

The "TRAY TOP" CINTILATHE

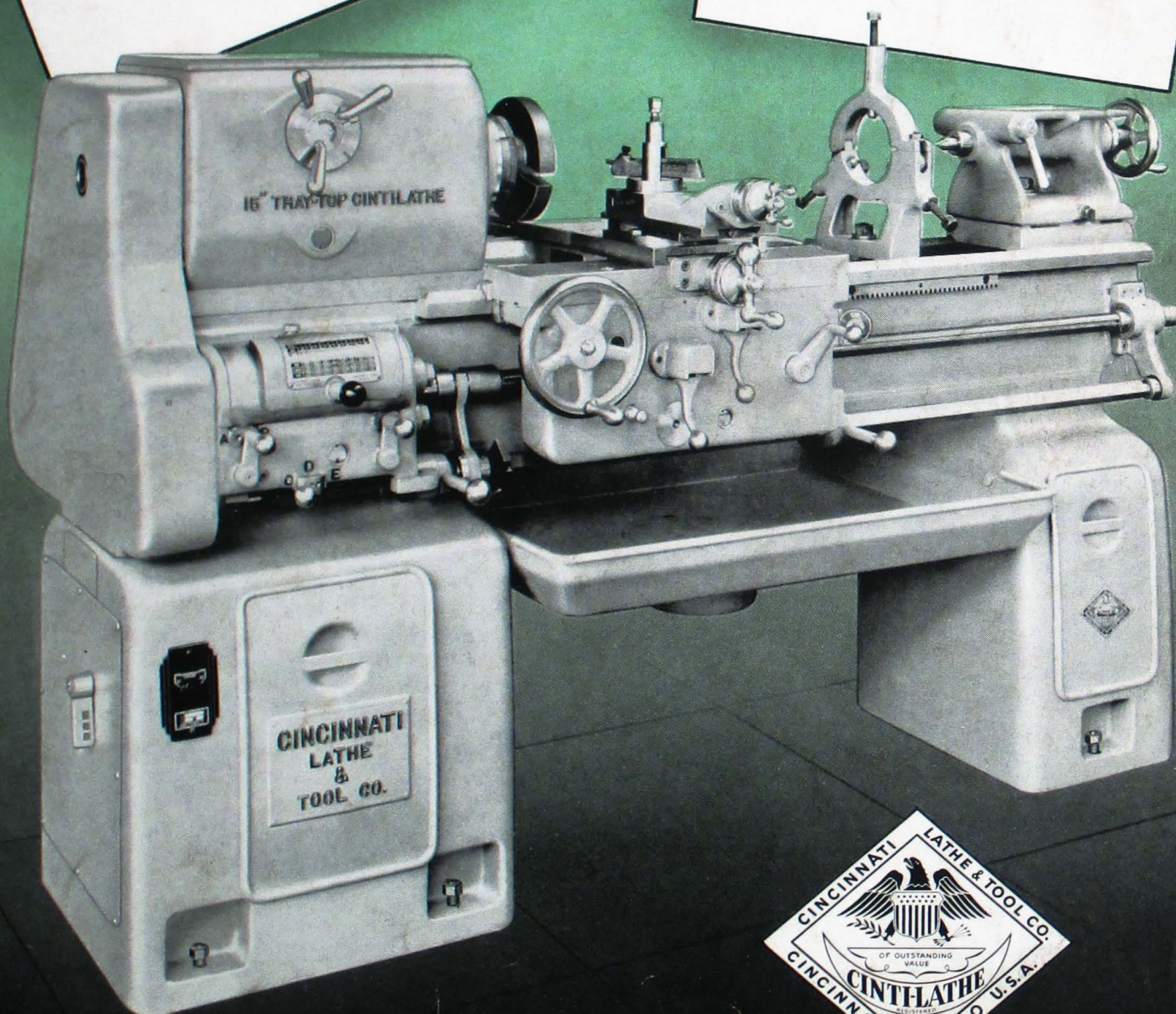
SALES REPRESENTATIVES
ROBERT E. MORRIS COMPANY

967 Farmington Ave.
WEST HARTFORD 7, CONN.
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BEekman 3-0660

238 Main Street
CAMBRIDGE 42, MASS.
ELiot 2184

SIZES:
10" - 12½" - 15" - 18"



A PRODUCT OF

CINNATI LATHE & TOOL CO., Cincinnati 9, Ohio

*- of
outstanding
value!*

The New "TRAY TOP" CINTILATHE incorporates EXCLUSIVE FEATURES:

- ① The "TRAY TOP" on both headstock and tailstock providing convenient, unencumbered parking places for micrometers, gages, wrenches, etc.
- ② A simple and unique method of changing from English to Metric thread chasing or vice versa. A real time saver. (Only two additional gears and the repositioning of three parts are necessary. A direct reading Metric Index Plate is provided.)
- ③ Electric control incorporating jog position.
- ④ A unique method of clamping the tailstock barrel to avoid misalignment, increases accuracy.
- ⑤ Leadscrew Reverse in gear box—eliminates reverse plate—adds to operating convenience.

PLUS—FEATURES usually found only in larger and more expensive lathes

- ⑥ A wide range of 12 spindle speeds in geometric progression with an all-gear transmission, featuring flame-hardened gears.
- ⑦ A simple three-lever speed shifting mechanism with an unusual direct reading dial—multi-colored for easy reading.
- ⑧ Unusually large spindles—rigidly mounted in precision anti-friction bearings—two on the 10" and 12½" size—three on the 15" and 18" size machines. For maximum utilization of the horsepower input.
- ⑨ A fully enclosed electrical panel—providing a safe and accessible location for the controls and a built-in disconnect switch.

- ⑩ A totally enclosed Quick Change Gear Box with automatic lubrication, incorporating reverse for leadscrew.
- ⑪ A double walled apron with semi-automatic lubrication.
- ⑫ Independent drop levers for cross and longitudinal feeds for 15" and 18" sizes. (10" and 12½" machines have a simple selector and one drop lever.)

AND . . .

OTHER WORTHWHILE FEATURES:

- ⑬ A wide range of 48 thread and feed changes—meeting every real need.
- ⑭ One shot lubrication of Carriage and Cross Slide.
- ⑮ Splash lubrication of headstock gearing.
- ⑯ Self-lubricating impregnated plain bearings in gear box, apron, and outer leadscrew bearing.
- ⑰ Accessible mounting of motor facilitates maintenance.
- ⑱ Optional drive—reversing motor control for economy—or multi disc clutch and brake—for higher production on short run jobs.
- ⑲ Cabinet legs providing ample storage space.

*A Profit Maker
in your shop!*

STANDARD EQUIPMENT

... supplied with the Machine

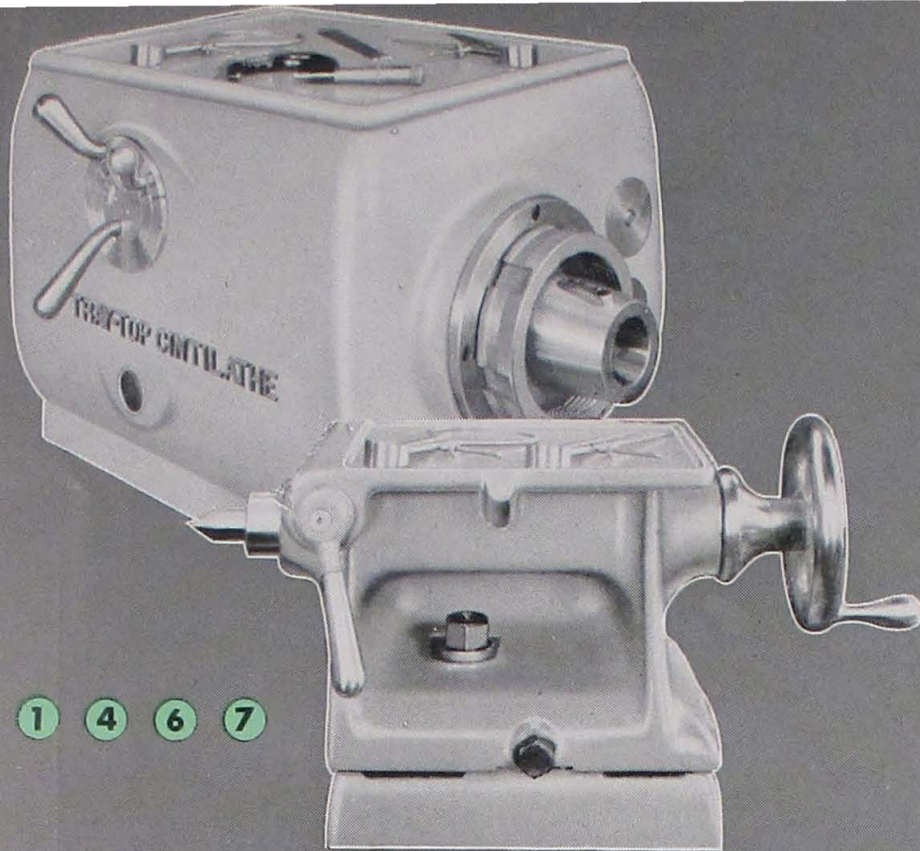
- Compound Rest with Round Tool Post.
- Chasing Dial (US Threads only).
- Dry Chip Pan.
- Headstock Center Bush.
- Two Centers.
- Necessary Wrenches.
- Cabinet Legs.

- Large Face Plate.
- Small Face Plate.
- Steady Rest (Standard).
- Complete Standard Electrical Equipment including 1 H.P. motor for 10", 1½ H.P. motor for 12½", 2 H.P. motor for 15", 3 H.P. motor for 18".



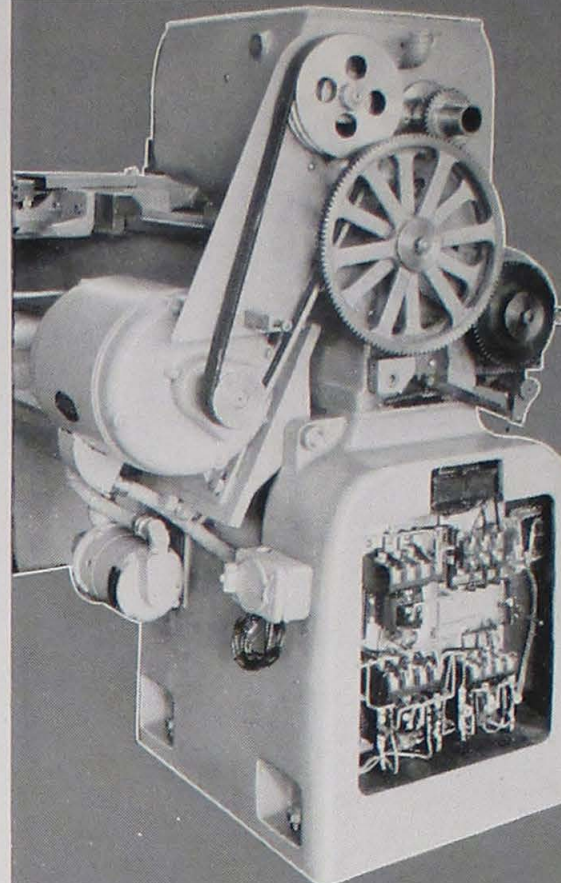
EQUIPMENT... supplied at Extra Cost

- Coolant Pump—Individual motor driven.
- Oil and Chip Pan.
- Taper Attachment—Telescopic type.
- High Spindle Speed Range.
- Metric Range.
- Chucks—Universal 3-jaw.
- Chucks—Independent 4-jaw.
- Collet Chucks and Collets.
- Adapter Plates.
- Steady Rest (oversize).
- Follow Rest.
- Micrometer Carriage Stop.
- Automatic Length Stop.
- Depth Threading Stop.
- Centers—Round solid.
- Centers—Ball bearing.
- Four-Way Turret Tool Post.
- Tool Holders.



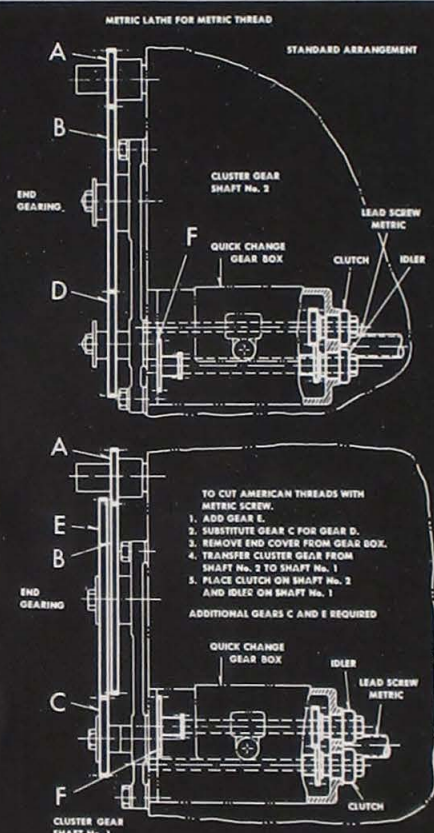
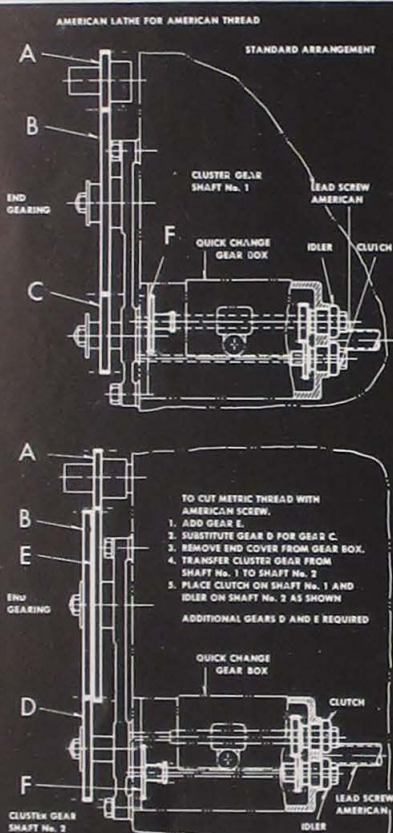
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HEADSTOCK AND TAILSTOCK



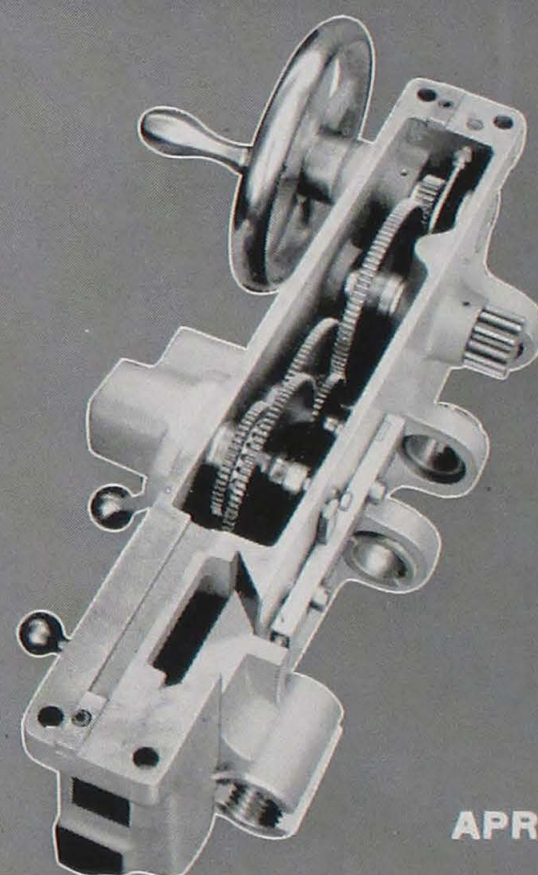
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MOTOR DRIVE
END GEARING
ELECTRICAL PANEL
COOLANT PUMP



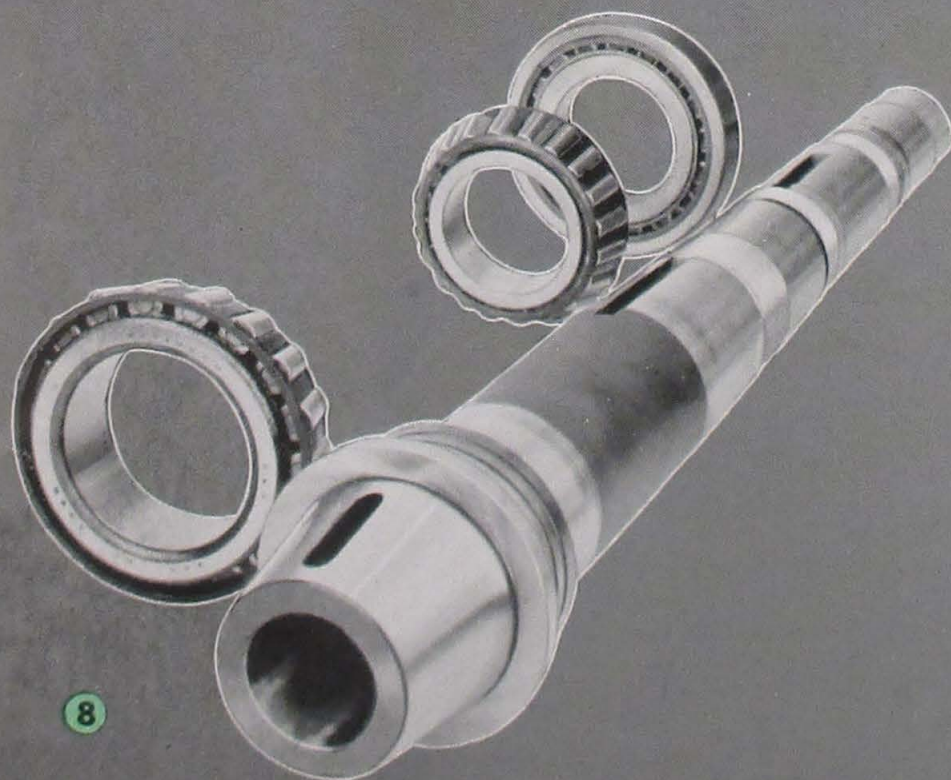
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ENGLISH AND METRIC
THREAD CUTTING ARRANGEMENTS



11 12

APRON



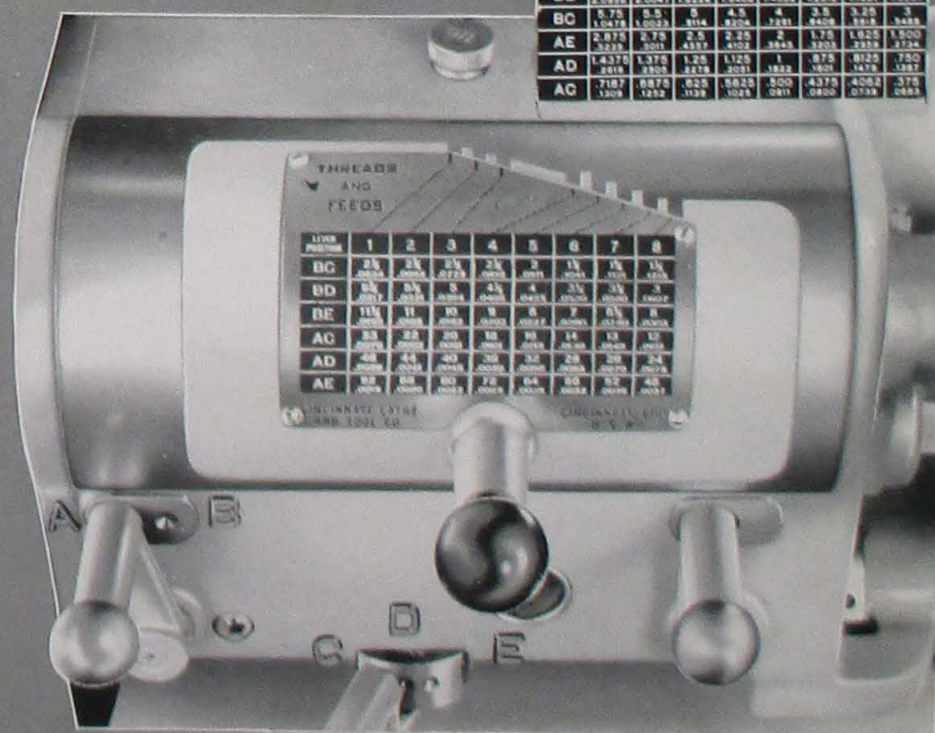
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SPINDLE 15" AND 18" SIZES

MILLIMETER PITCHES AND FEEDS

5 10 13

LEVER POSITION	1	2	3	4	5	6	7	8
BE	2.0 1.183	2.2 1.207	2.5 1.327	3.0 1.651	3.5 1.936	4.0 2.150	4.5 2.364	5.0 2.578
BD	11.5 6.350	11.0 6.096	10.0 5.642	9.0 5.080	8.0 4.518	7.0 3.956	6.0 3.394	5.0 2.832
BC	5.75 3.175	5.5 3.048	5.0 2.780	4.5 2.512	4.0 2.244	3.5 1.976	3.0 1.708	2.5 1.440
AE	2.875 1.562	2.75 1.500	2.5 1.375	2.25 1.250	2.0 1.125	1.75 1.000	1.5 0.875	1.25 0.750
AD	14.375 7.812	13.75 7.500	12.5 6.750	11.25 6.125	10.0 5.500	8.75 4.875	7.5 4.250	6.25 3.625
AC	7.187 3.906	6.875 3.750	6.25 3.437	5.625 3.125	5.0 2.812	4.375 2.500	3.75 2.187	3.125 1.875



CHANGE GEAR BOX 15" AND 18" SIZES

GENERAL SPECIFICATIONS



CAPACITY

Swing over bed.....	
Swing over compound rest.....	
Distance Between Centers (minimum—maximum).....	
Center distance increase increments.....	
Motor standard.....	
Motor, high spindle speed range.....	

10"	12½"	15"	18"
10¼"	12¾"	15¼"	18¼"
6"	8¼"	9⅞"	11⅞"
18" to 60"	18" to 60"	18" to 60"	18" to 60"
6"	6"	6"	6"
1 HP	1½ HP	2 HP	3 HP
1½ HP	2 HP	3 HP	3 HP

HEADSTOCK

Area of tray top.....	
Spindle speeds (number).....	
Spindle speed range (standard) (40 to 1 ratio).....	RPM
Spindle speed range—High.....	RPM
Spindle reverse.....	
Spindle nose.....	
Spindle size of hole (diameter).....	
Spindle—number of bearings.....	
Spindle—size of center.....	
Headstock base length on bed.....	

142 sq in	142 sq in	177 sq in	177 sq in
12	12	12	12
30—1200	30—1200	20—820	20—820
45—1800	45—1800	30—1200	30—1200
Electrical	Electrical	Electrical	Electrical
L00	L00	L0	L0
1¼"	1¼"	1½"	1½"
2	2	3	3
No. 2 Morse	No. 2 Morse	No. 3 Morse	No. 3 Morse
16⅞"	16⅞"	19⅜"	19⅜"

THREAD AND FEED RANGE

Number of thread and feed changes.....	
Range of threads (per inch).....	
Range of threads (Metric).....	
Leadscrew (Acme) (diameter and threads).....	
Range of feeds—carriage.....	
Range of feeds—cross slide.....	

48	48	48	48
3 to 184	3 to 184	1½ to 92	1½ to 92
.1875 to 11.5	.1875 to 11.5	.375 to 23	.375 to 23
1"—8	1⅞"—8	1¼"—6	1⅜"—6
.0019 to .1215	.0019 to .1215	.0019 to .1215	.0019 to .1215
.0005 to .0308	.0005 to .0308	.0009 to .0578	.0009 to .0578

CARRIAGE AND COMPOUND REST

Cross slide travel.....	
Top slide travel.....	
Cutting tool sizes.....	
Carriage bearing on ways.....	
Width of bridge.....	

8"	8"	10½"	10½"
2½"	2½"	3⅜"	3⅜"
½" x ¾"	½" x ¾"	½" x 1⅞"	½" x 1⅞"
18¼"	18¼"	22⅜"	22⅜"
4¾"	4¾"	6"	6"

TAILSTOCK

Area of tray top.....	
Spindel travel.....	
Spindle diameter.....	
Spindle—size of center.....	
Tailstock body—length on bed.....	
Tailstock set-over (either side of center).....	

34 sq in	50 sq in	71 sq in	71 sq in
3⅞"	5"	6¼"	6¼"
1¼"	1½"	1¾"	1¾"
No. 2 Morse	No. 2 Morse	No. 3 Morse	No. 3 Morse
7"	8¾"	10½"	10½"
½"	½"	1"	1"

TAPER ATTACHMENT

Maximum taper per foot.....	
Turns at one setting.....	

3½"	3½"	4"	4"
12"	12"	16"	16"

MISCELLANEOUS

Face plate—large and small (diameter).....	
Steady rest—minimum and maximum (diameter).....	
Follow rest—minimum and maximum (diameter).....	

9½"—5⅞"	9½"—5⅞"	14"—7⅝"	14"—7⅝"
¼" to 3½"	¼" to 3½"	½" to 5"	½" to 5"
¼" to 2"	¼" to 2"	½" to 2½"	½" to 2½"

DRIVE—MOTOR

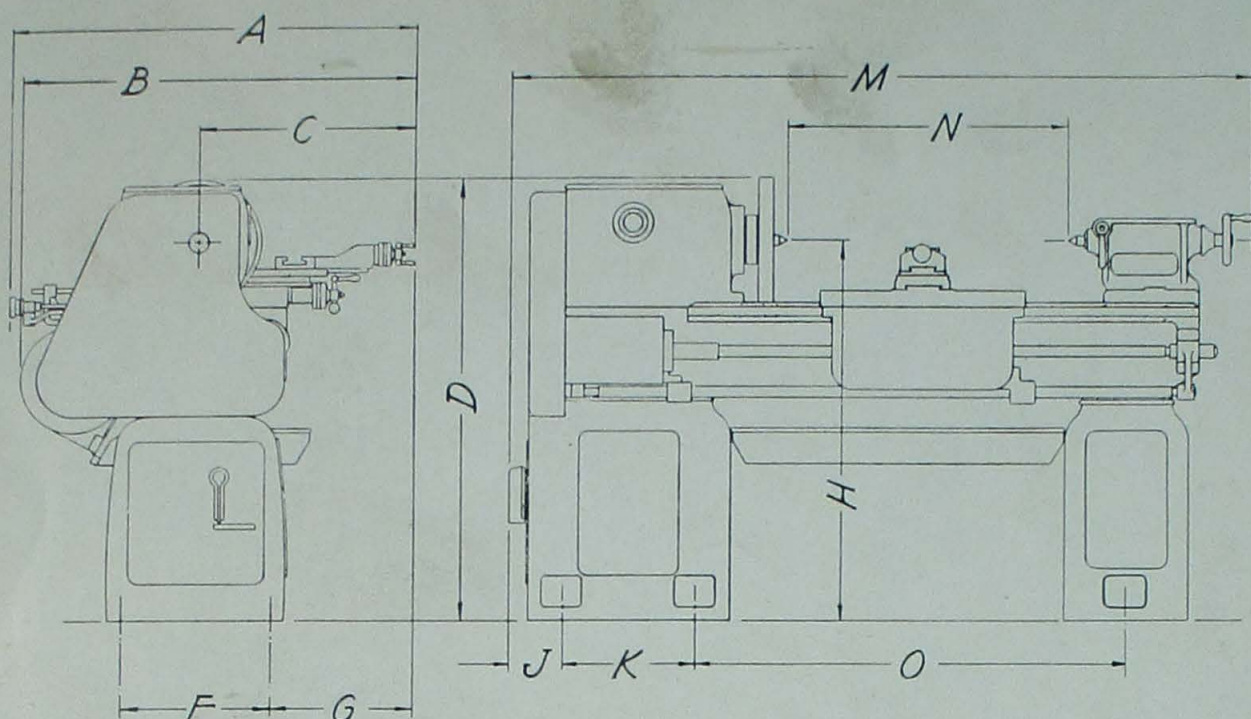
Motor (Standard).....	
Motor—High spindle speed range (extra cost).....	
Number of Vee belts.....	
Pulley size.....	
Pulley speed.....	RPM

1 HP	1½ HP	2 HP	3 HP
1½ HP	2 HP	3 HP	3 HP
2	2	2	2
6⅞"	6⅞"	7⅞"	7⅞"
770	770	750	750

SHIPPING DATA

Based on 18" between centers.....	
Net weight.....	Approx.
Add for each 6" extra of bed.....	Approx.
Weight—Domestic shipment.....	Approx.
Add for each 6" extra of bed.....	Approx.
Weight—Boxed for export.....	Approx.
Add for each 6" extra of bed.....	Approx.
Space occupied (crated).....	Width, height, length
Add 6" to length for each 6" extra of bed.....	
Cubic contents.....	Approx.
Add for each 6" extra of bed.....	Approx.

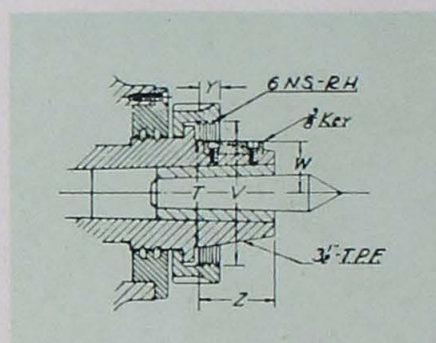
10" x 18"	12½" x 18"	15" x 18"	18" x 18"
1164 lbs	1550 lbs	1930 lbs	2300 lbs
18 lbs	25 lbs	35 lbs	50 lbs
1375 lbs	1770 lbs	2225 lbs	2610 lbs
37 lbs	44 lbs	60 lbs	76 lbs
1585 lbs	1985 lbs	2520 lbs	2920 lbs
55 lbs	64 lbs	85 lbs	103 lbs
33"x56"x65"	34"x56"x65"	43"x56"x70"	44"x58"x70"
70 cu ft	72 cu ft	98 cu ft	103 cu ft
6.3 cu ft	6.5 cu ft	8.3 cu ft	9 cu ft



10" and 12½" LATHES				15" and 18" LATHES			
Bed Length	Dimensions			Bed Length	Dimensions		
	M	N	O		M	N	O
4'	62¼	18	33½	5'	68	18	34⅞
4½'	68¼	24	39½	5½'	74	24	40⅞
5'	74¼	30	45½	6'	80	30	46⅞
5½'	80¼	36	51½	6½'	86	36	52⅞
6'	86¼	42	57½	7'	92	42	58⅞
6½'	92¼	48	63½	7½'	98	48	64⅞
7'	98¼	54	69½	8'	104	54	70⅞
7½'	104¼	60	75½	8½'	110	60	76⅞

LATHE SIZE	DIMENSIONS—In Inches								
	A	B	C	D	F	G	H	J	K
10"	33 $\frac{11}{16}$	35 $\frac{3}{16}$	17 $\frac{13}{16}$	48 $\frac{5}{8}$	15	10 $\frac{5}{16}$	41 $\frac{7}{8}$	4 $\frac{3}{4}$	11 $\frac{1}{2}$
12 $\frac{1}{2}$ "	34 $\frac{9}{16}$	35 $\frac{5}{8}$	18 $\frac{1}{4}$	48 $\frac{3}{4}$	15	10 $\frac{3}{4}$	44	4 $\frac{3}{4}$	11 $\frac{1}{2}$
15"	45	44 $\frac{1}{16}$	23 $\frac{13}{16}$	48 $\frac{7}{8}$	16 $\frac{1}{2}$	15 $\frac{9}{16}$	41 $\frac{7}{8}$	4 $\frac{3}{4}$	14 $\frac{1}{2}$
18"	46 $\frac{1}{8}$	44 $\frac{11}{16}$	24 $\frac{3}{8}$	51	16 $\frac{1}{2}$	16 $\frac{1}{8}$	44	4 $\frac{3}{4}$	14 $\frac{1}{2}$

SPINDLE NOSE DIMENSIONS



Dimension	10 and 12½	15 and 18
T	2¾	3¼
V	3¾	4½
W	1.367	1.617
Y	5/8	9/16
Z	1⅞	2¼

ELECTRICAL EQUIPMENT SPECIFICATIONS The motors and controls listed below are suitable for the machines illustrated and described in this catalog.

Current	Cycles	Phase	Voltage	Speed RPM	10	12½	15	18
					*1 HP	*1½ HP	*2 HP	*3 HP
AC	60	2 or 3	220/440/550	1800	NEMA Frame No. 203	NEMA Frame No. 204	NEMA Frame No. 224	NEMA Frame No. 225
AC	50	2 or 3	220/440/550	1500	No. 203	No. 204	No. 224	No. 225
AC	50	2 or 3	380/500/etc.	1500	No. 203	No. 204	No. 224	No. 225
AC	25	2 or 3	220/440/550	1500	No. 224	No. 225	No. 225	No. 254
AC	60	Single	110/220	1800	No. 203	No. 204	No. 224	No. 225
DC			115/230	1750	No. 203 DC	No. 225 DC	No. 224 DC	No. 225 DC

*Motors supplied as standard for standard spindle speed range—10"—1 HP, 12½"—1½ HP, 15"—2 HP, 18"—3 HP.

Motors supplied at extra cost for high spindle speed range—10"—1½ HP, 12½"—2 HP, 15"—3 HP, 18"—3 HP.

AC Motors—Standard make, NEMA frame, normal torque, normal starting current, open frame, ball bearing, constant speed.

Controls for (Drum Switch Type) Motor Drive—Standard make automatic reversing starter, disconnect switch and special start, stop and reverse drum switch.

DC Motor—Standard make, shunt wound constant speed, 40° C. continuous, open frame, ball bearing.

Controls for (Multiple Disc Clutch and Brake) Clutch Driven—Standard make automatic reversing starter, disconnect switch and start, stop and reverse push button.

Push Button Station and Special Drum Switch—For all AC circuits over 220 volts includes control transformer and 110 volt coil. Provides low voltage at push button station—a safety feature.

Electrical Equipment Specifications

Consult factory for 2-phase, 4-wire electrical equipment.

Ordering Instructions—Please furnish complete information including horsepower, voltage, cycles, phase and speed.

CINCINNATI LATHE & TOOL CO.

3207 Disney Avenue
OAKLEY, CINCINNATI, OHIO