



No. 850 Complete As Shown, Less Motor, F. O. B. Chicago. \$475.00

The Logan No. 850 Manufacturing Turret Lathe is an accurate, durable tool developed for continuous production of small parts. Within its capacity its output will equal in quality and quantity that of larger, costlier machines, thereby releasing them for heavier work. Thus it fills the urgent needs of today. Built to rigid and exacting specifications it can be depended upon for accurate work and long service life. Features of its design include: precision ground bed, precision preloaded ball bearing spindle mounting, adjustable gibs to compensate for wear of turret and cross slide. The turret holes are bored from the headstock. Added versatility is obtained by ordering compound rest assembly and tail stock assembly with the lathe.

COUNTERSHAFT ASSEMBLY

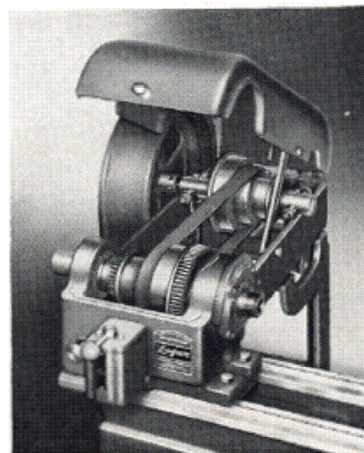
The patented countershaft assembly used in this machine is carried on a three point suspension and is completely insulated by rubber at all points of contact to prevent vibration being transmitted to the lathe.

All pulleys and belts are completely guarded yet readily accessible. The entire unit is designed to appear as a streamlined part of the lathe.

BALL BEARING HEADSTOCK

When the cone pulley guard is raised as shown at right, belt tension is automatically released for quick belt change.

The ball bearing spindle mounting is advanced design that is more expensive and produces finer results. New Departure grease sealed preloaded precision bearings give greater accuracy, less friction, less wear and require no adjustment or lubrication.



LOGAN ENGINEERING CO. • CHICAGO, ILL.

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

CAPACITY OF LATHE

Swing over bed and saddle wings 10"
Swing over cross slide 5"

THREADS AND FEEDS

Reversible power longitudinal feed.
Reversible power cross feed.
Lead Screw diameter and threads per in. 3/4" x 8
Threads - 46 selections RH or LH 4-216 per in.
Independent change gears - 17 furnished (6 on lathe and 11 extra)
Width of face of change gears... 7/16"

BED

Width of bed across ways 6 5/16"
Bed length 43 1/8"
Precision ground ways, 2 prismatic "V" ways and 2 flat ways.

HEADSTOCK AND SPINDLE

Spindle mounted on matched, grease-sealed, pre-loaded New Departure Ball Bearings of highest precision type.
Back gear shaft bearings - self lubricating bronze bearings.
Hole through spindle 2 5/32"
Maximum Collet capacity 3/8"
Spindle nose diameter and threads per in. 1 1/2" x 8
Width of cone pulley steps for belt... 1"

Width of face of bull gear and back gears 3/8"
Number of spindle speeds 12
Spindle speeds, back gears engaged 30, 56, 70, 104, 131, 244
Spindle speeds, direct belt driven 179, 334, 420, 620, 750, 1450
Drum Type Motor Reversing Switch and Cord

CARRIAGE AND CROSS SLIDE

Cross slide graduated in thousandths. Travel 6"
Cross feed screw mounted on self-lubricating bronze bearings.
Adjustable Double Tool Posts.
Tool Posts equipped with adjustable wedges.
Tool post tool slots 3/8" x 1/2"

TURRET

Diameter of turret head 5"
Six position with adjustable stops.
Turret holes, diameter 3/8"
Turret holes bored from headstock of lathe.
Maximum stroke of turret 4 1/4"

COUNTERSHAFT ASSEMBLY (Incl. in Price of Lathe)

2 Speed "V" Motor Pulley 3/4"
Bore 2 3/8" - 4"
2 Speed countershaft flat pulley 9" - 10"

5 1/2" x 1/2" V Belt used on flat of 2 step countershaft pulley and in V of motor pulley.
3 Step flat belt cone pulley mounted on countershaft. Width of step face 1"
Countershaft mounted on self-lubricating bronze bearings.
Adjustable motor mounting bracket furnished with countershaft assembly.
Countershaft assembly independently supported on patented 3 point suspension.
Countershaft assembly completely insulated with rubber to prevent vibration being transmitted to lathe.
Countershaft and all pulleys completely enclosed and guarded.
Automatic belt tension release when guard for cone pulleys is raised to change belt steps.

OVERALL DIMENSION (Including Countershaft Assembly)

Length 51"
Width 30"
Height 50"

MOTOR

Use 1/2 H.P. 1750 R.P.M. Motor.

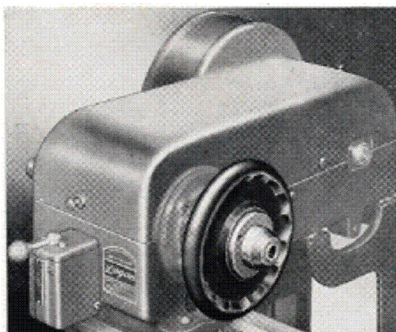
SHIPPING WEIGHT

No. 850 Logan Manufacturing Turret Lathe, less motor 535 lbs.

LOGAN SPEED COLLET CHUCK

Fits the No. 850 Manufacturing Lathe or others with a 1 1/2" x 8 thread spindle nose. Capacity: round work up to 3/8" diameter which may be fed through lathe spindle. Its positive squeeze grip closes concentrically on work without longitudinal movement of collet and with no slip or twist. Minimum overhang assures accuracy. Only three moving parts. No keys or wrenches. Closing wheel is 7" in diameter of specially processed plastic and located within easy reach of operator.

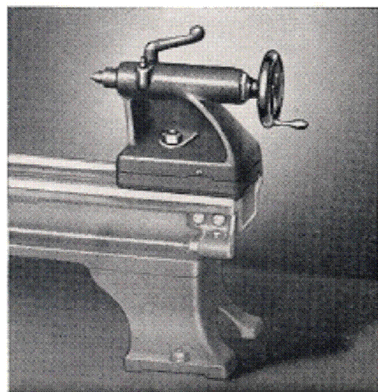
No. 465—Shipping weight, 6 lbs. ... \$29.50



COLLETS FOR LOGAN SPEED CHUCK

For use with Logan Speed Chuck. Made of specially heat treated steel ground to dimensions inside and outside to insure accuracy. Furnished in sizes for work from 1/16 to 3/8 inch by 32ds. Work cannot be more than .005" larger or smaller than collet size. State size wanted.

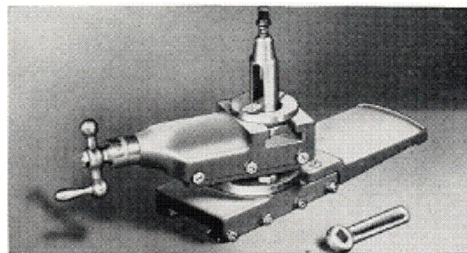
No. 480—Shipping weight, 6 oz. each \$4.50



LA-3 TAILSTOCK ASSEMBLY

The LA-3 Tailstock assembly, same as furnished with bench lathe. Complete with headstock adapter sleeve, two 60° centers, and wrench. This assembly must be ordered with the No. 850 Lathe, so that tailstock can be matched with headstock at factory. This assembly and the LA-13 Compound Rest Assembly will convert the No. 850 Lathe into a standard bench type lathe.

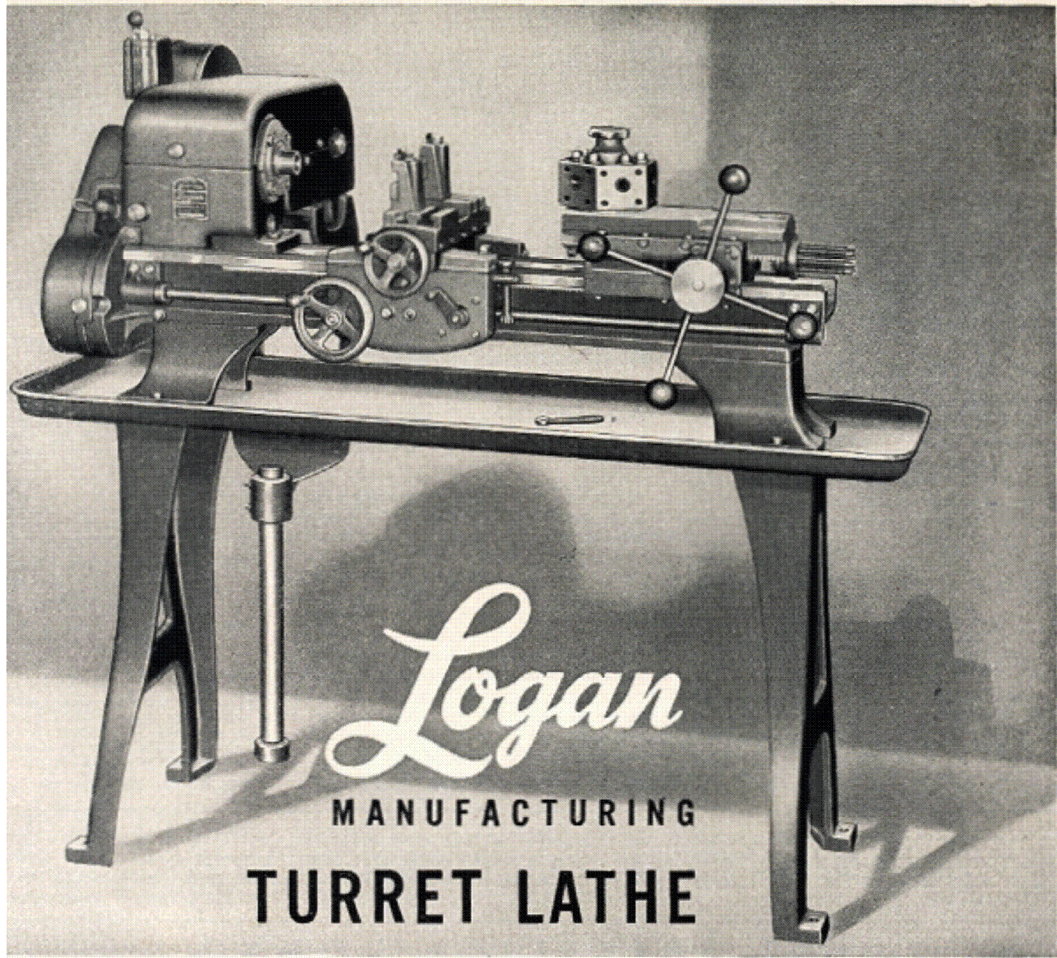
Shipping wgt., 24 lbs. \$20.00



LA-13 COMPOUND REST ASSEMBLY

Same as furnished with bench lathe, complete with tool post. Fits ways in place of double tool post cross slide.

Shipping weight, 11 lbs. \$19.50



No. 850-2—Complete as shown with pilot wheel turret and turret lock, less motor, F.O.B. Chicago

No. 850—Same as 850-2, but with lever instead of pilot wheel on turret, and without turret lock, F.O.B. Chicago

The Logan Manufacturing Turret Lathe is an accurate, durable tool developed for continuous production of small parts. Within its capacity its output will equal in quality and quantity that of larger, costlier machines, thereby releasing them for heavier work. Built to rigid and exacting specifications it can be depended upon for accurate work and long service life. Features of its design include: precision ground bed, precision pre-loaded ball bearing spindle mounting, adjustable gibs to compensate for wear of turret and cross slide. New, heavy, hex-

agonal block turret assures maximum smoothness and accuracy and lengthens tool life. Hexagonal design permits mounting of tools on face of block as well as in standard bored tool hole. Pilot wheel operation permits easier and more positive control over action of cutting tools. Turret lock provides increased rigidity. The turret holes are bored from the headstock. Added versatility is obtained by ordering the LA-49-2 Compound Rest Assembly and the LA-3 Tail Stock Assembly described in Logan Accessory catalog.

COUNTERSHAFT ASSEMBLY

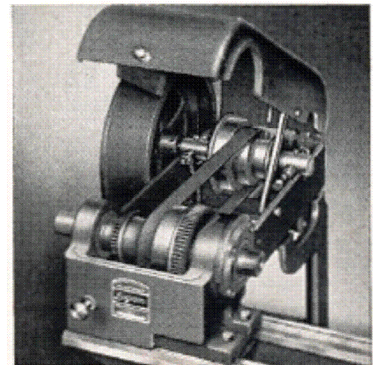
The patented countershaft assembly used in this machine is carried on a three point suspension and is completely insulated by rubber at all points of contact to prevent vibration being transmitted to the lathe.

All pulleys and belts are completely guarded yet readily accessible. The entire unit is designed to appear as a streamlined part of the lathe.

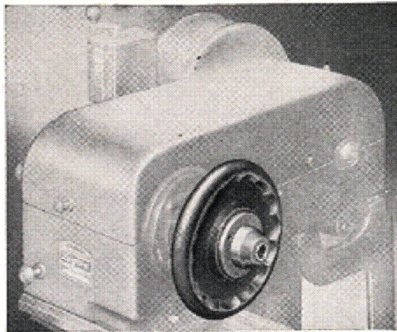
BALL BEARING HEADSTOCK

When the cone pulley guard is raised as shown at right, belt tension is automatically released for quick belt change.

The ball bearing spindle mounting is advanced design that is more expensive and produces finer results. New Departure grease sealed preloaded precision bearings give greater accuracy, less friction, less wear and require no adjustment or lubrication.



LOGAN ENGINEERING CO. • CHICAGO 30, ILL.



HAND WHEEL COLLET CHUCK

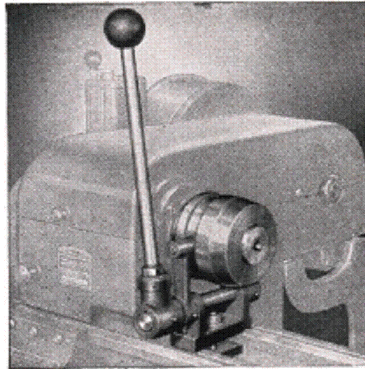
Fits No. 850 Manufacturing Lathe or others with 1 1/2" x 8 thread spindle nose. Capacity: round work up to 3/8" diameter which may be fed through lathe spindle. Its positive grip closes concentrically on work without longitudinal movement of collet and with no slip or twist. Minimum overhang assures accuracy. Only three moving parts. No keys or wrenches. 7" diameter closing wheel, of specially processed plastic. Back plate included.

No. AC-201—Shipping wt., 6 lbs.

PUSH TYPE COLLET

Used with Logan Collet Closers AC 210 and AC 201, and with the Logan LA 32-34 Bar Feed. A superior collet, alloy tool steel, heat treated for maximum wear, precision ground inside and out. Sizes 1/16" to 5/8" by 32nds.

No. AC-50—Shipping wt., 8 oz. each

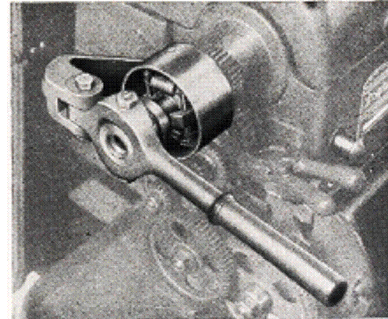


PRODUCTION COLLET ATTACHMENT

For Push Type Collets, 3/8" Capacity

Provides a quick acting collet closer which can be operated while lathe spindle is in motion. The control lever operates through two ball bearing rollers running in a groove on outside surface of the chuck body which actuates two hardened closing fingers. Actuates the collet concentrically. The work can be brought against a stop and locked in position without longitudinal movement. Chuck is attached to spindle by a back plate which must be fitted to the particular lathe on which the chuck is used, giving a high degree of accuracy. All parts of closing mechanism precision ground in place.

No. AC-210—Shipping wt., 25 lbs.



PRODUCTION COLLET ATTACHMENT

For Draw-In Collets Up to 1/2" Capacity

The Logan Production Collet Attachment for draw-in collets has 1/2" capacity and can be easily attached to Logan Lathes within a few minutes by easy average mechanic. The attachment is lever operated, opens and closes while the lathe spindle is in motion. Easily adjustable to provide any desired chuck tension. Order the No. AC 30 Draw-In Collet listed below for this attachment.

No. AC-166—For use with No. 815, 820, 825, 840, 840-2, 845, 845-2, 850, or 950 2 Logan Lathes

No. AC-165—For use with No. 200 and No. 210 Logan Lathes

DRAW-IN COLLET

Heat treated tool steel, ground inside and out to insure accuracy. One end of the collet is threaded for hollow draw bar and the other end fits taper in closing sleeve. Sizes for round work 1/16" to 1/2" diam. by 32nds.

No. AC-30—Shipping wt., 1/4 lb. ea.

Collet capacity 3/8" with push type collets used in Logan No. AC-210 Production Collet Chuck or No. AC-201 Speed Collet Chuck.

Collet capacity 1/2" with draw-in collets used in Logan AC-166 Production Collet Chuck or Logan No. AC-151 Draw-in Collet Chuck.

NOTE: Push type collets give greater capacity, have greater holding power and close concentrically on the work without pulling it away from the stop.

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

CAPACITY OF LATHE

Swing over bed and saddle
wings 10 1/2"
Swing over cross slide..... 4 1/2"

THREADS AND FEEDS

Reversible power longitudinal feed.
Reversible power cross feed.
Lead Screw diameter and threads
per in. 3/4"-8
Threads—46 selections RH or
LH 4-216 per in.
Independent change gears 17 furnished (8 on Lathe and 11 extra)
Width of face of change gears.. 7/16"

BED

Width of bed across ways 6 15/16"
Bed length 43 1/8"
Precision ground ways, 2 prismatic
"V" ways and 2 flat ways.

HEADSTOCK AND SPINDLE

Spindle mounted on matched, grease-sealed, pre-loaded New Departure Ball Bearings of highest precision type.
Back gear shaft bearings—self lubricating bronze bearings.
Hole through spindle..... 2 5/32"
Spindle nose diameter and threads
per in. 1 1/2"-8
Width of cone pulley steps for belt.. 1"
Width of face of bull gear and back gears 5/8"
Number of spindle speeds..... 12
Spindle speeds, back gears engaged 30, 56, 70, 104, 131, 244

Spindle speeds, direct belt
driven . . 179, 334, 420, 620, 780, 1450
Drum Type Motor Reversing Switch and Cord

CARRIAGE AND CROSS SLIDE

Cross slide graduated in thousandths. Travel 6"
Cross feed screw mounted on self-lubricating bronze bearings.
Adjustable Double Tool Posts.
Tool Posts equipped with adjustable wedges.
Tool post tool slots..... 7/16" x 1 9/16"

TURRET

Distance across flats..... 5 1/4"
Six position with adjustable stops.
Turret holes, diameter 5/8"
Turret holes bored from headstock of lathe.
Maximum stroke of turret..... 4 1/4"

COUNTERSHAFT ASSEMBLY (Incl. in Price of Lathe)

2 Speed "V" Motor Pulley 3/8"
Bore 2 3/8"-4"
2 Speed countershaft flat pulley 8 5/8"-10"
51"x 1/2" V Belt used on flat of 2 step countershaft pulley and in V of motor pulley.
3 Step flat belt cone pulley mounted on countershaft. Width of step face 1"
Countershaft mounted on self-lubricating bronze bearings.
Adjustable motor mounting bracket furnished with countershaft assembly.

Countershaft assembly independently supported on patented 3 point suspension.

Countershaft assembly completely insulated with rubber to prevent vibration being transmitted to lathe.

Countershaft and all pulleys completely enclosed and guarded.
Automatic belt tension release when guard for cone pulleys is raised to change belt steps.

OVERALL DIMENSION (Including Countershaft Assembly)

Length 54"
Width 30"
Height 50"

SELF LUBRICATING BRONZE BEARINGS

at 24 separate points in lathe where plain bearings are ordinarily furnished.

MOTOR

Use 1/2 H.P. 1750 R.P.M. Motor.
If lathe is ordered without motor specify:
1. Bore of motor pulley to be furnished with lathe.
2. State whether 0636 or 0639 Drum Switch should be supplied. (See Accessory Circular for description of drum switch.)

SHIPPING WEIGHT

No. 850-2 Logan Manufacturing Turret Lathe, less motor..... 580 lbs.