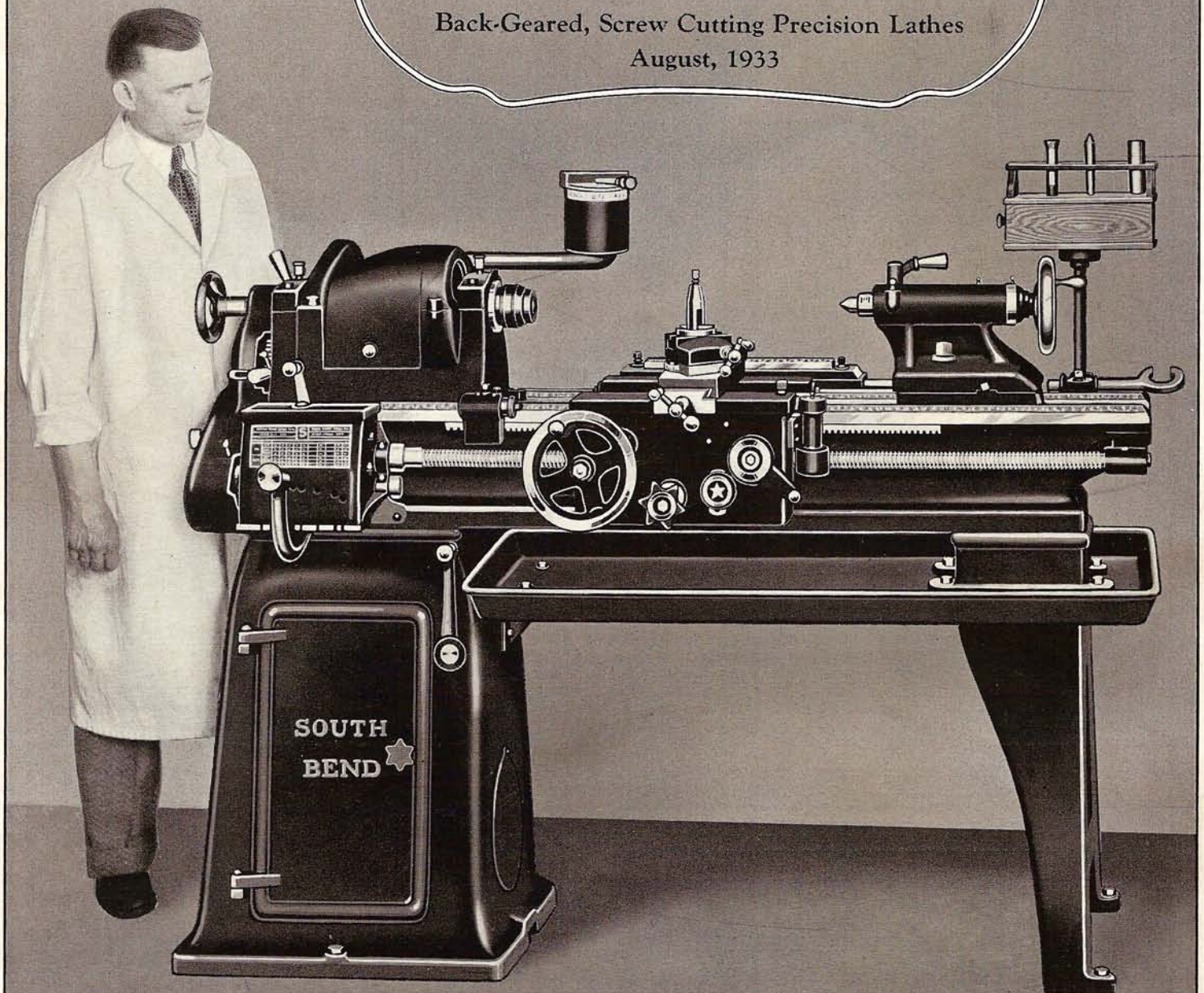
Bulletin No. 101-A

New Model South Bend Underneath Belt Motor Driven Lathes

Back-Geared, Screw Cutting Precision Lathes

August, 1933



South Bend Lathe Works

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

Established 1906 - - Lathe Builders for Twenty-Seven Years

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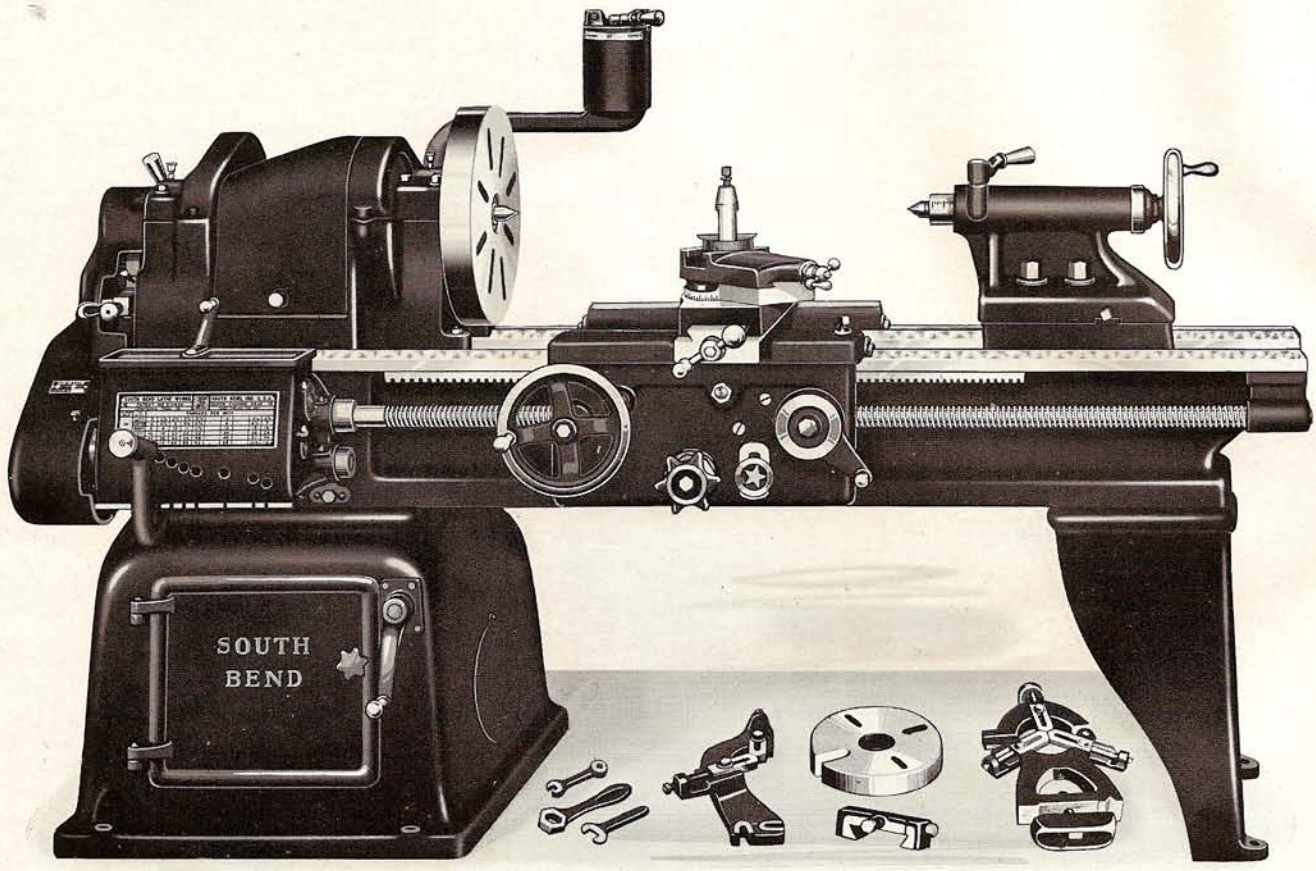
WE DO OUR PART



18″ x 8′ Underneath Belt Motor Driven Lathe—Quick Change Gear Type—$997.00

18-inch South Bend Underneath Belt Motor Driven Lathe

Back-Geared, Screw Cutting Precision Lathe—Quick Change Gear Type

The 18-inch Underneath Belt Motor Driven Quick Change Gear Lathe, illustrated above, has the power for heavy manufacturing and general machine work. It has the accuracy and precision for cutting screw threads and for doing the finest class of tool, die and gauge work. This lathe is also supplied in the Standard Change Gear type; prices are shown below.

The Underneath Belt Motor Driven Lathe is a compact, self-contained unit with motor drive fully enclosed within the cabinet leg under the headstock. This drive is powerful, efficient and silent in operation. Independent adjustments are provided for belt tension. For features and illustrations of the Underneath Belt Motor Drive see page 6.

Additional Lathe Specifications

Spindle Speed Range.....16, 24, 36, 55, 111, 167, 251, 383 R.P.M.
Screw Thread Cutting Range...2 to 112 per inch. See paragraph 12, page 7
Lead Screw, Acme Thread.....1⅝ inch diameter, 4 threads
Centers for Head and Tail Spindles.....No. 3 Morse Taper
Collet Capacity.....¼ inch to 1 inch
Spindle Nose, Size of.....2⅝ inch diameter, 6 threads
Angular Travel Compound Rest Top.....4⅝ inches
Tool Cross Slide Travel.....14⅝ inches
Travel of Tailstock Spindle.....7 inches
Height of Centers from Floor.....42 inches
Size of Lathe Tool Shank.....⅝ inch x 1⅜ inches
Size of Turning Tool Cutter Bits.....⅜ inch x ⅜ inch

Features of Lathe Include: Wide range of spindle speeds; automatic friction longitudinal and power cross feeds; graduated compound rest; tailstock set-over for taper turning; carriage lock; spring latch reverse for threads and feeds; self-ejecting tailstock center; quick change gear box for threads and feeds. See page 7.

Attachments, Chucks, Tools, etc., which may be fitted to the lathe are illustrated, described and priced on pages 10 and 11.

When Ordering an Underneath Belt Motor Driven Lathe give the following information: If alternating current state exact voltage, phase, cycle, and number of wires. If direct current state exact voltage only. State whether 110-volt or 220-volt motor is wanted. We cannot furnish motors for double voltage rating.

Regular Equipment
Included in Price

—Quick Change Gear Mechanism.*
—Large and Small Face Plates.
—Tool Post, Ring and Wedge.
—Adjustable Thread Cutting Stop.
—Two 60° Spindle Centers.
—Spindle Sleeve for Headstock.
—Center Rest and Follower Rest.
—Wrenches, Lag Screws, Washers.
—Installation Plan Blue Print.
—Book, "How to Run a Lathe."

Electrical Equipment
Included in Price

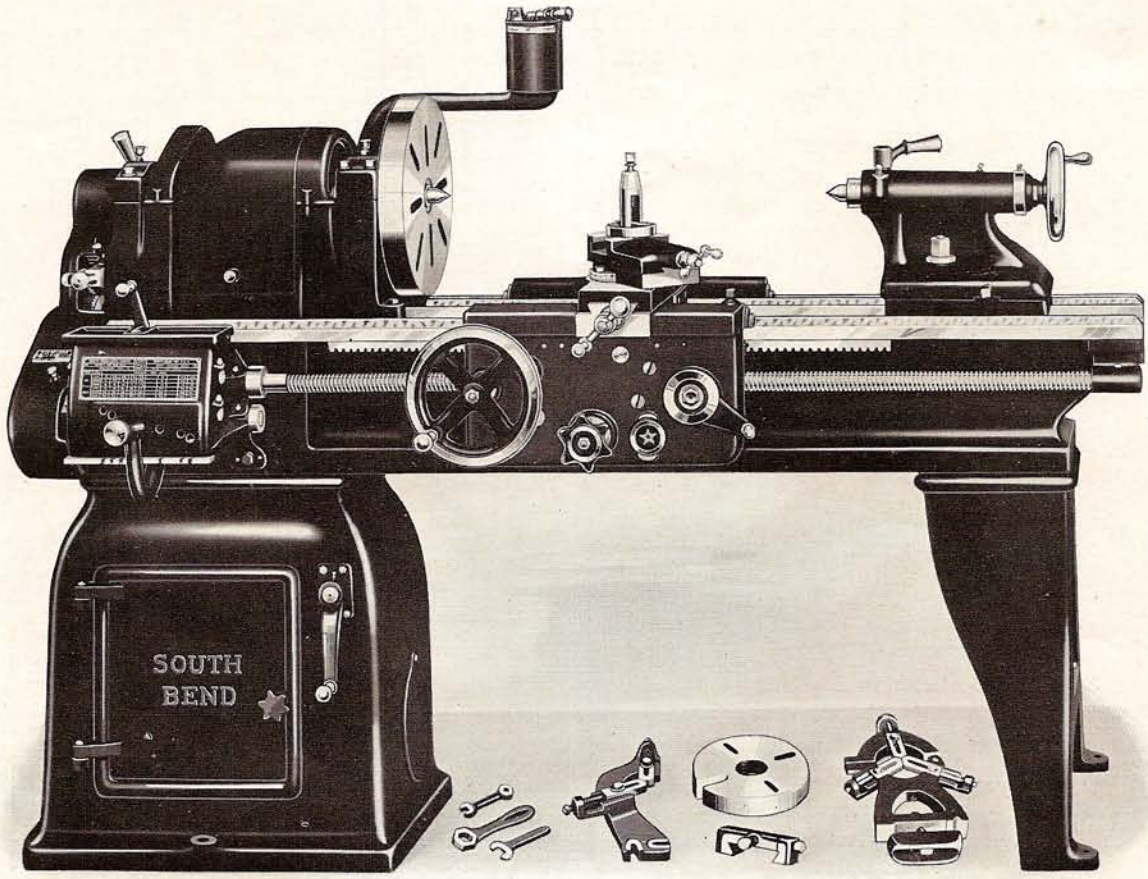
—Motor Drive Mechanism Mounted in Cabinet Leg under Headstock.
—Instant Reversing Motor for 3-phase, 60-cycle, A.C.
—Reversing Switch, Drum Type.
—Wiring Between Motor and Switch.
—Flexible Metal Conduit for Wiring.
—Five V-Belts, Motor to Drive.
—Flat Leather Belt, Two Ply.
—Wiring Diagram Blue Print.

Net Factory Prices of 18-inch South Bend Underneath Belt Motor Driven Lathes

Prices Include Regular Equipment and Electrical Equipment as Listed Above

Swing Over Bed Inches	Length of Bed Feet	Distance Between Centers Inches	Hole Thru Spindle Inches	Swing Over Carriage Inches	Width Cone Pulley Inches	Centers to Floor Inches	Approx. Weight Crated Pounds	Standard Change Gear Lathe		Quick Change Gear Lathe	
								Catalog Number	With 3-Phase 60-Cycle A. C. Motor	Catalog Number	With 3-Phase 60-Cycle A. C. Motor
18¼	6	29½	1 1/16	12⅝	2½	42	3090	143-C	**$ 877.00**	194-C	**$ 947.00**
18¼	7	41½	1 1/16	12⅝	2½	42	3190	143-D	**902.00**	194-D	**972.00**
18¼	8	53½	1 1/16	12⅝	2½	42	3290	143-E	**927.00**	194-E	**997.00**
18¼	10	77½	1 1/16	12⅝	2½	42	3490	143-G	**931.00**	194-G	**1051.00**
18¼	12†	101½	1 1/16	12⅝	2½	42	3790	143-H	**1059.00**	194-H	**1129.00**
18¼	14†	125½	1 1/16	12⅝	2½	42	4015	143-K	**1121.00**	194-K	**1191.00**

If 1-Phase or Direct Current Motors are wanted in lieu of 3-Phase Motors see tabulation on page 7. †Includes Center Leg.
*A set of Change Gears for threads and feeds is supplied with Standard Change Gear Lathes.



16″ x 6′ Underneath Belt Motor Driven Lathe—Quick Change Gear Type—$777.00

16-inch South Bend Underneath Belt Motor Driven Lathe

Back-Geared, Screw Cutting Precision Lathe—Quick Change Gear Type

The 16-inch Underneath Belt Motor Driven Quick Change Gear Lathe illustrated above has the power for heavy production work and the accuracy and precision for general machine work and for cutting standard screw threads and handling the finest class of tool, die and gauge work. This lathe is also supplied in Standard Change Gear type, prices of which are shown below.

The Underneath Belt Motor Driven Lathe is a compact, self-contained unit with motor drive fully enclosed within the cabinet leg under the headstock. This drive is powerful, efficient and silent in operation. Independent adjustments are provided for belt tension. For features and illustrations of the Underneath Belt Motor Drive see page 6.

Additional Lathe Specifications

Spindle Speed Range.....18, 29, 45, 75, 141, 228, 360, 598 R.P.M.
Screw Thread Cutting Range...2 to 112 per inch. See paragraph 12, page 7
Lead Screw, Acme Thread.....1 ⅛ inch diameter, 6 threads
Centers for Head and Tail Spindles.....No. 3 Morse Taper
Collet Capacity.....1/64 inch to ⅞ inch
Spindle Nose, Size of.....2⅜ inch diameter, 6 threads
Angular Travel Compound Rest Top.....3¾ inches
Tool Cross Slide Travel.....10⅜ inches
Travel of Tailstock Spindle.....6 inches
Height of Centers from Floor.....42 inches
Size of Lathe Tool Shank.....⅝ inch x 1⅜ inches
Size of Turning Tool Cutter Bits.....⅜ inch x ⅜ inch

Features of Lathe Include: Wide range of spindle speeds; automatic friction longitudinal and power cross feeds; graduated compound rest; tailstock set-over for taper turning; carriage lock; spring latch reverse for threads and feeds; self-ejecting tailstock center; quick change gear mechanism for threads and feeds.

Attachments, Chucks, Tools, etc., which may be fitted to the lathe are illustrated, described and priced on pages 10 and 11.

When Ordering an Underneath Belt Motor Driven Lathe give the following information: If alternating current state exact voltage, phase, cycle, and number of wires. If direct current state exact voltage only. State whether 110-volt or 220-volt motor is wanted. We cannot furnish motors for double voltage rating.

Regular Equipment

Included in Price

—Quick Change Gear Mechanism.*
—Large and Small Face Plates.
—Tool Post, Ring and Wedge.
—Adjustable Thread Cutting Stop.
—Two 60° Spindle Centers.
—Spindle Sleeve for Headstock.
—Center Rest and Follower Rest.
—Wrenches, Lag Screws, Washers.
—Installation Plan Blue Print.
—Book, "How to Run a Lathe."

Electrical Equipment

Included in Price

—Motor Drive Mechanism Mounted in Cabinet Leg under Headstock.
—1 H.P. Instant Reversing Motor for 3-phase, 60-cycle, A.C.
—Reversing Switch, Drum Type.
—Wiring Between Motor and Switch.
—Flexible Metal Conduit for Wiring.
—Three V-Belts, Motor to Drive.
—Flat Leather Belt, Two Ply.
—Wiring Diagram Blue Print.

Net Factory Prices of 16-inch South Bend Underneath Belt Motor Driven Lathes

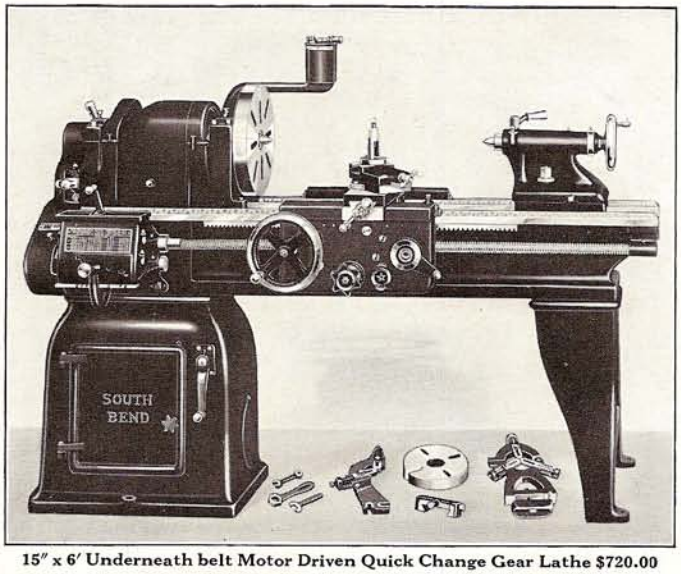
Prices Include Regular Equipment and Electrical Equipment as Listed Above

Swing Over Bed Inches	Length of Bed Feet	Distance Between Centers Inches	Hole Thru Spindle Inches	Swing Over Carriage Inches	Width Cone Pulley Inches	Size of Motor H. P.	Approx. Weight Crated Pounds	Standard Change Gear Lathe		Quick Change Gear Lathe	
								Catalog Number	With 3-Phase 60-Cycle A. C. Motor	Catalog Number	With 3-Phase 60-Cycle A. C. Motor
16¼	6	34	1⅜	11⅛	2¼	1	2300	141-C	**$717.00**	192-C	**$777.00**
16¼	7	46	1⅜	11⅛	2¼	1	2380	141-D	**737.00**	192-D	**797.00**
16¼	8	58	1⅜	11⅛	2¼	1	2460	141-E	**757.00**	192-E	**817.00**
16¼	10†	82	1⅜	11⅛	2¼	1	2620	141-G	**801.00**	192-G	**861.00**
16¼	12†	106	1⅜	11⅛	2¼	1	2850	141-H	**864.00**	192-H	**924.00**

If 1-Phase or Direct Current Motor is wanted in lieu of 3-Phase Motor see tabulation on page 7.
†Includes Center Leg.
*A set of Change Gears for threads and feeds is supplied with Standard Change Gear Lathes.

15-inch South Bend Underneath Belt Motor Driven Lathe

Back-Geared, Screw Cutting Precision Lathe—Quick Change Gear Type



15″ x 6′ Underneath belt Motor Driven Quick Change Gear Lathe $720.00

The 15-inch Underneath Belt Motor Driven Quick Change Gear Lathe, illustrated at left, is practical for production work and has the accuracy and precision for general machine work, for cutting screw threads, and for the finest class of tool, die and gauge work.

The Underneath Belt Motor Driven Lathe is a compact, self-contained unit with the motor drive fully enclosed within the cabinet leg under the headstock. This drive is powerful, efficient and silent in operation. See illustrations on page 6.

Features of Lathe Include: Wide range of spindle speeds; automatic friction longitudinal and power cross feeds; graduated compound rest; tailstock set-over for taper turning; carriage lock; spring latch reverse for threads and feeds; self-ejecting tailstock center; and full quick change gear mechanism for threads and feeds. See page 7. Attachments, chucks, etc., for lathe are shown on pages 10 and 11.

Regular Equipment
Included in Price

—Large and Small Face Plates.
—Tool Post, Ring and Wedge.
—Adjustable Thread Cutting Stop.
—Two 60° Spindle Centers.
—Spindle Sleeve for Headstock.
—Center Rest and Follower Rest.
—Wrenches, Lag Screws, Washers.
—Gear Box or Change Gears, pg. 7.
—Installation Plan Blue Print.
—Book, "How to Run a Lathe."

Electrical Equipment
Included in Price

—Motor Drive Mechanism Mounted in Cabinet Leg under Headstock.
—1 H.P. Instant Reversing Motor for 3-phase, 60-cycle, A.C.
—Reversing Switch, Drum Type.
—Wiring Between Motor and Switch.
—Flexible Metal Conduit for Wiring.
—Three V-Belts, Motor to Drive.
—Flat Leather Belt, Two Ply.
—Wiring Diagram Blue Print.

Additional Lathe Specifications

Swing Over Carriage.....10 5/8 inches
Hole Through Spindle.....1 1/8 in.
Collet Capacity.....1/64 in. to 3/4 in.
Screw Thread Cutting Range.....2 to 112 per in. See par. 12, pg. 7
Lead Screw, Acme Thread.....1 1/8 inch diameter, 6 threads per inch
Spindle Nose Size.....2 1/4 inch diameter, 6 threads per inch
Lathe Centers No. 3 Morse Taper.....Height from Floor 41 1/2 in.
Angular Travel Compound Rest.....3 1/8 in.
Tool Cross Travel.....10 in.
Cone Pulley Belt Width.....2 inches
Spindle Speeds.....20, 33, 51, 83, 143, 226, 355, 579 R.P.M.
Tool Shank Size 1/2 in. x 1 1/8 in.....Cutter Bits 5/16 in. x 5/16 in.

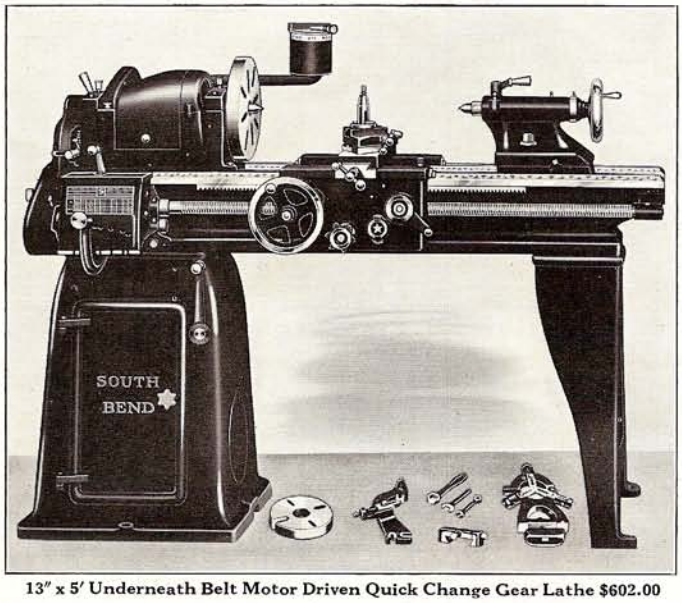
Prices 15-inch Underneath Belt Motor Driven Lathes
With 3-Phase, 60-Cycle,. A. C. Reversing Motor and Switch

Swing Over Bed Inches	Length of Bed Feet	Distance Between Centers Inches	Size of Motor H.P.	Approx. Weight Crated Pounds	Standard Change Gear Lathes		Quick Change Gear Lathes	
					Cat. No.	Price	Cat. No.	Price
15 1/4	5	24 1/2	1	1995	139-B	**$647.00**	188-B	**$702.00**
15 1/4	6	36 1/2	1	2070	139-C	**665.00**	188-C	**720.00**
15 1/4	7	48 1/2	1	2145	139-D	**683.00**	188-D	**738.00**
15 1/4	8	60 1/2	1	2225	139-E	**703.00**	188-E	**758.00**
15 1/4	10	84 1/2	1	2390	139-G	**747.00**	188-G	**802.00**

If 1-phase or D. C. Motors are wanted, see tabulation on page 7.

13-inch South Bend Underneath Belt Motor Driven Lathe

Back-Geared, Screw Cutting Precision Lathe—Quick Change Gear Type



13″ x 5′ Underneath Belt Motor Driven Quick Change Gear Lathe $602.00

The 13-inch Underneath Belt Motor Driven Quick Change Gear Lathe, illustrated at left, is practical for production work and has the accuracy and precision for general machine work, for cutting standard and special screw threads, and for the finest class of tool work.

The Underneath Belt Motor Driven Lathe is a compact, self-contained unit with the motor drive fully enclosed within the cabinet leg under the headstock. This drive is powerful, efficient and silent in operation. See illustrations on page 6.

Features of Lathe Include: Wide range of spindle speeds; automatic friction longitudinal and power cross feeds; graduated compound rest; tailstock set-over for taper turning; carriage lock; spring latch reverse for threads and feeds; self-ejecting tailstock center; and full quick change gear mechanism for threads and feeds. See page 7. Attachments, chucks, etc., for lathe are shown on pages 10 and 11.

Regular Equipment
Included in Price

—Large and Small Face Plates.
—Tool Post, Ring and Wedge.
—Adjustable Thread Cutting Stop.
—Two 60° Spindle Centers.
—Spindle Sleeve for Headstock.
—Center Rest and Follower Rest.
—Wrenches, Lag Screws, Washers.
—Gear Box or Change Gears, pg. 7.
—Installation Plan Blue Print.
—Book, "How to Run a Lathe."

Electrical Equipment
Included in Price

—Motor Drive Mechanism Mounted in Cabinet Leg under Headstock.
—¾ H.P. Instant Reversing Motor for 3-phase, 60 cycle, A.C.
—Reversing Switch, Drum Type.
—Wiring Between Motor and Switch.
—Flexible Metal Conduit for Wiring.
—Two V-Belts, Motor to Drive.
—Flat Leather Belt, Two Ply.
—Wiring Diagram Blue Print.

Additional Lathe Specifications

Swing Over Carriage.....9 inches
Hole Through Spindle.....1 inch
Spindle Speeds.....23, 36, 55, 86, 162, 253, 385, 605 R.P.M.
Screw Thread Cutting Range.....2 to 112 per in. See par. 12, pg. 7
Lead Screw, Acme Thread.....1 inch diameter, 6 threads per inch
Spindle Nose Size.....1 7/8 inch diameter, 8 threads per inch
Lathe Centers No. 3 Morse Taper.....Height from Floor 41 1/2 in.
Angular Travel Compound Rest 3 in.....Tool Cross Travel 9 in.
Collet Capacity.....1/64 inch to 5/8 inch
Cone Pulley Belt Width.....1 3/4 inches
Tool Shank Size 1/2 in. x 1 1/8 in.....Cutter Bits 5/16 in. x 5/16 in.

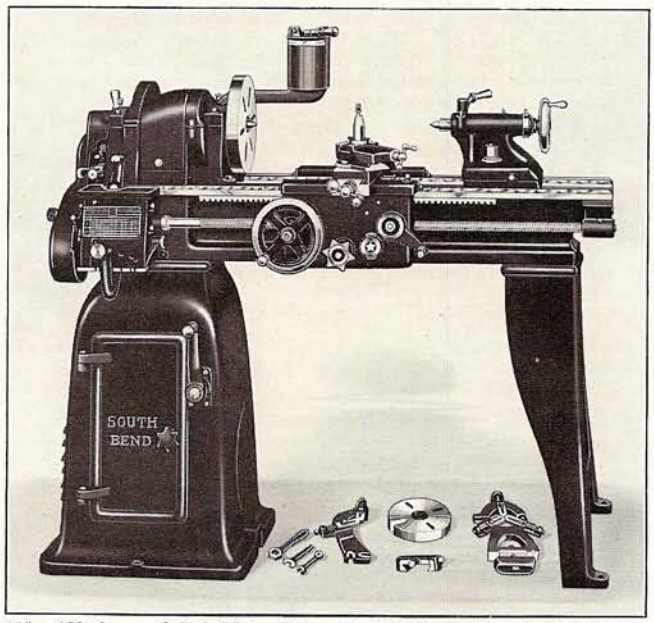
Prices 13-inch Underneath Belt Motor Driven Lathes
With 3-Phase, 60-Cycle, A.C. Reversing Motor and Switch

Swing Over Bed Inches	Length of Bed Feet	Distance Between Centers Inches	Size of Motor H.P.	Approx. Weight Crated Pounds	Standard Change Gear Lathes		Quick Change Gear Lathes	
					Cat. No.	Price	Cat. No.	Price
13 1/4	4	16	3/4	1460	135-A	**$537.00**	186-A	**$587.00**
13 1/4	5	28	3/4	1510	135-B	**552.00**	186-B	**602.00**
13 1/4	6	40	3/4	1560	135-C	**567.00**	186-C	**617.00**
13 1/4	7	52	3/4	1615	135-D	**584.00**	186-D	**634.00**
13 1/4	8	64	3/4	1675	135-E	**603.00**	186-E	**653.00**

If 1-phase or D. C. Motors are wanted, see tabulation on page 7.

11-inch South Bend Underneath Belt Motor Driven Lathe

Back-Geared, Screw Cutting Precision Lathe—Quick Change Gear Type



11" x 4' Underneath Belt Motor Driven Quick Change Gear Lathe $498.00

The 11-inch Underneath Belt Motor Driven Quick Change Gear Lathe, illustrated at left, is practical for small production work in manufacturing and has the accuracy and precision for general machine work, for cutting standard and special screw threads, and for the finest class of tool work.

The Underneath Belt Motor Driven Lathe is a compact, self-contained unit with the motor drive fully enclosed within the cabinet leg under the headstock. This drive is powerful, efficient and silent in operation. See illustrations on page 6.

Features of Lathe Include: Wide range of spindle speeds; automatic friction longitudinal and power cross feeds; graduated compound rest; tailstock set over for taper turning; carriage lock; spring latch reverse for threads and feeds; self-ejecting tailstock center; and full quick change gear mechanism for threads and feeds. See page 7. Attachments, chucks, etc., for lathe are shown on pages 10 and 11.

Regular Equipment
Included in Price

—Large and Small Face Plates.
—Tool Post, Ring and Wedge.
—Adjustable Thread Cutting Stop.
—Two 60° Spindle Centers.
—Spindle Sleeve for Headstock.
—Center Rest and Follower Rest.
—Wrenches, Lag Screws, Washers.
—Gear Box or Change Gears, pg. 7.
—Installation Plan Blue Print.
—Book, "How to Run a Lathe."

Electrical Equipment
Included in Price

—Motor Drive Mechanism Mounted in Cabinet Leg under Headstock.
—½ H.P. Instant Reversing Motor for 3-phase, 60-cycle, A.C.
—Reversing Switch, Drum Type.
—Wiring Between Motor and Switch.
—Flexible Metal Conduit for Wiring.
—One V-Belt, Motor to Drive.
—Flat Leather Belt, Two Ply.
—Wiring Diagram Blue Print.

Additional Lathe Specifications

Swing Over Carriage 7 5/8 in. ..... Hole Through Spindle 7/8 in.
Spindle Speeds ..... 34, 54, 85, 203, 321, 512 R.P.M.
Screw Thread Cutting Range ..... 2 to 112 per in. See par. 12, pg. 7
Lead Screw, Acme Thread ..... 7/8 inch diameter, 8 threads per inch
Spindle Nose Size ..... 1 5/8 inch diameter, 8 threads per inch
Lathe Centers No. 2 Morse Taper ..... Height from Floor 41 in.
Angular Travel Compound Rest 2 5/16 in. ..... Tool Cross Travel 8 3/16 in.
Collet Capacity 1/64 in. to 5/16 in. ..... Cone Pulley Belt 1 1/2 in.
Tool Shank Size 3/8 in. x 7/8 in. ..... Cutter Bits 1/4 in. x 1/4 in.

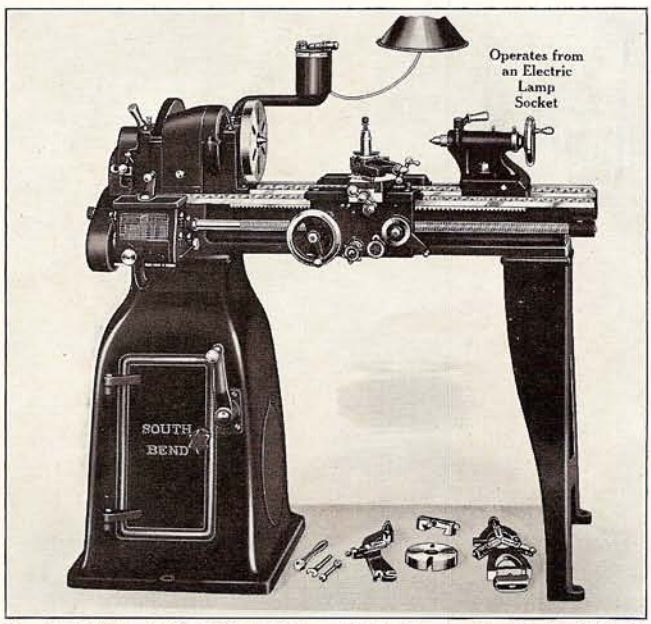
Prices 11-inch Underneath Belt Motor Driven Lathes
With 3-Phase, 60-Cycle, A.C. Reversing Motor and Switch

Swing Over Bed Inches	Length of Bed Feet	Distance Between Centers Inches	Size of Motor H.P.	Approx. Weight Crated Pounds	Standard Change Gear Lathes		Quick Change Gear Lathes	
					Cat. No.	Price	Cat. No.	Price
11 1/4	3	12	1/2	905	133-Y	**$444.00**	184-Y	**$484.00**
11 1/4	3 1/2	18	1/2	935	133-Z	**451.00**	184-Z	**491.00**
11 1/4	4	24	1/2	965	133-A	**458.00**	184-A	**498.00**
11 1/4	5	36	1/2	1035	133-B	**474.00**	184-B	**514.00**
11 1/4	5 1/2	42	1/2	1070	133-S	**483.00**	184-S	**523.00**

If 1-phase or D. C. Motors are wanted, see tabulation on page 7.

9-inch South Bend Underneath Belt Motor Driven Lathe

Back-Geared, Screw Cutting Precision Lathe—Quick Change Gear Type



9" x 3' Underneath Belt Motor Driven Quick Change Gear Lathe $402.00

The 9-inch Underneath Belt Motor Driven Quick Change Gear Lathe, illustrated at left, is practical for the shop handling small work and has the accuracy and precision for general machine work, cutting standard and special screw threads and for the finest class of tool work.

The Underneath Belt Motor Driven Lathe is a compact, self-contained unit with the motor drive fully enclosed within the cabinet leg under the headstock. This drive is powerful, efficient and silent in operation. See illustrations on page 6.

Features of Lathe Include: Wide range of spindle speeds; automatic friction longitudinal and power cross feeds; graduated compound rest; tailstock set-over for taper turning; carriage lock; spring latch reverse for threads and feeds; self-ejecting tailstock center; and full quick gear mechanism for threads and feeds. See Page 7. Attachments, chucks, etc., shown on pages 10 and 11.

Regular Equipment
Included in Price

—Large and Small Face Plates.
—Tool Post, Ring and Wedge.
—Adjustable Thread Cutting Stop.
—Two 60° Spindle Centers.
—Spindle Sleeve for Headstock.
—Center Rest and Follower Rest.
—Wrenches, Lag Screws, Washers.
—Gear Box or Change Gears, pg. 7.
—Installation Plan Blue Print.
—Book, "How to Run a Lathe."

Electrical Equipment
Included in Price

—Motor Drive Mechanism Mounted in Cabinet Leg under Headstock.
—¼ H.P. Instant Reversing Motor for 1-phase, 60-cycle, A.C.
—Reversing Switch, Drum Type.
—Wiring Between Motor and Switch.
—Flexible Metal Conduit for Wiring.
—One V-Belt, Motor to Drive.
—Flat Leather Belt, Two Ply.
—Wiring Diagram Blue Print.

Additional Lathe Specifications

Swing Over Carriage 6 3/8 in. ..... Hole Through Spindle 3/4 in.
Collet Capacity 1/64 in. to 1/2 in. ..... Cone Pulley Belt 1 1/4 in.
Spindle Speeds ..... 39, 64, 110, 208, 348, 596 R.P.M.
Screw Thread Cutting Range ..... 2 to 112 per in. See par. 12, pg. 7
Lead Screw, Acme Thread ..... 3/4 inch diameter, 8 threads per inch
Spindle Nose Size ..... 1 1/2 inch diameter, 8 threads per inch
Lathe Centers No. 2 Morse Taper ..... Height from Floor 41 in.
Angular Travel Compound Rest 1 1/8 in. ..... Tool Cross Travel 7 1/16 in.
Tool Shank Size 11/32 in. x 13/16 in. ..... Cutter Bits 1/4 in. x 1/4 in.

Prices 9-inch Underneath Belt Motor Driven Lathes
With 1-Phase, 60-Cycle, A.C. Reversing Motor and Switch

Swing Over Bed Inches	Length of Bed Feet	Distance Between Centers Inches	Size of Motor H.P.	Approx. Weight Crated Pounds	Standard Change Gear Lathes		Quick Change Gear Lathes	
					Cat. No.	Price	Cat. No.	Price
9 1/4	2 1/2	9 3/8	1/4	770	130-X	**$353.00**	180-X	**$393.00**
9 1/4	3	16 3/8	1/4	795	130-Y	**362.00**	180-Y	**402.00**
9 1/4	3 1/2	21 3/8	1/4	820	130-Z	**368.00**	180-Z	**408.00**
9 1/4	4	27 3/8	1/4	845	130-A	**375.00**	180-A	**415.00**
9 1/4	4 1/2	34 3/8	1/4	870	130-R	**383.00**	180-R	**423.00**

For 3-phase or D. C. Motors in lieu of 1-Phase Motor see page 7.
For prices of 9" Junior Lathes with Underneath Belt Motor drive, deduct $56.00 from prices of Standard Change Gear Lathes in table above.

Features of the South Bend Underneath Belt Motor Driven Lathe

Applying to All Sizes of Underneath Belt Motor Driven Lathes, 9″ to 18″ Swing

1. **Drive mechanism enclosed within cabinet leg.**
2. **Spindle cone pulley completely enclosed.**
3. **Underneath belt drive to lathe spindle.**
4. **"V" driving belts from motor.**
5. **No overhead obstructions—clear vision.**
6. **No exposed belts, pulleys or gears.**
7. **Silent, powerful and efficient in operation.**
8. **Instant reversing motor and reversing switch.**
9. **Independent adjustments for belt tension.**
10. **Wide range of spindle speeds.**
11. **Safety devices on working units.**
12. **Increased power and efficiency.**
13. **Low operating cost.**
14. **Requires small floor space.**
15. **Built with precision and accuracy.**
16. **Finished in standard machine tool gray.**

The Underneath Belt Motor Driven Lathe is new in design, modern in appearance, powerful and noiseless in operation. Motor and drive mechanism are completely enclosed within the cabinet legs under the headstock. A cover on the headstock encloses the spindle cone pulley.

The General Construction and Design of the Underneath Belt Motor Drive is the same for all sizes of South Bend Lathes, 9-inch to 18-inch swing, inclusive, varying only in dimensions, etc. for each size lathe.

Powerful and Efficient in Operation. Smooth, even power is transmitted by direct belt drive to the headstock cone pulley. Multiple V-belts supply the power from motor to the lower drive cone pulley. There are no exposed belts, pulleys or gears.

Permits Clear Vision. The absence of overhead obstructions provides clear vision over the entire room and permits the most efficient lighting.

The Motor and Drive Unit are mounted on a cradle which is pivoted within the cabinet leg so that the entire mechanism may be raised or lowered by means of the belt release crank on the front of the cabinet leg. The lower cone pulley shaft bearings are equipped with ring oilers with large oil wells, easily accessible, providing thorough lubrication.

Belt Easy to Shift. The belt release crank on the front of the cabinet leg permits the easy shifting of the belt from one step of the cone pulley to another for changing spindle speeds.

Belt Tension Adjustments are provided both for V-belts and flat leather belt and enable the operator to maintain the correct belt tension at all times.

The Performance of the Underneath Belt Motor Driven Lathe is a marked improvement over previous types of lathes. The down pull feature is practical, modern and insures maximum power without disturbing the accurate alignment of the lathe spindle over long periods of continuous use.

Reversing Motor and Switch. The Underneath Belt Motor Driven Lathe is equipped with an instant reversing motor and drum reversing switch which provide for instant starting, stopping and reversing of the lathe spindle. The lathe is shipped ready to operate as soon as connected to the electric current. Lathe meets all underwriters' requirements.

Built with Precision and Accuracy. The Underneath Belt Motor Driven Lathe is built with precision and accuracy and is practical for production work in the manufacturing plant, for the finest tool, die and gauge work in the tool room and for all classes of machine tool work in all industries.

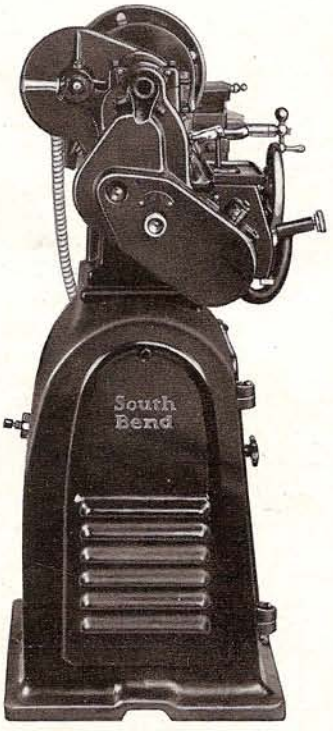


Fig. 1. End View of "V" Belt Motor Driven Lathe, showing Removable Ventilator End Plate in Position.

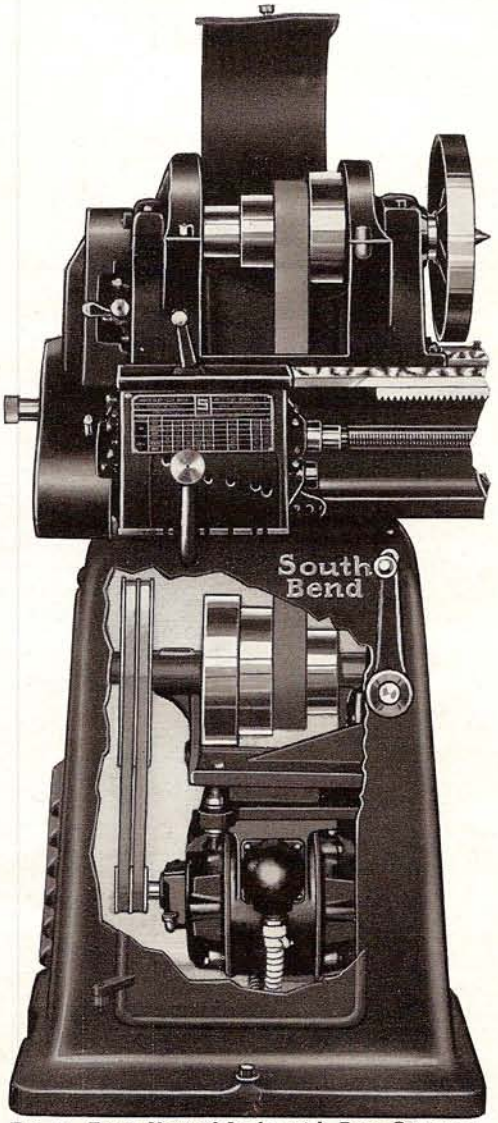


Fig. 2. Front View of Lathe with Door Cut away, showing arrangement of Motor and Drive Mechanism.

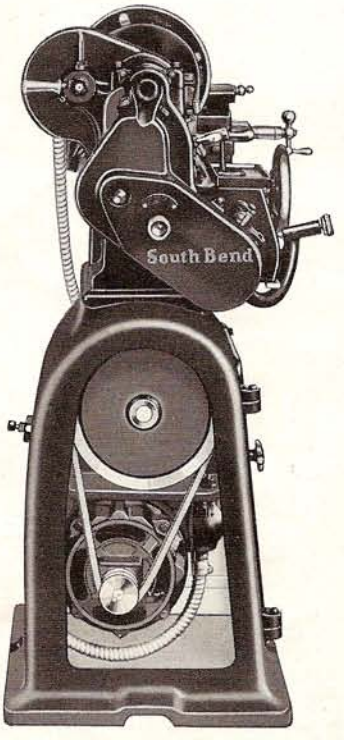


Fig. 3. End View of Lathe with End Plate Removed to show Multiple "V" Belt Drive from Motor to Cone Pulley Shaft.

Features of South Bend Underneath Belt Motor Driven Lathes

Applying to All Lathes Shown in This Bulletin

The South Bend Underneath Belt Motor Driven Lathe is recommended for the manufacturing plant, tool and die shop and general machine shop. It is practical for production work, tool and die work and general machine work of all kinds. The principal units of the lathe are described below. This description applies to each size South Bend Lathe, 9-inch to 18-inch swing inclusive.

1 Headstock. The headstock for the Underneath Belt Motor Driven Lathe is of special design, braced and webbed to insure rigidity and permanent alignment of the spindle bearings. A hinged cover completely encloses the headstock spindle cone. Back-gears are enclosed in improved, close fitting gear guards.

2 Spindle. The headstock spindle is made of a special alloy spindle steel bored from the solid bar with a hole its entire length for machining rods and bars through the lathe chuck and draw-in collet chuck. The steel thrust collar is hardened and ground, felt wick lubricated.

3 Bearings. Bearings for headstock spindle are phosphor bronze, hand-scraped to headstock casting and lapped to lathe spindle, designed for heavy duty and are adjustable for wear. Patent oil cups and felt wicks lubricate the spindle and protect the bearings from dust and grit.

4 Apron. The apron has automatic friction longitudinal feed and automatic friction power cross feed actuated through splined lead screw and worm gear mechanism. Split-nuts which engage the threads of the lead screw are used only when cutting screw threads, and not for driving either of the automatic feeds. An automatic safety interlock prevents the split-nuts and automatic feeds from being engaged at the same time.

5 Cone Pulley and Back-Gears. The cone pulley and back-gears provide a wide range of spindle speeds. Both the cone pulley and the back-gears have improved reservoir oiling systems. A quick-acting, wrenchless bull gear lock is provided for engaging and disengaging the back-gears.

6 Spring Latch Reverse. A spring latch reverse on the headstock permits instant changing of the direction of the automatic feeds and for cutting right or left-hand screw threads. A neutral position, completely disengages all feeds.

7 Lathe Bed. The bed is a one-piece casting of gray iron and 50% steel. This produces a hard, close-grained metal far superior to the ordinary gray iron casting. The bed is heavily constructed and is reinforced by box braces cast in at short intervals.

8 Carriage. The carriage has a wide deep bridge providing rigid support for the tool rest. The carriage is carefully fitted and hand-scraped to a perfect bearing on the lathe bed. The cross feed screw has Acme thread and is fitted with a micrometer collar reading in thousandths of an inch. A locking device clamps the carriage to the bed when using the cross feed for cutting-off or facing.

9 Tailstock. The tailstock spindle is graduated for drilling to accurate depths. Improved binding plugs lock the tailstock spindle without altering the alignment of the lathe centers. The tailstock center is made of tool steel hardened and tempered and is self-ejecting. The tailstock top may be set over for taper turning, and is off-set to permit the compound rest to swivel over the tailstock base.

10 Compound Rest. The compound rest is graduated 180° and swivels all the way around for machining work at any angle. It has an angular travel as listed in specifications with each size lathe. The compound rest screw has Acme thread and is fitted with a micrometer collar graduated in thousandths of an inch.

11 Lead Screw. The lead screw is made of special quality carbon steel and has coarse pitch Acme thread cut on a special machine equipped with a Pratt and Whitney master lead screw. The thread of the lead screw is used only for cutting screw threads and not for operating the automatic feeds.

12 The Quick Change Gear Lathe has full quick change gear mechanism for automatic friction longitudinal feeds and automatic friction cross feeds and for cutting standard screw threads, right or left-hand, from 2 to 112 per inch, including 11½ pipe thread, as follows: 2, 2¼, 2½, 2¾, 2⅞, 3, 3¼, 3½, 4, 4½, 5, 5½, 5¾, 6, 6½, 7, 8, 9, 10, 11, 11½, 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 and 112.

13 The Standard Change Gear Lathe is equal in accuracy and precision to the Quick Change Gear Lathe, but does not have the quick change gear mechanism. It is equipped with a set of independent change gears for the automatic friction longitudinal feeds and automatic friction cross feeds, and for cutting standard screw threads, right or left-hand, from 4 to 40 per inch, including 11½ pipe thread, as follows: 4, 5, 6, 7, 8, 9, 10, 11, 11½, 12, 13, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 36 and 40. Threads other than those listed may be cut by compounding the gears furnished with the lathe.

14 Attachments. Each size South Bend Lathe may be fitted with a wide variety of attachments for handling special classes of machine work. The taper attachment, milling attachment, draw-in collet chuck attachment, and others are illustrated, described and priced on page 10.

15 Accuracy Tests. 64 accuracy tests are made on the lathe during the process of manufacture and while it is being assembled. After assembly the lathe must pass a series of final inspection tests under its own power. A record card showing the results of these tests is filed in our office.

Motors for 1-Phase A. C., 3 Phase A. C., and Direct Current

The Price of Underneath Belt Motor Driven Lathes shown in this bulletin include: 1-phase, 60-cycle, A.C. Instant Reversing Motors fitted to all 9" Lathes. Prices of 11", 13", 15", 16" and 18" Lathes include 3-phase, 60-cycle, A.C. Instant Reversing Motors.

If lathes are wanted with motors of other current specifications in lieu of motors supplied with lathes, add or deduct from prices of lathes the amount (for motor desired) as shown at right. Motors we supply are Westinghouse, General Electric, or equal.

Drum Type Reversing Switch. A six-pole drum type reversing switch is included in the price of all South Bend Underneath Belt Motor Driven Lathes, 9-inch to 18-inch Swing. The switch lever has three positions and provides for instantaneous starting, stopping and reversing of lathe spindle—a feature which is of great importance in cutting screw threads. The switch is conveniently located within easy reach of the operator. See illustrations of lathes.

Prices for Motors in Lieu of Motors Supplied with Lathes

Refer to tabulations of prices on pages 2 to 5 inclusive

Size and Type of Lathe	For 1-Phase 60-Cycle, A.C. Instant Reversing Motor	For 3-Phase 60-Cycle, A.C. Instant Reversing Motor	For Direct Current Instant Reversing Motor
9" Quick & Std. Ch. Gear	*	Deduct **$4.00**	Deduct **$2.00**
11" " " " "	Add **$20.00**	*	Add **$ 8.00**
13" " " " "	" **21.00**	*	" **10.00**
15" " " " "	" **34.00**	*	" **82.00****
16" " " " "	" **34.00**	*	" **82.00****
18" " " " "	" **65.00**	*	" **99.00****

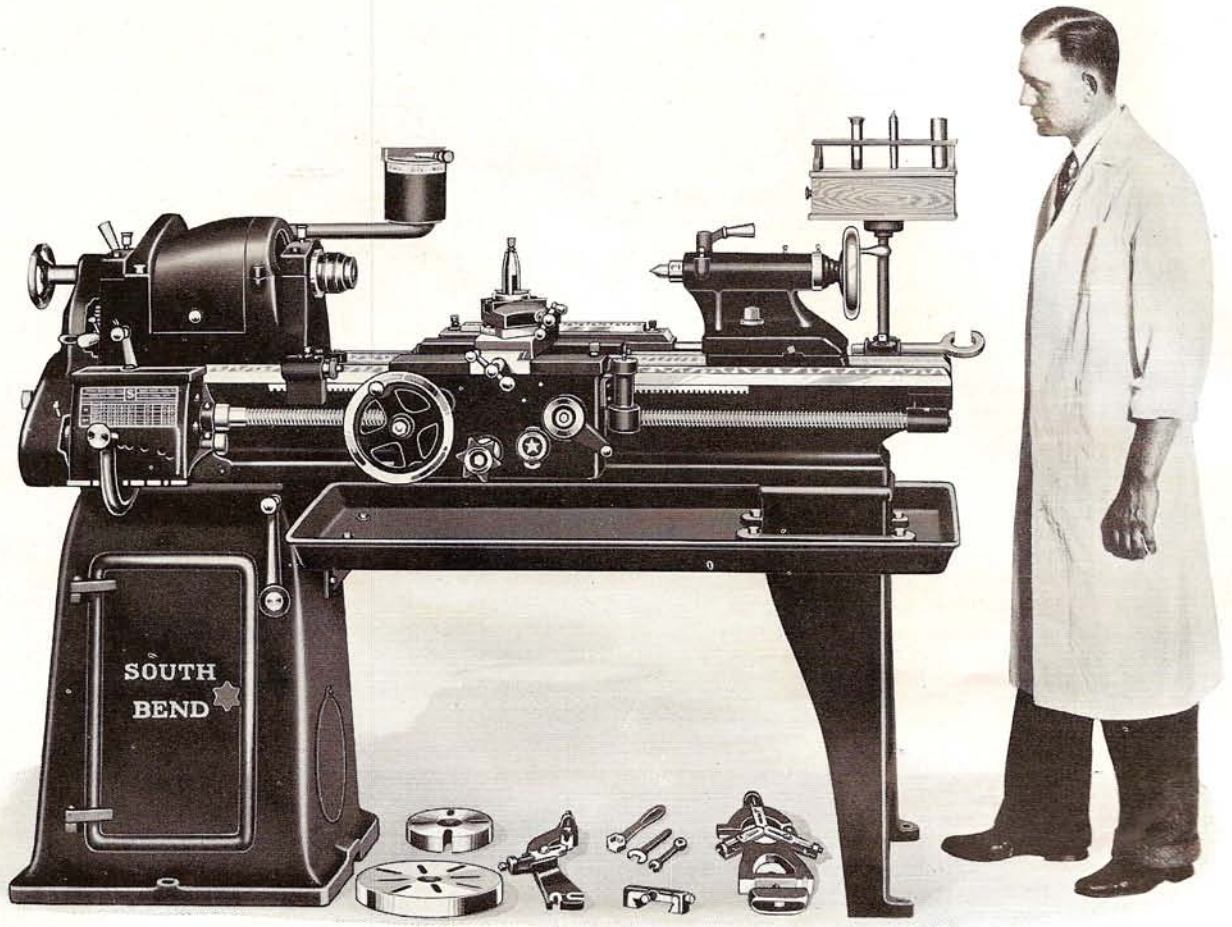
*This type of motor, included in price of the lathe as regular equipment.
**Includes special Drum Type Reversing Switch with resistance units.

WHEN ORDERING an Underneath Belt Motor Driven Lathe give the following information regarding the electric current to be used:

—If Alternating Current state exact voltage, phase, cycle, and number of wires.

—If Direct Current state exact voltage only.

When giving voltage 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.



13″ x 5′ South Bend Underneath Belt Motor Driven Tool Room Precision Lathe—$780.00

Underneath Belt Motor Driven Tool Room Precision Lathes

Made in 9″, 11″, 13″, 15″, 16″ and 18″ Swing

The South Bend Tool Room Precision Lathe with Underneath Belt Motor Drive is recommended for the finest class of tool, jig and fixture work in the modern tool room. This lathe is practical for making precision taps, master thread gauges, special screws, dies, tools, etc., to meet the most exacting demands of the expert mechanic for accuracy and precision.

Specifications. Each size Tool Room Lathe, priced below, has the same specifications as shown for the corresponding size Underneath Belt Motor Driven Lathe as shown on pages 2, 3, 4, and 5. Principal units of lathe are described on page 7.

The Underneath Belt Motor Driven Tool Room Lathe will be found very desirable by the tool maker for doing fine accurate tool work. Noiseless in operation, no vibration, the belt drive to the spindle from underneath insures a smooth, accurate finish on the work. We recommend this lathe to the plant that desires a high grade, modern tool room precision lathe.

Tool Room Attachments for each size South Bend Underneath Belt Motor Driven Lathe are itemized in the tabulation below so that they may be purchased complete with the lathe or individually as desired. The draw-in collet chuck attachment, graduated taper attachment, thread indicator, micrometer carriage stop, etc., are illustrated and described on page 10.

Regular Equipment
Included in Price

—Quick Change Gear Mechanism.
—Large and Small Face Plates.
—Tool Post, Ring and Wedge.
—Adjustable Thread Cutting Stop.
—Two 60° Spindle Centers.
—Spindle Sleeve for Headstock.
—Center Rest and Follower Rest.
—Wrenches, Lag Screws, Washers.
—Installation Plan Blue Print.
—Book, "How to Run a Lathe."

Electrical Equipment
Included in Price

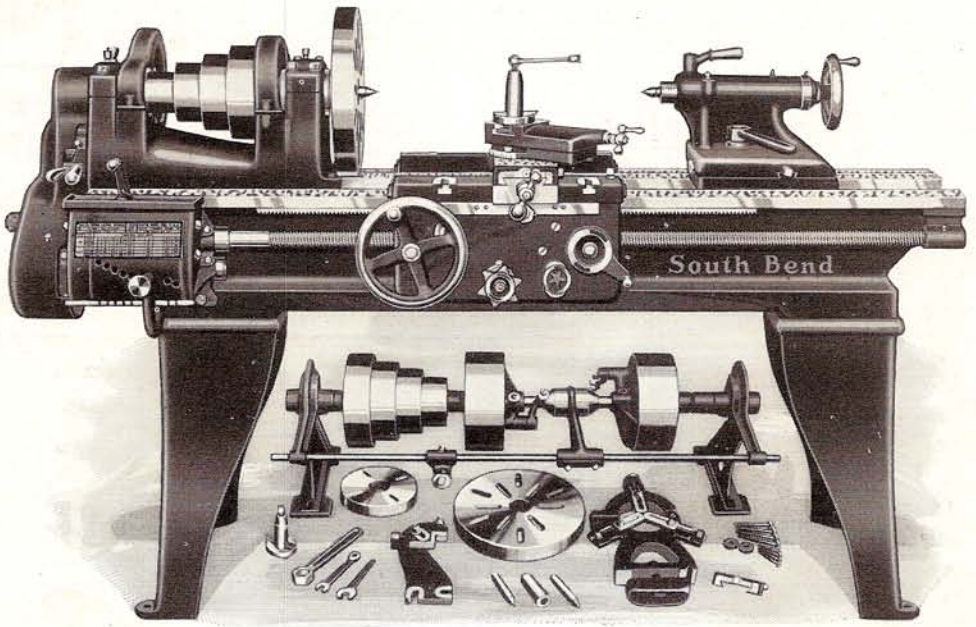
—Motor Drive Mechanism Mounted in Cabinet Leg under Headstock.
—Instant Reversing Motor (West'house, G. E. or Equal Make)
—Reversing Switch, Drum Type.
—Wiring Between Motor and Switch.
—Flexible Metal Conduit for Wiring.
—V-Belts, Motor to Drive.
—Flat Leather Belt, Two Ply.
—Wiring Diagram Blue Print.

Net Factory Prices of New Model South Bend Underneath Belt Motor Driven Tool Room Precision Lathes

Prices include 1-phase, 60-cycle, A.C. Instant Reversing Motor for 9″ Lathes and 3-phase, 60-cycle, A.C. Motors for 11″ to 18″ Lathes

Underneath Belt Motor Driven Tool Room Quick Change Gear Precision Lathe with Regular Lathe Equipment and Electrical Equipment but without Tool Room Attachments	9″ x 3′ Cat. No. 1880-Y	9″ x 3½′ Cat. No. 1880-Z	11″ x 4′ Cat. No. 1884-A	11″ x 5′ Cat. No. 1884-B	13″ x 5′ Cat. No. 1886-B	13″ x 6′ Cat. No. 1886-C	15″ x 6′ Cat. No. 1888-C	16″ x 6′ Cat. No. 1892-C	16″ x 8′ Cat. No. 1892-E	18″ x 8′ Cat. No. 1894-E
	$402.00	$408.00	$498.00	$514.00	$602.00	$617.00	$720.00	$777.00	$817.00	$997.00
Tool Room Attachments										
Draw-in Collet Chuck Attachment (Hand Wheel Type) with one Collet, any size	29.00	29.00	33.00	33.00	37.00	37.00	42.00	48.00	48.00	54.00
Extra Collets 1/64″ up by 64ths to Lathe Capacity, each	2.50	2.50	3.50	3.50	4.00	4.00	4.25	4.75	4.75	5.00
Taper Attachment	50.00	50.00	60.00	60.00	75.00	75.00	80.00	90.00	90.00	95.00
Thread Indicator	8.00	8.00	8.00	8.00	10.00	10.00	10.00	12.00	12.00	12.00
Chip Pan	14.00	15.00	19.00	21.00	27.00	30.00	34.00	35.00	45.00	47.00
Micrometer Carriage Stop	10.00	10.00	12.00	12.00	13.00	13.00	14.00	15.00	15.00	17.00
Collet Cabinet and Bracket	12.00	12.00	12.00	12.00	12.00	12.00	15.00	15.00	15.00	15.00
Price of Tool Room Lathe, Complete	**$527.50**	**$534.50**	**$645.50**	**$663.50**	**$780.00**	**$798.00**	**$919.25**	**$996.75**	**$1046.75**	**$1242.00**
Weight, Lathe and Tool Room Attachments	885 lbs.	910 lbs.	1075 lbs.	1145 lbs.	1665 lbs.	1715 lbs.	2255 lbs.	2525 lbs.	2685 lbs.	3550 lbs.

If motors of other current specifications are wanted in lieu of motors included in price of lathes, see tabulation on page 7.
Prices of Tool Room Lathes with longer or shorter bed lengths furnished on request.



16" x 6' South Bend Countershaft Driven Lathe, Quick Change Gear Type— $540.00

New Model South Bend Precision Lathes—Countershaft Drive

Back-Geared, Screw Cutting Precision Lathes—Floor Leg Type

South Bend Countershaft Driven Lathes are the same as the Underneath Belt Motor Driven Lathes as shown on pages 2, 3, 4 and 5 and have the same features and specifications; the only difference is that they have Overhead Double Friction Countershaft Drive instead of the Underneath Belt Motor Drive and Regular Floor Leg under headstock instead of Cabinet Leg.

Specifications shown on pages 2, 3, 4 and 5 for Underneath Belt Motor Driven Lathes also apply to the corresponding sizes of Overhead Countershaft Driven Lathes.

Principal Lathe Units are described on page 7 and apply to the Countershaft Driven Lathes as well as the Underneath Belt Motor Driven Lathes.

Quick Change Gear Lathes have automatic friction longitudinal feed and power cross feeds and cut standard screw threads, right or left-hand, from 2 to 112 per inch, including 11½ pipe thread, as listed in paragraph 12, page 7.

Standard Change Gear Lathes have automatic friction longitudinal feed and power cross feed and cut standard screw threads right or left-hand, from 4 to 40 per inch, including 11½ pipe thread, as listed in paragraph 13, page 7.

9-inch Junior Lathe is the same as the Standard Change Gear Lathe except it does not have the automatic friction feeds. Cuts standard screw threads, right or left-hand, from 4 to 40 per inch, including 11½ pipe thread, as listed in paragraph 13, page 7.

9-inch Toolmaker Lathe is like the Junior Lathe except it is lighter in weight and does not have quite as much power. Cuts standard screw threads, right or left-hand, from 4 to 40 per inch, including 11½ pipe thread—see paragraph 13, page 7.

Automatic Geared Screw Feed to Carriage is provided on the 9-inch Junior Lathe and 9-inch Toolmaker Lathe. The set of change gears supplied provide for a wide variety of longitudinal feeds from fine to coarse, which are obtained by engaging the half-nuts on the lead screw. The cross feed is hand operated.

Regular Equipment Included in Price of Standard and Quick Change Gear Lathes consists of: Double friction countershaft; large face plate; small face plate; tool post, ring and wedge; two 60° lathe centers and spindle sleeve; center rest; follower rest; thread cutting stop; wrenches; lag screws; washers, installation plan, book; "How to Run a Lathe"; and change gears with Standard Change Gear Lathes.

Equipment of 9-inch Junior and 9-inch Toolmaker Lathes is the same as listed above except does not include large face plate, center rest, follower rest and thread cutting stop.

Attachments, Chucks and Tools which may be fitted to Countershaft Driven Lathes are illustrated and priced on pages 10 and 11.

Prices South Bend Countershaft Driven Floor Leg Lathes

Prices Include Overhead Countershaft and Regular Lathe Equipment

Swing Over Bed Inches	Length of Bed Feet	Distance Between Centers Inches	Approx. Weight Crated Pounds	Standard Chg. Gear Lathes		Quick Change Gear Lathes	
				Cat. No.	Price	Cat. No.	Price
9-inch Toolmaker Floor Leg Lathes, Countershaft Drive*							
9¼	2½	12	375	20-XW	$122.00	Not Made	
9¼	3	18	395	20-YW	132.00		
9¼	3½	24	415	20-ZW	142.00		
9¼	4	30	435	20-AW	152.00		
9-inch Junior Floor Leg Lathes, Countershaft Drive*							
9¼	2½	9⅜	402	22-X	$170.00	Not Made	
9¼	3	16⅜	427	22-Y	179.00		
9¼	3½	21⅜	452	22-Z	185.00		
9¼	4	27⅜	477	22-A	192.00		
9¼	4½	34⅜	502	22-R	200.00		
9-inch South Bend Floor Leg Lathes, Countershaft Drive*							
9¼	2½	9⅜	457	30-X	$226.00	80-X	$266.00
9¼	3	16⅜	482	30-Y	235.00	80-Y	275.00
9¼	3½	21⅜	507	30-Z	241.00	80-Z	281.00
9¼	4	27⅜	532	30-A	248.00	80-A	288.00
9¼	4½	34⅜	557	30-R	256.00	80-R	296.00
11-inch South Bend Floor Leg Lathes, Countershaft Drive							
11¼	3	12	675	33-Y	$286.00	84-Y	$326.00
11¼	3½	18	700	33-Z	293.00	84-Z	333.00
11¼	4	24	725	33-A	300.00	84-A	340.00
11¼	5	36	805	33-B	316.00	84-B	356.00
11¼	5½	42	845	33-S	325.00	84-S	365.00
13-inch South Bend Floor Leg Lathes, Countershaft Drive							
13¼	4	16	1060	35-A	$337.00	86-A	$387.00
13¼	5	28	1110	35-B	352.00	86-B	402.00
13¼	6	40	1160	35-C	367.00	86-C	417.00
13¼	7	52	1210	35-D	384.00	86-D	434.00
13¼	8	64	1260	35-E	403.00	86-E	453.00
15-inch South Bend Floor Leg Lathes, Countershaft Drive							
15¼	5	24½	1475	39-B	$412.00	88-B	$467.00
15¼	6	36½	1550	39-C	430.00	88-C	485.00
15¼	7	48½	1625	39-D	448.00	88-D	503.00
15¼	8	60½	1735	39-E	468.00	88-E	523.00
15¼	10	84½	1900	39-G	512.00	88-G	567.00
16-inch South Bend Floor Leg Lathes, Countershaft Drive							
16¼	6	34	1875	41-C	$480.00	92-C	$540.00
16¼	7	46	1955	41-D	500.00	92-D	560.00
16¼	8	58	2035	41-E	520.00	92-E	580.00
16¼	10	82	2195	41-G	564.00	92-G	624.00
16¼	12	106	2355	41-H	627.00	92-H	687.00
18-inch South Bend Floor Leg Lathes, Countershaft Drive							
18¼	6	29½	2440	43-C	$585.00	94-C	$655.00
18¼	7	41½	2540	43-D	610.00	94-D	680.00
18¼	8	53½	2640	43-E	635.00	94-E	705.00
18¼	10	77½	2840	43-G	689.00	94-G	759.00
18¼	12	101½	3140	43-H	767.00	94-H	837.00
18¼	14	125½	3540	43-K	829.00	94-K	899.00

Lathes with 12-foot and 14-foot beds have center legs.
*For 9-inch Lathes with Bench Legs in lieu of Floor Legs deduct $10.00.

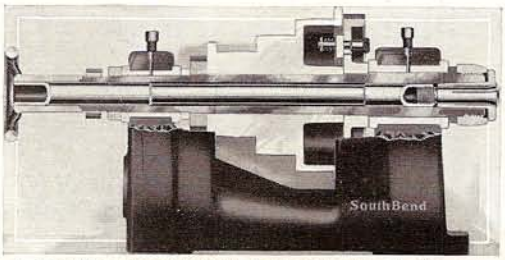
Attachments for South Bend Precision Lathes

The South Bend Back-Geared Screw Cutting Precision Lathe is a universal tool because it can be fitted with a variety of attachments for doing work that would ordinarily require a milling machine, shaper, drill press, grinder, etc. Most of these attachments can be ordered with the lathe or at any time thereafter, when needed.

When selecting a lathe, carefully examine the attachments that may be fitted to it, because the variety of work that comes to the modern shop is very great, and you will find that practical lathe attachments will increase the value of the lathe and also increase the capacity of your shop equipment.

A Partial List of Attachments for South Bend Lathes

- Draw-in Collet Chuck
- Round Split Collets
- Step Chuck and Closer
- Spindle Nose Collet Chuck
- Taper Attachment
- Milling Attachment
- Milling Cutters
- Electric Grinder
- Thread Indicator
- Micrometer Carriage Stop
- Hand Lever Tailstock
- Metric Transposing Gears
- Chip Pan, Pressed Steel
- Cabinet for Collets
- Hand Rest for Wood Turning
- Spring Winding Attach.
- Turrets, Bed and Tool Post Types
- Double Tool Slides
- Electric Mica Undercutter
- Electric Valve Grinder
- V-Block for grinding valve stems
- Rocker Arm Grinding Fixture for Valves
- Bushing for holding Centerless Armatures
- Piston Adapters, Adapter Rings, Skirt Reamers



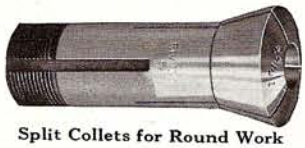
A Cross Section of 9-inch Lathe Headstock Showing Hand Wheel Draw-in Collet Chuck

Hand Wheel Type Draw-in Collet Chuck

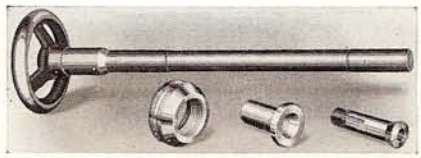
Attachment is practical for fine tool work and for making small accurate parts. The hollow draw bar used in headstock, as shown at left, permits bars and rods being passed lengthwise through lathe spindle and held in the collet for machining. One end of the draw bar is threaded, causing the split collet to tighten or release the work when draw bar is rotated.

Split Collets for Round Work are made of tool steel, hardened, tempered and ground. Collets are furnished with holes ranging in size from 1/64" hole diameter to hole capacity of hollow draw bar.

Prices of special collets for holding square, hexagonal or round stock quoted on request.



Split Collets for Round Work



Hand Wheel Type Draw-in Collet Chuck

Equipment consists of Hand wheel and hollow draw bar, spindle nose cap, spanner wrench, tapered steel closing sleeve, and one round split collet. Any size desired.

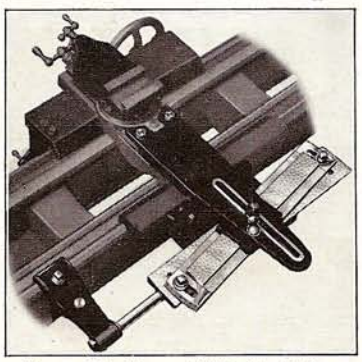
Prices Draw-in Collet Chuck and One Collet

Size of Lathe	Cat. No.	Hole in Lathe Spindle	Collet Capacity in Sixty-Fourths (For Round Work)	Price Each
9 in.	4309	3/4 in.	1/64" up to 1/2"	$29.00
11 in.	4311	7/8 in.	1/64" up to 9/16"	33.00
13 in.	4313	1 in.	1/64" up to 5/8"	37.00
15 in.	4315	1 1/8 in.	1/64" up to 3/4"	42.00
16 in.	4316	1 3/8 in.	1/64" up to 7/8"	48.00
18 in.	4318	1 7/16 in.	1/64" up to 1"	54.00

Prices of Split Collets for Round Work

Size of Lathe	Cat. No.	Hole in Lathe Spindle	Collet Capacity in Sixty-Fourths (For Round Wk)	Price Each
9 in.	609	3/4 in.	1/64" up to 1/2"	$2.50
11 in.	611	7/8 in.	1/64" up to 9/16"	3.50
13 in.	613	1 in.	1/64" up to 5/8"	4.00
15 in.	615	1 1/8 in.	1/64" up to 3/4"	4.25
16 in.	616	1 3/8 in.	1/64" up to 7/8"	4.75
18 in.	618	1 7/16 in.	1/64" up to 1"	5.00

Graduated Taper Attachment



Taper Attachment Fitted to Lathe

The taper attachment is used for tool room work, manufacturing and production work for turning and boring all classes of taper work.

It requires only a few minutes to change the attachment from straight to taper machining or vice versa. Can be left on lathe at all times.

The taper attachment bolts on the lathe carriage and can be used at any point along lathe bed.

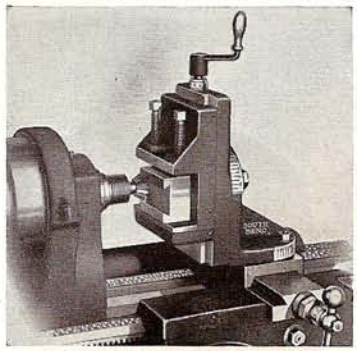
The swivel bar, which controls the taper, is graduated—one end in inches per foot of taper, the other end in degrees.

It is advisable to have attachment fitted to lathe at factory, although it may be ordered and fitted by the customer.

Prices of Graduated Taper Attachment

Size of Lathe	Catalog Number	Maximum Taper: At One Setting	Maximum Taper: Per Foot	Maximum Taper: In Degrees	Approx. Shipping Weight	Price Each
9 in.	209	9 in.	3 in.	14	40 lbs.	$50.00
11 in.	211	9 in.	3 in.	14	50 lbs.	60.00
13 in.	213	10 in.	3 in.	14	65 lbs.	75.00
15 in.	215	10 in.	3 in.	14	80 lbs.	80.00
16 in.	216	12 in.	3 in.	14	100 lbs.	90.00
18 in.	218	12 in.	3 in.	14	120 lbs.	95.00

Milling and Keyway Cutting Attachment



Milling a Dovetail on the Lathe Using the Milling Attachment

A practical attachment for the shop that has not enough work to invest in a milling machine.

The attachment fits on the saddle of the lathe and swivels both horizontally and vertically over an arc of 180 degrees. The vertical adjusting screw has a micrometer graduated collar. The automatic feeds of carriage can be used as well as the hand feeds.

Milling Arbor

For holding side and plain milling cutters with standard 1-inch hole. See prices below. Prices of milling cutters on request.

Prices of Milling and Keyway Cutting Attachment

Cat. No.	Size of Lathe	Vertical Feed	Cross Feed	Vise Will Hold	Price Each
1	9 in.	3 in.	7 in.	1 1/2 in.	$40.00
2	11 in.	4 in.	8 in.	1 1/2 in.	45.00
3	13 in.	4 1/4 in.	9 in.	2 3/4 in.	50.00
4	15 in.	6 in.	9 3/4 in.	3 1/2 in.	65.00
5	16 in.	6 in.	9 3/4 in.	4 in.	75.00
5 1/2	18 in.	6 1/2 in.	14 in.	4 in.	85.00

Milling Arbors

Cat. No.	Price Each
109-M	$7.50
111-M	8.00
113-M	9.00
115-M	9.00
116-M	10.00
118-M	10.00

Thread Indicator

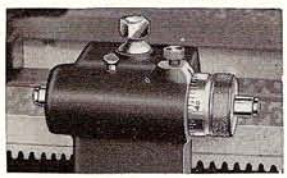
This attachment eliminates the necessity of reversing the lathe to return the carriage to the starting point to catch the thread at the beginning of each successive cut that is taken.

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.

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
Price, Each	$8.00	$8.00	$10.00	$10.00	$12.00	$12.00

Micrometer Carriage Stop



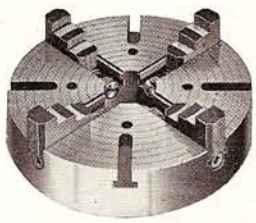
This attachment is useful in accurate facing, turning, boring, etc. It is used for stopping the carriage at any point along lathe bed. Can be used on either side of carriage.

The revolving barrel is graduated in thousandths of an inch. The adjusting bar or stop is hardened on both ends and may be locked for doing 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
Price, Each	$10.00	$12.00	$13.00	$14.00	$15.00	$17.00

Chucks and Tools for Underneath Belt Motor Driven Lathes

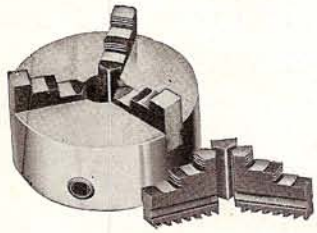


4-Jaw Independent Chuck

Chuck has four reversible jaws with individual screw adjustment for holding round or irregular work. Prices include wrench and screws for fastening chuck-back to chuck.

Prices 4-Jaw Independent Chuck

Cat. No.	Rated Size	Holds About	Ship'g Weight	Price
2104	4½ in.	6 in.	11 lbs.	$23.00
2106	6 in.	7½ in.	21 lbs.	28.00
2108	8 in.	9½ in.	35 lbs.	32.00
2109	9 in.	11½ in.	42 lbs.	35.00
2110	10 in.	12½ in.	51 lbs.	40.00
2112	12 in.	14½ in.	90 lbs.	48.00
2114	14 in.	16½ in.	117 lbs.	52.00



3-Jaw Universal Chuck

Chuck is self-centering. Has jaws for gripping work on the outside and jaws for holding work internally. Prices include wrench and screws for fastening chuck-back to chuck.

Prices 3-Jaw Universal Chuck

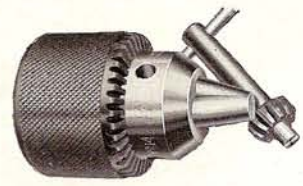
Cat. No.	Rated Size	Holds About	Ship'g Weight	Price
2403	3 in.	3⅛ in.	3½ lbs.	$25.00
2404	4 in.	4¼ in.	7½ lbs.	29.00
2405	5 in.	5 in.	11 lbs.	31.00
2406	6 in.	6⅛ in.	20 lbs.	35.00
2407	7½ in.	7½ in.	32 lbs.	41.00
2409	9 in.	9 in.	45 lbs.	49.00
2410	10½ in.	10¾ in.	64 lbs.	55.00

Fitting Chucks to Lathes

In fitting a 4-Jaw chuck or a 3-Jaw chuck to the lathe spindle, a chuck back, bored and threaded to fit spindle nose and machined to fit recess on back of chuck is required. This work should be done before lathe leaves factory.

Prices Fitting Chucks to Lathes

Size Lathe	Chuck Back	Fitting Charge	Total Price	Code Word
9 in.	$4.00	$2.50	$6.50	Efago
11 in.	4.25	3.00	7.25	Eodar
13 in.	4.50	3.50	8.00	Ender
15 in.	4.75	3.75	8.50	Eldon
16 in.	5.00	4.00	9.00	Eliza
18 in.	5.50	4.50	10.00	Elsie



Three-Jaw Drill Chuck

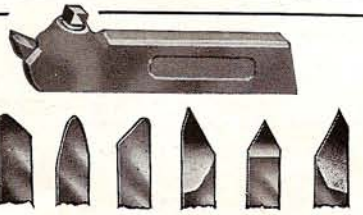
Practical for general drilling work in the lathe. Jaws of tempered steel are operated by a heavy screw. Price includes pinion key, but not arbors.

Prices of Three-Jaw Drill Chucks

Capacity	Weight	Cat.No.	Price
0 to ⅜ in.	1 lb.	1200	$4.25
0 to ½ in.	1¾ lbs.	1201	6.75
1/16 to ¾ in.	4⅛ lbs.	1202	9.00
⅜ to 1 in.	6¾ lbs.	1203	15.00

Prices Finished Drill Chuck Arbors

Size Lathe	Morse Taper	Cat. No.	Price Arbor
9-11 in.	2	709	$0.60
13-15 in.	3	713	1.00
16-18 in.	3	716	1.00



A B C D E F

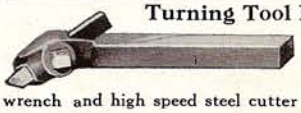
Tool Holder and Cutter Bit Set

Set consists of tool holder (choice of straight, right or left-hand), wrench, unground cutter bit, and six high speed steel cutter bits ground to the following forms as shown above: A—Left-Hand; B—Round Nose; C—Right-Hand; D—Left-Hand Side; E—Threading; F—Right-Hand Side.

Prices of Tool Holder and Cutter Bit Set

Size Lathe....	9″	11″	13″, 15″	16″, 18″
Cat. No.....	603-B	603-C	603-D	603-E
Price.....	$3.50	$3.80	$4.65	$6.15

Turning Tool Holder



Made of drop-forged steel. Prices include tool holder, wrench and high speed steel cutter bit, not ground.

When ordering extra cutter bits state whether form A, B, C, D, E, or F, as shown above, is wanted.

Turning Tool Holders

Size Lathe, Inches	Straight	Right Hand	Left Hand	Price Each
9	849-S	849-R	849-L	$2.20
11	851-S	851-R	851-L	2.35
13, 15	852-S	852-R	852-L	2.65
16, 18	853-S	853-R	853-L	3.25

Extra Cutters

Size sq. in.	Ground Cat. No.	Ground Price	Not Ground Cat. No.	Not Ground Price
¼″	1304	$0.23	1419	$0.13
¼″	1311	.25	1421	.15
5/16″	1313	.35	1422	.25
⅜″	1316	.50	1423	.40

Cutter Bit Ground to Form

Cutting-Off Tool Holder

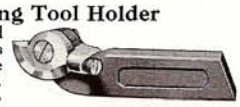
Made of drop forged steel. Prices include cutting-off tool holder; wrench and one high speed cutter, ground.

Prices of Cutting-Off Tool and Extra Cutters

Size Lathe, Inches	Size Shank, Inches	Str't	Right Hand	Left Hand	Price, Tool	Extra Cutter
9	5/16x ¾	881-S	881-R	881-L	$2.35	$0.50
11	¾x ⅞	882-S	882-R	882-L	2.50	.55
13, 15	⅞x1⅛	883-S	883-R	883-L	2.95	.75
16, 18	⅝x1⅜	884-S	884-R	884-L	3.70	1.10

Threading Tool Holder

Made of drop forged steel. Cutter requires grinding on top edge only to sharpen. Prices include threading tool, wrench and a high speed steel single point cutter (choice of V, U.S.S., or Whitworth Standard).



Prices of Threading Tool

Size Lathe, Inches	Cat. No.	Size Shank, Inches	Price, Each
9	865	5/16x ¾	$3.35
11	866	⅜x ⅞	3.35
13, 15	867	½x1⅛	4.00
16, 18	868	⅝x1⅜	5.10

Extra Cutters

Cat. No.	Price, Each
860	$2.10
851	2.10
862	2.50
863	3.30

Knurling Tool Holder

Made of drop forged steel. Prices include knurling tool and one set of knurls made of tool steel, tempered.

Price of Knurling Tool

Size Lathe, Inches	Cat. No.	Size Shank Inches	Price, Each
9	891	5/16x ¾	$4.50
11	892	⅜x ⅞	4.80
13, 15	893	½x1⅛	5.40
16, 18	894	⅝x1⅜	6.40

Price of Extra Knurls

Cat. No.	Dimensions, Inches Dia.	Dimensions, Inches Face	Price, Each
886	⅝	5/16	$0.80
887	⅝	5/16	.80
888	¾	¼	.90
889	¾	¼	.90

Style "B" Boring Tool Holder

For medium work. Prices include tool holder, sleeve bar, end cap, two wrenches and two unground cutters.

Prices Style "B" Boring Tool Extra Cutters

Size Lathe, Inches	Cat. No.	Size Shank, Inches	Size Bar, Inches	Price, Each	Cat. No.	Price, Each
9	429	5/16x ¾	½x8	$4.00	454	$0.10
11	430	⅜x ⅞	⅝x10½	4.00	455	.10
13, 15	431	½x1⅛	¾x12½	4.75	456	.15
16, 18	432	⅝x1⅜	15/16x14½	6.25	457	.25

Style "D" Boring Tool Holder

For small work. Prices include boring tool holder, boring bar, ground and wrench.

Prices Style "D" Boring Tool

Size Lathe, Inches	Cat. No.	Size Shank, Inches	Size Bar, Inches	Price Each
9	505-A	5/16x ¾	¼x5	$2.50
11	505-B	⅜x ⅞	5/16x6	2.75
13, 15	505-C	½x1⅛	⅜x7	3.00
16, 18	505-D	⅝x1⅜	7/16x8	3.30

Extra Bars

Cat. No.	Price, Each
498-A	$0.35
498-B	.45
498-C	.60
498-D	.85

Standard Lathe Dogs

Made of heavy malleable iron and properly designed for strength and service. Price includes square head alloy steel set screw.

Prices of Standard Lathe Dogs

Capacity	Cat. No.	Price, Each	Capacity	Cat. No.	Price, Each
⅜ in.	1-M	$0.40	1¾ in.	11-M	$1.10
½ in.	2-M	.50	2 in.	12-M	1.20
¾ in.	4-M	.60	2½ in.	14-M	1.45
1 in.	6-M	.70	3 in.	15-M	1.60
1¼ in.	8-M	.80	3½ in.	16-M	1.80
1½ in.	10-M	.95	4 in.	17-M	2.10

Chuck and Tool Assortments for Underneath Belt Motor Driven Lathes

A Practical Assortment for General Machine Work

Assortment for Each Size Lathe	9-inch	11-inch	13-inch	15-inch	16-inch	18-inch
4-Jaw Independent Lathe Chuck.....	$28.00	$28.00	$32.00	$35.00	$40.00	$48.00
Size of above Lathe Chuck.....	6 in.	6 in.	8 in.	9 in.	10 in.	12 in.
Fitting Chuck to Lathe including semi-machined chuck-back.....	6.50	7.25	8.00	8.50	9.00	10.00
3-Jaw Drill Chuck.....	6.75	6.75	9.00	.....	.....	.....
2-Jaw Drill Chuck.....	.....	.....	.....	12.00	12.00	12.00
Capacity of Drill Chuck.....	½ in.	½ in.	¾ in.	1 in.	1 in.	1 in.
Arbor Fitted to Drill Chuck.....	.60	.60	1.00	1.00	1.00	1.00
St. Tool Holder & Unground Cutter Bit	2.20	2.35	2.65	2.65	3.25	3.25
6 Cutter Bits Ground to forms A-F...	1.30	1.45	2.00	2.00	2.90	2.90
Boring Tool Holder and Boring Bar..	2.50	2.75	3.00	3.00	3.30	3.30
R. H. Cutting-Off Tool and Ground Cutter Blade.....	2.35	2.50	2.95	2.95	3.70	3.70
Four Malleable Lathe Dogs.....	2.60	2.60	2.75	2.75	2.75	4.20
Assortment, Complete.....	$52.80	$54.25	$63.35	$69.85	$77.90	$88.35

All Types of Industrial and Mechanical Equipment

Manufactured and Serviced On South Bend Underneath Belt Motor Driven Lathes

The list below contains a few of the hundreds of mechanical devices and equipment used in factories, plants, shops, offices, laboratories, homes, etc., which are manufactured and serviced on the various sizes of South Bend Underneath Belt Motor Driven Lathes shown throughout this bulletin.

Motors, Generators
Electrical Appliances
Weaving Machinery
Conveying Machinery
Auto, Bus and Truck Parts
Tractor Parts
Farm and Agricultural Equipment
Firearms
Baking Equipment
Oil Drilling Equipment
Radio Equipment
Radio Broadcasting Stations
Aircraft Engines
Saw Mill Machinery
Steam Turbine Equipment
Pumping Machinery
Cameras and Projectors
Locks, Safe Mechanisms
Paper Mill Machinery
Coal Mining Equipment
Home Work Shops
Tool and Die Makers
Battery Service Stations
Scientific Apparatus
Flour Mill Machinery
Sewing Machine Manufacturers
Watches, Clocks and Chronometers
Pattern Makers
Foundry Equipment
Outboard Motors
Railroad Traffic Signal Equipment
Lithographing Equipment
Pneumatic Machinery
Marine and Nautical Instruments
Television Apparatus
X-ray Equipment
Shipyards
Aeronautical Instruments
Navigation Instruments
Scales, Meters and Gauges
Metal Stamping Shops
Telephone Instruments
Elevator Equipment
Police and Fire Alarm Systems
Musical Instruments
Telegraph and Signal Equipment
Dental and Medical Instruments
Rubber Mill Machinery
Distillery and Brewing Machinery
Model Parts and Model Makers
Optical Instruments and Equip.
Astronomical Equipment
Paint Grinding Equipment
Printing Presses
School Shop Projects
Experimental Work
Invention Development
Stone Crushers
Glass Making Machinery
Marine Engine Equipment
Office Building Equipment
Office Appliances
Newspaper Rubber Rollers
Shoe Making Machinery
Power Plants
Laundry Equipment
Dry Cleaning Equipment
Shoe Repair Equipment
Automatic Stokers
Blacksmith Shops
Toy Manufacturers
Engineering Equipment
Paving Machinery
Construction Equipment
Canning Equipment
Sugar Refining Plants
Tanning and Dyeing Equipment
Vehicle Manufacturers
Gas and Water Works
Compressors
Dredging Machinery
Hydraulic Equipment
Electric Railway Equipment
Surgical Instruments
Air Conditioning Equipment
Woodworking Machinery
Hoists, Cranes and Derricks

Visit Our Factory Display Floor

The illustration at right shows a view of the factory demonstration and display room, size 60′ x 100′ where various sizes and types of South Bend Lathes are set up and in operation. This display room shows the most complete line of lathes and the greatest variety of sizes and types of back-geared, screw cutting precision lathes to be seen any place in the United States.

Expert demonstrators are available and will demonstrate the lathes on various classes of machine work including tool room jobs, automotive service jobs, general work, etc.

We invite you to visit this factory demonstration and display floor at any time. South Bend is 90 miles from Chicago by rail or by highway. The factory demonstration and display room is open every day of the week until 6 P. M. except Sunday; at other times by appointment.

Display Floor in Plant of South Bend Lathe Works

Plant of the South Bend Lathe Works, at South Bend, Indiana

FACTORY OF THE SOUTH BEND LATHE WORKS

The illustration at left shows the factory of the South Bend Lathe Works established in 1906. For more than twenty-seven years this organization has been devoted exclusively to the manufacture of South Bend Back-Geared, Screw Cutting Precision Lathes, a large number of which are in use in the United States and eighty-eight other countries.

South Bend Lathe Works

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

(Established 1906 - - - Lathe Builders for 27 Years)

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