

1938 Models

PRICE LIST No. 23-A
September 5, 1938

Ship. Wt.
Crated
320
Lbs.

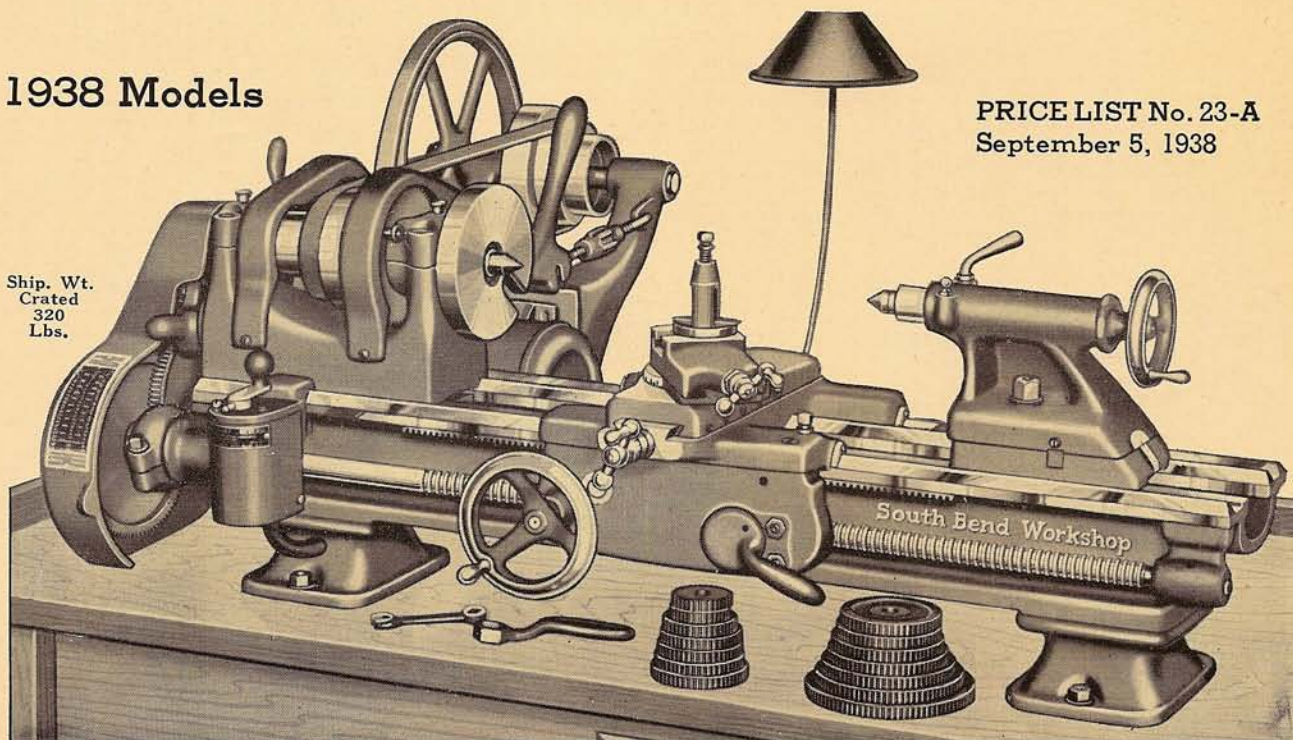


Fig. 1. Cat. No. 415-YA, 9" x 3' "Workshop" South Bend Precision Bench Lathe with Adjustable Horizontal Motor Drive, Motor, Switch and Regular Lathe Equipment, but less Bench.....\$117.00

9-in. "Workshop" Horizontal Motor Driven Precision Bench Lathe

Geared Screw Feed—Back-Geared—Cuts Screw Threads 4 to 112 Per Inch

Power Longitudinal Feeds .002" to .015"

The 9-inch "Workshop" South Bend Horizontal Motor Driven Precision Bench Lathe shown above is a complete unit consisting of the lathe, adjustable horizontal motor drive, reversing motor, wiring and belting.

The "Workshop" Lathe is recommended for general use in the machine shop, auto service shop, laboratory, repair shop, and shops of all kinds engaged in the machining of steel, cast iron, bronze, tool steel and other metals; also fibre, bakelite, etc.

The Adjustable Horizontal Motor Drive, shown below is practical, convenient and efficient. The countershaft has belt tension adjustments (A and B) for both the cone pulley belt and motor belt. A quick release (C) for cone pulley belt tension permits easy shifting of the belt for changing spindle speeds. Motor operates from electric lamp socket.

Choice of Colors. Lathe is finished in red or gray enamel—specify color wanted, otherwise red will be supplied.

Improved Features include back-geared headstock, hand scraped prismatic V-ways on bed, precision cut gears, all steel and iron construction (no die-cast soft metal parts), ball thrust bearing for spindle, and precision lead screw for cutting screw threads.

Important Lathe Specifications: Swing over bed 9 1/4"; swing over carriage 5 1/2"; hole through spindle 3/4"; spindle speeds 40 to 630 R.P.M.; thread cutting range 4 to 112 per inch; power turning feeds .002" to .015".

Regular Equipment included in price of lathe consists of: graduated compound rest; face plate 5 inches diameter; forged steel tool post; two 60-degree tool steel lathe centers, No. 2 Morse Taper; headstock spindle sleeve; wrenches; change gears for cutting screw threads 4 to 112 per inch; gears for power turning feeds .002" to .015"; installation plan and book, "How to Run a Lathe." Bench is not included.

Prices 9-inch "Workshop" Adjustable Horizontal Motor Driven Bench Lathe

No. 15. 9-inch "Workshop" South Bend Precision Bench Lathe, with Graduated Compound Rest and Regular Lathe Equipment, but without Motor Drive Equipment and Less Bench.....	Net Factory Prices f.o.b. South Bend			
	9" x 3'	9" x 3 1/2'	9" x 4'	9" x 4 1/2'
	\$ 85.00	\$ 97.00	\$109.00	\$126.00
MOTOR DRIVE EQUIPMENT				
Motor Drive Equipment consists of: Adjustable Horizontal Countershaft; 1/4 H.P. Start-Stop Reversing Split-Phase Motor, 1725 R.P.M. (1 ph. 60-cy., A.C. 110 V.) 6-wire cable for connecting motor and switch; 6-ft. extension cable and plug; V-Groove Pulley for Motor; Drum Reversing Switch (Style R-12); Bracket for attaching Switch to Lathe; V-Belt, Motor to Drive Unit; Flat Leather Belt and Lacing.....	\$32.00	\$32.00	\$32.00	\$32.00
Total Price, Lathe with Motor Drive Equipment.....	\$117.00	\$129.00	\$141.00	\$158.00
Catalog Number, Lathe with Motor Drive Equipment.....	No. 415-YA	No. 415-ZA	No. 415-AA	No. 415-RA
Code Word, Lathe with Motor Drive Equipment.....	Magla	Mahik	Manaf	Mandi
Distance Between Spindle Centers of Lathe.....	17 ins.	23 ins.	29 ins.	35 ins.
Shipping Weight, Lathe and Motor Drive Complete.....	320 lbs.	345 lbs.	370 lbs.	420 lbs.

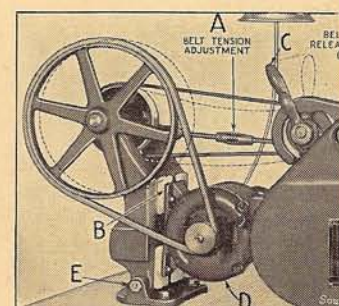
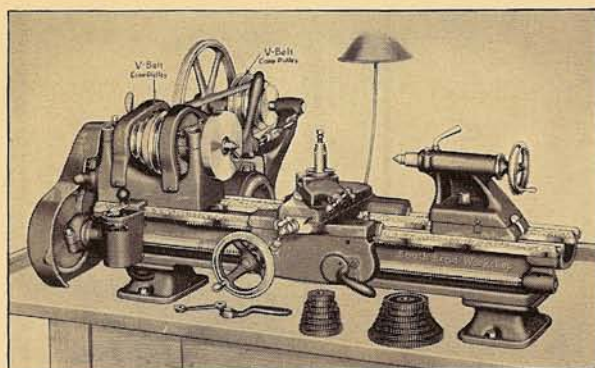


Fig. 2. Horizontal Motor Drive Countershaft, Adjustable Type

SOUTH BEND LATHE WORKS 567 Niles Avenue, South Bend, Ind., U.S.A.

South Bend Lathes

9-inch "Workshop" V-Belt Horizontal Motor Driven Bench Lathe



9-inch "Workshop" V-Belt Horizontal Motor Drive

The V-Belt Horizontal Motor Driven Bench Lathe, shown above, is supplied for those who prefer cone pulleys for V-belt drive. This model is popular in production shops where heavy cuts are taken.

Hardened Headstock Spindle—8 Spindle Speeds

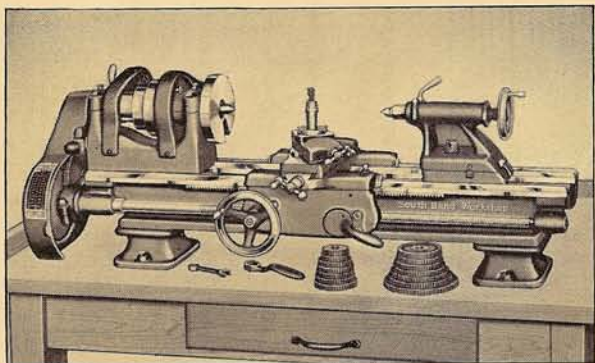
The "Workshop" Lathe with V-Belt Adjustable Motor Drive is exactly the same as the lathe shown on page 1, except that it is equipped with four-step V-belt cone pulleys instead of flat belt cone pulleys and has a hardened headstock spindle as standard equipment. Eight spindle speeds are provided as follows: 44, 60, 82, 113, 230, 313, 424 and 585 R.P.M.

Equipment Included in Price of Lathe consists of: Hardened headstock spindle; V-belt cone pulleys; adjustable horizontal motor drive; 1/4 H.P. 1725 R.P.M., A.C. 1-phase, 110-volt, 60-cycle, start-stop reversing motor; 6 wire cable for connecting motor and switch; 6-foot extension cable and plug; reversing switch; V-belts; motor pulley, and regular lathe equipment as listed on page 1. Bench is not included.

9-inch "Workshop" V-Belt Motor Driven Bench Lathes

Swing Over Bed Inches	Length of Bed Feet	Distance Between Centers Inches	Hole Thru Spindle Inches	Swing Over Carriage Inches	Size of Motor H.P.	Approx. Ship. Wt. Crated Pounds	Catalog Number	Code Word for Lathe	Price F.O.B. Factory
9 1/4	3	17	3/4	5 1/2	1/4	320	415-YV	Kabli	\$137.00
9 1/4	3 1/2	23	3/4	5 1/2	1/4	345	415-ZV	Kaboli	149.00
9 1/4	4	29	3/4	5 1/2	1/4	370	415-AV	Kabro	161.00
9 1/4	4 1/2	35	3/4	5 1/2	1/4	420	415-RV	Kacal	178.00

9-inch "Workshop" Countershaft Driven Precision Bench Lathe



9-inch "Workshop" Countershaft Drive Bench Lathe

Countershaft has two friction clutch pulleys, which permits the lathe to be operated forward and in reverse.

Supplied With or Without Countershaft

The 9-inch "Workshop" Lathes with countershaft drive are exactly the same as the lathes shown on page 1, except for the type of drive. They are recommended for shops that are equipped with lineshaft for power. Either bench legs or floor legs can be supplied, as listed in tabulation below.

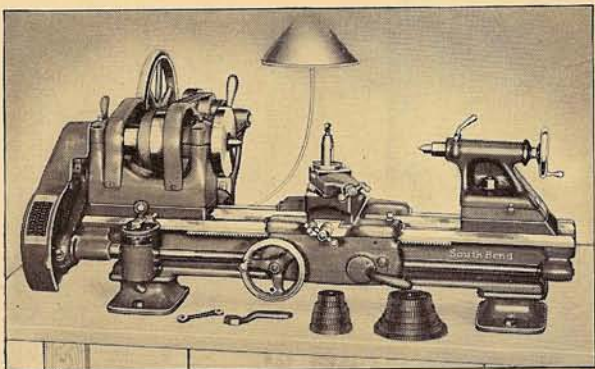
Regular Equipment as listed on page 1 is included in price of lathe. Bench is not included.

9-inch "Workshop" South Bend Bench Lathe With or Without Countershaft

Swing Over Bed Inches	Length of Bed Feet	Distance Between Centers Inches	Approx. Ship. Wt. Crated Pounds	Prices Less Countershaft			Prices With Countershaft		
				Catalog Number	Code Word for Lathe	Price* F.O.B. Factory	Catalog Number	Code Word for Lathe	Price* F.O.B. Factory
9 1/4	3	17	300	15-YB	Manek	\$ 85.00	15-YBW	Makiz	\$102.00
9 1/4	3 1/2	23	325	15-ZB	Manze	97.00	15-ZBW	Makar	114.00
9 1/4	4	29	350	15-AB	Mapag	109.00	15-ABW	Makel	126.00
9 1/4	4 1/2	35	400	15-RB	Mapek	126.00	15-RBW	Makof	143.00

*If floor legs are wanted instead of bench legs add \$10.00 to prices listed.

9-inch "Workshop" Precision Lathe with Raising Blocks



9-inch "Workshop" Lathe with Raising Blocks

The increased swing provided by the raising blocks permits taking care of many unusual jobs that would otherwise require a larger lathe. The blocks are substantially constructed and accurately fitted and aligned by hand scraping.

Swing Over Bed Increased to 11 1/4 Inches

"Workshop" Lathes with Raising Blocks will take work up to 11 1/4" in diameter over the bed and up to 7 1/4" in diameter over the tool rest.

Prices of two popular models of "Workshop" Lathes equipped with raising blocks are listed below. Regular lathe equipment is included in price listed. Prices of all motor driven lathes include 1/4 H.P. 1-phase 60-cycle, A.C. start-stop reversing motor, reversing switch, wiring, etc.

Raising Blocks may be ordered with any 9-inch "Workshop" Lathe. Prices of models with raising blocks not listed below may be determined by adding \$30.00 to price of regular lathe.

9-inch "Workshop" Bench Lathes with Raising Blocks

Swing Over Bed Inches	Length of Bed Feet	Swing Over Carriage Inches	Approx. Ship. Wt. Crated Pounds	V-Belt Motor Driven Bench Lathe with Raising Blocks			Horizontal Motor Driven Bench Lathe with Raising Blocks		
				Cat. No.	Code	Price	Cat. No.	Code	Price
11 1/4	3	7 1/4	340	6415-YV	Jiyoe	\$167.00	6415-YA	Jahon	\$147.00
11 1/4	3 1/2	7 1/4	365	6415-ZV	Jobem	179.00	6415-ZA	Jakes	159.00
11 1/4	4	7 1/4	390	6415-AV	Jobiq	191.00	6415-AA	Jalab	171.00
11 1/4	4 1/2	7 1/4	440	6415-RV	Jofak	203.00	6415-RA	Jalef	188.00

South Bend

Lathes

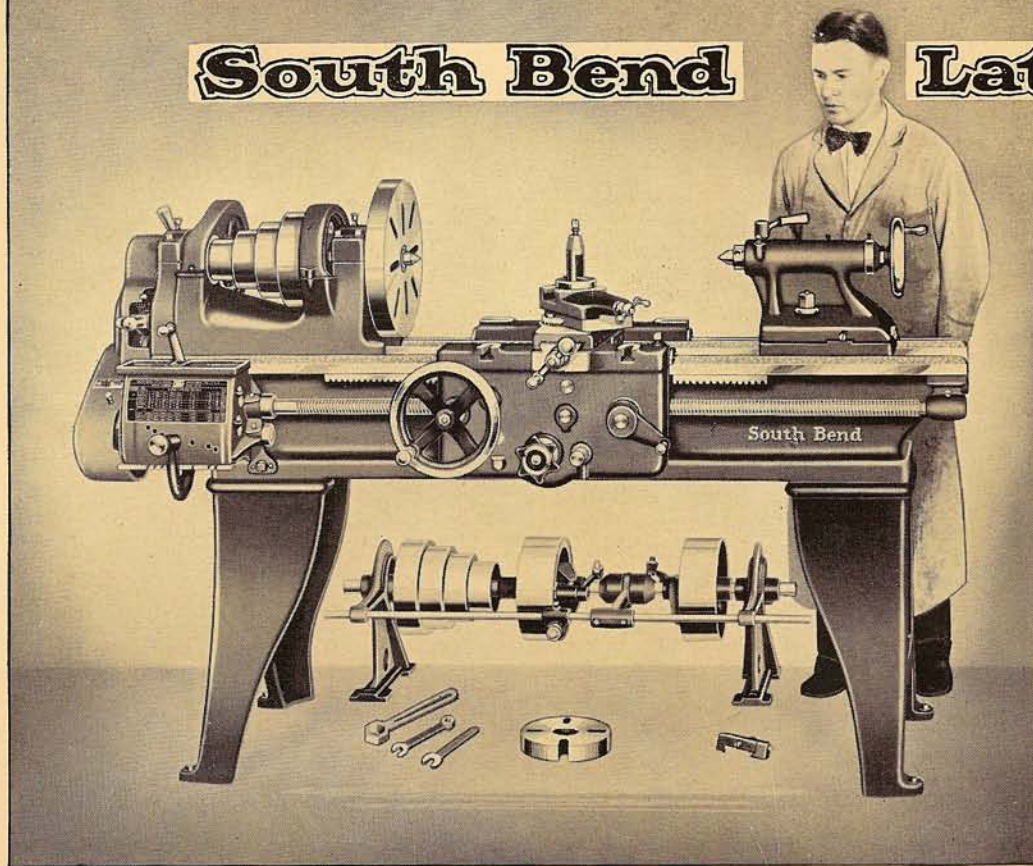


Fig. 6. Cat. No. 17-C, 16' x 6' Quick Change Gear Countershaft Driven South Bend Precision Lathe \$722.00

Countershaft Drive Lathes—Floor Legs

South Bend Lathes are precision tools practical for fine accurate work in the automotive service shop. They have the power and rigidity for taking heavy cuts and may be equipped with many practical attachments for truing and undercutting armature commutators, making replacement parts, milling and keyway cutting, etc.

Regular Equipment Included in Price of each South Bend Countershaft Drive Floor Leg Lathe listed below consists of: countershaft with two friction clutch pulleys; large and small face plates; tool post; thread cutting stop; centers; spindle sleeve; wrenches; gear box or loose change gears; installation plan and instruction book, "How to Run a Lathe."

Net Factory Prices of Lathes, Including Double Friction Countershaft and Regular Equipment

Specifications								Standard Change Gear Lathes				Quick Change Gear Lathes			
Swing Over Bed Inches	Length of Bed Feet	Distance Between Centers Inches	Hole Through Spindle Inches	Swing Over Carriage*	Cone Pulley Belt Inches	Countershaft Speed R.P.M.	Power Required H.P.	Cat. No.	Code Word for Lathe	Approx. Weight Crated Pounds	Net Factory Price	Cat. No.	Code Word for Lathe	Approx. Weight Crated Pounds	Net Factory Price
16-inch Countershaft Drive Floor Leg Lathes—Series "N"															
16 1/4	6	34	1 3/8	9 3/4	2 1/4	225	1	23-C	Annuc	1840	\$642.00	17-C	Alcis	1875	\$722.00
16 1/4	7	46	1 3/8	9 3/4	2 1/4	225	1	23-D	Ampay	1920	664.00	17-D	Alcot	1955	744.00
16 1/4	8	58	1 3/8	9 3/4	2 1/4	225	1	23-E	Andun	2000	686.00	17-E	Algat	2035	766.00
16 1/4	10	82	1 3/8	9 3/4	2 1/4	225	1	23-G	Anler	2160	734.00	17-G	Algoy	2195	814.00
16 1/4	12	106	1 3/8	9 3/4	2 1/4	225	1	23-H	Anlot	2390	801.00	17-H	Alguz	2425	881.00
15-inch Countershaft Drive Floor Leg Lathes—Series "N"															
15 1/4	5	24 1/2	1 1/8	9 3/8	2	225	1	21-B	Anpat	1550	\$544.00	14-B	Almec	1575	\$614.00
15 1/4	6	36 1/2	1 1/8	9 3/8	2	225	1	21-C	Anpoy	1625	564.00	14-C	Almid	1650	634.00
15 1/4	7	48 1/2	1 1/8	9 3/8	2	225	1	21-D	Anrob	1700	584.00	14-D	Alnog	1725	654.00
15 1/4	8	60 1/2	1 1/8	9 3/8	2	225	1	21-E	Anrug	1780	608.00	14-E	Alpad	1805	678.00
15 1/4	10	84 1/2	1 1/8	9 3/8	2	225	1	21-G	Ansay	1945	656.00	14-G	Alpig	1970	726.00
13-inch Countershaft Drive Floor Leg Lathes—Series "R"															
13 1/4	4	16	1	9 1/4	1 3/4	250	3/4	12-A	Anvid	1040	\$448.00	13-A	Altek	1060	\$508.00
13 1/4	5	28	1	9 1/4	1 3/4	250	3/4	12-B	Anwif	1090	463.00	13-B	Altii	1110	523.00
13 1/4	6	40	1	9 1/4	1 3/4	250	3/4	12-C	Anwog	1140	480.00	13-C	Altom	1160	540.00
13 1/4	7	52	1	9 1/4	1 3/4	250	3/4	12-D	Apcoq	1195	499.00	13-D	Alvak	1215	559.00
11-inch Countershaft Drive Floor Leg Lathes—Series "R"															
11 1/8	3 1/2	18	7/8	7	1 1/2	300	1/2	10-Z	Apfeg	680	\$371.00	11-Z	Alvup	695	\$421.00
11 1/8	4	24	7/8	7	1 1/2	300	1/2	10-A	Arbix	710	383.00	11-A	Alwho	725	433.00
11 1/8	5	36	7/8	7	1 1/2	300	1/2	10-B	Arcoq	780	407.00	11-B	Alwin	795	457.00
11 1/8	5 1/2	42	7/8	7	1 1/2	300	1/2	10-S	Ardoc	815	419.00	11-S	Alzan	830	469.00
9-inch Countershaft Drive Floor Leg Lathes—Series "R"															
9 1/4	3	16 3/8	3/4	6 3/8	1 1/4	300	1/2	7-Y	Arfeb	472	\$297.00	9-Y	Alzor	482	\$342.00
9 1/4	3 1/2	21 3/8	3/4	6 3/8	1 1/4	300	1/2	7-Z	Argab	497	307.00	9-Z	Amalt	507	352.00
9 1/4	4	27 3/8	3/4	6 3/8	1 1/4	300	1/2	7-A	Argof	522	317.00	9-A	Ambel	532	362.00
9 1/4	4 1/2	34 3/8	3/4	6 3/8	1 1/4	300	1/2	7-R	Arjig	547	327.00	9-R	Ambon	557	372.00

*With chip guard removed on 16", 15", 13", and 9" lathes.

South Bend Lathes

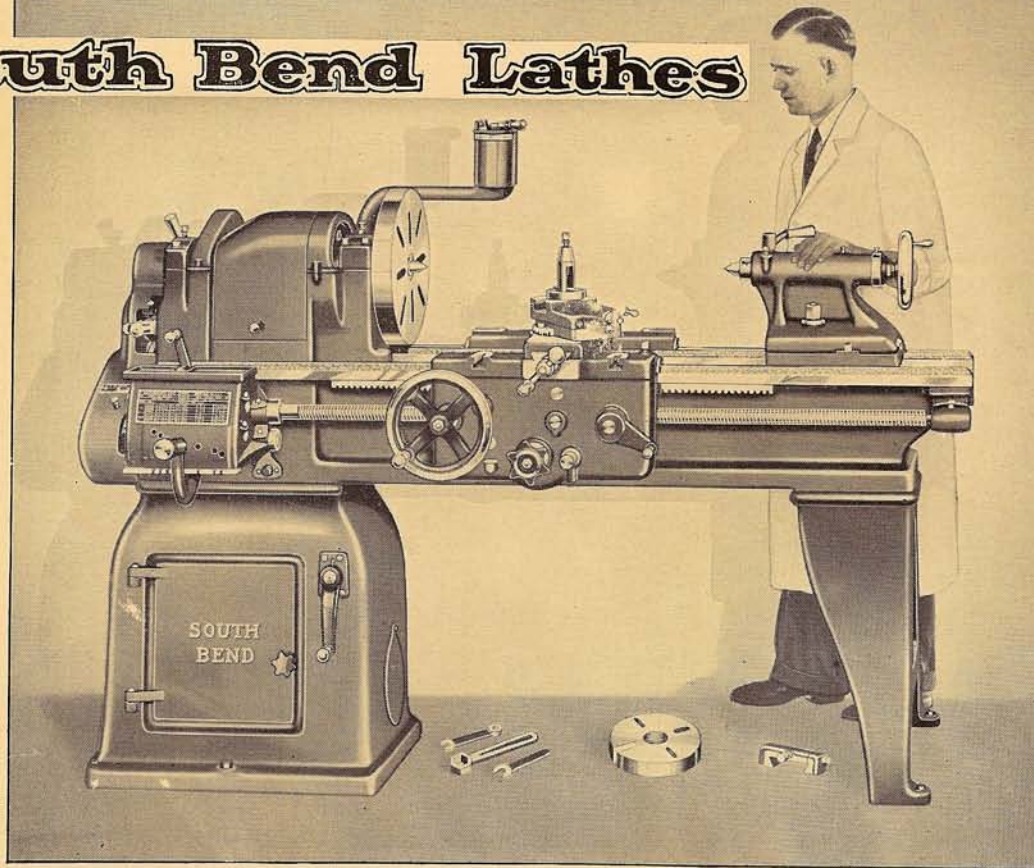


Fig. 7. Cat. No. 117-C, 16" x 6' Quick Change Gear Underneath Belt Motor Driven South Bend Precision Lathe.....\$969.00

Underneath Belt Motor Drive Lathes—Floor Legs

Regular Equipment included in the price of each underneath belt motor drive lathe listed below consists of: large and small face plates; tool post; thread cutting stop; centers for headstock and tailstock spindle; spindle sleeve; wrenches; gear box or change gears; installation plan; and instruction book, "How to Run a Lathe."

Electrical Equipment included in the price of each underneath belt motor drive South Bend precision lathe consists of: reversing motor; drum type reversing switch; wiring between motor and switch; flat leather belt for cone pulleys; V-belts for motor and countershaft; and diagram showing wiring between motor and switch.

Net Factory Prices of Lathes, Including Drive, Motor, Switch, Belting, and Regular Equipment

SPECIFICATIONS					STANDARD CHANGE GEAR LATHES					QUICK CHANGE GEAR LATHES						
Swing Over Bed Inches	Length of Bed Feet	Distance Between Centers Inches	Size Motor Used H.P.	Approx. Ship. Wt. Crated Pounds	Catalog Number	Code Word for Lathe	Instant Reversing Motors			Catalog Number	Code Word for Lathe	Instant Reversing Motors				
							3-Phase 60-Cycle A.C.	1-Phase 60-Cycle A.C.	Direct Current			3-Phase 60-Cycle A.C.	1-Phase 60-Cycle A.C.	Direct Current		
16-inch Underneath Belt Motor Drive Floor Leg Lathes—Series "N"																
16¼	6	34	1	2300	123-C	Babes	\$ 889.00	\$ 929.00	\$ 971.00	117-C	Bapvo	\$ 969.00	\$1009.00	\$1051.00		
16¼	7	46	1	2380	123-D	Babgu	911.00	951.00	993.00	117-D	Barve	991.00	1031.00	1073.00		
16¼	8	58	1	2460	123-E	Babiw	933.00	973.00	1015.00	117-E	Baryo	1013.00	1052.00	1095.00		
16¼	10	82	1	2620	123-G	Babma	981.00	1021.00	1063.00	117-G	Basoz	1061.00	1101.00	1143.00		
16¼	12	106	1	2850	123-H	Babob	1048.00	1088.00	1130.00	117-H	Bavco	1128.00	1168.00	1210.00		
15-inch Underneath Belt Motor Drive Floor Leg Lathes—Series "N"																
15¼	5	24½	1	1995	121-B	Babfs	\$ 779.00	\$ 819.00	\$ 861.00	114-B	Bayba	\$ 849.00	\$ 889.00	\$ 931.00		
15¼	6	36½	1	2070	121-C	Babuh	799.00	839.00	881.00	114-C	Bayce	869.00	909.00	951.00		
15¼	7	48½	1	2145	121-D	Babvi	819.00	859.00	901.00	114-D	Bayfo	889.00	929.00	971.00		
15¼	8	60½	1	2225	121-E	Babyl	843.00	883.00	925.00	114-E	Bazca	913.00	953.00	995.00		
15¼	10	84½	1	2390	121-G	Bacac	891.00	931.00	973.00	114-G	Bebke	961.00	1001.00	1043.00		
13-inch Underneath Belt Motor Drive Floor Leg Lathes—Series "R"																
13¼	4	16	¾	1460	112-A	Betad	\$ 653.00	\$ 665.00	\$ 664.00	113-A	Becka	\$ 713.00	\$ 725.00	\$ 724.00		
13¼	5	28	¾	1510	112-B	Bacik	668.00	680.00	679.00	113-B	Becno	728.00	740.00	739.00		
13¼	6	40	¾	1560	112-C	Bacmo	685.00	697.00	696.00	113-C	Bedme	745.00	757.00	756.00		
13¼	7	52	¾	1615	112-D	Badap	704.00	716.00	715.00	113-D	Besec	764.00	776.00	775.00		
11-inch Underneath Belt Motor Drive Floor Leg Lathes—Series "R"																
11½	3½	18	½	935	110-Z	Badod	\$ 529.00	\$ 543.00	\$ 537.00	111-Z	Bimeb	\$ 579.00	\$ 593.00	\$ 587.00		
11½	4	24	½	965	110-A	Badti	541.00	555.00	549.00	111-A	Bimuf	591.00	605.00	599.00		
11½	5	36	½	1035	110-B	Badzo	565.00	579.00	573.00	111-B	Bimza	615.00	629.00	623.00		
11½	5½	42	½	1070	110-S	Bafka	577.00	591.00	585.00	111-S	Binfo	627.00	641.00	635.00		
9-inch Underneath Belt Motor Drive Floor Leg Lathes—Series "R"																
Swing Over Bed Inches	Length of Bed Feet	Distance Between Centers Inches	Size Motor Used H.P.	Approx. Ship. Wt. Crated Pounds	Catalog Number	Code Word for Lathe	Capacitor Motor, Start-Stop Reversing, 1-Phase, 60-Cycle A.C.	Instant Reversing Motors			Catalog Number	Code Word for Lathe	Capacitor Motor, Start-Stop Reversing, 1-Phase, 60-Cycle A.C.	Instant Reversing Motors		
								3-Phase 60-Cy. A.C.	1-Phase 60-Cy. A.C.	Direct Current				3-Phase 60-Cy. A.C.	1-Phase 60-Cy. A.C.	Direct Current
9¼	3	16¾	½	815	107-Y	Bagim	\$400.00	\$408.00	\$421.00	\$415.00	109-Y	Binug	\$445.00	\$453.00	\$466.00	\$460.00
9¼	3½	21¾	½	840	107-Z	Bagko	410.00	418.00	431.00	425.00	109-Z	Bipca	455.00	463.00	476.00	470.00
9¼	4	27¾	½	865	107-A	Bagos	420.00	428.00	441.00	435.00	109-A	Bipgo	465.00	473.00	486.00	480.00
9¼	4½	34¾	½	890	107-R	Bahar	430.00	438.00	451.00	445.00	109-R	Bireg	475.00	483.00	496.00	490.00

South Bend

Lathes

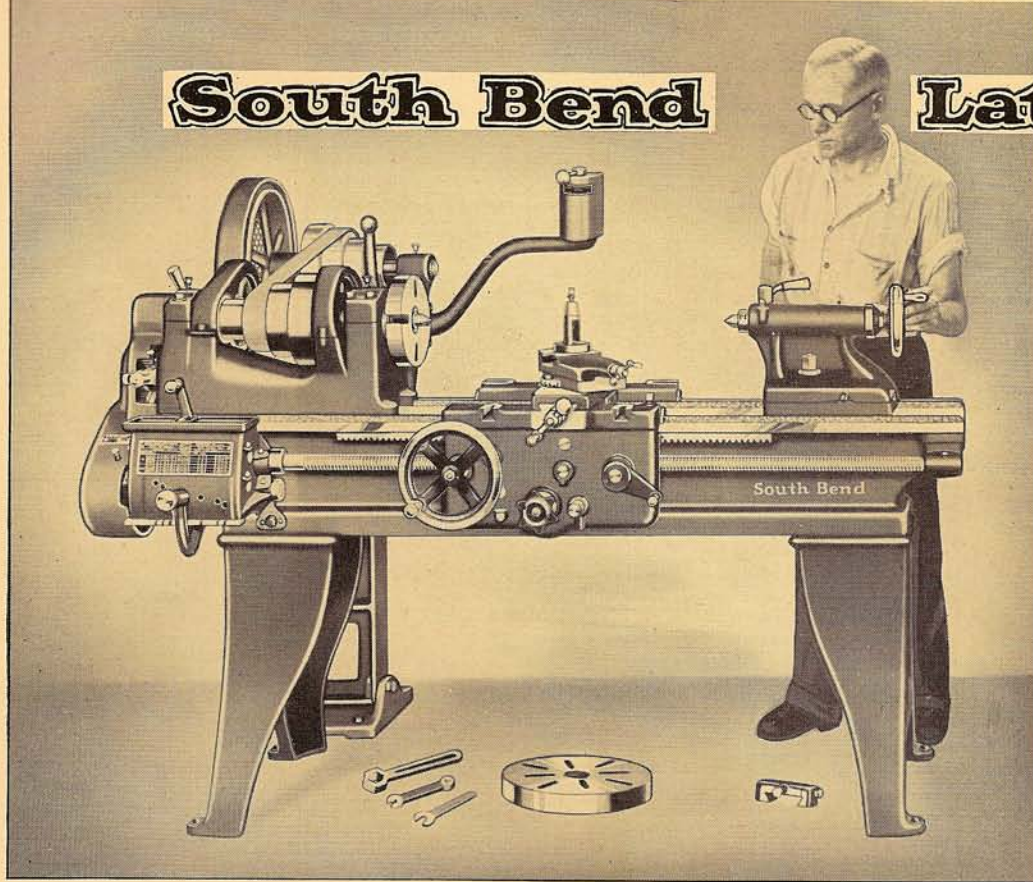


Fig. 8. Cat. No. 917-C, 16" x 6' Quick Change Gear Pedestal Motor Driven South Bend Precision Lathe...\$863.00

Pedestal Adjustable Motor Drive Lathes—Floor Legs

Regular Equipment included in the price of each pedestal adjustable motor drive lathe listed below consists of: large and small face plates; tool post; thread cutting stop; centers for headstock and tailstock spindle; spindle sleeve; wrenches; gear box or change gears; installation plan; and instruction book, "How to Run a Lathe."

Electric Equipment included in the price of each pedestal adjustable motor drive South Bend precision lathe consists of: reversing motor; drum type reversing switch; wiring between motor and switch; flat leather belt for cone pulleys; V-belts for motor and countershaft; and diagram showing wiring between motor and switch.

Net Factory Prices of Lathes, Including Drive, Motor, Switch, Belting, and Regular Equipment

SPECIFICATIONS					STANDARD CHANGE GEAR LATHES					QUICK CHANGE GEAR LATHES					
Swing Over Bed Inches	Length of Bed Feet	Distance Between Centers Inches	Size Motor Used H.P.	Approx. Ship. Wt. Crated Pounds	Catalog Number	Code Word for Lathe	Instant Reversing Motors			Catalog Number	Code Word for Lathe	Instant Reversing Motors			
							3-Phase 60-Cycle A.C.	1-Phase 60-Cycle A.C.	Direct Current			3-Phase 60-Cycle A.C.	1-Phase 60-Cycle A.C.	Direct Current	
16-inch Pedestal Adjustable Motor Drive Floor Leg Lathes—Series "N"															
16 1/4	6	34	1	2165	923-C	Pirel	\$ 783.00	\$ 795.00	\$ 860.00	917-C	Lapin	\$ 863.00	\$ 875.00	\$ 940.00	
16 1/4	7	46	1	2245	923-D	Piren	805.00	817.00	882.00	917-D	Lalos	885.00	897.00	962.00	
16 1/4	8	58	1	2325	923-E	Pabit	827.00	839.00	904.00	917-E	Larag	907.00	919.00	984.00	
16 1/4	10	82	1	2485	923-G	Pabog	875.00	887.00	952.00	917-G	Lamar	955.00	967.00	1032.00	
16 1/4	12	106	1	2715	923-H	Pacen	942.00	954.00	1019.00	917-H	Lanos	1022.00	1034.00	1099.00	
15-inch Pedestal Adjustable Motor Drive Floor Leg Lathes—Series "N"															
15 1/4	5	24 1/2	1	1735	921-B	Tanat	\$ 671.00	\$ 683.00	\$ 748.00	914-B	Tinuk	\$ 741.00	\$ 753.00	\$ 818.00	
15 1/4	6	36 1/2	1	1810	921-C	Tapom	691.00	703.00	768.00	914-C	Tixap	761.00	773.00	838.00	
15 1/4	7	48 1/2	1	1885	921-D	Tawig	711.00	723.00	788.00	914-D	Tokol	781.00	793.00	858.00	
15 1/4	8	60 1/2	1	1965	921-E	Teray	735.00	747.00	812.00	914-E	Tolex	805.00	817.00	882.00	
15 1/4	10	84 1/2	1	2130	921-G	Tetul	783.00	795.00	860.00	914-G	Tomil	853.00	865.00	930.00	
13-inch Pedestal Adjustable Motor Drive Floor Leg Lathes—Series "R"															
13 1/4	4	16	3/4	1205	912-A	Raxib	\$ 572.00	\$ 584.00	\$ 583.00	913-A	Repoc	\$ 632.00	\$ 644.00	\$ 643.00	
13 1/4	5	28	3/4	1255	912-B	Rolex	587.00	599.00	598.00	913-B	Ravel	647.00	659.00	658.00	
13 1/4	6	40	3/4	1305	912-C	Rezob	604.00	616.00	615.00	913-C	Roser	664.00	676.00	675.00	
13 1/4	7	52	3/4	1360	912-D	Rimoy	623.00	635.00	634.00	913-D	Robog	683.00	695.00	694.00	
11-inch Pedestal Adjustable Motor Drive Floor Leg Lathes—Series "R"															
11 1/8	3 1/2	18	1/2	833	910-Z	Harik	\$ 466.00	\$ 480.00	\$ 474.00	911-Z	Marah	\$ 516.00	\$ 530.00	\$ 524.00	
11 1/8	4	24	1/2	863	910-A	Hebos	478.00	492.00	486.00	911-A	Melon	528.00	542.00	536.00	
11 1/8	5	36	1/2	933	910-B	Hiran	502.00	516.00	510.00	911-B	Mijem	552.00	566.00	560.00	
11 1/8	5 1/2	42	1/2	968	910-S	Himot	514.00	528.00	522.00	911-S	Mofel	564.00	578.00	572.00	
9-inch Pedestal Adjustable Motor Drive Floor Leg Lathes—Series "R"															
Swing Over Bed Inches	Length of Bed Feet	Distance Between Centers Inches	Size Motor Used H.P.	Approx. Ship. Wt. Crated Pounds	Catalog Number	Code Word for Lathe	Capacitor Motor, Start-Stop Reversing, 1-Phase, 60-Cycle A.C.	Instant Reversing Motors		Catalog Number	Code Word for Lathe	Capacitor Motor, Start-Stop Reversing, 1-Phase, 60-Cycle A.C.	Instant Reversing Motors		
								3-Phase 60-Cy. A.C.	1-Phase 60-Cy. A.C.	Direct Current			3-Phase 60-Cy. A.C.	1-Phase 60-Cy. A.C.	Direct Current
9 1/4	3	16 3/8	1/2	580	907-Y	Birol	\$367.00	\$371.00	\$384.00	\$378.00	909-Y	Cegek	\$412.00	\$416.00	\$429.00
9 1/4	3 1/2	21 3/8	1/2	605	907-Z	Bitol	377.00	381.00	394.00	388.00	909-Z	Ceken	422.00	426.00	439.00
9 1/4	4	27 3/8	1/2	630	907-A	Bivil	387.00	391.00	404.00	398.00	909-A	Cerul	432.00	436.00	449.00
9 1/4	4 1/2	34 3/8	1/2	655	907-R	Biwar	397.00	401.00	414.00	408.00	909-R	Ceral	442.00	446.00	459.00

NOTE—The 9-inch "Workshop" Lathe shown on page 1 can be supplied with floor legs and pedestal motor drive similar to above. Prices on request.

South Bend Lathes

Valve Service Work

Automobile engine valves, both intake and exhaust, made of steel, cast iron, or alloys, of any size or type, can be accurately refaced in South Bend Lathes, equipped with the attachments shown below.

The servicing of valves in the lathe and the use of the attachments below are explained in Bulletin No. 1-A, "How to Grind Valves". Price postpaid 10c.

No. 30 Electric Grinder

The Electric Grinder will reface valves made of steel, cast iron, or special alloys, any size or type. It is also used for sharpening valve seat reamers, straight and taper reamers, grinding valve stems, bushings, etc.

The grinder mounts on the compound rest and swivels to any angle. It operates from an ordinary lamp socket.

Equipment: 1/4 H. P. Ball-Bearing Motor, 1725 R. P. M. (1 Ph., 60-Cy., 110-V. A. C.), V-belt, belt guard, 4" x 3/4" grinding wheel for steel valves, switch, cord, and clamp. D. C. Motor is \$16.00 extra.

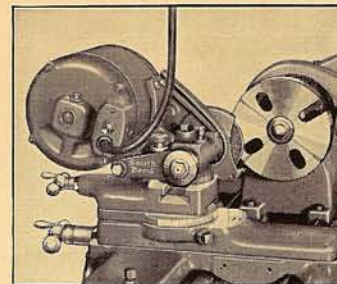


Fig. 10. Electric Grinder.

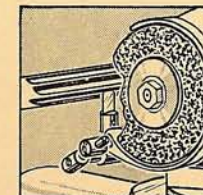


Fig. 13. Reamer and Cutter Stop for Grinder No. 1362. "Macoc". \$2.00

Net Factory Prices				
Size of Lathe	Cat. No.	Diam. Will Grind	Code Word	Price Each
9" W.S.	30-W	5 1/4-in.	Tobas	\$45.00
9-in.	30-B	5 1/8-in.	Tobew	50.00
11-in.	30-C	6 1/2-in.	Tobog	55.00
13-in.	30-D	8-in.	Toburn	55.00
15-in.	30-F	9 1/2-in.	Toeck	55.00
16-in.	30-G	9 3/4-in.	Toeck	60.00

Extra Grinding Wheels, Price Each \$1.50.
State class of work.

Fixture for Diamond Dresser and Reamer Grinding Stop

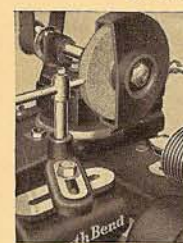


Fig. 15.

This fixture holds the diamond dresser for truing grinding wheels; also holds the reamer stop which is included with fixture; and is used to hold the V-block Holding Fixture and Rocker Arm Grinding Fixture, shown below.

No. 19-W. Fix. for 9" W.S. \$ 8.00
No. 19. Fix. for 9" Lathe. 8.00
No. 19-B. Fix. for 11" Lathe. 9.00
No. 19-C. Fix. for 13" Lathe. 10.00
No. 19-D. Fix. for 15" Lathe. 12.00
No. 19-E. Fix. for 16" Lathe. 13.00

No. 18. Diamond Dresser.... 6.00

Rocker Arm Grinding Fixture

This fixture holds all sizes of rocker arms for truing up the worn face. It requires the No. 19 Fixture priced above for mounting on lathe.

Cat. No. 1706. Code "Mabih" \$4.50

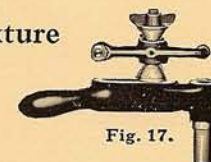


Fig. 17.

Equipment for Servicing Valves in the Lathe

The Equipment, illustrated at the left and priced below for all sizes of South Bend Lathes, is practical for refacing valves of all sizes and types and made of any material.

Size of Lathe		9" "Workshop"		9-inch		11-inch		13-inch		15-inch		16-inch	
No.	Price	No.	Price	No.	Price	No.	Price	No.	Price	No.	Price	No.	Price
3/4 H. P. Electric Grinder (1-phase, 60-cycle, 110-volt, A.C.) with cord and switch	30-W \$45.00	30-B	\$50.00	30-C	\$55.00	30-D	\$55.00	30-F	\$55.00	30-G	\$30.00		
Valve Chuck (1/2" to 5/8" cap)	907-W 10.00	907-L	10.00										
Valve Chuck (3/8" to 3/4" cap)	91-W 4.00	91-B	4.00	925-B	11.25	355-D	14.25	355-E	14.25	355-F	14.25		
Diamond Holding Fixture	403-W 6.00	406	6.00	91-C	4.00	91-D	4.50	91-E	4.50	91-F	5.00		
Diamond Dresser	403-W 6.00	406	6.00	406	6.00	406	6.00	406	6.00	406	6.00	406	6.00
Total Cost of Valve Equipment	9-V \$65.00	9-VA	\$70.00	11-VA	\$76.25	13-VA	\$79.75	15-VA	\$79.75	16-VA	\$85.25		

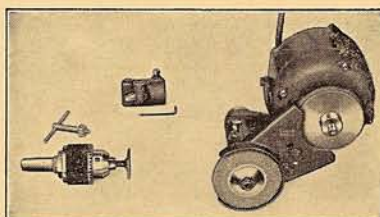


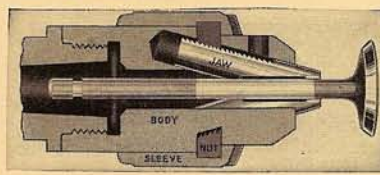
Fig. 18. Equipment for Servicing Valves.

Precision Valve Chuck



Fig. 11. Valve Chuck.

Fig. 12. (At Right). Cross Section View of Chuck.



The 3-Jaw Precision Valve Chuck is hollow and is threaded to the spindle nose of the lathe. It takes all types of valve stems including Ford valves with mushroom end stems. The hardened and ground jaws operate simultaneously and center the valve concentric with lathe spindle.

Size Lathe	Cat. No.	Capacity	Code	Price
9" W.S.	907-W	1/8 to 5/8 in.	Robal	\$10.00
9-in.	907-L	1/8 to 5/8 in.	Robet	10.00
9-in.	925-A	3/8 to 3/4 in.	Rodna	11.25
11-in.	925-B	3/8 to 3/4 in.	Rodpe	11.25
13-in.	355-D	3/8 to 3/4 in.	Tipin	14.25+
15-in.	355-E	3/8 to 3/4 in.	Tipot	14.25+
16-in.	355-F	3/8 to 3/4 in.	Tipuz	14.25+

†This chuck is fitted to headstock spindle by means of a hollow steel arbor which is included in price.

Adjustable Holding Fixture (Tailstock Type)

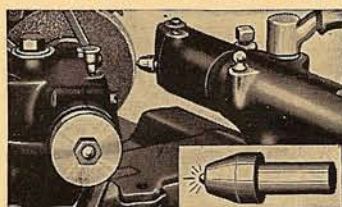


Fig. 14. Adjustable Holding Fixture.

This fixture clamps on the tailstock spindle of the lathe. It holds the No. 406 Diamond Dresser at a 45° angle for valve work, and at a 90° angle for piston work, etc.

No. 91-W. Fixture for 9" W.S. \$4.00
No. 91-B. Fixture for 9" Lathe 4.00
No. 91-C. Fixture for 11" Lathe 4.00
No. 91-D. Fixture for 13" Lathe 4.50
No. 91-E. Fixture for 15" Lathe 4.50
No. 91-F. Fixture for 16" Lathe 5.00
No. 406. Diamond Dresser 6.00

V-Block Holding Fixture

The V-Block Holding Fixture is used to hold valves for squaring the ends of the valve stem and for grinding Ford mushroom type valve stems for clearance adjustment. Has an adjustable stop for grinding all valves in the set uniformly. Requires the No. 19 Fixture priced in column at right for mounting on lathe.

Cat. No. 1725. Code Word "Mabon".....\$4.00

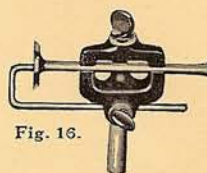
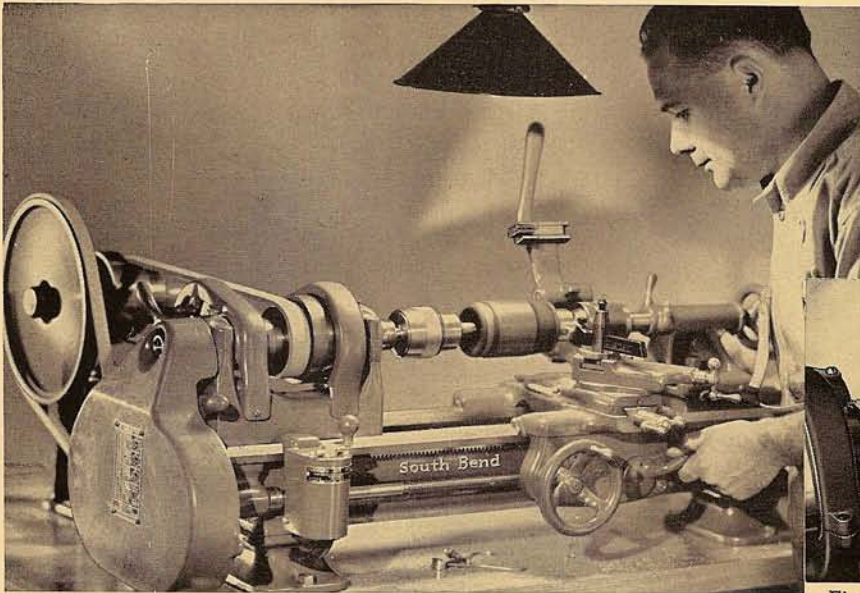


Fig. 16.

South Bend Lathes



Armature Service Work

All sizes and types of generator and starting motor commutators, with or without center holes in the shaft, can be trued and the mica undercut in South Bend Lathes with the attachments shown below.

Instructions on the servicing of armatures in the lathe and the use of the attachments shown below are contained in Bulletin No. 2-A, "How to True Armatures". Price postpaid 10c.

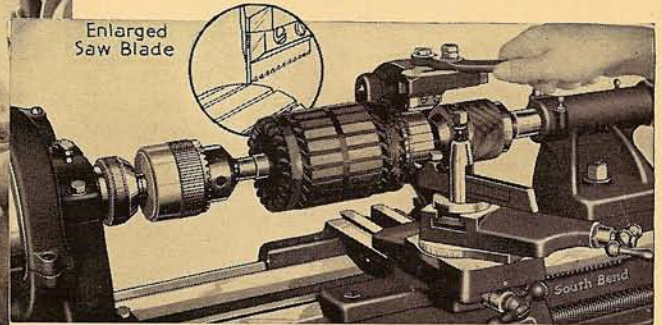


Fig. 19. Undercutting Mica with Mica Undercutting Attachment.

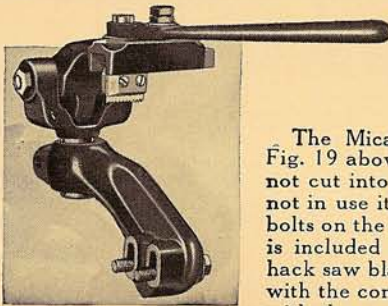


Fig. 20. Mica Undercutting Attachment.

Mica Undercutting Attachment

For Commutators Up to 3-inches in Diameter

The Mica Undercutting Attachment, shown at left and in Fig. 19 above, is hand operated, easy to use, and efficient. It does not cut into the copper, throw up burrs or burn cutters. When not in use it may be tilted back out of the way. The attachment bolts on the side of the saddle. A special cutter blade .020" thick is included in price. Extra cutter blades may be made of old hack saw blades, or may be purchased. The blade can be aligned with the commutator segments, even though they are not parallel with the armature shaft. A screw adjustment is provided on the attachment for regulating the depth of the cut.

Net Factory Prices

Size of Lathe	Catalog No.	Code Word	Price
9" Workshop	673-W	Msboj	\$15.00
9-in.	675-N	Mayom	15.00
11-in.	676-N	Mayus	16.00
13-in.	677-N	Mazep	16.00
15-in.	678-N	Mazit	17.00
16-in.	679-N	Mazoz	17.50

Cat No. 633-N. Extra Cutter Blade .020" or .015" thick. State Size. Code "Ceniz".....\$0.25

Headstock Driving Chuck and Armature Support Chuck

Armatures with centerless shafts are mounted in the lathe between a headstock driving chuck and a special armature support chuck which automatically center the armature. See Fig. 19.

The Armature Support Chuck, shown in Fig. 23, at the right, is used in the tailstock spindle of the lathe to support and center the right end of the armature shaft. The chuck takes shafts from $\frac{3}{8}$ " to $\frac{3}{4}$ " in diameter. Has three brass jaws in which the armature shaft revolves. Jaws close simultaneously to center the shaft, and may be locked in position.

Cat. No. 340. Armature Support Chuck and Arbor for 9-inch "Workshop", 9", and 11" lathes. "Adang".....\$9.00

Cat. No. 340-A. Armature Support Chuck and Arbor for 13", 15", and 16" lathes. Code "Kacoz".....\$9.50



Fig. 22. Headstock Driving Chuck

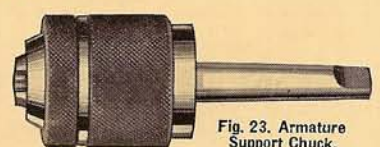


Fig. 23. Armature Support Chuck.

The Headstock Driving Chuck shown in Fig. 22 is a standard $\frac{3}{4}$ " capacity drill chuck, used in the headstock spindle of the lathe for driving the armature shaft. The chuck has three hardened steel jaws, and will take shafts from $\frac{1}{8}$ " to $\frac{3}{4}$ " diameter.

Cat. No. 327. Headstock Driving Chuck. Code Word "Rulid". Price\$7.50*

*Arbors for fitting Chuck to lathe are priced in tabulation below.

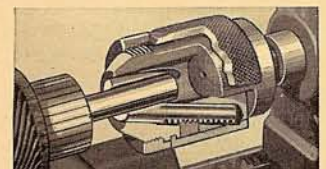


Fig. 24. Cut-away View of Armature Support Chuck.

Equipment for Servicing Armatures in the Lathe

The equipment, illustrated at the left and priced below, permits truing and undercutting commutators of all armatures within the capacity of the lathe, including armatures having centered or centerless shafts not exceeding $\frac{3}{4}$ " in diameter.

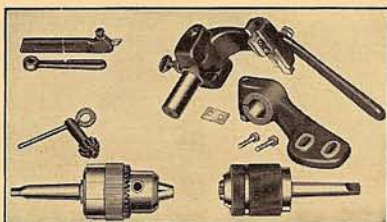


Fig. 21. Equipment for Servicing Armatures in the Lathe

Size of Lathe	9" "Workshop"		9-inch		11-inch		13-inch		15-inch		16-inch	
	No.	Price	No.	Price	No.	Price	No.	Price	No.	Price	No.	Price
$\frac{3}{4}$ " Headstock Driving Chuck	327-W	\$ 7.50	327	\$ 7.50	327	\$ 7.50	327	\$ 7.50	327	\$ 7.50	327	\$ 7.50
Arbor Fitted to Above Chuck	703-W	1.00	709	1.00	707	1.00	713	1.50	713	1.50	716	1.50
Armature Support Chuck ($\frac{3}{8}$ " to $\frac{3}{4}$ " Capacity) fitted to lathe	340-W	9.00	340	9.00	340	9.00	340-A	9.50	340-A	9.50	340-A	9.50
Straight Turning Tool	847-S	1.25	849-S	2.35	851-S	2.50	852-S	2.85	853-S	2.85	853-S	3.50
Cutter Bit Ground for Arm.	1363-W	.45	1363	.45	1364	.45	1365	.65	1365	.65	1366	.90
Hand Type Mica Undercutter Complete with One Cutter	673-W	15.00	675-N	15.00	676-N	16.00	677-N	16.00	678-N	17.00	679-N	17.50
Total Cost of Armature Equip.	9-WA	\$34.20	9-AA	\$35.30	11-AA	\$36.45	13-AA	\$38.00	15-AA	\$39.00	16-AA	\$40.40

South Bend Lathes

Piston Service Work

Semi-machined pistons, solid or split skirt types, made of cast iron, aluminum, or other alloys can be accurately mounted in South Bend Precision Lathes and machined to fit the cylinder block of all types of gas engines when the lathe is fitted with the attachments shown below.

The correct modern methods for servicing pistons in the lathe with the attachments listed below are explained in Bulletin No. 9, "How to Finish Pistons". Price postpaid 10c.

Self-Centering Piston Adapters For Mounting Pistons in the Lathe

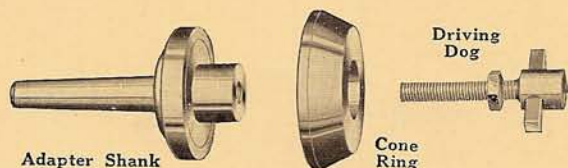


Fig. 26. Piston Adapter Equipment.

The Self-Centering Piston Adapter, as shown in Fig. 26 above, is used for mounting semi-machined pistons in the lathe for machining to finished size, also for reaming the piston skirt and for remachining old pistons. The long tapered shank fits into the lathe spindle and the short pilot centers various sizes of cone rings and piston skirt reamers. The driving dog screws into the threaded hole in the end of the adapter, and is adjustable for driving any size piston with center hole in head.

Cone rings, as shown in Fig. 27, are used for pistons with center hole in head. The centering ring, as shown in Fig. 28, is used for pistons without center hole in head.

Equipment included in the price of the Self-Centering Piston Adapter consists of Adapter Shank, No. 1-D Cone Ring for pistons $2\frac{1}{2}$ " to $3\frac{1}{8}$ " in diameter, and Driving Dog.

Prices of Self-Centering Piston Adapters

Size Lathe	Cat. No.	Code	Price	Size Lathe	Cat. No.	Code	Price
9" Workshop	44-W	Adawp	\$10.00	13 in.	44-C	Helaw	\$10.00
9-in.	44-A	Hanov	10.00	15-in.	44-D	Hdixe	10.00
11-in.	44-B	Hbiol	10.00	16-in.	44-E	Heota	10.00

Cutter Bits for Piston Work



Fig. 32. High Speed Steel Cutter Bit, Ground.

High Speed Steel Cutter Bits, as illustrated at left, are practical for both roughing and finishing pistons, although some shops prefer Stellite cutter bits, as they hold their edge longer than high speed steel cutter bits. Tungsten Carbide tipped cutter bits are recommended where pistons are machined in quantity. Prices quoted on request.

Equipment for Servicing Pistons in the Lathe

The equipment, illustrated at the left and priced below, for all sizes of South Bend Lathes, is practical for finishing semi-machined pistons of all types and of all sizes ranging from $2\frac{1}{2}$ " to $3\frac{1}{8}$ " outside diameter. If pistons of larger diameter are to be machined, substitute the correct size cone rings and skirt reamers listed and priced above.

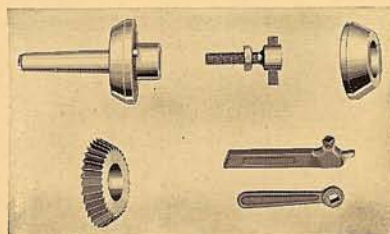


Fig. 33. Equipment for Servicing Pistons.

Size of Lathe	9" "Workshop"		9-Inch		11-Inch		13-Inch		15-Inch		16-Inch	
	No.	Price	No.	Price	No.	Price	No.	Price	No.	Price	No.	Price
Piston Adapter, Driving Dog and Cone Ring for Pistons $2\frac{1}{2}$ " to $3\frac{1}{8}$ " outside diam.	44-W	\$10.00	44-A	\$10.00	44-B	\$10.00	44-C	\$10.00	44-D	\$10.00	44-E	\$10.00
Piston Skirt Reamer for Pistons $2\frac{1}{2}$ " to $3\frac{1}{8}$ " outside diam.	1-R	7.50	1-R	7.50	1-R	7.50	1-R	7.50	1-R	7.50	1-R	7.50
Straight Turning Tool.	847-S	1.25	849-S	2.35	851-S	2.50	852-S	2.75	852-S	2.85	853-S	3.50
Total Cost of Piston Equip.	u-P	\$18.75	9-PA	\$19.85	11-PA	\$20.00	13-PA	\$20.35	15-PA	\$20.35	16-PA	\$21.00

South Bend Lathes

Bushing Service Work

Bushings and sleeve bearings of all sizes and types and made of any material can be made complete in the South Bend Lathe fitted with the equipment below.

The machine operations required to make bushings in the lathe are outlined in Bulletin No. 7-S, "How to Make Bushings". Price post-paid 10c.

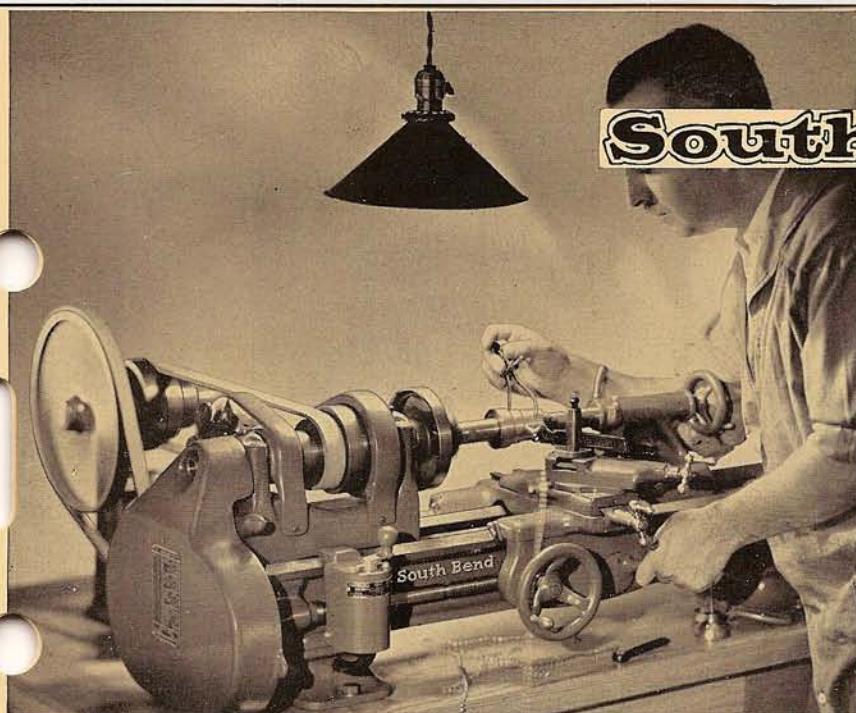


Fig. 34. Making a Bushing in the 9-inch "Workshop" South Bend Lathe.

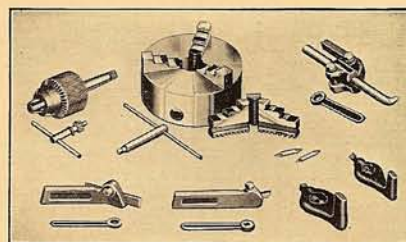


Fig. 35. Equipment for making Bushings.

Net Factory Prices of Chuck and Tool Assortments for Making Bushings and for General Machine Work.

Size of Lathe	9" "Workshop"		9-inch		11-inch		13-inch		15-inch		16-inch	
	No.	Price	No.	Price	No.	Price	No.	Price	No.	Price	No.	Price
3-Jaw Universal Lathe Chuck fitted with chuck back...	3005	\$28.00	3005	\$31.00	3505	\$53.00	3506	\$58.00	3507	\$67.00	3509	\$78.00
Size of above Lathe Chuck	5-in.		5-in.		5-in.		6-in.		7 1/2-in.		9-in.	
3-Jaw Drill Chuck	220	5.25	220	5.25	220	5.25	327	7.50	327	7.50	328	10.00
Capacity of Drill Chuck	1/2-in.		1/2-in.		1/2-in.		3/4-in.		3/4-in.		1-in.	
Arbor Fitted to Drill Chuck	709-W	1.00	709	1.00	707	1.00	713	1.50	713	1.50	716	1.50
Right-hand Cutting-off Tool Holder	833-R	1.50	881-R	2.55	882-R	2.75	883-R	3.20	883-R	3.20	884-R	4.00
Straight Shank Turning Tool Holder	847-S	1.25	849-S	2.35	851-S	2.50	852-S	2.85	852-S	2.85	853-S	3.50
Set of 6 Cutter Bits Ground to Form	201	1.65	1775	1.65	1776	1.65	1777	2.50	1777	2.50	1778	3.75
Boring Tool Holder, Style "D"	505-F	3.00	505-A	3.00	505-B	3.50						
Boring Tool Holder, Style "B"							431	5.15	431	5.15	432	6.75
Malleable Lathe Dog, 1/2"	2-MJ	.50	2-MJ	.50	2-M	.60	2-M	.60	2-M	.60	2-M	.60
Malleable Lathe Dog, 1"	6-MJ	.70	6-MJ	.70	6-M	.80	6-M	.80	6-M	.80	6-M	.80
1/4" Center Drill and Countersink	898-A	.30	898-A	.30	898-A	.30	898-A	.30	898-A	.30	898-A	.30
3/8" Center Drill and Countersink	898-B	.35	898-B	.35	898-B	.35	898-B	.35	898-B	.35	898-B	.35
Total Cost of Bushing Equipment	9-B	\$43.50	9-BA	\$48.65	11-BA	\$68.70	13-BA	\$82.75	15-BA	\$91.75	16-BA	\$109.55

Equipment for Testing and Truing Differentials

Net Factory Prices of Equipment for Servicing Differentials.

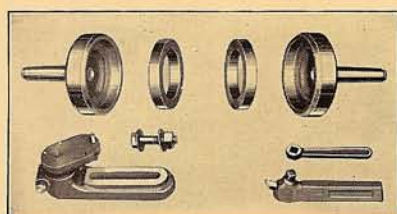


Fig. 36. Differential Servicing Equip.

Size of Lathe	9" "Workshop"		9-inch		11-inch		13-inch		15-inch		16-inch	
	No.	Price	No.	Price	No.	Price	No.	Price	No.	Price	No.	Price
Headstock Centering Cup and Driver	3652-W	\$ 7.00	3652	\$ 7.00	3652	\$ 7.00	3634	\$ 5.50	3634	\$ 5.50	3634	\$ 5.50
Headstock Centering Cup	3125-W	5.00	3125	5.00	3125	5.00	3126	5.50	3126	5.50	3126	5.50
Tailstock Centering Cup	283-W	4.00	283-A	4.00	283-A	4.00	283-A	4.00	283-A	4.00	283-A	4.00
2 Adapter Bushings							267	4.00	267	4.00	267	4.00
1 Face Plate Driver												
Total Cost of Equipment	9-D	\$16.00	9-DA	\$16.00	11-DA	\$16.00	13-DA	\$19.00	15-DA	\$19.00	16-DA	\$19.00

Mandrels and Adapters for Brake Drum, Wheel and Hub Service

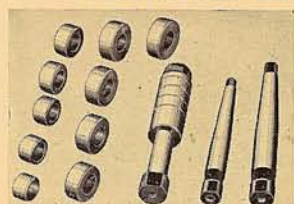


Fig. 37. Mandrels and Adapters.

Prices of Self-Centering Straight Mandrels for Front Wheels

Cat. No.	Diam. of Mandrel	Length of Mandrel	Fits Adapters with	Used for	Price Each
1800	1 1/4"	12"	1 1/4" hole	Autos Chiefly	\$11.00
1810	1 3/4"	18"	1 3/4" hole	Trucks Chiefly	18.00
1840	2 1/2"	26"	2 1/2" hole	Heavy Trucks	30.00

Prices of Universal Bearing Adapters for Straight Mandrels

Cat. No.	To Fit Mandrel	Diameters Furnished	Diam. of Adapter Hole	Used for	Price Each
1801	No. 1800	1 1/8" to 3 3/8" in eighths	1 1/4"	Autos Chiefly	\$1.50
1811	No. 1810	2 1/2" to 4 3/4" in quarters	1 3/4"	Trucks Chiefly	2.00
1841	No. 1840	3 1/2" to 7" in quarters	2 1/2"	Heavy Trucks	3.00

Equipment for Mounting Demountable Type Drums

No. 1030 Face Plate (Used on No. 1800 Mandrel) \$5.00

Prices of Centering Rings Required with No. 1030 Face Plate

Cat. No.	Diam. of Pilots	Make and Model of Car	Price
1251	3 1/16" & 3 1/8"	Olds., 35 to 38; Pontiac, 36	\$2.25
1252	3 3/16" & 3 7/16"	Chev., 36; Buick 40, 44 and 60, 36 to 38	2.25
1253	3 1/2" & 3 3/4"	Pont., 36 to 38; Cadillac, 38; Olds., 37 and 38; Buick 44, 37 and 38; Chev., Comm. 37 and 38; G.M.C. T14, 36 to 38	2.25
1254	3 13/16" & 3 7/8"	Olds., 35 to 38; Chev., 36 to 38; Buick, 36 to 38; Pont. 37 and 38; G.M.C. 36 to 38	2.25
1255	4 1/8" & 4 1/4"	Chev., Utility, 37; Buick 80, 37 and 38, Buick, 90, 36	2.75
1256	4 1/2" & 5 1/8"	Cadillac, 38; Chev. Truck, 37	3.50

Self-Centering Taper Mandrels for Rear Wheels

Cat. No.	Diam. of Mandrel	Length of Mandrel	Taper per Foot	Used for	Price Each
1820	1 " to 1 3/8"	13 1/4"	3/4"	Autos and Trucks	\$4.50
1820-B	1 1/8" to 1 1/2"	15 1/4"	3/4"	Autos and Trucks	5.00
1821	1 1/4" to 1 1/2"	11 3/4"	1 "	Autos and Trucks	4.50
1822	1 " to 1 1/8"	13 1/4"	1 "	Autos and Trucks	4.50
1823	1 1/4" to 1 3/8"	15 "	1 "	Autos and Trucks	5.00
1824	1 1/8" to 1 1/2"	11 3/4"	1 3/8"	Autos and Trucks	4.50
1825	1 1/8" to 2 "	15 3/4"	1 3/8"	Trucks Mostly	7.50

South Bend Lathes

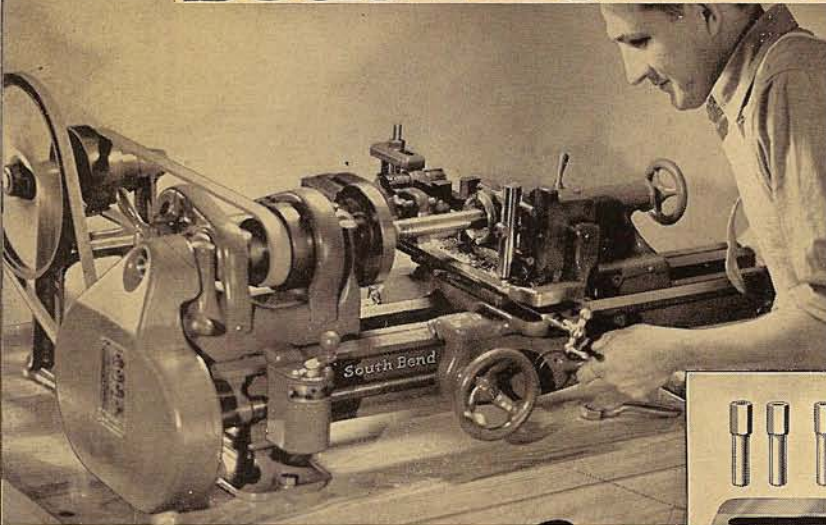


Fig. 38. Boring a Re-babbitted Connecting Rod Bearing in the 9-inch "Workshop" South Bend Lathe.

Double-End Type Steel Boring Bars

Two double end type steel boring bars are used for boring re-babbitted connecting rods. One bar is for rough boring and the other is for finish boring. Each bar carries two cutters: the cutters on one bar are used for rough boring the bearing and rounding and facing both sides; the cutters on the other bar are for finish boring the bearing and trimming both sides. Prices include a set of four high speed steel cutter bits, ground for boring, rounding, facing and trimming connecting rod bearings.

Cat. No. 461-B. Set of 2 Boring Bars for Bearings $1\frac{1}{4}$ " to $2\frac{1}{2}$ " diameter. Used with "Workshop" 9", 11", 13", 15" and 16" lathes. Code Word "Fafov" \$20.00

Cat. No. 517. Set of 2 Boring Bars for Bearings $2\frac{1}{2}$ " to 4" diameter. Used with 13", 15" and 16" lathes. Code Word "Fagiv" \$30.00

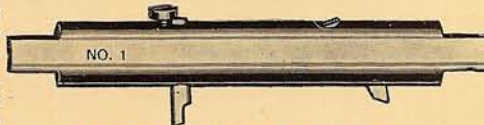


Fig. 40. Double End Boring Bar.

High Speed Steel Cutter Bits for Boring Bars



Fig. 41. Unground High Speed Steel Cutter Bit.

Prices Unground High Speed Steel Cutter Bits

Cat. No. 940. $\frac{5}{16}$ "x3" Cutter Bit for No. 461-B boring bars. "Kajab".....\$0.30
Cat. No. 941. $\frac{5}{16}$ "x3 $\frac{1}{2}$ " Cutter Bit for No. 517 boring bars. "Kadom".....\$0.50

Prices of Ground High Speed Steel Cutter Bits*

Diam. of Cutter	Size Hole Bored	Cat. No.	Code Word	Price Each
Cutter Bits for No. 461-B Boring Bars				
$\frac{5}{16}$ -in.	$1\frac{1}{4}$ to $1\frac{3}{4}$ in.	1455	Fagux	\$1.00
$\frac{5}{16}$ -in.	$1\frac{3}{4}$ to $2\frac{1}{4}$ in.	1456	Fahoy	1.10
Cutter Bits for No. 517 Boring Bars				
$\frac{3}{16}$ -in.	$2\frac{1}{2}$ to $3\frac{1}{4}$ in.	1523	Gahok	\$1.25
$\frac{3}{16}$ -in.	$3\frac{1}{4}$ to 4 in.	1524	Gajax	1.40

*Specify shape wanted, as shown at AA to DD at left.

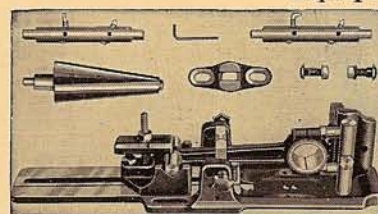


Fig. 48. Equipment for Servicing Connecting Rods.

NOTE. Enlarged views of cutter bits supplied with the boring bars in this equipment are illustrated in Figs. 42 to 45 above.

Connecting Rod Service

Re-babbitted connecting rod bearings of all types, including bronze and steel backed bearings can be accurately bored, faced, rounded and trimmed in South Bend Lathes fitted with the equipment below.

Complete information on servicing connecting rods in the lathe is printed in Bulletin No. 6-C, "How to Bore Re-babbitted Connecting Rods." Price of bulletin postpaid 10 cents.

Connecting Rod Boring Attachment

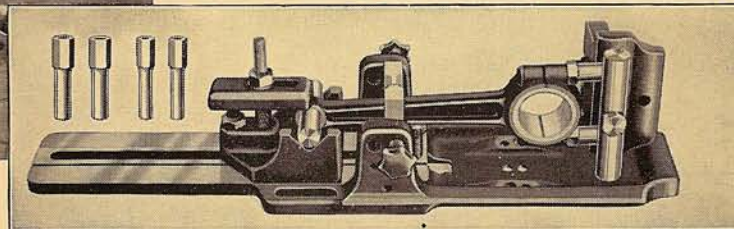


Fig. 39. Connecting Rod Boring Attachment.

This attachment accurately aligns connecting rods between lathe centers for boring the bearings.

A sliding V-block holds the small end of the connecting rod and aligns the piston pin hole parallel with the lathe spindle. Adjustable clamps hold the babbitted end of the rod. The bearing is centered with a centering cone, as shown below. The cross feed of the lathe and a vertical adjusting screw on the attachment permit accurate centering.

Prices of Connecting Rod Boring Attachment

Size of Lathe	Cat. No.	Capacity Between Bearings	Capacity Across Lugs	Code Word	Price Each
9" W'kshop	1229-W	13-in.	4 $\frac{3}{8}$ -in.	Cuyey	\$5.00
9-in.	1229	13-in.	5 in.	Cuyic	55.00
11-in.	1230	13-in.	5 in.	Cuzon	60.00
13-in.	1231	22-in.	6 $\frac{1}{4}$ -in.	Cizun	85.00
15-in.	1232	22-in.	6 $\frac{1}{4}$ -in.	Ciror	90.00
16-in.	1233	22-in.	6 $\frac{1}{4}$ -in.	Cirap	90.00

Centering Cone and Driver

The centering cone aligns connecting rod bearings between lathe centers. The driver bolts on faceplate for driving boring bars.



Fig. 46. Centering Cone.



Fig. 47. Driver, For Boring Bars.

No. 581. Cone for Bearings $1\frac{1}{4}$ " to $2\frac{1}{2}$ " diam. "Haxaf" \$3.50
No. 927. Cone for Bearings $2\frac{1}{2}$ " to 4" diam. "Haxot" 7.00
No. 228. Driver for W'kshop, 9" and 11" lathes. "Kabur" 1.00
No. 229. Driver for 13", 15" and 16" lathes. "Jafay" 1.25

Direct Reading V-Block Micrometer

(Shown on Page 3, Bulletin 6-C)

Used with No. 461-B boring bar to set cutter bits for boring bearings to the exact diameter required.

Cat. No. 234. Code Word "Gaset," Price.....\$15.00

Equipment for Servicing Connecting Rods in the Lathe

The equipment, listed below for 9" "Workshop", 9" and 11" lathes handles connecting rods of all passenger cars and some buses, while the equipment for 13", 15" and 16" lathes handles all sizes of connecting rods including those of large tractors, trucks, buses and passenger cars.

Size of Lathe	9" "Workshop"		9-inch		11-inch		13-inch		15-inch		16-inch	
	No.	Price	No.	Price	No.	Price	No.	Price	No.	Price	No.	Price
Attachment for rods 13" between bearings, 5" across lugs.....	1229-W	\$55.00	1229	\$55.00	1230	\$60.00						
Attachment for rods 22" between bearings and 6 $\frac{1}{4}$ " across lugs.....							1231	\$ 85.00	1232	\$ 90.00	1233	\$ 90.00
Boring Bars												
2 Bars for $1\frac{1}{4}$ " to $2\frac{1}{2}$ " bearings.....	461-W	20.00	461-B	20.00	461-B	20.00	461-B	20.00	461-B	20.00	461-B	20.00
2 Bars for $2\frac{1}{2}$ " to 4" bearings.....							517	30.00	517	30.00	517	30.00
Centering Cones												
1 Cone for $1\frac{1}{4}$ " to $2\frac{1}{2}$ " bearings.....	581-W	3.50	581	3.50	581	3.50	581	3.50	581	3.50	581	3.50
1 Cone for $2\frac{1}{2}$ " to 4" bearings.....							927	7.00	927	7.00	927	7.00
Driver for Boring Bars.....	228-W	1.00	228	1.00	228	1.00	229	1.25	229	1.25	229	1.25
Total Cost of Equipment.....	9-C	\$79.50	9-CA	\$79.50	11-CA	\$145.00	13-CA	\$146.75	15-CA	\$151.75	16-CA	\$151.75

*4 $\frac{3}{8}$ " across lugs on 9-inch "Workshop" Lathe

South Bend Lathes

Lathe Tool Holders Straight Tool Holder



Right Hand Tool Holder



Left Hand Tool Holder

Tool Holder—Straight Shank

Prices below include one drop forged, heat treated and hardened steel tool holder (choice of straight, right-hand or left-hand shank) with hardened steel set screw, a hardened drop forged steel wrench and one unground high speed steel cutter bit, complete for the lathe.

Size of Lathe, Inches	Size of Shank, Inches	Size of Cutter, Inches	Catalog Numbers	Price Tool Complete
9" W.S.*	3/4 x 3/4	1/4 x 1/4	847-S 847-R 847-L	\$1.25
9	3/4 x 3/4	1/4 x 1/4	849-S 849-R 849-L	2.35
11	3/4 x 7/8	1/4 x 1/4	851-S 851-R 851-L	2.50
13, 15	1 1/2 x 1 1/8	3/8 x 3/8	852-S 852-R 852-L	2.85
16	1 1/2 x 1 1/8	3/8 x 3/8	853-S 853-R 853-L	3.50

High Speed Steel Cutter Bits Ground to Shape—Ready to Use



These cutter bits are for use with the tool holders listed above. They are made of best quality high speed steel (Rex AA, or Red Cut Superior) and are heat treated and hardened. We use the same quality of cutter bits in our own shops and recommend them very highly.

The illustration below shows six cutter bits ground to the shapes that are most practical for general work. When ordering, be sure to specify the catalog numbers and the letters designating shapes of cutter bits wanted.

Ground High Speed Steel Cutter Bits



A L. H. Turning Nose B Round R. H. Turning C R. H. Side D L. H. Side E Threading F R. H. Side

Prices of Ground High Speed Steel Cutter Bits

Size of Lathe, Inches	Size Square, Inches	Length Cutter, Inches	Single Bit	Set of 6 Bits
9" W.S.*	1/4	2	1355 \$0.30	291 \$1.65
9	1/4	2	1304 .30	1775 1.65
11	1/4	2	1311 .30	1776 1.65
13, 15	3/8	2 1/2	1313 .45	1777 2.50
16	3/8	3	1316 .65	1778 3.75

Unground Cutter Bits



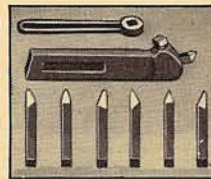
These cutter bits are the same quality as those listed above but they are not ground. They are heat treated and hardened and are ready for use when sharpened. Specify catalog number and size when ordering cutter bits.

Prices of Unground High Speed Steel Cutter Bits

Size of Lathe, Inches	Size Square, Inches	Length Cutter, Inches	Single Bit	Set of 6 Bits
9" W.S.*	1/4	2	1460 \$0.17	1629 \$0.90
9	1/4	2	1419 .17	1630 .90
11	1/4	2	1421 .17	1631 .90
13, 15	3/8	2 1/2	1422 .30	1632 1.60
16	3/8	3	1423 .45	1633 2.50

Tool Holder and Cutter Bit Set

Set consists of tool holder (choice of straight, right-hand or left-hand) with one unground H.S. Steel Cutter Bit and a set of 6 H.S. Steel Cutter Bits ground to forms A to F shown at right.



Prices of Tool Holder and Cutter Bit Set

Size Lathe	"Workshop"	9"	11"	13" 15"	16"
Cat. No.	323-A	603-B	603-C	603-D	603-E
Price	\$2.90	\$4.00	\$4.15	\$5.35	\$7.25

Cutting-Off Tool Holders



Straight



Right-Hand



Left-Hand

Cutters are beveled on both sides and are held at an angle giving the side clearance and top rake required. Prices below include forged steel cutting-off tool holder wrench and one high speed cutter blade ground.

Size of Lathe, Inches	Size Shank, Inches	Size Cutter, Inches	Catalog Numbers	Tool Complete	Extra Cutter
9" W.S.*	3/4 x 3/4	3/8 x 1/4	833-S 833-R	\$1.50	\$0.50
9	3/4 x 3/4	3/8 x 1/4	881-S 881-R 881-L	2.55	.55
11	3/4 x 7/8	3/8 x 1/4	882-S 882-R 882-L	2.75	.60
13, 15	1 1/2 x 1 1/8	3/8 x 1/4	883-S 883-R 883-L	3.25	.90
16	1 1/2 x 1 1/8	3/8 x 1/4	884-S 884-R 884-L	4.00	1.25

Style "B" Boring Tool Holder



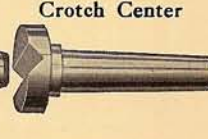
Made of Drop Forged Steel. Cutter can be set at an angle straight or at a 45-degree angle. Prices include holder, sleeve bar, end cap, two wrenches and two unground cutter bits.

Size Lathe, Inches	Tool Complete	Extra Cutter Bits
9" W.S.*	423 3/4 x 3/4 1/4 x 8 \$4.30	454-W 3/8 \$0.15
9	429 3/4 x 3/4 1/4 x 8 4.30	454 1/8 .15
11	430 3/4 x 7/8 1/4 x 10 4.30	456 1/8 .17
13, 15	431 1 1/2 x 1 1/8 3/8 x 12 5.15	456 1/2 .17
16	432 1 1/2 x 1 1/8 3/8 x 14 6.75	457 3/4 .30

Drill Pad



Crotch Center



Size of Lathe	Cat. No.	Net Price	Size of Lathe	Cat. No.	Net Price
9" W.S.	727-W	\$2.00	9" W.S.	728-W	\$2.50
9 in.	727-A	2.00	9 in.	728-A	2.50
11 in.	727-B	2.00	11 in.	728-B	2.50
13 in.	727-C	2.75	13 in.	728-C	3.25
15 in.	727-D	2.75	15 in.	728-D	3.25
16 in.	727-E	2.75	16 in.	728-E	3.25

60° Centers for Lathe Spindles



Prices of Tail Spindle Lathe Center Hardened

Size Lathe	9" W.S.	9 in.	11 in.	13 in.	15 in.	16 in.
Cat. No.	726-W	726-A	726-B	726-C	726-D	726-E
Price, each	\$2.25	\$2.25	\$2.25	\$3.00	\$3.00	\$3.00

Prices of Head Spindle Lathe Center not Hardened

Size Lathe	9" W.S.	9 in.	11 in.	13 in.	15 in.	16 in.
Cat. No.	725-W	725-A	725-B	725-C	725-D	725-E
Price, each	\$2.00	\$2.00	\$2.00	\$2.75	\$2.75	\$2.75

Threading Tool Holder

Drop Forged Steel



Cutter requires grinding on top edge only to sharpen. Prices below include threading tool, wrench and a high speed steel single point cutter (choice of V. U.S.S., or Whitworth Standard). Sharp V. Cutter is furnished unless otherwise ordered. Specify pitch or number threads per inch required.

Size of Lathe, Inches	Threading Tool Complete	Extra Cutters (H. S. Steel)
9" W.S.*	Cat. No. 845 846 847 848 849	Cat. No. 814 860 861 862 863
9	3/4 x 3/4 3/8 x 1/4 \$2.50	1/4 x 1/4 \$1.50
11	3/4 x 7/8 3/8 x 1/4 3.60	3/8 x 3/8 2.25
13, 15	1 1/2 x 1 1/8 3/8 x 1/4 4.25	1 1/2 x 1 1/8 2.70
16	1 1/2 x 1 1/8 3/8 x 1/4 5.50	1 1/2 x 1 1/8 3.55

Knurling Tool Holder

Drop Forged Steel



Prices include knurling tool holder and one set of medium knurls made of tool steel, tempered.

Size of Lathe, Inches	Tool Complete	Coarse, Medium or Fine Straight or Diamond Shape
9" W.S.*	Cat. No. 820 821 822 823 824	Cat. No. 817 886 887 888 889
9	3/4 x 3/4 3/8 x 1/4 \$3.00	1/4 x 1/4 \$1.00
11	3/4 x 7/8 3/8 x 1/4 4.80	3/8 x 3/8 1.00
13, 15	1 1/2 x 1 1/8 3/8 x 1/4 5.10	1 1/2 x 1 1/8 1.00
16	1 1/2 x 1 1/8 3/8 x 1/4 5.75	1 1/2 x 1 1/8 1.25
		1 1/2 x 1 1/8 1.25

Standard and Safety Lathe Dogs



Standard Lathe Dog Safety Lathe Dog

Made of heavy malleable iron and are properly designed for strength and service. The Standard Dog has square head alloy steel set screw. The Safety Dog has a headless alloy steel set screw and wrench.

Prices of Heavy Type Lathe Dogs For 11-inch to 16-inch Swing Lathes

Capacity of Lathe Dog	Standard Lathe Dogs	Safety Lathe Dogs
1/2 in.	Cat. No. 1-M \$0.50	Cat. No. 1-MH \$0.60
3/4 in.	2-M .60	2-MH .70
1 in.	4-M .70	4-MH .80
1 1/4 in.	6-M .80	6-MH .90
1 3/4 in.	8-M .90	8-MH 1.00
2 in.	10-M 1.05	10-MH 1.15
2 1/4 in.	12-M 1.20	12-MH 1.30
2 3/4 in.	14-M 1.35	14-MH 1.45
3 in.	16-M 1.60	16-MH 1.70
3 1/2 in.	17-M 1.75	17-MH 1.90
4 in.	18-M 2.40	18-MH 2.60
	19-M 3.20	19-MH 3.40

Light Pattern Lathe Dogs

For 9-inch and 11-inch Swing Lathes Only

Capacity of Lathe Dog	Standard Lathe Dogs	Safety Lathe Dogs
1/2 in.	Cat. No. 1-MJ \$0.45	Cat. No. 1-JH \$0.55
3/4 in.	2-MJ .50	2-JH .60
1 in.	4-MJ .60	4-JH .70
1 1/4 in.	6-MJ .70	6-JH .80
1 3/4 in.	8-MJ .80	8-JH .90
2 in.	10-MJ .95	10-JH 1.05



Clamp Lathe Dogs

Made of heavy drop forged steel, carefully machined and hardened. Practical for holding round, hexagonal or rectangular work. Each lathe dog is boxed separately.

Capacity Between Screws	Clamp Dog
1 1/4 in.	Cat. No. 160 \$2.25
2 1/4 in.	161 3.00
2 3/4 in.	162 3.75
3 1/2 in.	163 5.00

* NOTE: "9" W.S." listed in the tabulations above is an abbreviation for the name 9-inch "Workshop."

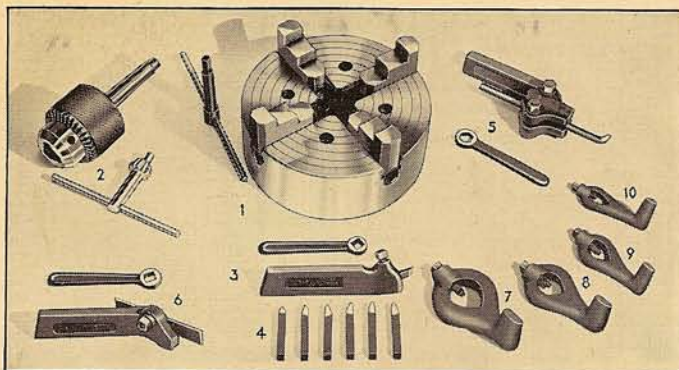


Fig. 49. Practical Chuck and Tool Assortment for General Machine Work

Chuck and Tool Assortments

For South Bend Lathes

The chuck and tools shown in the assortment at left and listed below are recommended for use in the various sizes of South Bend Lathes. This is the basic equipment required for the average shop for handling general machine work, such as turning, boring, drilling, cutting-off, chucking, etc.

The 4-jaw Independent lathe chuck is listed in each assortment because this chuck will handle round, square and irregular shaped work. However, if a 3-jaw Universal chuck is wanted instead it can be furnished at additional cost.

Assortment for Each Size Lathe	9" "Workshop"	9-inch	11-inch	13-inch	15-inch	16-inch
4-Jaw Independent Lathe Chuck fitted to lathe ready for use	\$23.00	\$26.00	\$46.00	\$52.00	\$57.00	\$66.00
Size of Above Lathe Chuck	6 in.	6 in.	6 in.	7 1/2 in.	9 in.	10 in.
3-Jaw Drill Chuck	5.25	5.25	5.25	7.50	7.50	10.00
Capacity of Drill Chuck	1/2 in.	1/2 in.	1/2 in.	3/4 in.	3/4 in.	1 in.
Arbor Fitted to Above Drill Chuck	1.00	1.00	1.00	1.50	1.50	1.50
Straight Shank Tool Holder	1.25	2.35	2.50	2.85	2.85	3.50
Six Ground Cutters for Tool Holders	1.65	1.65	1.65	2.50	2.50	3.75
Boring Tool Holder, Style "D"	3.00	4.30	4.30	5.15	5.15	6.75
Boring Tool Holder, Style "B"	1.50	2.55	2.75	3.20	3.20	4.00
Cutting-Off Tool Holder	2.60	2.60	2.60	3.15	3.15	3.15
Four Malleable Lathe Dogs	1/2, 3/4, 1, 1 1/2"	1/2, 3/4, 1, 1 1/2"	1/2, 3/4, 1, 1 1/2"	1/2, 3/4, 1, 1 1/2"	1/2, 3/4, 1, 1 1/2"	1/2, 3/4, 1, 1 1/2"
Size of Above Lathe Dogs	1/2, 3/4, 1, 1 1/2"	1/2, 3/4, 1, 1 1/2"	1/2, 3/4, 1, 1 1/2"	1/2, 3/4, 1, 1 1/2"	1/2, 3/4, 1, 1 1/2"	1/2, 3/4, 1, 1 1/2"
Assortments, Complete	\$39.25	\$45.70	\$66.05	\$77.85	\$82.85	\$98.65
Catalog No., Assortment Complete	105-WT	109-T	111-T	113-T	115-T	116-T
Code Word, Assortment Complete	Dakem	Ducak	Dufec	Dufus	Dugam	Dukob

Attachments for 1938 Model South Bend Lathes

For illustrations and specifications see Attachment Bulletin No. 77

Description	9" W.S. Lathes		9" Lathes Jr., Std., Quick		11" Lathes Std. and Quick		13" Lathes Std. and Quick		15" Lathes Std. and Quick		16" Lathes Std. and Quick	
	Cat. No.	Price	Cat. No.	Price	Cat. No.	Price	Cat. No.	Price	Cat. No.	Price	Cat. No.	Price
Milling and Keyway Cutting Attachment	9-W	\$35.00	1	\$45.00	2	\$50.00	3	\$55.00	4	\$65.00	5	\$75.00
Arbor for Milling Cutters	109-W	6.00	109-M	6.00	111-M	6.00	113-M	6.00	115-M	6.00	116-M	6.00
Collet Attachment and 1 Collet (hand wheel)	4306-W	25.00	4309	32.00	4311	35.00	4313	40.00	4315	45.00	4316	50.00
Extra collets for round work, price each	609-W	3.75	609	3.75	611	3.75	613	4.00	615	4.25	616	4.75
Collet sizes from 1/16" up by 64ths to	1/2"	1/2"	1/2"	1/2"	17/32"	17/32"	5/8"	5/8"	3/4"	3/4"	7/8"	7/8"
Taper Attachment (for tapers up to 3" per ft.)	428-W	55.00	377	75.00	378	85.00	379	100.00	380	115.00	381	125.00
Thread Dial Indicator	810-W	6.00	809	9.00	811	10.00	813	11.00	815	12.00	816	13.00
Center Rest	125-W	6.00	125	8.00	303	9.00	341	11.00	512	14.00	720	15.00
Follower Rest	34-W	4.00	130	4.00	322	6.00	376	7.00	513	8.00	730	9.00
Hand Rest for Wood Turning	107-W	7.50	1071	9.00	1072	9.00	1073	10.00	1074	13.00	1075	13.00
Cup Center	733-W	2.00	733-A	2.00	733-B	2.00	733-C	2.75	733-D	2.75	733-E	2.75
Spur Center	732-W	2.75	732-A	2.75	732-B	2.75	732-C	3.25	732-D	3.25	732-E	3.25
6" 4-Jaw Independent Chuck, fitted	4006	23.00	4006	26.00	4206	46.00	4206	47.00	4207	53.00	4209	58.00
6" 4-Jaw Independent Chuck, fitted			4206	45.00	4207	51.00	4207	52.00	4207	53.00	4209	58.00
7 1/2" 4-Jaw Independent Chuck, fitted									4210	65.00	4210	66.00
9" 4-Jaw Independent Chuck, fitted							4209	56.00	4209	57.00	4209	58.00
10" 4-Jaw Independent Chuck, fitted									4212	75.00	4212	76.00
12" 4-Jaw Independent Chuck, fitted												
5" 3-Jaw Universal Chuck, fitted	3005	28.00	3005	31.00	3505	50.00	3505	51.00	3506	59.00	3507	68.00
5" 3-Jaw Universal Chuck, fitted			3505	49.00	3506	57.00	3506	58.00	3506	59.00	3507	68.00
6" 3-Jaw Universal Chuck, fitted							3507	66.00	3507	67.00	3507	68.00
7 1/2" 3-Jaw Universal Chuck, fitted									3509	77.00	3509	78.00
9" 3-Jaw Universal Chuck, fitted												
3/8" Almond Drill Chuck, with Arbor	219	4.85	219	4.85	220	6.25	327	8.50	327	9.00	328	11.50
1/2" Almond Drill Chuck, with Arbor	220	6.25	220	6.25	220	6.25	327	8.50	327	9.00	328	11.50
3/4" Almond Drill Chuck, with Arbor												
1" Almond Drill Chuck, with Arbor												

South Bend Lathe Works 567 Niles Avenue
South Bend, Indiana, U. S. A.