



WING and JABAAY  
511 W. Fulton  
Grand Rapids, Mich.  
Phone GL 1-0401

13"

15"

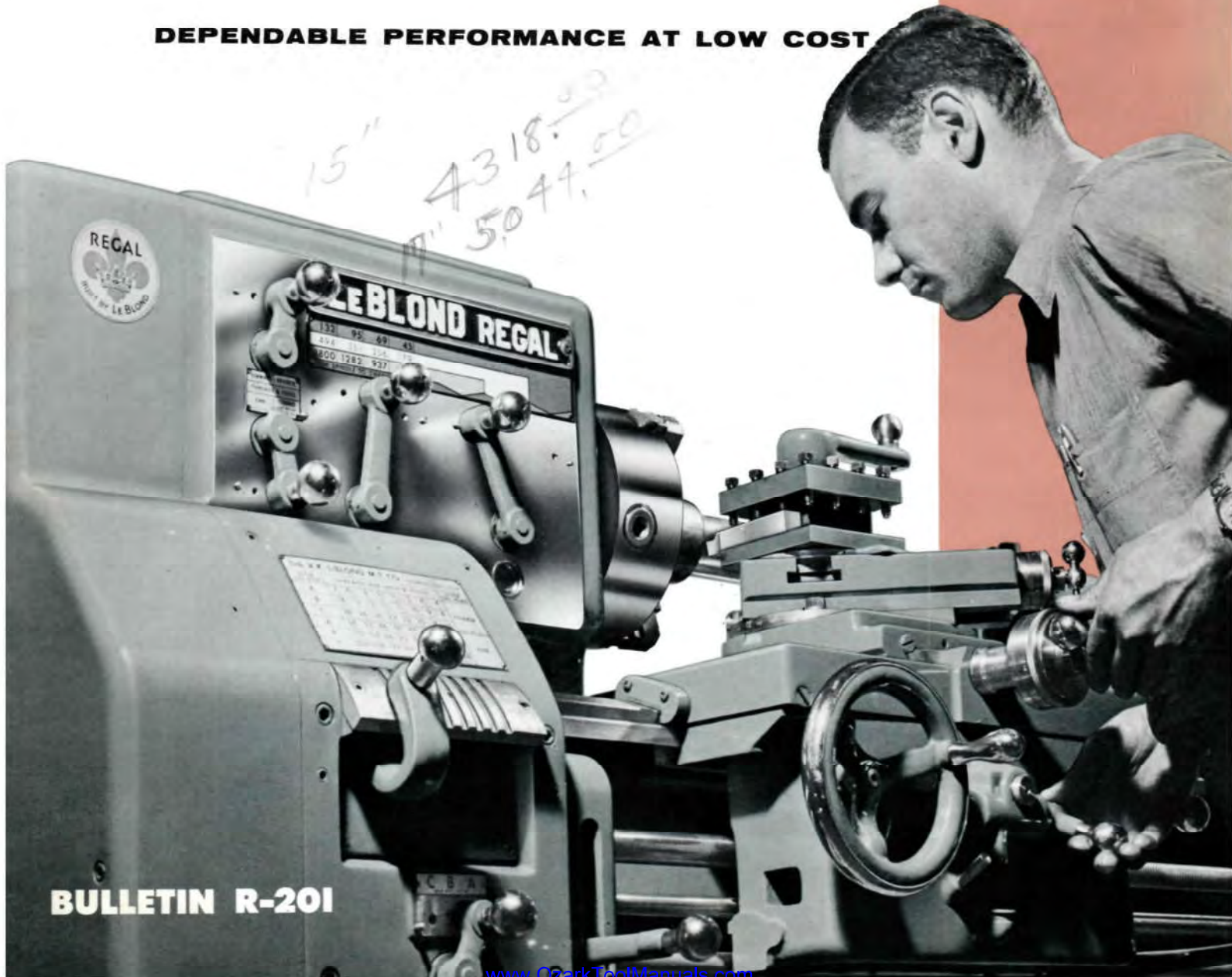
17"

19"

# REGAL

AND BENCH REGAL

DEPENDABLE PERFORMANCE AT LOW COST



BULLETIN R-201



# REGAL GIVES YOU

**NEW 12 SPEED HEADSTOCK:**  
*eight gear and four belt speeds.*

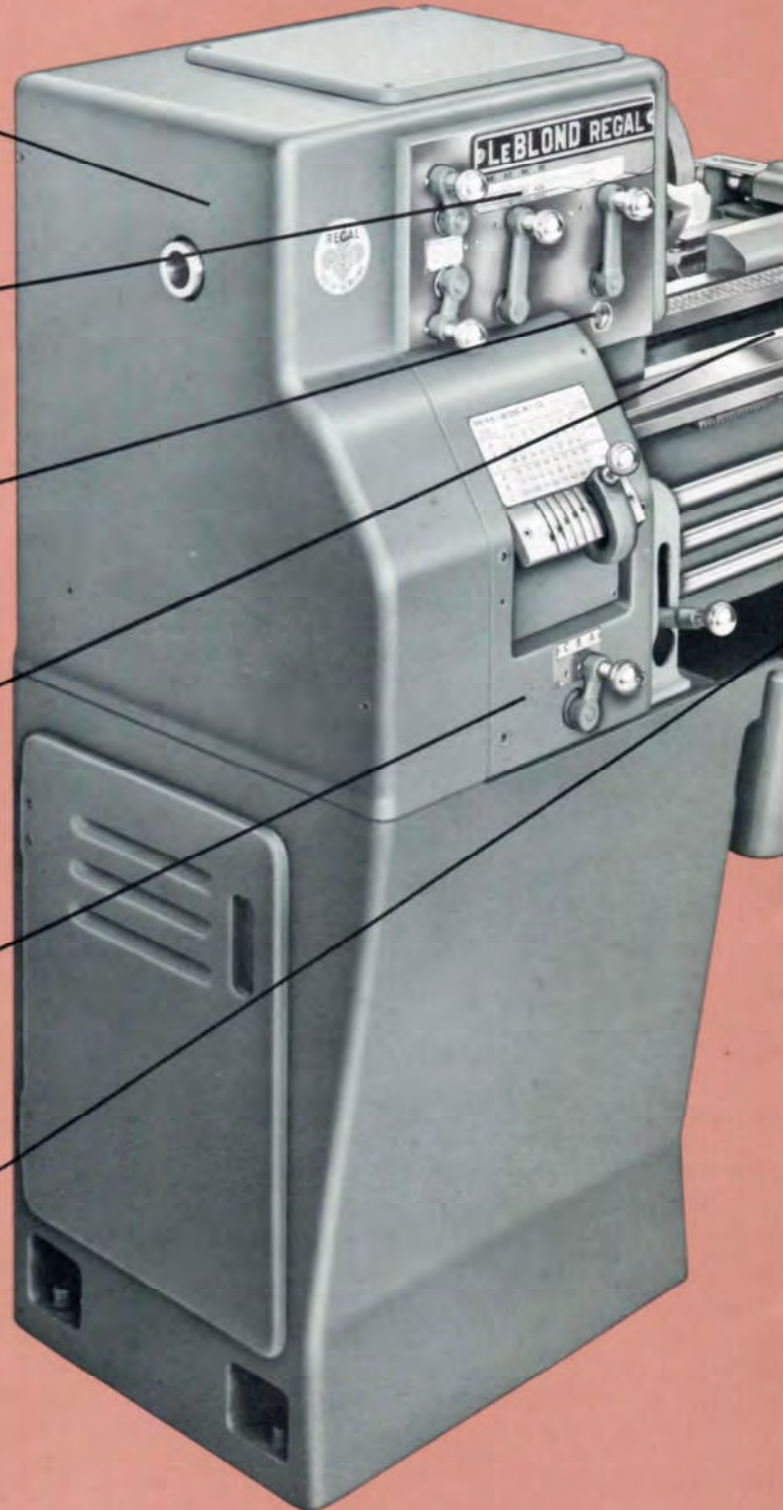
**NEW COLOR PLATE**  
*for easy speed selection.*

**NEW OIL LEVEL SIGHT GAGE.**  
*Built into headstock.*

**NEW HARDENED AND GROUND  
REPLACEABLE STEEL WAYS.**  
*For long-lasting precision.*

**NEW AUTOMATICALLY LUBRICATED  
QUICK-CHANGE BOX**  
*provides 48 feeds and threads.*

**NEW CARRIAGE AND APRON.**  
*Extra-wide bridge span with  
ample bearing surface.*



# BIG LATHE FEATURES . . . FOR DEPENDABLE

## PRODUCTION, MAINTENANCE, TRAINING



**NEW TAILSTOCK** for extra rigidity.

**NEW CHIP PAN**  
suspended between head and tailstock legs on specially engineered grooves. Easy to install and clean.

Designed and built like heavy-duty lathes, the new LeBlond Regals will give you a long life of precision production, minimum maintenance and the kind of dependability you'd expect from a much higher-priced machine!

Consider, for example, the new Regal headstock. It uses the same combination gear-belt drive construction that proved itself on the famous LeBlond Dual-Drive and is now incorporated on our new 16" heavy-duty lathe. Then take a look at the new bed with hardened and ground replaceable steel ways. Like the ways on our heavy-duty machines, they are fitted according to the compensating veeway principle to insure better distribution of forces for proven long-time accuracy and minimum wear.

Again, like higher-priced lathes, Regals are equipped with *both* feed rod and leadscrew for continued accuracy in thread chasing. Other big-lathe features – 3-bearing spindle. Automatically-lubricated quick-change box. Wide carriage bridge with ample bearing surface. Rugged tailstock with plug clamping. Plus general dimensions and construction details patterned after LeBlond heavy-duty lathes.

All of LeBlond's 70 years of experience has gone into the design and building of these new Regals. Only from the builder of a complete line of lathes can you get a low-priced lathe with true big-lathe features.



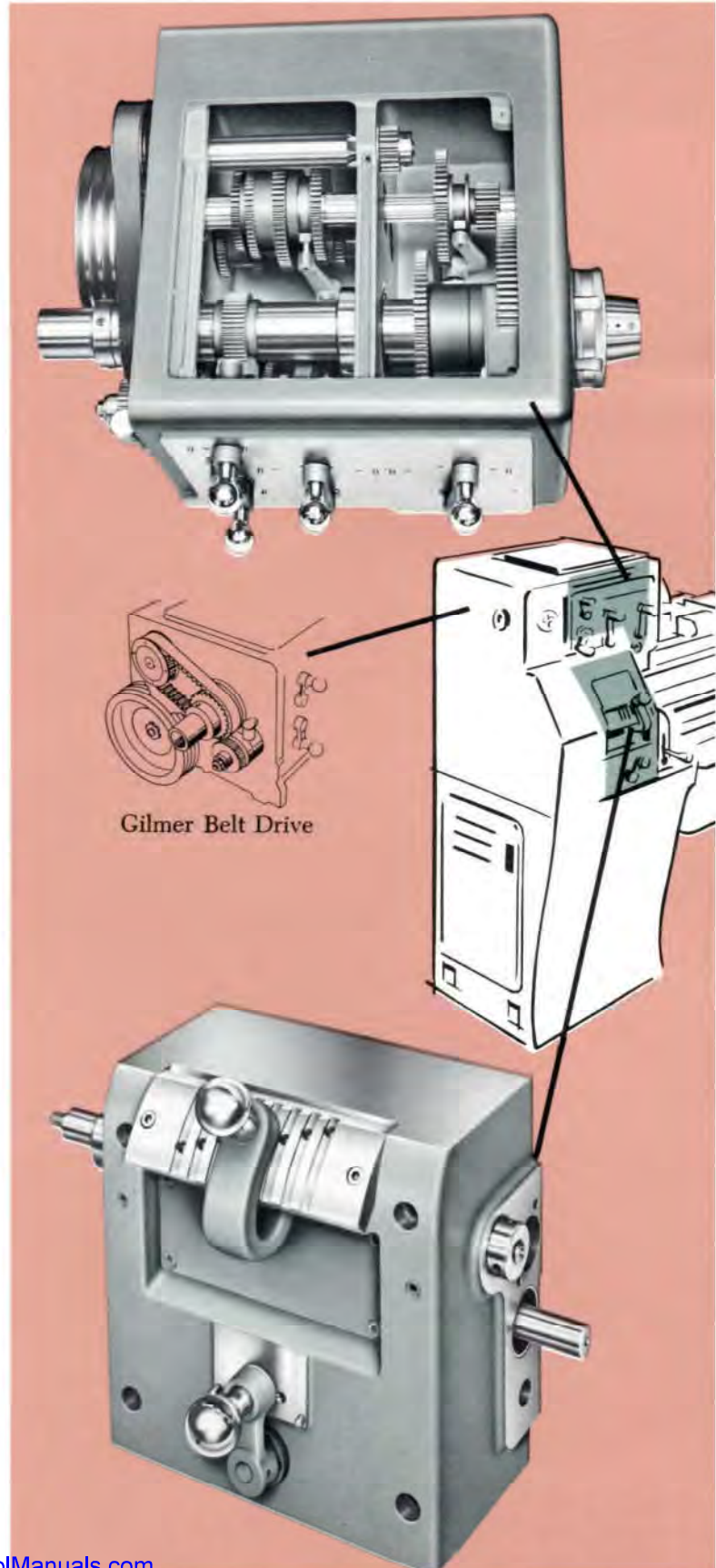
# REGAL BIG-LATHE FEED

## COMBINATION GEAR-BELT DRIVE HEADSTOCK

The new Regal Headstock design provides eight gear-driven spindle speeds and four belt-driven speeds for smooth power throughout the range. Low and high speed ranges are available for each model (see specifications). Speeds are easily selected by two levers and direct-reading color plates. Sturdy spindle is supported by three bearings, two Timken and one ball (rear). Lubrication is automatic.

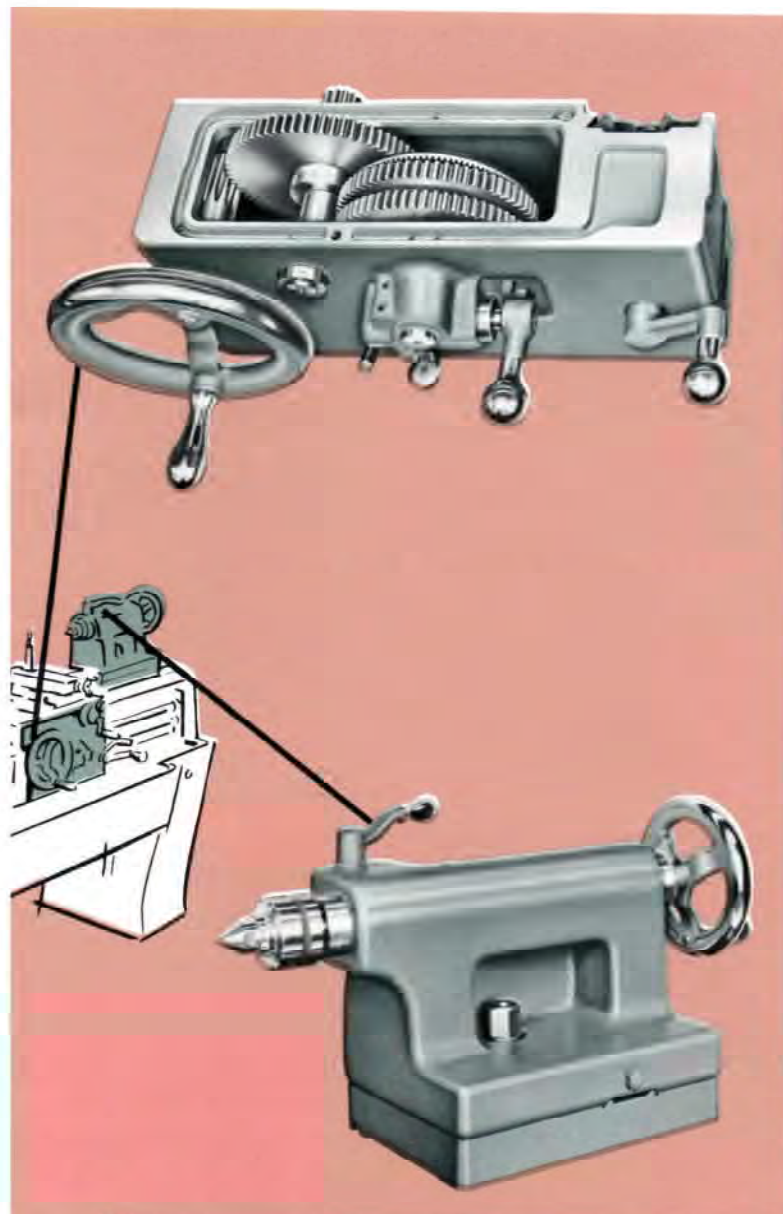
## NEW AUTOMATICALLY-LUBRICATED QUICK-CHANGE BOX

The new Regal semi-enclosed Quick-Change Box offers a selection of 48 feeds and threads. Every provision has been made to insure a foolproof feed mechanism. With the feed reverse and compounding gears entirely within the head, the single gear train on the end of the lathe eliminates overhang of the bearings and gives a powerful, quiet drive. An automatic resetting safety device on feed rod disengages rod and feed mechanism when strain is thrown on these parts. The Quick-Change Box is automatically lubricated from a reservoir.



Gilmer Belt Drive

# FEATURES FOR DEPENDABLE PERFORMANCE



## **ONE-PIECE APRON**

This double-wall casting protects the positive-jaw clutch and gear train from dirt and misalignment. A single control operates the clutch for both cross and length feed. A fool-proof safety interlock prevents unintentional shifting of this feed trip lever. An additional interlock prevents accidental engagement of the half-nut and the feed rod. A plunger pump forces oil to the apron, carriage, and cross slide bearings and to the bed ways.

## **NEW RIGID TAILSTOCK**

The new Regal tailstock features positive spindle clamping. It is so designed that the compound rest can be used parallel to it. A standard Morse taper spindle hole allows the use of drills and reamers with Morse taper shanks. The tailstock spindle is graduated. Cross adjustment provides for alignment and for emergency taper turning.

## **STANDARD EQUIPMENT**

Small face plate; Hardened and ground replaceable steel bed ways; Graduated compound rest; No. 1 tool post; Taper spindle sleeve; Adjustable thread cutting stop; Head end cabinet leg; Feed drive safety clutch; Centers; Necessary wrenches; Machine arranged for multiple vee belt motor drive but not including motor or electrical equipment.

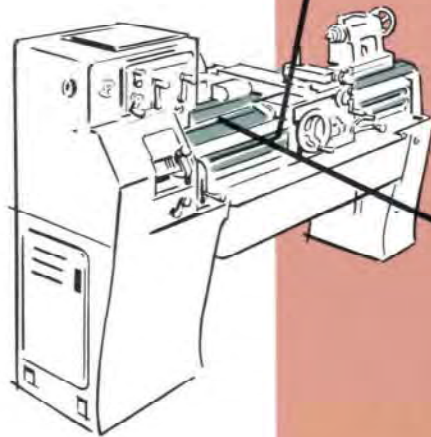
## **EXTRA EQUIPMENT**

Apron Spindle Control; Turret Tool Post; Millerette Converter; Grinding Attachment; Taper Attachment; Milling and Keyway Cutting Attachment; Large Face Plate; Chasing Dial; Connected Rest; Steady Rest; Follow Rest; Drill Pads; Special Centers; Metric Transposing Gears; Chip Pan; Pump and Piping; Tail end Cabinet Leg; Chuck, Tools and Many Others.

# BIG-LATHE FEATURES FOR DEPENDABLE PERFORMANCE

## SEPARATE LEADSCREW AND FEED ROD

Like bigger lathes, Regals give you *both* leadscrew and feed rod. The leadscrew is used *only* to chase threads or leads, thus conserving its accuracy virtually for the life of the lathe. A safety feature of the feed mechanism is the springball clutch . . . it releases the feed rod whenever the load becomes too great and automatically re-engages when strain is removed.



## NEW BED WITH HARDENED WAYS

Hardened and ground replaceable steel bed ways are fitted to the compensating veway principle to insure better distribution of forces for long-time accuracy and minimum wear. Shears are hardened to 62-65 Rockwell C (600 Brinell). The new bed has a heavy cross section, rigidly ribbed.





**IDEAL FOR LIGHT PRODUCTION**

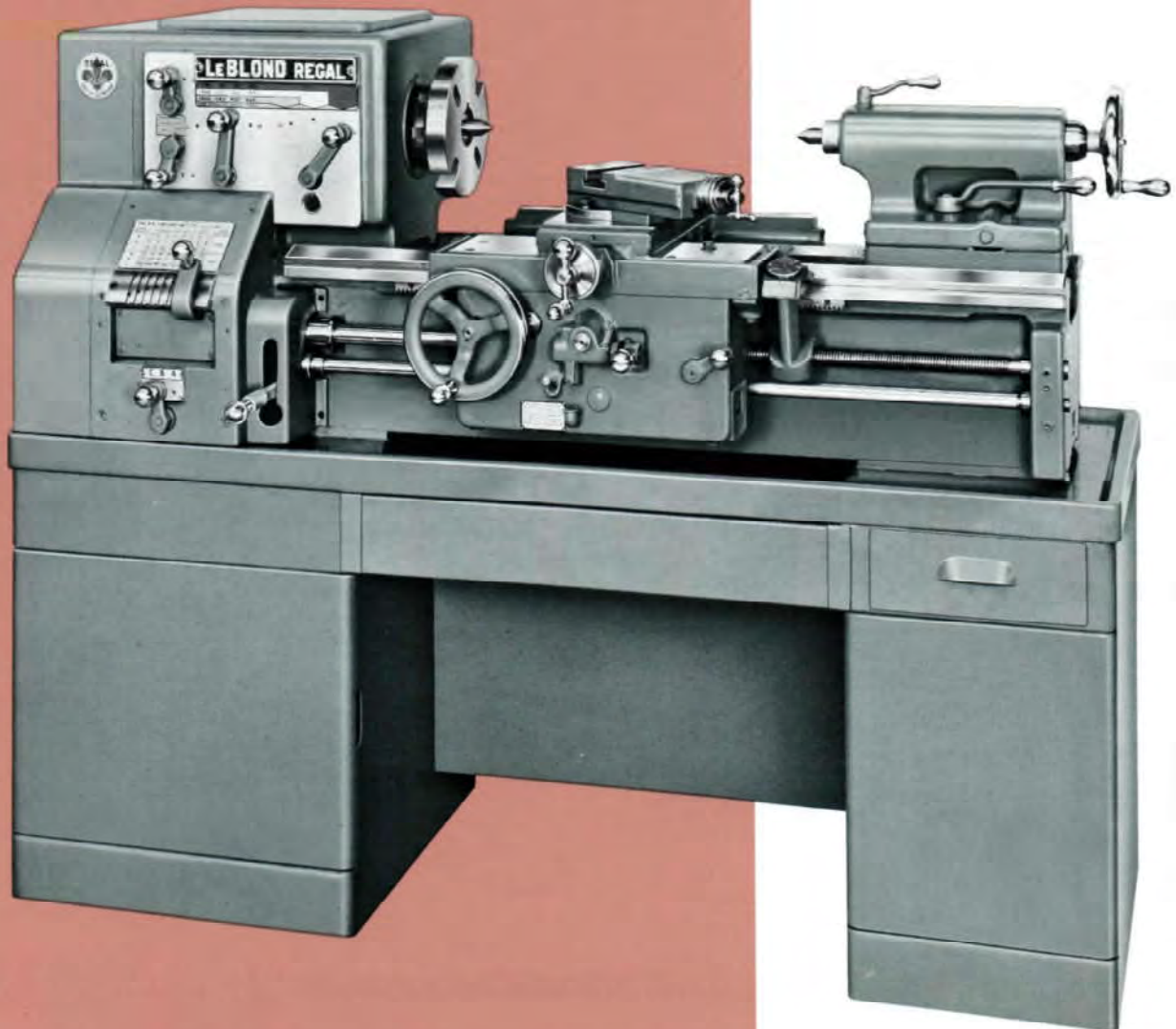
# **NEW 13" AND 15" BENCH REGAL**

Operators like the new LeBlond Regal Bench because it gives them ample well-organized storage space right where they need it! Saves floor space, eliminates need for separate cabinets, shelves or tables. Contains almost 5 cubic feet of storage for measuring instruments, collets, tools, chucks and other accessories. Built-in chip pan drawer. Fabricated of heavy steel, welded construction – to give maximum rigidity for all operating conditions. Clean design gives neat, trim appearance in your shop – makes operators extra proud of their machine.

**TOOL ROOMS**

**SMALL SHOPS**

**TRAINING SHOPS**





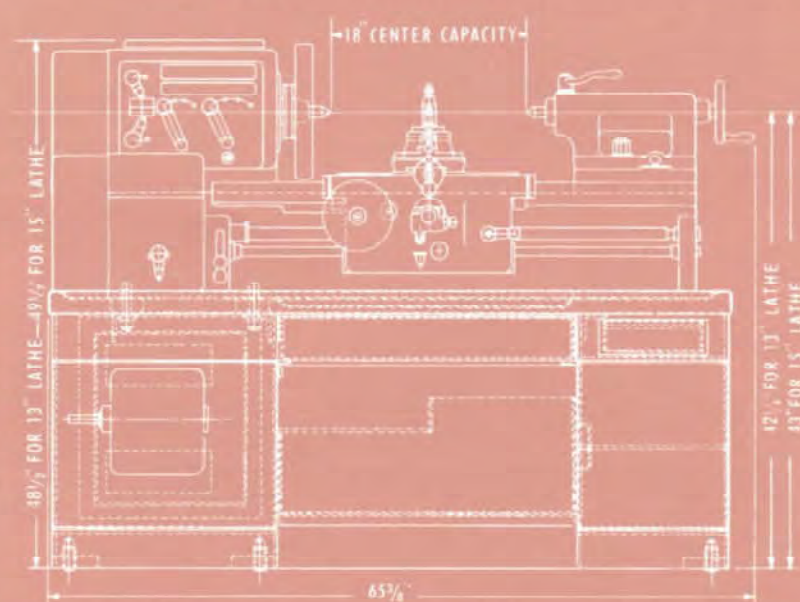
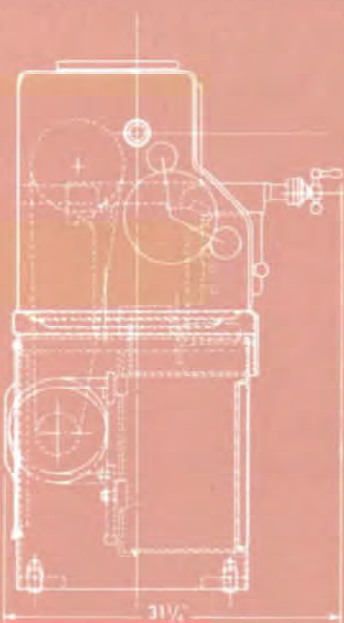
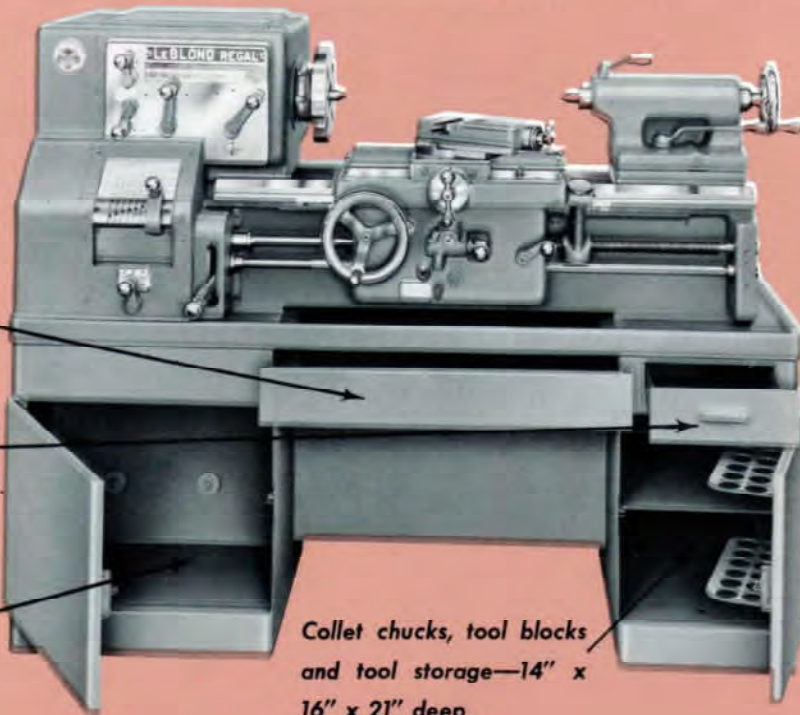
# NEW BENCH REGALS SAVE FLOOR SPACE

Chip pan drawer

Drawer for measuring instruments, small tools—10" x 3 1/4" x 11" deep

Storage area for chucks, face plates, steady rests and other accessories—21" x 16" x 21" deep

Collet chucks, tool blocks and tool storage—14" x 16" x 21" deep



### Machine Specifications

See 13" and 15" Specifications, pages 9 and 10, except weight.  
Domestic Shipping Weight, 13"—2000 lbs. 15"—2100 lbs.





**REGAL**

**13"**



**cut with confidence**

**S P E C I F I C A T I O N S**

**CAPACITY**

Swing over bed and carriage wings.....	14"
Swing over compound rest.....	8"
Distance between centers, base length.....	18"
Center distance increases in increments of.....	12"
Size of tool — forged.....	1/2" x 3/4"
Size of tool holder.....	3/8" x 7/8"
Steady rest capacity.....	1/2" to 4"
Follow rest capacity.....	3/8" to 2 3/4"
Face plate, small, diameter.....	7 1/2"
Face plate, large, diameter.....	12"

**HEADSTOCK**

Spindle speeds, number.....	12
Spindle speed ranges:	
Low range, rpm.....	30 to 1200
Gear drive: 30, 46, 63, 88, 119, 171, 234 and 329	
Belt drive: 436, 625, 855 and 1200	
High range, rpm.....	45 to 1800
Gear drive: 45, 69, 95, 132, 179, 256, 351 and 494	
Belt drive: 654, 937, 1282 and 1800..	
Spindle bearings, number of.....	3
Spindle bearing diameters:	
Front.....	2 1/2"
Center.....	2 3/8"
Rear.....	2 3/2"
Front spindle bearing, Timken precision, outside diameter.....	4 1/4"
Radial load at 100 rpm, pounds.....	5112
Thrust load at 100 rpm, pounds.....	4600
Center spindle, Roller bearing, outside diameter.....	3 1/16"
Radial load at 100 rpm, pounds.....	4840
Rear spindle, Ball bearing, outside diameter.....	3 3/8"
Radial load at 100 rpm, pounds.....	3400
Spindle, size of hole, straight.....	1 1/2"
Spindle, size of hole, taper, B & S taper No.....	11
Spindle, size of center, Morse taper No.....	3
Spindle nose, taper key drive, size.....	1.00
Spindle nose, diameter large end of taper.....	2 3/4"
Headstock length on bed.....	15 5/8"

**BED**

Length, standard.....	4'6 1/4"
Length increases in increments of.....	12"
Width.....	12 3/8"
Depth.....	10 1/4"

**CARRIAGE**

Length on bed.....	18 3/8"
Bearing surface, square inches.....	62
Bridge width.....	6 1/4"
Cross slide travel without taper attachment.....	8 7/8"
Cross slide travel with taper attachment.....	7 7/8"
Compound rest travel.....	3 3/8"

**FEEDS — THREADS**

Feed changes, gear or belt drive.....	48
Feed range, in. per rev.....	.0018 to .106
Thread changes, gear drive only.....	48
Threads per inch, range.....	4 to 224
4, 4 1/2, 5, 5 1/2, 5 3/4, 6, 6 1/2, 7, 8, 9, 10, 11, 11 1/2, 12, 13, 14, 16, 18, 20, 22, 23, 24, 26, 28, 32, 36, 40, 44, 46, 48, 52, 56, 64, 72, 80, 88, 92, 96, 104, 112, 128, 144, 160, 176, 184, 192, 208 and 224	
Leadscrew diameter and threads per inch..	1", 6

**TAILSTOCK**

Spindle diameter.....	1 11/16"
Center, Morse No.....	3
Spindle travel and set over right or left...	5", 1"
Length on bed.....	10 3/4"

**TAPER ATTACHMENT**

Maximum taper per foot.....	3 1/2"
Turns at one setting.....	10"

**MOTOR RECOMMENDATIONS**

Maximum Horsepower and rpm	
Without brake and with standard speed range.....	2, 1800
With brake and with standard speed range.....	2 or 3, 1800
With brake and with high speed range.....	3, 1800

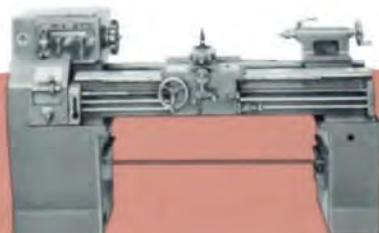
**WEIGHT AND DIMENSIONS (18" center distance)**

Net weight, pounds.....	2000
Domestic shipping weight, pounds.....	2200
Export shipping weight, pounds.....	2450
Net weight, each additional 12" of bed, pounds.....	90
Floor space required.....	60 1/2" x 31 1/2"
Distance, spindle center to floor.....	42"



**REGAL**

**15"**



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**S P E C I F I C A T I O N S**

**CAPACITY**

Swing over bed and carriage wings.....	15½"
Swing over compound rest.....	9½"
Distance between centers, base length.....	18"
Center distance increases in increments of.....	12"
Size of tool – forged.....	½" x 1"
Size of tool holder.....	½" x 1⅛"
Steady rest capacity.....	½" to 4"
Follow rest capacity.....	⅜" to 2¾"
Face plate, small, diameter.....	7½"
Face plate, large, diameter.....	14"

**HEADSTOCK**

Spindle speeds, number.....	12
Spindle speed ranges:	
Low range, rpm.....	30 to 1200
Gear drive: 30, 46, 63, 88, 119, 171, 234 and 329	
Belt drive: 436, 625, 855 and 1200	
High range, rpm.....	45 to 1800
Gear drive: 45, 69, 95, 132, 179, 256, 351 and 494	
Belt drive: 654, 937, 1282 and 1800..	
Spindle bearings, number of.....	3
Spindle bearing diameters:	
Front.....	2½"
Center.....	2⅝"
Rear.....	2⅞"
Front spindle bearing, Timken precision, outside diameter.....	4¼"
Radial load at 100 rpm, pounds.....	5112
Thrust load at 100 rpm, pounds.....	4600
Center spindle, Roller bearing, outside diameter.....	3⅛"
Radial load at 100 rpm, pounds.....	4840
Rear spindle, Ball bearing, outside diameter.....	3⅞"
Radial load at 100 rpm, pounds.....	3400
Spindle, size of hole, straight.....	1⅜"
Spindle, size of hole, taper, B & S taper No.....	11
Spindle, size of center, Morse taper No....	3
Spindle nose, taper key drive, size.....	100
Spindle nose, diameter large end of taper..	2¾"
Headstock length on bed.....	15⅝"

**BED**

Length, standard.....	4'6¼"
Length increases in increments of....	12"
Width.....	12⅝"
Depth.....	10¼"

**CARRIAGE**

Length on bed.....	18⅝"
Bearing surface, square inches.....	62
Bridge width.....	6¼"
Cross slide travel without taper attachment..	8⅞"
Cross slide travel with taper attachment....	7⅞"
Compound rest travel.....	3⅞"

**FEEDS — THREADS**

Feed changes, gear or belt drive.....	48
Feed range, in. per rev.....	.0018 to .106
Thread changes, gear drive only.....	48
Threads per inch, range.....	4 to 224
4, 4½, 5, 5½, 5¾, 6, 6½, 7, 8, 9, 10, 11, 11½, 12, 13, 14, 16, 18, 20, 22, 23, 24, 26, 28, 32, 36, 40, 44, 46, 48, 52, 56, 64, 72, 80, 88, 92, 96, 104, 112, 128, 144, 160, 176, 184, 192, 208 and 224	
Leadscrew diameter and threads per inch..	1", 6

**TAILSTOCK**

Spindle diameter.....	1⅜"
Center, Morse No.....	3
Spindle travel and set over right or left...	5", 1"
Length on bed.....	10¾"

**TAPER ATTACHMENT**

Maximum taper per foot.....	3½"
Turns at one setting.....	10"

**MOTOR RECOMMENDATIONS**

Maximum Horsepower and rpm	
Without brake and with standard speed range.....	2, 1800
With brake and with standard speed range.....	2 or 3, 1800
With brake and with high speed range.....	3, 1800

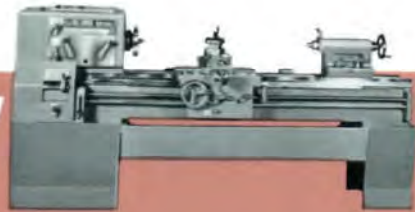
**WEIGHT AND DIMENSIONS (18" center distance)**

Net weight, pounds.....	2100
Domestic shipping weight, pounds.....	2300
Export shipping weight, pounds.....	2700
Net weight, each additional 12" of bed, pounds.....	90
Floor space required.....	60½" x 31½"
Distance, spindle center to floor.....	42¾"



**REGAL**

**17"**



**cut with confidence**

**S P E C I F I C A T I O N S**

**CAPACITY**

Swing over bed and carriage wings.....	17 3/4"
Swing over compound rest.....	10 3/4"
Distance between centers, base length....	30"
Center distance increases in	
increments of.....	12"
Size of tool — forged.....	1 1/4" x 5/8"
Size of tool holder.....	5/8" x 1 3/8"
Steady rest capacity.....	1/2" to 6"
Follow rest capacity.....	3/8" to 3 1/4"
Face plate, small, diameter.....	8"
Face plate, large, diameter.....	16"

**HEADSTOCK**

Spindle speeds, number.....	12
Spindle speed ranges:	
Low range, rpm.....	25 to 1000
Gear drive: 25, 35, 50, 68, 97, 137, 194	
and 265	
Belt drive: 363, 513, 725 and 1000	
High range, rpm.....	38 to 1500
Gear drive: 38, 53, 75, 102, 145, 205,	
290 and 396	
Belt drive: 544, 770, 1090 and 1500	
Spindle bearings, number of.....	3
Spindle bearing diameters:	
Front.....	3 5/8"
Center.....	2 7/8"
Rear.....	2 1/8"
Front spindle bearing, Timken precision,	
outside diameter.....	5 3/8"
Radial load at 100 rpm, pounds.....	7080
Thrust load at 100 rpm, pounds.....	6176
Center spindle, Roller bearing,	
outside diameter.....	4 5/8"
Radial load at 100 rpm, pounds.....	6400
Rear spindle, Ball bearing, outside diameter	3 13/16"
Radial load at 100 rpm, pounds.....	4070
Spindle, size of hole, straight.....	1 1/32"
Spindle, size of hole, taper, Morse taper No.	5
Spindle, size of center, Morse taper No....	4
Spindle nose, taper key drive, size.....	L0
Spindle nose, diameter large end of taper..	3 1/4"
Headstock length on bed.....	21 1/8"

**BED**

Length, standard.....	6'3"
Length increases in increments of....	12"
Width.....	14 3/8"
Depth.....	11 1/2"

**CARRIAGE**

Length on bed.....	21"
Bearing surface, square inches.....	79
Bridge width.....	7 7/8"
Cross slide travel without taper attachment..	11 1/4"
Cross slide travel with taper attachment....	9 5/8"
Compound rest travel.....	4 3/8"

**FEEDS — THREADS**

Feed changes, gear or belt drive.....	48
Feed range, in. per rev.....	.002 to .116
Thread changes, gear drive only.....	48
Threads per inch, range.....	2 to 112
2, 2 1/4, 2 1/2, 2 3/4, 2 7/8, 3, 3 1/4, 3 1/2, 4, 4 1/2, 5,	
5 1/2, 5 3/4, 6, 6 1/2, 7, 8, 9, 10, 11, 11 1/2, 12,	
13, 14, 16, 18, 20, 22, 23, 24, 26, 28,	
32, 36, 40, 44, 46, 48, 52, 56, 64, 72,	
80, 88, 92, 96, 104 and 112	
Leadscrew diameter and threads per inch..	1 3/16", 4

**TAILSTOCK**

Spindle diameter.....	2 7/16"
Center, Morse No.....	4
Spindle travel and set over right or left...	7", 1"
Length on bed.....	12 3/4"

**TAPER ATTACHMENT**

Maximum taper per foot.....	3 1/2"
Turns at one setting.....	15"

**MOTOR RECOMMENDATIONS**

Maximum Horsepower and rpm	
Without brake and with standard	
speed range.....	3, 1800
With brake and with standard	
speed range.....	3 or 5, 1800
With brake and with high	
speed range.....	5, 1800

**WEIGHT AND DIMENSIONS (30" center distance)**

Net weight, pounds.....	3100
Domestic shipping weight, pounds.....	3350
Export shipping weight, pounds.....	3950
Net weight, each additional 12"	
of bed, pounds.....	145
Floor space required.....	83" x 36"
Distance, spindle center to floor.....	42"



**REGAL**

**19"**



**cut with confidence**

**S P E C I F I C A T I O N S**

**CAPACITY**

Swing over bed and carriage wings.....	19 1/4"
Swing over compound rest.....	12 1/4"
Distance between centers, base length....	30"
Center distance increases in increments of.....	12"
Size of tool — forged.....	1 1/4" x 5/8"
Size of tool holder.....	3/8" x 1 3/8"
Steady rest capacity.....	1/2" to 6"
Follow rest capacity.....	3/8" to 3 3/4"
Face plate, small, diameter.....	8"
Face plate, large, diameter.....	18"

**HEADSTOCK**

Spindle speeds, number.....	12
Spindle speed ranges:	
Low range, rpm.....	25 to 1000
Gear drive: 25, 35, 50, 68, 97, 137, 194 and 265	
Belt drive: 363, 513, 725 and 1000	
High range, rpm.....	38 to 1500
Gear drive: 38, 53, 75, 102, 145, 205, 290 and 396	
Belt drive: 544, 770, 1090 and 1500	
Spindle bearings, number of.....	3
Spindle bearing diameters:	
Front.....	3 5/8"
Center.....	2 7/8"
Rear.....	2 7/8"
Front spindle bearing, Timken precision, outside diameter.....	5 3/8"
Radial load at 100 rpm, pounds.....	7080
Thrust load at 100 rpm, pounds.....	6176
Center spindle, Roller bearing, outside diameter.....	4 5/8"
Radial load at 100 rpm, pounds.....	6400
Rear spindle, Ball bearing, outside diameter.....	3 1 3/4"
Radial load at 100 rpm, pounds.....	4070
Spindle, size of hole, straight.....	1 1 3/2"
Spindle, size of hole, taper, Morse taper No.....	5
Spindle, size of center, Morse taper No.....	4
Spindle nose, taper key drive, size.....	1.0
Spindle nose, diameter large end of taper.....	3 1/4"
Headstock length on bed.....	21 1/8"

**BED**

Length, standard.....	6'3"
Length increases in increments of....	12"
Width.....	14 3/8"
Depth.....	11 1/2"

**CARRIAGE**

Length on bed.....	21"
Bearing surface, square inches.....	79
Bridge width.....	7 7/8"
Cross slide travel without taper attachment.....	11 1/4"
Cross slide travel with taper attachment....	9 5/8"
Compound rest travel.....	4 3/8"

**FEEDS — THREADS**

Feed changes, gear or belt drive.....	48
Feed range, in. per rev.....	.002 to .116
Thread changes, gear drive only.....	48
Threads per inch, range.....	2 to 112
2, 2 1/4, 2 1/2, 2 3/4, 3, 3 1/4, 3 1/2, 4, 4 1/2, 5, 5 1/2, 5 3/4, 6, 6 1/2, 7, 8, 9, 10, 11, 11 1/2, 12, 13, 14, 16, 18, 20, 22, 23, 24, 26, 28, 32, 36, 40, 44, 46, 48, 52, 56, 64, 72, 80, 88, 92, 96, 104 and 112	
Leadscrew diameter and threads per inch..	1 3/16", 4

**TAILSTOCK**

Spindle diameter.....	2 7/8"
Center, Morse No.....	4
Spindle travel and set over right or left...	7", 1"
Length on bed.....	12 3/4"

**TAPER ATTACHMENT**

Maximum taper per foot.....	3 1/2"
Turns at one setting.....	15"

**MOTOR RECOMMENDATIONS**

Maximum Horsepower and rpm	
Without brake and with standard speed range.....	3, 1800
With brake and with standard speed range.....	3 or 5, 1800
With brake and with high speed range.....	5, 1800

**WEIGHT AND DIMENSIONS (30" center distance)**

Net weight, pounds.....	3350
Domestic shipping weight, pounds.....	3600
Export shipping weight, pounds.....	4200
Net weight, each additional 12" of bed, pounds.....	145
Floor space required.....	83" x 36"
Distance, spindle center to floor.....	42 3/4"

**THE R. K. LeBLOND MACHINE TOOL CO., CINCINNATI 8, OHIO**