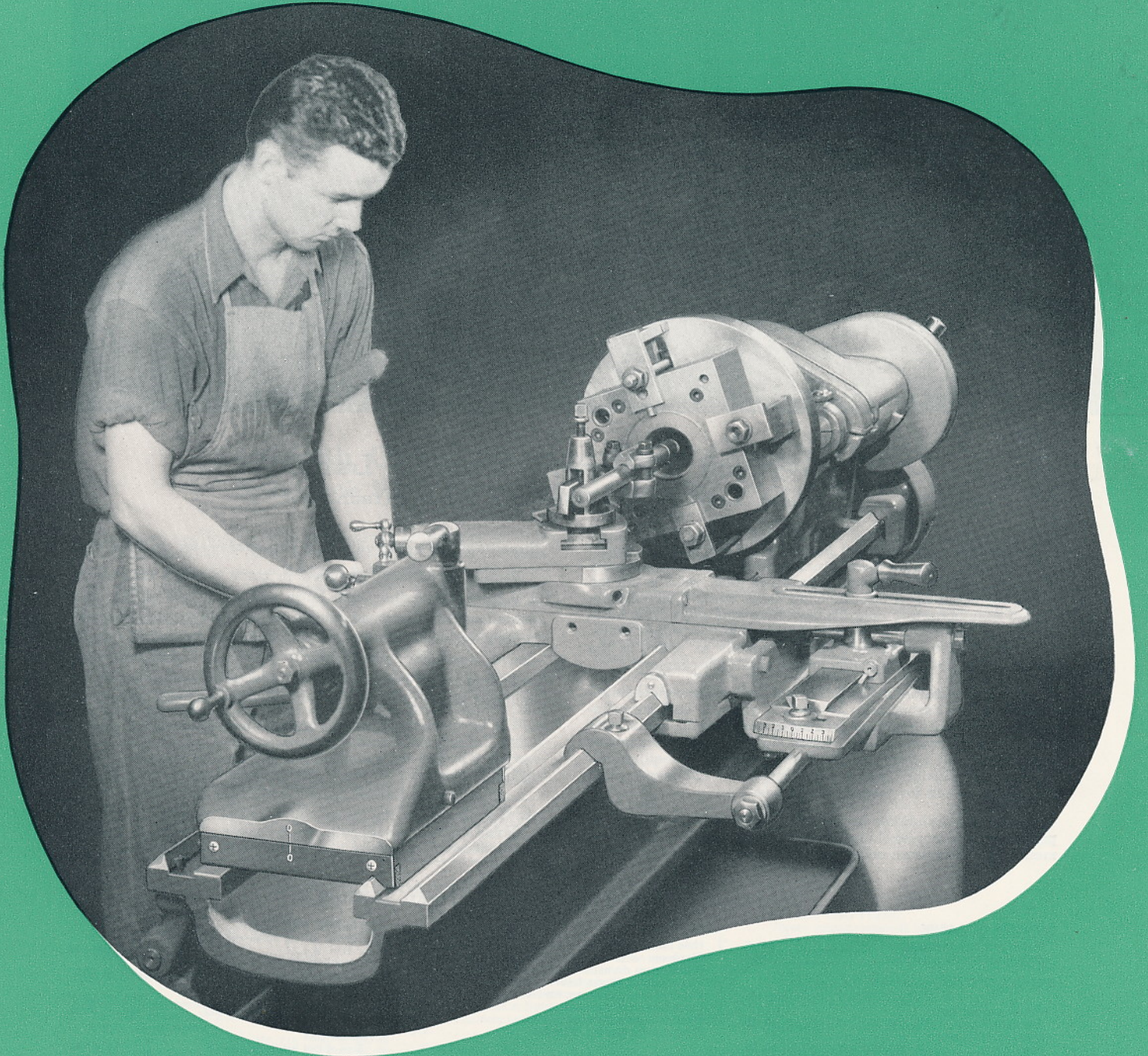


SOUTH BEND

14¹/₂" *Precision* LATHES

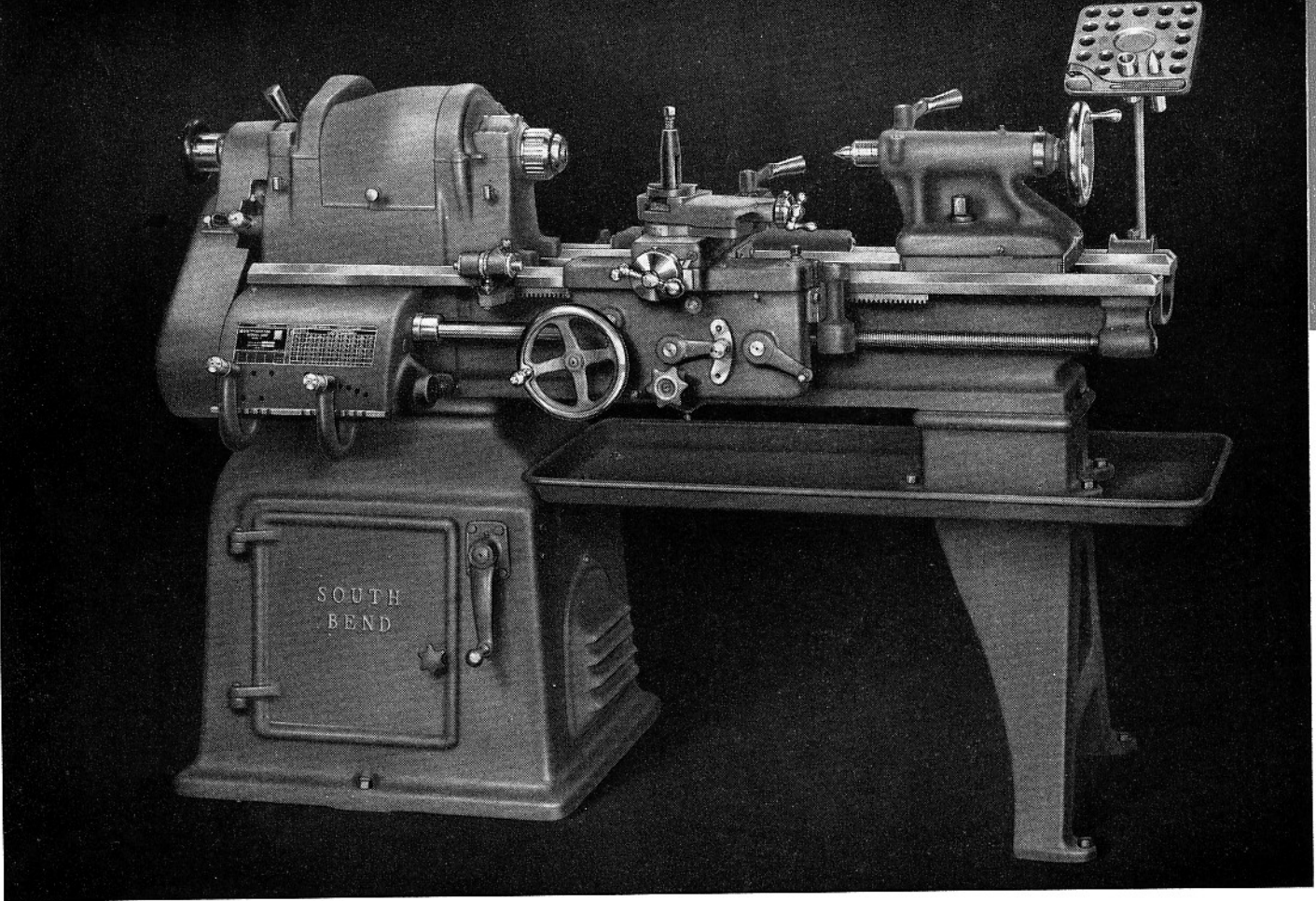


SOUTH BEND LATHE WORKS

BUILDING BETTER TOOLS SINCE 1906

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





14 1/2-inch Toolroom *Precision* Lathe

Precision Lead Screw—Telescopic Taper Attachment

The perfect proportions of this superbly engineered model will appeal to the most discriminating technician. It has plenty of power, rigidity, and stamina for large jobs, yet it is not too heavy for economical operation on small work. Conveniently placed easy operating controls save time and effort. This lathe can be equipped with a one-speed motor or a two-speed motor to provide eight or sixteen spindle speeds as listed in the specifications below. See attachment catalog for motors.

Improved features of this lathe include an alloy steel headstock spindle, carburized, hardened, ground, and superfinished; improved headstock bearings; double wall apron with steel gears and multiple disc friction clutch for operating power cross-feeds and power longitudinal feeds; easy reading micrometer graduated collars; and improved two-lever quick change gear box for threads and feeds.

Toolroom attachments included in price of lathe consist of: precision lead screw; handwheel type draw-in collet attachment (without collets); collet rack; telescopic taper attachment;

thread dial indicator; chip pan; and micrometer carriage stop.

Regular equipment included in price of lathe consists of: 4 V-belts; flat leather belt; large and small face plates; heat treated steel tool post; adjustable thread cutting stop; tool steel centers for headstock and tailstock spindles; headstock spindle sleeve; wrenches; quick change gear box; installation plan; and book "How to Run a Lathe." Electrical equipment is not included in the price of the lathe. See attachment catalog.

14 1/2-inch Toolroom Lathes

Catalog Number	Bed Length Feet	Between Centers Inches	Cubic Feet Boxed	Boxed Weight Pounds	Crated Weight Pounds	Factory Price
CL8185B	5	24 1/8	90	2685	2180	\$2301
CL8185C	6	36 1/8	95	2785	2255	2359
CL8185D	7	48 1/8	101	2935	2330	2417
CL8185E	8	60 1/8	111	3085	2405	2477

Specifications of 14 1/2-inch Toolroom Lathes

CAPACITY OF LATHE

Swing over bed and saddle wings..... 14 5/8"
Swing over saddle cross slide..... 8 1/16"

SPINDLE SPEEDS (approximate, not exact)

	Direct Drive	Back-Geared
With one-speed motor		
Standard, r.p.m.	875, 545, 350, 215	130, 80, 50, 30
With two-speed motor		
High, r.p.m.	875, 545, 350, 215	130, 80, 50, 30
Low, r.p.m.	437, 272, 175, 107	65, 40, 25, 15

COMPOUND REST

Cross slide travel..... 9 1/2"
Angular hand feed of compound rest top slide..... 3 1/8"

HEADSTOCK

Hole through spindle..... 1 3/8"
Maximum collet capacity..... 1"
Spindle nose diameter and threads..... 2 3/8"-6
Size of center, Morse taper..... No. 3
Width of cone pulley step for belt..... 2 1/16"
Large face plate diameter..... 13 1/4"
Small face plate diameter..... 8 1/2"
Front spindle bearing, diameter..... 2 5/8"

TAILSTOCK

Size of center, Morse taper..... No. 3
Spindle travel..... 5 1/4"
Each graduation on tailstock spindle..... 1/16"
Tailstock top set-over for taper turning..... 1 5/16"

THREADS AND FEEDS

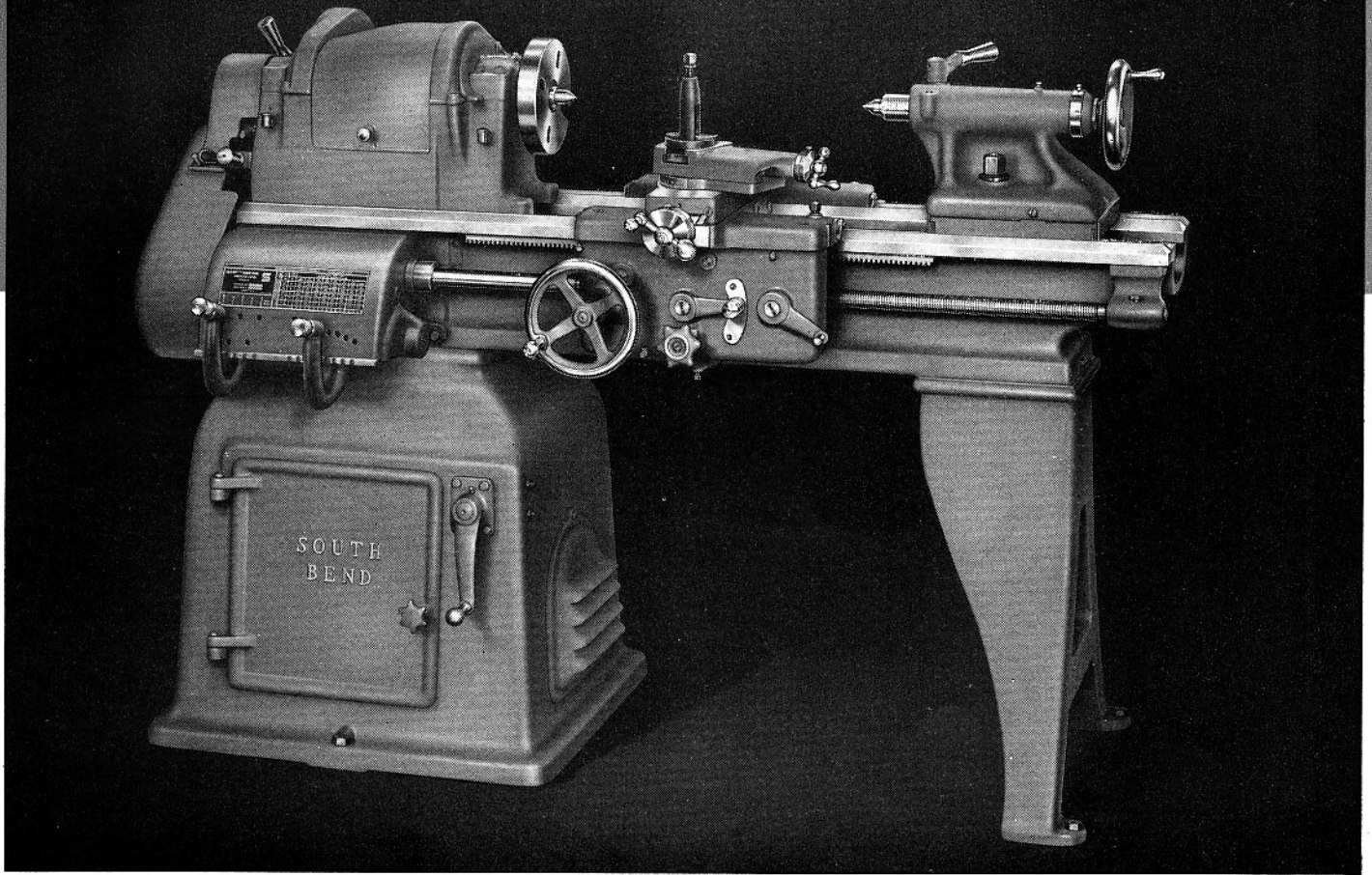
Thread cutting range—48 pitches
R.H. or L.H.4 to 224 per inch
Longitudinal feeds through friction clutch—48 feeds R.H. or L.H.0015" to .0841"
Cross-feeds through friction clutch—48 feeds..... .0006" to .0315"
Lead screw, 29° Acme thread..... 1 1/8" dia.—6 thrs.

TOOL POST

Size of tool holder shank..... 5/8" x 1 3/8"
Size of cutter bit for tool holder..... 3/8" sq.

MOTOR (Standard size)

One-speed..... 1 1/2 h.p.
Two-speed..... 2-1 h.p.



14½-inch Quick Change Gear *Precision* Lathe

Underneath Motor Drive—Back-Geared—Belt Drive to Spindle

Designed and built to give you years of satisfactory service, this is an economical lathe to buy and to use. It has the same power and capacity as the toolroom model shown on the opposite page, but is less costly because it does not have the taper attachment, collet attachment, and other toolroom accessories. This lathe can be equipped with a one-speed motor or a two-speed motor to provide eight or sixteen spindle speeds respectively as listed in the specifications below.

New two-lever gear box gives you quicker, easier changes for all threads and feeds. Powerful multiple disc friction clutch in apron permits engaging or disengaging power turning and facing feeds instantly. Direction of feed is reversed by shifting the feed reverse lever conveniently located at the left end of the headstock. An automatic safety interlock makes it impossible to damage the lathe or the work by engaging a second feed accidentally when one feed is already in operation.

The underneath motor drive (patented) is entirely self-contained and fully enclosed. It provides an unusually wide range of spindle speeds. A precision belt tension adjustment is pro-

vided. The endless belt drive to the spindle is silent in operation and develops smooth, steady power which is entirely free from gear vibration.

Regular equipment included in price of lathe consists of: 4 V-belts; flat leather belt; large and small face plates; heat-treated steel tool post; adjustable thread cutting stop; tool steel centers for headstock and tailstock spindles; headstock spindle sleeve; wrenches; quick change gear box; installation plan; and book "How to Run a Lathe." Electrical equipment is not included in price of lathe. See attachment catalog.

14½-inch Quick Change Gear Lathes

Catalog Number	Bed Length Feet	Between Centers Inches	Cubic Feet Boxed	Boxed Weight Pounds	Crated Weight Pounds	Factory Price
CL185B	5	24½	81	2500	1995	\$1809
CL185C	6	36½	85	2600	2070	1860
CL185D	7	48½	91	2750	2145	1912
CL185E	8	60½	100	2900	2225	1965

Specifications of 14½-inch Quick Change Gear Lathes

CAPACITY OF LATHE

Swing over bed and saddle wings	14½"
Swing over saddle cross slide	8½"
Swing over cross slide without chip guard	10¼"

SPINDLE SPEEDS (approximate, not exact)

	Direct Drive	Back-Geared
With one-speed motor		
Standard, r.p.m.	875, 545, 350, 215	130, 80, 50, 30
With two-speed motor		
High, r.p.m.	875, 545, 350, 215	130, 80, 50, 30
Low, r.p.m.	437, 272, 175, 107	65, 40, 25, 15

COMPOUND REST

Cross slide travel	13"
Angular hand feed of compound rest top slide	.3½"

HEADSTOCK

Hole through spindle	1¾"
Maximum collet capacity	1"
Spindle nose diameter and threads	2¾"-6
Size of center, Morse taper	No. 3
Width of cone pulley step for belt	2½"
Large face plate diameter	13¼"
Small face plate diameter	8¼"
Front spindle bearing, diameter	2¾"

TAILSTOCK

Size of center, Morse taper	No. 3
Spindle travel	5¼"
Each graduation on tailstock spindle	.1/16"
Tailstock top set-over for taper turning	.1½"

Infinite are the variations of the four basic operations.

THREADS AND FEEDS

Thread cutting range—48 pitches	
R.H. or L.H.	.4 to 224 per inch
Longitudinal feeds through friction clutch—48 feeds R.H. or L.H.	.0015" to .0841"
Cross feeds through friction clutch—48 feeds	.0006" to .0315"
Lead screw, 29° Acme thread	1½" dia.-6 thds.

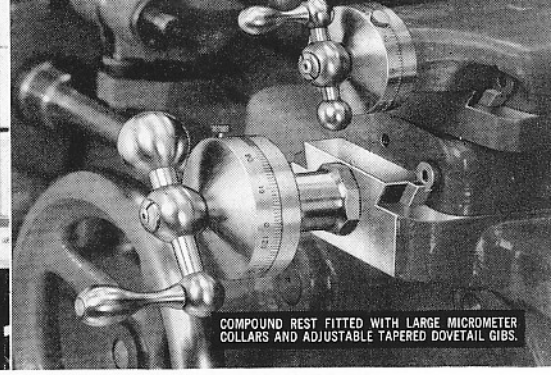
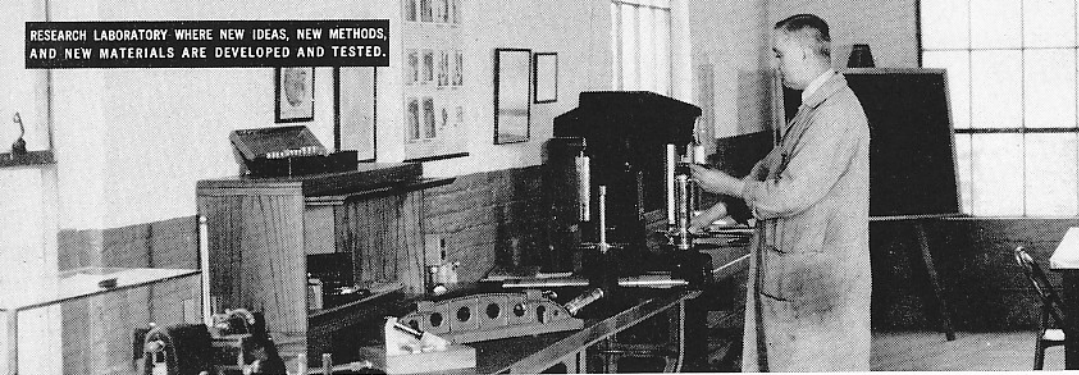
TOOL POST

Size of tool holder shank	¾" x 1¾"
Size of cutter bit for tool holder	¾" sq.

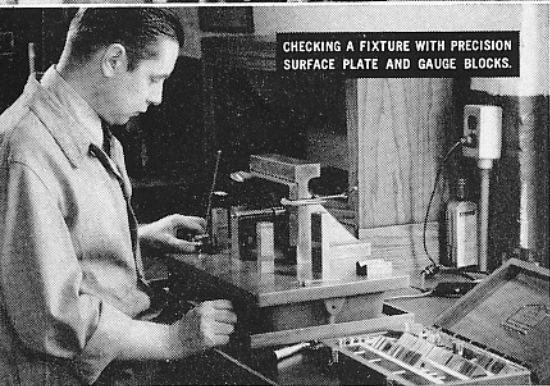
MOTOR (Standard size)

One-speed	1½ h.p.
Two-speed	2-1 h.p.

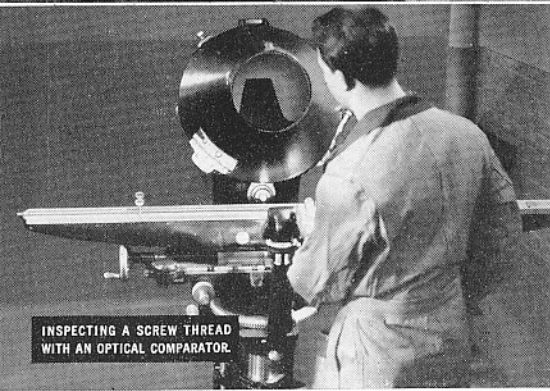
RESEARCH LABORATORY WHERE NEW IDEAS, NEW METHODS, AND NEW MATERIALS ARE DEVELOPED AND TESTED.



COMPOUND REST FITTED WITH LARGE MICROMETER COLLARS AND ADJUSTABLE TAPERED DOVETAIL GIBS.



CHECKING A FIXTURE WITH PRECISION SURFACE PLATE AND GAUGE BLOCKS.



INSPECTING A SCREW THREAD WITH AN OPTICAL COMPARATOR.

South Bend 14 1/2" Lathes

Careful design and conscientious workmanship are combined in South Bend 14 1/2" Lathes to give you a machine tool that you can depend on for years of satisfactory service. Continual research has resulted in many improvements and refinements which contribute to their accuracy, durability, and ease of operation. We know of no other lathe selling at anywhere near the price that can match the performance of South Bend.

As a part of our policy of continual improvement, new ideas, new methods, and new materials are developed and tested in our research laboratory shown above. The equipment of this laboratory includes precision gauge blocks accurate to five-millionths of an inch, an optical comparator for testing the form and lead of screw threads, a profilometer for checking the smoothness of surface finishes, hardness testing equipment to make sure that heat-treated steel surfaces have just the right degree of hardness, precision lead screw testing equipment accurate to .00005" in 30", a dynamic balancing machine, and many other precision measuring instruments, gauges, and blocks.

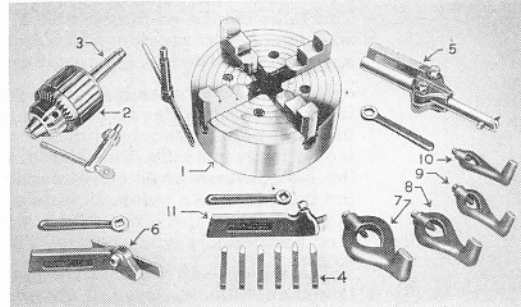
Because of their rugged construction, lifetime accuracy and dependability—plus unusual versatility—you will find it to your advantage to specify South Bend 14 1/2" Lathes for your next installations.

Attachments and Accessories

Only part of the accessories and attachments for 14 1/2" South Bend Lathes are listed below. A catalog illustrating and describing all accessories and attachments will be supplied on request.

Cat. No.	Description	Price	Cat. No.	Description	Price
CE1882	Bar Feed Attachment.....	\$295.00	CE2102	Dogs, Set of 11, 1/2" to 4".....	\$26.50
CE3904	Center, Live 60° Hollow.....	19.65	CL46MH	Fixture Plate, 11 3/4" O.D.....	14.00
CE3901	Center, Live 60° Point.....	19.65	CE301B	Grinding Att., Ext., 115 v. 1 ph., 60 cy., A.C.*.....	64.50
CE1890	Center, Carbide Tipped.....	10.25	CE601B	Grinding Att., Int., 115 v. 1 ph., 60 cy., A.C.*.....	167.50
CE2423	Center, Cup, wood turn.....	3.50	CL1955F	Metric Transposing Att.....	64.00
CE2399	Center, Crotch.....	4.20	CL2680F	Milling Attachment.....	88.50
CE2397	Center, Drill Pad.....	3.50	CE2545D	Motor, 1 1/2 h.p., A.C. 3 ph., 60 cy., 220 v.....	85.50
CE2425	Center, Half.....	3.80	CE790	Motor Control, Drum Reversing Switch.....	9.00
CE2402	Center, 60° Point, hard.....	3.80	CL2023B	Oil Pan for 14 1/2" x 5' Lathe.....	109.25
CE1897	Center, 60° Hollow.....	4.10	CL1353F	Rest, Follower, Regular.....	13.00
CE2414	Center, Screw, wood turn.....	4.20	CL2395F	Rest, Fol., Telesc. Jaw.....	15.50
CE2417	Center, Spur, wood turn.....	4.20	CL1177F	Rest, Steady, Regular.....	22.75
CL1990B	Chip Pan for 14 1/2" x 5' Lathe.....	53.25	CL2400F	Rest, Steady, Telesc. Jaw.....	23.75
CL4209MH	Chuck, 9" 4-Jaw Independent, fitted to lathe.....	99.00	CL896F	Rest, Wood Turning.....	24.75
CL3507MH	Chuck, 7 1/2" 3-Jaw Universal, fitted to lathe.....	122.00	CL2185FH	Stop, 4-position Carriage.....	28.50
CE2828	Collet, Brass, round.....	2.90	CL968FH	Stop, Micro, Carriage.....	25.75
CE2833	Collet, Steel, round.....	5.25	CL1545F	Taper Attachment.....	230.00
CL4306M	Collet Att., Handwheel.....	64.00	CL810TH	Thread Dial Indicator.....	20.75
CL5206M	Collet Att., Handlever.....	150.00	CE1413F	Tool Holder, 10 in 1.....	20.00
CE1770M	Collet Rack.....	23.50	CL3375F	Turret Tool Block, Sq., Compound Cross Slide.....	84.00
CL501B	Coolant Pump with 1/4 h.p., 1 ph., 60 cy., 115 v. A.C. motor.....	164.00			
CE1839	Die Holder.....	5.75			

*No. CE307F. Clamp required for mounting on lathe..... \$3.50



CL2890M. Chuck and Tool Assortment includes: 9" 4-jaw independent chuck; 3/4" Jacobs drill chuck; arbor for drill chuck; set of four lathe dogs 1/2" to 1 1/2" capacity; cut-off tool; boring bar; turning tool; and six ground cutter bits. Ship. wt. approximately 75 lbs. Price..... \$151.00

Centers and Drill Pads

Steady and Follower Rests

Handlever Collet Attachment

Telescopic Taper Attachment

