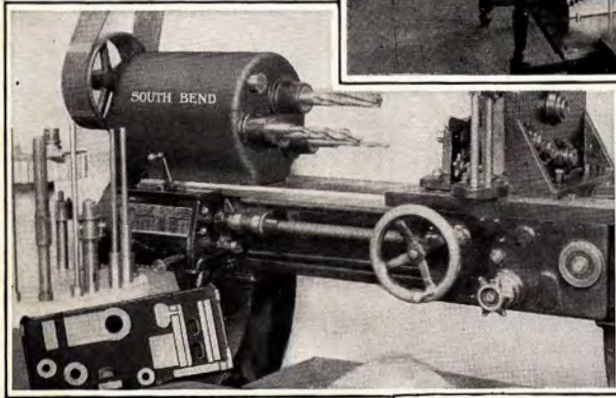


## Lathes on Production Work

At the left—a group of sixteen South Bend Lathes in operation on production work.

## Engineering

At the Right—Our Engineering Department which has developed the improvements on the New Model South Bend Back Geared Screw Cutting Lathe.

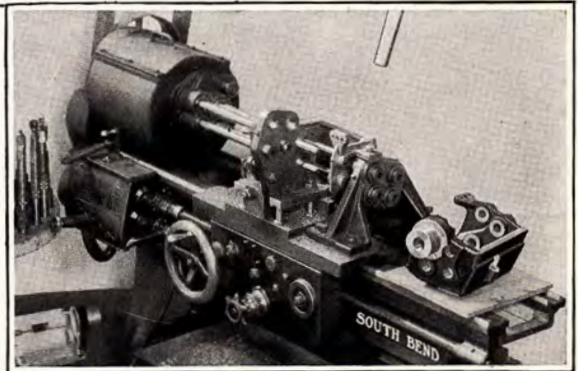


## Machine for Drilling Aprons

At the left—One of the eight special drilling machines for aprons insuring interchangeability of parts.

## Drilling and Boring Machine

At the right—One of the eight special machines for drilling and boring gear boxes used to insure and maintain accuracy.

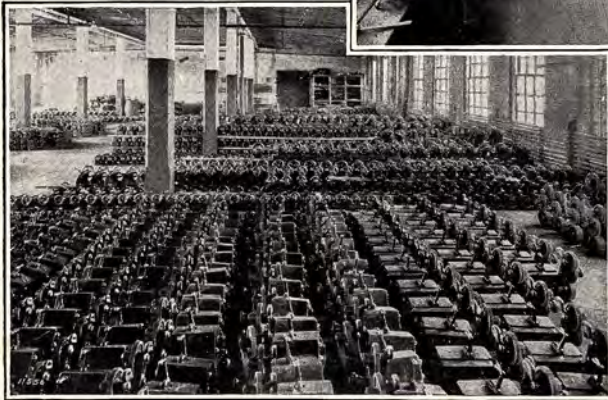




## A Few Shop Views of the South Bend Lathe Works

### Lathe Assembly Line

At the right—A view of the assembling line. Twenty-five lathes of one size are assembled at one time.



### Assembled Lathe Units

At the left—Headstocks, tailstocks, carriages, gear boxes, compound rests, etc., carried in stock ready for assembly on the lathe.

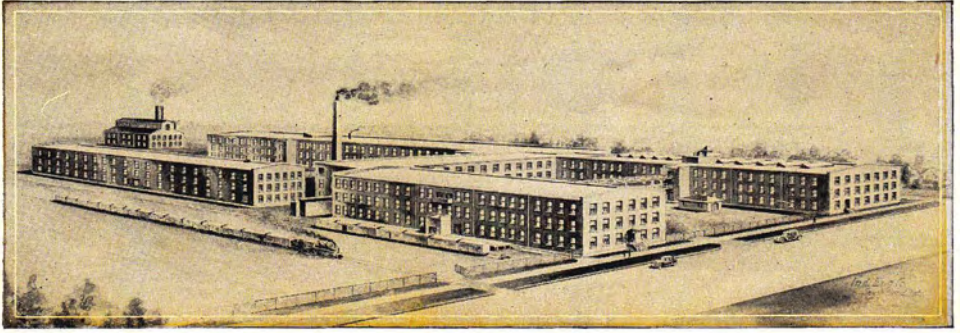
### Finished Lathe Beds

At the right—The Lathe beds of various sizes are carried in stock finish planed ready for assembly.



### Lathe Display Room

At the left—Display Room showing the various types and drives of New Model South Bend Lathes in operation to give the visitor an idea of their wide application and efficiency.



Plant of the South Bend Lathe Works, at South Bend, Indiana

## History, Resources and Policy of South Bend Lathe Works

**History.** The South Bend Lathe Works was established in South Bend, Indiana, in 1906 and has operated continuously for twenty-four years under the same management, devoting its entire time to the building of South Bend Back Geared Screw Cutting Lathes.

The Factory of the South Bend Lathe Works illustrated above represents an investment of over \$2,000,000.00. The entire plant covers more than four acres. In the buildings there is a total of 180,000 square feet of floor space used entirely for lathe building. Our manufacturing capacity is 5,000 lathes per annum.

The New Model South Bend Back Geared Screw Cutting Lathe was developed during the last three years at a cost exceeding \$250,000.00. It is a most remarkable Lathe. Its high quality and low price has made it the most popular and widely accepted Lathe value in the United States.

**Plant Facilities** include the most modern machinery. More than one hundred South Bend Lathes are in operation in our shop. Special machines, fixtures, jigs and tools built in our own shop for the manufacture of South Bend Lathes insure accuracy and interchangeability. Standardization in production enables us to build in large quantities, and sell quality lathes at an exceedingly low price.

**Three Hundred Skilled and Trained Workmen** are employed to build South Bend Lathes. These men have had an average of ten years' experience building South Bend Lathes, and are capable of doing the highest class of workmanship that is so necessary in building the lathe.

**Sixty-four Accuracy Tests** are made on the major units of each New Model South Bend Lathe. These tests are made with precision instruments during the process of manufacture. The Lathe, when assembled, is operated under its own power and thoroughly tested before it is packed for shipment.

**Our Reliability** can be investigated. Inquire at any bank in the United States or overseas; they can inform you, from their records, of the standing of the South Bend Lathe Works. Dun, Bradstreets, American Manufacturers Foreign Credit Underwriters, Inc., and large business houses everywhere can give you reliable information about the South Bend Lathe Works.

**Policy.** The broad principles on which the business of the South Bend Lathe Works is conducted and upon which it has prospered for twenty-four years is to give satisfaction and service to the users of South Bend Lathes.

**Visitors** are always welcome at the South Bend Lathe Works. We plan interesting trips through the factory showing you the various steps in the building of South Bend Lathes, from the rough castings to the finished lathe. You will see the various models in actual operation in our demonstration room.

**South Bend** is located in the northern part of Indiana, 7 miles south of the Michigan State Line and 86 miles east of Chicago on the New York Central and Grand Trunk Railroads. The Lincoln Highway crosses the Dixie Highway at South Bend. Easily accessible by either railroad or automobile.



# Interesting Booklets for the Mechanic

## Special Bulletins on Each Size Lathe

Special Bulletins of sixteen pages each, 8½x11 inches, are available, printed in attractive colors for each size New Model South Bend Lathe. These Bulletins show much larger illustrations than those shown in this catalog and each illustrates and describes in detail the lathe and its various types, drives, tools and attachments.

If interested in any particular size of lathe and more detailed information is desired than is shown in this catalog, write for special bulletin specifying size of lathe.

Mailed Anywhere in the World, Postpaid, No Charge.

### PARTIAL LIST OF CONTENTS

#### Lathes and Attachments described in the Special Bulletins

- |                                   |                                       |
|-----------------------------------|---------------------------------------|
| Quick Change Gear Lathes          | Taper Attachment                      |
| Standard Change Gear Lathes       | Grinding Attachments                  |
| Silent Chain Motor Driven Lathes  | Draw-in Collet Chuck Attachment       |
| Tool Room Precision Lathes        | Milling and Keyway Cutting Attachment |
| Gap Bed Lathes                    | Turrets and Tool Slides               |
| Brake Drum Lathes                 | Chucks, Tools and Accessories         |
| Junior Bench and Floor Leg Lathes |                                       |



## “How to Run a Lathe” No. 27

For the Apprentice in the Machine Shop

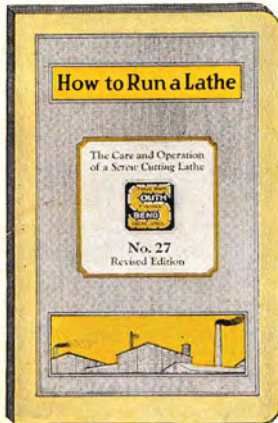
“How to Run a Lathe” is an authoritative manual covering the fundamental operations of the modern screw cutting lathe. It is a very valuable book for the mechanic as it contains complete instructions on the setting up, the care and operation of the screw cutting lathe.

This reference book is 5½x8 inches, 144 pages. There are more than one million two hundred and fifty thousand in use throughout the world. Railroad Shops and large Industrial Plants are supplying these books to their apprentices in their machine shops and more than two hundred and fifty thousand are used as text books in the shops of Vocational Schools, Trade and Engineering Schools. A copy of this book is included in the equipment of each South Bend Lathe.

Mailed anywhere in the world, Postpaid, Price 25 Cents.

### PARTIAL LIST OF CONTENTS

- |                                  |                               |
|----------------------------------|-------------------------------|
| How to Set Up a Lathe            | Straight Turning and Boring   |
| Hanging a Countershaft           | Taper Turning and Boring      |
| Calculating the Size of Pulleys  | Operating the Automatic Feeds |
| Calculating the Speed of Pulleys | Drilling, Reaming and Tapping |
| Grinding Lathe Tools             | Reading a Micrometer Caliper  |
| How to Set Lathe Tools           | Table of Decimal Equivalents  |
| Cutting Standard Screw Threads   | Table of Metric Measure       |
| Cutting Acme Screw Threads       | Centering and Countersinking  |
| Cutting Square Screw Threads     | General Care of Lathe         |



Contains 300 Shop Kinks.

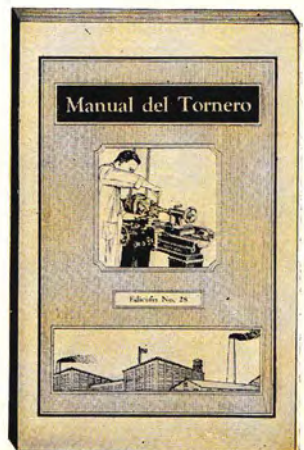
## “Manual Del Tornero”

Manera de Instalar, Cuidar y Manejar un Torno para Cortar Tornillos

El libro “Manual del Tornero,” escrito en español, es sumamente autoritativo y describe los principios fundamentales para manejar el torno moderno para cortar tornillos con engranajes de dobles velocidades. Este libro tiene ilustraciones de 200 métodos modernos de utilizar el torno en la práctica. Es un libro de referencias de gran valor, pues es la autoridad mayor en tornería de metales y se están usando más de un millón doscientos cincuenta mil ejemplares en todas partes del mundo.

Este libro contiene instrucciones completas sobre el montaje y la operación del torno y describe detalladamente las maneras de centrar y amolar herramientas, cortar metales de distintas clases, cortar tornillos de todos estilos, y otras operaciones de mayor importancia.

Se ha preparado éste libro para el uso de los aprendices en los talleres de mecánica. Es uno de los libros más completos en tornería de metales que se puede conseguir. Representa la experiencia de sus autores quienes trabajaron por más de 30 años como ingenieros y mecánicos expertos en varias industrias de labrar metales.



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