

South Bend 9-inch
“WORKSHOP”
 Precision Lathes



MADE IN THREE MODELS

To meet the requirements of every type of shop South Bend 9-inch "Workshop" Precision Lathes are now made in three models, all of which are illustrated, described and priced in this bulletin.

Model A has full quick change gear mechanism, making all threads and feeds instantly available, also automatic apron with friction clutch for operating power cross feeds and power longitudinal feeds.

Model B has independent change gear equipment for threads and feeds, also automatic apron with friction clutch for operating power cross feeds and power longitudinal feeds.

Model C, which we have been manufacturing for a number of years, has independent change gear equipment, lead screw and half-nut power longitudinal feeds and hand cross feed.



Quick Change Gear Box



Automatic Apron

SOUTH BEND LATHE WORKS

Lathe Builders Since 1906

589 Niles Ave. South Bend, Indiana, U. S. A.



Model A "Workshop" Lathe

With Quick Change Gear Box
Friction Clutch { Power Cross Feed
Power Longitudinal Feed



Model A 9-inch "Workshop" South Bend Precision Bench Lathe

With Quick Change Gear Box, Full Automatic Apron and Back-Geared Headstock
Power Longitudinal Feeds .0015" to .0213" Power Cross Feeds .0004" to .0063"

The 9-inch "Workshop" Model A Lathe has a full quick change gear box and a full automatic friction feed apron which are described on page 5. This is a high quality precision lathe built to most exacting machine tool specifications. It is a practical lathe for manufacturing parts for typewriters, adding machines, radios, electric appliances and similar articles requiring extreme accuracy.

The Quick Change Gear Box provides 48 changes for cutting right and left hand screw threads from 4 to 224 per inch. Power longitudinal feeds .0015" to .0213" and power cross feeds .0004" to .0063" are also obtained through the gear box.

This Lathe is also made with a twelve-speed drive, V-belt drive, countershaft drive and pedestal motor drive, as listed on page 6.

Equipment included in price of lathe consists of: a full automatic apron; quick change gear box; carburized, hardened and ground spindle; horizontal motor drive; 1/4 H.P. 1725 R.P.M. A.C., 1-phase, 110-volt, 60-cycle start-stop reversing motor; reversing switch; 6-wire cable for connecting motor and switch; 6-ft. extension cable and plug; V-belt; flat leather belt and lacing; graduated compound rest; face plate; tool post; two 60-degree centers; spindle sleeve;

STUD GEAR	LEFT HAND TUMBLER	SCREW THREADS PER INCH								
		4	4 1/2	5	5 1/2	5 3/4	6	6 1/2	7	
40	A	4	4 1/2	5	5 1/2	5 3/4	6	6 1/2	7	
20	A	8	9	10	11	11 1/2	12	13	14	
"	B	16	18	20	22	23	24	26	28	
"	C	32	36	40	44	46	48	52	56	
"	D	64	72	80	88	92	96	104	112	
"	E	128	144	160	176	184	192	208	224	
		LONGITUDINAL TURNING FEEDS								
20	B	.0213	.0190	.0171	.0155	.0148	.0142	.0131	.0122	
"	C	.0107	.0095	.0085	.0078	.0074	.0071	.0066	.0061	
"	D	.0053	.0047	.0043	.0039	.0037	.0036	.0033	.0030	
"	E	.0027	.0024	.0021	.0019	.0019	.0018	.0016	.0015	

AUTOMATIC CROSS FEEDS
3 TIMES LONGITUDINAL FEEDS

Index Chart Showing Threads and Feeds on 9-inch "Workshop" Model A Lathe.

wrenches; installation plan and book "How to Run a Lathe." Bench is not included in price of lathe.

Prices of 9-inch "Workshop" Model A Horizontal Motor Driven Bench Lathes With Automatic Apron and Quick Change Gear Box

Swing Over Bed Inches	Length of Bed Feet	Distance Between Centers Inches	Approx. Ship. Wt. Crated Pounds	Catalog Number	Code Word for Lathe	Price F.O.B. Factory
9 1/4	3	17	340	444-Y	Nuyaf	\$210.00
*9 1/4	3 1/2	23	365	444-Z	Nuyej	222.00
*9 1/4	4	29	390	444-A	Nuyin	234.00
9 1/4	4 1/2	35	415	444-R	Nuyot	251.00

*NOTE—The 3 1/2' and 4' bed lengths, because of the greater distance between centers, are recommended for general machine work.

Model B "Workshop" Lathe

With Plain Change Gears
Friction Clutch { Power Cross Feed
Power Longitudinal Feed



Model B 9-inch "Workshop" South Bend Precision Bench Lathe

With Change Gears—Automatic Apron—Back-Geared Headstock
Power Longitudinal Feeds .0021" to .0155"
Power Cross Feeds .001" to .0046"

The 9-inch "Workshop" Model B Lathe is equipped with a full automatic friction feed apron which is described on page 5. Change gears are supplied with the lathe for cutting right and left hand screw threads from 4 to 160 per inch, as listed on the index chart at right, and also for power cross feeds .001" to .0046" and power longitudinal feeds .0021" to .0155" per revolution of spindle.

This Lathe is also made with a twelve-speed drive, V-belt drive, countershaft drive and pedestal motor drive, as listed on page 6.

Equipment included in price of lathe consists of: a full automatic apron; carburized, hardened and ground spindle; set of change gears; adjustable horizontal motor drive; 1/4 H.P. 1725 R.P.M. A.C., 1-phase, 110-volt, 60-cycle start-stop reversing motor; reversing switch; 6-wire cable for connecting motor and switch; 6-ft. extension cable and plug; V-belt; flat leather belt and lacing; graduated compound rest; face plate; tool post; two 60-degree centers; spindle sleeve; wrenches; installation plan and book "How to Run a Lathe." Bench is extra.

9-inch "Workshop" Model B Horizontal Motor Driven Bench Lathes With Change Gears and Automatic Apron

Swing Over Bed Inches	Length of Bed Feet	Distance Between Centers Inches	Approx. Ship. Wt. Crated Pounds	Catalog Number	Code Word for Lathe	Price F.O.B. Factory
9 1/4	3	17	330	477-Y	Matem	\$160.00
*9 1/4	3 1/2	23	355	477-Z	Matuc	172.00
*9 1/4	4	29	380	477-A	Mavaj	184.00
9 1/4	4 1/2	35	405	477-R	Mavud	201.00

*NOTE—The 3 1/2" and 4" bed lengths, because of the greater distance between centers, are recommended for general machine work.

CHART FOR THREADS AND FEEDS 9-INCH WORKSHOP MODEL B LATHE

THREADS PER INCH	STUD GEAR	IDLER GEARS	SCREW GEAR	CROSS FEEDS	LONG FEEDS
4	24	FIG. 1	43		
4 1/2	24	FIG. 1	54		
5	16	FIG. 1	40		
5 1/2	16	FIG. 1	44		
6	16	FIG. 1	48		
6 1/2	16	FIG. 1	52		
7	16	FIG. 1	56		
7 1/2	16	FIG. 1	60		
8	32	FIG. 2	32		
9	32	FIG. 2	36		
10	32	FIG. 2	40		
11	32	FIG. 2	44		
11 1/2	32	FIG. 2	46		
12	32	FIG. 2	48		
13	32	FIG. 2	52		
14	32	FIG. 2	56		
16	24	FIG. 2	48		
18	24	FIG. 2	54		
20	16	FIG. 2	40		
22	16	FIG. 2	44	.0046	.0155
24	16	FIG. 2	48	.0042	.0142
26	16	FIG. 2	52	.0039	.0131
27	16	FIG. 2	54	.0037	.0126
30	16	FIG. 3	60	.0034	.0114
32	32	FIG. 3	32	.0031	.0107
36	32	FIG. 3	36	.0028	.0096
40	32	FIG. 3	40	.0025	.0086
44	32	FIG. 3	44	.0023	.0078
46	32	FIG. 3	46	.0022	.0074
48	32	FIG. 3	48	.0021	.0071
52	32	FIG. 3	52	.0019	.0066
54	32	FIG. 3	54	.0019	.0063
56	32	FIG. 3	56	.0018	.0061
60	32	FIG. 3	60	.0017	.0057
64	16	FIG. 3	32	.0016	.0053
72	16	FIG. 3	36	.0014	.0047
80	16	FIG. 3	40	.0013	.0043
88	16	FIG. 3	44	.0011	.0039
92	16	FIG. 3	46	.0011	.0037
96	16	FIG. 3	48	.0010	.0036
104	16	FIG. 3	52	.0010	.0033
112	16	FIG. 3	56	.0009	.0030
120	16	FIG. 3	60	.0009	.0029
160	16	FIG. 4	80		.0021

AUTOMATIC POWER FEEDS THROUGH FRICTION CLUTCH IN INCHES PER REVOLUTION OF HEADSTOCK SPINDLE



FIG. 1



FIG. 2



FIG. 3

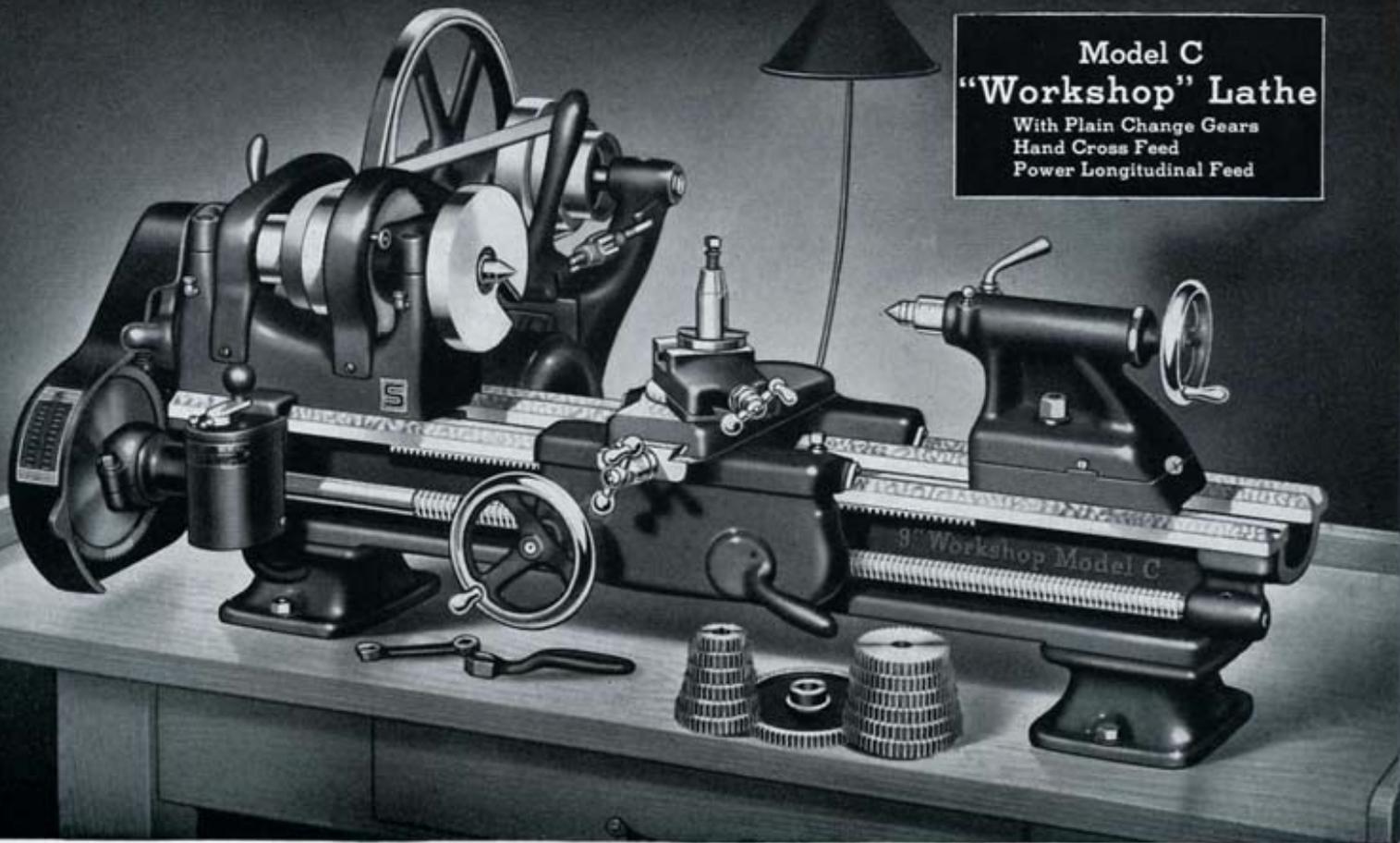


FIG. 4

Index Chart Showing Threads and Feeds on 9-inch "Workshop" Model B Lathe.

Model C "Workshop" Lathe

With Plain Change Gears
Hand Cross Feed
Power Longitudinal Feed



Model C 9-inch "Workshop" South Bend Precision Bench Lathe

With Change Gears, Plain Apron and Back-Geared Headstock,
Power Longitudinal Feeds .0021" to .0156"

The 9-inch "Workshop" Model C Bench Lathe is the same 9-inch "Workshop" Lathe that we have been manufacturing for a number of years and is identical with all of the "Workshop" Lathes shown in our large Catalog. This lathe has hand-operated cross feed, and the power longitudinal feeds are obtained by engaging the half-nuts with the lead screw. Change gears are supplied with the lathe for cutting right and left hand screw threads from 4 to 160 per inch and for power longitudinal feeds .0021" to .0156" per revolution of spindle.

This Lathe is also made with a twelve-speed drive, V-belt drive, countershaft drive and pedestal motor drive, as listed on page 6.

Equipment included in price of lathe consists of: plain apron; heat treated and ground spindle; set of change gears; horizontal motor drive; 1/4 H.P. 1725 R.P.M. A.C., 1-phase, 110-volt, 60-cycle start-stop reversing motor; reversing switch; 6-wire cable for connecting motor and switch; 6-ft. extension cable and plug; V-belt; flat leather belt and lacing; graduated compound rest; face plate; tool post; two 60-degree centers; spindle sleeve; wrenches; installation plan and book "How to Run a Lathe." Bench is not included.

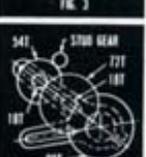
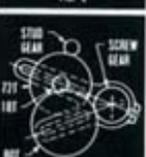
9-inch "Workshop" Model C Horizontal Motor Driven Bench Lathes
With Plain Change Gears, Hand Cross Feed and Half-Nut Longitudinal Feed

Swing Over Bed Inches	Length of Bed Feet	Distance Between Centers Inches	Approx. Ship. Wt. Crated Pounds	Catalog Number	Code Word for Lathe	Price F.O.B. Factory
9 1/4	3	17	320	415-YC	Kefav	\$127.00
*9 1/4	3 1/2	23	345	415-ZC	Kefez	139.00
*9 1/4	4	29	370	415-AC	Kefid	151.00
9 1/4	4 1/2	35	395	415-RC	Kefoj	168.00

*NOTE—The 3 1/2' and 4' bed lengths, because of the greater distance between centers, are recommended for general machine work.

CHART FOR THREADS AND FEEDS 9-INCH WORKSHOP MODEL C LATHE

THREADS PER INCH	STUD GEAR	idler GEARS	SCREW GEAR	FEEDS PER REV.
4	24	FIG. 1	48	
4 1/2	24	FIG. 1	54	
5	16	FIG. 1	40	
5 1/2	16	FIG. 1	44	
6	16	FIG. 1	48	
6 1/2	16	FIG. 1	52	
7	16	FIG. 1	56	
7 1/2	16	FIG. 1	60	
8	32	FIG. 2	32	
9	32	FIG. 2	36	
10	32	FIG. 2	40	
11	32	FIG. 2	44	
11 1/2	32	FIG. 2	48	
12	32	FIG. 2	48	
13	32	FIG. 2	52	
14	32	FIG. 2	56	
16	24	FIG. 2	48	
18	24	FIG. 2	54	
20	16	FIG. 2	40	
22	16	FIG. 2	44	
24	16	FIG. 2	48	
26	16	FIG. 2	52	
27	16	FIG. 2	54	
28	16	FIG. 2	56	
30	16	FIG. 2	60	
32	32	FIG. 3	32	
36	32	FIG. 3	36	
40	32	FIG. 3	40	
44	32	FIG. 3	44	
46	32	FIG. 3	46	
48	32	FIG. 3	48	
52	32	FIG. 3	52	
54	32	FIG. 3	54	
56	32	FIG. 3	56	
60	32	FIG. 3	60	
64	16	FIG. 3	32	.0156
72	16	FIG. 3	36	.0138
80	16	FIG. 3	40	.0125
88	16	FIG. 3	44	.0113
92	16	FIG. 3	48	.0106
96	16	FIG. 3	48	.0104
104	16	FIG. 3	52	.0096
112	16	FIG. 3	56	.0089
120	16	FIG. 3	60	.0083
160	48	FIG. 4	80	.0062
40	FIG. 4	80	.0052	
32	FIG. 4	80	.0041	
24	FIG. 4	80	.0031	
16	FIG. 4	80	.0021	



Index Chart Showing Threads and Feeds on 9-inch "Workshop" Model C Lathe.

Full Quick Change Gear Box for Model A "Workshop" Lathes



Above—Quick Change Gear Box

Right—Index Chart Showing Threads and Feeds on Quick Change Gear Lathe

MANUFACTURED BY **SOUTH BEND LATHE WORKS** SOUTH BEND, IND., U.S.A.

9-INCH SOUTH BEND WORKSHOP LATHE Model A

CATALOG NO. _____
BED LENGTH _____

STUD GEAR	LEFT HAND TUMBLER	SCREW THREADS PER INCH						
		4	4½	5	5½	5¾	6	7
20	A	8	9	10	11	11½	12	14
"	B	16	18	20	22	23	24	28
"	C	32	36	40	44	46	48	56
"	D	64	72	80	88	92	96	112
"	E	128	144	160	176	184	192	224

STUD GEAR	LEFT HAND TUMBLER	LONGITUDINAL TURNING FEEDS						
		A	B	C	D	E	F	G
20	B	.0213	.0190	.0171	.0155	.0148	.0142	.0131
"	C	.0107	.0095	.0085	.0078	.0074	.0071	.0065
"	D	.0053	.0047	.0043	.0039	.0037	.0036	.0030
"	E	.0027	.0024	.0021	.0019	.0019	.0018	.0015

LONGITUDINAL FEEDS
3 TIMES LONGITUDINAL FEEDS

Left Hand Tumbler Positions
←

Full Automatic Apron for Models A and B "Workshop" Lathes

Friction Clutch Drive for
Power Cross Feed and
Power Longitudinal Feed

The full automatic apron shown at the right is supplied with all Model A Quick Change Gear Type and Model B Plain Change Gear Type South Bend 9-inch "Workshop" Lathes described on pages 2 and 3. This apron is equipped with a powerful friction clutch drive for operating both the automatic power cross feeds and the automatic power longitudinal feeds. The friction clutch drive permits engaging or disengaging instantly either the power cross feed or power longitudinal feed.

The feed change knob on the front of the apron has three positions: top for the automatic power longitudinal feeds; center for a neutral position, and bottom for the automatic power cross feeds. It is impossible to engage both feeds at the same time.

The power cross feeds and power longitudinal feeds are both operated by a worm which is driven by a spline in the lead screw. The threads of the lead screw and the half-nuts are used only when cutting screw threads.

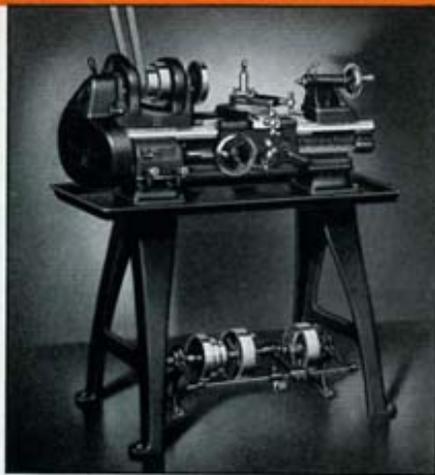
All gears in the apron are made of steel and the gear teeth are cut from the solid on precision gear hobbing machines. The worm wheel and clutch for driving the power feeds operate in a bath of oil.

Additional Features of 9-inch "Workshop" Lathes Are Described in Our Large Catalog



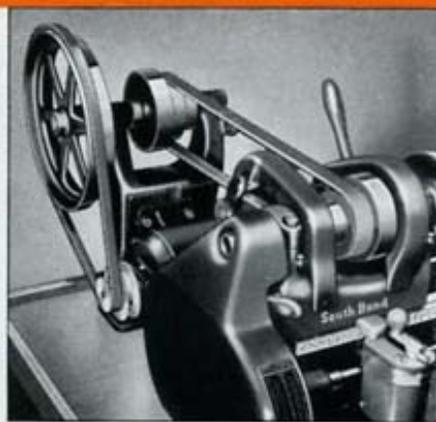
Full Automatic Apron for 9-inch "Workshop" Lathes

An automatic safety interlock prevents engaging half-nuts when the automatic friction clutch feeds are in operation. The half-nuts for thread cutting are operated by the lever on the right side of the apron.



Countershaft Drive

Countershaft drive can be supplied with either the bench leg or the floor leg 9-inch "Workshop" Lathes. The oil pan is optional at extra cost.



Twelve-Speed Drive

The twelve-speed drive, consisting of double pulleys for the motor and countershaft, provides twelve spindle speeds 41 to 1270 R.P.M. Practical for machining small diameter steel and iron parts, aluminum, brass, plastics, pattern making, etc.



Pedestal Motor Drive

The illustration above shows the 9-inch "Workshop" Model A Quick Change Gear Precision Lathe with floor legs and pedestal motor drive.

Prices of 9-inch "Workshop" Precision Lathes

All Models—All Types of Drives—Bench Lathes—Floor Leg Lathes

Model A, Model B and Model C 9-inch "Workshop" Lathes can be supplied with countershaft drive or with any of several types of direct motor drive in either bench leg or floor leg type, as listed in the tabulation below.

Prices of motor driven lathes include motor, reversing switch, belting and all regular lathe equipment. Prices of countershaft driven 9-inch "Workshop" lathes include reversing countershaft and all regular lathe equipment.

TYPE OF DRIVE	Length of Bed Feet	Dist. Between Centers Inches	Approx. Weight Crated Pounds	MODEL A LATHES			MODEL B LATHES			MODEL C LATHES		
				Catalog Number	Code Word	Net Factory Price	Catalog Number	Code Word	Net Factory Price	Catalog Number	Code Word	Net Factory Price
Horizontal Motor Drive Bench Lathes. Same as illustrated and described on pages 2, 3 and 4.	3	17	340	444-Y	Nuyaf	\$210.00	477-Y	Matem	\$160.00	415-YC	Kefav	\$127.00
	*3½	23	365	444-Z	Nuyej	222.00	477-Z	Matuc	172.00	415-ZC	Kefez	139.00
	*4	29	390	444-A	Nuyin	234.00	477-A	Mavaj	184.00	415-AC	Kefid	151.00
	4½	35	415	444-R	Nuyot	251.00	477-R	Mavud	201.00	415-RC	Kefoj	168.00
Twelve-Speed Horizontal Motor Drive Bench Lathes. Same as shown on pages 2, 3 and 4, but with ½ H.P. motor, double pulleys for motor and countershaft.	3	17	355	644-Y	Kewar	\$227.00	677-Y	Kewul	\$177.00	615-YC	Getay	\$144.00
	*3½	23	380	644-Z	Kewev	239.00	677-Z	Kexim	189.00	615-ZC	Getec	156.00
	*4	29	405	644-A	Kewiz	251.00	677-A	Kexos	201.00	615-AC	Getig	168.00
	4½	35	430	644-R	Kewof	268.00	677-R	Kexuy	218.00	615-RC	Getom	185.00
V-Belt Horizontal Motor Drive Bench Lathes. Same as shown on pages 2, 3 and 4, but with V-belt cone pulleys for lathe headstock and countershaft.	3	17	340	544-Y	Paqol	\$224.00	577-Y	Patal	\$174.00	515-YC	Lihat	\$141.00
	*3½	23	365	544-Z	Paqur	236.00	577-Z	Patep	186.00	515-ZC	Lihex	153.00
	*4	29	390	544-A	Parak	248.00	577-A	Patit	198.00	515-AC	Lihib	165.00
	4½	35	415	544-R	Pasus	265.00	577-R	Pator	215.00	515-RC	Lihoh	182.00
Underneath Motor Drive Bench Lathes. Similar to lathes on pages 2, 3 and 4, but with enclosed headstock and drive arranged for mounting underneath bench top.	3	17	380	Model A—Not Supplied with This Drive			177-YB	Paqax	\$209.00	115-YBC	Pecam	\$176.00
	*3½	23	405				177-ZB	Paqeb	221.00	115-ZBC	Pecog	188.00
	*4	29	430				177-AB	Paqif	233.00	115-ABC		200.00
Countershaft Drive Bench Lathes. Same as shown on pages 2, 3 and 4, but with countershaft for lineshaft drive instead of motor drive equipment.	3	17	320	44-YB	Laxud	\$198.00	77-YB	Layol	\$148.00	15-YBC	Leheb	\$115.00
	*3½	23	345	44-ZB	Laxay	210.00	77-ZB	Layur	160.00	15-ZBC	Lehid	127.00
	*4	29	370	44-AB	Layeb	222.00	77-AB	Lazak	172.00	15-ABC	Lehol	139.00
	4½	35	395	44-RB	Layif	239.00	77-RB	Lazis	189.00	15-RBC	Lehur	156.00
Countershaft Drive Floor Leg Lathes. Same as shown on pages 2, 3 and 4, but with countershaft for lineshaft drive instead of motor drive equipment.	3	17	420	44-Y	Hetaz	\$208.00	77-Y	Marov	\$158.00	15-YC	Hepax	\$125.00
	*3½	23	445	44-Z	Heted	220.00	77-Z	Mayec	170.00	15-ZC	Heped	137.00
	*4	29	470	44-A	Heth	232.00	77-A	Moyuj	182.00	15-AC	Hepif	149.00
	4½	35	495	44-R	Heton	249.00	77-R	Mevor	199.00	15-RC	Hepol	166.00
Pedestal Motor Drive Floor Leg Lathes. Similar to lathes shown on pages 2, 3 and 4, but with floor legs and pedestal motor drive instead of bench legs.	3	17	580	944-Y	Hezac	\$250.00	977-Y	Hisem	\$200.00	915-YC	Peges	\$167.00
	*3½	23	605	944-Z	Hezeq	262.00	977-Z	Hisig	212.00	915-ZC	Pegiw	179.00
	*4	29	630	944-A	Hezik	274.00	977-A	Hisow	224.00	915-AC	Pegob	191.00
	4½	35	655	944-R	Hezoq	291.00	977-R	Hisuc	241.00	915-RC	Peguh	208.00

*NOTE—The 3½' and 4' bed lengths, because of the greater distance between centers, are recommended for general machine work.

SOUTH BEND LATHE WORKS

Lathe Builders Since 1906

589 Niles Avenue

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