

METAL LATHES

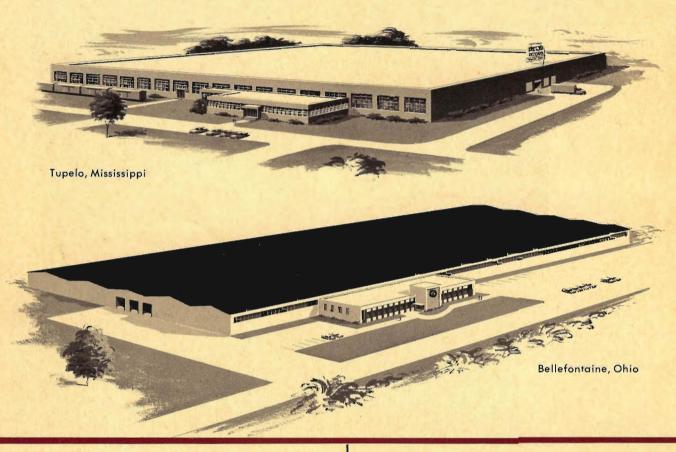


ROCKWELL MANUFACTURING COMPANY

What the world's largest, most modern power tool plants mean to you

Every Rockwell-built Delta Metal Lathe made is a product of over 30 years' experience in manufacturing the world's most famous power tools. Like all Rockwell-built power tools, these lathes offer you quality that only the most advanced engineering skills could create—and only the most modern production facilities could maintain.

These new power tool plants which are located at Bellefontaine, Ohio and Tupelo, Mississippi are the finest of their kind in the world. They stand behind a widespread dealer organization equipped to render the type of cooperation and service you need—and get—when you buy a Delta Metal Lathe.



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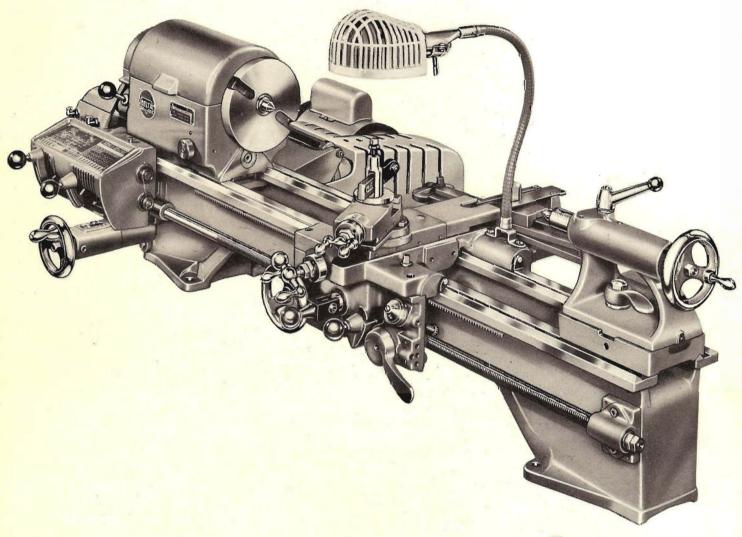
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The right is reserved to make changes in design or equipment of any item, without incurring any obligation to install these on machines previously sold, and to discontinue models of machines, motors or accessories at any time without notice.

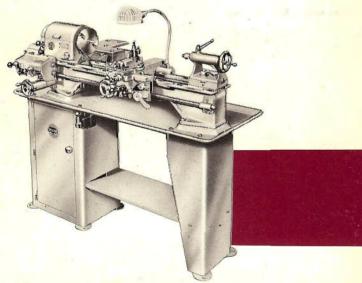
NEW! 10" METAL LATHE



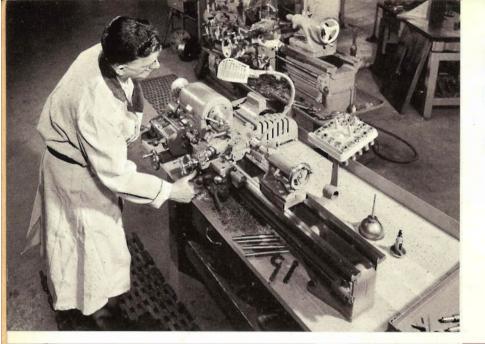
No comparable lathe offers so much real value!

You'll like everything about this all-new Delta 10" Lathe—its modern look, on-the-job performance, and especially the low price. Designed for industry, schools or home workshops, it fills the need for a safe, low cost, precision lathe with heavy duty capacity.

You get variable speed drive, 3/4" collet capacity, massive, double row, precision ball bearing at the work load end of the spindle—an exclusive combination of features never before available on a lathe this size at comparable cost.

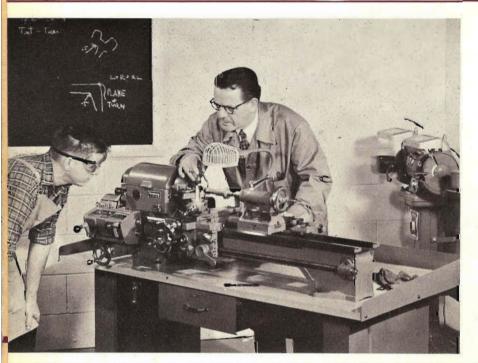


Specially designed, extra rigid steel cabinet (optional) serves as steady base for lathe. (See back cover for lathe shown on bench.) Full range of 10" lathe accessories available.



NEW DELTA 10" METAL LATHES ON THE JOB...

in Industry it delivers real economy on a variety of jobs—on the production line or in the tool room—requiring precision and rugged, dependable performance. It fills the needs for a low cost lathe for heavy duty work, offers exclusive variable speed drive and 3/4" collet capacity never before available on a lathe this size.

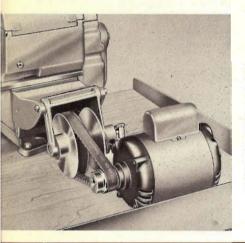


in school shops the many safety features assure maximum student protection. Of particular interest to instructors is the feature of the variable speed drive that permits pre-setting of the top speed limits in direct drive and protection offered by the shear pin on the lead screw.



in home workshops it provides a compact, modern, easy to operate lathe with drive that comes into the headstock at bench level—out of the way and safe. The sturdy, attractive bench has adequate space for separate mounting of the motor, or a special motor mounting kit is available for mounting motor on any stand or bench.

THESE FEATURES MAKE THE ALL-NEW DELTA 10" METAL LATHE AN UNEQUALLED VALUE!

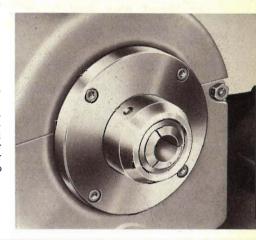


EXCLUSIVE VARIABLE SPEED DRIVE

The only 10" lathe in its price range that offers a variable speed drive as standard equipment. You get infinitely variable speed—50 to 1500 rpm—plus the high torque transmitting power of matched V-belts in the final drive to the spindle. This unique drive is extra safe because it comes into the headstock at bench level, out of the way of the operator.

LARGEST COLLET CAPACITY

No other lathe offers you so much capacity at anywhere near the price! You get a full ¾" collect capacity. This means you can use 4-C collets to handle large jobs which you could not ordinarily handle on other lathes of this size. Taper for collets is ground directly into spindle for extreme accuracy.



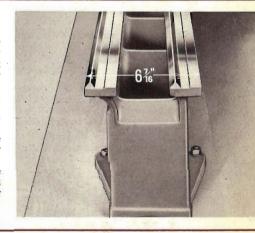


RUGGED HEADSTOCK

Features heavy duty construction throughout. Over-sized spindle is made from heattreated alloy steel, hardened and ground to a super finish. Spindle nose threads, hardened and then ground, resist damage and maintain original accuracy. Massive, double row, precision ball bearing at spindle nose end features angular contact and internal preloading to prevent all play and assure rigid, accurate work support. Large ball bearing at outboard end "floats" to compensate for expansion as spindle warms up.

EXTRA WIDE BED

You get an exceptionally wide bed (6 7/16") to assure greatest accuracy possible. Outstanding features include: one-piece construction, with integral riser blocks, plus heavy U-section cross braces for added strength. There are no traps or obstructions to catch chips or coolant. The bed is made of close grained, hi-tensile iron, fully normalized before machining. Precision ground ways provide extremely accurate parallelism with the headstock spindle over the entire length of bed.





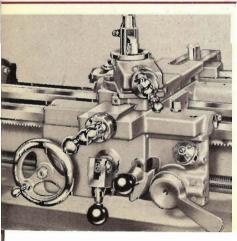
QUICK CHANGE GEAR BOX

Gear box provides a choice of 54 feed rates and 54 thread pitches (including 27 threads per inch) by means of only two selector levers. A large, easy-to-read thread and feed chart, conveniently mounted to the top of the box, makes it easy to set selector levers. A lubrication chart, located where it cannot be overlooked, graphically provides all necessary lubrication information.

FLEXIBLE SPEED CONTROL

Speeds can be changed quickly and without effort by turning the large, conveniently located hand wheel. With the easy-to-read pointer and dial, the operator can tell at a glance the spindle speed he is getting through the full range from 50 to 1500 rpm. A special bonus feature lets him pre-set the high and low speed limits—a real advantage on repetitive, multiple diameter work — a safety feature for students and inexperienced operators.



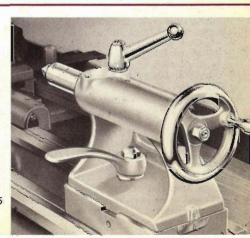


ADVANCED CARRIAGE ENGINEERING

Compound slide rest, even in its most forward position, does not overhang the swivel bearing pad. Micrometer collars are direct reading type. Apron has a thread dial as standard equipment. Half-nuts have a special, crisp-action design, appreciated especially by experienced operators. Powerful clutch has infinite choice of settings—can be pre-set to slip when overloaded (to protect the lathe) or can be instantly adjusted, even while lathe is running, for very heavy power transmission.

MODERN TAILSTOCK

Rugged, compact, very easy to move and adjust. Can be accurately offset for taper turning by means of adjusting screws. Index marks show exact amount of offset. Ram is marked in 1/6", adjustable micrometer colar is calibrated in .001" for drilling and similar operations. When fully retracted, ram automatically ejects centers. Large ram lock handle can be set at whatever angle the operator finds most convenient.



STANDARD EQUIPMENT

Quick change gear box

Matched V-belts for spindle

Variable speed drive complete, including belts

Motor pulley

6" diameter drive plate

Centers for headstock

Tool post, ring and rocker

Spindle adapter, No. 2 Morse taper i.d.

Thread chasing dial

Combination wrench for tool post, etc.

Box wrench for tailstock

Extra shear pins

CATALOG LISTING

BASIC 10" METAL LATHE: Bench model, quick change type, variable speed drive, 1½"—8 threaded spindle nose, with clutch driven worm drive power longitudinal and cross feeds. (Specify ½, ¾, ¾ or ¾8" bore for motor pulley.) Without bench, motor and switch. 345 lbs.

CAT. NO. 25-700

For Single Phase Operation

10" METAL LATHE complete. Includes No. 25-700 Lathe, No. 25-811 Cabinet, No. 25-805 Motor Mounting Kit, No. 62-710 Motor and No. 25-806 Switch Kit. Not assembled. 561 lbs. CAT. NO. 25-701

For Three Phase Operation

10" METAL LATHE complete with manual on-and-off control. Includes No. 25-700 Lathe, No. 25-811 Cabinet, No. 25-805 Motor Mounting Kit, No. 66-710 Motor, No. 25-806 Switch Kit and No. 49-365 Overload Switch. Specify whether 208-220 or 440 volts. Nor assembled. 564 lbs. CAT. NO. 25-702

10" METAL LATHE complete with magnetic on-and-off control for 208-220 V. Includes No. 25-700 Lathe, No. 25-811 Cabinet, No. 25-805 Motor Mounting Kit, No. 66-710 Motor, No. 49-392 Switch Kit and No. 49-396 Magnetic Starter. Not assembled. 567 lbs. CAT. NO. 25-704

10" METAL LATHE complete with magnetic on-and-off control for 440 V. Includes No. 25-700 Lathe, No. 25-811 Cabinet, No. 25-805 Motor Mounting Kit, No. 66-710 Motor, No. 49-392 Switch Kit and No. 49-397 Magnetic Starter. Not assembled. 567 lbs. CAT. NO. 25-705

Note: For complete description of motors and controls, see Page 19.

SPECIFICATIONS

CAPACITY
Swing over bed and saddle wings
Swing over cross slide6"
Between centers (tailstock completely on bed)
Hole through spindle
Maximum capacity with 4-C style collet
THREADS AND FEEDS
Quick change gear box has 54 thread and feed changes L.H. or R.H.
Threads4, 4½, 5, 5½, 5¾, 6, 6½, 6¾, 7, 8, 9, 10, 11, 11½, 12, 13, 13½, 14, 16, 18, 20, 22, 23, 24, 26, 27, 28, 32, 36, 40, 44, 46, 48, 52, 54, 56, 64, 72, 80, 88, 92, 96, 104, 108, 112, 128, 144, 160, 176, 184, 192, 208, 216, 224.
Range of feed rates per spindle revolution
Longitudinal
SPINDLE AND HEADSTOCK
Infinite choice of speeds in direct drive
Infinite choice of speeds in gear drive
Diameter at inboard bearing
Center used No. 2 M.T.
Bed (heavy, U-section cross braces)
Has two V-ways and two flat ways
Length $44\frac{1}{8}$ "; Width $6\frac{1}{16}$ " Depth (in center) $4\frac{1}{4}$ "; Width of V's $\frac{1}{16}$ "
CARRIAGE
Length of saddle V-way10"; width of saddle bridge3½" Cross slide travel6"; compound slide travel2"
TOOL POST
1/6 x 1/16" opening (takes standard tool holders for 1/4" bits)
TAILSTOCK (has automatic center ejection)
Ram diameter
Length of graduations marked on ram, by 1/6ths
Center used
Handwheel adjustable micrometer collar graduated in .001" Set-over adjustment (either way) for taper turning
OVERALL DIMENSIONS
Left to right53" Front to rear231/2" High161/4"

THESE ACCESSORIES MAKE THE NEW 10" METAL LATHE EVEN MORE VERSATILE

CABINET ... with Coolant Pan for 10" Metal Lathe. Brings center of spindle 42" from floor. Special design and use of heavy gage metal makes it an ideal mounting for smooth operation. Headstock pedestal has three 12 x 17" shelves and tight-closing door with rattle-proof latch. Flange in drain hole is tapped for standard ½" pipe. Shipped not assembled. (Order No. 25-805 Kit for mounting motor.) 143 lbs.

MOTOR MOUNTING KIT... For Motors No. 62-710 or 66-710 and most NEMA Frame 56 Motors. For use with Delta Cabinet No. 25-811 and other benches (less than 28" front to rear) not providing a motor location to rear of headstock. Consists of Mounting Brackets, Motor Mounting Plate and Guard for Motor Pulley and Variable Speed Drive Belt. 34 lbs.

CAT. NO. 25-805

BENCH... 30" high with 30 x 60" top. Top is 11/8" thick, made from 3/4" Northern Hard Maple edge-grained laminations, electronically glue welded for maximum strength and flatness. Finished in clear lacquer. Legs and shelf with wide apron are made of heavy gauge metal to make this a sturdy bench or machine stand. Shipped knocked down with assembly hardware and a template for locating holes for Delta 10" Metal Lathe and motor. 120 lbs.

CAT. NO. 25-801

DRAWER ... 14" wide x 23½" front to back x 5" deep. This steel drawer has a padlock feature, ball bearing rollers, drawer stop and large handle. Although recommended for the No. 25-801 Bench, it is used with other benches, tables, desks, or counters. Includes a removable 13½x8x1" sliding tray, attachment hanger, and screws for mounting to under side of bench top. 26 lbs.

CAT. NO. 25-802

BACK AND SIDE STOPS . . . For No. 25-801 Bench. When assembled to the bench top, this kit provides a "fence" about 3" high around the sides and back



of the wooden top. Includes mounting hardware. 14 lbs. CAT. NO. 25-803

BENCH UNIT COMPLETE . . . Consists of Nos. 25-801 Bench, 25-802 Drawer and 25-803 Back and Side Stops. Not assembled. 153 lbs. CAT. NO. 25-807

BELT AND PULLEY GUARD . . . Aluminum, with 3/8" Slots. Recommended when motor is mounted at rear on Delta No. 25-801 (or customer's) Bench. 7 ibs. CAT. NO. 25-859

ADJUSTABLE FLOOR REST . . . to support the No. 25-805 Motor Mounting Kit. Not necessary when the No. 25-805 Kit is used with the No. 25-811 Cabinet. 13 lbs. CAT. NO. 25-808

CHIP PAN . . . 22 x 54", 11/8" deep. Same as coolant pan provided with the No. 25-811 Cabinet except it does not have the drain hole nor the eight holes for mounting on cabinet. For use on No. 25-801 Bench or customer's bench. 45 lbs. CAT. NO. 25-809

taper attachment... Turns or bores tapers up to $8\frac{1}{4}$ " long, with $1\frac{1}{4}$ " maximum cross travel of tool at one setting. One end of swivel slide is calibrated for tapers up to $3\frac{1}{2}$ " per foot on dia. and other end of swivel slide is calibrated-up to 16° included angle. Telescopic design of cross feed screw permits hand feed to be used to bring tool to required work dia., even when set for taper operations. It is not necessary to disconnect cross feed screw to change from straight to taper turning. Includes telescopic cross feed screw and shaft and complete instructions for mounting in customer's shop. 40 lbs.

(AT. NO. 25-856

STEADY REST... With 3" diameter of work capacity. Top half is hinged for easy loading. 12 lbs.

CAT. NO. 25-852

FOLLOWER REST... With 3" diameter of work capacity. Includes bolts for mounting to saddle. 10 lbs.

CAT. NO. 25-850

6" DRIVE PLATE . . . Has two 3/4" opposed slots for driving lathe dogs. 4 lbs. CAT. NO. 25-840

9" FACE PLATE . . . Has eight 38 x 21/4" slots for clamping work. 14 lbs. CAT. NO. 25-839

PLAIN CARRIAGE STOP . . . Used on either side of carriage to provide a positive longitudinal feed stop for cutting shoulders, etc. Includes parts for mounting on front V-way of bed. 2 lbs. CAT. NO. 25-853

MICROMETER CARRIAGE STOP . . . Used on either side of carriage to provide a positive longitudinal feed stop for cutting shoulders, etc. Micrometer collar is graduated in .001", provides accurate setting, is self locking by means of a unique spring lock feature. Includes parts for mounting on front V-way of bed. 2½ lbs.

CAT. NO. 25-854

THREAD STOP... Makes thread cutting faster, easier; limits the forward travel of cross slide against a positive, adjustable stop. Clamps on dovetail of saddle in front of cross slide. 1½ lbs.

CAT. NO. 25-830

LATHE CHUCK, 5"...3-Jaw Type, back threaded 1½"—8. For internal or external holding up to approx. 4" in dia. Runs in good balance and has a minimum of overhang. Includes three internal and three external jaws and wrench. 8 lbs.

CAT. NO. 25-870

LATHE CHUCK, 6"... 4-Jaw Type, back threaded 1½"—8. For internal or external holding up to approx. 5" in dia. Runs in good balance and has a minimum of overhang. Jaws are hardened and jaw screws are heat treated to provide long life. Includes wrench and one set of reversible jaws. 9 lbs.

CAT. NO. 25-873

LATHE CHUCK, 6"... 4-Jaw Type for internal or external holding up to approx. 5" in dia. Runs in good balance and has a minimum of overhang. Jaws are hardened; jaw screws and thrust bearings are heat treated to provide long life. Includes one set of jaws reversible for internal or external work, fitted chuck plate threaded 1½"—8 and wrench. 18 lbs.

CAT. NO. 25-874

DRILL CHUCK . . . 3-Jaw, Key Type, 0-1/2" capacity, with No. 2 Morse taper shank. Includes chuck key. 21/2 lbs. CAT. NO. 968

DRAW BAR FOR COLLETS . . . Has hardened threads. Ball thrust bearing transmits tremendous gripping power to collet, yet the bar is easy to tighten or release. Includes 4½" hand wheel, spindle nose cap and spanner wrench. 8 lbs. CAT. NO. 25-825

COLLETS

Self-releasing type for holding round stock. Heat treated and hardened.

STEEL COLLETS . . . Set of six collets, 1/16" to 3/8" by 16ths. 4 lbs. CAT. NO. 25-800

STEEL COLLETS . . . Set of six collets, 7/16" to 3/4" by 16ths. 4 lbs. CAT. NO. 25-810

STEEL COLLET . . . One only collet. Available from 1/16" to 3/4" by 64ths. (Specify Cat. No. 25-812 and size desired.) 1/2 lb. CAT. NO. 25-812

RACK FOR COLLETS . . . Holds 19 collets, 2 centers, spindle nose cap, spanner wrench and draw bar. Mounts on lathe bed. 12 lbs. CAT. NO. 25-828

SAFETY TYPE LATHE DOGS . . . Made of forged, selected steel. Include socket screw and wrench.

38" Bent Tail. ½ lb. CAT. NO. 25-861
34" Bent Tail. ½ lb. CAT. NO. 25-862
34" Bent Tail. ½ lb. CAT. NO. 25-863
1" Bent Tail. ¾ lb. CAT. NO. 25-864
1¼" Bent Tail. ¾ lb. CAT. NO. 25-864
1¼" Bent Tail. ¾ lb. CAT. NO. 25-865
1½" Bent Tail. ¾ lb. CAT. NO. 25-865

turning, thread cutting, boring, etc. $2\frac{1}{2}$ " square head takes four $\frac{3}{8}$ " tool bits. Indexing feature provides 12 positions—3 for each tool. 30° position can be used for threading. 10 lbs. CAT. NO. 25-851

TOOL HOLDERS . . . DROP FORGED FROM SPECIAL
STEEL, HEAT TREATED AND HARDENED, WITH
SET SCREW AND WRENCH

SET SCREW AND WRENCH
SIZE % x %", INCLUDES 1/4" SQUARE HSS BIT
STRAIGHT 3/4 lb. CAT. NO. 25-680

RIGHT HAND OFF-SET 3/4 lb.

CAT. NO. 25-681

LEFT HAND OFF-SET 3/4 1b.

CAT. NO. 25-682



7

NO. 25-843

SIZE % x 15/16" FOR ¼" SQUARE BITS STRAIGHT CARBIDE TOOL HOLDER 1/8 1b.

CAT. NO. 25-689

RIGHT HAND OFF-SET CARBIDE TOOL HOLDER 3/4 lb. CAT. NO. 25-690

LEFT HAND OFF-SET CARBIDE TOOL HOLDER 1/8 lb, CAT. NO. 25-691

SIZE % x 31/32", INCLUDES 3/32 x %" HSS CUTTING-OFF BLADE GROUND ON BOTH ENDS

STRAIGHT CUTTING-OFF AND SIDE TOOL HOLDER 3/4 lb. CAT. NO. 25-683

RIGHT HAND OFF-SET CUTTING-OFF AND SIDE-TOOL HOLDER % lb. CAT. NO. 25-684

LEFT HAND OFF-SET CUTTING-OFF AND SIDE-TOOL HOLDER $\frac{7}{8}$ lb. CAT. NO. 25-685

THREADING TOOL . . . $\frac{3}{8}$ x $\frac{7}{8}$ ", includes formed cutter for pitches 6 to 20. $\frac{3}{4}$ lb. **CAT. NO. 25-686**

KNURLING TOOL . . . 3/8 x 1/8", self-centering head, with one pair of medium diamond knurls 3/16" face by 5/8" diameter. 3/4 lb. CAT. NO. 25-687

KNURLING TOOL . . . 3/8 x 3/8", revolving head, with three pairs of fine, medium, coarse diamond knurls 3/16" face by 5/8" dia. 1 lb. CAT. NO. 25-688

BORING TOOL

Takes bars of various diameters. The sleeve-bar clamping feature is exceptionally strong and provides for rapid adjustment of either straight or angular cutters without the need for extra parts.

BORING TOOL ... 3/8 x 7/8", for bars 1/4" to 5/8" in diameter, includes one 45° and one 90° cutter, two wrenches and one 5/8" diameter sleeve-bar. 23/8 lbs.

CAT. NO. 25-692

cutting-off BLADE . . . 3/32 x 5/8", made of HSS, ground and ready for use in tool holders Nos. 25-683, 25-684 and 25-685. 2 lbs. CAT. NO. 25-695

FORMED THREADING CUTTER . . . Sharp 60° V-thread, for pitches 6 to 20 inclusive, fits No. 25-686 Threading Tool. 2 lbs. CAT. NO. 25-696

60° CENTER . . . For Headstock, No. 2 M.T. shank. Center is soft and ground. ½ lb. CAT. NO. 25-542

60° CENTER . . . For Tailstock, No. 2 M.T. shank. Center is hardened and ground, has an annular groove for easy identification. ½ lb.

CAT. NO. 25-841

60° HALF CENTER . . . For Tailstock, No. 2 M.T. shank. Center is hardened and ground. ½ lb. CAT. NO. 25-843

60° LIVE CENTER . . . Pointed, for tailstock, with No. 2 M.T. shank. The heat treated, hardened and ground point is accurate, with very little overhang, and can be re-ground by belting to the revolving head. Head is carried on an angular contact preloaded ball bearing. 1½ lbs. CAT. NO. 25-844

60° LIVE CENTER . . . Hollow, for tailstock, with No. 2 M.T. shank. The heat treated, hardened and ground cup is accurate, with very little overhang, and can be re-ground by belting to the revolving head. Head is carried on an angular contact pre-loading ball bearing. 1½ lbs. CAT. NO. 25-845

For description and illustration of No. 933 Spur Drive Center, No. 940 Screw Drive Center and No. 934 Cup Dead Center for wood turning, see P. 14.

ARBOR . . . No. 2 M.T. Shank. Has ½ x 1½" end, with flat. 3/8 lb. CAT. NO. 935

LAMP ATTACHMENT . . . With 15" flexible gooseneck. Includes nylon shield, mounting bracket, switch and 8-ft. cord with 2-prong plug. Uses standard bulb (not included) up to 100 watts. 2 lbs.

CAT. NO. 25-857

MOTORS AND CONTROLS

See inside back cover for complete description.

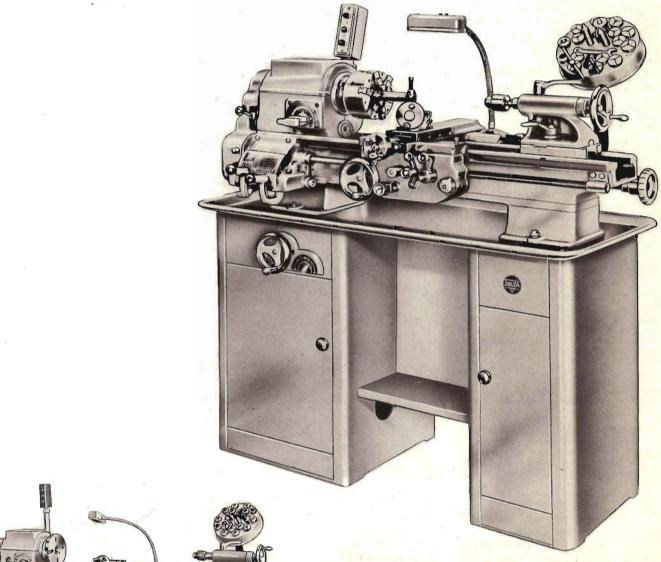
MOTOR PULLEYS AND BELTS

2" Motor Pulley for variable speed drive, with set screw. (Specify ½", 3/8", 3/4" or 1/8" bore). 13/4 lbs. CAT. NO. 49-216

Belt, variable speed drive type, 273/4" O.C. % lb. CAT. NO. 49-120

V-Belts (matched pair), 301/8" O.C., for spindle drive. These are special, quality belts for long life and vibration-free operation. 1 lb. CAT. NO. 49-121

II" METAL LATHES

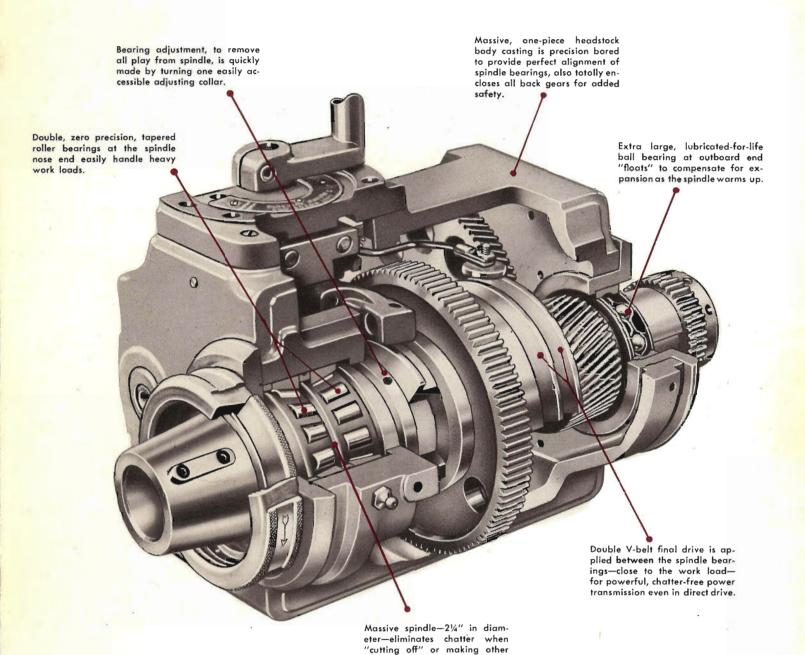


Give you big machine performance without big machine cost

No matter what your requirements—production capacity, toolroom precision, or school shop safety—you'll get all the machine you need when you choose a Delta 11" Metal Lathe. You can make heavier cuts, faster, because these lathes give you the "beef" you'd normally expect only from machines costing much more. And safe, close tolerance operations on every job are assured by the many built-in features exclusive with Delta. Available in 4' bed (shown above) and 5' bed models with a complete range of accessories to help you match the tool to your job.

5' bed model gives you extra capacity for extra long turning jobs.

You can't match this MUSCLE!



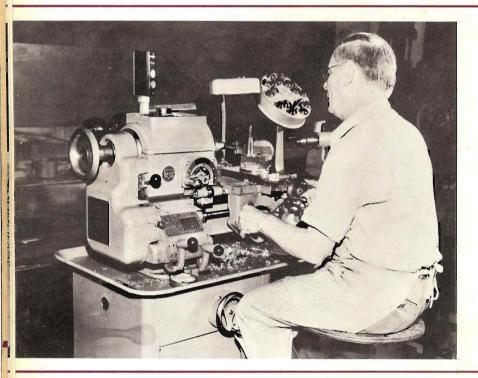
Only DELTA METAL LATHES Give you this POWERFUL HEADSTOCK!

heavy cuts.



DELTA 11" METAL LATHES MAKE SHORT WORK OF EVERY JOB

On the production line to deliver high quality results in the machining of metals ranging from brass to titanium—in lots as large as 30,000 or as small as 10. The shift from turning or boring to tapping or threading is done quickly—no time lost in changing set-ups.



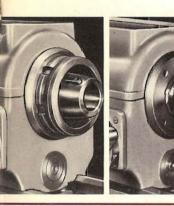
In the tool room to maintain tolerances down to plus-minus 0.0005 in. for intricate precision machining of instrument parts for the aircraft and electronics industries. The big, legible dials aid the lathe operator in easy selection of spindle speeds, depth of cut, and thread pitches.



In school shops to teach lathe skills on tools students will use in industry. The unique Drive Selector eliminates the possibility of student injury when changing from direct to gear drive—and the exclusive Delta Variable Speed Drive offers maximum student safety when changing speeds.

ONLY DELTA 11" METAL LATHES OFFER YOU THIS

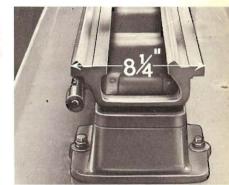
EXCLUSIVE COMBINATION OF FEATURES!

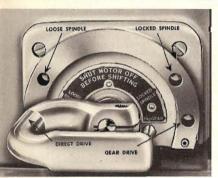


A CHOICE OF L-00 TAPERED KEY DRIVE OR 21/4"-8 THREADED SPINDLE NOSE AT NO EXTRA COST

at to take advantage of the safety, convenience and accuracy of the modern tapered spindle nose. However, if you prefer the conventional threaded nose design, a 2½"—8 threaded spindle nose is also available. Only Delta gives you this choice at no extra cost.

BED . . . Massive, scientifically braced bed has deep box-section cross members. It is made of close grained alloy cast iron, normalized to relieve stresses. Flat and prismatic ways, cast integrally with bed, are made absolutely straight and parallel by modern grinding methods.

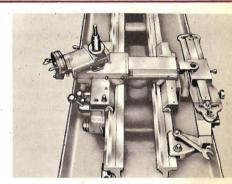


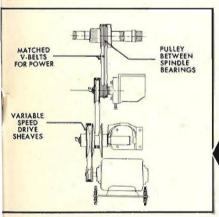


A UNIQUE DRIVE SELECTOR

You can shift to loose spindle, locked spindle, back gear drive or direct drive simply by moving the selector lever. Safe because there is no need to open up the guard ... Foolproof because mechanical interlock makes it impossible to shift drive while spindle is rotating ... Convenient because there are no pins to pull ... Fast because any position is immediately available. Only the Delta Lathe gives you all four selections with one shift lever.

CARRIAGE . . . Saddle is machined for field mounting of taper attachment, follower rest and lamp. Cross slide and compound feed screws are fully protected from dust and chips. Large, direct reading micrometer collars indicate stock removed from work directly in .001" on the diameter. Positive, convenient lock features are provided for micrometer collars on both cross slide and compound. Tool post never overhangs compound swivel bearing, giving maximum support at all times.





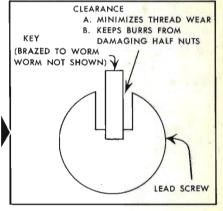
A PERFECTED VARIABLE SPEED DRIVE

You get all the advantages of a variable speed drive, with an infinite choice of speeds from 45 to 1550 rpm—PLUS the high torque transmitting power of matched V-belts. The Delta variable speed drive incorporates an extra shaft between the variable speed drive

Placing the spindle pulley between the bearings gives you these advantages: (1) widely spaced bearings, (2) proper belt load distribution, (3) drive close to nose eliminates spindle whip. NO LATHE WITH OUTBOARD DRIVE can claim these advantages.

sheaves and the spindle. This makes possible high speed power transmission through the variable speed drive belts while twin V-belts transmit steady power to the spindle. Only the Delta Lathe offers you a perfected variable speed drive.

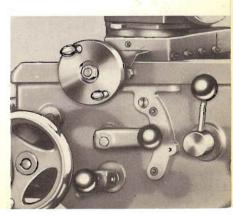
LEAD SCREW ... Precision cut lead screw has a hidden, easily accessible shear pin and features a unique T-section key way that prevents wear on the thread and damage to half-nuts.





TAILSTOCK . . . Ram is graduated in 1/16 inches. Easily read micrometer collar, graduated in .001" with a zero start, makes precision feeding easy. Complete retraction of ram automatically ejects center. Ram has witness mark at center height for easy positioning of cutting tool.

APRON . . . Double wall construction provides extra support for power feed clutch shaft and power feed worm gear shaft. It also forms an oil reservoir. Automatic, fool-proof lock out feature makes it impossible to engage the power cross feed or power longitudinal feed simultaneously with the half-nut feed for threading . . . stop on half-nut feed lever prevents binding, is adjustable to compensate for wear.



11" METAL LATHE LINE

STANDARD EQUIPMENT

(Included on all models)

Cabinet with coolant pan, doors and shelves

Quick change gear box

Variable speed drive complete with belts

Extra shear pins

Thread chasing dial

Thread cutting stop

Motor pulley for 3/4" shaft

Tool post, ring and rocker

7" dia. drive plate

Two 60° centers. No. 2 MT for headstock—No. 3 MT for tailstock

Combination wrench for

Spindle adapter, No. 2 MT

Box wrench for tailstock

Spanner wrench for draw nut (included on tapered nose models only)

CATALOG LISTING

4 Foot Bed—24" Between Centers
5 Foot Bed—36" Between Centers

BASIC 11" METAL LATHE

With 21/4"-8 threaded spindle nose.

4 Fr. Bed—Shipping wt. approx. 800 lbs. 5 Fr. Bed—Shipping wt. approx. 845 lbs. CAT. NO. 25-100 CAT. NO. 25-110

With L-00 tapered key drive spindle nose.

4 Ft. Bed—Shipping wt. approx. 800 lbs. 5 Ft. Bed—Shipping wt. approx. 845 lbs. CAT. NO. 25-140

For Single Phase Operation

11" METAL LATHE UNIT, with single phase motor and reversing push button switch for manual on and off control, assembled. Consists of: Basic Lathe, 83-210 115/230V Motor and 25-505 Switch, mounted and wired to motor for 230V operation.

With 21/4"-8 threaded spindle nose.

4 Ft. Bed—Shipping wt. approx. 880 lbs. 5 Ft. Bed—Shipping wt. approx. 925 lbs. CAT. NO. 25-105 CAT. NO. 25-115

With L-00 tapered key drive spindle nose.

4 Ft. Bed—Shipping wt. approx. 880 lbs. 5 Ft. Bed—Shipping wt. approx. 925 lbs. CAT. NO. 25-135 CAT. NO. 25-145

For Three Phase Operation

11" METAL LATHE UNIT, with three phase motor and reversing push button switch for manual on and off control, assembled. Includes overload switch, not assembled. Consists of: Basic Lathe, 86-920 Motor, 25-505 Switch, mounted and wired to motor and 49-365 Overload Switch. Specify whether 208-220 or 440 volts.

With 21/4"-8 threaded spindle nose.

4 Ft. Bed—Shipping wt. approx. 880 lbs. 5 Ft. Bed—Shipping wt. approx. 925 lbs. CAT. NO. 25-305 CAT. NO. 25-315

With L-00 tapered key drive spindle nose.

4 Ft. Bed—Shipping wt. approx. 880 lbs. 5 Ft. Bed—Shipping wt. approx. 925 lbs. CAT. NO. 25-345

11" METAL LATHE UNIT, with three phase motor and reversing push button switch for magnetic on and off control, assembled. Includes magnetic reversing starter for overload, low voltage and no voltage protection, not assembled. Consists of: Basic Lathe, 86-920 Motor and either 25-504 or 25-507 Control with switch mounted and wired to motor and separate starter. Specify whether 208-220 or 440 volts.

With 21/4"-8 threaded spindle nose.

4 Ft. Bed—Shipping wt. approx. 880 lbs. CAT. NO. 25-307 5 Ft. Bed—Shipping wt. approx. 925 lbs. CAT. NO. 25-317

With L-00 tapered key drive spindle nose.

4 Ft. Bed—Shipping wt. approx. 880 lbs. 5 Ft. Bed—Shipping wt. approx. 925 lbs. CAT. NO. 25-337 CAT. NO. 25-347

When ordering FLAME-HARDENED BED, add "H" to catalog number.

SPECIFICATIONS

SPECIFICATIONS
CAPACITY
Swing over bed and saddle wings
Swing over cross slide
Between centers with L-00 tapered key drive nose:
4 foot bed
Between centers with 21/4"—8 threaded nose:
4 foot bed
THREADS AND FEEDS
Quick change gear box with 54 thread and feed changes R.H. or L.H.
Threads4, $4\frac{1}{2}$, 5, $5\frac{1}{2}$, $5\frac{3}{4}$, 6, $6\frac{1}{2}$, $6\frac{3}{4}$, 7, 8, 9, 10, 11, 11 $\frac{1}{2}$, 12,
13, 13½, 14, 16, 18, 20, 22, 23, 24, 26, 27, 28, 32, 36, 40,
44, 46, 48, 52, 54, 56, 64, 72, 80, 88, 92, 96, 104, 108, 112,
128, 144, 160, 176, 184, 192, 208, 216, 224.
Range of feed rates per revolution:
Longitudinal

Infinite stepless speeds in direct drive220-1550 rpm
Infinite stepless speeds in back gear45-250 rpm
Spindle dia. at roller bearings
Spindle centertakes No. 2 M.T.
Hole through spindle
Maximum collet capacity (5-C type collet)

BED (furnished with leveling screws)

Length:	5)
4 foot bed	5 foot bed
Width	Depth
Width of V's	

CROSS SLIDE AND COMPOUND REST

Length of saddle v-way					2/8
Width of bridge					41/4
Cross slide travel					63/4
Compound travel					21/4
Travel of cross slide with taper attachment locked	. k		 		63/6
Travel of carriage with taper attachment locked					91/4

TOOL POST

%" x 1%" opening takes standard tool holders for \%" bits.

TAILSTOCK

IAILITOCK	
Ram diameter	. 23/11
Length of graduations marked on spindle by 1/6ths	3"
CenterNo.	
Handwheel adjustable micrometer collar graduated in .001	
Set-over	3/11

OVERALL DIMENSIONS

Cabinet and Machine:

- 4 foot bed . .57¾" left to right x 25½" front to rear x 49½" high 5 foot bed . .69¾" left to right x 25½" front to rear x 49½" high Coolant pan:
 - 4 foot bed. $1\frac{1}{6} \times 22\frac{1}{2} \times 56$ " outside dimensions 5 foot bed. $1\frac{1}{6} \times 22\frac{1}{2} \times 68$ " outside dimensions

Drain hole at rear has 1/2" pipe tap

MOTORS

Accommodates NEMA frame motors.....182-184-203-204-224

FLAME HARDENED BED

All Delta 11" Metal Lathes are available with flame hardened bed ways (optional extra) that assure longer wearing qualities and added protection against denting and scoring. Ways are flame hardened, then precision ground with diamond-dressed wheel on special, precision, way grinding equipment

cision, way-grinding equipment.
Flame hardened bed ways are highly recommended wherever Delta
11" Lathes are to be used for machining materials that produce chips
or dust that may have an abrasive action on the ways. Flame hardening assures continued original accuracy of the bed ways, even under

the stress of repetitive production operations.

HESE ACCESSORIES CONVERT STANDARD DELTA 11" LATHES FOR PRODUCTION WORK

Delta's Bed Turret, Double Tool Post Cross Slides and Lever Type Collet Closer are engineered to fit all Standard Delta 11" Lathes. To convert your Standard Delta 11" Lathe for screw machine or turret lathe work, you simply install the above accessories and remove the carriage and tailstock assemblies. You also should add other accessories as required, such as coolant equipment, guards, etc.

DOUBLE TOOL POST CROSS SLIDES

These deluxe, heavy-duty Double Tool Post Cross Slides, especially when used with the Bed Turret, convert your Delta 11" Engine Lathe to do much of the work usually accomplished on a turret lathe or hand screw machine. They are ideal for repetitive, high-production manufacturing of a wide variety of parts ranging from simple pieces such as washers and shafts to the most intricate parts as used in the electronics and aircraft industries.

parts as used in the electronics and aircraft industries.

T-slots in tool post pads and in slide provide transverse and longitudinal adjustment for accurate positioning of tool bits. The hardened steel tool posts have left and right tool positions, sliding wedge height adjustment, and set screws to permit slight rotation of tool bits in a horizontal plane so that either angular or straight tool settings can be perfectly maintained.

Bed Mounted Double Tool Post Cross Slide with Pilot Wheel Feed. The extra long (8") travel of this slide permits the tool posts to be positioned far apart so that even large tooling in the bed turret can be fed in between the tool posts of the cross slide. Has the speed and convenience of a lever type slide but is much safer because the operator's hands never need approach the work while feeding the tool bits. Slide traverses 4" for each revolution of the pilot wheel.

This cross slide is supplied as standard equipment with the Hand Screw Machine. 80 lbs.

CAT. NO. 25-555

Saddle Mounted Double Tool Post Cross Slide.

This slide replaces the compound slide rest and regular cross slide of the 11" engine lathe. It

Saddle Mounted Double Tool Post Cross Stide. This slide replaces the compound slide rest and regular cross slide of the 11" engine lathe. It mounts on the saddle dovetail of the regular lathe carriage and utilizes the cross feed lead screw regularly supplied with the lathe. It may be operated by power through the friction clutch in the apron or manually with the regular hand-

The taper attachment may be left on the lathe, if desired, when this cross slide is mounted. Includes complete instructions for easy field mounting by the user. 40 lbs.

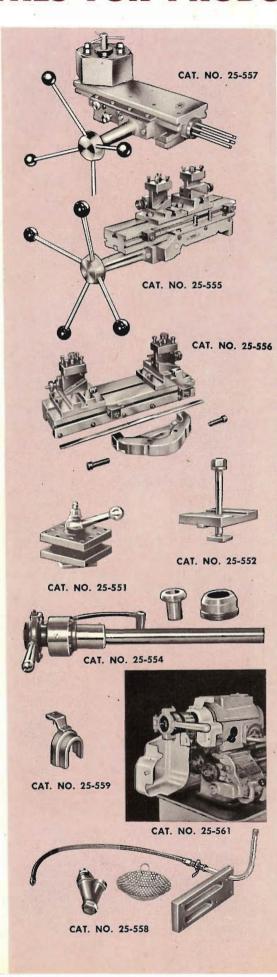
CAT. NO. 25-556

SPECIFICA	ATIONS	
Slide:	No. 25-555 8"	No. 25-556 55/8"
Length	171/2"	151/4"
Width Maximum Swing		41/4"
Over Slide Tool Posts:	51/8"	51/8"
Size of Bit	5/8" sq.	\$/8" sq.
Depth	13/2"	13/6"
Height Tool Height		
Adjustment Distance Between Tool P	osts:	1/4"
Maximum	11"	8¾" 2"
Adjustment of Tool Posts:		CANAL CO.
Longitudinal Transverse	13/4"	63/4"

BED TURRET

(furnished as standard equipment with Hand Screw Machine)

This heavy duty, self-indexing, precision bed turret with six-station head, converts your Delta engine lathe into a ram-type turret lathe for production work requiring multiple machining operations. It will also simplify many single operations normally done on an engine lathe. The turret can be used to advantage on bar stock fed through the spindle or for primary or secondary operations on individually chucked parts.



Tool holes are blank so that they can be machined by user for perfect alignment with spindle hole. Complete instructions for machining holes and mounting turret are furnished. 120 lbs.

CAT. NO. 25-557

SPECIFICATIONS

Tool hole range
Turret head across flats
Turret face dimensions 31/2" wide x 31/8" high
Max. dia. tool clearance over ram41/4"
Working stroke-self-indexing6"
Working stroke—manual-indexing71/4"
Minimum index stroke
Length of ram

LEVER TYPE BALL BEARING **COLLET CLOSER**

(furnished as standard equipment with Hand Screw Machine)

Used with all 5-C collets—round, square, hex, step, soft, internal, external, etc. Takes bar stock up to 1-1/16" diameter. Includes mounting bracket with bolts, collet sleeve and spindle nose cap. Spanner wrench is supplied for threaded nose models. 14 lbs.

For 21/4"-8 threaded nose lathes. CAT. NO. 25-553

For L-00 tapered nose lathes...

CAT. NO. 25-554

TURRET TOOL POST FOR COMPOUND OR DOUBLE TOOL POST CROSS SLIDES

For facing, turning, thread cutting, drilling, boring and other operations. 3½" square head takes four ½" or smaller cutter bits. Indexing feature provides 12 positions—3 for each tool. 30° position can be used for threading. 9 lbs.

CAT. NO. 25-551

(Note: When used on Double Tool Post Cross Slides, No. 25-552 Adapter is required and must be ordered separately.)

ADAPTER: For mounting No. 25-551 Turret Tool Post on No. 25-555 or No. 25-556 Double Tool Post Cross Slide. Mounts on either front or rear post of cross slide. Complete with base, alignment keys, stud with clamp plate, nut and washer.

CAT. NO. 25-552

GUARD FOR OUTBOARD GEAR TRAIN

Two-Piece Guard for Outboard Gear Train. Recommended when Lever Type Collet Closer is used on lathes with lead screw. Lower portion swings open to give access to gears, without disturbing collet closer. Complete with hinge, mounting bracket for upper portion, and lathe lubrication chart. 6 lbs.

CAT. NO. 25-561

SPINDLE NOSE SPLASH GUARD

Protects lathe operator from chips or coolant. Does not interfere with lever type collet closers or draw bars. Cannot be used with three or four-jaw chucks, etc. Especially recommended when coolant is used for production work held in coolant is us collets. 2 lbs.

For L-00 tapered nose lathes.

CAT. NO. 25-559

For 21/4"-8 threaded nose lathes..... CAT. NO. 25-560

COOLANT PAN SPLASH GUARD

Splash Guard, 15"x30", with clamps for mounting on lip of coolant pan. For all Delta 11"
Lathes and Hand Screw Machines. Especially recommended when coolant is used. 12 lbs.

CAT. NO. 25-562

COOLANT GROUP

Consists of nozzle, flexible hose, valve, mounting bracket (for mounting coolant line and lamp attachment without interference), "L" shaped length of 1/4" pipe and compound for sealing between the headstock and bed. A "Y" type filter for the drain line and a screen for the drain hole of the coolant pan are provided (coolant piping not furnished). Mounts on either No. 25-555 Double Tool Post Cross Slide or on saddle of carriage. 8 lbs.

CAT. NO. 25-558

COMPLETE LINE OF ENGINEERED

TAPER ATTACHMENT

Used for boring and turning tapers up to 9½" long at one setting, with adjustment up to 3½" per foot on diameter or 17° included angle. Both calibrations conveniently located at same end of swivel bar and read through magnifying lens. Telescopic design of cross feed screw permits regular hand feed to be used to bring tool to required work diameter, even when set for taper operations. Not necessary to disconnect cross feed screw to change from straight to taper turning. Includes complete instructions for mounting in customer's shop by using standard wrenches and indicator. CAT. NO. 25-656

MILLING ATTACHMENT

A universal work-holding fixture for milling, keyway cutting, boring, etc. Vise opens to 13/4" with 11/2" x 31/2" jaws, each provided with two V grooves for round stock. Vertical travel is 41/2" by means of ball crank handle. Zero start micrometer collar is calibrated in .001. Angle plate and vise swivel 360° in horizontal and vertical planes, with degree calibrations. Unique feature of swiveling vise permits milling at all angles without removing and reclamping work. Includes No. 3 MT spindle CAT. NO. 25-651 adapter.

STEADY REST

Deluxe type with telescoping brass jaws, 3/16" to 3½" capacity, top half hinged for easy loading. With mounting parts. CAT. NO. 25-652

FOLLOWER REST

Deluxe type with telescoping brass jaws, 3/16" to 23/4" capacity. With mounting bolts.

CAT. NO. 25-650

PLAIN CARRIAGE STOP

Used on either side of carriage to provide a positive longitudinal feed stop for cutting shoulders, etc. Includes parts for mounting to front V-way of bed. 2 lbs. CAT. NO. 25-653

MICROMETER CARRIAGE STOP

Used on either side of carriage to provide a positive longitudinal feed stop for cutting shoulders, for accurate facing, boring, etc. Micrometer collar is graduated in .001, provides very easy and accurate set-ting, and is self-locking by means of a unique spring lock feature. Includes parts for mounting to front V-way of bed. CAT. NO. 25-654

FOUR POSITION CARRIAGE STOP

Used to provide up to four positive longitudinal feed stops for repetitive operations like spacing shoulders on shafts, etc. Range is 4" from long to short stop. Stop fingers are knurled for easy setting and locked by set screws. Body is knurled for quick indexing and is self-locating. Includes parts for mounting to front V-way of bed. CAT. NO. 25-655

CHUCKS . . . COMPLETE WITH FITTED CHUCK PLATE AND WRENCH

6", 3-Jaw Adjust-Tru Universal type. Has three in-

ternal and three external jaws. For 21/4" -8 threaded nose. CAT. NO. 25-570 For L-00 tapered nose. CAT. NO. 25-572 8", 4-Jaw Independent type. Has one set of jaws

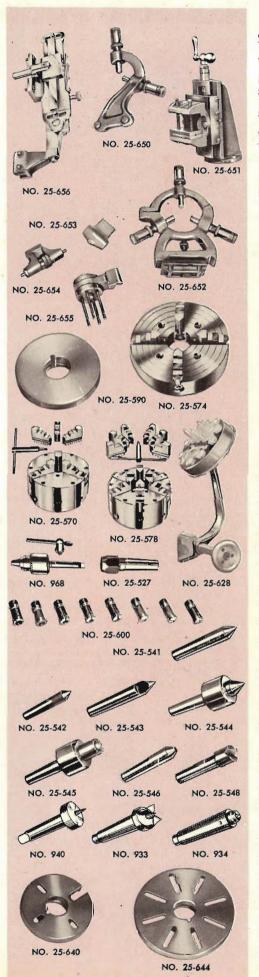
reversible for internal or external work. For 21/4" -8 threaded nose. CAI CAT. NO. 25-574 For L-00 tapered nose. CAT. NO. 25-576 6", 6-Jaw Adjust-Tru Universal type. Has six in-CAT. NO. 25-576 ternal and six external jaws.

For 21/4" -8 threaded nose. CAT. NO. 25-578 For L-00 tapered nose. CAT. NO. 25-580

DRILL CHUCK . . . 3-Jaw key type, 0 -1/2" capacity. Includes chuck key.

No. 2 MT Shank CAT. NO. 968

ROUGH CHUCK PLATES . . . Machined to fit 21/4" -8 or L-00 tapered nose. These are high quality cast iron plates with enough stock left to be fitted to



chucks requiring 6" or 8" diameter chuck plate. Without holes for mounting chuck.

6" for 21/4" -8 threaded nose. 91/4 lbs.

CAT. NO. 25-590 6" for L-00 tapered nose.

8" for 21/4" -8 threaded nose. 17 lbs. CAT. NO. 25-591

CAT. NO. 25-592 CAT. NO. 25-593 8" for L-00 tapered nose.

COLLET CHUCK . . . For Woodruff keyseat cutters with $\frac{1}{2}$ " shank, No. 3 Morse Taper shank, tapped $\frac{5}{16}$ " -18 for draw bolt, with nut. **CAT. NO. 25-527**

steel collets . . . Set of eight collets for holding round stock, 1/16" to ½" by 16ths. These accurate collets are self-releasing type, made of selected steel, heat treated and properly hardened. 5 lbs. CAT. NO. 25-600

STEEL COLLETS . . . Set of eight collets for holding round stock, 9/16" to 1" by 16ths. These accurate collets are self-releasing type, made of selected steel, heat treated and properly hardened. 5 lbs.

CAT. NO. 25-610

STEEL COLLET . . . One only, for holding round stock. Available from 1/16" to 1-1/16" by 64ths. (Specify Cat. No. 25-612 and size desired.). Collet is selfreleasing type, made of selected steel, heat treated and properly hardened. 10 ounces. CAT. NO. 25-612

RACK FOR COLLETS . . Holds 17 collets, wrench, headstock adapter sleeve and draw bar for collets. Rack can be set for swivel or rigid mounting. Includes bracket for mounting to lathe bed. 14 lbs. CAT. NO. 25-628

DRAW BAR FOR COLLETS . . . Has hardened threads for long life. Ball thrust bearing design transmits tremendous gripping power to the collet, yet the bar is easy to tighten or release. Includes 6" hand wheel, collet sleeve, spindle nose cap and spanner wrench. For 21/4" -8 threaded spindle nose. CAT. NO. 25-625

For L-00 tapered spindle nose. CAT. NO. 25-626

60° LATHE CENTER . . . For tailstock, hardened and ground all over, No. 3 Morse Taper shank. 1 lb. CAT. NO. 25-541

60° LATHE CENTER . . . For headstock, soft, ground all over, No. 2 Morse Taper shank. CAT. NO. 25-542

60° HALF CENTER . . . For tailstock, hardened and ground all over, No. 3 Morse Taper shank. 1 lb. CAT. NO. 25-543

60° LIVE CENTER . . . Pointed, for tailstock, with heavy duty bearing. No. 3 Morse Taper shank.

CAT. NO. 25-544

60° LIVE CENTER . . . Hollow, for tailstock, with heavy duty bearing, No. 3 Morse Taper shank. CAT. NO. 25-545

60° LATHE CENTER . . Hollow, hardened and ground, No. 3 Morse Taper shank. CAT. NO. 25-546

90° CROTCH CENTER . . . Used in tailstock for drilling, 1-3/16" dia. head has 9/16" relief hole, No. 3
Morse Taper shank. CAT. NO. 25-548

screw center . . . For wood turning, 1½" diameter head, No. 2 Morse Taper shank tapped ¼" -20 for draw bolt. Includes one No. 8 and one No. 14 replaceable wood screw center point. CAT. NO. 940

spur Drive Center . . . For wood turning, 11/8" diameter head, No. 2 Morse Taper shank tapped 1/4" -20 for draw bolt. Includes 3/16" x 11/2" re-CAT. NO. 933 placeable center point.

CUP DEAD CENTER . . . For wood turning, No. 2 Morse Taper shank. Includes 3/16" x 1½" replace-able center point. CAT. NO. 934 able center point.

ACCESSORIES FOR DELTA 11" METAL LATHES

7" DRIVE PLATES . . . With slot for driving dogs and three work clamping slots.
For 21/4" -8 threaded nose.

CAT. NO. 25-640

For L-00 tapered nose. CAT. NO. 25-642

10" FACE PLATES . . . With eight 3/8" x 21/2" work clamping slots. For 21/4" -8 threaded nose.

CAT. NO. 25-644 For L-00 tapered nose. CAT. NO. 25-646

SAFETY TYPE LATHE DOGS . . . Made of forged, selected steel with hubs large enough to permit re-tapping. Include hexagon socket safety screw and wrench.

3/8" Bent tail. 1/2 lb. CAT. NO. 25-661 1/2" Bent tail. 1/2 lb. CAT. NO. 25-662 3/4" Bent tail. 1 lb. CAT. NO. 25-663 Bent tail. 11/4 lbs. CAT. NO. 25-664 11/4" Bent tail. 2 lbs. CAT. NO. 25-665 11/2" Bent tail. 21/4 lbs. CAT. NO. 25-666

ARBOR . . . For shell end mills with ½" hole, No. 3 Morse Taper shank, tapped 5/16" -18 for draw bolt, with mounting screw. CAT. NO. 25-521

ARBOR . . . For plain milling cutters with 1" hole up to 1½" wide, No. 3 Morse Taper shank, tapped 5/16" -18 for draw bolt, includes spacing collars, CAT. NO. 25-526 key, and nut.

SCREW ARBOR . . . For single angle (dovetail) milling cutters, threaded 3/8" -24 R. H., No. 3 Morse Taper shank, tapped 5/16" -18 for draw bolt.

CAT. NO. 25-522

SCREW ARBOR . . . Same as No. 25-522 except, threaded ½" -20 R. H. CAT. NO. 25-524

SPINDLE ADAPTER . . . No. 3 M.T., i.d. For mounting milling arbors Nos. 25-521, 25-522, 25-524 and 25-526, collet chuck No. 25-527, or drill chuck No. 17-820. Also may be used for grinding a new point on the 25-541 60° center for tailstock.

CAT. NO. 25-520

DRAW BOLT . . . For arbors and collet chucks, threaded 5/16" -18, with bushing, washer and nut. . For arbors and collet chucks, CAT. NO. 25-528

TOOL HOLDERS . . . DROP FORGED FROM SPECIAL STEEL, HEAT TREATED AND HARDENED WITH SET SCREW AND WRENCH

STRAIGHT . . . 1/2 x 11/8", includes 5/16" square HSS bit. CAT. NO. 25-671

RIGHT HAND OFF-SET . . . ½ x 1½", includes 5/16" square HSS bit. CAT. NO. 25-672 5/16" square HSS bit.

LEFT HAND OFF-SET . . . 1/2 x 11/8", includes 5/16" square HSS bit. CAT. NO. 25-673

STRAIGHT CARBIDE TOOL HOLDER . . . 1/2 x · 11/4" for 5/16" square bits. CAT. NO. 25-677

RIGHT HAND OFF-SET CARBIDE TOOL HOLDER 1/2 x 11/4", for 5/16" square bits. CAT. NO. 25-678

LEFT HAND OFF-SET CARBIDE TOOL HOLDER . . . $\frac{1}{2} \times \frac{1}{4}$ ", for 5/16" square bits. CAT. NO. 25-679

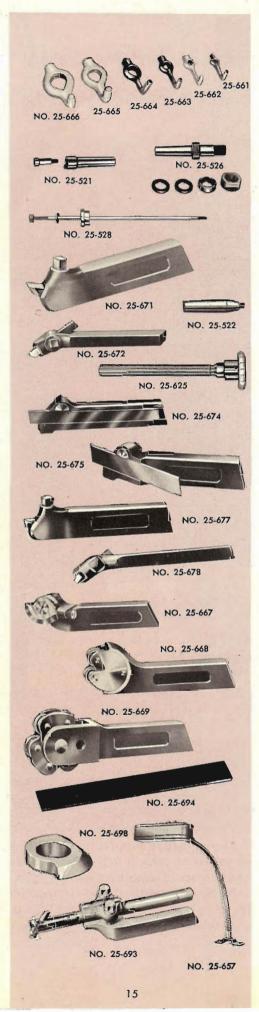
STRAIGHT CUTTING-OFF AND SIDE TOOL HOLDER ... $\frac{1}{2}$ x 1-3/16", includes $\frac{1}{8}$ x $\frac{3}{4}$ " HSS cutting-off blade ground on both ends. CAT. NO. 25-674

RIGHT HAND OFF-SET CUTTING-OFF AND SIDE-TOOL HOLDER . . . 1/2 x 1-3/16", includes 1/8 x 3/4" HSS cutting-off blade ground on both ends.

CAT. NO. 25-675

LEFT HAND OFF-SET CUTTING-OFF AND SIDE-TOOL **HOLDER** . . . $\frac{1}{2}$ x 1-3/16", includes $\frac{1}{8}$ x $\frac{3}{4}$ " HSS cutting-off blade ground on both ends.

CAT. NO. 25-676



THREADING TOOLS

The tool holders are drop forged from special steel, heat treated and hardened. The HSS cutter is ground to an included angle of 60°, and backed off for proper clearance. Cutter is sharpened by grinding top edge only; therefore true form and correct angle are maintained. A hardened stop screw provides for positive easy adjustment of cutter after sharpening.

THREADING TOOL . . . $\frac{1}{2} \times 1\frac{1}{8}$ ", includes formed cutter for pitches 5 to 20 inclusive. **CAT. NO. 25-667**

KNURLING TOOLS

Knurls and pins are carefully made from high grade tool steel, hardened and tempered. Teeth of knurls are accurately cut concentric to hole, to assure quality knurling of work piece. Holders are hardened.

with one pair of medium diamond knurls 1/4" face by 3/4" diameter. CAT. NO. 25-668

KNURLING TOOL . . . ½ x 1½", revolving head, with three pairs of fine, medium and coarse diamond knurls ¼" face by ¾" diameter.

CAT. NO. 25-669

BORING TOOLS

Unique design of holder takes bars of various diameters without sleeves or bushings. The sleevebar clamping feature is exceptionally strong and provides for rapid adjustment of either straight or angular cutters without the need for extra parts.

BORING TOOL . . . $\frac{1}{2} \times \frac{1}{8}$ ", for bars $\frac{1}{4}$ " to $\frac{3}{4}$ " in diameter, includes one 45° and one 90° cutter, two wrenches, and one $\frac{3}{4}$ " diameter sleeve-bar.

CAT. NO. 25-693

REPLACEMENT BLADE AND CUTTER

CUTTING-OFF BLADE . . . 1/8 x 3/4", made of high speed steel, ground and ready for use in tool holders Nos. 25-674, 25-675 and 25-676.

CAT. NO. 25-694

FORMED THREADING CUTTER . . . sharp 60° V-thread, for pitches 5 to 20 inclusive, fits No. 25-667 Threading Tool. CAT. NO. 25-698

LAMP ATTACHMENT . . . 8 watt, 115V, 60 cy., fluorescent type. Provides brilliant, cool, directed (head rotates 330°) light without glare. Includes chip shield, on and off switch, two 4-watt bulbs, 18" gooseneck, bracket for mounting to carriage and 6' power cord with 2-prong plug. 4 lbs.

CAT. NO. 25-657

MOTORS . . . BALL BEARING

For complete description of Motors Nos. 83-210, 86-920 and 87-120, see inside back cover.

MOTOR CONTROLS

For complete description of Wiring Kits Nos. 25-504, 25-505, 25-506, 25-507, 25-508, 25-513 and 25-514 and Overload Switch No. 49-365, for use on 11" Metal Cutting Lathe, see inside back cover.

MOTOR PULLEY and BELTS

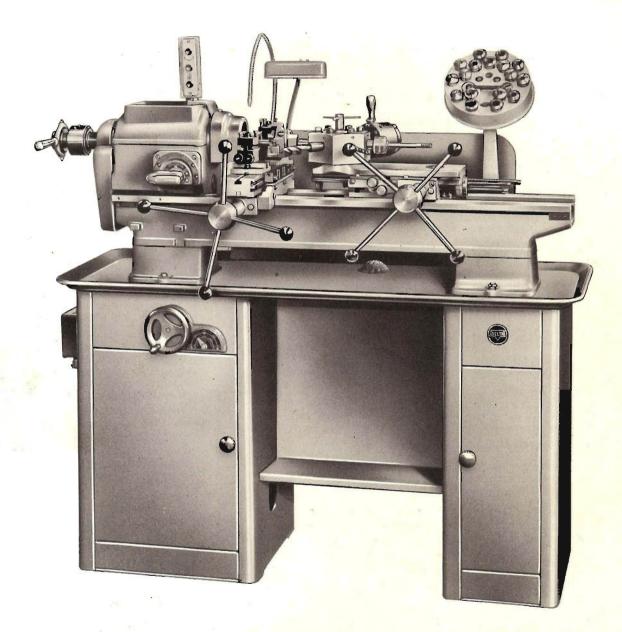
3" motor pulley for variable speed drive. Fully machined steel pulley runs free of vibration. Pitch diameter is concentric with bore. (Specify 5/8", 3/4", 7/6" or 1" bore.)

Belt, variable speed drive, 341/2" O.C.

CAT. NO. 25-500

V-Belts (matched pair), 503/4" O.C., for spindle drive. CAT. NO. 25-502 drive.

HAND SCREW MACHINE



Engineered to save time and money on multiple-operation jobs

Here is a precision machine engineered to fill the gap between standard engine lathes and expensive automatic screw machines—and at lower cost than any comparable machine. Ideal for repetitive manufacturing of a wide variety of parts, it delivers the close tolerance work of machines costing three or four times as much!

Only Delta gives you 8" cross slide travel plus 11/16" collet capacity and turn-

ing capacity up to 6" in length. Only Delta gives you this massive, powerful headstock plus perfected variable speed drive. Only Delta combines all these features with the advantages of pilot wheel cross slide feed.

You save money through lower initial cost and reduce costly set-up time between your short run production jobs when you choose the Delta Hand Screw Machine.

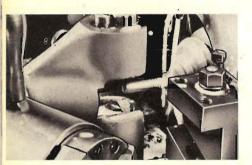
PAYS FOR ITSELF

Because it cuts production costs on dozens of operations like these:





STUD (From SAE 1144 Carbon Steel) Operation consists of stopping to length, box turning and threading with the bed turret, chamfering and cutting off to length with the double tool post cross slide.





32.5 PIECES PER HOUR.

SPECIAL KNURLED HEAD SCREW (From B-1113 Screw Stock) Consists of stopping to length, box turning, threading and knurling with the bed turret, then forming, making a shoulder and cutting off with the cross slide.





28.5 PIECES PER HOUR.

THREADED BUSHING (From B-1113 Screw Stock) Procedure involves stopping to length, spotting, drilling, reaming, turning and threading with the bed turret, then forming and cutting off to length with the cross slide.





96 PIECES PER HOUR.

SPECIAL SHAFT (From B-1113 Screw Stock)
Steps in this operation are stopping to
length with the bed turret and forming
and cutting off to length with the cross
slide.





37 PIECES PER HOUR.

KNURLED ADJUSTING NUT (From B-1113 Screw Stock) Phases of this operation are stopping to length, spotting, drilling twice, knurling and reaming with the bed turret, then forming and cutting off with the cross slide.





31 PIECES PER HOUR.

IDLER STUD (From B-1113 Screw Stock) Operation consists of stopping to length, centering, turning twice and threading with the bed turret, then forming and cutting off with the cross slide.





35 PIECES PER HOUR.

INDEX PIN (From B-1113 Screw Stock) Operational sequence involves stopping to length with the bed turret, forming with the cross slide, spotting and drilling with the bed turret and cutting off with the cross slide.





55 PIECES PER HOUR.

SHAFT COLLAR (From B-1113 Screw Stock) Sequence involves stopping to length, spotting, drilling and reaming with the bed turret, then chamfering and cutting off with the cross slide.





100 PIECES PER HOUR.

HAND KNOB (From B-1113 Screw Stock) Steps in this operation are stopping to length with the bed turret, then forming and cutting off with the cross slide.

STANDARD EQUIPMENT

(Included on all models)

*Double Tool Post Cross Slide No. 25-555

*Lever Type Collet Closer No. 25-553 or No. 25-554

†Bed Turret No. 25-557

For complete description of above items, see Accessory Listings on Page 13.

Cabinet with coolant pan, doors and shelves

Variable speed drive complete with belts

Motor pulley for 3/4" shaft

Combination wrench, 3/4" square and 3/4" open end

Spanner wrench for draw nut (included on tapered nose models

Guard for outboard end of spindle

* Mounted

960 lbs.

960 lbs.

† Mounted and 34" holes provided in turret faces. Faces left bank if so specified.

CATALOG LISTING

BASIC HAND SCREW MACHINE

With 21/4"-8 threaded spindle nose. Shipping wt. approx. 900 lbs. CAT. NO. 25-150 With L-00 tapered key drive spindle nose. Shipping wt. approx. CAT. NO. 25-160 900 lbs.

For Single Phase Operation

HAND SCREW MACHINE, with single phase motor and reversing push button switch for manual on and off control, assembled. Consists of: Basic Screw Machine, 83-210 115/230V Motor and 25-505 Switch, mounted and wired to motor for 230V operation. With 21/4"-8 threaded spindle nose. Shipping wt. approx. 960 lbs. CAT. NO. 25-155 With L-00 tapered key drive spindle nose. Shipping wt. approx.

For Three Phase Operation

CAT. NO. 25-165

CAT. NO. 25-367

HAND SCREW MACHINE, with three phase motor and reversing push button switch for manual on and off control, assembled. Includes overload switch, not assembled. Consists of: Basic Screw Machine, 86-920 Motor, 25-505 Switch, mounted and wired to motor and 49-365 Overload Switch. Specify whether 208-220 or 440 volts.

With 21/4"-8 threaded spindle nose. Shipping wt. approx. CAT. NO. 25-355 960 lbs. With L-00 tapered key drive spindle nose. Shipping wt. approx. CAT. NO. 25-365 960 lbs.

HAND SCREW MACHINE, with three phase motor and reversing push button switch for magnetic on and off control, assembled. Includes magnetic reversing starter for overload, low voltage and no voltage protection, not assembled. Consists of: Basic Screw Machine, 86-920 Motor and either 25-507 or 25-504 Control with switch mounted and wired to motor and separate starter. Specify whether 208-220 or 440 volts.

With 21/4"-8 threaded spindle nose. Shipping wt. approx. 960 lbs. CAT. NO. 25-357 With L-00 tapered key drive spindle nose. Shipping wt. approx. SPECIFICATIONS

CAPACITY

Maximum collet capacity
Turns any length up to
Swing over cross slide
Swing over bed
Max. dia. tool clearance over ram
Maximum working stroke of turret
SPINDLE AND HEADSTOCK
Infinite stepless speeds in direct drive 220-1550 rpm
Infinite stepless speeds in back gear
Spindle dia. at roller bearings
Hole through spindle
BED (furnished with leveling screws)
Length
Width81/4"
Depth
Width of V's
BED TURRET (for specifications, see CAT. NO. 25-557)

DOUBLE-TOOL POST CROSS SLIDE (for specifications, see CAT. NO. 25-555)

COLLET CLOSER-Uses 5-C collets

OVERALL DIMENSIONS

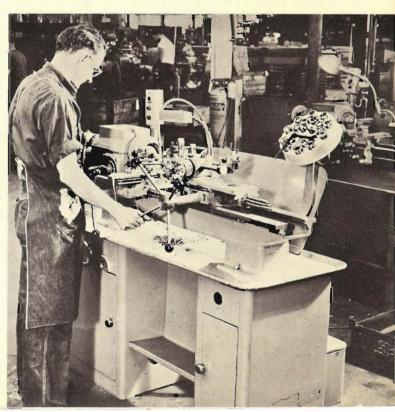
Cabinet and machine. . 573/4" left to right x 251/2" front to rear x 491/2" high

Coolant pan. . 1 1/6 x 22 1/2 x 56" outside dimensions Drain hole at rear has 1/2" pipe tap

MOTORS

Accommodates NEMA frame motors 182-184-203-204-224

With the Delta Hand Screw Machine, set-up time is reduced to a minimum. This makes it especially ideal for short production runs of either simple pieces or intricate parts.





MOTORS AND CONTROLS

DESIGNED SPECIFICALLY FOR DELTA LATHES-PROVIDE MAXIMUM EFFICIENCY IN OPERATION



These dependable motors are comparatively low in cost—but they are NOT built down to a price. Quality has been maintained throughout. They are the finest motors obtainable at anywhere near their price!

Here's Why Delta Motors Give Long Life and Dependable, Trouble-Free Service

- All ball bearings are sealed and lubricated for life. Bearing designs permit Delta Motors to be mounted either vertically or horizontally.
- Motor enclosures are designed to offer the maximum safety possible under all operating conditions.
- All Delta Lathe Motors comply with or exceed the maximum motor manufacturing power standards (breakdown torque) as established by the National Electrical Manufacturers Association
- All double-shaft motors are supplied with one shaft guard for maximum safety to the operator.
- Motor windings have high grade insulation and are carefully wound and tested.
- Accurately balanced rotors insure smoothness of operation and prevent destructive vibration.
- Well designed ventilating systems assure cool operating motors, thus providing adequate overload capacity and longer motor life.

SPECIFICATIONS FOR DELTA SINGLE-PHASE CAPACITOR START MOTORS

(115V cord and plug set supplied with motor is grounding type with 3-prong plug and adapter)

Catalog Number	H.P.	R.P.M.	Volts	Cycles	Shaft	Frame Size	Switch	Cord & Plug	Temp. Rise	Enclosure	Usage	Wt.
62-710	3/4	1725	115/230	60	5/8" Single	6"	None	Yes 115V	40°C	Guarded Drip-proof	10" Metal Lathe	45
83-210	1	1725	115/230	60	¾" Single	81/2"	None	No	40°C	Guarded Drip-proof	11" Metal Lathe	55
			SDECIEIC	ATION	IC FOR F			CF 110				
			SPECIFIC	AHON	IS FOR D	PELIA	3-РНА	SE WC	TORS			
66-710	3/4	1425/1725			%" Single	6"	None	No No	40°C	Guarded	10" Metal Lathe	35
66-710 86-920	3/4									Guarded Drip-proof Guarded	COLUMN TOWNS TO A STATE OF	35 56

CONTROLS AND WIRING KITS

For application of controls and wiring kits, refer to controls and wiring kits listed on product pages.

Write to factory for information on available motor controls and wiring kits not listed. Such items, when ordered special, are not subject to cancellation.

DELTA SWITCH KITS Manual-Single and 3-Phase

Manual Control Reversing Push Button Switch Kit. For use with single-phase motors up to 1 HP, AC, 125-250 V. Kit includes switch, wiring, mounting parts, wiring diagram and everything needed for connecting between No. 83-210, 86-920 or 87-120 Motor and switch on 11" Metal CAT. NO. 25-505 Lathe.

Manual Control Reversing Drum Switch Kit. For use with single-phase or DC motors up to 1 HP, AC-DC, 125-250 V. Kit includes switch, wiring, mounting parts, wiring diagram and everything needed for connecting between No. 83-210, 86-920 or 87-120 Motor and switch on 11" Metal Lathe. CAT. NO. 25-506

Manual Control Reversing Drum Swirch Kit. For use with No. 62-710 or No. 66-710 Motor, and (when overload protection is required) No. 49-365 Overload Switch. Kit includes drum switch, junction box with mounting bracket, 50" four-conductor cable, wiring diagram and everything needed for connecting between switch and motor on 10" Metal Lathe. CAT. NO. 25-806

Magnetic-3-Phase

Magnetic Control Push Button Switch and Reversing Magnetic Starter Kit for 11" Metal Cutting Lathe. For use with 440V, 60 cy, 3-phase motors up to 1 HP. Kit includes switch, wiring, mounting parts, wiring diagram and everything needed for connecting between No. 86-920 Motor and switch. Starter provides motor with overload, low voltage and no voltage protection. Does not include wiring from motor to starter and power source. CAT. NO. 25-504 Magnetic Control Push Button Switch and Reversing Magnetic Starter Kit for 11" Metal Cutting Lathe. Same as 25-504 except 208-220V. CAT. NO. 25-507 Magnetic Starter Safety Electrical Disconnect Switch Kit for 11" Metal Cutting Lathe. This kit, when used with a three-phase magnetic starter, automatically shuts off motor when gear train guard is swung open. Motor remains off even when cover is closed until start button is depressed. Includes directions and wiring diagram for field mounting. CAT. NO. 25-513

Magnetic Starter Safety Electrical Disconnect Switch Kit for 11" Metal Cutting Lathe. Same as 25-513 but price includes charge for mounting at factory when ordered as original equipment on new lathes. CAT. NO. 25-514

DELTA WIRING KIT

Wiring Kit for 11" Metal Cutting Lathes. This kit may be used with any standard control station for manual or magnetic control of lathe motors. Kit includes wiring, mounting parts for placing control above headstock, wiring diagram and everything needed for connecting between lathe motor and control station.

CAT. NO. 25-508

DELTA DRUM SWITCH

Magnetic Control Drum Switch. For use with No. 66-710 Motor and No. 49-396 or No. 49-397 Magnetic Starter. CAT. NO. 49-392

DELTA OVERLOAD SWITCH-SINGLE AND 3-PHASE

Overload Switch. Two-pole type, rated single-phase: 1½ HP, 115 V; 3 HP, 230 V; rated 3 phase: 5 HP, 208 to 550 V. To insure that correct heater coils are supplied, specify HP, RPM, phase and voltage when ordering.

CAT. NO. 49-365

DELTA MAGNETIC STARTERS-3-PHASE

These magnetic starters provide across-the-line control, low voltage, no voltage and accurate overload protection for Delta single and 3-phase motors. To insure that cor-rect heater coils are supplied, specify HP, RPM, phase and

woltage when ordering.

Magnetic Starter, 3-phase, size 0, NEMA type 1 enclosure, rated 3 HP, 208-220 V, 60 cy, AC. Supplied with reset button only. Separate start-stop control station must be CAT. NO. 49-396

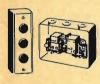
Magnetic Starter, 3-phase, size 0, NEMA type 1 enclosure, rated 5 HP, 440 V, 60 cy, AC. Supplied with reset button only. Separate start-stop control station must be used

CAT. NO. 49-397

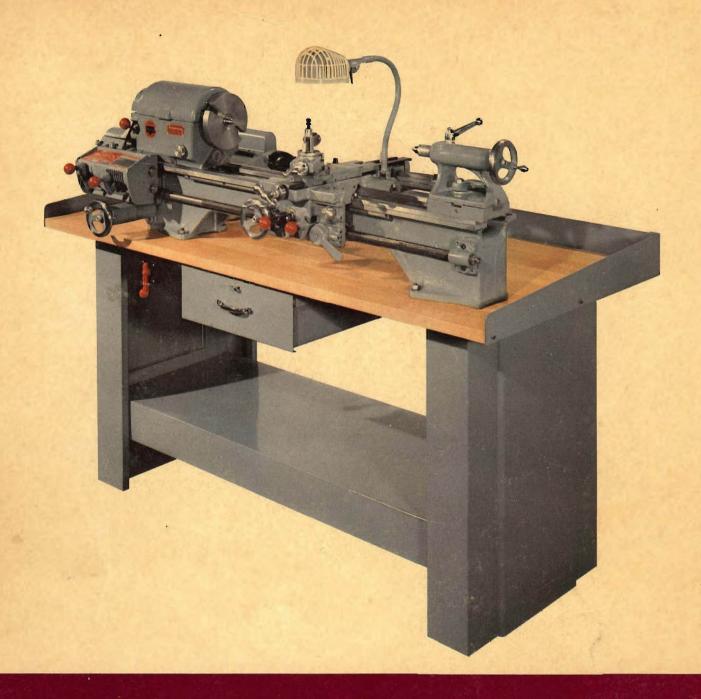












For further information on Delta Metal Lathes, contact:

In the United States of America: **ROCKWELL MANUFACTURING COMPANY** 400 N. Lexington Avenue Pittsburgh 8, Pennsylvania

In Canada: **ROCKWELL MANUFACTURING COMPANY** OF CANADA, LTD.

40 Wellington Street Guelph, Ontario

All Other Countries:

INTERNATIONAL DIVISION **ROCKWELL MANUFACTURING COMPANY**

400 N. Lexington Avenue Pittsburgh 8, Pennsylvania

DELTA METAL LATHES

another fine product by



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