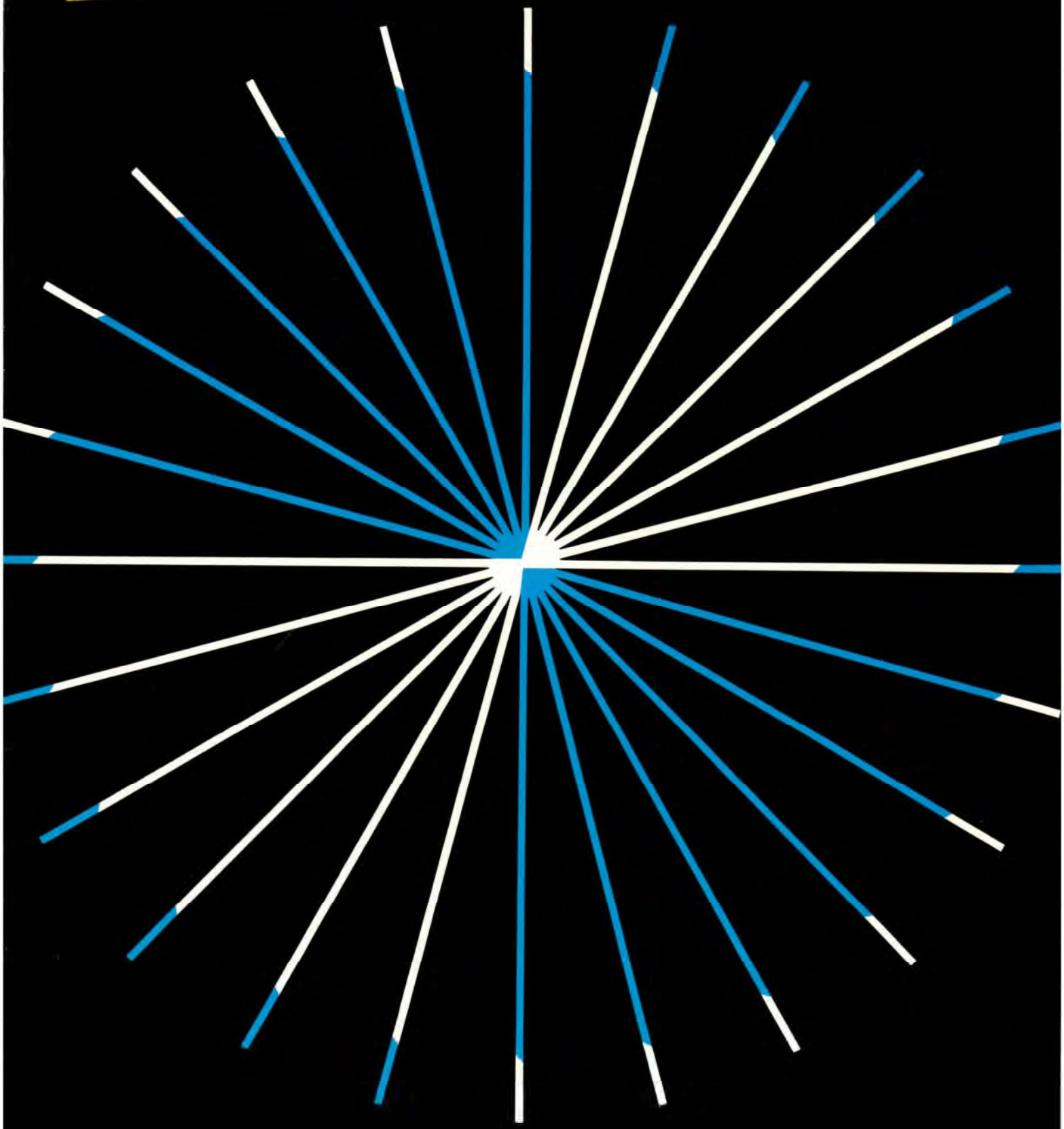
regal lathe attachments

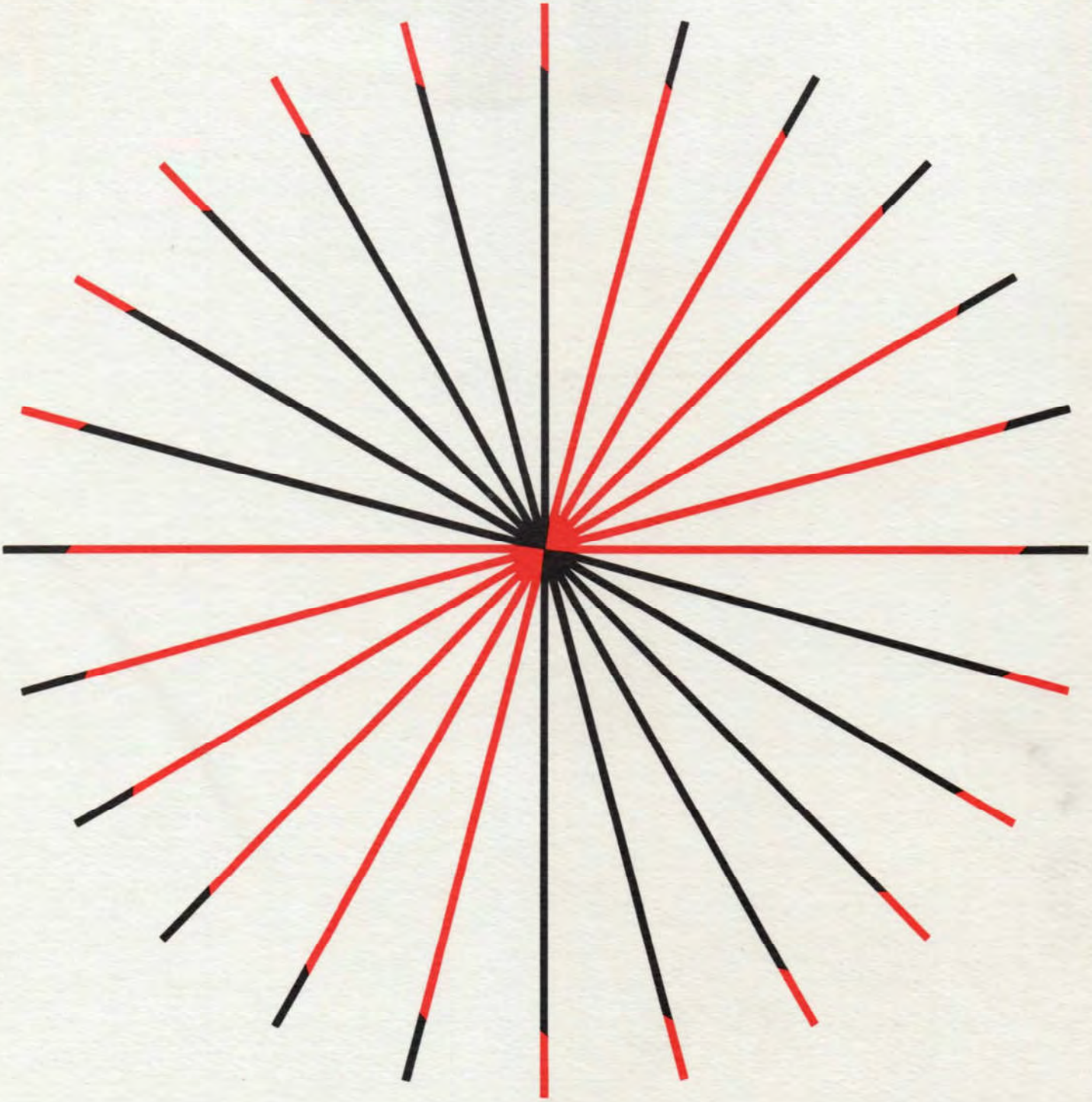


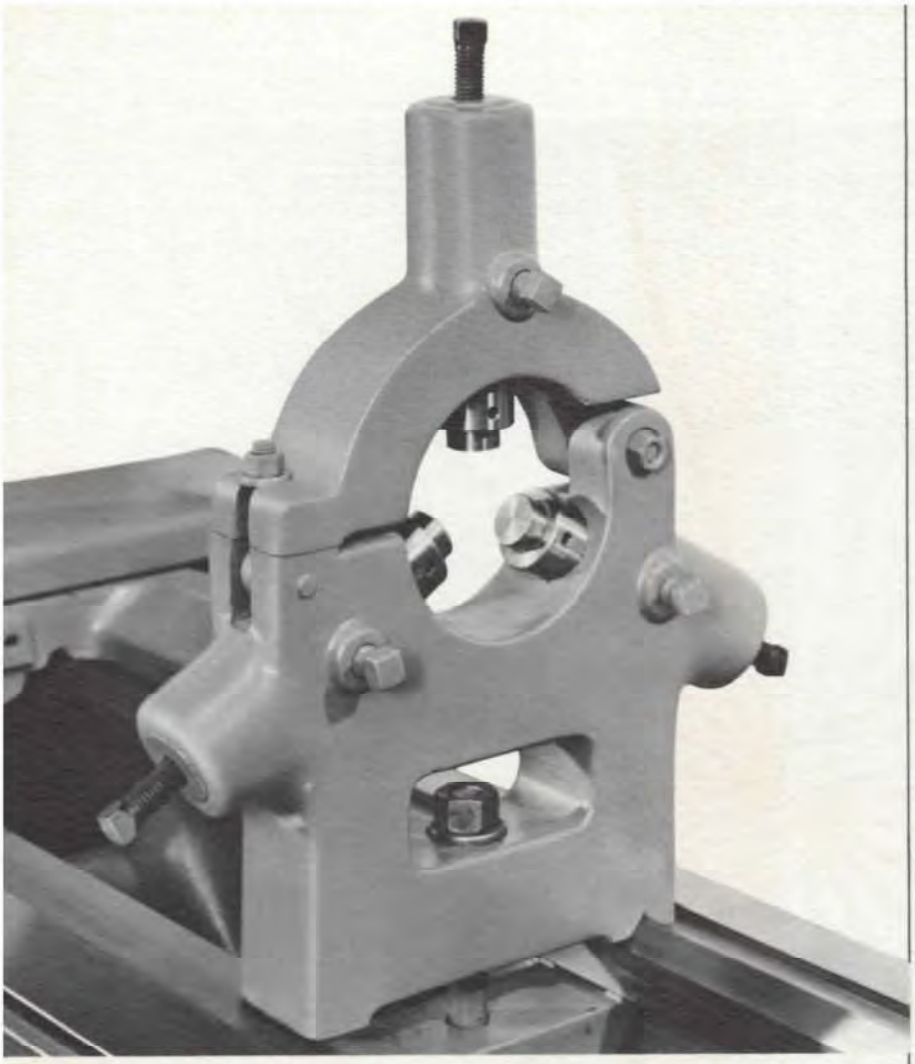
LeBLOND of Cincinnati

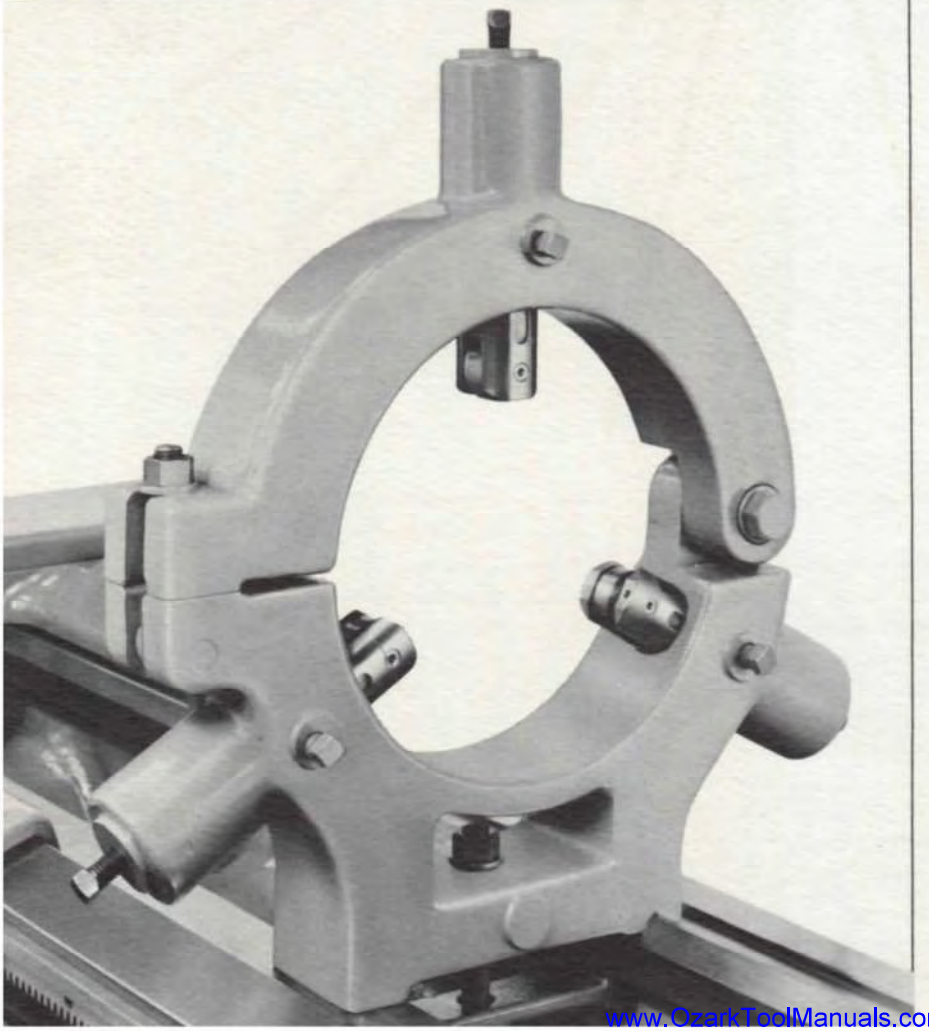
regal attachments

Regal lathes are highly versatile machines. With the use of the many attachments made available by LeBlond, the Regal can quickly become a "jack of all trades." Often the use of a Regal attachment will eliminate the need for a costly single purpose machine. All attachments have the same high qualities of durability and precision that are built into every LeBlond lathe, to match the outstanding performance of the Regal every step of the way.

Most Regal attachments can be installed or removed at any time. However, some must be built in before the lathe is shipped from the factory. Other attachments require special provision for future installation. If in doubt, write LeBlond giving details of the contemplated jobs.







steady rests

Steady rests provide support for long or slender workpieces, allowing heavy cuts to be taken and preventing chatter. All steady rests have iron bodies and either bronze tip plain jaws or anti-friction roller jaws. Plain and roller jaws are interchangeable for maximum convenience and do not change the capacity. They are available in three capacity ranges for all Regal lathes.

	Standard	#1 Oversize	#2 Oversize
13" Regal	½" to 4"	4" to 7"	7" to 9½"
15" Regal	½" to 4"	4" to 7"	7" to 9½"
17" Regal	½" to 6"	6" to 9½"	9½" to 12½"
19" Regal	½" to 6"	6" to 9½"	9½" to 12½"
21" Regal	¾" to 7"	7" to 12"	12" to 15"
24" Regal	¾" to 7"	7" to 12"	12" to 17"

follow rests

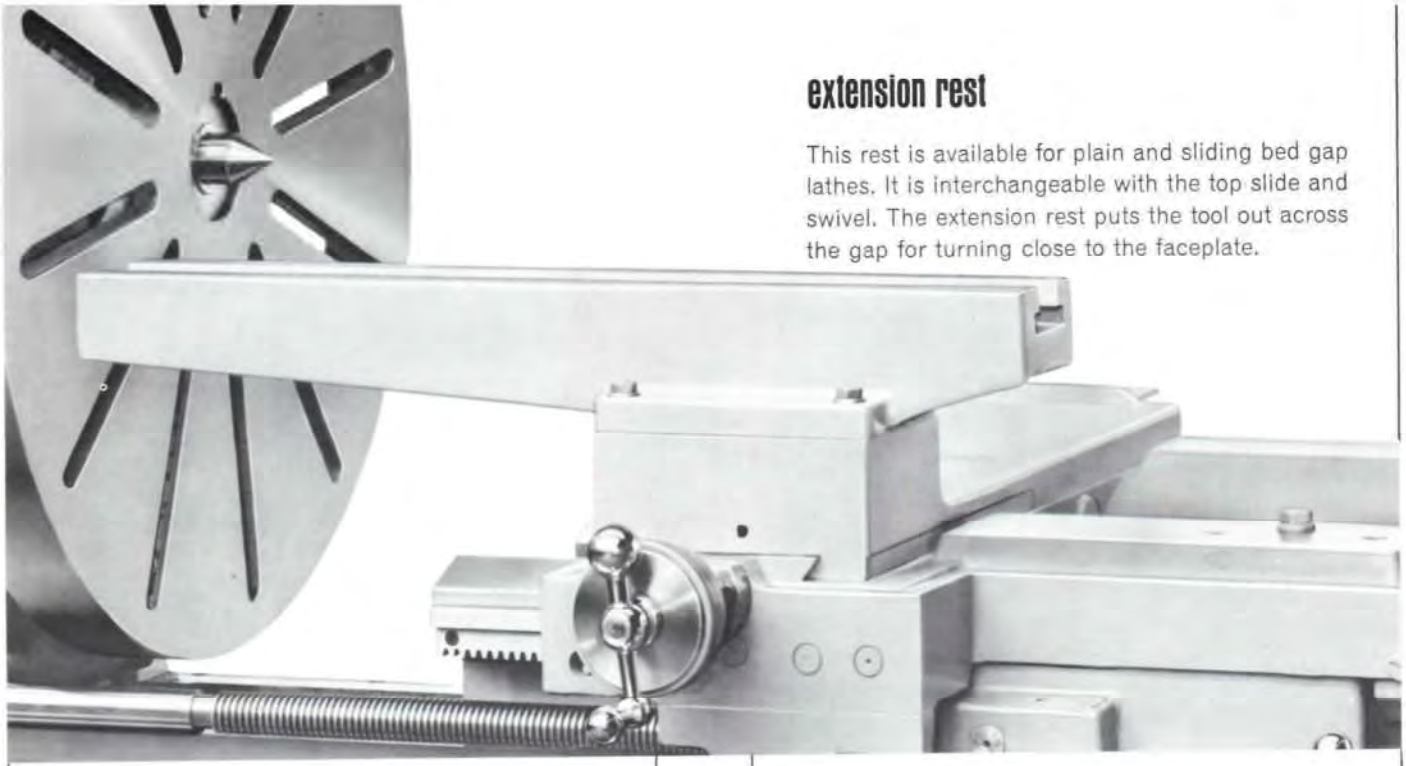
Follow rests bolt to the carriage and move with it, to provide workpiece support close to the cutting tool for maximum stability. Follow rests are furnished with iron bodies and either plain bronze tip or anti-friction roller jaws. Both types of jaws are interchangeable and do not change capacity.

Follow Rest Capacity

13″ Regal	½″ to 2¾″
15″ Regal	½″ to 2¾″
17″ Regal	½″ to 3¼″
19″ Regal	½″ to 3¾″
21″ Regal	½″ to 4½″
24″ Regal	½″ to 4½″

extension rest

This rest is available for plain and sliding bed gap lathes. It is interchangeable with the top slide and swivel. The extension rest puts the tool out across the gap for turning close to the faceplate.



plain connected rests

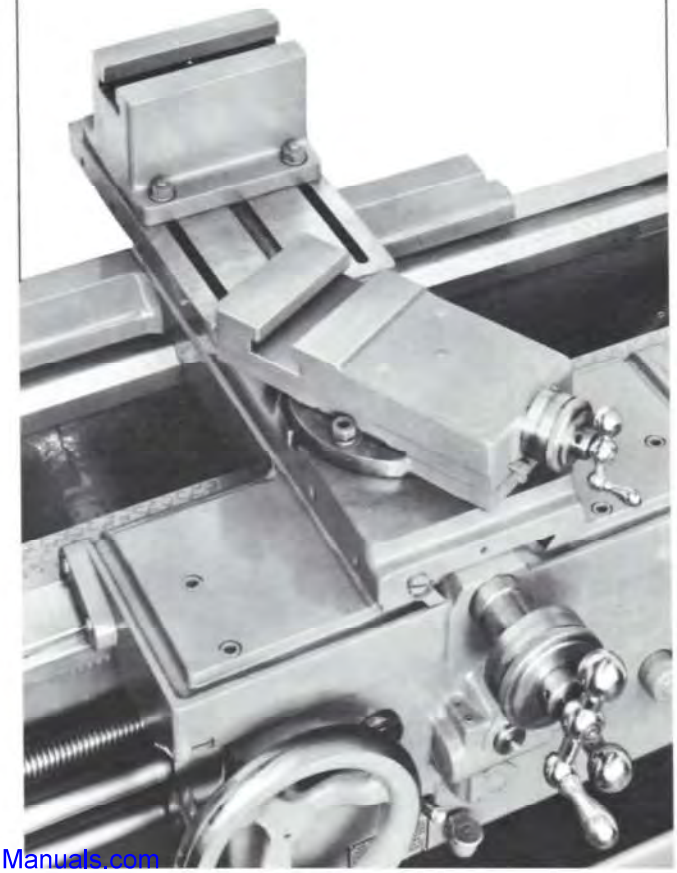
These rests are very useful for high production multiple shoulder turning, necking or chamfering. Both rests are adjustable from front to back. Tool posts are adjustable from side to side.

Amount of Swing Reduction When Lathe Is Equipped With Any Type Connected Rest

Lathe Size	13"	15"	17"	19"	21"	24"
Swing Reduction	⅝"	⅝"	0"	0"	¼"	¼"

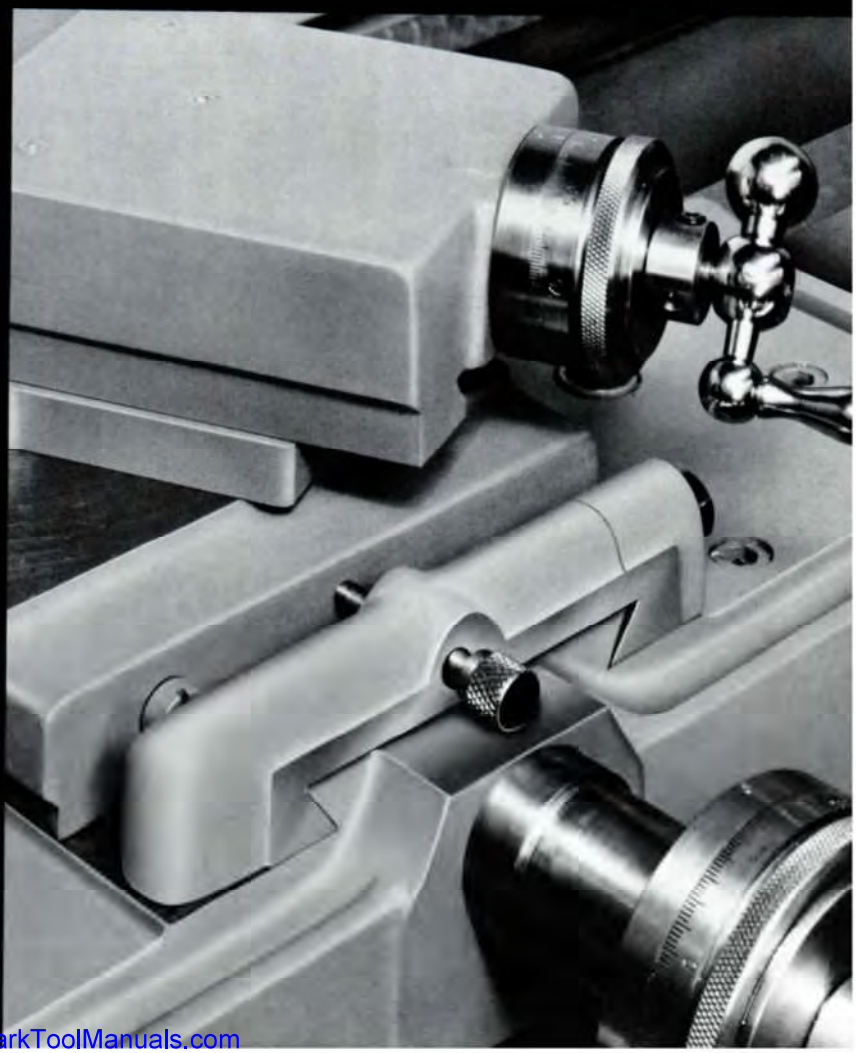
compound and plain connected rest

This combination has most of the advantages of the plain connected rests plus added flexibility. The tool in the compound rest can take angular cuts and the back rest tool can form shoulders and back angles.



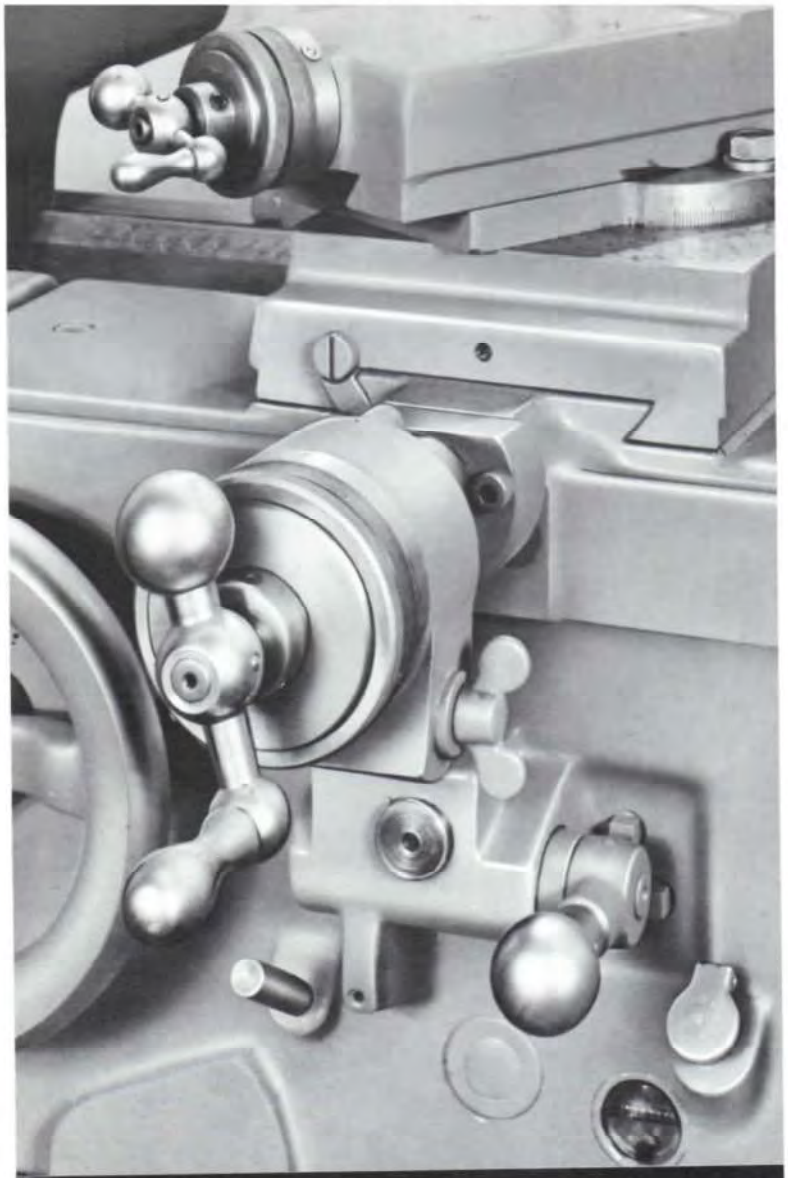
micrometer carriage stop

The Micrometer Carriage Stop fastens to the front bedway and is equipped with a knurled micrometer barrel graduated in thousandths of an inch. It permits the operator to bring the carriage to precisely the same position on repetitive cuts. Total adjustment of the stop is 1".



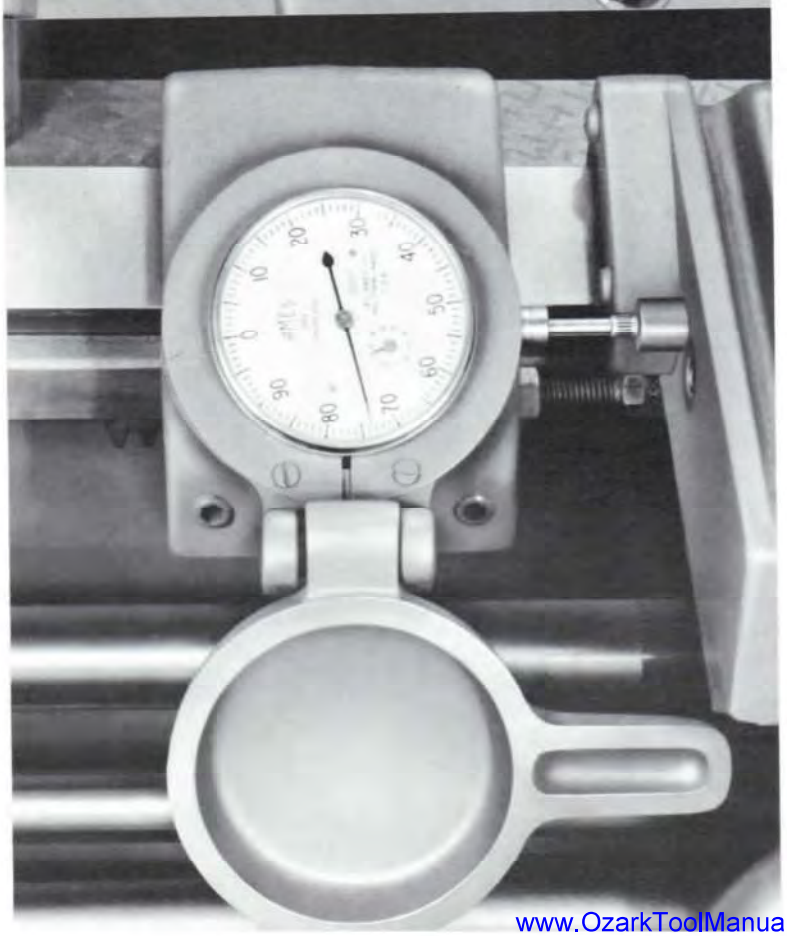
adjustable thread cutting stop

The stop bracket clamps to the cross slide dovetail and the stop screw extends through the bracket and fastens to the bottom slide. As successive thread cutting passes are made, the bottom slide is retracted, the carriage is repositioned, the depth of additional cut is fed in using the top slide, and the bottom slide brings the stop screw against the stop bracket. This stop may also be used to gauge the total depth of cut.



ball chasing stop

The ball chasing stop is built into the cross feed bushing and completely protected from chips and dirt. By clamping a thumbscrew, a ball and helical groove provide a fixed cross slide travel. In threading, the cross slide is advanced to the stop every pass and the depth of cut is controlled at the compound.



dial indicator carriage stop

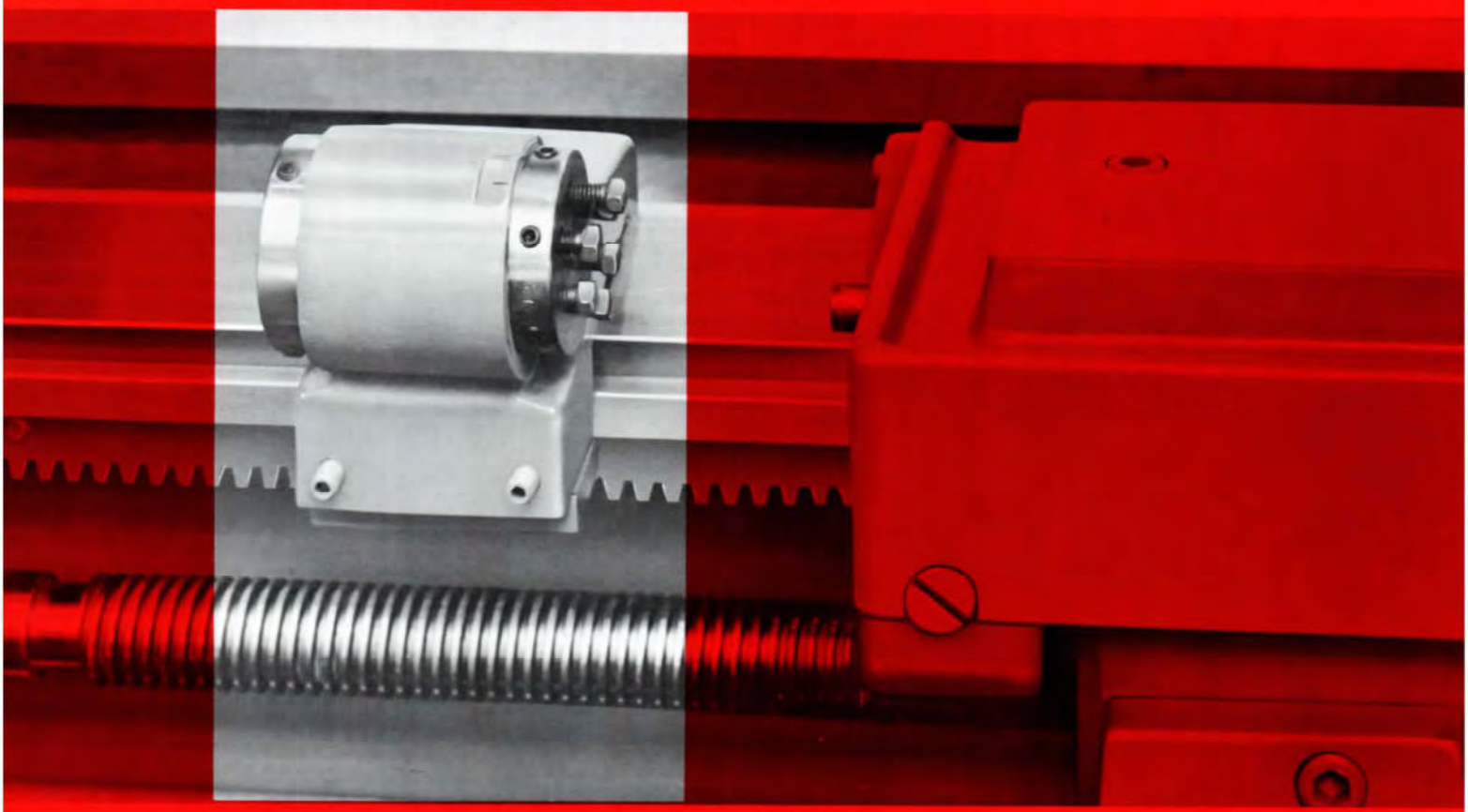
The Dial Indicator Carriage Stop with a large easily read dial gage indicates carriage travel to within .001" for accurate stops while turning or boring. The dial has a 1" stroke and is equipped with a safety screw to prevent jamming the mechanism. A hinged, cast aluminum cover protects dial and stem when not in use.

single automatic length stop

The automatic adjustable stop which incorporates a spring loaded multiple-tooth clutch disengages the feed rod to limit carriage travel, but functions only when feeding toward the headstock. It is particularly helpful when production runs are necesary. Available for all Regal Lathes.

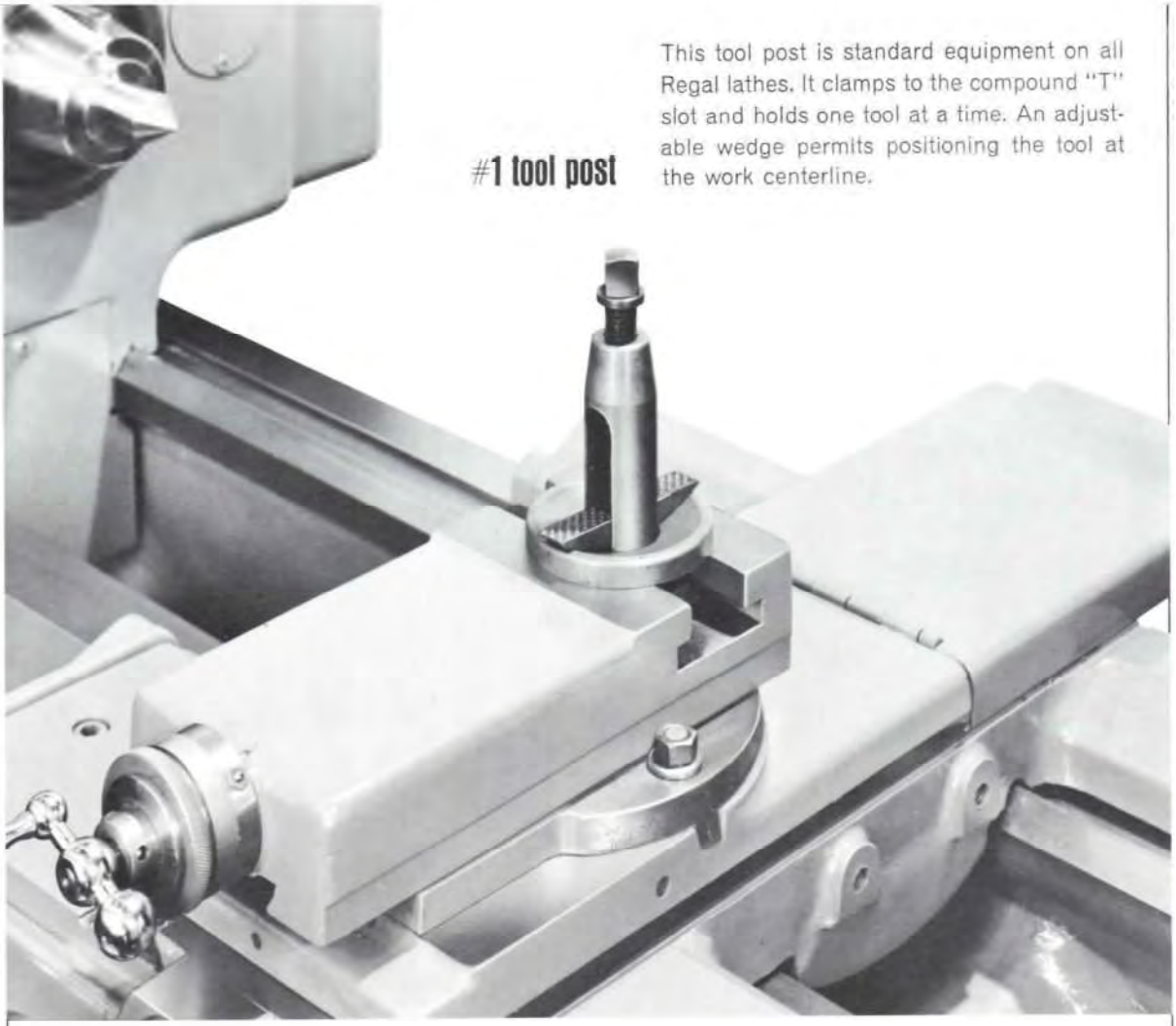
six position length stop

This stop is particularly useful for turning accurately, work with multiple diameters. Each of the six screws mounted in a revolving barrel may be indexed to contact the stop pin on the carriage wing and each have an adjustment range of 3¼".
The barrel has built-in detents.



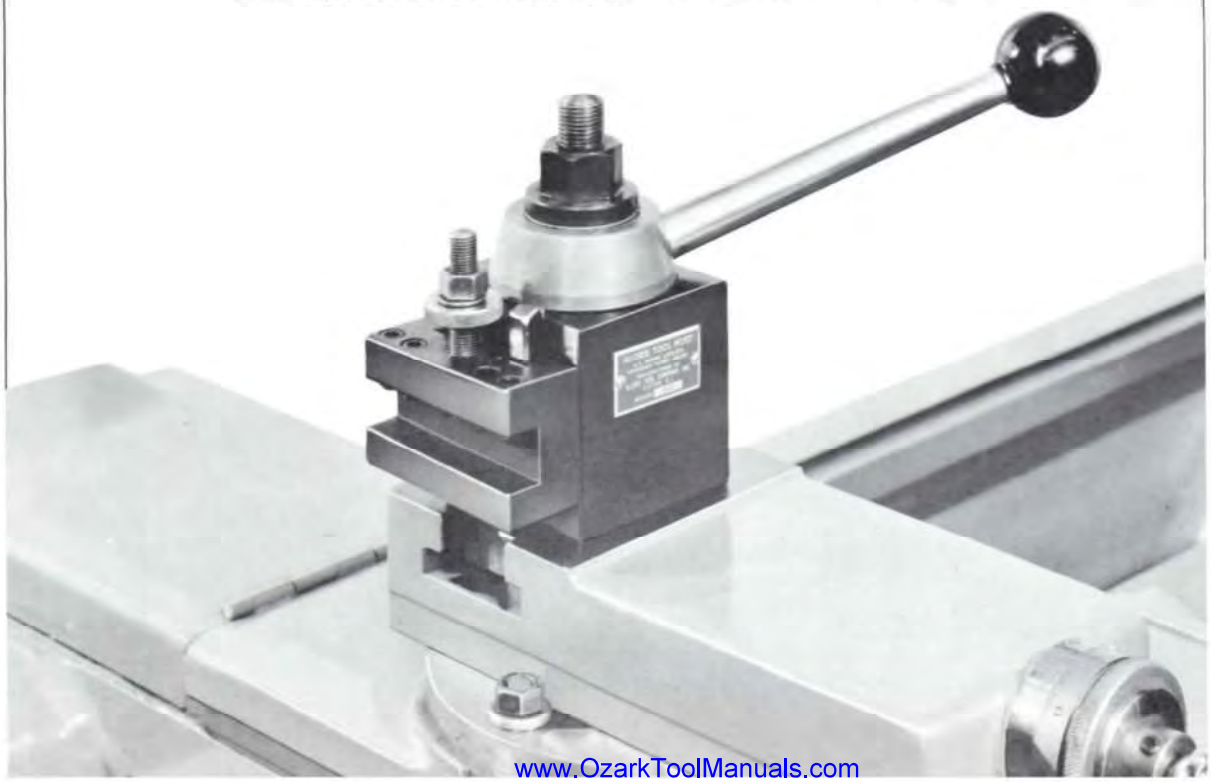
#1 tool post

This tool post is standard equipment on all Regal lathes. It clamps to the compound "T" slot and holds one tool at a time. An adjustable wedge permits positioning the tool at the work centerline.



aloris quick change tool system

Accommodates pre-set tool blocks which are slid quickly and accurately into place and locked with the clamping lever. This tool post provides rigidity for heavy cutting without chatter or vibration. Shims under tools are eliminated since each holder has separate height adjustment through a knurled knob.

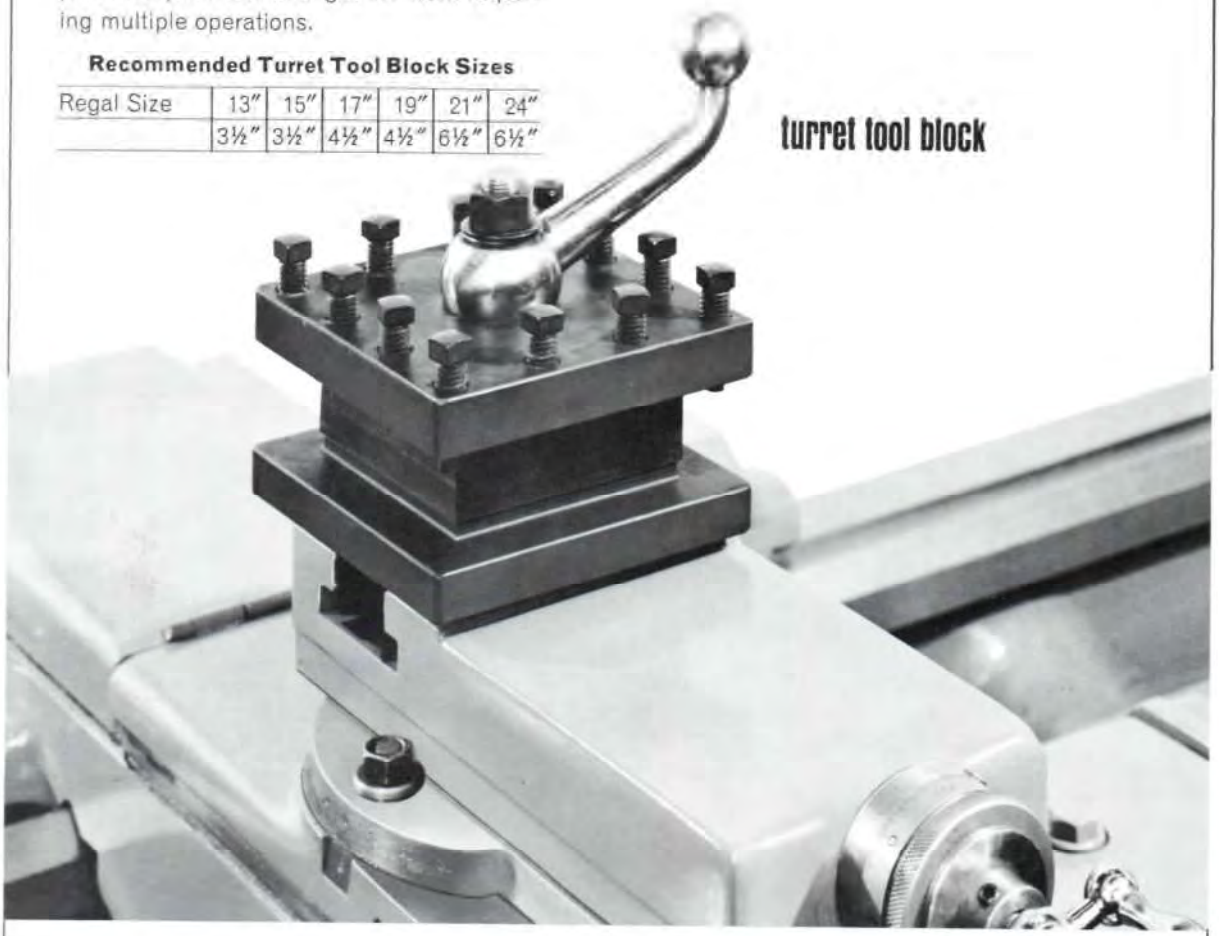


Twelve station indexing is obtained with this tool block. It accommodates four tools and provides quick tool changes for work requiring multiple operations.

Recommended Turret Tool Block Sizes

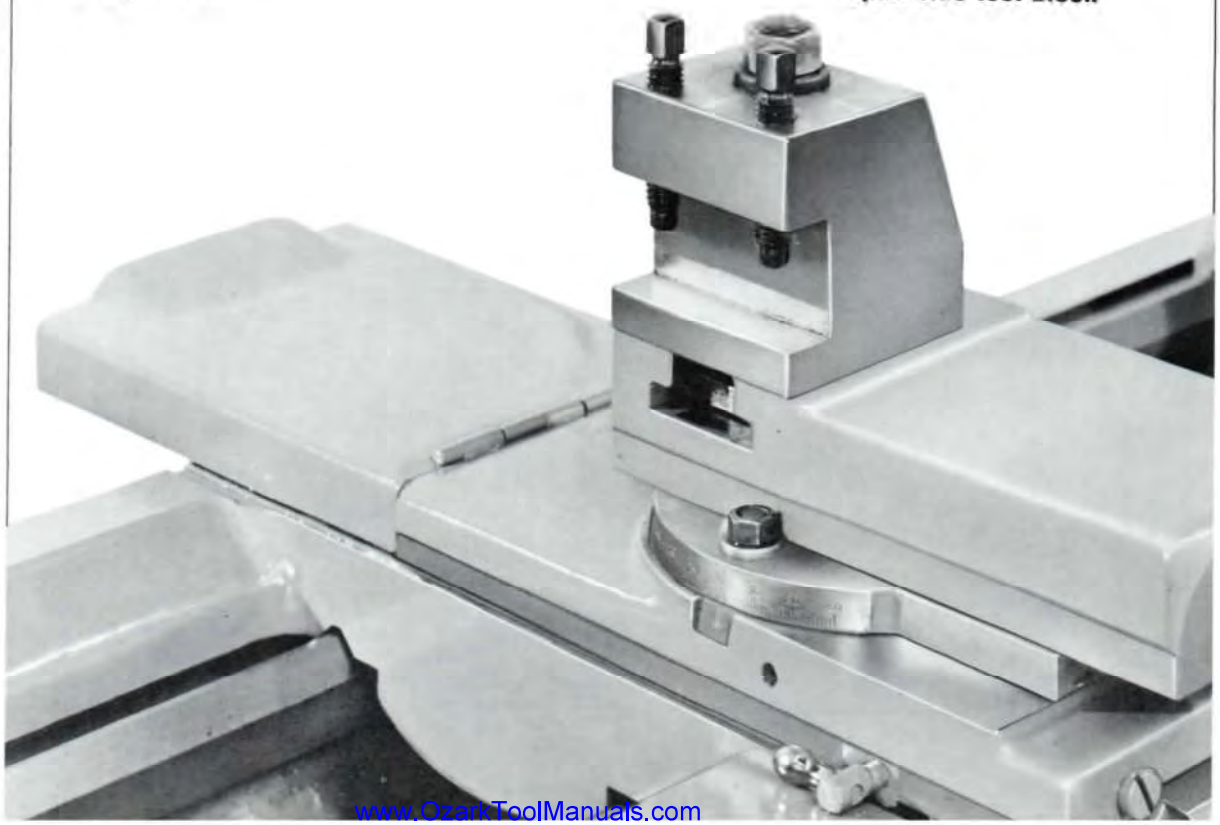
Regal Size	13"	15"	17"	19"	21"	24"
	3½"	3½"	4½"	4½"	6½"	6½"

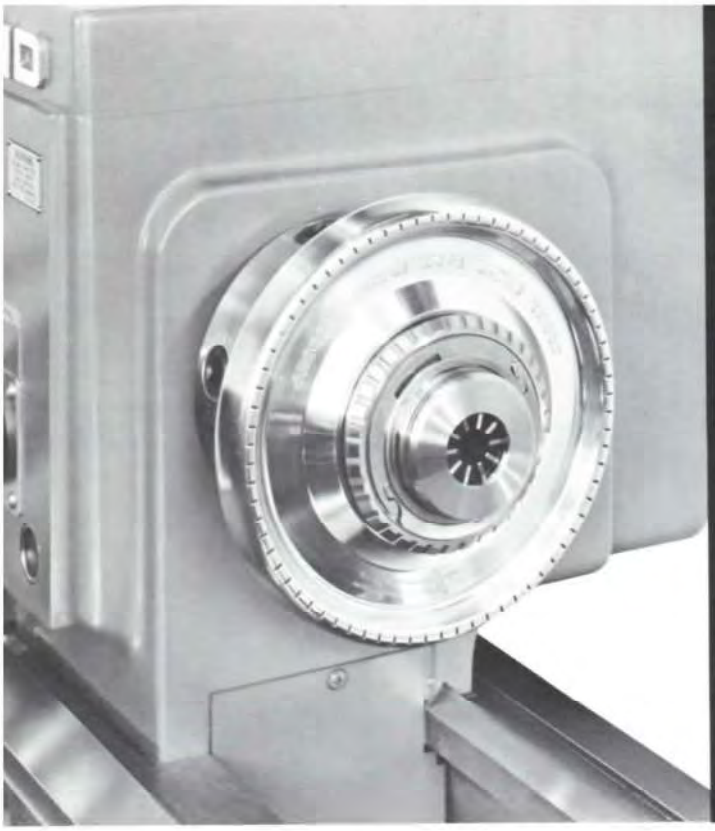
turret tool block



The Open Side Tool Block has the rigidity required for exceptionally heavy cuts with carbide tools. This plain open-side single tool block uses the Regal high speeds and horsepower to the best advantage. Available for all Regal Lathes.

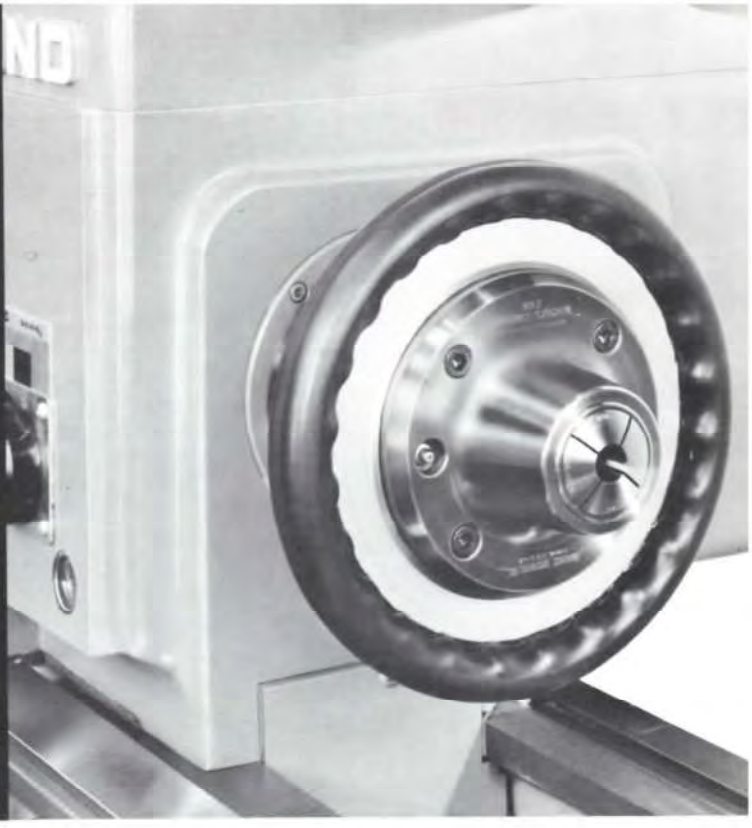
open side tool block





jacobs collet chuck

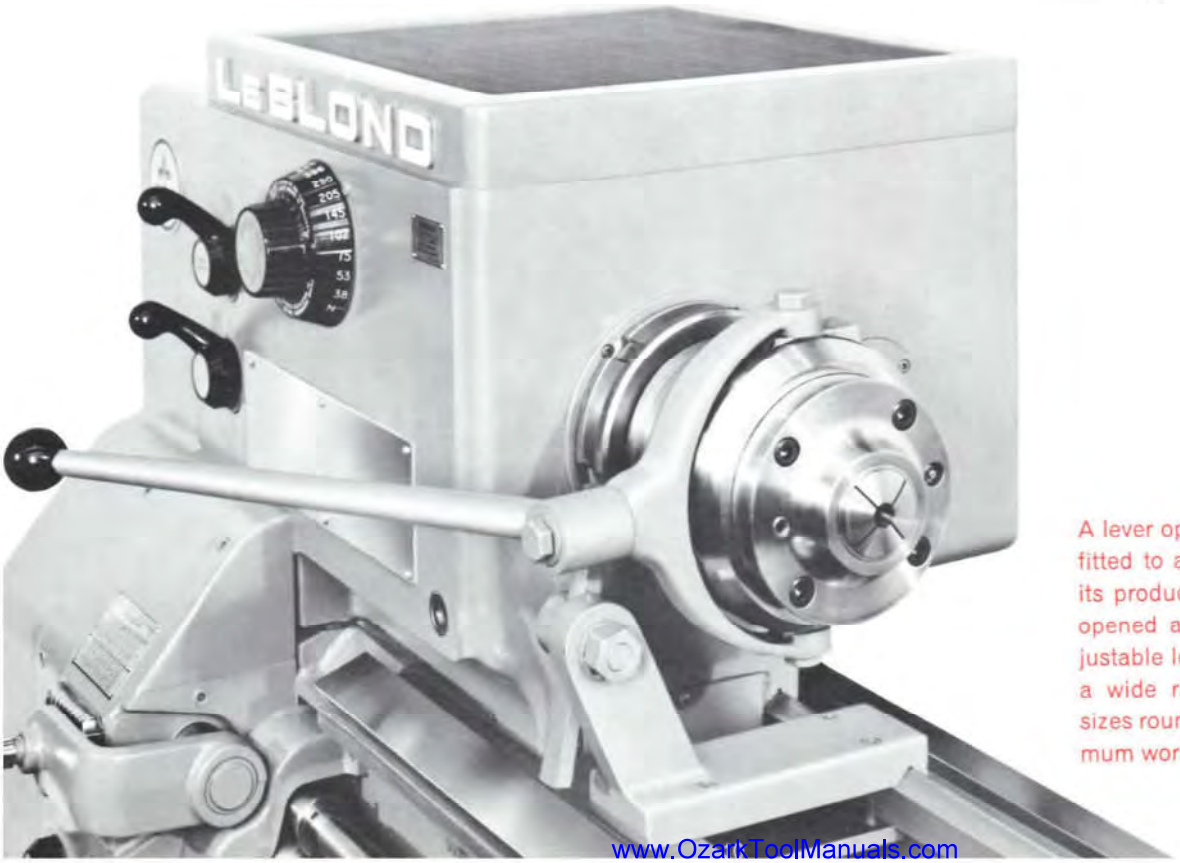
This chuck is an impact tightening, handwheel type chuck. A set of 11 Rubber-Flex Collets, each having a capacity range of ⅛″, grips workpieces which vary in diameter from 1/16″ to 1⅜″.



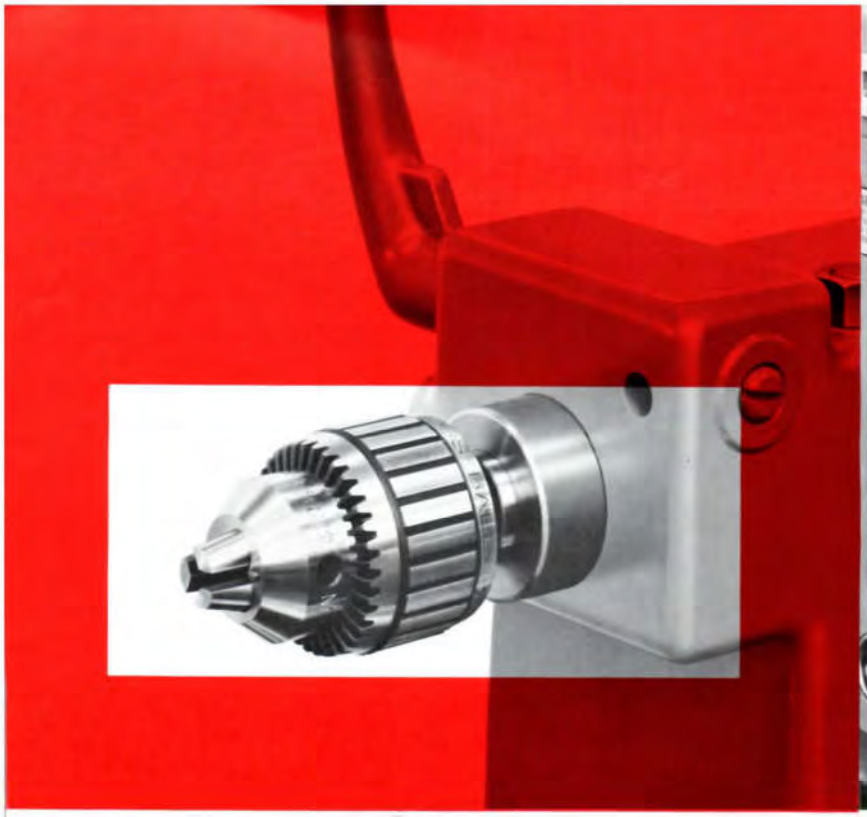
sjogren collet chuck

Securing the workpieces in this chuck is accomplished by the clockwise motion of the handwheel. Steel spring collets are available in a wide range of fractional and decimal sizes round and special shapes. Capacity of the chuck for the 13″, 15″, 17″, 19″ Regals is ⅛″ to 1 1/16″. Capacity of the chuck for the 21″ and 24″ Regals is ⅛″ to 1⅜″.

lever operated collet chuck



A lever operated collet chuck may be fitted to any Regal Lathe to improve its productive capacity. The collet is opened and closed by the long adjustable lever. Collets are available in a wide range of fractional decimal sizes round and special shapes. Maximum workpiece size is 1¼″ diameter.



drill chuck

Drill chucks are available with a capacity from 0 to ½". These chucks are held in position by a tang driver which is standard equipment on all Regal lathes.

camlock spindle nose

A camlock spindle nose can be furnished in place of the standard Taper Key drive type. The size of the Camlock Spindle Nose furnished is listed below.

Regal Size	13"	15"	17"	19"	21"	24"
Camlock Spindle Size	4" D1	4" D1	6" D1	6" D1	8" D1	8" D1

power operated chucks

When a Regal lathe is used for high production turning, many time saving accessories such as power operated chucks and power tailstocks are available (but not listed in this booklet). We suggest that the factory be consulted so that your requirements can be analyzed.

4-jaw independent chuck

Four-jaw chucks have either solid, one piece reversible jaws or two piece jaws, with reversible top jaws. They are furnished in aluminum, semi-steel and forged steel. Semi-steel is preferred for use on Regal lathes.

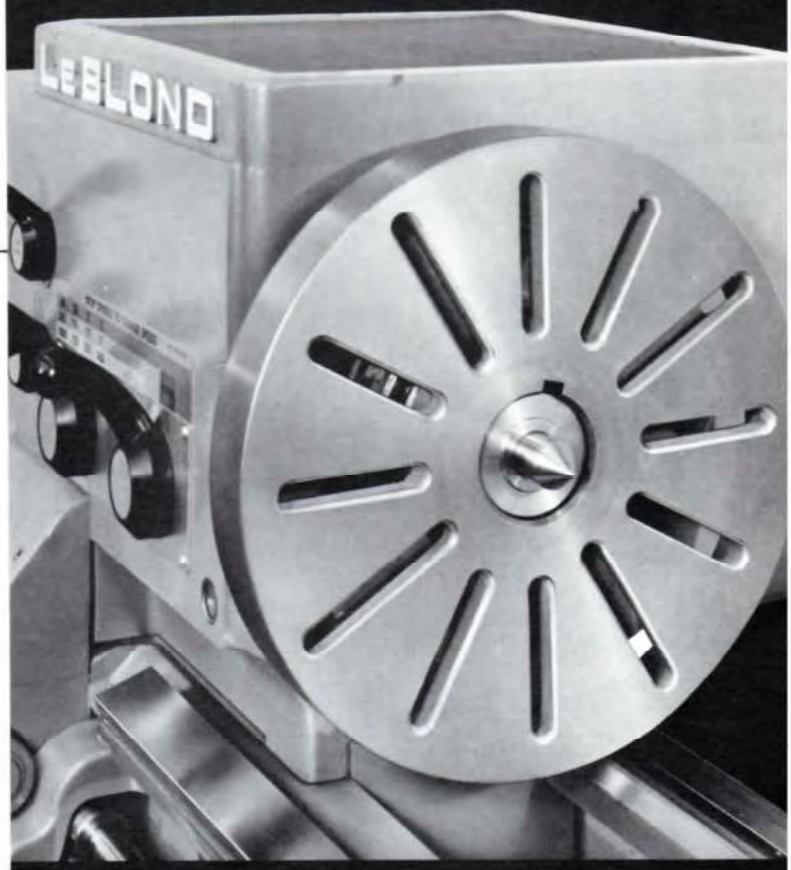
4-Jaw Chuck Size Recommended

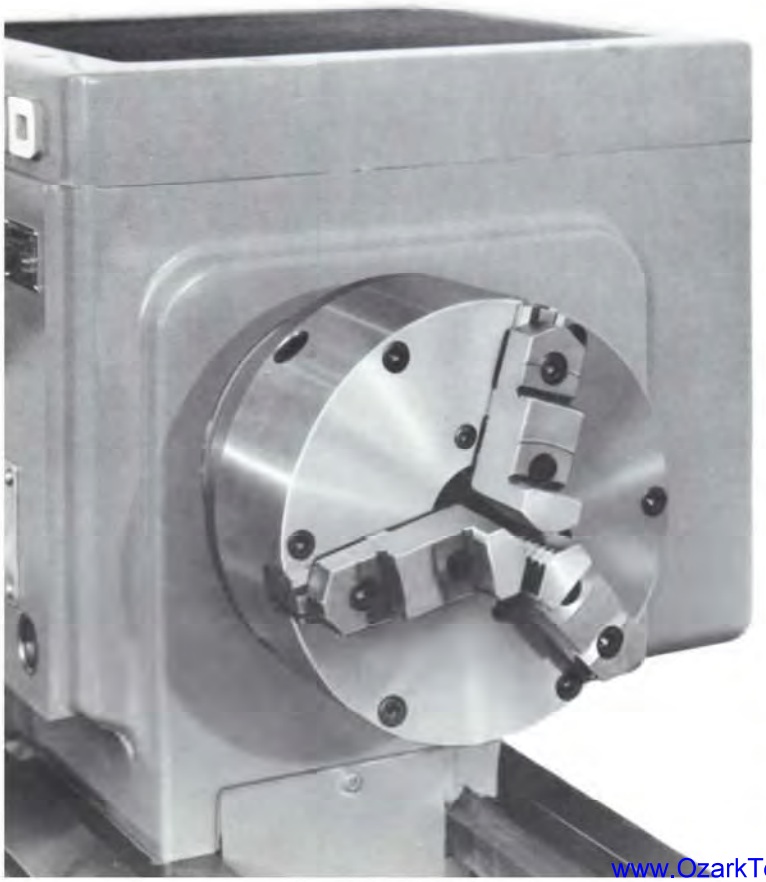
Regal Size	13″	15″	17″	19″	21″	24″
Chuck Size	8″	8″	10″	10″	12″	12″

large face plate

Large face plates can be furnished for more complete utilization of the capacity of Regal lathes in driving and clamping workpieces. Size recommendations are listed below.

Regal Size	13″	15″	17″	19″	21″	24″
Face Plate Size	14″	14″	17″	17″	21½″	23½″





3-jaw universal chuck

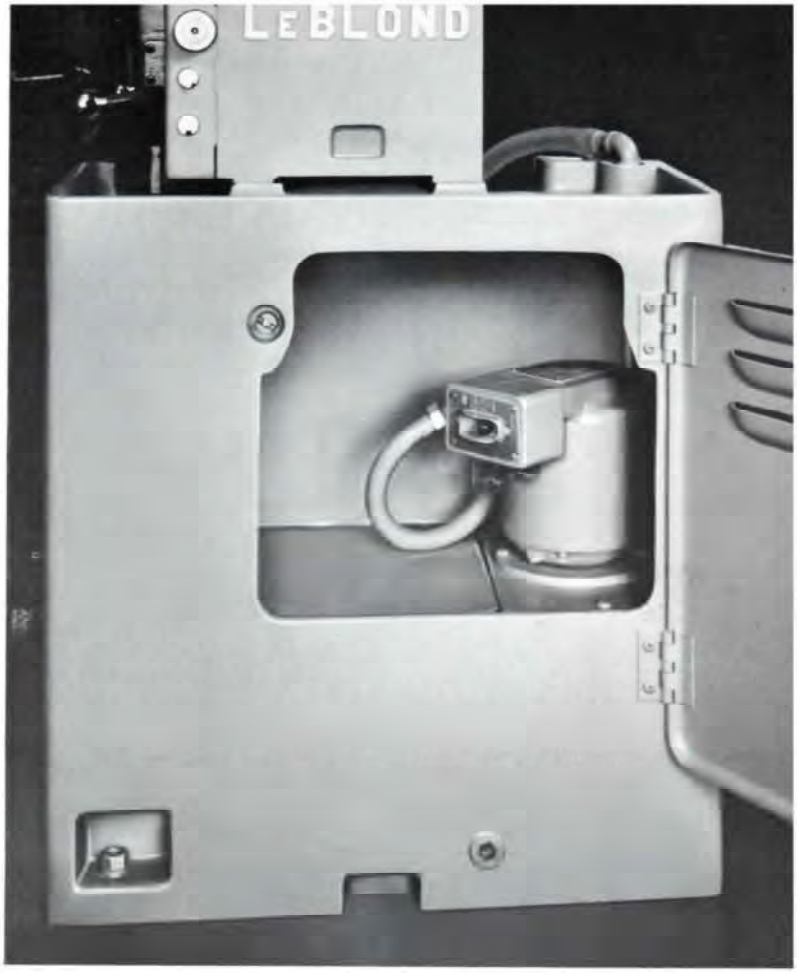
These chucks are available with either two piece reversible or two sets of jaws. Three-jaw chuck can be furnished in all aluminum, semi-steel or forged steel, however semi-steel is recommended for Regal lathes.

3-Jaw Chuck Size Recommended

Regal Size	13″	15″	17″	19″	21″	24″
Chuck Size	6″	6″	8″	8″	10″	10″

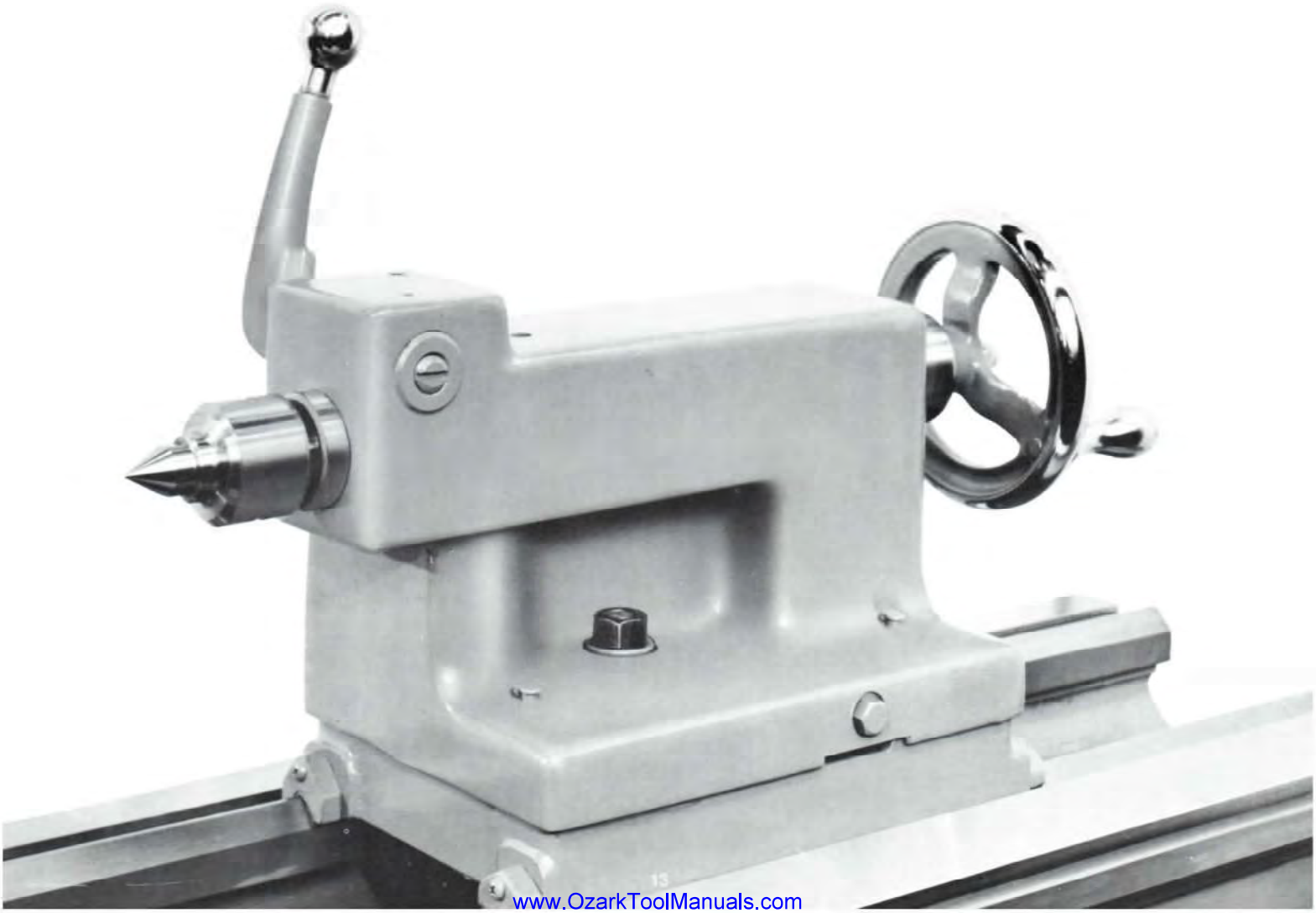
coolant system

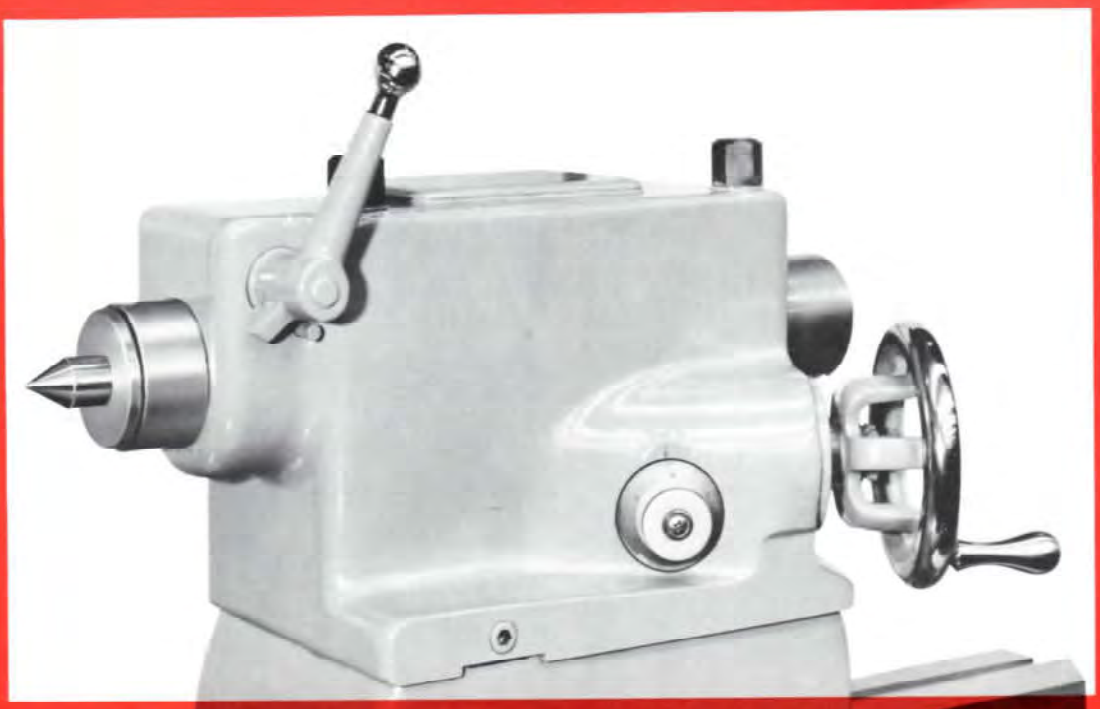
The coolant system includes motor driven pump, sump built into tailstock leg and necessary piping, valve, hose and nozzle. It can be installed on lathes in the field if they are equipped with chip pan. Available for all Regal Lathes.



revolving tailstock center

This revolving center is inserted into the tailstock spindle to help maintain accurate work alignment by preventing center burning at high speeds. It is equipped with anti-friction bearings and large, permanently sealed, lubricant capacity for long life.





heavy duty tailstock

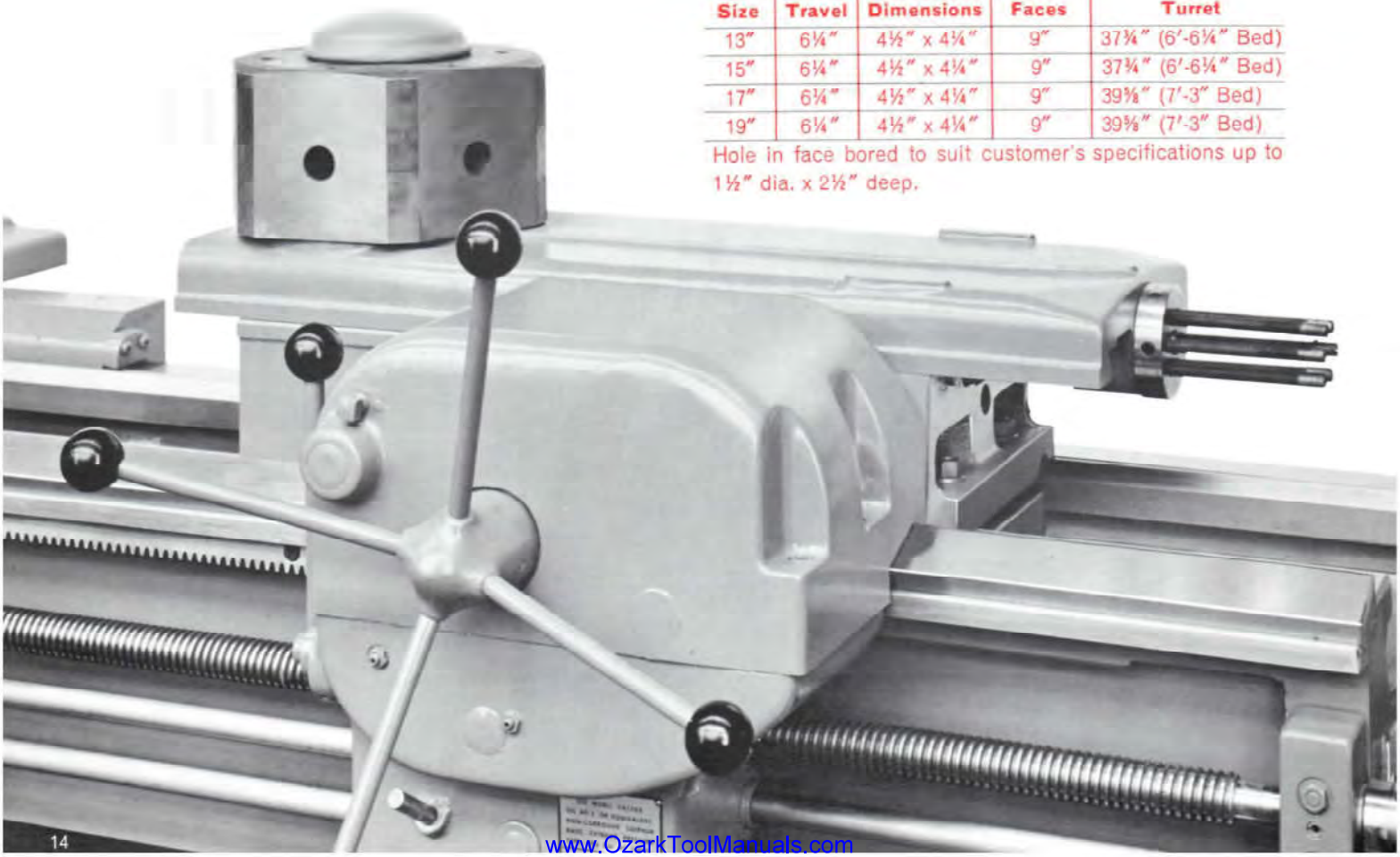
A heavy duty worm operated tailstock is available for 21" and 24" Regal lathes. Two optional features may be built-in, an anti-friction spindle, and a two-speed handwheel (6:1 ratio) for advancing and retracting the spindle at optimum rates. A direct reading length dial is provided with all heavy duty tailstocks.

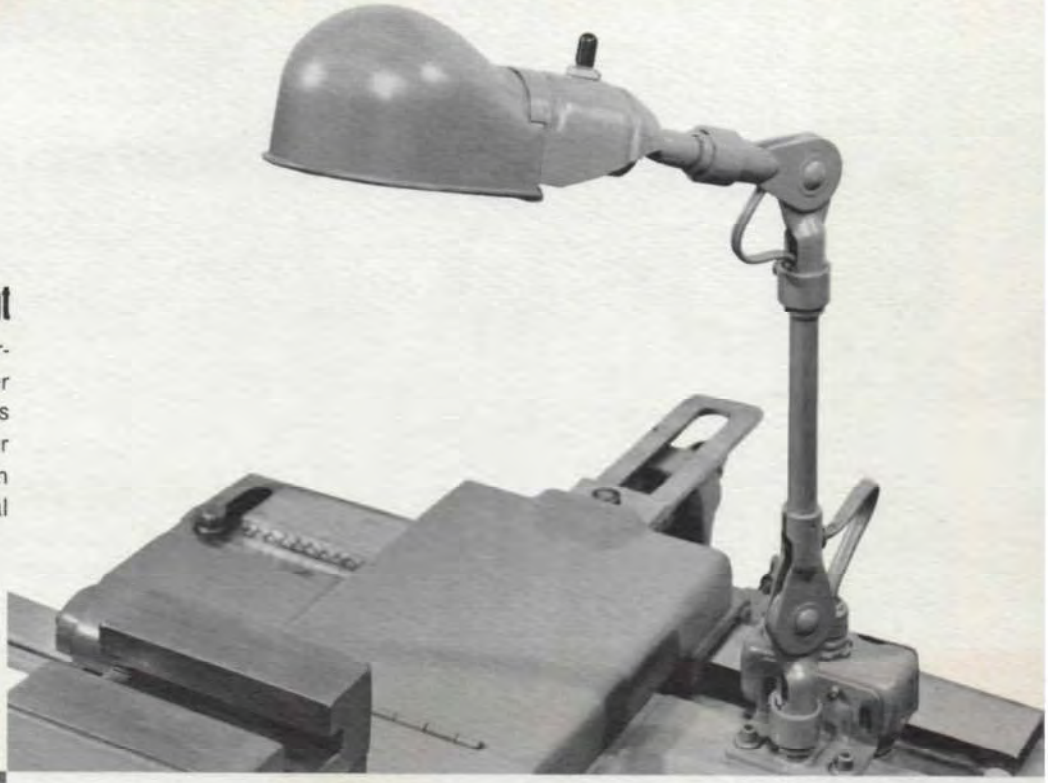
ram type bed turret

This turret is available with either hand or power feed. It has rigid six station turret which is supported on adjustable precision roller bearings. The turret may be indexed automatically or by hand. Power drive for the turret is taken from the feed rod providing full feed range.

Lathe Size	Ram Travel	Turret Face Dimensions	Distance Across Faces	Spindle Nose To Face of Turret
13"	6¼"	4½" x 4¼"	9"	37¾" (6'-6¼" Bed)
15"	6¼"	4½" x 4¼"	9"	37¾" (6'-6¼" Bed)
17"	6¼"	4½" x 4¼"	9"	39⅞" (7'-3" Bed)
19"	6¼"	4½" x 4¼"	9"	39⅞" (7'-3" Bed)

Hole in face bored to suit customer's specifications up to 1½" dia. x 2½" deep.



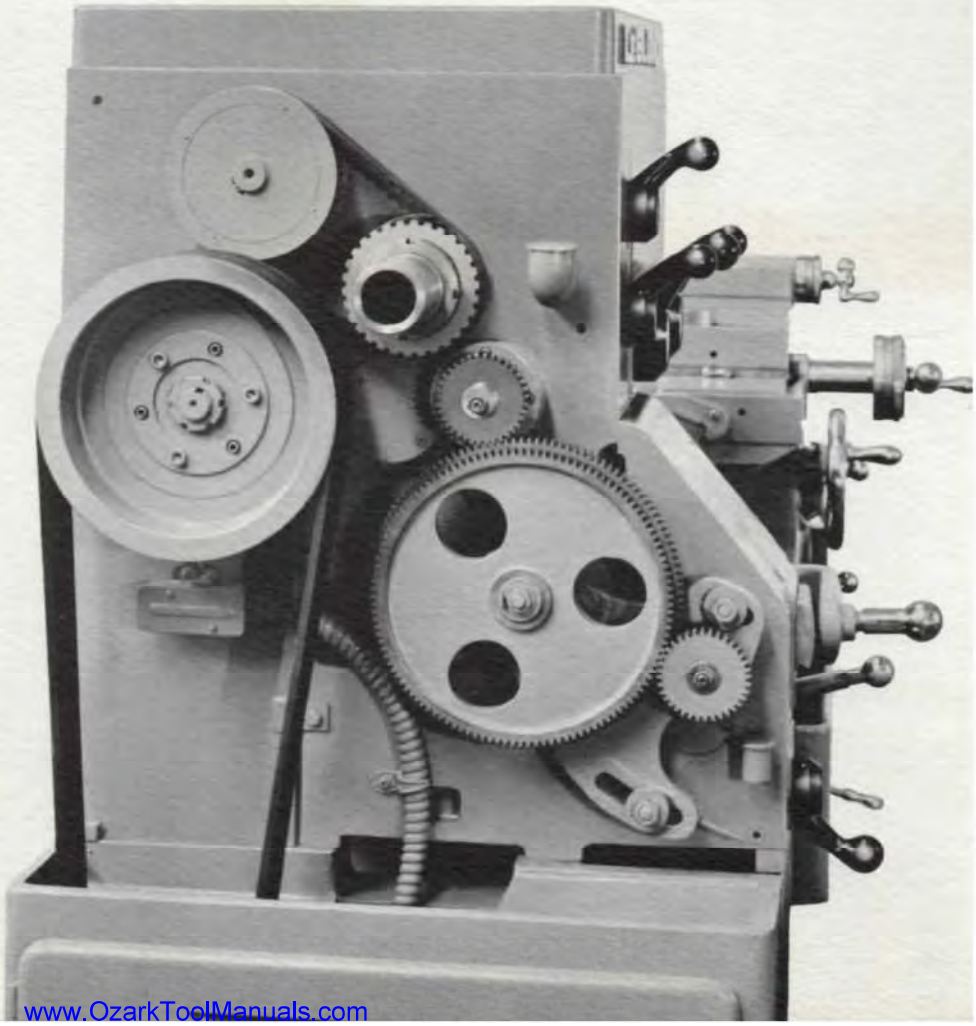


work light

A work light fastened to the rear carriage wing provides illumination over the entire cutting tool work area. It is furnished with a coiled cord and power is supplied through a transformer in the control box. Available for all Regal Lathes.

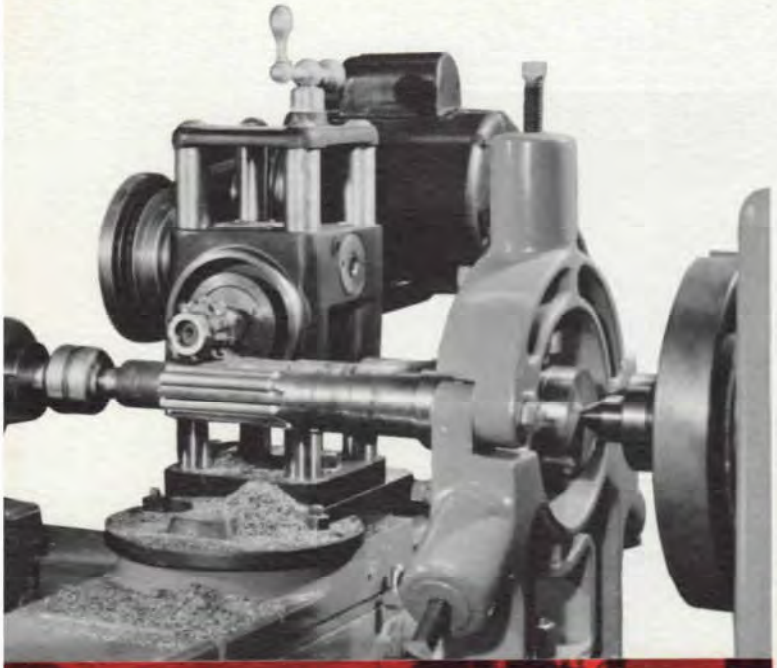
trav-a-dial

The movements of the lathe carriage can be measured accurately (within .001") with this attachment. It measures any distance by contact of a friction-driven gage wheel along the front surface of the bed.



metric translating gears

These gears replace the pick-off gears in end gear drive to permit the cutting of metric leads and threads with the English quick change box and leadscrew. By using spindle reverse (standard equipment on all Regals) the half nut can be left in engagement.

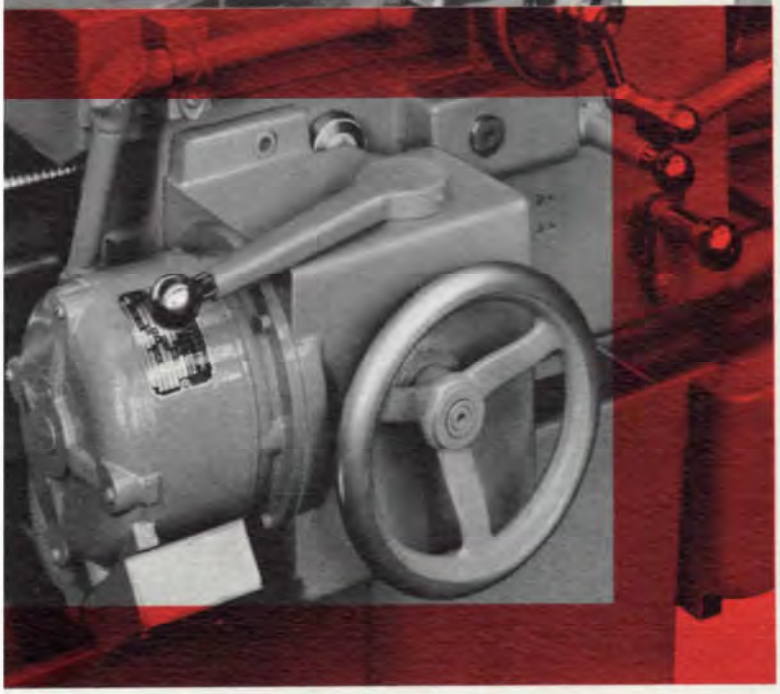


universal milling converter

Universal milling converter greatly increases the versatility of the lathe. Mills, drills, bores, grinds, broaches and performs dividing head operations without removing work from centers. It clamps to the compound rest or bottom slide and does not limit carriage travel. Milling and keyway vises are available for attachment to the slides, when the lathe spindle is used for driving the cutting tool.

power rapid traverse

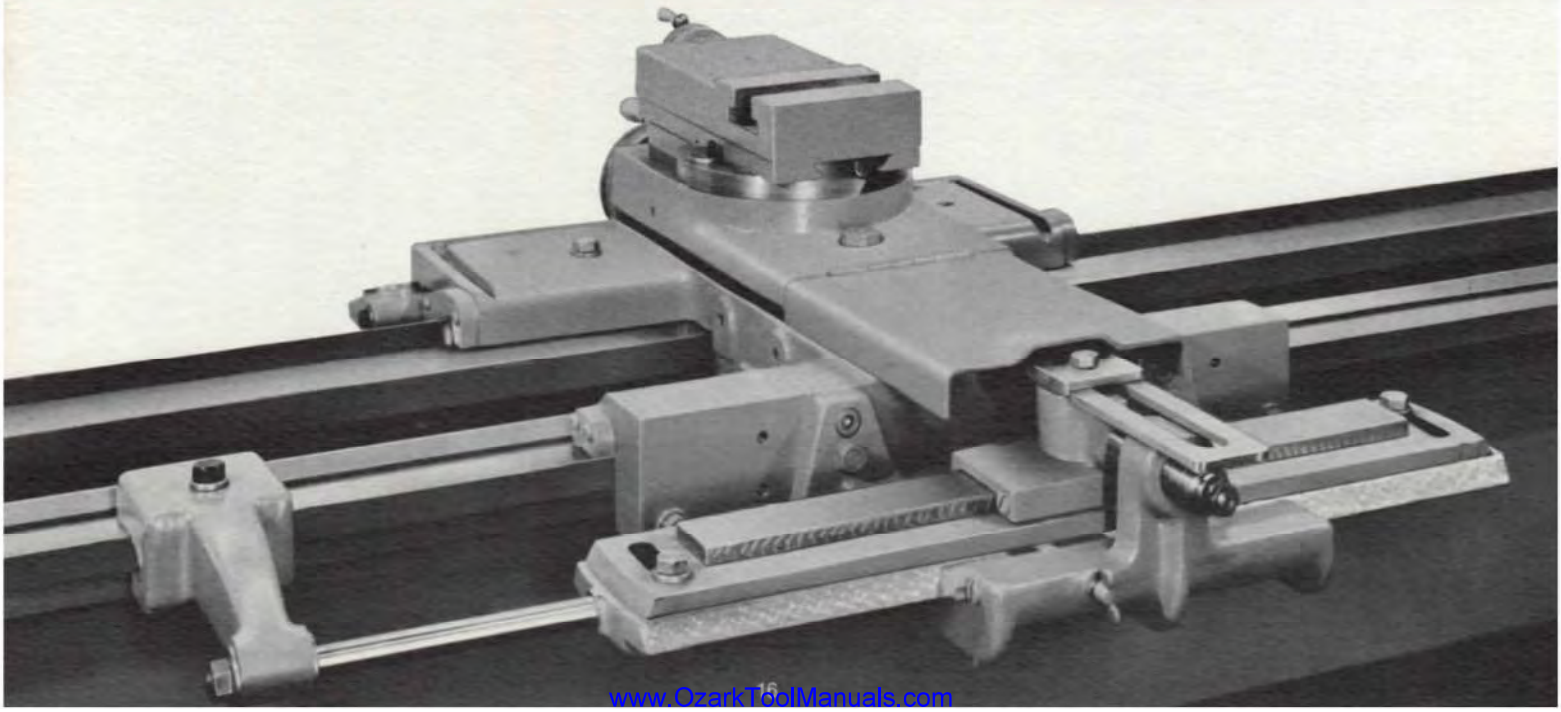
The carriage of a 21″ or 24″ Regal lathe may be positioned quickly when the lathe is equipped with Power Rapid Traverse. A cone clutch permits sensitive jogging to any desired position on the length axis of the lathe. Drive is directly through a pinion to the rack fastened on the bed.



taper attachment

A taper attachment is fitted to the rear of the carriage and employs a telescoping cross feed screw permitting taper turning without disengaging the screw. Strain on the cross feed screw and nut is completely relieved through the use of a steel draw bar which controls the movement of the slide during taper cuts. The slide is graduated at one end in degrees and the other in inches of taper per foot.

Lathe Size	Maximum Taper per foot (included)	Degrees Taper per foot (included)	Turns at one setting
13″	3½″	16° 36″	10″
15″	3½″	16° 36″	10″
17″	3½″	16° 36″	15″
19″	3½″	16° 36″	15″
21″	3½″	16°	18″
24″	3½″	16°	18″



milling and keyway vise

This attachment is interchangeable with the compound rest and provides a universal clamping device for feeding work into a spindle mounted cutter. The vise can be adjusted vertically, pivoted 45° each side of vertical centerline and swiveled 360° in a horizontal plane.

grinding attachments

Grinding attachments are ideal for small grinding and polishing operations. They bolt to the compound rest. Many types of grinding attachments are available. Please write to the factory, stating your specific needs.

hydra-trace

This duplicating attachment operates hydraulically, tracing from low-cost, flat templates. With it you can turn one or hundreds of workpieces precisely alike down to the last half-thousandth. Hydra-Trace is simply constructed, quick to setup, and easy to use. For additional information and specifications ask for a copy of the Hydra-Trace booklet.

world's largest builder of a complete line of lathes

heavy duty

HEAVY DUTY ENGINE—MODEL 1610, 20 HP, TO MODEL 5235, 100 HP
HEAVY DUTY TOOLROOM—MODELS 1610, 2013, AND 2516
HEAVY DUTY PLAIN BED GAP—MODEL 1610 TO MODEL 3220
HEAVY DUTY SLIDING BED GAP—MODEL 2013/46 TO MODEL 4025/65
HEAVY DUTY HOLLOW SPINDLE—MODEL 2516, 3220 AND 4025
ROLL TURNING—MODEL 3220, 50 HP, TO MODEL 5235, 100 HP
MISSILE—72" TO 168"
MODEL RT TOOLROOM—16"

regal

REGAL ENGINE—13" TO 24"
REGAL PLAIN BED GAP—17" TO 24"
REGAL SLIDING BED GAP—17"/28" TO 24"/39"
REGAL HOLLOW SPINDLE—24"

tool and die maker

14" AND 16"

tracers

HYDRA-TRACE TRACING ATTACHMENT
90° HYDRAULIC TRACER
TWO-DIRECTIONAL TRACER

numerical control

TAPE-TURN—MODEL 2013, 20 HP, TO MODEL 4025, 75 HP
TAPE-TURN—MISSILE
TAPE-TURN—FACE PLATE DRIVE

crankshaft

AUTOMATIC CRANKSHAFT—LINE BEARING
AUTOMATIC CRANKSHAFT—PIN BEARING

The R. K. LeBlond Machine Tool Company, Cincinnati, Ohio 45208 Madison at Edwards Road

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Litho in U.