

Delta

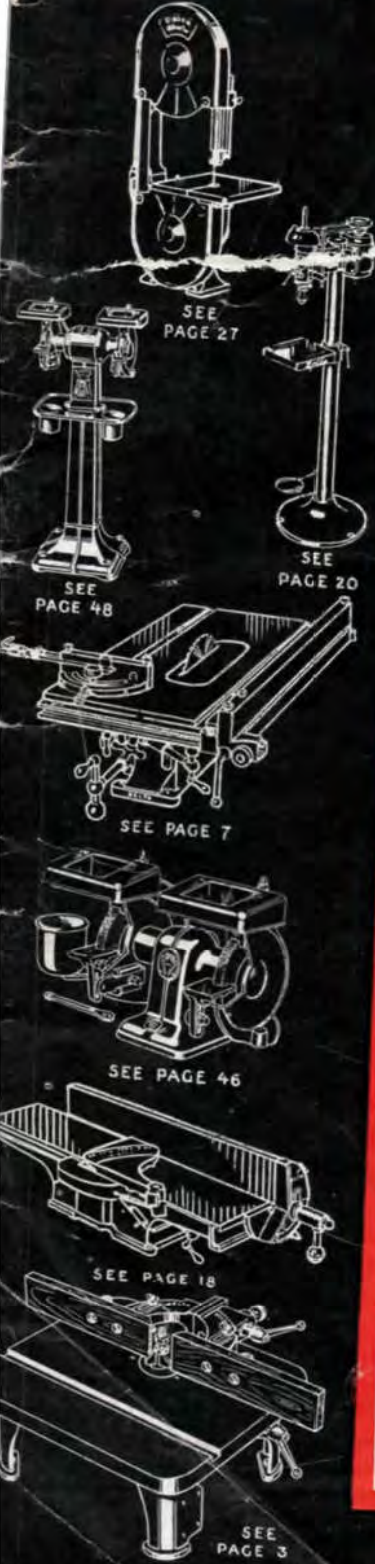
QUALITY TOOLS

MOTOR

1936
CATALOG

DRIVEN

M-3



For Sale By:
James P. ...
...

SEE PAGE 3

NEW Jig Makes End-Grain Work Easy

Fast, Convenient—and Perfectly Safe!

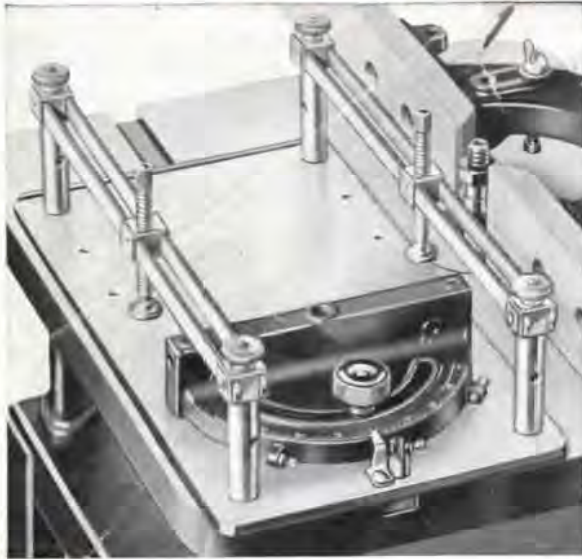


Photo above shows the sliding jig for end-grain shaping from the right side of the machine, showing the stop and pointer on the miter-gage head. Center photo shows how the jig is used on a sash operation, and photo at right how even a short block is shaped safely.

The shaping of end-grain by amateur or inexperienced operators has always been a dangerous operation, especially if the pieces are narrow, as when "returning" the end of a moulding. The work, having little or no bearing against the fence, is very apt to be pulled out of the hands, and the hands themselves thrown into the revolving cutter.

Striving always for complete safety in the operation of Delta machines, Delta engineers have solved this problem by the design of the new Sliding Jig for the shaper, a tool that removes all the danger from end-grain shaping, even on narrow stock or even on small blocks.

The Jig consists of a ground plate,

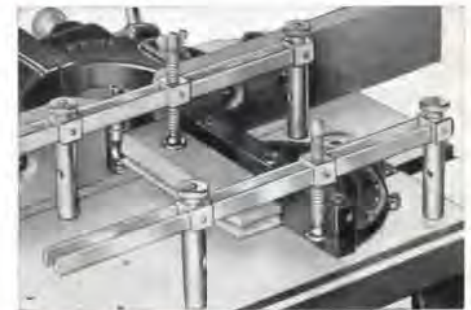
fitted with a key to slide in the groove in the shaper table. The plate carries the well-known Delta patented miter-gage head, which may be set at any angle, and automatically stopped at 90 degrees or at either 45-degree position. Carried on top of the plate also are two clamp rails, with screw clamps that may be slid to any position along the rails as shown in the photos. When the work is clamped against the miter-gage head and down to the plate, the whole jig is slid past the cutters. The hands never come close to the cutters, and the work cannot slip. This means not only perfect safety but also increased accuracy in the work.



No. 1186 Sliding Shaper Jig, with ground base plate, fitted with miter-gage head and swinging stop link, four clamp-rail posts, two clamp rails and two clamp screws. To fit No. 1180 shaper **\$6.50**
Shipping Weight 13½ lbs. Code Word SHJIG.

NCS-229-S Additional clamp screw, with block, each **.42**

Note: This sliding jig is adapted to many other machines and for many other operations. Key on base plate is 3/8" by 3/4".



For the First Time the Shaping of Short and Narrow Pieces Becomes a Safe Operation

While it is always safest practice, when shaping end grain, to shape the moulding on the end of a wide board, and then rip the mouldings off to width, there are times when such a practice is inconvenient or impractical. This is especially true in sash and cabinet work, where cope cuts must be made on the ends of pieces already shaped on the sides.

By ordinary methods the making of such cope cuts and similar end shaping presents

an element of decided risk. But not with the Delta Sliding Jig! Clamped in the jig, the work **cannot** slip and become caught in the cutter—and, since the hands need not even be near the work, there is not the slightest possibility of accident to the fingers.

For school work, or for repetition and production work where inexperienced operators must be used, this feature of the Delta shaper and jig is invaluable.

Delta Fully Adjustable Shaper Fence Marvel of Convenience



No. 982 Delta Shaper Fence to fit No. 970 and 995 drill presses, complete with wood facings, bolts and wingnuts, similar to standard fence on 1180 shaper **\$5.75**
Shipping Wt. 12 lbs. Code Word NESSF.

No. 983 Set of Shaper Hold-Downs, with straight and bent posts, two springs, two spring brackets, and one post bracket, for use with No. 982 shaper fence **\$1.65**
Shipping Wt. 2 lbs. Code Word NESHD.



justed forward or backward independently—and locked by a clamp lever which may be set at any angle to suit the operator.

The No. 982 Safety Shaper Fence is standard equipment on the No. 1180 Shaper, and is designed to fit the No. 970 and No. 995 drill presses also. It can be used on any type of shaper, and is actually more massive and much more convenient than many fences supplied on many heavy production shapers.

Spring hold-downs are available for use with the fence, which add much to the convenience of operation. They hold the work not only against the fence but also against the table. They can be used on either end of the fence, and are provided with universal brackets and long, flexible springs that accommodate work up to 3/4" thick.



Prices shown in this catalog supersede those quoted previous to September 25, 1935. All prices subject to change without notice. All prices F. O. B. Factory, Milwaukee.

Delta Manufacturing Co., 600-634 E. Vienna Ave., Milwaukee, Wis.

EXPORT DEPARTMENT, 39 Water St., New York, N. Y.

(Address all Canadian communications to Milwaukee Office.)

The right is reserved to make changes in design or equipment at any time, without incurring any obligations to install these on machines previously sold. Any sales tax imposed subsequent to the publication of this catalog will be additional to quoted prices.

NEW Shaper Offers Many Advantages

Specifications

Overall Dimensions

25" Wide, 10 1/4" High

15 1/2" Front to Back

18" by 15 1/2" Table

25" Long Fence

Speed 10,000 R.P.M.

5/16" and 1/2" Spindles

Spindle Carried in
Double-Seal Ball
Bearings

(Requiring no lubrication
for life of bearings)

Spindle Travel 3/4"

No-Backlash Spindle
Adjustment

Spindle Height Lock

3/8" x 3/4" Table Groove
for Sliding Jig

Tapered Starting Pin

Leg Drilled for
Reversing Switch

V-Belt Drive
and

Many Other Features

U. S. Pat.
No.
1,947,885

Other
Patents
Pending



Never Before Has So Much Real Value and Precision Been Available in a Shaper at Such a Moderate Investment



View of the Spindle Adjustment of the Delta Shaper. Fast and positive, yet capable of very fine adjustment—and with no backlash.



The convenient Clamp Handle for the Spindle Height Lock is carried out to the side for convenience in operation. Handle may be set at any angle.

Craftsmen in all lines have long wanted a real shaper. Not a machine of limited capacity, with rough adjustments or inaccurate construction, but a machine with a large table upon which real work could be handled; a machine with simple, quick, positive adjustments that really worked; a machine with a real high-speed spindle carried in self-sealed ball bearings properly engineered and mounted for shaping work; a machine that would do all the shaping and moulding work of the small shop, and do it quickly, safely and efficiently. Here it is: The new Delta No. 1180 Ball-Bearing Shaper.

Here is a machine that embodies everything the craftsman requires, whether he be professional or amateur. It will make hundreds of mouldings, with the special shapes of standard cutters originally de-

veloped by Delta; it will take either 1/2" hole cutters or cutters with 3/8" hole with a simple change of spindles. With the special sash and cabinet cutters shown on page 5 it will handle all of the window, storm and screen sash work of the average shop, and all of the cabinet work as well. The heavily ribbed table is large enough to handle heavy work as well as light, it is designed low, for comfort in operation, its four-leg mounting provides rigidity, and, when equipped with the new Delta Sliding Jig for end-grain work, it is perfectly safe even for boys in the school shop.

Its high speed produces perfect work with the Delta three-lip cutters, and, when equipped with a reversible motor and the convenient reversing switch on the front leg, the cutters can be reversed to suit any direction of grain found in the work.

No. 1180 Delta Ball-Bearing Reversible Shaper, with Delta Fully Adjustable Fence, 5/8" and 1/2" Interchangeable Spindles, Table Insert, Starting Pin, Wrenches and Spindle Pulley. Without Motor or Motor Pulley. **\$25.75**

Shipping Weight 57 lbs. Code Word SHAPR.

No. 1185 Special flanged motor pulley for No. 1180 Shaper, 5 7/8" diameter, 3/8" bore, with Keyway **\$1.35**

Shipping Weight 2 1/2 lbs. Code Word SHAPU.

No. 410 Special V-Belt for Shaper (do not attempt to use an ordinary V-Belt) **\$.85**

Shipping Weight 10 oz. Code Word BELTB.

Use Motor No. 915. See page 44 for price.

[Please Order by Catalog Number to Avoid Mistakes and Delay]

Page 3

Shaper Unit Has Every Convenience for Perfect Work



U. S. Patent
No. 1,947,885
Other Patents
Pending

Mounted on the No. 1181 welded steel stand, the No. 1180 Delta Shaper forms a compact, portable unit that is unique in its field. Study the features of this remarkable machine and see how the user's convenience and safety has been studied at every point, to make a machine that is not only efficient in action, but one which is suitable for any operator—amateur or professional; experienced or inexperienced.

No. 915 ball-bearing reversible $\frac{1}{2}$ -H.P. motor is recommended for this unit, and is mounted on a special motor bracket bolted to the rear of the stand, and carrying a guard which completely encloses the belt and motor pulley. The front of the belt and the spindle pulley under the machine are enclosed in a separate guard, which is instantly removable for changing spindles. The motor runs at 3450 R.P.M., and drives the shaper at 10,000 R.P.M., from a special flat, flanged pulley which permits the spindle to be raised and lowered without any sidewise twist or strain on the belt. The belt is a special one, especially designed for high speeds, and no other belt should be substituted for it.

The reversing switch may be mounted on the front right leg of the shaper, within instant reach of the operator. The handle is set close to the machine and up under the rim of the table, where it cannot accidentally be thrown on while the operator is setting the cutters or fence. Reversing switch is connected to motor with four-wire cord, and is provided with two-wire cord and plug for connection to lighting outlet.

Overall dimensions are:
25" wide; 36 $\frac{1}{2}$ " high,
28 $\frac{1}{4}$ " front to back.
Height to table, 34".



Upper right, making an ogee cut with cabinet cutter. Lower right, making a screen moulding with $\frac{1}{8}$ " spindle and cutter. Lower left, making combination ogee and rabbet cut on circular sash.

Thoroughly Guarded

No more thoroughly guarded shaper is offered today. The standard motor bracket and belt guard fitted to the unit, and available for the shaper when used on the bench, completely encloses motor pulley and belt, making accident impossible. Even under

the table, where there is little normal risk, the front of the belt and the spindle pulley is enclosed by a solid cast-iron guard, removable to get at the spindle and pulley.

When shaping curved and circular work, where the fence cannot be used, the

No. 987 Shaper Guard may be used. This guard is not standard equipment, but may be purchased as an extra. It fits not only the No. 1180 shaper, but also the Nos. 970 and 995 drill presses when these are used as shapers with the $\frac{1}{8}$ " cutters.

No. 987 Shaper Guard



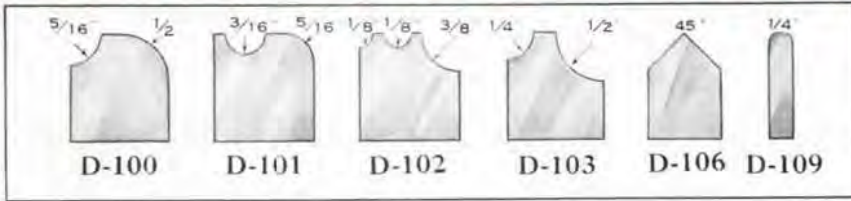
No. 987 Shaper table Safety Guard for curved work, complete with bracket for shaper table, adapter bracket for drill-press wood table, (not shown), hexagon post, spring bar with hard-rubber guard ring and screws..... **\$2.85**
Shipping Weight 8 lbs. Code Word NESGA.

No. 1188 Delta Shaper Unit, Consisting of:

No. 1180 Shaper	\$25.75
No. 1181 Steel stand	6.75
Shipping Weight No. 1181 only 51 lbs. Code Word SHAST.	
No. 1183 Belt guard and motor bracket.....	4.85
Shipping Weight No. 1183 only 28 lbs. Code Word SHABG.	
No. 1185 Special flanged motor pulley, 5 $\frac{7}{8}$ " diam., $\frac{5}{8}$ " bore.....	1.35
Shipping Weight No. 1185 only 2 $\frac{1}{2}$ lbs. Code Word SHAPU.	
No. 410 V-belt, 41" inside circumference.....	.85
Total	\$39.55
Shipping Weight 176 lbs. Code Word SHAUN.	

No. 915 60-cycle or No. 916 50-cycle motor should be used for this machine.
See page 44 for prices.

Universal and Sash Cutters for Shaper



Standard Universal Cutters

Produce Hundreds of Shapes

The first really universal cutter designs—made to produce hundreds of moulding shapes with only four cutters—were the moulding cutters originally made by Delta for the circular saw, and described on page 15. The convenience and utility of these shapes is attested by the fact that they have been universally copied. Now they are available in a really high-grade, chrome-vanadium steel three-lip shaper cutter, together with other shapes which still further add to their convenience and utility.

Like the $\frac{3}{8}$ " hole cutters, these cutters with $\frac{1}{2}$ " hole are made of chrome-vanadium steel, hardened in oil, and can be re-sharpened again and again merely by grinding across the face of the cutting edge. They have the Delta involute relief at the cutting edge, which permits a true shaving cut while at the same time leaving a strong edge, and one that keeps the true shape after grinding. Delta collars too, bear the stamp of Delta quality, as they are ground to size—not merely rough-turned, so that they run perfectly true, and will not score work.

List of Standard Cutters and Collars

D-100 Cutter as shown.....\$1.00	D-142 $\frac{3}{8}$ " Spacing collar..... .15
D-101 Cutter as shown..... 1.00	D-143 $\frac{1}{2}$ " Spacing collar..... .15
D-102 Cutter as shown..... 1.00	D-144 $\frac{3}{4}$ " Spacing collar..... .15
D-103 Cutter as shown..... 1.00	D-145 1 $\frac{1}{8}$ " Spacing collar..... .15
D-104 Straight cutter, 1" wide 1.00	D-146 1 $\frac{3}{8}$ " Spacing collar.... .15
D-105 Straight cut'r, 1 $\frac{1}{2}$ " wide 1.35	D-147 1 $\frac{1}{2}$ " Spacing collar.... .20
D-106 45-deg. cutter 1.00	D-148 1 $\frac{3}{4}$ " Spacing collar.... .20
D-107 Straight cut'r, $\frac{1}{2}$ " wide 1.00	D-149 1 $\frac{3}{4}$ " Spacing collar.... .20
D-108 Straight cut'r, $\frac{1}{4}$ " wide .75	D-152 Wood box with slide lid .35
D-109 Round-nose, $\frac{1}{4}$ " wide... .75	

Note: Above collars $\frac{3}{8}$ " thick. Approx. Ship. Wt. collars & cutters, 5 oz. ea.

No. 1182 Shaper-Cutters Set

Delta Standard shaper cutters may be purchased individually as listed in the table above, or in a set, packed in a neat wooden storage box with a slide lid as shown at the right. The set contains ten cutters as listed below, and eight spacing collars, so that practically any type of moulding can be produced with it. Additional cutters from the Sash and Cabinet list can be used in combination with the Standard cutters.

No. 1182 Set of Standard Shaper Cutters, consisting of one each cutters No. D-100, D-101, D-102, D-103, D-104, D-105, D-106, D-107, D-108, D-109 and Spacing Collars D-142 to D-149 inclusive, packed in neat slide-top wood box **\$10.85**
Shipping Weight 3 $\frac{3}{4}$ lbs. Code Word SHACU.



Delta Sash and Cabinet Cutters Offer New Possibilities for Pleasure and Profit



Here is a new Delta cutter development that offers unusual possibilities, not only for the man who likes to turn his home shop to the making of things useful as well as ornamental, but for the professional shop as well. With these new Delta cutters all the difficult cope and reverse mould shapes used on regular professional

sash and cabinet work can be accomplished with ease.

With these, the owner of the Delta shaper or any other shaper having a $\frac{1}{2}$ " spindle to which they can be adapted, is practically independent of the mill. He can make his own sash mouldings, door mouldings, doors for buildings or cabinet

work, cabinet mouldings of all kinds, and all types of building trim, such as brick moulds, base moulds, back bands, etc., straight or circular. There is practically no limit to the amount of mill work he can do with both sets of Delta shapers on hand. Sash cutters are designed for sash using $\frac{1}{4}$ " stock.

Sash and Cabinet Cutters and Collars

D-120 Ogee cutter\$1.00	D-130 Str. sash cut., $\frac{3}{4}$ " wide 1.00
D-121 Female sash cutter..... 1.00	D-140 $\frac{1}{4}$ "x1 $\frac{1}{8}$ " Spacing collar .15
D-122 Male sash cutter..... 1.00	D-141 $\frac{3}{8}$ "x1 $\frac{1}{8}$ " Spacing collar .15
D-123 Cabinet cut'r, r. h. male 1.00	D-150 $\frac{1}{2}$ "x1 $\frac{1}{8}$ " Spacing collar .20
D-124 Cabinet cut'r, l. h. male 1.00	D-151 $\frac{1}{4}$ "x1 $\frac{1}{8}$ " Spacing collar .20
D-125 Cabinet cut., r. h. female 1.00	D-154 Wood box with slide cov. .35
D-126 Cabinet cut., l. h. female 1.00	SR-232-S Stub spindle, with screw and Allen wrench 1.00
D-127 Straight cut'r, $\frac{3}{8}$ " wide .75	

Note: Cutter D-108, listed in Standard cutter list, is also included in Sash and Cabinet Set No. 1184.

No. 1184 Set of Sash and Cabinet cutters, consisting of Cutters D-108 and D-120 to D-127 inclusive, D-130 Plain cutter, Spacing Collars D-140, D-141, D-150 and D-151, with SR 232-S Stub spindle and wrench, packed in neat slide-top wood box **\$10.85**
Shipping Weight 3 lbs. Code Word SHACB.

IMPORTANT

We do not recommend the use of any cutters with $\frac{1}{2}$ " hole for use on any type of drill press. Small cutters with $\frac{3}{8}$ " hole, as listed on page 6, can be used on a high-speed drill press with satisfactory results. But, due to the distance from drive pulley to cutter on the drill press, a torsional vibration is set up when using large cutters which is detrimental to good shaper work.



Above is shown special sash cutter D-122, with stub spindle, making cope cut on sash rail. At the left, above, is shown a combination rabbit and ogee cut on a sash stile.



[Please Order by Catalog Number to Avoid Mistakes and Delay]

5/16-in. Cutters for Shaper and Drill Press

Delta shaper cutters are not merely machine steel, case-hardened, as are some cutters on the market. Such cutters may not stand up under long use, as the edges begin to crumble and the corners to chip under the strain of use. In addition, as soon as they require re-sharpening, the grinding wheel goes down under the thin case-hardened shell, and the cutter is then useless.

Delta cutters, on the contrary, are made of a high-grade chrome-vanadium steel, which combines toughness with deep-hardening qualities. They are

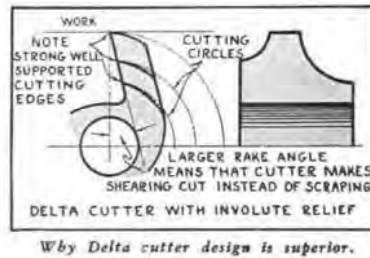
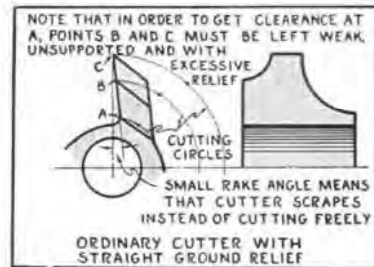
hardened and tempered in oil, like all fine tools, so they will not only stand up under severe service, but can also be resharpened without loss of cutting quality.

They are sharpened merely by grinding across the face of the cutting edge on a straight, flat wheel or a cup wheel.

One of the great advantages of the Delta design is the involute relief of the cutting edges, shown at the left. While this requires special machinery to produce, it is important because it insures adequate clearance at the cutting edge



Delta chrome-vanadium steel shaper cutters are available singly, as above, or in sets of 24, with collars and adapter, as below.



Why Delta cutter design is superior.

in order to get a true shaving cut, without at the same time weakening the cutting edge.

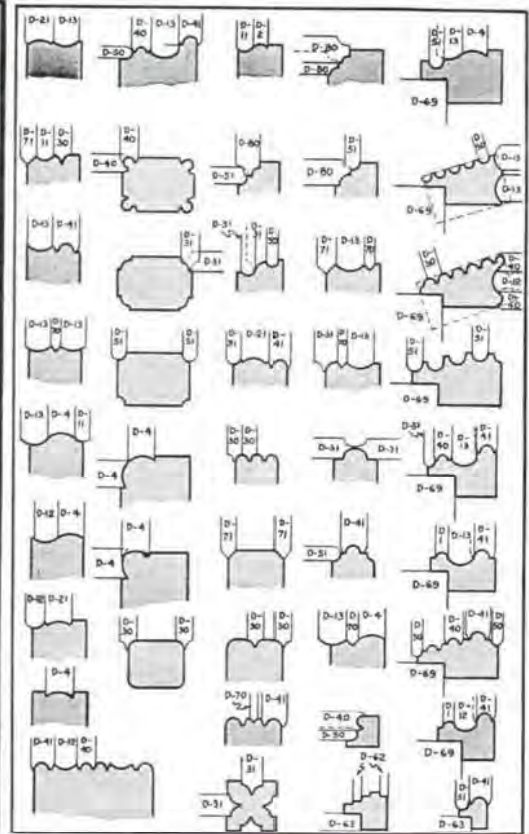
Ordinary cutters, being merely ground straight across, have a weak cutting edge. Also, such cutters usually have a very small rake angle, which means that they scrape instead of cutting.

Hundreds of Shapes Can Be Produced with Delta Shaper Cutters

List of 5/16-Inch Cutters—Sizes and Shapes

Note that these cutters are recommended for use not only on the shaper but also on the No. 979 and 985 drill presses. We do not recommend the use of larger cutters on any drill press.

No.	Diam.	Width	Radius
D-1	.950	.177	.125
D-2	.950	.264	.187
D-3	.950	.354	.250
D-4	.950	.442	.312
D-10	1.02	.177	.125
D-11	1.06	.264	.187
D-12	1.09	.354	.250
D-13	1.13	.442	.312
D-20	.994	.221	.125
D-21	1.03	.442	.250
D-30	1.18	.282	.125
D-31	1.24	.344	.156
D-40	1.09	.303	.093
D-41	1.16	.388	.125
D-50	1.13	.194	.093
D-51	1.20	.260	.125
D-60	.950	.125	
D-61	.950	.156	
D-62	.950	.187	
D-63	.950	.250	
D-70	1.12	.177	
D-71	1.21	.282	
D-80	1.25	.442	1/8 - 7/8
D-69	Blank cutter, similar to above, but 1 1/4" diameter, 1" wide, Each .75		
No. 978	Adapter for 5/16" hole cutters. Fits No. 624 and 974 drill-press spindles. With nut, Each. .80		



Price of all Cutters listed above, each (All cutters have 5/16" hole) \$.55

D-69 Blank cutter, similar to above, but 1 1/4" diameter, 1" wide, Each .75

No. 978 Adapter for 5/16" hole cutters. Fits No. 624 and 974 drill-press spindles. With nut, Each. .80

No. 980 Complete Set of Cutters listed above, including D-69 blank cutter, 24 cutters, 5/16" hole, with No. 978 adapter, No. 979 depth collars, packed in wood box, \$14.85

Shipping Weight 2 lbs. Code Word NESSC.

No. 979 Set of six depth collars, 5/16" hole \$.75

Shipping Weight 8 oz. Code Word NESDC.

No. 981 Box for cutters only, \$.85

Shipping Weight 1 1/4 lbs. Code Word NESBO.

8-inch Timken Bearing Circular Saw

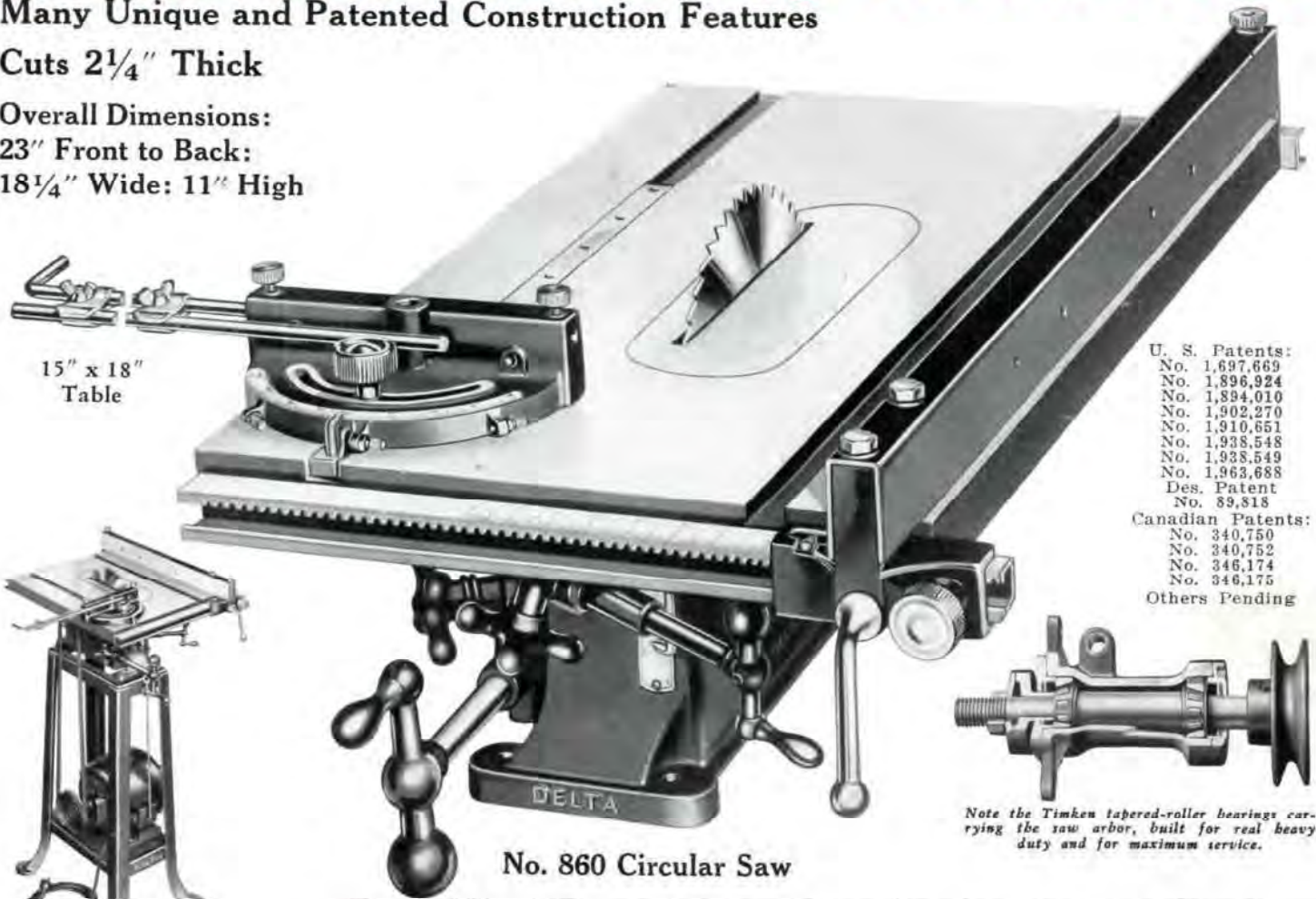
Many Unique and Patented Construction Features

Cuts 2 1/4" Thick

Overall Dimensions:

23" Front to Back:

18 1/4" Wide: 11" High



15" x 18" Table

U. S. Patents:
 No. 1,697,669
 No. 1,896,924
 No. 1,894,010
 No. 1,902,270
 No. 1,910,651
 No. 1,938,548
 No. 1,938,549
 No. 1,963,688
 Des. Patent
 No. 89,818
 Canadian Patents:
 No. 340,750
 No. 340,752
 No. 346,174
 No. 346,175
 Others Pending

Note the Timken tapered-roller bearings carrying the saw arbor, built for real heavy duty and for maximum service.

No. 860 Circular Saw

Read All of These Points: They Are Important to You!

1. The great capacity in front of the saw blade—where you need it most for cross-cutting wide boards—together with the tremendous ripping capacity offered by the Delta rip-gage extension, are fully covered by Delta patents. Only in the Delta circular saw can you obtain these patented advantages of construction and design—concrete evidence of the superiority of Delta machines. (Pat. No. 1,938,549).
2. The rip-gage extension, which gives the user all the advantages of a four-foot table, without the weight and expense, is fully protected by the above patents. You cannot obtain these advantages in any other manner. (Pat. No. 1,896,924 and No. 1,938,548).
3. An original Delta design, the wonderful "Auto-Set" miter gage is also fully patented. Both the massive design and the automatic stops which make this the most convenient gage ever offered on any circular saw, are protected by patent. (Pat. No. 1,902,270). (Des. Pat. No. 89,818). (Can. Pat. No. 340,750)
4. If you insist on absolute accuracy in your work you can obtain it only with a clamp attachment for the miter gage, which absolutely prevents any creep of the work away from the blade. The Delta clamp attachment is fully protected by patent. (U. S. Pat. No. 1,894,010). (Can. Pat. No. 340,752).
5. The Delta rip-gage has a number of important advantages, amongst which are its self-alignment, its graduations and adjustable pointer, its rear clamp and its micrometer adjustment, disengaged at will, with fine teeth to permit a real close adjustment for accurate work. (U. S. Pat. No. 1,963,688).
6. The patented Delta table trunnion construction has a number of superior features; it permits the use of a very narrow table slot for the blade, and avoids the necessity of removing the table insert when the table is tilted. When the table is raised and tilted the rip-gage is not thrown out of alignment with the saw blades. (U. S. Pat. No. 1,697,669 and 1,910,651).

No. 878 Unit

No. 860 8-inch Delta Circular Saw, with 8" blade, "Auto-Set" Miter Gage, "Micro" Adjustment Rip Gage and Arbor Pulley, complete as shown in photo above **\$32.85**

Shipping Weight 91 lbs. Code Word NECSA.

No. 5500 5" Motor Pulley, drives saw at correct speed. Made with 1/2", 5/8" or 3/4" bore. Specify bore wanted. 1/2" bore furnished unless otherwise specified **.75**

Shipping Weight 1 1/2 lbs. Code Word PULOH.

No. 560 V-Belt, 22 3/4" center to center **1.00**

Shipping Weight 1 lb. Code Word EICVB.

No. 862 Circular Saw, complete with No. 866 Extension Attachment but without standard-rip gauge bar or standard guide bars **39.95**

Shipping Weight 110 lbs. Code Word NECWX.

No. 820 or 1120 Motor recommended for this machine.

No. 878 Circular-Saw Unit

The No. 860 Circular Saw mounted on its individual stand is a very popular unit. It is especially convenient in the professional and school shop, as it is completely portable.

Our No. 820 1/2 H.P. Repulsion-Induction Motor is recommended for use with this unit.

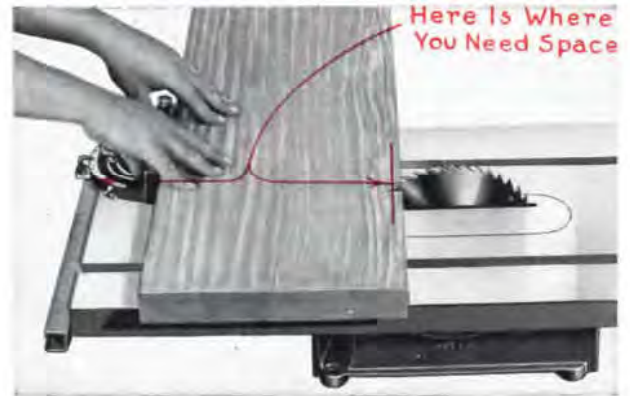
No. 878—8" Timken-Bearing Circular Saw Unit Includes:

No. 860 Circular Saw	\$32.85
No. 5500 V-Pulley, 3/4" bore75
No. 560 V-Belt, 22 3/4" center to center.....	1.00
No. 329 Steel Stand (without chute), with bolts and directions	5.75
Total	\$40.35

Shipping Weight 122 lbs. Code Word NECUN.
 Use No. 851 Switch Rod. See pages 42-45 for motor and Switch Rod prices.

Extension Gives More Table Space In Front of Saw Blade —

Where You Need It Most!



Makes Cross-Cutting of 12 in. Boards as Easy as 1 in. Strips

U. S. Patent No.
1,896,924
1,938,548
1,938,549
1,938,688



Permits Miter Cuts Up to 13 1/2" Wide, with Full Support of Miter Gage

Every craftsman who owns a circular saw is faced with the necessity occasionally of doing work that is beyond the capacity of his machine. Then he wishes that he had a larger saw—but the cost of such a machine makes it entirely out of the question for the small shop.

It was to eliminate this condition that Delta incorporated into the design of the circular saw the radically new idea that gives the owner of this saw all the convenience and capacity of a large, factory-type saw, at only a small fraction of the cost.

The cross-cutting of wide boards has always been a problem. As soon as he attempted to cross-cut a board wider than a few inches the miter gage projected beyond the edge of the table, and gave no support to the work, making it impossible to do accurate work. All saws, no matter how built or designed, lacked a firm

support for cross-cutting wide work—none of them had enough room in front of the saw blade—the real "Service Zone".

The new Delta Table Extension eliminates this completely, and does so in the only practical way. Side wings added to increase the width of the table are of no value for this, as the problem of adequate room for a wide board still remains. Only by extending the front of the table can the problem be met satisfactorily, and this is what the Delta table extension does.

Invaluable for Wide Miters

The photo above shows how simple cross-cutting of wide, heavy boards becomes with the table extension, and how both work and gage are fully supported during the whole cut. The addition of the Delta miter-gage clamp (see page 10) makes child's play of cross-cutting even the heaviest boards within the capacity of the saw.

The real utility of this extension becomes even more apparent when it is necessary to miter a wide board accurately—a job that cannot be done at all on most saws. As the photo at the left shows, the mitering of a panel 13" or 14" wide would be impossible without the extension because neither work nor gage would have any support from the table, and accurate work would naturally be out of the question.



Here is a panel 13 1/2 inches wide being mitered on the Delta Circular Saw with Front Table Extension, a job that would be absolutely impossible to do accurately on the ordinary saw with limited room in front of the saw blade. The dotted lines show how both miter gage and work receive complete support from the table, thus insuring an accurate cut without trouble.

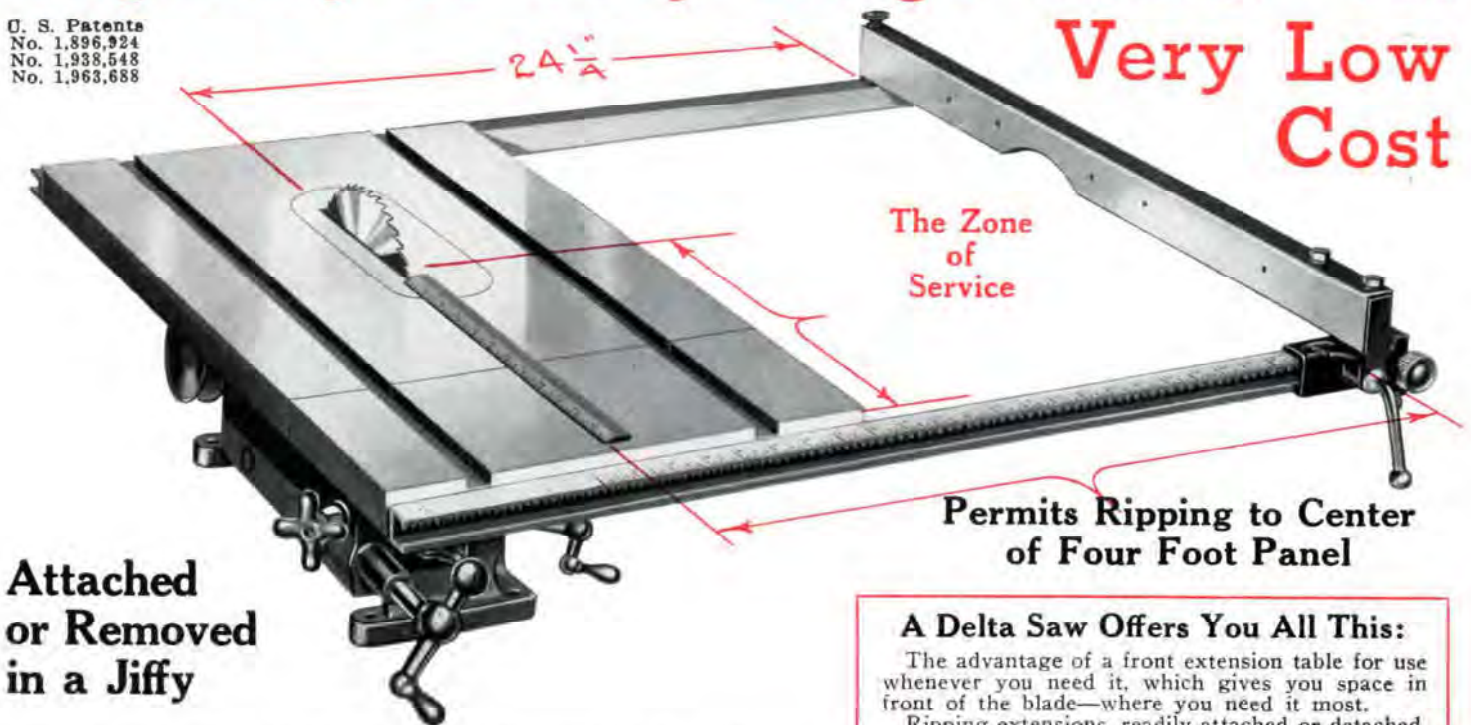
Instant Setting for Miters

At the right is shown a close-up of the individual stop screw and link on the Delta Miter Gage, which insures instant setting and absolute accuracy on miter cuts, no matter how wide. To be accurate on wide miter cuts, your miter gage must have stops that can be set individually, as any error is multiplied enormously on wide cuts.



Capacity of Very Large Table:- At Very Low Cost

U. S. Patents
No. 1,896,924
No. 1,938,548
No. 1,963,688



Attached or Removed in a Jiffy

Next to cross-cutting, the greatest problem for the user of the circular saw, when doing large work, is that of ripping large panels and similar stock. He usually either must do this by "eye", or else build some kind of extension table, which is usually unsatisfactory.

All this bother is eliminated by the use of the Delta Ripping Extensions, consisting of two long bars which replace the standard rip-gage guide bars. They are attached or removed in an instant, and may be left permanently in place. They fit

either the regular table or the extension table, so that the user has exactly the type of saw he wants at any time. A longer rip-gage body is furnished for use in connection with the extension table.

With these extensions in place panels as wide as four feet can be ripped down the center, since it is 24½" from the saw blade to the rip gage when the gage is fully extended. And the work is accurately guided and fully supported during the operation.

A Delta Saw Offers You All This:

The advantage of a front extension table for use whenever you need it, which gives you space in front of the blade—where you need it most.

Ripping extensions, readily attached or detached, which can be used either with the standard table or with the extension table, and which afford all the advantages of an extremely large table—at a fraction of the large table cost. The extensions should permit ripping to the center of a 48-inch panel when necessary.

An automatically set miter gage—with individual adjustments for each stop setting. It is only with individual adjustments that exact setting can be obtained for either square or 45-degree settings.

Trunnion mounting of the table, which permits the table to swing around the plane of the top, and thus permits the use of a narrow saw slot.

A construction that permits the use of moulding cutters on both sides of the gage. Otherwise full use of moulding cutters is lost.

Table inserts that can be removed and replaced with assurance that they will always go back in the same position, without trouble.



No. 866 Delta Extension Attachment with Front-Table Extension, 32" Rip-Gage Guide Bars, Long Rip-Fence Bar, screws and bolts..... **\$8.85**
Ship. Weight 22 lbs.
Code Wd. NECXT.



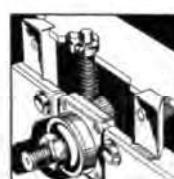
On the Delta saw, a flip of the finger as shown at the left removes the table insert, yet it is perfectly solid when in use. No screws—often in awkward positions—to loosen or retighten. At right is shown the accurately graduated scale, with adjustable pointer, that shows height of table or depth of cut.



At the right is shown the table-tilting mechanism, which quickly and conveniently sets the table to the exact degree of tilt desired. The ball crank and work gear is fast and easy in action, and the exact tilt is shown by an accurately graduated scale. Stop screws are provided for level and 45-degree positions



Raising and lowering of the table is accomplished by means of a large comfortable ball-crank handle at the front of the machine. The screw is fitted with a thrust ball bearing, which with the powerful leverages of the helical-gear mechanism, makes the action fast and easy.



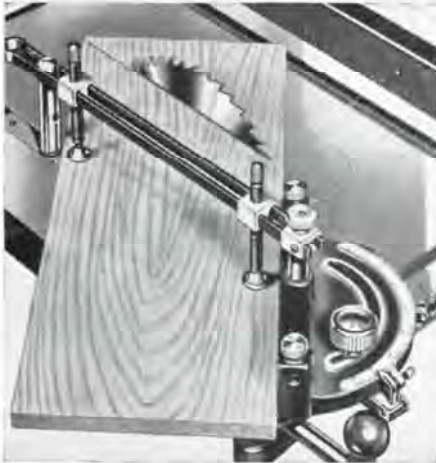
Drawing at left shows how table is guided on heavy dovetail bars, working in dovetail slides milled in the base. Table is positively locked at any height. Large clamping knobs with comfortable hand grips, as shown at right, are typical of the care taken of the convenience of the user of Delta machines, even in small things.



[Please Order by Catalog Number to Avoid Mistakes and Delay]

Delta Clamp Attachment Indispensable

Say Experienced Craftsmen Who Use It



Hundreds of experienced craftsmen now using the Delta Miter-Gage Clamp Attachment (U. S. Pat. No. 1,894,010) would not attempt to make any accurate cut without it. It eliminates completely the tendency of the stock to creep away from the blade, especially on wide miters, it enables cuts to be made absolutely accurate, and it makes cross-cutting and mitering work absolutely safe, since there is no necessity for the hands to be brought near the blade.

The attachment consists of a clamp bar, instantly attached to or detached from the miter-gage bar. Sliding on the clamp bar are two clamp screws, which may be set at any point along the bar to suit the work. When tightened down against the work, gage and work are made practically one solid piece, so that there is not the slightest possibility of the work creeping away from or toward the blade. The screws may be used to hold one piece or any number of pieces. The attachment is especially useful when cutting compound angles, with the table tilted.



Invaluable for cutting accurate narrow miters as well as wide ones.

Perfect Safety

The clamp attachment assures perfect safety in cross cutting and mitering, because the gage, carrying the clamped work, can be slid into the cut with one hand, back of the miter gage. The hand need never be in front of the miter gage or near the blade—and it is only on the Delta gage with clamp attachment that this is true. With every other gage it is necessary to have one hand in front of the gage to hold the work.

Insures Accuracy; Supports Work; Prevents Waste

With this attachment, there is no spoilage due to slippage, which ruins many a job that is almost complete. You know the cut will be accurate, once it is clamped. For large, heavy boards, also, it is of tremendous value. Instead of trying to keep the work pressed against the miter-gage

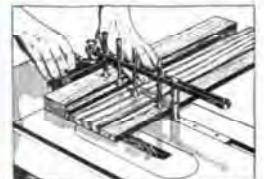
head and at the same time support the overhanging end, the clamp holds the board square, and all the user has to do is to support the end easily and naturally, while sliding it, toward the saw blade. Once used, you will never be without it.



No. 865 Delta Miter Gage Clamp Attachment, consisting of Clamp Bar, two Sliding Clamp Screws, Front and Rear Posts, to fit No. 864 Miter Gage only..... **\$1.95**
Shipping Weight 2½ lbs. Code Word NECLA.

No. 873 Extra Clamp Screw and Block for Clamp Attachment..... **\$.35**
Shipping Weight 4 oz. Code Word NECCS.

U. S. Pat. No. 1,894,010; Can. Pat. 340,752/1934.



Fully Approved Guards Safeguard Saw Operation

Splitter used alone, without basket guard. At right is shown guard swung completely out of the way.



The Delta No. 863 Circular-Saw Guard (U. S. Pat. No. 2,007,887) offers for the first time a guard that really protects the user, and at the same time does not interfere with his work. It meets all requirements of the Wisconsin Industrial Commission, which are exceptionally exacting.

seldom replaced. The whole Delta guard, on the contrary, may be swung back and down out of the way in a second's time, and as quickly replaced. It is never removed for any reason.

The Delta splitter is also the only practical one we know of. It comes in three thicknesses, to suit saws of varying set; it may be used alone, or with the basket, it may be attached or detached in an instant; it floats so as to accommodate itself to the work.

Delta guards cost a trifle more than others, but their superior design and construction, insuring the utmost safety, make them well worth the slight difference in cost. A flimsy guard, which must be removed completely for a number of operations, is worse than no guard at all.

arms as shown below, so that the blade is covered at all times, while the whole basket swings around a pivot to accommodate automatically work of any thickness. The basket is wide enough to guard the widest dado cutters used on the machine, and the front is open so the line of the cut can be seen.

The ordinary guard, supported on a so-called "splitter" must be removed entirely when grooving, dadoing, etc., is done, and is



Left, work entering basket guard, with back of saw fully enclosed. Right, work leaving guard, with front of basket down, enclosing the front of the saw.

No. 863 Delta Swing Guard for No. 860 Circular Saw only, complete with bracket, support rod, pivot arms, guard basket, collars and screws for attachment... **\$4.85**
Shipping Wt. 9 lbs. Code Word NECGA.

No. 867 Splitter Attachment for No. 860 Delta Circular Saw only, consisting of three splitters and two collars to fit support rod. **\$1.50**
Shipping Wt. 2½ lbs. Code Word NECSB.

Note: Splitter can be used only with type of bracket and arm shown above.



New Attachment Makes Tenoning Safe,

Fast, Easy and Accurate

Tenoning is the one operation on the ordinary circular saw that is dangerous to the operator. The guard cannot be used, because the stock is fed vertically to the blade. And, especially if the stock is narrow, there is the ever-present possibility that it may catch at the bottom and fall over toward the blade, carrying the hand with it.

Every possibility of risk is done away with when using the new Delta Tenoning Attachment. This consists of a massive casting, which may be fastened to the base plate of the No. 1186 Sliding Jig, and this, in turn, is guided by the miter-gage grooves in the saw table. The stock to be tenoned is clamped against an accurately machined surface so that it is exactly vertical and parallel to the saw blade—no chance for twisted

tenons—and the whole attachment is fed to the blade by means of a convenient handle at the rear. The work is fed to the saw with one hand—far removed from the revolving blade. There is no need for the hands to be anywhere near the saw blade at any time, and thus every possibility of accident is removed from the operation.

The circular saw is an ideal tenoner for the small shop, and the only reason it is not more used for this is simply because of the possibility of accident in the hands of an inexperienced operator. The new Delta attachment removes this danger, and enables much repetition work—such as the making of tenons, dado cuts on end grain, housings, etc., on sash and cabinet work to be made not only fast and accurate, but safely.



One hand—which never comes near the saw blade—operates this efficient, accurate tenoning jig. Tenoning is now as safe and accurate as any other operation.

The Ideal Tenoner for Schools

For school work especially, where the instructor cannot find time to supervise every cut on the circular saw, this at-

tachment will prove indispensable, since he knows that the cuts will not only be square and parallel, but made safely.

In the home workshop, the moderate cost of the attachment is soon regained in increased accuracy, speed and safety.

The attachment will take stock up to 2 3/4" thick, any width within the capacity of the saw, and will cut tenons up to 2" long on an 8" saw, any width desired. The length of the tenon is of course determined by the diameter of the saw blade.

NOTE: This tenoner is to be used on the base plate of No. 1186 Sliding Jig, which, in addition to its great value for the shaper, is also useful for a variety of work on the circular saw. See page 2 for details of the Sliding Jig.



Rear view of jig mounted on base plate of No. 1186 Sliding Jig. Note the heavy, rigid construction.



View of parts of Tenoning Jig as shipped. Note that it must be used on base plate of No. 1186.

- | | |
|---|---------------|
| No. 1170 Tenoner for use with No. 1186 Sliding Jig. Consists of main castings, with clamp, stud, clamp handle and washer, but without base plate | \$6.25 |
| Shipping Weight 20 lbs. Code Word TENJG. | |
| No. 1172 Tenoning Jig, as above, but complete with base plate | \$9.25 |
| Shipping Weight 32 lbs. Code Word TENBP. | |



The photo at the left illustrates the attachment being used to rout a groove in a table top for an inlay band. Many other operations are shown on page 12. Photo opposite shows a few samples of the type of work that is easily done with this attachment.

Many Operations Possible with Mortising Attachment

The addition of the No. 458 Delta Mortising Attachment to your circular saw enables you to perform many difficult operations with ease. Boring, routing, mortising, grooving, counterboring, inlaying, sanding and many other operations are performed on this machine with accuracy and speed.

It may be mounted under the base of the No. 560 circular saw; it may be combined on the same stand as the band saw, it may be used alone on stand or bench—there is no end to the convenient ways in which it can be used.

Ball-Bearing Ground Spindle

The spindle is mounted on self-sealed ball bearings, lubricated at the factory and requiring no further attention. Spindle is high-grade steel, accurately ground, and has 3/8" bore for routing bits, standard drills, etc. Table is 5" x 12", heavily ribbed and with T-slots for the back fence. Fence may be set at any angle and is provided with convenient hold-downs to hold work both against table and fence, all parts being adjustable in any direction. Stop collars limit travel of table at will, and the table is provided with grooves for the No. 180 miter gage in two directions.

A foot feed may be attached to either the Delta steel stands or to the bench on which the machine is mounted, leaving the operator's hands free to guide the work.

- | | |
|---|----------------|
| No. 458 Mortiser and Router only, includes everything shown in the above picture. | \$26.25 |
| Shipping Weight 42 lbs. Code Word MORBO. | |
| No. 453 V-Belt for above; Center to center distance, 17 3/4" | \$.90 |
| Shipping Weight 1 lb. Code Word MORBL. | |
| No. 583 V-Belt for circular saw, when Mortiser is used with Units No. 360 or 878 (No. 560 belt is then too short). Center to center distance 24" | \$1.10 |
| Shipping Weight 1 lb. Code Word FORBL. | |
| No. 461 Foot-Power Feed for No. 458 Mortiser fits any Delta Steel Stand | \$4.25 |
| Shipping Weight 8 lbs. Code Word MORFE. | |
- See page 26 for bits and chisels.



Two Popular Combination Units

No. 360 Saw-Jointer Unit

Eighty per cent of the common woodworking operations can be performed on this machine alone, and for this reason it is demonstrating its economy and usefulness in pattern shops, cabinet shops, boat-building yards, and factories in many industries as well as in the home shop to which it is so well adapted.

When equipped with the Delta extensions, it has a capacity equal to heavier machines costing many times its moderate price. Ripping, cross-cutting, dadoing, tenoning, moulding, jointing and edging—all of the ordinary work of the woodworking shop is performed with ease and speed.

Especially Adapted for Production Work

The unit can be used in the shop wherever it is most convenient, since the motor runs from any light socket, or it may be loaded on a truck for transportation to an outside job, making it an ideal contractor's unit. The jointer and saw are mounted on a heavy welded steel stand, as strong and solid as though formed of one piece. The machines are so designed and placed that there is not the slightest interference between

them; either may be used separately, or both may be used together. It is the utmost in convenience to be able to rip a board and then joint the edge without moving a step.

Only on the Delta combination unit will you find the patented Delta features—"Auto-Set" Miter gage, simple, positive-acting jointer fence with Automatic stops, patented table extensions and extension rip gage.



No. 360 Combination Unit Includes:

No. 860	8-inch Timken-Bearing Circular Saw..	\$32.85
No. 301	4-inch Ball-Bearing Jointer, with guard	24.50
No. 356	Steel stand with chute.....	7.50
No. 5500	V-pulleys (two) 3/4" bore, unless otherwise specified	1.50
No. 560	V-belt for Saw (22 3/4" center to center)	1.00
No. 510	V-belt for Jointer	1.00

Total **\$68.35**

Shipping Weight 175 lbs. Code Word COMBA.
No. 820 or 1120 motor recommended for this unit.
Use No. 849 Switch Rod. See page 44 for prices.

No. 668 Combination Saw, Jointer and Mortiser Unit

Identical with the No. 360 unit described above, but with the addition of the No. 458 Mortiser, this versatile unit enables many other operations to be done efficiently. Sanding, grinding, boring, buffing, inlaying, veining, routing, mortising and many other operations are easily performed.

The Mortiser fits under the circular saw, and a longer belt is then used to drive the saw. The mortiser has its own independent spindle, driven by a separate belt, thrown off when not in use, so that there is no interference with saw and jointer operations at any time.

No. 668 Combination Unit, similar to No. 360 described above, with the following additional equipment:

No. 360	Combination Unit	\$68.35
No. 458	Mortising and Routing Attachment	\$26.25
No. 583	V-belt for saw (replaces No. 560)	1.10
No. 453	V-belt for mortiser.....	.90
No. 461	Foot feed for mortiser (fits any Delta stand)...	4.25

Price complete, less motor.. **\$99.85**
Shipping Weight 226 lbs. Code Word MORUO.
Note: No. 820 and 1120 motors are recommended for this unit. Use No. 849 switch rod. See page 44 for prices.



Delta Circular Saw - 6-inch Jointer Unit

The combination of the 6-inch Jointer and the 8-inch Circular Saw mounted on the No. 1356 steel stand forms an ideal combination for the shop which requires larger jointer capacity than that offered by the No. 360 unit. It has exactly the same advantages, in that all of the ordinary work of the professional and amateur shop may be done on it with ease and speed.

Ideal for Assembly Departments

Assembly departments in furniture factories, novelty shops and departments in woodworking shops doing similar work will find that this machine fills a long-felt need.

Can Be Taken to Job

While heavier than the 360 unit, the unit is compact and portable enough to be taken right to the job, and, since it takes its power from the light socket, it can be operated anywhere where electric light is available. When the saw is equipped with the Delta extension table and rip bars, it has a capacity equal to machines costing many times as much—and it requires only ½-H. P., a further economy. The heavy steel stand is provided with a chute to carry off the jointer shavings.

Runs from any
Light Socket



U. S. PATENTS
No. 1,896,924
No. 1,910,651
No. 1,938,549
No. 1,790,288
No. 1,967,791

U. S. PATENTS
No. 1,697,669
No. 1,902,270
No. 1,938,548
No. 1,936,688
No. 1,925,477
No. 1,975,562
Des. Pat. No. 89,818
CANADIAN PATENTS
No. 314,585
No. 340,750

No. 1350 Combination Unit includes:

No. 860 Delta 8-inch Timken-Bearing Circular Saw (without guard).....	\$32.85	No. 5700 V-pulley for jointer, ¾" bore.....	1.20
No. 654 Delta 6-inch ball-bearing Jointer.....	45.00	No. 5500 V-pulley for saw, ¾" bore.....	.75
No. 1356 Steel stand, with built-in chute and raising block for circular saw....	11.25	No. 510 V-belt for jointer	1.00
		No. 560 V-belt for circular saw.....	1.00
(Ship. Wt., Stand and Block Only, 78 lbs. Code Word CROSU.)			
Price Complete, but without motor, switchrod or circular-saw guard			\$93.05

Shipping Weight 292 lbs. Code Word COMBE.

Note: Motors No. 820 or 1120 are recommended for this unit, and switch rod No. 851. See page 44 for prices.

You Need These Delta Handbooks—Order Them Now!



Concise, authoritative, and full of practical information for amateur and professional, these Delta Handbooks should be in every shop library. The books on tool operation are the standard authorities on the subject, and contain

GETTING THE MOST OUT OF YOUR LATHE. A completely new book, 8x9, uniform in size with the project books, with stiff cover. 48 pages crammed with instruction in every branch of turning, including spinning and metal turning. Postpaid. **\$.25**

GETTING THE MOST OUT OF YOUR BAND SAW. Contains a wealth of practical hints and suggestions that are invaluable to every user of a band saw, amateur or professional. The chapter on jigs alone is worth the nominal price of the book. Postpaid **\$.25**

a wealth of original information. The Project Books contain the best of the articles published in the popular "Deltagram"—the Delta users' magazine—and give complete details of dozens of worth-while projects to make.

GETTING THE MOST OUT OF YOUR DRILL PRESS. A new edition of this popular manual of drill-press operation. Crammed full of facts and information on every phase of drill-press work, including shaping. Postpaid **\$.25**

PRACTICAL DELTA PROJECTS. Two volumes of this popular book are now ready. Each contains the best of the projects previously published in the "Deltagram". An invaluable source of project material for schools, novelty makers and home workshops. Specify Book One or Book Two when ordering. Each volume, postpaid.... **\$.10**

[Please Order by Catalog Number to Avoid Mistakes and Delay]

Auto-Set Miter Gage Adds Convenience

Patented Individual Stops Insure Precision in Sawing

The first automatically indexed miter gage ever offered, and the only one with individually adjustable index stops, the Delta Auto-Set Miter Gage offers the following unique advantages:

1. Unique tapered pivot insures close fit for entire life of gage, thus preserving accuracy.
2. Massive body, heavier than many gages on production machines, gives full support and will not spring. (Des. Pat. No. 89,818).
3. Individual automatic stops (U. S. Patent No. 1,902,270; Canadian Patent No. 340,750) make precision job of cross and miter-cutting. Only miter gages made under Delta patents have individual index adjustment, a necessity for absolute accuracy.
4. Heavy $\frac{3}{8}$ " by $\frac{3}{4}$ " bar, very rigid and strong, 17" long.
5. Pull $\frac{1}{8}$ " diameter stop rods, with two heavy clamps, not flimsy wires that are useless for accurate repetition work.



No. 864 Delta Auto-Set Miter Gage, with $\frac{3}{8}$ " x $\frac{3}{4}$ " bar, two $\frac{1}{8}$ " stop rods with clamps. Fits any table with $\frac{3}{8}$ " x $\frac{3}{4}$ " groove **\$3.25**
Shipping Weight 4 $\frac{1}{2}$ lbs. Code Word NECML.

Note: This gage fits tables with $\frac{3}{8}$ " x $\frac{3}{4}$ " groove only. See page 41 for smaller miter gages.

Combination Blades

The Delta 8" Combination Saw Blade is a double-purpose blade, which rips and cross-cuts equally well. It serves a very useful purpose for general work, where the user does not wish to change blades frequently. Teeth have proper set for free cutting. Made of high-grade steel, properly tempered and tensioned.

No. 325 Combination Rip and Cross-cut Blade, for No. 860 Circular Saw, $\frac{3}{8}$ " arbor hole..... **\$3.00**
Ship'g Weight 1 $\frac{1}{2}$ lbs. Code Word EICBL

Hollow-Ground Blades

Ideal for fine and accurate work. The teeth have no set, and the work comes from the saw ready to put together, unless of such fine character that it requires jointing. This blade is intended for fine work only; it is not suitable for rough cutting. Properly used and cared for it will do the highest grade of work.

No. 326 8" Hollow-Ground Blade for No. 860 Circular Saw, $\frac{3}{8}$ " arbor hole..... **\$4.95**
Shipping Wt. 1 $\frac{1}{2}$ lbs. Code Word EICSP.

Abrasive Cutting Wheels for Metals, Etc.

Abrasive Cutting Wheels are very useful accessories for the 8" saw. They will cut freely and fast all of the materials listed below, and many other materials difficult to cut by ordinary means. All are $\frac{3}{8}$ " thick, 8" diameter, and have $\frac{3}{8}$ " arbor hole only. Bond-

ed with genuine synthetic resin, and should not be confounded with cheap shellac-bond wheels. No. 230 Guard should be used with these wheels.

- | | | |
|----------------|---|---------------|
| No. 223 | 8" Cutting Wheel, $\frac{3}{8}$ " thick, $\frac{3}{8}$ " hole, for cutting vitrified brick, cast iron, sand cores, slate and plain or glazed tile..... | \$1.50 |
| | Shipping Weight 1 $\frac{1}{2}$ lbs. Code Word BAKEC. | |
| No. 225 | 8" Cutting Wheel, $\frac{3}{8}$ " thick, $\frac{3}{8}$ " hole, for cutting monel metal, steel tubing, hardened steel, stellite, stainless steel, aluminum tubes, etc..... | 1.50 |
| | Shipping Weight 1 $\frac{1}{2}$ lbs. Code Word BAKED. | |
| No. 227 | 8" Cutting Wheel, $\frac{3}{8}$ " thick, $\frac{3}{8}$ " hole, for cutting porcelain, hard rubber, brass tubing, copper, brass and bronze..... | 1.50 |
| | Shipping Weight 1 $\frac{1}{2}$ lbs. Code Word BAKEF. | |
| No. 228 | 8" Cutting Wheel, $\frac{3}{8}$ " thick, $\frac{3}{8}$ " hole for cutting soft steel and wrought iron..... | 1.50 |
| | Shipping Weight 1 $\frac{1}{2}$ lbs. Code Word BAKEH. | |
| No. 230 | Delta Abrasive Guard, with bracket and arm, to fit No. 860 Circular Saw..... | 3.90 |
| | Shipping Weight 12 lbs. Code Word BAKEJ. | |
| No. 231 | Top Guard casting only. Used wherever saw is already fitted with circular-saw guard. Fits either No. 315 or No. 860 Circular Saw..... | 2.10 |
| | Shipping Weight 7 lbs. Code Word GURDA. | |



Cutting a steel bar with the abrasive wheel, showing No. 230 Guard in place.

Delta Dado Head

Practically all cabinet and furniture making requires the cutting of grooves and dados, either with or across the grain. For this work the Delta Dado Head is indispensable, as grooves varying in width from $\frac{1}{8}$ " to $\frac{1}{4}$ " can be cut simply by assembling the proper inside and outside cutters. Made of the finest selected steel, carefully hardened and tempered, jointed and sharpened ready for use. Includes special $\frac{1}{8}$ " inside cutter.



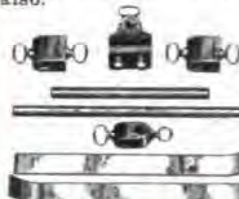
- No. 333** Delta 6" Dado Head, consisting of two outer blades $\frac{3}{8}$ " thick, two inside cutters $\frac{1}{8}$ " thick, one inside cutter $\frac{1}{4}$ " thick and one $\frac{1}{8}$ " thick. To cut grooves from $\frac{1}{8}$ " to $\frac{1}{4}$ ", advancing by $\frac{1}{16}$ ". With $\frac{3}{8}$ " holes to fit No. 860 Circular Saw..... **\$9.85**
Shipping Weight 3 $\frac{1}{2}$ lbs. Code Word EICDA.
- No. 874** Table Insert for No. 860 Circular Saw..... **.80**
Shipping Weight 1 $\frac{1}{2}$ lbs. Code Word NECDA.

Hold-Downs

This attachment consists of a clamp which fits either side of the saw table, and which carries adjustable springs to bear on the work. One spring is adjusted to press the work to the fence and the other to press it down to the table.

With this attachment the fingers need never come near the revolving blade at all, as the springs perform the work ordinarily done by the hands. All the hands have to do is to push the work past the blade.

Can be used in connection with the splitter, and in most cases in connection with the swing guard also.



- No. 871** Hold-Down for No. 860 Saw, with clamp, brackets and springs..... **\$2.25**
Shipping Weight 4 $\frac{1}{2}$ lbs. Code Word NECHO.
Note: To adapt No. 983 shaper hold-down to fit circular saw, order the following parts:
- NCS-315-S** Clamp bracket.....each **.75**
DP-331 Short rod ($\frac{1}{2}$ " x 6 $\frac{1}{4}$ ").....each **.20**
NCS-316 Long Rod ($\frac{1}{2}$ " x 10").....each **.25**

Moulding Cutter Adds Finish to Work

Produces Hundreds of Mouldings at Very Low Cost

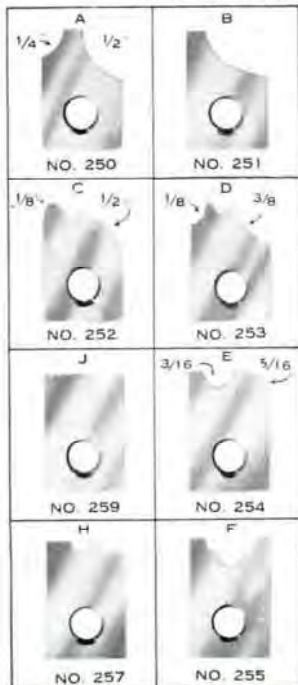
The Delta Moulding Cutter (U. S. Pat. No. 1,830,813) is a unique tool, and the only practical one of its kind. Entirely different from clumsy and awkward cope heads or expensive solid cutters, it consists of a strong, well-designed head in which a set of three high-speed steel knives is locked by a simple, positive means so that they are absolutely safe in operation. The head may be used on the arbor of the Delta No. 860 saw, or on most other saws provided with a double-face fence.

As the work is run over the knives a perfect moulding is produced in one operation, or, if the cut is a deep one, in two or more passes. Hundreds of moulding shapes can be made by combing cuts. There is nothing to get out of order, and the head is extremely safe in operation because only the actual cutting edge of the knife is exposed. Styles of knives available



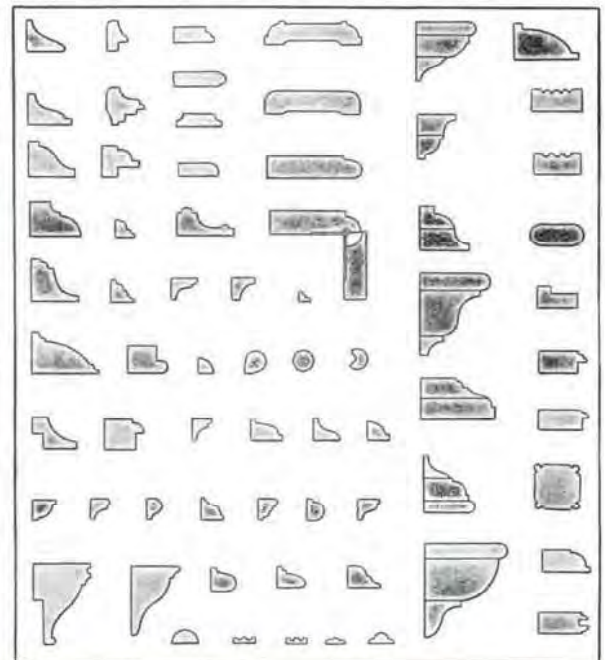
are shown in the illustration at the left. The cut is so smooth that little or no finishing is required to make the mouldings ready for stain and varnish.

Over 10,000 Cuts a Minute Makes Work Smooth and Chatterless



With the saw running at 3,400 r.p.m., the three knives of the cutter produce over 10,000 cuts per minute, which explains the smoothness of the cut. The use of the cutter is not confined to straight mouldings, because by means of simple jigs the edges of oval and round work may also be

shaped or moulded as shown in the illustration below.



No. 858 Moulding Cutter Set, to fit $\frac{5}{8}$ " arbor of No. 860 circular saw. Complete with four sets of high-speed cutters, styles A, B, C and D, oval table insert, micro-guide fence, collar, wrench and complete instructions **\$14.55**

Shipping Weight 10 lbs. Code Word MOLDY.

No. 262 Moulding Cutter Set for other makes of circular saws with arbor up to $\frac{1}{2}$ " diameter. Price includes boring up to $\frac{1}{2}$ ", $\frac{3}{8}$ ", $\frac{1}{4}$ " or $\frac{3}{16}$ " diameter. Does not include table insert or guide fence. Specify bore wanted **\$10.90**

Shipping Weight 3 lbs. Code Word MOCHJ.

No. 248 Moulding Cutter Set to fit arbor of No. 318 circular saw. Same as above, but **\$13.55** with square table insert and cast guide fence. Shipping Weight 8 lbs. Code Word MOLDX.

No. 868 Moulding Cutter Fence, 20 $\frac{1}{2}$ " long, complete as shown above. **\$3.25**

Shipping Weight 7 lbs. Code Word NECFE.

No. 872 Moulding Cutter Insert only, to fit No. 860 circular saw **\$.80**

Shipping Weight 1 $\frac{1}{2}$ lbs. Code Word NECIO.

MC-23 Collar **\$.25**

MC-12-S Wrench for Cutter Head **\$.15**

Extra Sets of Moulding Cutters

Extra cutters come in sets of three matched blades, and are made of the finest High-Speed Steel, not merely carbon steel. They are priced low enough to be replaced like the blades of a safety razor, although they will cut thousands of feet of moulding before becoming dull. Fit any Delta Moulding Head.

No. 250 Cutters, Style A. For Glass Mouldings, Table Edges and many other uses. Set of three **\$2.15**

Code word MOULA.

No. 251 Cutters, Style B. For table tops and large mouldings. Set of three **\$2.15**

Code word MOULB.

No. 252 Cutters, Style C. For fluting and cove moulding. Set of three **\$2.15**

Code word MOULC.

No. 253 Cutters, Style D. For beading, making $\frac{1}{4}$ " dowels, etc. Set of three **\$2.15**

Code word MOULD.

No. 254 Cutters, Style E. For screen mouldings, making $\frac{1}{4}$ " dowels, etc. Set of three **\$2.15**

Code word MOULE.

No. 255 Cutters, Style F. For clever-leaf screen mouldings. Set of three **\$2.15**

Code word MOULF.

No. 257 Cutters, Style H. For making strong glue joints. Set of three **\$2.15**

Code word MOULH.

No. 259 Cutters, Style J 1" straight cutter, good for many uses. Set of three **\$2.15**

Code word MOULJ.

No. 249 Moulding cutter head only, with screws, to fit $\frac{5}{8}$ " arbor. Does not include collar, wrench or cutters. (Add 25 cents to above prices for boring $\frac{1}{4}$ ", $\frac{3}{8}$ " or $\frac{1}{2}$ ") Shipping weight 18 oz. Code word MOUHA. **\$1.50**

[Please Order by Catalog Number to Avoid Mistakes and Delay]

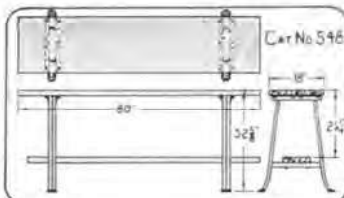
Sturdy Delta "Ready Made" Benches and Steel Legs



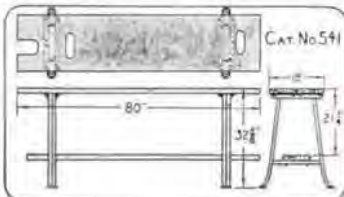
Bench No. 548



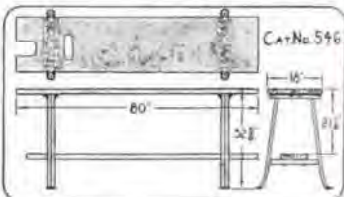
No. 344 Bench Leg



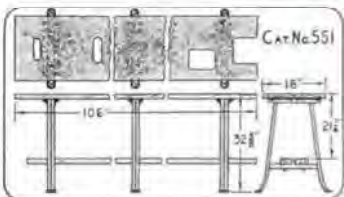
Cat No. 548



Cat No. 541



Cat No. 546



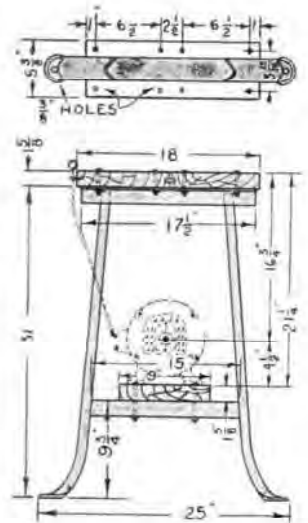
Cat No. 551

Delta ready-made benches are strong, rigid and made for hard use. The legs used on all Delta benches are the heavy steel ones shown at the right above. When the bench top and shelf are bolted to these the resulting bench is so sturdy and rigid that no bracing is necessary. Tops and shelf are made from 2" selected Western pine. The distance from the shelf top to the bench top is exactly the same as the distance from bottom shelf to top shelf of any Delta steel stand, so that motors, machines, etc., may be used on the bench in combination exactly the same as when used on the stands, and the belts

specified for the machines on the stands will also fit from motor to machine when used on the bench. Delta 1/2-Hp. motors and line-shaft hangers are 4 1/2" from base to center of shaft, so that the motor will line up with the shaft for a line-shaft drive. Delta 1/2-Hp. motors measure 3 1/4" from base to shaft center, but 1 1/4" blocks are furnished with all 1/2-Hp. motors to bring them to the same shaft height and to suit the same belts. For all line-shaft installations a 1/2-Hp. motor is recommended.

- | | |
|--|----------------|
| No. 548 Plain bench, as shown in photo. Dimensions as in drawing. Can be used for any combination of machines or tools..... | \$17.50 |
| Shipping Weight 104 lbs. Code Word BENPL | |
| No. 541 Bench as used for No. 639 workshop combination. Slotted and drilled for assembly | 19.95 |
| Shipping Weight 104 lbs. Code Word BENCH | |
| No. 546 Bench as used for new No. 90 "De Luxe" Workshop, top slotted ready for assembly.. | 19.50 |
| Shipping Weight 104 lbs. Code Word DELUB | |
| No. 551 Bench as used for new No. 852 Line shaft Combination shop | 29.85 |
| Shipping Weight 138 lbs. Code Word BENLS | |
| No. 344 Steel Bench Legs only, as shown | 3.00 |
| Shipping Weight 21 1/2 lbs. Code Word LEGSO. | |

The hardest part of the making of a bench—the making of the legs—is eliminated by the use of Delta steel bench legs. With these, the building of a bench is now made easy, and at the same time the bench is more rigid and lighter than if clumsy wooden legs were used. All that is needed is three 2" planks, 3 1/2" wide, of good select stock. Fasten them to the Delta legs and you will have a bench that will astonish you with its strength and rigidity. And it can readily be dismantled, too, a great advantage when the shop must be moved.



No. 351 Castor Attachment is shown at right **\$3.25**
Shipping Weight 13 lbs.
Code Word CASTA

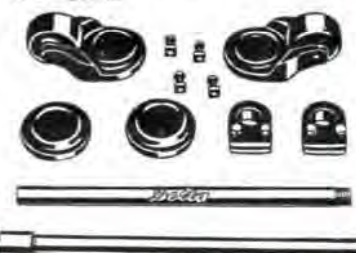
Casters for Delta Portable Units and Steel Stands

With this castor outfit you can instantly wheel your combination unit, saw unit or other machine to any desired part of the shop, yet it is solid and steady the moment it is set down.

The attachment consists of two clamps, attached to the upper shelf of the stand, two pads for the front legs, two casters for the rear legs and two lengths of cadmium-plated pipe with a coupling.

The pipe is inserted through the clamps and the whole machine is then tipped forward onto the casters as shown

at the left. When the machine is lowered to its normal position the casters are automatically lifted from the floor and the machine sits solidly on the four pads.



Rubber Feet for Steel Stands

These feet for Delta steel stands and bench legs will make your machines run quieter and smoother, an advantage where noise must be kept to the minimum. They are of the correct composition to stand hard usage and at the same time offer enough flexibility to absorb slight vibrations. They are supplied with metal plates to fit in the recesses of the feet, and drilled and tapped for machine screws inserted from the top of the feet.

No. 353 Set of four rubber feet, plates and machine screws **\$.85**
Shipping Weight 10 oz.
Code Word RUBFE



Delta 4-inch Ball-Bearing Jointer Offers Unusual Value

Double-Tilting Fence
Patented Stop Link
Patented Pivot
High Accuracy



U. S. Patents
1,790,288
1,967,791
1,975,562
Can. Patents
314,585
351,531

Every Convenience in Setting and Handling

The Delta 4-inch Jointer is a big machine—not a toy suitable only for the lightest work. It is 23" long overall, 9½" wide and 7½" high. Front table is 5¼" wide and has an additional 3" rabbetting arm. The rear table is 5¼" wide also, with a ¼" by ¾" rabbetting ledge.



The solid-steel cutter head is equipped with high-grade ball bearings of the self-sealed type, and with high-speed steel knives sharpened and jointed ready for use.

The fence tilts 45 degrees in both directions, on the pat-

A flip of the finger takes the automatic stop link out of the way when it is desired to tilt the fence. The stop squares the fence with precision after tilting.

ented Delta pivot, and is instantly moved across the table by loosening one ball crank.

Once the fence has been set square with the table, and the adjustable pointer set to the zero mark on the quadrant scale, it is never necessary thereafter to square the fence. The swinging stop link always returns the fence square after tilting with unvarying precision.

Each machine comes equipped with a scientifically designed aluminum flap guard, which completely covers the front of the knives during operation. The guard is instantly detachable for rabbetting, and hangs by its swivel spring.



Careful checking of blade alignment and table alignment with dial micrometers is only one of the many operations that insure accuracy in Delta jointers.



- | | | |
|-----------------|--|----------------|
| No. 301 | Ball Bearing Jointer, with three high-speed knives, 2¾" arbor pulley, 2 way tilting and graduated fence, wrench and flap guard | \$24.50 |
| | Shipping Weight 43 lbs. Code Word JOIBL. | |
| No. 5500 | 5" diameter motor pulley; drives Jointer at correct speed. (3,000 R.P.M.) (½" bore) | .75 |
| | Shipping Weight 1½ lbs. Code Word PULOH. | |
| No. 510 | V-belt. Center to center distance 20¼", ½" wide, 38° angle | 1.00 |
| | Shipping Weight 1 lb. Code Word JOIVE. | |
| No. 303 | Aluminum guard with pin and spring | 1.50 |
| | Shipping Weight 1¼ lbs. Code Word JOIGU. | |
| No. 302 | Extra set of 3 high-speed knives 4" wide | \$2.75 |
| | Shipping Weight 8 oz. Code Word JOIKL. | |

- | | |
|--|----------------|
| No. 296 Jointer Unit includes: | |
| No. 301 Jointer | ... \$24.50 |
| No. 5500 5" Dia. Motor Pulley (½" bore) |75 |
| No. 510 V-Belt (20¼" center to center) | ... 1.00 |
| No. 304 Steel stand with Chute | 6.25 |
| | \$32.50 |

Shipping Weight 76 lbs. Code Word JOIUN.
Motor and Switch Rod not included.
See page 45 for Motors and Rods. (½ H. P. motor recommended for this unit).

[Please Order by Catalog Number to Avoid Mistakes and Delay]

Delta

6-inch Ball-Bearing Precision Jointer

37½" Long; 12" Wide;
10" High; 7½" Wide;
Tables



U. S. Patents:
No. 1,790,288
No. 1,967,791
No. 1,975,562
Canadian Patents:
No. 314,585
No. 351,531



A touch of the finger moves the stop link into or out of engagement. Note the control handle slid out to engage the bracket lock.



The 45, 90 and 135-degree stops are set with precision. Note the fence handle slid IN to engage the fence tilting lock.

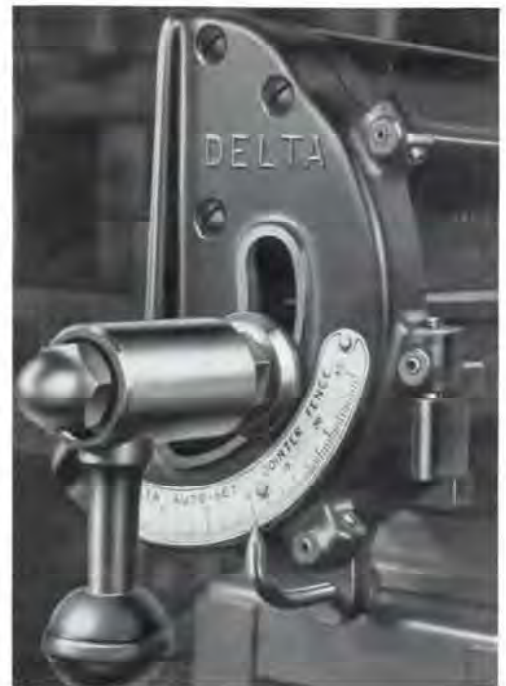
Patented Delta Fence Provides Automatic Stops, Double-Tilting, Self-Alignment, Free-Swing, Dual-Control Handle—Many Other Exclusive Features

Read over the features of this machine very carefully. Compare, point by point, its advantages as compared with any similar jointer on the market—at any price. When you have done so, we believe you will agree with us when we say that no such jointer value has ever been offered; that nowhere else but in the Delta jointer can you get so much accuracy, so much durability, so much built-in convenience and handiness—at such a moderate price.

Every Convenience in Setting and Handling

The fence tilts on the patented Delta bracket, insuring sure, free action, and unvarying accuracy of the stop settings—something very difficult to achieve in machines without the Delta principle. The swinging stop, with its individually adjustable stop screws at the 45, 90 and 135-degree positions, insures that, once the stop screws are accurately set, the double-tilting fence will invariably return to the same accurate setting after tilting. Once set, the fence is always set for these most frequently used positions.

And the dual-control handle: Slid in, it engages the tilting lock and a twist of the wrist tilts the fence. Slid out, it engages the bracket lock, enabling the whole fence to be moved across the table. In the center, it swings free, completely out of the way of the operator.



A closeup of the front of the bushy Delta 6-inch Jointer fence. When the handle is slid in toward the fence, it tightens or loosens the quadrant for tilting. When slid out it engages the bracket lock and the fence is moved bodily across the table.

No. 654 Delta 6-inch Ball-Bearing Jointer, with set of three High-Speed Steel Knives, 2-Way Tilting and Graduated Fence with Dual Control, 2½" arbor pulley and front safety guard. Without belt or motor pulley,..... **\$45.00**
Shipping Weight 120 lbs. Code Word SIXJO.

No. 560 V-belt 22¼" center to center. (Use No. 310 Belt for No. 1350 Unit) **\$1.00**
Shipping Weight 1 lb. Code Word EICVB.
No. 5700 V-pulley, drives jointer at correct speed (4200 R.P.M.). ½" bore furnished unless otherwise specified **\$1.20**
Shipping Weight 2 lbs. Code Word PULOL.

No. 659 Extra set of three high-speed steel knives..... **\$3.30**
Shipping Weight 6 oz. Code Word SIXKI.
Note: For regular use, specify No. 300 motor and No. 831 switch rod. For school and production use, specify No. 920 three-phase motor. See pages 43 to 45 for prices.

Many Superior Features In This Jointer

An Ideal Tool for Production and School Shops

Mounted on the sturdy No. 656 steel stand, the 6-inch Jointer makes a machine that is ideal in every way for the production or school shop. Since it can be run from the nearest lamp socket, it can be taken right to the job, and run wherever there is electric light.

Cabinet makers, boat builders, furniture and novelty makers—every woodworker whose work demands a machine that can be taken right to the job or bench will find that this machine is the ideal one for the purpose. Built-in steel chute on the heavy steel stand carries off shavings.

As shown in the photo below, a flap guard is available to cover the rear of the knives when rabbeting—an absolute necessity in the school shop, and in the production shop where machines may be set in close quarters. The flap guard follows the fence as it is moved across the table, and thus no portion of the cutting knives is exposed at any time.



The flap guard can be locked with a padlock to prevent unauthorized removal.



Rear view of 6" jointer, showing the rugged construction of the base, tables and fence. Note hand knobs for locking table adjustment.



Massive Construction Insures Accurate Work

Note, in the photo at the left, the massive construction of the new Delta 6-inch Jointer. See the heavy, well-ribbed base, designed to hold the tables in alignment even if the bench surface is slightly twisted. Note the extremely rigid design of the fence as shown in this rear view, a design which prevents the fence from springing sidewise as the work is fed through. Note also the heavy construction of the fence bracket and slide as seen at the left of the table, and you will understand just why this jointer will produce such accurate work.

Careful machining, in addition to massive design, aids in producing precision work. The tables are not only ground flat and true individually, but, after assembly, they are ground at the same time on a large grinder, so that there is not the slightest chance of any lack of alignment.

A belt guard is also available. These two additional guards, together with the fact that the front guard can be locked in place, make this as safe a jointer for school use as has ever been built.

This jointer, equipped with the three guards shown, has been given the full approval of the Wisconsin Industrial Commission, whose safety requirements are very strict.



A view of the underside of the table, showing the dovetail ways on which the tables move. Note the gib at the right to permit adjustment for wear.

Table Guided on Dovetailed Ways

Your jointer tables must not only be accurate to start with; they must retain that accuracy throughout its life. This is insured, in the Delta jointer, by the fact that the tables slide on dove-tail ways, gibbed so as to be adjustable for wear, if wear ever develops. This construction is naturally more costly to produce than the ordinary type, but is much more satisfactory for the user.

Rabbets a full 1/2" deep can be cut at one pass. The guard is instantly removed for rabbeting, and just as quickly replaced.



No. 660 6-inch Jointer Unit Includes:

No. 654	Delta 6-inch Ball-Bearing Jointer, including front guard.....	\$45.00
No. 560	V-belt, center to center distance 22 3/4"	1.00
No. 5700	V-pulley, drives jointer at correct speed (4200 R.P.M.) 1/2" bore.	1.20
No. 656	Steel stand for 6-inch Jointer	6.85
	Shipping Weight of Stand 31 lbs. Code Word SLXST.	
	Total (Less motor and switch rod).....	\$54.05
	Shipping Weight 154 lbs. Code Word SIXUN.	

Note: Photo at left shows machine with three-phase motor and switch. Write for bulletin M-10 for details of three-phase installation.

For regular use, specify No. 900 motor and No. 851 switch rod. See pages 43-45 for prices.

No. 661 Aluminum belt guard for 6-inch Jointer, with stud, screws, etc... **\$4.75**
Shipping Weight 9 lbs. Code Word SIXGA.

No. 662 Rear knife guard for 6-inch Jointer, with spring..... **2.50**
Shipping Weight 2 lbs. Code Word SIXRE.

A Complete Line of Drill Presses:

Delta Triple-Duty Drill Press Offers You Seven Tools In One

The modern Delta High-Speed Triple-Duty Drill Press is really seven tools in one—a complete workshop in itself! The craftsman who is familiar only with the old-fashioned slow-speed single-purpose drill press really has no conception of what this tool will

accomplish in the all-around shop, and its performance will be a revelation. The drill press, next to the circular saw, is rapidly becoming the most important tool in the shop, because of the wide variety of work that can be done with its many attachments.



“New Departure” Precision-Type Ball Bearings Troughout

Overall Height 68"
 Column Diameter 2 3/4"
 Table Travel 43"
 Spindle Travel 4"
 Max. Distance, Table to Spindle 43"
 Drills to Cen. of Cir. . . . 14"
 Takes Drills up to 4 1/2"
 Table Size 10" x 10"
 Spindle Speeds 590, 1275, 2450, 5000

Drilling, Boring, Mortising, Carving, Shaping, Sanding, Surface Grinding



Cut-away view of Deltagrip chuck showing sturdy interior construction.

The Delta drill press, of course, will perform all the drilling in metal that is to be done around the shop—and it is especially efficient on production work in drilling at high-speed, using high-speed drills. In addition to this, it will take all standard wood-boring spur bits, and in many shops is boring holes up to 2" and over in diameter, using multi-spur bits.

With the addition of the mortising attachment, the drill press becomes an efficient mortising machine, making square-end mortises from 1/4" to 1/2" width, and of any length, with ease and speed.

Standard router bits with 1/2" shanks are held in the router spindle, and permit much intricate routing work to be done which would take hours of hand labor. Patternmakers use the router bits for cutting down bosses, etc., to exact size, and many other expert craftsmen find numerous uses for this feature.

The shaper cutters and attachments enable the user to mould the edges of straight and curved work with a minimum of labor, and permit the embellishment of work otherwise impossible without much labor and expense.

Sanding, too, is done with the utmost facility, using the Delta drum sanders. These smooth the edges of straight and irregular work with a quickness and sureness that is a revelation to those who are accustomed to the tediousness of hand finishing.

And many metal workers, amateur and professional, find that the convenient adjustments and accurate construction of the Delta Drill Press suit it for many jobs of surface grinding, using a cup wheel on No. 991 spindle.

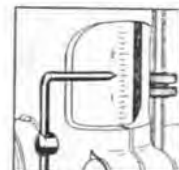
One of the most versatile tools ever produced, the Delta Drill Press—any model—will rapidly pay for itself in any shop.



Tilting table (stand-ard) offers every facility for angular work.



Drills are inserted and removed from Deltagrip chuck with one hand.



Graduated quill with adjustable pointer for depth drilling.



Stop rod with positive stop nuts for repetition drilling.



Morse-Taper spindle for production machines speeds work.



Router spindle takes all spur and other bits with 1/2" shank.



No. 970	Delta Triple-Duty Drill Press, with No. 387 V-belt and motor pulley (1/2" bore) but without motor...	\$32.85
	Shipping Weight 145 lbs. Code Word NEWDP.	
No. 989	Delta Floor Model Drill Press, as above but with geared chuck and spindle (without motor)	36.35
	Shipping Weight 145 lbs. Code Word NEWJC.	
No. 971	Standard spindle with Delta-Grip Chuck	3.25
	Shipping Weight 3 1/2 lbs. Code Word NESPA.	
No. 972	Special Spindle with balanced geared chuck.....	6.75
	Shipping Weight 3 1/2 lbs. Code Word NESPB.	
No. 973	Special Spindle with No. 1 Morse taper hole.....	2.85
	Shipping Weight 2 lbs. Code Word NESPC.	
No. 974	Special Spindle with 1/2" hole for router bits.....	2.00
	Shipping Weight 2 1/2 lbs. Code Word NESPD.	
No. 977	Special Spindle for 3/8" hole shaper cutters.....	1.75
	Shipping Weight 2 lbs. Code Word NESPF.	
No. 991	Spindle for Cup Wheel	2.00
	Shipping Weight 2 lbs. Code Word NESPG.	

Use No. 800, No. 900 or No. 920 Motors. See pages 43 to 45.

One to Suit Every Need and Purpose

No. 620 for Small Workshops

Two "Triple-Duty" Models

Two "Slo-Speed" Models

Two Double-Spindle Models for Production Work



Delta No. 995 "Triple-Duty" Bench Model Drill Press

Double-Seal Ball Bearings Eliminate All Lubrication Problems

Identical in design and construction with the No. 970, except for the base and the shorter column, the No. 995 bench drill press will do exactly the same work. All the attachments designed for the No. 970, and described in the following pages, will fit this model also.

While especially intended for the shop where more convenience is gained by the use of a bench mounting, this drill press is suit-

able for shops of every size and type, just like the floor-model machine.

Many production shops use bench drills mounted on the assembly bench, where holes have to be drilled in final assembly operations. Dozens of other uses will be found for this convenient machine in the modern shop, and its low price makes it available for installation in shops of any capacity.

Free-Floating Spindle; Double-Seal Bearings; Husky Tilting Table; Sturdy Steel Column; Delta-Grip Chuck; Adjustable Depth Index; Graduate Quill; Micrometer Depth Stop; Husky Table-Type Base.

For convenience, portability, capacity and all-around usefulness there is no machine that will quite equal the floor-type Delta drill presses, but there are places where the bench machine fits the

shop scheme better, and for such places the No. 995 will be found ideal, since it offers all the features of the larger machine, and all its adaptability, at a lower price.



CAPACITY
Chuck to Table...11½"
Chuck to Base...17"

SPEEDS
590
1,275
2,450
5,000
R.P.M.

OVERALL DIMENSIONS
36¼" High; 10" Wide;
With Motor, 21" Front to Rear

IMPORTANT NOTE

It will be noted that both the No. 970 and No. 995 Drill Presses can be supplied with geared chuck and spindle, the numbers of models with this equipment being No. 989 and 999 respectively. Be sure to specify the correct number of drill press that is wanted.

Please note also that the geared chuck furnished with these ma-

chines is of the heavier type, taking drills from No. 60 to ½" in diameter. They should not be confused with the lighter type of geared chuck, which will not take drills under ⅜" diameter, and which does not have the powerful grip of our chuck. All Delta geared chucks are balanced for higher speed work.

No. 995 Bench Model Drill Press, with belt and motor pulley, but without motor	\$27.75
Shipping Weight 110 lbs. Code Word NEWBE.	
No. 387 Extra belts for above	.85
Shipping Weight 1 lb. Code Word FORDP.	
No. 999 Bench Model Drill Press, as above, but with geared chuck and spindle (without motor)	\$31.25
Shipping Weight 110 lbs. Code Word BENJC.	
For suitable motors (Nos. 800, 900 and 920) see pages 46 and 47. (NOTE: Sleeve-bearing motors can not be used vertically.)	

Every Design Feature Carefully Studied

Entire pull of belt is taken by pulley bearing; spindle does not take any of belt pull. Special gear clutch drive insures perfect alignment. This design insures free, sensitive operation and freedom from wear. Double keys in pulley clutch prevent "Edging" troubles.

Extremely large pulley bearing—over 2" in diameter. Bearing is in center of pulley to distribute belt pull equally. Entire assembly quickly detachable. High-grade precision-type ball bearing with built-in seals on both sides to prevent entrance of dirt and escape of lubricant.

EQUAL RADIAL THRUST ON KEYS SAVES WEAR—PREVENTS EDGING



CROSS-SECTION THROUGH DELTA SPINDLE

Many type of spindles available, to make drill press exactly suited to type of work it is called upon to do either in wood or metal.

"Free-floating" spindle carried in two high-grade precision-type ball bearings of the double self-sealed type. Spindle is of precision ground stock, and has two keyways, not only to prevent "edging" of drive-pulley keys, but also to insure balance at high speeds — an important point. Heavy, massive quill, with milled rack teeth. Built-in stop to prevent excess spindle travel.



Spindles quickly interchangeable; entrance of dirt prevented by double seals on ball bearings even when spindles are completely withdrawn. Inner races of ball bearings positively driven on all types of spindles. Standard spindle furnished with "Delta-Grip" Keyless Chuck (see below) is regular equipment on every machine. Key-type chuck available if desired. Heavy clamp carries stop rod; interchangeable with chisel holder for mortising attachment.

Drilling: Routing: Boring:

Carving: Sanding: Shaping: Grinding



Routing for inlaid work, too, is easily done, and patterns quickly reproduced by templates.

Space does not permit a complete description of all the work that can be done on the remarkable tool, but the photos on this page will give some slight idea of the wide variety of operations that can be done with the aid of the Delta spindles and attachments. They do not show the many uses to which it is being put in the modern machine shop, but they do show the craftsman that his workshop is not complete without one of these machines.

Mortising attachments, shaper cutters, sanding attachments and other accessories have greatly increased the versatility of this machine, and many other uses besides those briefly described are being found for it every day.

We have put into these machines the best design and workmanship that can be obtained in this field; we know that it represents more value for the money than is obtainable elsewhere—but the best proof is:—Ask the man who owns one!



Fancy mouldings made with a single jig and the use of this high-speed shaper cutters.



Using small carving bits for carving in the round saves hours of patient labor for the carver.



Boring in wood with spur bits is practical because of the standard high speed of the Delta drill press.



Surface grinding is one of unusual jobs for which this modern tool is adapted, and which it does well.



The routing of all kinds of grooves is made absurdly simple, using standard router bits in the special spindle.



Sanding the edges of carved work with the sanding drum saves hours of tedious labor in the shop.

Delta "Slo-Speed" Drills for Metal Work

For Machine Shop, Garage, Service Station:—For All Metal Drilling

Delta sensitive drill presses, both bench and floor models, are used in dozens of progressive production shops all over the country, from airplane-engine shops to factories making precision timing and control devices, in addition to hundreds of general machine shops, garages and service stations.

While used generally in such shops with high-speed drills, their success has led to a demand for a machine with which ordinary carbon-steel drills could be used, and which is designed specifically for metal drilling, in shops where the high speeds necessary for small-hole drilling, and for routing, shaping, etc., are not essential. The Delta "Slo-Speed" models are designed for this service.

Speeds: 390, 745, 1280, 2050 R.P.M.

Identical in design and construction with the well-known Triple-Duty machines, except for the speed range, they will be found to give exactly the same efficient, economical service. Their range of speeds enables them to be used in any general shop with ordinary carbon-steel drills from No. 60 up to $\frac{3}{16}$ " with the utmost efficiency. For very small hole drilling at high speed the standard Triple-Duty models are recommended.

With "Delta-Grip" Chuck, Geared Chuck or No. 1 Morse Taper Spindle

Either of the two "Slo-Speed" types, the bench or the floor model, can be supplied with "Delta-Grip" chuck, geared chuck or spindle for No. 1 Morse taper shanks. Floor model may be fitted with special $14\frac{3}{4}$ " by 20" production table (see page 24) with oil trough and drain hole, if desired. No. 900 ball-bearing repulsion-induction motors, 1725 R.P.M., are recommended for use with this machine for general work. For steady production work, and school installations, No. 920 $\frac{1}{2}$ -H.P. three-phase motors are recommended.

(Slo-speed drill presses take belt No. 430. See page 42 for price. No. 851 switch rod can be used. See page 44).



Note that Jacobs chucks furnished with Delta Drill Presses are full-size $\frac{1}{2}$ " capacity chucks, which will take drills from No. 00 to $\frac{1}{2}$ ". They should not be confused with the smaller Jacobs chucks which will take only drills from $\frac{1}{16}$ " to $\frac{1}{2}$ " diameter.

No. 1270	Floor-Type, Slo-Speed Drill Press, with Delta-Grip chuck, with motor bracket, motor pulley and belt, but without motor.....	\$34.95	No. 1295	Bench-Type Slo-Speed Drill Press, with Delta-Grip chuck, motor bracket, motor pulley and belt, but without motor.....	\$29.85
	Shipping Weight 149 lbs. Code Word SLOFA.			Shipping Weight 102 lbs. Code Word SLOBE.	
No. 1286	Floor-Type, Slo-Speed Drill Press, as above, but with No. 1 Morse Taper Spindle (without motor).....	\$34.55	No. 1300	Bench-Type Slo-Speed Drill Press, as above, but with No. 1 Morse Taper Spindle (without motor).....	\$29.45
	Shipping Weight 147 lbs. Code Word SLOFB.			Shipping Weight 101 lbs. Code Word SLOBF.	
No. 1289	Floor-Type Slo-Speed Drill Press, as above, but with $\frac{1}{2}$ " capacity geared chuck and spindle (without motor).....	\$38.45	No. 1302	Bench-Type Slo-Speed Drill Press, as above, but with $\frac{1}{2}$ " capacity geared chuck and spindle (without motor).....	\$33.35
	Shipping Weight 149 lbs. Code Word SLOFC.			Shipping Weight 102 lbs. Code Word SLOBG.	

Delta Double-Spindle Sensitive Drill Presses

Delta Double-Spindle Drill Presses incorporate everything that can make for efficiency and convenience, and will rapidly pay for themselves in the production shop.

The substantial cast-iron base is 24" by 34" in size, with a table surface of $16\frac{1}{2}$ " by 28". It is provided with generous oil troughs, $1\frac{3}{4}$ " by $1\frac{3}{4}$ ", drilled and tapped at the rear for drain piping.

Remaining specifications are similar to those of the regular "Triple-Duty" or "Slo-Speed" drill presses, and the construction is of the same high grade throughout. Machines can be furnished with either $\frac{1}{2}$ " capacity geared chucks or with No. 1 Morse taper spindles.

Write for special bulletin DP-997 for complete information on these drill presses.



"Triple Duty" (high speed) Models

No. 997 Delta Double-Spindle Drill Press, complete as shown, with $\frac{1}{2}$ " geared chucks, two No. 900 $\frac{1}{2}$ -H.P. Repulsion-induction Motors, A. C., 1725 R.P.M., built-in switches and switch rods, 8-ft. cords and plugs; counter-weights, chains and ball-bearing rollers, on heavy cast-iron base...
\$137.50
Crated, F. O. B. factory.

Shipping Weight 467 lbs. Code Word TWOSP.

No. 998 Delta Double-Spindle Drill Press, as above but fitted with No. 1 Morse taper spindles instead of geared chucks...
\$129.70
Crated, F. O. B. factory.

Shipping Weight 462 lbs. Code Word TOMOR.

"Slo-Speed" Models

No. 1297 Delta Double-Spindle "Slo-Speed" Drill Press, similar to No. 997, but speeds 390, 745, 1280 and 2050 R.P.M.
\$141.70
Fitted with $\frac{1}{2}$ " geared chucks.....

Crated, F. O. B. factory.
Shipping Weight 472 lbs. Code Word SLOTP.

No. 1298 Delta Double-Spindle "Slo-Speed" Drill Press, similar to No. 998, but speeds 390, 745, 1280 and 2050 R.P.M.
\$133.90
Fitted with No. 1 Morse taper spindles.....

Crated, F. O. B. factory.
Shipping Weight 467 lbs. Code Word SLOTPQ.

Write for special bulletin DP-997 on Double-Spindle Drill Presses

[Please Order by Catalog Number to Avoid Mistakes and Delay]

Accurate Mortising Easy on Drill Press



Making a 1/2" mortise on the drill press. Note how the sturdy hold-down keeps the work to the table during the up stroke of the chisel, and how the curved arms hold the work to the fence, allowing the operator's whole attention to be devoted to the accuracy of his work.

The making of mortise-and-tenon joints, probably the most difficult operation in cabinet making for the amateur to do well, is rendered child's play with the Delta No. 976 Mortising Attachment. It enables anyone, even without previous experience, to make straight, true square-ended mortises in all woods, and of practically any width, in a fraction of the time necessary by hand methods.

Every Craftsman Needs It

The attachment transforms the Delta drill press into a first-class mortiser. The mortising bit is held by means of a bushing in the No. 974 spindle, which, with its short overhang under the quill, makes the whole attachment stiff and rigid. The chisel holder clamps onto the quill in place of the regular stop-rod collar, and is a sturdy casting of heavy design. Stoprods are transferred to the chisel holder from the regular casting, so that mortises can be accurately gauged to uniform depth.

Hold-Downs Included

A strong and convenient hold-down, indispensable for use with the attachment, is included with it. The hold-down is raised and lowered on a vertical rod carried in a casting on top of the fence, and is adjustable for stock from 3/4" to 4 3/4" thick, thinner stock being mortised merely by shimming under it. The fence is of hard maple, 1 1/8" by 2 1/4" and 12" long, drilled to fit the table.

Curved rods hold the work against the fence, thus allowing the operator to concentrate on feeding the work sidewise. Capacity between ends of rod and fence is 2 3/4"; wider work is mortised merely by turning the ends of the rods out of the way.

The fence is adjustable across the table in the regular table slots, and a longer fence, with "shelves" for supporting long work, can be used if desired. Higher fences can also be made to suit special work.



No. 976 Mortising Attachment for all Delta drills except No. 620, complete with fence, hold-down bracket and rod, hold-down, chisel holder, curved arms and bolts, but without mortising chisel or bits.. **\$3.75**

Ship. Wt. 8 lbs. Code Word NEMOR



Delta Precision Tapping Attachment for Production Shops

The new Delta No. 990 Tapping Attachment was developed for use in our own shop, and has been tested day after day, month after month, tapping thousands of holes in all kinds of materials with perfect satisfaction.

It is a full ball-bearing model, (six ball bearings used) even the idler gear being mounted on high-grade ball bearings. It is fitted with self-adjusting Textolite clutches and is exceptionally sensitive in action. Reverse is double-speed and double-friction and gears are all of Chrome-Nickel steel, hardened and ground. The capacity is from No. 2-56 to 1/4" in steel.

The ordinary tapping attachment must be used in a Morse taper spindle, which not only means a springy arm to keep the attachment from revolving, but also means a long overhang, with its resultant "wobbling" of the tap and danger of tap breakage. The Delta attachment, being fastened

directly to the quill, needs no arm, is compact and stiff, and insures absolutely minimum tap breakage, even on bottom tapping. Built-in depth stop enables tap to be stopped at any depth.

The chuck is a high-grade geared Double-Grip Chuck, which holds the square of the tap as well as the shank.

The housing is an exceptionally clean design, which permits a clear view of the work, and is of polished Dyalite.



No. 990 Delta Tapping Attachment with spindle and Jacobs chuck, to clamp to quill of all Delta Drill Presses except No. 620,.... **\$42.50**

Shipping Weight 9 lbs. Code Word NEWTA.

Write for bulletin No. TA-50 for complete details of this attachment.



No. 988 Production Drill-Press Table

Here is the ideal table for production work, especially where jigs are used. It is a massive gray-iron casting heavily ribbed and of the utmost rigidity. Overall dimensions are 14 3/4" by 20" by 4 3/4" deep. Table surface is 11 1/4" by 16 3/4" in size, ground flat and true and to a

high finish to facilitate the handling of drilling and tapping jigs and fixtures.

It is provided with a 1 1/2" trough all around for carrying off excess oil or other cutting compound; trough has drain holes at the rear, from which cutting compound can be conducted back to pump or drain tank.

The addition of this table to the No. 970 or No. 995 Drill Press makes it especially suitable for tool-room and machine-shop work, where a large table surface is of the utmost importance. Table surface is solid and free from slots, etc., which might interfere with the free handling of jigs or work, although holes for clamping purposes may be drilled through the table if desired.



No. 988 Production-Type Table only for No. 970 and No. 995 Drill Presses, to fit 2 3/4" column only. (Will not fit No. 620 Drill Press). Complete with clamp bolt

\$9.85
Shipping Wt. 60 lbs. Code Word NETAB.

Cup Wheel for 991 Spindle

Extremely useful for surface-grinding work on No. 970 and No. 995 drill presses. Furnished only in 3 1/2" diameter, 1 1/4" wide, with 1/2" arbor hole to fit No. 991 spindle.



No. 992 Cup Wheel **\$1.25**
Ship. Wt. 1 1/2 lbs. Code Word NEWCU.

Delta No. 620 Double-Duty Drill Press

for Drilling, Boring, Sanding and Many Other Operations



Height Overall... 34"
 Width 8"
 Depth Overall... 23"
 Drills to Center
 of Circle 11"
 Chuck to Table 11 1/2"
 Chuck Capacity... 1/2"
 Table 8" x 8"

Designed for the small workshop, the Delta Double-Duty Ball-Bearing Drill Press is a real sensitive machine tool, which will not only handle all the metal drilling within its capacity, but which will fill all the requirements of the home workshop for wood and metal work. It offers the owner of the workshop who needs a drill press, but who does not require a heavier machine, an opportunity to purchase a real tool at low cost.



Due to its unique design, the Double-Duty Drill Press will handle many operations impossible on the ordinary small, slow-speed, limited capacity bench drill. It will not only drill in metal up to 17/32" diameter, but will handle large multi-spur boring bits, regular machine-spur bits, router bits, carving bits, makes a first-class edge sander for scroll-sawed work when used with any of the sanding drums shown on page 41, and will do many other operations with ease and speed. Speeds: 750, 1300, 1050, 1825, 2225 and 3150 R.P.M.

The interchangeable spindles shown below can be used only on this machine; they are not interchangeable with the spindles for the No. 970 series drill presses.

- | | | |
|----------------|--|----------------|
| No. 620 | Delta Double-Duty Drill Press, with No. 673 1/8" V-Belt and Special V-Pulley (1/2" bore only). Motor not included..... | \$18.75 |
| | Shipping Weight 50 lbs. Code Word PRESA. | |
| | Drill Press comes equipped with belt and motor pulley. If V-Belt requires renewal, order as below. | |
| | Note that drive pulley can be furnished only in 1/2" bore. | |
| No. 673 | V-Belt..... | \$1.00 |
| | Shipping Weight 3/4 lb. Code Word PREBL. | |
| No. 621 | Regular Spindle with 1 1/4" Delta-Grip Chuck..... | \$3.25 |
| | Shipping Weight 4 1/2 lbs. Code Word PRESC. | |
| No. 622 | Special Spindle, with 1/2" Geared Chuck and Key..... | \$6.75 |
| | Shipping Weight 4 1/2 lbs. Code Word PREJA. | |
| No. 624 | Special Spindle with 1/2" bore, including 1/2" auxiliary shaft and wrench..... | \$2.00 |
| | Shipping Weight 2 1/2 lbs. Code Word PREHO. | |

NOTE: These spindles for No. 620 Drill Press only; not interchangeable on No. 970 Drill Press.

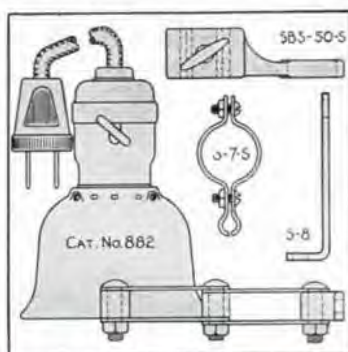
Lamp Attachment Has Many Uses

No matter how well the workshop is equipped with lights, there are always some machines that are not properly lighted; some at which the user is compelled to stand in his own light or else to rig up an extension cord in order to see the work properly. Even if every machine is equipped with

an individual drop light, a problem arises every time a new machine is added to the shop, or the old machines rearranged.

The Delta Lamp Attachment solves this problem for almost every machine—drill press, band saw, scroll saw—and can be adapted for many other uses

besides. Its double linkage enables it to be swung over the work to just the spot desired, although for most machines the single linkage shown in the photos is found adequate. A neat bracket supplied with the attachment enables it to be attached to older Delta models. Latest Delta models have brackets cast in place and drilled for the attachment.



Useful for Workbench

Few workbenches are as well lighted as they should be, and the Light Attachment enables a light to be placed just where it is wanted. Any number of links and collars may be purchased to make up a bracket of the required length, so that the light may be moved where it is needed, and pushed back out of the way when no longer required.



Above is shown the light attachment on the 890 band saw, the neat bracket being typical of newer Delta models. Below, the light attached to an older model drill press, with bracket S-8.

Many Other Uses

The attachment can be used as a sewing-machine light, fitted to dental and surgical equipment, used as a drafting-board or desk light, and for dozens of other uses.

The heavy, solid shade will not overheat, as adequate ventilation is provided. It is intended for use with standard 25-watt lamps, which will be found to provide plenty of light at low cost.



- | | | |
|-----------------|---|---------------|
| No. 882 | Lamp attachment, with shade, socket and cord, four flat links, three bolts, spacer and attachment bracket | \$1.50 |
| | Shipping Weight 1 1/2 lbs. Code Word LAMPA. | |
| S-3-S | Extra support links, with spacer, screw and nut, per pair | .15 |
| S-7-S | Lamp Attachment Clamp for 700 scroll saw, each | .20 |
| S-8 | Lamp Attachment Bracket for 970 drill press, each | .15 |
| SBS-50-S | Lamp Attachment Bracket for 785 and 385 band saws, each | .35 |

[Please Order by Catalog Number to Avoid Mistakes and Delay]

Mortiser and Drill-Press Bits and Chisels

Machine-Spur Bits

Made of selected steel, properly hardened and tempered for keen cutting qualities and long life. Delta machine bits are of exceptionally high quality. They have a diamond point and

two cutting lips which sever the fibers of the wood and produce clean holes without any chipping of edges. All are approximately 6 1/4" long overall, and have 1/2" shanks to fit standard 1/2" hole machine chucks, also Delta mortiser spindle and Nos. 624 and 974 drill-press spindles.

No. 804	1/4" Machine Spur Bit.	Code Word SPURA.....	\$1.00
No. 805	5/16" Machine Spur Bit.	Code Word SPURB.....	1.05
No. 806	3/8" Machine Spur Bit.	Code Word SPURC.....	1.10
No. 807	7/16" Machine Spur Bit.	Code Word SPURD.....	1.30
No. 808	1/2" Machine Spur Bit.	Code Word SPURE.....	1.45
No. 809	5/8" Machine Spur Bit.	Code Word SUPRF.....	1.65
No. 810	3/4" Machine Spur Bit.	Code Word SPURG.....	1.85
No. 812	7/8" Machine Spur Bit.	Code Word SPURK.....	2.35
Shipping Weight, each 10 oz.			
No. 818	Complete Set of 8 Machine Spur Bits, from 1/4" to 7/8"...		\$11.50
Shipping Weight 3 lbs. Code Word SPURL.			



Standard Hollow Chisels and Bits



Made to produce square-end mortises. Made of selected steel, and suitable for the highest grade of work. The bit operates inside the chisel, and is driven by the drill-press or mortiser spindle, while the chisel is held stationary by means of a chisel holder. When used in the drill press, No. 624 or No. 974 spindle must be used, and each bit should be ordered with its proper bushing. Outside diameter of bushings is 1/2". Shank of chisel 5/8" x 1 1/2". Shipping weight per set, 1 1/4 lbs.

Details of Standard Chisel Only					Details of Bit					Details of Bushings			
Cat. No.	Size	Depth of Mortise	Code	Price Each	Cat. No.	Size	Dia. Shank	Code	Price Each	Cat. No.	Size Hole	Code	Price Each
504	1/4" x 1/4"	1 1/8"	CHISA	\$3.95	514	1/4"	5/8"	BITOA	\$1.25	524	5/8"	BUSHA	\$.40
505	5/16" x 5/16"	1 1/2"	CHISB	3.95	515	5/16"	1/2"	BITOB	1.25	525	1/2"	BUSHB	.40
506	3/8" x 3/8"	2 1/4"	CHISC	4.85	516	3/8"	19/64"	BITOC	1.25	526	19/64"	BUSHC	.40
508	1/2" x 1/2"	3 1/4"	CHISE	5.50	518	1/2"	19/64"	BITOE	1.25	526	19/64"	BUSHC	.40

NOTE: For each mortising chisel the proper size bit and bushing is required, as shown in above table.

Delta Special Hollow Chisels (Pat. Pending)

Made for the man who only occasionally has use for a mortising chisel these Hollow Chisels will be found an excellent value. They are the same sizes as the standard hollow chisels, and take the same bits and bushings. Not recommended for production work. Approximate Shipping Weight 10 oz. each.

Note that these chisels have the cutting portion made from high-grade HIGH-CARBON tool steel, carefully hardened and tempered, and that they should not be confused with chisels made from ordinary machine steel and merely carburized. Our chisels will stand up in regular workshop service without any crumbling at the cutting edges, since they are similar in cutting properties and in hardness and temper to regular production tools. The only difference is that the shank is made of a low-carbon steel, in order to produce a high-grade chisel at a low cost.



Special Hollow Chisels Only

Cat. No.	Size	Depth of Mortise	Code	Price Each
634	1/4" x 1/4"	1 1/8"	HOLOA	\$1.35
636	5/16" x 5/16"	2 1/4"	HOLOC	1.35
638	1/2" x 1/2"	3 1/4"	HOLOD	1.35

High-Grade Router Bits

Invaluable for routing, carving, round-end mortises and grooving work of all kinds. Shank diameter is 1/2", to fit mortiser

spindle, No. 624 and No. 974 drill-press spindles. These router bits are a high-grade product, and should not be confused with cheap bits, which will not hold an edge and will not stand up in service.

Delta router bits are of high-grade steel, tempered for real service.



Delta Router Bits

Cat. No.	Size	Shank Dia.	Lg. of Flute	Code	Price Each
474	1/4"	1/2" x 1 1/2"	1 1/4"	ROUTA	\$1.00
475	5/16"	1/2" x 1 1/2"	1 1/4"	ROUTB	1.00
476	3/8"	1/2" x 1 1/2"	1 1/4"	ROUTC	1.00
477	7/16"	1/2" x 1 1/2"	1 1/4"	ROUTD	1.00
478	1/2"	1/2" x 1 1/2"	1 1/2"	ROUTE	1.00

Shipping Weight 4 oz. each

No. 480 Set of five Router Bits, sizes as above..... \$4.50
Shipping Weight 2 lbs. Code Word ROUTO.

Delta Plug Cutters

There are countless jobs where the need of a tool to make short dowels or plugs for screw holes is keenly felt. With these plug cutters, dowels up to 2" long and plugs up to 1" thick are cut as fast as the tool can be fed into the wood. All have 1/2" shanks to fit the No. 624 and 974 spindles. The 3/4" size is particularly adaptable to boat building, for cutting deck plugs.

Sign makers use them for cutting periods and dots for 1's.



Cat. No.	Size	Shank Dia.	Lg. of Cut	Code	Price Ea.
S14	3/8"	1/2" x 2"	2"	PLUGA	\$2.75
S15	1/2"	1/2" x 2"	2"	PLUGB	3.00
S16	5/8"	1/2" x 2"	2"	PLUGC	3.50
S17	3/4"	1/2" x 2"	2"	PLUGD	3.85
S19	1"	1/2" x 2"	2"	PLUGE	4.75

Shipping Weight Approximately 6 oz. each.

No. 822 Complete set of 5 Plug Cutters, sizes as above \$17.50
Shipping Weight 2 1/2 lbs. Code Word PLUGS.

Delta No. 890 14-Inch Band Saw Has Many Advantages Important to You!

Heavy pressed-steel safety-type disk wheels, running on high-grade precision-type self sealed ball bearings. This means minimum power consumption as bearings are practically frictionless. Bearing seals prevent entrance of dirt and escape of lubricant and insure trouble-free service for entire life of bearing. Unique Delta rimmed wheels make tire renewal easy.

Light attachment permits machine to be moved wherever it is most convenient for the job in hand, and assures plenty of light on the work. Wiring for light runs through hollow cast arm, and is led through rubber bushings.

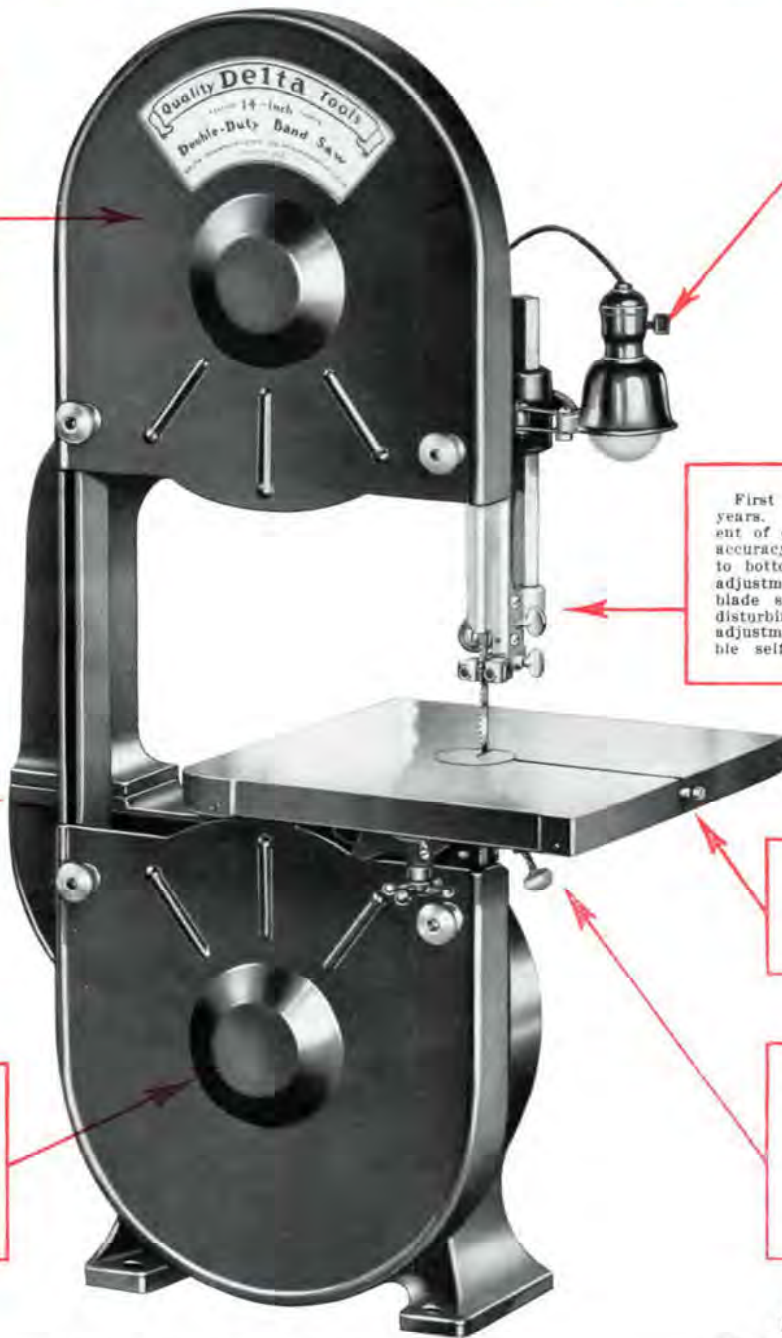
First improvement in band-saw guides in years. Each adjustment absolutely independent of others, and each set with micrometer accuracy. Guide pins can be set accurately to bottom of blade teeth without disturbing adjustment of ball-bearing blade support, and blade support can be similarly set without disturbing adjustment of guide pins. Screw adjustment for precision. High-grade reversible self-sealed ball-bearing blade support.

Hollow-cast upper arm, which provides stiffness where needed and heavy, strong ribbed base casting permits use of height attachment which increases capacity of machine to permit cutting of stock over 12" thick.

Very heavy and massive table design 14" by 14" in size. Swings smoothly on double trunnions. Very large table insert. Tilts 45 degrees to right and 10 degrees to left. Positive stops. Rip-gage attachment.

Lower wheel of same high-grade construction as upper wheel, with same self-sealed ball-bearings (six precision ball bearings are used in this machine). Heavy drive shaft with tapered end, keyed to wheel to prevent slippage. Wheels run light as a sewing machine. Cementless rim.

Lower guide of same construction as upper one. Independent guide-pin and blade-support adjustment, with micrometer-screw traverse. Unique design enables guide to come within $\frac{1}{8}$ " of table top, thus supporting blade close to work, enabling accurate ripping to be done with $\frac{1}{8}$ " and $\frac{3}{16}$ " blades, $\frac{1}{2}$ " square hardened-steel guide pins permit use of blades up to $\frac{3}{4}$ " wide.



Its Real Improvements Have Made this Band Saw the Favorite Tool of All Expert Craftsmen, Both Amateur and Professional

The Delta 14-inch Band Saw, introduced only a short time ago, has won overwhelming praise from everyone who has seen it or used it. The reason for this is simple. No other band saw on the market can compare with it, when size, accuracy, convenience of handling, precision of adjustments and moderate cost are all considered. Because of these factors it has replaced in many shops hand saws which cost several times its low price.

The improvements in this machine are real improvements. It has never been Delta's policy merely to add "gadgets" simply to have something to talk about. Every addition to a Delta machine; every improvement must have real value, or else it is weeded out immediately, no matter how much has been spent for experiment upon it. As a consequence, Delta machines represent the utmost value in this field, and this band saw is no exception.

We do not know of any saw that can offer all the features of this one, nor any other saw which has met with such wide spread and instant acceptance by real craftsmen. You must see this saw to realize what a 14-inch Band Saw can offer you.

Overall Dimensions
Height 41 1/4"; Width 16 1/4"
Front to Back 24 3/4"
Weight 152 lbs.

No. 890 Delta 14-inch Band Saw, with guards and 8" arbor pulley, but without Light Attachment..... **\$43.85**

Shipping Weight 152 lbs. Code Word LABAN.

No. 5275 Delta 2 3/4" V-Pulley. 1/2" bore..... **.45**

Shipping Weight 11 oz. Code Word PULOD.

No. 568 Delta V-Belt (24 1/2" cent. to cent.)..... **1.00**

Shipping Weight 1 lb. Code Word FORVD.

No. 900 motor recommended for this machine. See page 44.

[Please Order by Catalog Number to Avoid Mistakes and Delay]

Page 27

The Finest Band-Saw Value Ever Offered



Above and left, two views of lower guide. Note how close to the table the guide pins support the blade.



Upper guide, showing ball-bearing blade support and precision adjustments for support and guide pins.



Underside of massive table. Note the heavy steel double trunnions and the removable stop sleeve.



Front trunnion closeup; note graduated index plate and adjustable pointer.



Upper wheel adjustment, with quick index to show blade tension.

The Band Saw You Buy Should Offer All These Advantages:

1. Safety-type disk wheels, running on precision ball bearings. Wheels with cementless rimmed wheels, to make tire renewal easy. Heavy drive shaft with tapered end, keyed to prevent slippage.
2. Independent-setting, precision guides that can be set with micrometer accuracy. On Delta band saws, the adjustments are completely independent of each other, so that the blade support can be set without disturbing the adjustment of the guide pins. (Pat. pending.)
3. Precision adjustment of guide pin and blade support by means of screw adjustments which are fast and accurate.
4. Lower guides exactly the same in design, construction and precision as the upper guides.
5. Lower guide as close as possible to the table (in the Delta 14" saw the lower guide comes within 11/16" of the top surface of the table). This means truer sawing, closer control of the cut, and less breakage of blades.
6. Heavy hardened steel guide pins, to permit the use of blades up to 3/4" wide for heavy work and ripping.
7. Massive cast-iron table cradled on double trunnions, which allow the table to tilt at a touch. Table tilts 45 degrees to right and 10 degrees to left for pattern work. (Pat. pending.)
8. Finely graduated scale to show exact angle of table tilt, stop screw and removable stop sleeve for quick squaring of table.
9. Blade tension gauge to indicate proper tension for various widths of blades. Prevents blade breakage and permits better work.
10. Height attachment to increase capacity of saw, and rip-gauge attachment available when desired.

Removeable stop sleeve under table. When table is against sleeve it is stopped at horizontal position. To tilt a further ten degrees to left, the sleeve is removed as shown.



Height Attachment Cuts Materials Up to 12 Inches Thick

The design of the Delta 14" Band Saw, with its hollow-cast upper arm and its massive ribbed base, permits the use of another typical Delta attachment—a raising block and accessories that enables the cutting of materials up to 12 1/4" thick.

The attachment consists of a 6" block, accurately dowelled to fit between base and overarm, a longer wood guard for the back of the blade, a longer bolt and an extension guard for the front of the saw blade. Since the block is accurately drilled and dowelled, adding the extension is a simple matter.

Amongst the many and varied uses for the band saw equipped with this attachment are the cutting of cork slabs for refrigerator lin-

ings and similar insulating work, the cutting of dry ice, ripping wide sheets of balsa and many similar materials.

Note: A longer blade is necessary for use with this attachment. Order 105" blades from list on page 29.



No. 894 Height Attachment for 14" band saw only, including raising block, dowels, bolt, back guard, extension front guard and long hexagon blade guide support bar **\$6.00**
Shipping weight 14 lbs. Code Word LABHA.



DELTA 14-inch Band-Saw Units

Self-Contained



No. 892

Mounted on the No. 891 steel stand, the 14 inch Band Saw becomes a completely portable unit which may easily be taken to the job if desired. If fitted with the No. 882 Lamp Attachment, it is independent of the shop lighting, and can be set up and operated anywhere that

current is available, either inside or outside.

For average work we recommend the No. 900 1/2 H.P. Repulsion-Induction motor, with built-in switch. Fitted with switch rod No. 851, control of the motor is brought within reach of the operator's finger tips.

For Wood Or Metal

Unit No. 892, driven by V-belt direct from motor, is used for woodworking.

Unit No. 896, with countershaft drive, may be used for cutting Iron, Steel, Brass, Bronze, Aluminum Bars,

Shapes and Sheets, Transite, Fiber, Slate, Brake Lining and many other materials. It is an ideal tool for the general machine shop, or for any shop where the cutting of metal is done.

It takes the place of a power hacksaw in cutting off bars and shapes; it will cut uniform strips from sheet stock; will cut designs in sheet metal, saves hours of time in cutting the shapes of templates and similar tools, and will cut almost any material, like fibre, mica, asbestos, transite, etc. difficult to cut by ordinary means.

Many machine shops who have installed this versatile tool would not now be without it if it cost several times its moderate price.



No. 896

No. 892 Woodworking Unit

- No. 890 14" Band Saw..... \$43.85
- No. 568 V-Belt.... 1.00
- No. 5275 2 3/4" V-Pulley, 1/2" bore .45
- No. 891 Steel Stand..... 6.85

Shp. Wt. of Stand 30 lbs. Code Word LABST.

Total..... \$52.15

Shipping Weight 183 lbs. Code Word LABUN. Use No. 900 motor; No. 851 Switch rod; see pages 43 and 44 for prices.

Band-Saw Blades

Made of high-grade Swedish steel, accurately spaced, set and jointed, these blades will be found to give splendid service and to stand up under hard work. Standard blades for 14-inch band saw are 93" long; special blades for use with height attachment are 105" long.

14-inch Band-Saw Blades; 93-inch

Cat. No.	Width	Cut Radius	Code	Price Each
1032	1/8"	1/4"	BLABA	\$1.25
1033	3/16"	1/2"	BLABB	1.25
1034	1/4"	3/4"	BLABC	1.25
1036	5/16"	1"	BLABD	1.25
1038	3/8"	1 1/4"	BLABE	1.50
1040	1/2"	1 3/4"	BLABF	1.50

Shipping Weight 15 oz. each.

14-inch Band-Saw Blades; 105-inch

Cat. No.	Width	Cut Radius	Code	Price Each
1045	1/8"	1/4"	BLABJ	\$1.50
1046	3/16"	1/2"	BLABK	1.50
1047	1/4"	3/4"	BLABL	1.50
1048	5/16"	1"	BLABM	1.50
1050	3/8"	1 1/4"	BLABO	1.75
1052	1/2"	1 3/4"	BLABP	1.75

Shipping Weight 18 oz. each.

Metal-Cutting Blades; 93-inch

Cat. No.	Width	Teeth per in.	Code	Price Each
1060	1/2"	14	BLMET	\$1.75
1062	1/2"	18	BLMEU	1.75
1064	1/2"	24	BLMEX	1.75

Shipping Weight 1 1/2 lbs. each.

NOTE: These are hard-edge blades for cutting all metals.

No. 896 "Lo-Speed" Metal-Cutting Band-Saw Unit

- No. 890 14-inch Band Saw with No. 1062 Blade..... \$44.35
- No. 891 Steel Stand 6.85
- No. 897 Countershaft unit, consisting of two No. 370 Hangers; two No. 374 3/4" collars; 3/4" countershaft; 6100, 6200 and 5275 pulleys, (3/8" bore); 5200 pulley (1/2" bore); 670 and 340 V-belts..... 13.35

Countershaft Shipping Weight 20 lbs. Code Word LABCU.

Total (without motor, light attachment or switch rod) \$64.55

Shipping Weight 203 lbs. Code Word LAMET.

Use No. 900 or 920 motor. See pages 43-44.

"Micro-Set" Rip Gages For Band-Saw

Due to the adequate support that the blade receives on the Delta band saw, ripping is really a satisfactory operation, even with comparatively narrow blades.

"Set" adjustment as circular saw fence, and can be used on either side of blade.

Two rip-gage attachments are available; the No. 893 with 18" front and rear guide bars, and the No. 895 with 32" front and rear bars. The only difference is the difference in capacity. Guide bars are attached to tables with screws, and need never be removed, as they do not interfere with other operations. Fence has same "Micro-



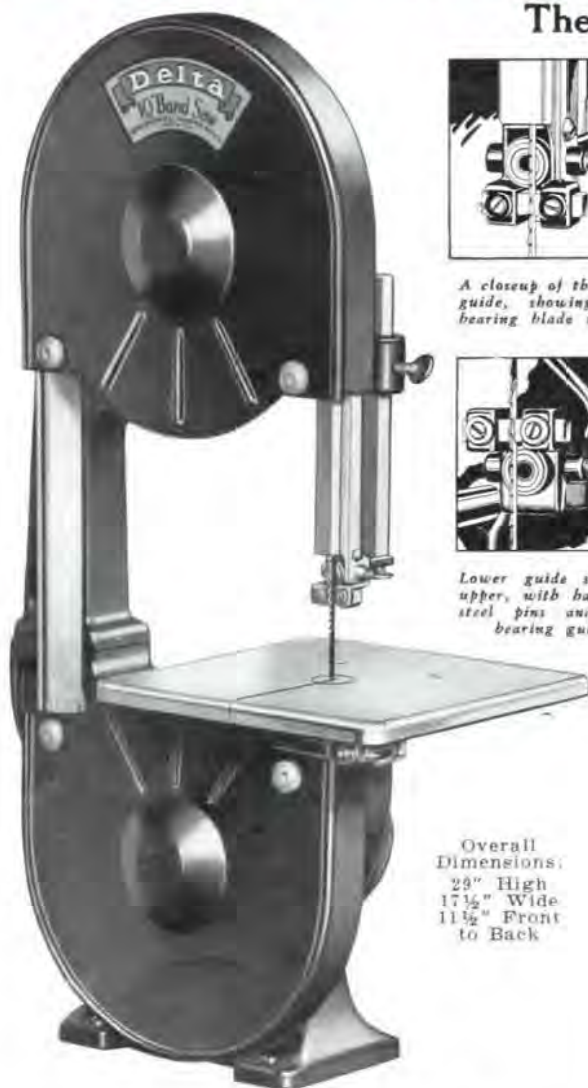
- No. 893 Rip-Gage Attachment for No. 890 14" Band Saw, with 18" front and rear guide bars, "Micro-Set" fence and screws for attaching guide bars \$3.85

- No. 895 Rip-Gage Attachment for No. 890 14" Band Saw, same as above but with 32" guide bars instead of 18"..... 4.55

Shipping Weight 12 lbs. Code Word LABGB. U. S. Patent No. 1,963,688.

Delta 10-inch Ball-Bearing Band Saw

The Choice of Thousands of Expert Craftsmen



A closeup of the upper guide, showing ball-bearing blade support.



Lower guide same as upper, with hardened-steel pins and ball-bearing guide.

Overall Dimensions:
29" High
17 1/2" Wide
11 1/2" Front to Back

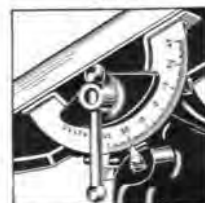
Designed to fit the needs of the average home workshop, the Delta 10-inch Band Saw has been giving complete satisfaction for years to discriminating craftsmen who want a good band saw at a reasonable price. In dozens of cases it is used for work far heavier than its apparent capacity, and it performs on this work far beyond its user's expectations.

Ten Big Points Of This Saw

1. Unusually rugged frame, cast in two sections, with hollow cast upper arm which prevents all springing of the frame or twisting of the blade.
2. 10" by 10" heavy steel table with removable aluminum insert which prevents all damage to the blade where it passes through the table. Table tilts to 45 degrees, and an accurately graduated segment and adjustable indicator shows exact degree of tilt. Adjustable stop screw returns table to level position.
3. Blade thoroughly guarded front and rear, making it safe to operate even for inexperienced operators.
4. Compactness of design makes it suitable for bench mounting at no sacrifice in capacity.
5. Electrically welded steel disk wheels, with Delta Cementless rims. Lighter, stronger and safer than spoked wheels.
6. Upper and lower wheels run on ball bearings, which require lubrication only twice a year.
7. Upper and lower guides are fully adjustable, and have square steel guide pins similar to those on most expensive saws. Blade supports are ball-bearing and double-ended, so that either end may be used.
8. The mechanisms for adjusting the blade tension, for raising and lowering the upper blade support and guide, for tilting and locking the table and for setting the table square with the blade are all simple and foolproof, yet function with exactness and precision.
9. Capacity under the blade guide is a full 6" and the saw will take a cut in 6" hardwood with ease. Very soft metals are cut almost as easily as wood and harder ones cut merely by cutting down the speed. Metal cutting blades (No. 781) can be furnished for soft metals.
10. The quality of the work turned out by this machine is fully equal to that of machines costing many times as much, and the work is done just as easily and quickly.



Simple and sturdy wheel-tensioning and tilting device for tracking blade on wheels.



Accurately graduated segment and adjustable guide show exact degree of table tilt.

Check these points over, one by one, and you will agree that they represented splendid value at the low price of this machine. This machine is not designed to take the place of the 14" band saw, but for the small shop it will be found to handle a tremendous variety of work at a great saving of time and labor.

The No. 766 unit, consisting of the 10" band saw mounted on No. 329 steel stand, is an exceptionally handy machine, as it can be moved to any part of the shop with little trouble—right up to the work if necessary. Exceptionally handy in the boat-building shop. If you eventually contemplate

the purchase of a No. 458 router, you should order a No. 494 stand, costing \$1.25 more. This will enable the mounting of the band saw and motor on one stand and driving both from the same motor to form an ideal combination. This unit, however, is not recommended for heavy production work.



No. 785 Delta 10" Ball Bearing Band Saw, complete with guards, 5" drive pulley and 3/4" blade. **\$19.50**
Shipping Weight 55 lbs. Code Word TENBA.

No. 5275 2 3/4" Pulley, drives 10" Band Saw at correct speed. 1/2" bore. **.45**
Shipping Weight 8 oz. Code Word PULOD.

No. 560 V-Belt, center to center distance, 22 3/4", 1/2" wide, 38° angle, 11" thick. **1.00**
Shipping Weight 10 oz. Code Word EICVB.

Blades for 10" Band Saw 66" Long

Cat. No.	Width	Cut Radius	Code	Price Each
732	1/8"	3/4"	BABLK	\$1.00
733	3/16"	3/2"	BABLL	1.00
734	1/4"	3/4"	BABLM	1.00
736	3/8"	1"	BABLP	1.00
781	1/2"	3/4"	BAMEU	1.50

Shipping Weight 8 oz. each.
(No. 781 Blade is for soft metals.)

No. 766 Unit (at right) includes:

No. 785	10" band saw	\$19.50
No. 5275	2 3/4" V-Pulley, 1/2" bore	.45
No. 560	V-belt	1.00
No. 329	Steel stand	5.75

Total. **\$26.70**

Shipping Weight 95 lbs. Code Word TENUN.

For use with this unit, specify No. 851 switch rod, and No. 800 or 1100 motor. See page 44 for prices of motors and switch rods.

Blades for 12" Band Saw; 78"

Cat. No.	Width	Cut Radius	Code	Price Each
532	1/8"	3/4"	BABLA	\$1.10
533	3/16"	3/2"	BABLB	1.10
534	1/4"	3/4"	BABLC	1.10
536	3/8"	1"	BABLE	1.10
381	1/2"	3/4"	BAMET	1.50

Shipping Weight 9 oz. each.
No. 381 Blade is for cutting soft metals.

Delta "De-Luxe" 24-inch Scroll Saw



A cross-section through the shaft housing, showing the husky Timken bearings and the sturdy, foolproof air pump.

Overall Dimensions
35" Long
14" Wide
23" High

Finely Machined Cast-Iron Table—14" x 14"
Shipping Weight, 117 lbs.

U. S. PATENTS
No. 1,839,647
No. 1,877,705
No. 1,959,193
No. 1,964,651
No. 1,964,652
No. 1,969,827
CANADIAN PATENTS
No. 340,751
Others Pending

"The Finest Scroll Saw Ever Made"

Any manufacturer may claim his machines to be the "best," the "finest" and so on, and the customer may be forgiven if he is confused by such claims. In saying that the Delta De-Luxe Scroll Saw is the finest ever made, we are merely repeating what thousands of delighted users have told us; the words are not our own.

Into the design of this saw has gone the vast experience we have had with the manufacture and use of the first practical 24" scroll saw ever made—the Delta No. 700, and with the thousands of De-Luxe scroll saws now in use. It is this unsurpassed experience that assures you of satisfaction with the De-Luxe saw—plus the reputation of Delta for making only Quality Tools.

Study the design of this massive, sturdy machine in the following pages, and we believe that you will agree with the finest craftsmen that it is really "the finest scroll saw ever made".

No. 1200	Delta "De-Luxe" Scroll Saw, with 1 sabre blade, 3 jeweler's blades, No. 720 four-speed cone pulley on shaft, box wrench, Allen wrench, special puzzle-blade jaw for upper chuck and light attachment.	\$27.50
	Without belt, motor or motor pulley.....	
	Shipping Weight 117 lbs. Code Word LUXSA.	
No. 340	V-belt for above 13" center to center.....	\$.80
	Shipping Weight 8 oz. Code Word BELUX.	
No. 718	Motor pulley, four-step; speeds 650; 1,000; 1,300; 1,750 R.P.M. ½" bore.....	\$.75
	Shipping Weight 18 oz. Code Word CONPA.	

NOTE: For this machine motor No. 800 or 1100 is recommended. For three-phase installation use motor No. 920. See page 44 for motor specifications and prices.

While this machine is a self-contained unit, it may be mounted on steel stand No. 716 if desired, by using No. 1205 Hook Bolts (price 40c per set of four). See page 34 for stand.



Where very fine blades are used constantly, the self-centering jaw shown here is used in place of one of the regular jaws of the upper chuck. A self-centering lower chuck (extra) is also available.



A powerful and convenient hand knob locks the table to the trunnion seats. Table tilts smoothly on heavy trunnions and exact degree of tilt is shown by graduated arc and adjustable pointer.



A spring hold-down is supplied with the machine, and assists in producing good work. Unlike others, this hold-down can be tilted so that it functions even when the table is tilted.



The outer sleeve covering the upper-chuck plunger is moveable and graduated, enabling the user to adjust the tension of the spring to suit his blade, and to return to the same tension at any time.

[Please Order by Catalog Number to Avoid Mistakes and Delay]

For Every Type of Scroll-Saw Work



Cutting brake lining is one of the jobs that this scroll saw is performing with satisfaction.



In mortising engravings the scroll saw saves hours of the printer's and engraver's time.



For cutting out intricate designs in sheet metal there is no machine quite as satisfactory as the scroll saw.



Hours of time are saved in the sign shop in the cutting out of interior wood and composition lettering.



Work up to 2" thick is cut on the Delta scroll saw almost as fast as on the band saw.



The ideal machine for jigsaw puzzle and similar fine work; the choice of good marquetry cutters.

For Heavy Work as Well as Light

Do not get the impression that this machine is designed for the finest work only. It is made for the heaviest sabre-blade work as well as the finest precision marquetry. The chucks are of steel, and the guides rugged and strong. Work up to 2" thick can be cut with ease and

speed on this all-around machine. (Note: A scroll saw is not suitable for work over 2" thick, as the teeth of the blade will not clear heavier stock, and inferior work results. A band saw should be used for work over 2" thick if satisfactory work is to be done).

For Sign Makers and Display Studios

No finer machine for the display and sign man was ever made than the new De-Luxe saw. The greatest part of his cut-out lettering and interior cuts on displays can be done with dispatch on this saw. For occasional work that is

beyond the capacity of the machine, the entire over arm can be removed, and the capacity is then unlimited. Detachable upper guide speeds up inside cuts.

For Printers and Engravers

Many printers and engravers have told us that the Delta No. 700 Scroll Saw was the finest machine for their work that they had ever

used. The new De-Luxe saw is still more suitable, since interior mortises in engravings can be made with greater convenience and speed.

For the Finest Marquetry Work

This new scroll saw is a revelation to craftsmen interested in fine marquetry and in puzzle making. The scientific design of the head, in which the inertia of the moving parts has been reduced to the minimum, enables the very finest blades to be operated at full motor speed without danger of breakage. This results not only in faster work, but also in cleaner cuts. In some machines, due to the clumsy and heavy construction of the upper chuck and parts, very fine blades cannot be used at all. Tension adjustable to suit blade.



The upper guide is removed in a moment, leaving plenty of room above the blade for the insertion of the blade in interior work, or the removal of heavy work.

Metal Sawing and Filing

The sawing of soft metals is accomplished with ease on the De-Luxe scroll saw, and intricate patterns of all kinds can be cut in minutes—instead of hours by any other methods. And metal files, too, held in the patented Delta chuck finish the edges of the work to the line in a hurry. For jewelry and work in Catalin it is unsurpassed.

Built-In Quality and Convenience Insure Users' Satisfaction



By simply loosening two cap screws on top of the crankcase, the entire bracket carrying the table can be swung through 90 degrees in either direction. This is important where long work must be cut with the table tilted. If the work is of such a length or shape that it would

strike the rear column of the saw when the table is tilted sidewise in the normal manner, it is only necessary to swing the table 90 degrees, turn the chucks to the side-cutting position, and work of any length can then be fed through without difficulty.

For ordinary cutting, that is, operating the saw from the front of the table, the hexagon guide bar, with the guide, is used on the left of the upper head. If it

The photo at the right shows the heavy counter-balanced crankshaft, with its accurately ground crankpin, which insures smooth, vibrationless running, and long life of the mechanism.



is necessary to turn the chucks and feed the work sidewise—as in long ripping—it is necessary only to transfer the guide post to the right hand side of the head, where it may be used immediately without further adjustment.

The detachable guide, foolproof air pump, husky Timken bearings, graduated tension tube tilting index and many other features assure the user of perfect satisfaction and long life.



Designed for Fast, Accurate Work

Patented Steel Delta Chuck Offers Many Advantages

The Chucks on the new De-Luxe saw are the results of Delta's experience with the thousands of No. 700 scroll saws sold during the past few years. Improved and refined, they represent the perfect type of chuck for the all-around machine.

They hold all kinds of blades: Jeweler's, puzzle or sabre. They hold files and all attachments with 1/4" shank firmly and straight—you don't need any separate chucks for these. They can be faced side-wise in a moment; they don't need any wrenches to operate; the upper

one comes with a special self-centering jaw for very fine blades—there are so many superior things about them that you have to operate them to appreciate them!

Being made of steel, they cannot be broken even by abuse, and yet they are so light that they eliminate most of the cause of fine blade breakage—the inertia of the moving parts. Fine blades, on this machine, can be run at full motor speed—a speed that would break them instantly on any other machine that we have ever seen!



Sabre blades are held in the V-jaws of the lower chuck.



A closeup of the lower chuck on the De-Luxe saw. Made of steel, light but strong, and bolding all types of blades.



Jeweler's blades are held between the flat saws of the chuck.

Universal Blade Guide of Most Efficient Type

Improved and refined like the chucks, the Delta blade guide is easily superior to anything ever offered before. The hardened-steel guide disk has a series of grooves to accommodate any thickness of blade. This is adjustable to the bottom of the teeth of the blade, and the blade is backed by a small hardened steel roller which supports it and reduces friction. This roller is small in diameter, because only a small roller will reverse its direction fast enough to follow the



View of the highly efficient disk guide and roller blade support, and the lower blade guide for sabre sawing.

blade; a large roller merely slips and is thus only equivalent to a fixed guide—with none of the fixed guide's advantages.

The new Delta guide is completely adjustable—for all types of blades, not just a few—it comes down close to the work, supporting the blade where most necessary—and all adjustments are completely independent for utmost efficiency.

An under-table guide is available for use in sabre sawing, and this can be used either alone, or with the upper guide.



Files, also, are held in the V-jaws of the lower chuck.



The sanding attachment is held in the V-jaws without any changes.

Lower Guide for Sabre Sawing

This attachment consists of two individual guides to fit No. 703 and 704 sabre blades, carried on an adjustable post that fits in the crankcase, immediately behind the lower plunger. It supports the blade directly under the table, and, in conjunction with the upper guide, enables perfect straight-line work to be done, as there is no opportunity for the blade to spring. It will hold the blade to the line alone, for exceptionally heavy work where the upper guide cannot be used.

No. 1204 Lower Guide for No. 1200 Scroll Saw only, with guide post, nut and thumbscrew \$.85

Shipping Weight 10 oz. Code Word LUXLS

Special Self-Centering Lower Chuck for Fine Jeweler's and Puzzle Blades

Designed to fit both No. 700 and No. 1200 scroll saws, this chuck will be found a boon to craftsmen who specialize in fine puzzle and marquetry work. Fine blades are guided to the center of the chuck automatically and locked securely with the thumbscrew, thus saving much time, especially on interior cuts. Used in connection with the self-centering jaw in the upper chuck of the No. 1200 scroll saw it will be found especially handy and efficient.

No. 715 Self-Centering Lower Chuck for No. 700 and No. 1200 scroll saws..... \$.75

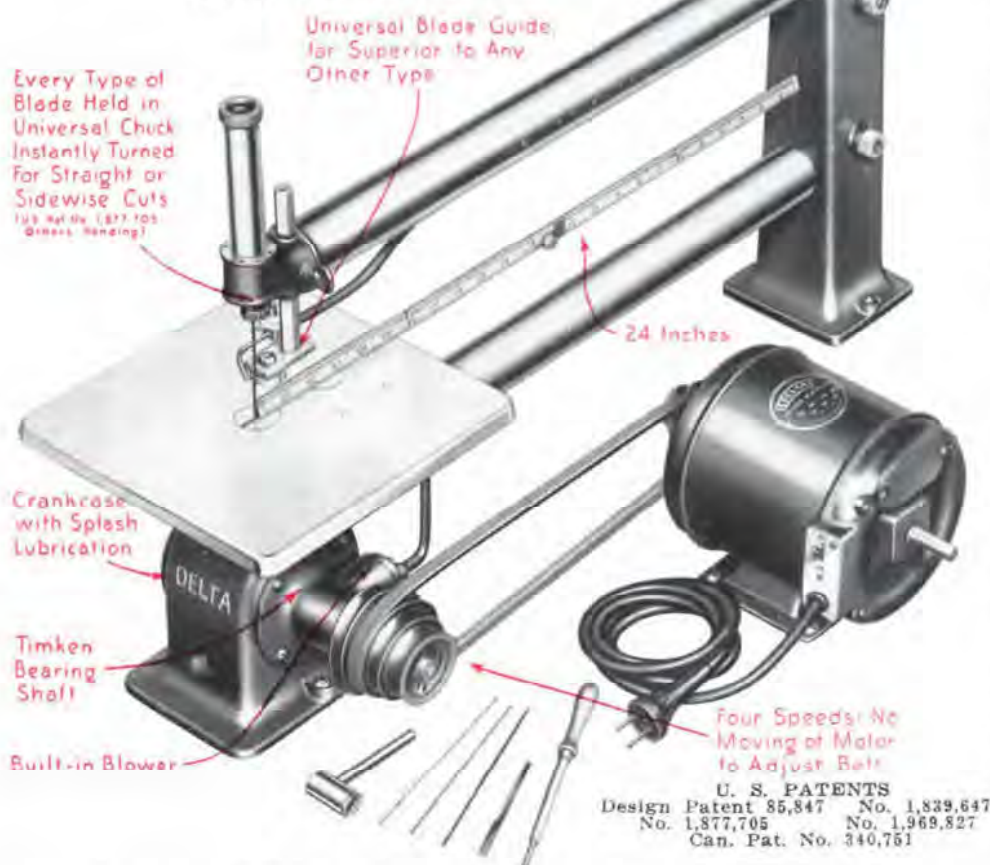
Shipping Weight 5 oz. Code Word LACHU



(Please Order by Catalog Number to Avoid Mistakes and Delay)

The Delta No. 700 24-inch Scroll Saw

The First Really Practical Scroll Saw Ever Made



In addition to the built-in wearing qualities of every part of the scroll-saw mechanism there are a number of conveniences built in also. The sawdust blower is of neat and fool-proof design. If necessary to move the drive pulley to the opposite side of the machine to suit an existing drive, this can be done by moving the shaft housing from the right to the left side of the machine with no trouble. The saw opening is provided with a readily removable slotted aluminum insert, the rear table opening with a solid one.

Many sign and display shops have realized the enormous advantage the No. 700 design gives them, since on this saw they can reach to the center of a 48" panel, and, if necessary, can extend this capacity by installing longer tubes and an extra rear column as shown at the right. This offers the advantage that the upper chuck can then be used, so that fine blades can be used as well as heavier sabre blades.

Until the introduction of the No. 700 Delta scroll saw there was no such thing as a practical scroll saw at a moderate price. All scroll saws were slow, of limited capacity, and all suffered from excessive vibration. This revolutionary machine changed all that, and, while it has been widely copied, it has never been improved upon until Delta produced the "De Luxe" Scroll Saw shown on page 31.

Thousands In Use

Thousands of Delta No. 700 scroll saws have been in daily use in shops all over the country for years, giving complete satisfaction to their owners.

Many Patented Features

This saw offers many practical features not found outside of Delta. These include: Four speeds without moving motor; 650; 1,000; 1,300 and 1,750 R.P.M. Patented design is very rigid, and permits extension of frame for very large work. Universal blade guide and hold-down supports blades at cutting point; hardened-steel disk has grooves to suit practically all blades. Cuts up to 2" thick with sabre blade.

Universal chuck (patented) holds any type of blade, or files and tools with 3/4" shanks. No other type of chuck is so simple and positive. Tremendous capacity: 24" from blade to rear column. Heavy smooth steel table, with removable aluminum inserts; tilts to 45 degrees either side. Has graduated quadrant and pointer and tilts on heavy steel trunnions.

Timken Bearings

The extra-heavy precision-ground shaft runs on Timken bearings. The crankshaft is large and accurately balanced, and the drive may be fitted to either side of the machine. There is a built-in sawdust blower, readily accessible for cleaning if ever necessary, and guaranteed not to pump oil on the work.

No. 700 Delta 24" Scroll Saw, with 1 sabre blade, 3 jeweler's blades, No. 720 four-speed cone pulley on shaft, socket wrench and chuck wrench. Without motor, belt or motor pulley, **\$19.95**
Shipping Weight 60 lbs. Code Word LASAW.

No. 284 V-Belt, 9" center to center. **.75**
Shipping Weight 8 oz. Code Word BELTA.

No. 718 Four speed motor pulley, 1/2" bore, gives speeds of 650; 1,000; 1,300 and 1,750 R.P.M. without moving motor **.75**
Shipping Weight 1 1/2 oz. Code Word CONPA.

No. 714 Scroll-Saw Unit

Consists of:

No. 700 24" Scroll Saw **\$19.95**
No. 716 Steel Stand **7.85**
No. 510 V-Belt **1.00**
No. 718 Cone Pulley **.75**

Price complete, but without motor or switch rod. **\$29.55**
Motors and switch rods page 44.
Shipping Weight 116 lbs. Code Word LASUN.

Use No. 800 or 1100 motor and No. 855 switch rod.
No. 710 Wire Blade Guard for No. 700 Scroll Saw. **\$.10**
Shipping Weight 2 oz. Code Word LAGUA.



View showing upper and lower chucks, with jeweler's blade held in flat jaws. Sabre blades are held in V-jaws of lower chuck; also files and sanding attachment. Note how guide supports the blades close to the work.

Delta Scroll-Saw Accessories

Jeweler's and Puzzle Blades

These blades are the finest obtainable; 5" long and accurately spaced, hardened, set and carefully tempered. Nos. 70028, 10025 and 10035 are especially made for jig-saw puzzle work. The other blades can be used in wood, metal and many other materials. For cutting thin metal, use No. 20125-20J and No. 28250-20J. Gross price applies only to lots of 1 gross or more of each kind.

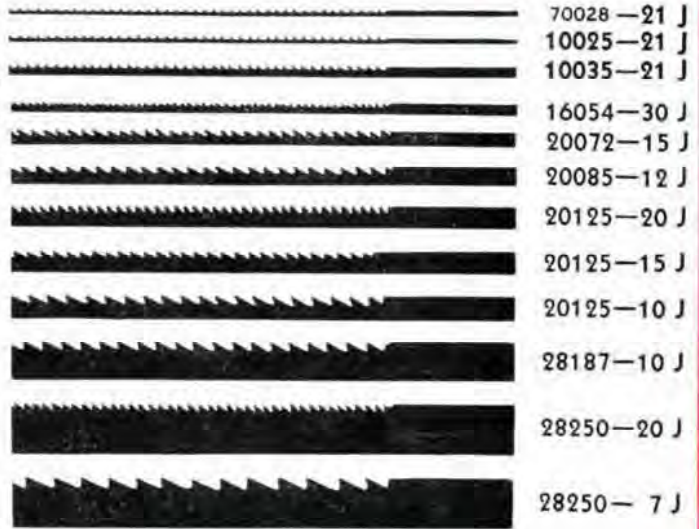
No. of Blade	Thickness & Width	No. Teeth per inch	Code Word	Price per Doz.	Price per Gross
No. 70028-21J	.007" x .028"	21	JIGSD	\$0.40	\$3.00
No. 10025-21J	.010" x .025"	21	JIGSB	.40	3.00
No. 10035-21J	.010" x .035"	21	JIGSC	.40	3.00
No. 16054-30J	.016" x .054"	30	JEWBA	.40	3.00
No. 16054-21J	.016" x .054"	21	JEWBL	.40	3.00
No. 20072-15J	.020" x .072"	15	JEWBB	.40	3.00
No. 20085-12J	.020" x .085"	12	JEWBC	.40	3.00
No. 20125-20J	.020" x .125"	20	JEWBD	.50	4.00
No. 20125-15J	.020" x .125"	15	JEWBE	.50	4.00
No. 20125-10J	.020" x .125"	10	JEWBF	.50	4.00
No. 28187-10J	.028" x .187"	10	JEWBG	.90	10.60
No. 28250-20J	.028" x .250"	20	JEWBH	1.00	11.25
No. 28250-7J	.028" x .250"	7	JEWBK	1.00	11.25

Approximate Weight 2 oz. per package.

Sabre Blades for Wood

No. of Blade	Thickness & Width	No. Teeth per inch	Code Word	Price per 1/2 Doz.
No. 703	.025" x .187"	9 per inch	SABLA	\$0.75
No. 704	.035" x .250"	7 per inch	SABLB	.75

Shipping Weight per package of six approximately 5 oz.



Close to 80 per cent of all scroll saw work, except the finer work in wood and metal, can be done with sabre blades, due to the fact that the free end is properly backed up and supported close to the point where the cutting strain takes place. Made of the best steel, accurately hardened and set. These blades are 4 1/2" long over all.



No. 712 Set of 6 individual guides for No. 700 scroll saw, with bracket for air-pump nozzle **\$1.35**
Shipping Weight 15 oz. Code Word SAGID.

Individual Guides

Where close following of a line or pattern is important, these new and practical guides will prove worth their cost many times over. They supplement the regular guide and holddown, and aid in producing perfect work. They are ideal for jig-saw puzzle work. The set consists of six hardened steel guides and a blower-nozzle bracket to replace the one supplied with the scroll saw.

No. 712 set, shown at left, fits No. 700 scroll saw. No. 1202 set, at right, fits No. 1200 saw.

No. 1202 Set of 6 individual guides for No. 1200 scroll saw, with bracket and bolt **\$1.55**
Shipping Weight 18 oz. Code Word LUXGA.



Machine Files for Scroll Saws



No. 726 (Square), 1/4" Shank. Code FILESA. Each **.55**
No. 727 (Crochet), 1/4" Shank. Code FILESB. Each **.55**
No. 728 (1/2-Rd.), 1/4" Shank. Code FILESC. Each **.55**
No. 729 (Round), 1/4" Shank. Code FILESD. Each **.55**
No. 730 (3-Sq.), 1/4" Shank. Code FILESE. Each **.55**
No. 731 (Pillar), 1/4" Shank. Code FILESF. Each **.55**

Approximate Shipping Weight 4 oz.

No. 740 Set of 8 Assorted Files, 1/4" Shank **\$3.00**
Shipping Weight 8 oz. Code Word FILEX.

No. 751 (1/2" Sq.), Code SAFIL. Ea. **.45**
No. 752 (Crochet), Code SAFIM. Ea. **.45**
No. 753 (1/2 Round), Code SAFIN. Ea. **.45**
No. 754 (Round), Code SAFIO. Ea. **.45**
No. 755 (3-Square), Code SAFIP. Ea. **.45**
No. 756 (Pillar), Code SAFIR. Ea. **.45**
No. 757 (Lozenge), Code SAFIS. Ea. **.45**
No. 758 (Knife), Code SAFIT. Ea. **.45**
Approximate Shipping Weight 3 oz.

No. 760 Set of 8 Assorted 1/2" Shank Files **\$3.25**
Shipping Weight 6 oz. Code Word SAFIV.

Unique Sanding Attachment

Built to sand both concave, convex or flat surfaces, this attachment saves hours of hand labor. It does away with the annoyance of makeshift devices using pieces of sandpaper. Knurled knob expands body of attachment, and tightens garnet sleeve securely. 1 1/2" wide, 1/2" thick and 2 1/4" long on body. Shank 1/4" diameter, fits lower chuck on both No. 700 and 1200 scroll saws.



No. 711 Sanding Attachment fits 24" Scroll Saw with 1" Sleeve **\$1.35**
Shipping Weight 8 oz. Code Word SANAT.

No. 841 Extra Garnet paper sleeves (medium). Code word SABLE. 1/2 doz. **.60**
Shipping Weight 6 oz. approx.

No. 842 Extra Garnet Paper Sleeves (Fine). Code word SASLM. 1/2 doz. **.60**
Shipping Weight 8 oz. approx.

Delta 11-inch Double-Duty Speed Lathe

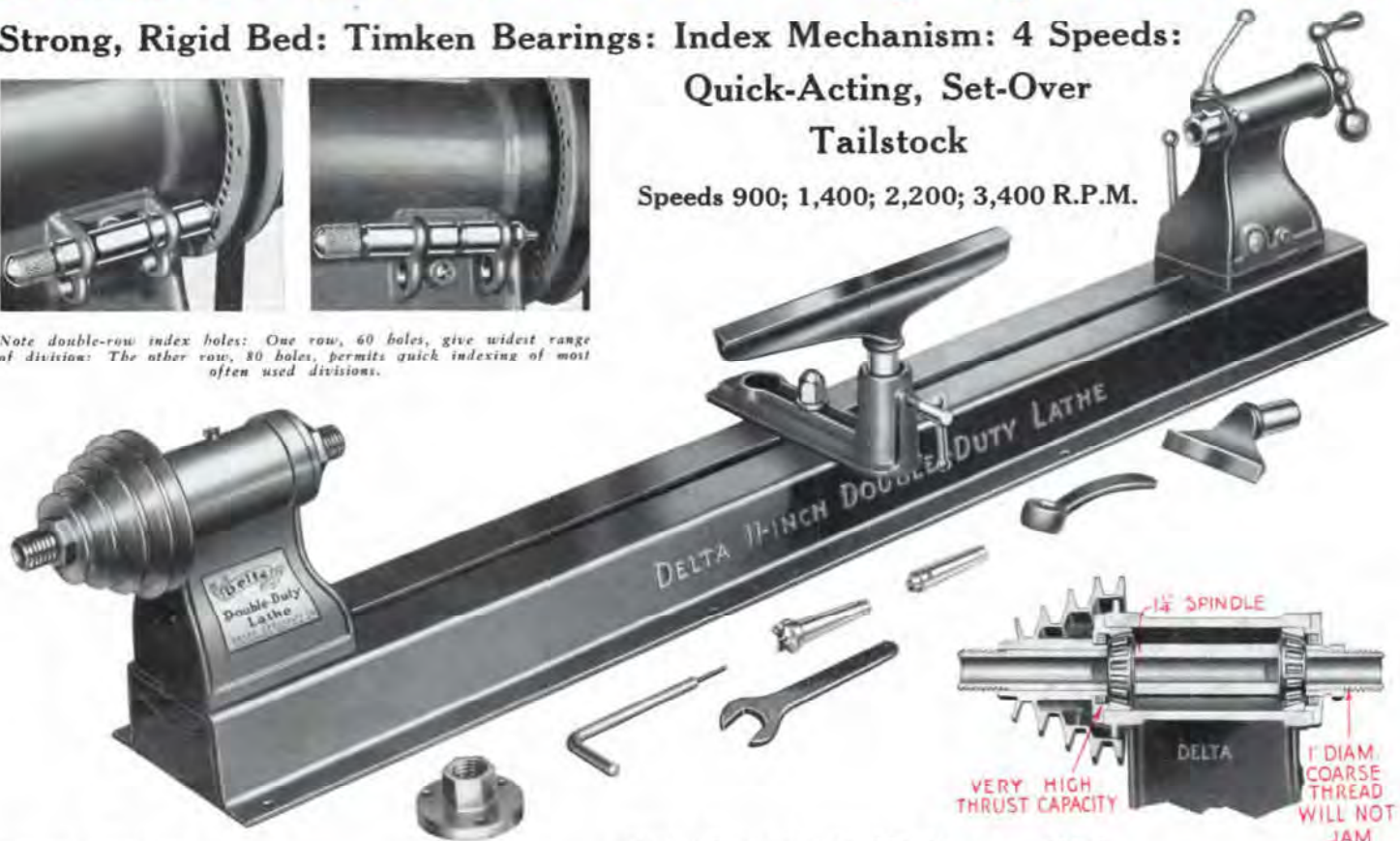
Strong, Rigid Bed: Timken Bearings: Index Mechanism: 4 Speeds:

Quick-Acting, Set-Over
Tailstock

Speeds 900; 1,400; 2,200; 3,400 R.P.M.



Note double-row index holes: One row, 60 holes, give widest range of divisions: The other row, 30 holes, permits quick indexing of most often used divisions.



56 1/2" Long; 12" High; 6 3/4" Wide

Offers Convenience, Dependability and Value

The Delta 11-Inch Lathe is a big lathe—not a toy. It will swing pieces 11" in diameter over the bed, and work 37" long can be turned between centers. The distance between centers can be increased at any time merely by adding another standard bed to the end. Work of practically unlimited diameter can be turned on the left-hand end of the headstock, using the No. 697 floor stand (see page 39) to hold the tool support.

Built like a modern steel bridge, the bed of the Delta lathe is formed from very heavy steel, with crosspieces of the same material welded in every 6 inches, thus producing a bed that is very rigid and free from spring.

The indexing mechanism on the headstock—originated by Delta—permits the ac-

curate division of work held between centers or on the faceplate. It is invaluable for fluting, reeding, etc., as well as for layout work.

Study the cross-section of the headstock shown above. Note the spindle, a full 1 1/4" diameter at the center and carried on heavy-duty Timken tapered-roller bearings—ideal for metal spinning due to their capacity for heavy end thrusts. The spindle has a 5/8" hole through the center, which is essential for repetition work, especially in metal.

The tailstock can be set over to align centers or for special jobs in taper turning. One movement of the tailstock lock lever loosens or tightens the tailstock to the bed. No. 2 Morse taper centers in both headstock and tailstock.



No wrenches required to move the Delta tailstock; a bandy ball-end lever locks and unlocks it.



Underside of Delta lathe bed. Crosspieces welded in every 6" makes it tremendously strong.



Note, at left, how quickly centers are changed due to the No. 2 Morse taper spindle nose. At right, graduations on tailstock sleeve.



No. 930 Delta "Double-Duty" 11-inch Four-Speed Lathe, Including 3" faceplate, special Allen wrench, faceplate wrench, taper shank spur center, taper shank cup center, tool support and tool-support base..... **\$28.85**
Shipping Weight 82 lbs. Code Word DUBLA.

No. 932 Four-Speed Pulley for motor (3/8" bore)..... **\$1.25**
Shipping Weight 2 lbs. Code Word DUBLO.

Note: This pulley can also be furnished in 5/8" and 3/4" bore.

No. 588 V-Belt, 25 5/8" center to center..... **\$1.10**
Shipping Weight 8 oz. Code Word FOBYC.

(1/2 H. P. motor drives this lathe: See page 44)

Unique Delta Double-Duty Lathe Units

No. 950 Four-Speed Lathe Unit

The Delta Double-Duty Lathe Unit is an ideal tool for all serious craftsmen. It is compact, portable, convenient and efficient, and is especially adaptable for industrial training classes, where its moderate price enables the installation of enough machines to accommodate the largest classes, at a fraction of the cost of a few larger machines. Speeds 900, 1,400, 2,200 and 3,400 R.P.M.

For general woodworking shops of all kinds no better machine has ever been offered. The unit consists of the No. 930 Double-Duty Lathe, mounted on No. 947 Lathe Stand. Legs are of heavy cast iron, with ledge for shelf under top. Bench top and motor shelf of clear fir, oiled and varnished. For this unit the No. 900 ½ H. P. Repulsion-Induction motor is recommended.



No. 950

No. 950 Lathe Unit includes:

- No. 930 Double Duty 11-in. Speed Lathe \$28.85
- No. 947 Lathe Stand with Legs and Bolts.... 19.85
- No. 588 V-Belt 1.10
- No. 932 Four-speed Motor Pulley (½ Bore)... 1.25

Total..... **\$51.05**

Ship. Weight 190 lbs. Code Word DUBUN.

No. 945 Lathe Legs only, (no Bolts) per pair..... **\$13.25**

Ship. Weight 65 lbs. Code Word DULEG.

No. 947 Lathe Stand complete with Legs, Top, Shelf and full set of bolts, ready for assembly **\$19.85**

Ship. Weight 110 lbs. Code Word DUSTA.

No. 854 switch rod used with this unit. See page 44 for prices of rods and motors.



No. 952

No. 952 Eight-Speed Lathe Unit

No. 952 Lathe Unit represents the most versatile unit ever offered at such a low price. Fitted with a countershaft and driven by No. 900 motor, eight speeds are available: 300, 450, 700, 900, 1,100, 1,400, 2,200 and 3,400 R.P.M. This means that the lathe is suitable for a wide range of work besides woodworking.

The slower speeds can be used not only for very heavy faceplate work, as in patternmaking, but, when the No.

952 slide rest is added, turns the lathe into a practical machine for light work in metal. Practically everything in the way of lathe work with the exception of screw cutting can be done on a lathe of this type. It will be found to perform as well as a standard toolroom lathe, due to its exceptionally rigid bed and accurate construction. Has setover tailstock for accurate alignment of centers.

No. 952 Lathe Unit Includes:

- No. 930 Double-Duty 11" Lathe \$28.85
- No. 947 Lathe Stand, complete 19.85
- No. 588 V-Belt 1.10
- No. 932 Four-Speed motor pulley, ½" bore..... 1.25

Shipping weight No. 928 countershaft only, 20 lbs. Code Word DUBCO.

Shipping weight, No. 952 Unit complete, 215 lbs. Code Word DUBUS.

For prices of stand and legs only, see No. 950 above. Use No. 900 motor and No. 854 switch rod. See page 44 for prices.

No. 928 Countershaft Unit, Including:

- Two No. 370 Hangers; One 5800 V-pulley, ½" bore; One 5600 V-pulley, ½" bore; One 5500 V-pulley, ¾" bore; One 5275 V-pulley, ½" bore; Two 374 collars; No. 378 countershaft and One 355 V-belt. With bolts **\$10.10**
- Total price of 952 Unit.... **\$61.15**

Delta Universal Chuck Fits Every Need of Small Lathe

Feet for Your Lathe

Used only for metal turning, to permit the chips to drop clear of the Bed. Not necessary for wood turning.

When feet are used, V-belt No. 618 is required from motor to lathe.

No. 961 Set of four Lathe Feet.... **\$1.75**
Ship. Wt. 9 lbs. Code Wd. DUBFE.

No. 618 V-belt..... **\$1.30**
Ship. Wt. 10 oz. Code Wd. BELTL.



Universal chucks, in which the jaws move in and out simultaneously through the use of one key, and which are self-centering have heretofore been so high-priced as to be beyond the reach of most craftsmen. The Delta No. 957 Universal Chuck is a very high-grade tool, with heavy cast-iron body and two sets of hardened-steel jaws, precision fitted and equal in every way to chucks costing much more.

No. 957 is fitted with back plate to fit No. 930 Delta Lathe only. If wanted for other

lathes, order Universal Chuck No. 963, without back plate, and separate back plate No. 964. This back plate must be machined to fit your lathe and to insure true running of the chuck. Chuck is 4" diameter. Maximum capacity 4".



No. 957 Three-Jaw Universal Chuck, with inside and outside hardened-steel jaws, wrench and back plate threaded to fit No. 930 lathe, but not turned on rim. **\$12.45**
Shipping Weight 8 lbs. Code Word NECHU.

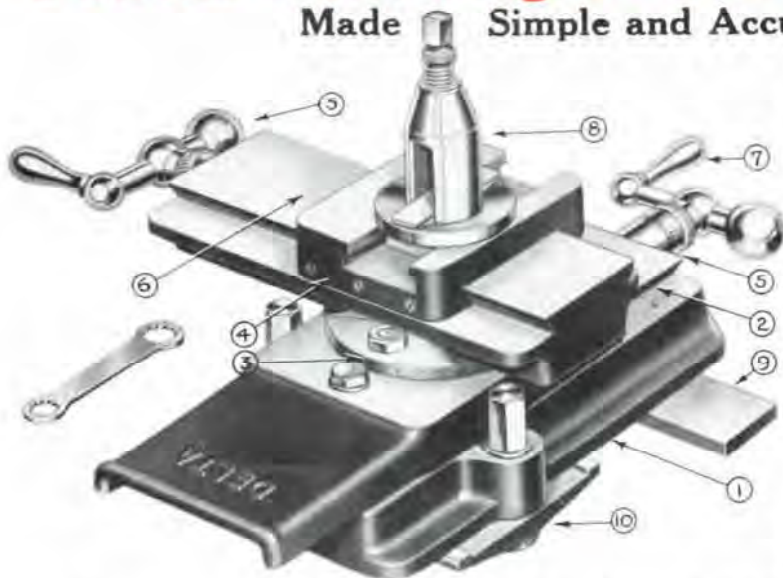
No. 963 Universal Chuck, as above, but without back plate... **\$10.95**
Shipping Weight 6 lbs. Code Word CHUNP.

No. 964 Back Plate, not machined, for No. 963 Chuck..... **\$.60**
Shipping Weight 2 lbs. Code Word CHUPL.

[Please Order by Catalog Number to Avoid Mistakes and Delay]

Metal Turning on Your Own 11-in. Lathe

Made Simple and Accurate With Delta Slide Rest



Here is a slide rest that will enable you to do dozens of metal-turning jobs right on your own 11" lathe, jobs that otherwise would require an expensive toolroom speed lathe. Metal parts for your projects, metal novelties, models of all kinds, household repairs—a thousand and one jobs of metal working can be done with this slide rest.

Dozens of industrial shops, too, are finding that this husky, accurate slide rest is just the tool for special tools, and it is used for all kinds of jobs, from armature commutator truing to the finest work on precision constant-speed motors for motion-picture cameras.

It should be used only with the No. 952 lathe unit, or any lathe similarly equipped to provide speeds down to 275 r.p.m. Ordinary wood-turning lathe speeds are too high for metal work. Specifications are given below:



1. Very heavy, rigid and accurate cast-iron base.
2. Accurately machined dovetail ways for transverse slide, fitted with adjustable gib and with long chip guard at rear. Accurately milled Acme screw. Transverse feed $4\frac{1}{2}$ ".
3. Compound-slide base revolves through 360 degrees and is accurately graduated. Fastened to cross slide by two screws, swivel cannot possibly spring.
4. Compound slide fitted on dovetail ways with adjustable gib. Front slide has extra wide surface to take tool pressure. Longitudinal feed 5".
5. Micrometer sleeves, accurately graduated, on both feed screws. Each graduation equals .001". Sleeves are friction fit for quick setting.
6. Large ball-crank handles for operating feed screws.
7. Longitudinal feed screw completely covered to guard from dirt and chips. Convenient flat top surface.
8. American-style toolpost; most convenient for all-around use. Hardened steel screw with knurled collar for quick adjustment. Opening in toolholder $\frac{1}{2} \times 1\frac{1}{8}$ ".
9. Alignment bar on front of slide rest can be set to make rest positively and permanently parallel to lathe centers.
10. Heavy clamp, with two screws, to fasten rest to lathe bed. No chance to spring either lathe or rest.

No. 965 Delta Compound Slide Rest, with tool post, rocker washer & wrench, but without tool holder or tools..... **\$17.85**
Shipping weight 33 lbs. Code word DURST.

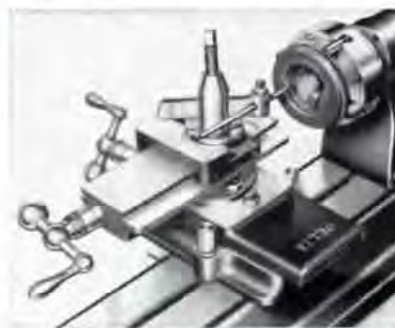
Toolholders, Boring Bars and Bits for Delta Slide Rest

The Delta Boring Bar Holder is a combination tool that will be found a marvel of

convenience, neat in appearance and compact in design. It holds boring bars rigidly and safe from slipping. Holes for bars are square and V-notched, to take both round bars and standard $\frac{1}{4}$ " tool bits. The two positions in which bars and bits can be placed enable the holder to be used on jobs for which the ordinary toolholder is awkward. Made of steel, case hardened in colors, with hardened-steel screw.

The Delta Straight Toolholder will be found ideal for

the man who uses his lathe for hobby work only.



No. 962 Delta Boring Bar Holder, with set of three bars: $\frac{1}{8}$ ", $\frac{3}{16}$ " and $\frac{1}{4}$ "..... **\$2.60**
Shipping Weight 12 oz. Code Word DUEBO.

No. T-100-A Boring Bar Holder only	1.75
No. T-110 $\frac{1}{8}$ " Boring Bar25
No. T-111 $\frac{3}{16}$ " Boring Bar30
No. T-112 $\frac{1}{4}$ " Boring Bar45

No. 966 Set of three boring bars; one each T-110, T-111 and T-112 **\$1.00**
Shipping Weight 8 oz. Code Word DUBOR.

No. 953 Delta Straight Toolholder and set of four ground tool bits **\$1.65**
Shipping Weight 1 lb. Code Word DUBTH.

No. T-120-S Straight Toolholder only75
No. T-122 Roughing Tool Bit25
No. T-123 Finishing Tool Bit25
No. T-124 Right-Corner Tool Bit25
No. T-125 Left-Corner Tool Bit25

No. 954 Set of four tool bits: One each T-122, T-123, T-124 and T-125 **\$1.00**
Shipping Weight 4 oz. Code Word DUBIT.

No. 955—9" Timken-Bearing Lathe

The Delta 9" lathe offers real value to the man who wants to equip his shop at the lowest cost consistent with the purchase

of quality tools. Built to the same standards of accuracy and construction as the 11" lathe, the No. 955 offers husky Timken tapered-roller bearings in the headstock, with the Delta index mechanism. Arbor extensions on each end of spindle are $\frac{1}{2}$ " diameter, enabling many standard accessories to be used. Tailstock in screw-feed, with ball crank and quill lock. Bed and tool rest are similar to No. 930 lathe. Speeds: 900, 1400, 2200 and 3400 r.p.m. Swings work 9" diameter over bed and 27" between centers.

No. 955 Delta 9-inch Four-Speed Timken Bearing Lathe, including 3" faceplate, spur center, cup center, 12" tool-support, tool-support wrench and special Allen wrench, as shown. 4" tool support and tool support base **\$19.85**
Shipping Weight 70 lbs. Code Word NEWLA.

No. 932 Four-speed Motor Pulley ($\frac{1}{2}$ " Bore) **1.25**
Shipping Weight 3 lbs. Code Word DUBLC.

No. 568 V-belt, 24 $\frac{1}{2}$ " center to center **1.00**
Shipping Weight 10 oz. Code Word FORVD.

No. 960 9-inch Four-speed Lathe Unit, including No. 955 Lathe, No. 947 Lathe Stand, No. 932 four-speed pulley, $\frac{1}{2}$ " Bore and No. 568 V-belt, similar to No. 950 unit shown on page 37 **\$41.95**
Shipping Weight 185 lbs. Code Word NEWUN.



Use No. 100 or 900 motor, and No. 854 switch rod when lathe stand is used.

See page 40 for accessories.

Delta 11-inch Lathe Accessories

No. 163 3" by 3" sanding drum with No. 2 Morse taper shank to fit 11-inch Lathe. The combination of the patented Delta sanding-drum construction with the taper shank makes an exceptionally true-running drum. (U. S. Pat. No. 1,906,190)..... **\$2.50**



Shipping Weight 2½ lbs. Code Word SATAP.

See page 41 for sleeves.

No. 164 1¼" by 2" sanding drum, with No. 2 Morse taper shank to fit 11-inch Lathe. Same construction as No. 163. Fits any lathe with No. 2 Morse taper hole in spindle. (U. S. Pat. No. 1,906,190)..... **\$1.85**



See page 41 for sleeves. Shipping Weight 1¼ lbs. Code Word SATAG.

No. 165 Grinding wheel arbor with No. 2 Morse taper shank. Holds all grinding wheels up to ¾" thickness with ½" hole as well as buffing wheels, wire brushes, etc. See page 40. A very high grade arbor..... **\$1.10**



Shipping Weight 1 lb. Code Word ARTAP.

No. 166 Delta-Grip Chuck with No. 2 Morse taper shank to fit headstock or tailstock of 11-inch Lathe. Invaluable for drilling in lathe. Holds drills up to ½"..... **\$3.25**



Shipping Weight 2½ lbs. Code Word CHTAP.

No. 695 Right-angle tool support. Fits both 9-inch and 11-inch Lathes. Has 1" diameter shank to fit No. 696 and No. 941 bases, and 697 floor stand. Extremely useful for faceplate work.. **\$1.50**



Shipping Weight 3 lbs. Code Word TOSRA.

No. 933 Drive Center for 11-inch Lathe. With No. 2 Morse taper shank. Has replaceable center pin and four accurately milled teeth. Can be used on any lathe with No. 2 Morse taper hole in headstock spindle **\$.90**



Shipping Weight 10 oz. Code Word DUBLD.

No. 934 Cup center for 11-inch Lathe. With No. 2 Morse taper shank. Has replaceable center pin. Hardened and polished. Fits any tailstock with No. 2 Morse taper hole **\$.90**



Shipping Weight 10 oz. Code Word DUBLE.

No. 935 Adapter for 11-inch Lathe. Has No. 2 Morse taper shank on one end with ½" diameter on the other. Enables all lathe attachments with ½" bore to be used on 11-inch Lathe..... **\$.80**



Shipping Weight 10 oz. Code Word DUBLE.

No. 936 3" Faceplate for 11-inch Lathe. 3" in diameter for small and medium faceplate work. Faced true and provided with four screw holes. Threaded to fit headstock spindle of No. 930 Lathe. R. H. thread only.... **\$.95**



Shipping Weight 1 lb. Code Word DUBLG.

No. 937 6" Faceplate for 11-inch Lathe. 6" in diameter for large faceplate work. Has special form of thread so it can be used either on front or rear of lathe spindle; fits both right and left-hand thread... **\$2.10**



Shipping Weight 3 lbs. Code Word DUBLE.

No. 938 Hand wheel for 11-inch Lathe. 5" in diameter, fits left-hand end of lathe spindle (left-hand thread only). Useful for quick stopping of lathe, for indexing, etc. Most professional woodturners prefer a hand wheel on their lathes..... **\$1.85**



Shipping Weight 1½ lbs. Code Word DUBLI.

No. 941 Tool-support base for 11-inch Lathe only. Note that this base is higher than the No. 696, shown on page 40, and that it will not fit the 9-inch Lathe. V-shaped hole for ½" to 1" shank. Clamp-plate spring, washers and nut included. 3½" high..... **\$1.00**



Shipping Weight 4½ lbs. Code Word DUBLE.

No. 951 Sanding disk for 11-inch Lathe. 8½" in diameter, and threaded to fit headstock spindle of No. 930 Lathe only. Will not fit 9-inch Lathe. With one garnet disk. R. H. thread only.... **\$2.25**



Shipping Weight 2¼ lbs. Code Word DUBLM.

No. 939 60-degree plain center for metal turning. With No. 2 Morse taper shank for 11-inch Lathe only. Hardened and ground..... **\$.90**



Shipping Weight 12 oz. Code Word DUBLD.

No. 940 Screw center, with No. 2 Morse taper shank for 11-inch Lathe only. Has replaceable center screw, No. 14, 1½" long..... **\$1.00**



Shipping Weight 14 oz. Code Word DURLJ.

No. 943 Delta 4-jaw Independent Chuck. Very heavy and sturdy cast-iron body with hardened-steel jaws. A very high-grade chuck at a reasonable cost. Chuck diameter 4". Maximum capacity 4½". Each jaw independently adjustable to hold work of almost any shape. With back plate to fit No. 930 lathe spindle..... **\$6.25**



Shipping Weight 6 lbs. Code Word DECHU.
Without Back Plate.....\$4.75

No. 948 Steady rest for 11-inch Lathe. Prevents spring and vibration of long and slender work. Indispensable for slender turnings. Takes work up to 2¼" diameter. Heavy, well-designed cast-iron body, wide steel shoes... **\$3.25**



Shipping Weight 7 lbs. Code Word DUBRE.

No. 697 Floor stand for tool supports, for turning faceplate work on left end of spindle. Very heavy cast tripod legs, heavy pipe support and cast tool-support socket. Fits No. 690, 692 and 695 tool supports. Invaluable for large-diameter faceplate work. Knocked down... **\$8.25**

Shipping Weight 44 lbs. Code Word TOSTA.

(Can be used on both 9" and 11" Lathes)



No. 968 Geared chuck with No. 2 Morse taper shank to fit headstock or tailstock of No. 930 lathe or any No. 2 Morse taper socket. ½" capacity, knurled sleeve. With key. **\$6.75**



Ship. Wt. 2½ lbs.
Code Word
CHGEA.

[Please Order by Catalog Number to Avoid Mistakes and Delay]

Turning Tools and 9-in. Lathe Accessories

Alloy Steel Woodturning Tools

Delta wood-turning tools are made of very high-grade Alloy Steel, which will not lose its edge even if the tools become so hot that they turn blue. They are sharpened ready for use. They are fitted with extra-long hardwood handles (1 1/4" diameter x 10 1/2" long). The overall length of each tool is approximately 15". They should not be confused with ordinary carbon-steel tools, as they are superior in every way.

No. 121	1" Skew Chisel. Code word SKEER	\$1.35	No. 125	3/4" Parting Tool. Code word PARTO	\$.80
No. 122	3/4" Gouge. Code word GOUGU	1.35	No. 126	1/2" Gouge. Code word GOUGO	1.00
No. 123	1/4" Gouge. Code word GOUSA	.90	No. 127	3/4" Spear Point. Code word SPEAR	.80
No. 124	3/4" Skew Chisel. Code word SKEWO	.80	No. 128	1/2" Round-Nose. Code word RONOS	.85

Shipping Weight 1 1/4 lbs. each.

No. 130 Set of Eight Turning Tools, styles and sizes as above... **7.50**
Shipping Weight 6 lbs. Code Word TOSET.

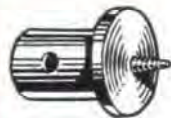


3/4" Gouge 3/4" Skew 3/4" Spear 3/4" Gouge 3/4" Parting Rd. Nose 3/4" Gouge 3/4" Skew



For small and large face plate work, fits any 1/2" dia. shaft. With 2 Allen set screws.

No. 143 3" face plate... **\$.70**
Shipping Wt. 14 oz. Code Word FACEO.



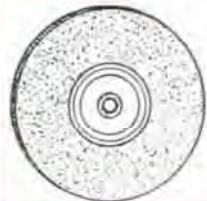
Excellent for turning small delicate work. Fits any 1/2" dia. shaft, 1 1/2" dia. body.

No. 140 Screw center plate... **\$.80**
Shipping Wt. 12 oz. Code Word SCREC.



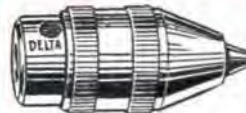
Special Allen extension wrench. Fits only 3/8" dia. Allen hollow head set screws. 6" long, 2 1/2" wide.

No. 192 Special Allen wrench. **\$.25**
Shipping Wt. 8 oz. Code Word AWREN.



High quality fast-cutting grinding wheel, 5" dia. by 1/2" wide. Grit 60. Has 1/2" dia. hole to fit No. 118 and No. 165 grinding-wheel arbors.

No. 111 5" emery wheel... **\$1.25**
Ship. Wt. 1 1/4 lbs. Code Word GRIND.



New high-grade and accurately made chuck. Holds drill up to 1/2" dia. (Yes, even 33/64").

No. 120 1/2" Drill chuck... **\$1.45**
Ship. Wt. 1 1/4 lbs. Code Word CHUKO.



Buffing wheel, for polishing plated parts and cleaning and buffing metal parts of all kinds. Consists of two sections. 6" dia., with 1/2" hole to fit arbor.

No. 113 6" buffing wheel... **\$.50**
Ship. Wt. 8 oz. Code Word BUFFO.



High-grade drive center for lathe. Has replaceable center pin and four accurately milled teeth. Fits any 1/2" dia. shaft.

No. 138 Drive center... **\$.80**
Ship. Wt. 8 oz. Code Word SPURO.



Hardened and well-made cup center, for tail stock of lathe. Center pin is replaceable. Fits any 1/2" tail stock spindle.

No. 141 Cup center... **\$.70**
Ship. Wt. 8 oz. Code Word CUPPO.



Wire wheel for scrubbing rust from metal, removing burrs from metal parts, etc. Consists of two sections, 6" dia., with 1/2" hole to fit arbor. Coarse only.

No. 116 6" wire wheel... **\$1.50**
Ship. Wt. 1 lb. Code Word WIRRO.



Tool-support base; has V-shaped hole for 1/2" to 1" shanks. Clamp plate spring, washer, bolt and nut also included. For 9" Lathe only.

No. 696 Tool support base... **\$1.00**
Ship. Wt. 4 lbs. Code Word TOSUB



Rugged and strong arbor to carry grinding wheels, buffing wheel, wire brushes, etc. Flanges trued to compel wheels to run true sidewise. Fits any 1/2" dia. shaft.

No. 118 Grinding wheel arbor... **\$.75**
Ship. Wt. 1 lb. Code Word ARBOR.



Narrow tool support. Has 1" diameter shank to fit No. 696 and No. 941 bases. Very strong and well made. No interference with hands or tools when turning.

No. 690 4" Tool support... **\$.70**
Ship. Wt. 1 1/4 lbs. Code Word TOSUP.



Wide tool support. Is 12" wide and has 1" dia. shank to fit No. 696 and No. 941 bases.

No. 692 12" Tool support.. **\$1.10**
Ship. Wt. 3 lbs. Code Word TOSUM.



No. 958 Steady rest for 9-inch Lathe only. Prevents spring and vibration of long stock. Very heavy and rugged cast-iron base, with sliding arms of steel. Complete with clamp, stud, etc.

\$3.25
Ship. Wt. 6 lbs. Code Word NEWRS.

Extra-wide tool support for long turnings. 24" wide, and has two 1" dia. shanks. Requires extra base. No. 696 or No. 941 to suit lathe.

No. 694 24" Tool support... **\$2.05**



Ship. Wt. 7 lbs. Code Word TOSUL.

Delta Sanding Drums and Accessories

Patented Rubber-Cushion Sanding Drums

The Delta Rubber-Cushion Sanding Drum (U. S. Pat. No. 1,906,190) employs an entirely new principle, which insures that every part of the drum is evenly expanded. Many sanding drums expand more at the center than at the ends, which means that perfectly flat work cannot be produced with them. Others, have fastening arrangements for the sandpaper which "bump" every time the fastening passes the work.

separated from its neighbor by non-corrosive bakelite washers, with metal bushings next to the arbor. The solid-rubber disks afford an extremely large cushioning area, and as they are expanded perfectly uniformly, they produce perfect work, and run absolutely true. No. 840 drum has $\frac{1}{2}$ " diameter stem to fit into $\frac{1}{2}$ " hollow spindle or drill chuck. Others have $\frac{1}{2}$ " bore.

See page 39 for drums with taper shank to fit No. 930 11" Lathe.



No. 830	3" diam. x 3" long Sanding Drum with one sleeve. Fits any $\frac{1}{2}$ " dia. spindle Shipping Weight 2 lbs. Code Word SADRA.	\$2.50
No. 831	6 extra 3" x 3" sleeves (coarse garnet). Code Word SASLA, per $\frac{1}{2}$ doz.	\$0.85
No. 832	6 extra 3" x 3" sleeves (medium garnet). Code Word SASLB, per $\frac{1}{2}$ doz.	.85
No. 833	6 extra 3" x 3" sleeves (aluminum oxide; for metal). Code Word SASLC, per $\frac{1}{2}$ doz.	1.00
No. 835	1 $\frac{3}{4}$ " diam. x 2" long Sanding Drum with one sleeve. Fits any $\frac{1}{2}$ " diam. spindle Shipping Weight 1 $\frac{1}{4}$ lbs. Code Word SADRB.	\$1.60
No. 836	6 extra 1 $\frac{3}{4}$ " x 2" Sleeves (medium garnet). Code Word SASLE, per $\frac{1}{2}$ doz.	\$0.70
No. 837	6 extra 1 $\frac{3}{4}$ " x 2" Sleeves (fine garnet). Code Word SASLF, per $\frac{1}{2}$ doz.	.70
No. 838	6 extra 1 $\frac{3}{4}$ " x 2" Sleeves (aluminum oxide; for metal). Code Word SASLG, per $\frac{1}{2}$ doz.	.85
No. 840	1 $\frac{1}{2}$ " diam. x 2 $\frac{1}{2}$ " Sanding Drum with one sleeve. Has $\frac{1}{2}$ " diam. shank. Fits into $\frac{1}{2}$ " hollow spindle or $\frac{1}{2}$ " chuck. Shipping Weight 8 oz. Code Word SADRC.	\$1.25
No. 841	6 extra $\frac{1}{4}$ " x 2 $\frac{1}{2}$ " Sleeves (medium garnet). Code SASLK, per $\frac{1}{2}$ doz.	.60
No. 842	6 extra $\frac{1}{4}$ " x 2 $\frac{1}{2}$ " Sleeves (fine garnet). Code SASLM, per $\frac{1}{2}$ doz.	.60
No. 847	6 extra $\frac{1}{4}$ " x 2 $\frac{1}{2}$ " Sleeves (aluminum oxide; for metal). Code SASLO, per $\frac{1}{2}$ doz.	.75

NOTE: Shipping weight of packages of 6 sleeves approximately 6 oz.

Sanding Disk and Sanding Table



The new Delta Sanding Disk and Table forms one of the most useful tools in the craftsman's workshop. The improved table offers perfect support for the work being finished, and it is absolutely solid and free from spring, due to the support front and rear. The table is graduated to show the angle of tilt, and raises and lowers to suit the work.

Table has $\frac{1}{2}$ " grooves to suit No. 180 Delta Miter Gage, for sanding plain and compound miters. It may also be used for boring and routing work. Fits any Delta lathe bed.

No. 347	5" x 12" Sanding and Boring Table only, without disk, miter gage, headstock or bed. Shipping Weight 15 lbs. Code Word DESAT.	\$5.25
No. 956	Four-speed 9-inch lathe headstock only, with $\frac{1}{2}$ " shafts Shipping Weight 18 lbs. Code Word NEWHE.	7.85
No. 932	Four-step motor pulley, $\frac{1}{2}$ " bore Shipping Weight 3 lbs. Code Word DUBLC.	1.25
No. 946	Short U-Bed for Headstock, 19" long. Shipping Weight 15 lbs. Code Word DUBSB.	3.00
No. 151	8 $\frac{1}{2}$ " Sanding Disk, fits any $\frac{1}{2}$ " shaft, with one disk. Shipping Weight 2 $\frac{1}{4}$ lbs. Code Word DISSA.	2.10
No. 155	Coarse Garnet-Paper Disks, 8 $\frac{3}{4}$ " diam. Shipped in package of 12 Shipping Weight 1 $\frac{1}{4}$ lbs. Code Word DISGA.	1.20
No. 157	Fine Garnet Disks (No. 0). Shipped in packages of 12 only Shipping Weight 1 $\frac{3}{4}$ lbs. Code Word DISGB.	1.20
No. 149	Delta "Distie" for applying disks, per stick. Shipping Weight 1 lb. Code Word DISIC.	.60
No. 180	Miter-Gage with graduated head and stop rods, $\frac{3}{8}$ " x $\frac{1}{2}$ " bar to fit No. 347 sanding table. Shipping Weight 2 lbs. Code Word DELMI.	1.25

Band-Saw Sanding Attachment

The Delta band-saw sanding attachment eliminates the tedious hand labor of finishing the edges of scroll and band-saw work.

Instead, you merely pass the edges of the work across a rapidly running sanding belt and work is finished smooth in a fraction of time required for hand sanding. Attachment consists of a belt $\frac{1}{2}$ " wide and of same length as the regular 10" bandsaw blade. This runs in a special guide which replaces the regular blade guides; two guides are furnished—one for flat and one for curved work.

With this attachment sanding of scrolled work becomes as easy and as fast as sawing. The properties of the modern garnet sanding belt are such that it is actually a cutting tool.

NOTE: This attachment is at present furnished for 10-inch Band Saw only.



No. 782	Sanding Attachment for 10" band saw, consisting of 2 guides, guide bracket and 60" garnet belt. Shipping Weight 14 oz. Code Word BELRA.	\$2.00
No. 783	Fine garnet band, 66" long, for 10-inch band saw, per $\frac{1}{2}$ doz. Shipping Weight 8 oz. Code Word BANTF.	1.25
No. 784	Medium Garnet Band, 66" long for 10-inch band saw, per $\frac{1}{2}$ doz. Shipping Weight 8 oz. Code Word BANTM.	1.25

[Please Order by Catalog Number to Avoid Mistakes and Delay]

Pulleys and Line Shaft Equipment

Delta V-Pulleys

Delta V-Pulleys are designed for belts measuring $\frac{1}{2}$ " wide, $\frac{11}{16}$ " thick and angle of 38° . The width, angle and general shape are all scientifically designed, and the result of many years' experience with V-Belt Drives. All are of the Safety Disk Type—no spokes—and can be had with $\frac{1}{2}$ ", $\frac{5}{8}$ " or $\frac{3}{4}$ " bores. $\frac{5}{8}$ " and $\frac{3}{4}$ " bores have $\frac{1}{8}$ " keyway. All have $\frac{1}{8}$ " hollow-head set-screw. These are not ordinary stamped pulleys. They run true and are balanced perfectly. $\frac{1}{2}$ " bore furnished unless otherwise specified.

Cat. No.	Out-Side Diam.	Code Word	Price Each
5200	2"	PULO A	.35
5225	2 $\frac{1}{4}$ "	PULO B	.40
5250	2 $\frac{1}{2}$ "	PULO C	.45
5275	2 $\frac{3}{4}$ "	PULO D	.45
5300	3"	PULO E	.50
5350	3 $\frac{1}{2}$ "	PULO F	.55
5400	4"	PULO G	.55
5500	5"	PULO H	.75
5600	6"	PULO J	.90
5700	7"	PULO L	1.20
5800	8"	PULO K	1.50
6100	10"	PULO M	2.00
6200	12"	PULO N	2.75



Please note that Nos. 6100 and 6200 V-Pulleys can be furnished in $\frac{1}{2}$ " bore only. All other sizes can be furnished in $\frac{1}{2}$ ", $\frac{5}{8}$ " and $\frac{3}{4}$ " bores. For boring to other sizes, up to 1" add 25c to catalog price.

Delta Cone Pulleys



Useful for a wide variety of power drives. Numbers 718 and 720 can be used in any combination with each other. Two No. 718 pulleys used together provide speeds of 900, 1500, 2200 and 3450 R.P.M. Two No. 720 pulleys used together provide 1200, 1545, 1980 and 2575 R.P.M. A No. 718 and a No. 720 pulley used together provide the following ranges: 650, 1000, 1300, 1750 R.P.M. or 1750, 2400, 3400, 5000 R.P.M., depending upon which pulley is used as the driver. No. 932 cone pulley should be used only paired with another 932, and will provide speeds of 900, 1400, 2200 and 3400 R.P.M. All speeds figured for 1750 R.P.M. motor. Two No. 985 pulleys, paired, furnish 590, 1275, 2450 and 5000 R.P.M.

All cone pulleys supplied in $\frac{1}{2}$ ", $\frac{5}{8}$ " and $\frac{3}{4}$ " bores. $\frac{1}{2}$ " furnished unless otherwise specified.

- No. 718** Four-step cone pulley (small).....each \$.75
Shipping Weight $1\frac{1}{4}$ lbs. Code Word CONPA.
- No. 720** Four-step cone pulley (large).....each \$1.10
Shipping Weight $1\frac{3}{4}$ lbs. Code Word CONPB.
- No. 932** Four-speed cone pulley.....each \$1.25
Shipping Weight $2\frac{1}{2}$ lbs. Code Word DUBLC.
- No. 985** Four-speed cone pulley.....each \$1.30
Shipping Weight $2\frac{1}{2}$ lbs. Code Word NEWPU.

Delta V-Belts



The finest and most satisfactory V-Belts obtainable. Moulded into one endless piece—no lacings or joints to hammer pulleys. Easily and quickly slipped on pulleys. Ideal for short-center drives. Transmit an unusually large amount of power, and are capable of very high speeds. Run with very little tension.

Cat. No.	Inside Circumference	Width	Thickness	Angle	Code Word	Price Each
284	28 $\frac{1}{4}$ "	$\frac{1}{2}$ "	$\frac{11}{16}$ "	38°	BELTA	.75
340	34"	$\frac{1}{2}$ "	$\frac{11}{16}$ "	38°	BELUX	.80
355	35 $\frac{1}{4}$ "	$\frac{1}{2}$ "	$\frac{11}{16}$ "	38°	FORVB	.80
387	38 $\frac{5}{8}$ "	$\frac{1}{2}$ "	$\frac{11}{16}$ "	38°	FORDP	.85
410	41"	$\frac{1}{2}$ "	$\frac{11}{16}$ "	38°	BELTB	.85
430	43"	$\frac{1}{2}$ "	$\frac{11}{16}$ "	38°	FORSL	.90
453	45 $\frac{1}{4}$ "	$\frac{1}{2}$ "	$\frac{11}{16}$ "	38°	MORBL	.90
510	51"	$\frac{1}{2}$ "	$\frac{11}{16}$ "	38°	JOIVE	1.00
560	56"	$\frac{1}{2}$ "	$\frac{11}{16}$ "	38°	EICVB	1.00
568	56 $\frac{3}{4}$ "	$\frac{1}{2}$ "	$\frac{11}{16}$ "	38°	FORVD	1.00
583	58 $\frac{1}{4}$ "	$\frac{1}{2}$ "	$\frac{11}{16}$ "	38°	FORBL	1.10
588	58 $\frac{3}{4}$ "	$\frac{1}{2}$ "	$\frac{11}{16}$ "	38°	FORVC	1.10
595	59 $\frac{1}{2}$ "	$\frac{1}{2}$ "	$\frac{11}{16}$ "	38°	BABEL	1.25
618	61"	$\frac{1}{2}$ "	$\frac{11}{16}$ "	38°	BELTL	1.25
670	67"	$\frac{1}{2}$ "	$\frac{11}{16}$ "	38°	BELTU	1.30
*673	72 $\frac{1}{4}$ "	$\frac{1}{2}$ "	$\frac{11}{16}$ "	38°	PREBL	1.00
750	75"	$\frac{1}{2}$ "	$\frac{11}{16}$ "	38°	JOBAS	1.85

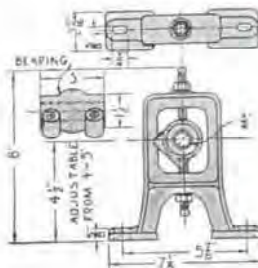
* This belt only $\frac{1}{8}$ " wide.

Self-Aligning Hangers for $\frac{3}{4}$ " Shafting



This sturdy, practical Line Shaft Hanger is one of the finest ever produced. It is self-aligning in every direction, and is adjustable up and down from 4" to 5" height. Once properly adjusted it will give years of quiet, trouble-free service. Oil wells hold a supply of lubricant sufficient for many weeks of operation. Made for $\frac{3}{4}$ " shafting only.

- No. 370** Line-Shaft Hanger, as shown on left \$2.25
Shipping Wt. 8 lbs. Code Word LIHAN.



Flexible Couplings

Flexible couplings are necessary where motors are connected directly to the end of line shafts or to the shafts of machines, without the use of pulleys and belts. One side of the new Delta Flexible Coupling is bored $\frac{3}{4}$ " to suit line shaft. The other side may be bored $\frac{1}{2}$ ", $\frac{5}{8}$ " or $\frac{3}{4}$ ". Be sure to specify size wanted. $\frac{3}{4}$ " bore furnished unless otherwise specified.



- No. 379** Flexible Coupling, as shown, each \$1.00
Shipping Weight $1\frac{1}{4}$ lbs. Code Word LICOP.

$\frac{3}{4}$ " Line Shafting

Ground and polished to precision limits, this accurate shafting must not be confused with the cheap cold-rolled shafting sometimes offered. Carried in stock in 1', 2', 3', 4', 5', 6', 8' and 10' length. Net weight per foot $1\frac{1}{2}$ lbs.

- No. 372** $\frac{3}{4}$ " Ground Line Shafting, per foot \$0.30
Ship. Wt. per ft. $2\frac{1}{2}$ lbs.
Code Word LISHA.

Speed Table

This table will enable you to select the proper pulleys for the approximate speeds listed. Machine pulley speeds are based on a motor speed of 1735 R.P.M.

Mot. Pulley Size, in.	Pulley on Machine: Size, in.												
	2	2 $\frac{1}{4}$	2 $\frac{1}{2}$	2 $\frac{3}{4}$	3	3 $\frac{1}{4}$	4	5	6	7	8	10	12
2	1725	1498	1325	1187	1075	905	781	614	505	425	371	295	242
2 $\frac{1}{4}$	1828	1725	1525	1360	1235	1040	897	684	577	490	426	327	262
2 $\frac{1}{2}$	2120	1875	1725	1542	1402	1180	1019	794	655	556	483	372	319
2 $\frac{3}{4}$	2330	2120	1880	1725	1562	1317	1148	887	732	624	542	416	356
3	2550	2260	2040	1860	1725	1452	1252	980	807	685	596	458	392
3 $\frac{1}{4}$	2990	2650	2380	2165	1985	1725	1489	1162	958	815	708	543	466
4	3800	3300	2920	2605	2360	2000	1725	1345	1100	940	820	650	540
5	4875	4230	3750	3350	3040	2580	2205	1725	1425	1210	1050	835	695
6	5900	5140	4550	4060	3700	3105	2680	2095	1725	1480	1250	1010	840
7	6950	6050	5340	4775	4350	3650	3160	2460	2025	1725	1500	1190	990
8	8000	6950	6150	5490	5000	4200	3600	2825	2320	1985	1725	1350	1135
10	10000	8750	7750	6920	6300	5300	4575	3560	2940	2500	2160	1725	1430
12	12000	10500	9350	8350	7560	6400	5500	4300	3540	3020	2620	2080	1725

$\frac{3}{4}$ " Shaft Collars

Delta Shaft Collars are of steel, with $\frac{3}{4}$ " bore to fit line shaft. Equipped with special $\frac{1}{8}$ " x $\frac{1}{8}$ " Hollow-Head Set-screw. Used to keep shaft in proper position lengthwise, also at side of loose pulley.



- No. 374** $\frac{3}{4}$ " Shaft Collar, each \$0.30
Shipping Weight 4 oz. Code Word LICAL.

Delta Ball-Bearing 1/3-H.P. Motors

No. 800 1/3-H.P. Double-Duty Ball-Bearing Motor

The Delta No. 800 Split-Phase 1/3-H.P. Ball-Bearing Motor is a revelation in motor performance at low cost. It is built for us to our own design and rigid specifications, and represents exceptionally high value at low cost.

It has an unusually high overload capacity, because no attempt has been made to cut down material or workmanship in order to produce a "cheap" motor, at a sacrifice in capacity or efficiency.



Above: Section through No. 800 Motor, showing heavy construction throughout.



(NOTE: Only No. 800 or No. 900 motors should be ordered for use with Triple-Duty or Slo-Speed drill presses. Do not order No. 1100 for this duty.)

Although they are rated conservatively at 1/3 H.P., they will actually deliver close to 7/8 H.P. before stalling.

It is fitted with a fool-proof starting-winding switch capable of 1,000,000 starts and stops without failure. It is provided with self-sealed New Department ball bearings, which need no attention for the life of the bearing. Due to the ball-bearing construction of this motor, it may be installed in any position, horizontal, vertical or upside down, without bearing trouble or any special installation such as is necessary for many bronze-bearing motors.

The casing is of heavy Delta arc-welded construction with heavy steel feet which cannot be broken off like cast-iron feet.

It has a strong and neatly built-in switch which insures convenient starting and stopping, as, by means of the Delta switch rods control is brought within reach of the operator's finger-tips.

Double shafts, full 1/2" diameter by 1 1/2" long.



No. 800

No. 800 1/3 H.P. Delta Double-Duty Split Phase Ball-Bearing Motor, 110 volt, 60-cycle A. C., complete with 8-ft. cord, two 1 1/4" blocks and soft-rubber plugs. Speed 1725 R.P.M. **\$12.85**
Shipping Weight 31 lbs. Code Word BALMO.

Note: Split-phase motors cannot be used on both 110 and 220-volt circuits. They are built for one voltage only.

No. 900 1/3-H.P. Repulsion-Induction Motor

Repulsion-Induction motors, while their cost is a little higher than that of the split-phase type, have certain advantages in operation. They will start easily with very little current, even when connected to machines that are hard to start. They are capable of operating under a heavy overload and stand quite a lot of abuse.

Since their efficiency is higher, they consume less current for a given output and they are consequently much more economical in the long run.

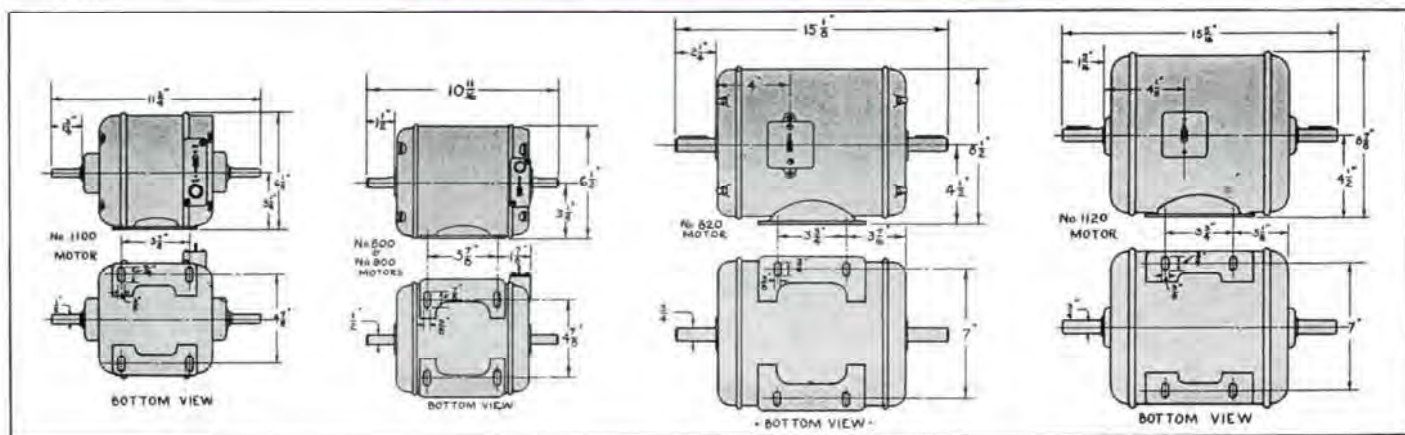
The Delta No. 900 Repulsion-Induction Motor is built to the same

rigid specifications as the No. 800. It has double shafts, self-sealed New Department ball bearings, which require no attention during their entire life, the same high-grade built-in switch and 8-ft. cord with soft-rubber plug.

Base dimensions are the same as those of the No. 800 motor, and it is interchangeable with it on all Delta stands, machines and benches. It uses the same switch rods as specified for No. 800 motor.

It can be used on either 110-volt or 220-volt lines, changing from one voltage to the other being accomplished very simply. It is reversible in direction of rotation merely by loosening one screw and moving the brush carrier to the proper index mark. Very flexible and convenient.

No. 900 1/3 H.P. Delta Repulsion-Induction Motor, 1725 R.P.M., 110-220 volts, 60-cycle A. C., complete with 8-ft. cord, soft-rubber plugs and two raising blocks. **\$18.95**
Shipping Weight 32 lbs. Code Word REPMO.



[Please Order by Catalog Number to Avoid Mistakes and Delay]

1/2-H. P. Reversible and 1/4-H. P. Sleeve-Bearing Motors

1/2-H.P. Ball-Bearing, Reversible 3450 R.P.M. Capacitor Motors

These new Delta motors are made to the same high standards as the Delta motors that have made such a name for efficient performance in the past. They are specially intended for high-speed work, such as driving the shaper and other high-speed tools. Rated conservatively at 1/2 H.P., they will actually deliver much more power before stalling.

All are equipped with double shafts, and with ball bearings. Motor No. 915 is especially equipped for use with the No. 1180 Shaper, and comes completely wired with No. 1116 reversing switch. It is wired with a four-wire cord from motor to reversing switch, and with 8-ft. two-

wire cord and plug to connect to lighting socket, ready to plug in and go to work.

No. 917 motor is exactly the same as No. 915, except that it has standard 8-ft. cord and plug only, and is fitted with toggle switch instead of reversing switch; it is used for machines where reversal of rotation is not required.

These motors have a very low inrush current, and can be used on any house-lighting circuit, being equipped with a condenser to absorb the initial starting inrush.

Note: Shaft diameter on No. 915, 916 and 917 Motors is 5/8".



No. 917

Reversing Switch

The reversing switch shown at the left is standard on the No. 915 and 916 motors. It can be used on any standard split-phase motor having both ends of the starting and main windings brought out, and on many D. C. and A. C. motors. It cannot be used on repulsion-induction motors of the type of our No. 820, 1120 or 900 motors, where the reversal is made by moving brushes.

- No. 915** 1/2-H.P. 3450 R.P.M. Ball-Bearing Capacitor Motor, for 110v. 60-cycle. A. C. only. With special 4-wire cord, reversing switch, 8-ft. 2-wire cord and plug, connected ready for use. **\$23.25**
Complete
Shipping Weight 43 lbs. Code Word CAPMO.
- No. 916** 1/2-H.P. 2850 R.P.M. Ball-Bearing Capacitor Motor, with reversing switch, 4-wire cord, 2-wire cord and plug. Same **\$23.25**
as No. 915 but for 110-v. 50-cycle A. C.
Shipping Weight 43 lbs. Code Word CAPFC.
- No. 917** 1/2-H.P. 3450 R.P.M. Ball-Bearing Capacitor Motor, same as No. 915, but without reversing switch or 4-wire cord. **\$20.35**
With plain 2-pole toggle switch and 8-ft. cord and plug.
Shipping Weight 41 lbs. Code Word CAPLS.
- No. 1116** Reversing switch only, for use on No. 917 motor, or with any standard split-phase motor. With four wire **\$ 3.75**
cord, connected
Shipping Weight 2 lbs. Code Word SWREV.

No. 1100 1/4-H.P. Sleeve-Bearing Motors

Built to serve the needs of those who require an economical motor of less power than the No. 800 ball-bearing motor, the new Delta No. 1100 1/4-H.P. Sleeve-Bearing Double-Shaft Motor will be found an exceptional value.

It is built to exactly the same high-grade specifications as the No. 800 and 900 double-shaft motors, the only difference being that it is 1/4 H. P. instead of 1/2 H. P., that

it is fitted with plain bronze sleeve bearings instead of ball bearings. It has built-in switch, 8-ft. cord and plug.

Casing is of Delta arc-welded construction with heavy steel feet. Bearings are of high-grade bronze, fitted with oilers, and motor is very powerful, well-balanced and quiet. This motor has double shafts 1/2" diameter by 1 1/4" long.



No. 1100

- No. 1100** Delta 1/4-H.P. Sleeve-Bearing Double-Shaft Motor. 110-volt, 60-cycle A. C., 1750 R.P.M., with cord and plug, switch and raising **\$8.85**
blocks
Ship. Weight 27 lbs. Code Word SLEMO.

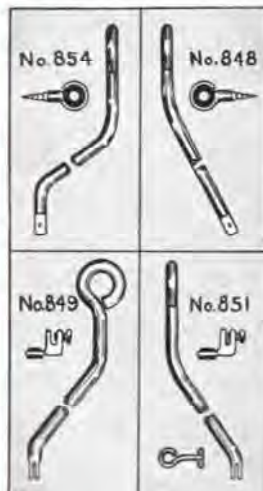
Switch Rods

Designed for use on Delta motors, they bring control of machines

to the finger tips. With rubber bushing in clamp or screw-eye. No. 851 is used with special loop for all Triple-Duty and Slo-Speed Drill Dresses. All rods for No. 800 fit Nos. 900 and 1100.

Note: We can furnish motors to suit any current, voltage or frequency. Specify exactly what type current, voltage and phase your circuit is and we will quote on your requirements.

- No. 848** Switch Rod for No. 800 and No. 820 Motor in Units No. 90, and 652. With screw eye, also fits No. 800 motor in units No. 950 and 960. **\$0.45**
Code Word RODSA.
- No. 849** Switch rod for No. 820 Motor in Units No. 360, 608 and 747, with clamp **.45**
Code Word RODSB.
- No. 851** Switch Rod for No. 800 and No. 820 in Units No. 296, 608, 747, 766, 300, 878, 892, 1350 and all drill presses except No. 620. With clamp and loop. **.45**
Code Word RODSD.
- No. 854** Switch rod for No. 820 Motor in Units 950 **.45**
and 960, with Screw-eye.
Code Word RODSO.
- No. 855** Switch Rod for No. 800 and No. 900 motor in Unit No. 714. Similar to rod No. 848, but with clamp instead of screw-eye **.45**
Code Word RODSP.
- No. 856** Switch Rod for No. 824 motor in Units No. 878 and 1350. Same as No. 854 with clamp instead of screw-eye **.45**
Code Word RODSQ.
Shipping Weight 1 1/4 lbs. each set.



No. 920 3-Phase Ball-Bearing Motors

Built to the same rugged design and specifications as the No. 800 and 900 motors, and interchangeable with them, Delta No. 920 3-phase 1/2-H.P. motors are particularly adaptable for production work. They should be specified when a large gang of machines is installed, (which should not be operated from the lighting circuit) and when so used will save from 30 to 40 per cent of the power consumed by split-phase motors, besides delivering more power.

These 1/2-H.P. 220-volt motors cannot be used on the lighting circuit, but must be installed by

an electrician. They cannot be furnished with built-in switches, cords or plugs.

Particularly adapted for installation on Triple-Duty and Slo-Speed drills, as they are built in the same frame as No. 800 and No. 900 motors.

- No. 920** Delta 1/2 H.P. 3-Phase Ball-Bearing Double-Shaft Motor. 1725 R.P.M. For 220-volt, 60-cycle A. C. Without built-in switch, but **\$18.65**
with raising blocks.
Shipping Weight 33 lbs.
Code Word PHAMO.
Write for bulletin M-10 on installation of 3-phase wiring and switches.

Half and Three-Quarter-H. P. Motors

1/2-H.P. Ball-Bearing Repulsion-Induction Motors

Massive and powerful, the Delta 1/2-H.P. motor will actually deliver almost 1 1/4 H. P. before stalling, and in addition to this, its design insures that it will perform at practically constant speed, regardless of load. It is of high efficiency, consuming very little starting current, conforms to all lighting company requirements, and operates from any light socket.

No. 820 and 1120 motors are built to run on either 110 or 220-volt current merely by changing connections, the change being simple and being graphically shown on the nameplate. Reversal of rotation is equally simple, being affected merely by moving the brush carrier ring to the correct index mark.

No. 820 motors are equipped with New Departure double-seal ball bearings, of the type shown in the photo at left, which insures freedom from trouble and absence of any attention for the life of the bearings. They have husky double shafts, 3/4" diameter by 2 1/4" long, with 5/8" square keys. Equipped with protector which slips over unused shaft to protect the user against accidental injury.



Cut-away view showing double-seal ball bearings used in Delta motors.

No. 820 motors have built-in double-pole switch, which shuts off current completely and have 8-ft. cord and soft rubber plug.

[Note: Nos. 800, 900 and 820 motors can be furnished to suit any voltage and frequency. Write for special prices. Nos. 1100 and 1120 furnished only for voltages listed.] Note that only 800, 900 and 920 motors should be specified for Delta drill presses. Send for Bulletin M-150 on selection and care of motors.



No. 820

No. 820 Delta Ball-Bearing 1/2-H.P. Repulsion-Induction Motor, for 110-220-volt, A. C., 60-cycle 1725 R.P.M. with built-in switch, 8-ft. extra-heavy cord and soft-rubber plug **\$29.50**
Shipping Weight 65 lbs. Code Word DOUMO.
Note: This motor is recommended for No. 360 and 668 units.

Sleeve-Bearing 1/2-H.P. Repulsion-Induction Motors

The new Delta No. 1120 1/2-H.P. Repulsion-Induction Motor is exactly the same high-grade motor as the No. 820 described above, except that it is equipped with high-grade plain sleeve bronze bearings instead of ball bearings. It is fitted with switch, 8-ft. heavy rubber-covered cord and plug, similar to that supplied on No. 820 motor.

Like the No. 820, it will operate on either 110 or 220 volts, 60 cycle alternating current merely by changing connections, and reversal of rotation is effected in the same manner as in the No. 820. Shafts are of the same size, and the same shaft protector is furnished for the unused shaft.



No. 1120

No. 1120 Delta Sleeve-Bearing 1/2 H.P. Repulsion-Induction Motor, for 110-220 volt, 60-cycle A. C. 1725 R.P.M. With switch, cord and plug..... **\$24.50**
Shipping Weight 65 lbs. Code Word MOREP.

3/4-H.P. Ball-Bearing Single and Three-Phase Motors for Heavy Duty

The new Delta 3/4-H.P. Heavy-Duty Motors are offered in response to the demand from satisfied users of Delta motors for use in installations where more power is required than is furnished even by the Delta 1/2 H.P. motors.

They are supplied in two types: No. 924, a ball-bearing, repulsion-induction single-phase motor, for either 110-v. or 220-v. 60-cycle alternating current, and No. 922, a ball-bearing, three-phase motor for 220-v. 60-cycle A. C. only.

The No. 924 motor is equipped with heavy-duty toggle switch, 8-ft. cord and plug, for connection to lighting circuit. Since the No. 922 motor is designed for installation on a power circuit it is not supplied with switch, cord or plug. It should be connected by a licensed electrician and equipped with a three-phase overload relay switch. (Send for Bulletin M-10).

Base dimensions, hole spacings and frame diameter are the same as on the No. 820, but the frame is 1 1/4" longer. Shafts are 3/4" diameter, 2 1/4" long, with 5/8" keys. Overall length 16".

No. 924 3/4-H.P. Ball-Bearing Repulsion-Induction Motor, 1725 R.P.M., for 110-220 volt 60-cycle A. C. With built-in switch, 8-ft. cord and soft-rubber plug **\$35.85**
Shipping Weight 80 lbs. Code Word REPLM.

No. 922 3/4-H.P. Ball-Bearing Three-Phase Motor, 1725 R.P.M., for 220 volt, 60-cycle A. C. only. Without switch, cord or plug..... **37.50**
Shipping Weight 80 lbs. Code Word PHAMP.



No. 924

[Please Order by Catalog Number to Avoid Mistakes and Delay]

Delta Belt-Drive and Motor Grinders

The Most Efficient Grinders Yet Developed for All-Around Work—in Every Shop

New Twin-Lite Lamp Attachment and Safety Shield. Floods the wheel and work with light from both sides, permitting much more accurate grinding and making the grinder independent of the shop lighting system. Quickly replaceable bulbs (two in each shield), thoroughly ventilated and fitted with polished reflectors. Shield has double-thickness safety glass panel, held with spring clips and instantly replaceable. Rigid construction and unobstructed view of work.

Armored cable to bayonet lamp sockets. Cables vulcanized in rubber to prevent shocks.

Precision double-seal New Departure ball bearings on all grinders. **NO OILING REQUIRED FOR ENTIRE LIFE OF BEARINGS,** and no trouble due to entrance of abrasive dust. Plenty of working space between wheel guard and drive housing; no interference with work when grinding.

Adjustable spark guard at top of wheel. Can be adjusted downward to preserve safety as wheel wears.

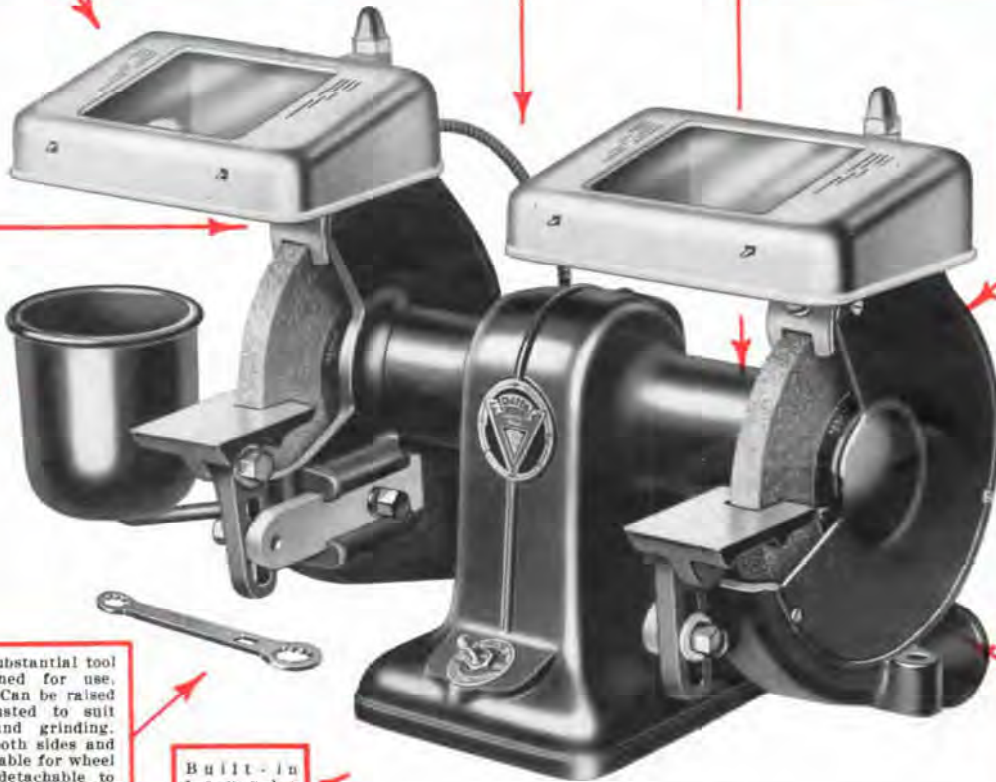
Substantial cast-iron water pot, 4¼" diam. by 4¼" long, mounted on swing bracket.

Very efficient wheel guards, complying with all safety codes. Only the actual grinding section of the wheel is exposed. Built-in dust chute scientifically designed to discharge abrasive dust to rear of machine. Practical, safe and efficient.

Very efficient and substantial tool support—really designed for use, and not a makeshift. Can be raised and lowered or adjusted to suit any type of free-hand grinding. Permits grinding on both sides and face of wheel. Adjustable for wheel wear, and instantly detachable to permit special attachments or fixtures to be used. All finely machined—not rough castings.

Built-in toggle switch for lamp control.

Highest-grade 7" Aloxite wheels on all models, precision balanced to 1/100 inch ounce. Precision balancing is an expensive operation, but essential to insure accurate work and vibrationless running.



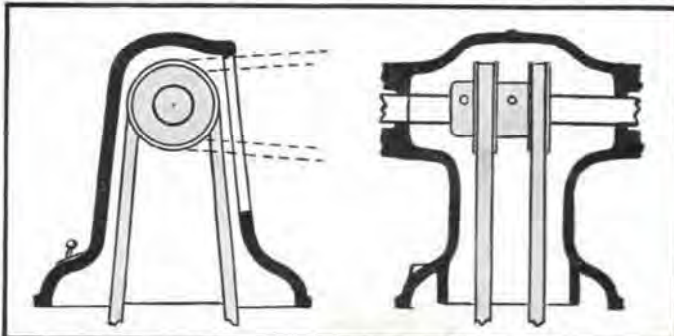
Never Before Has So Much Real Convenience, Accuracy, Service and Dependability Been Available in a Belt-Driven Grinder

Here, for the first time, is a belt-driven grinder that is a real machine tool, and not a toy. From its substantial cast-iron base and drive housing to its precision double-seal ball bearings, it is a tool worthy of the finest shop—but at a price which brings it within the range of the smallest.

Engineered by men who know the requirements of the shop, it completely fills the need not only of the man in the home shop, but also of the machine shop in districts where the current is not of standard voltage or phase. In such districts, special motor grinders are expensive, if available at all. With the Delta belt-

drive grinder, any motor may be used—alternating or direct current; 25, 30, 40 or 50 cycle; it may be driven either from below or from the rear from any available motor or shaft; it is 100% flexible!

The housing is designed so that either single or double-belt drive may be used, driving either from below or behind. Wheels are 7" diameter, with 5/8" holes, carried on a heavy alloy-steel arbor, 7/8" in diameter at the center. See this machine before you buy any grinder.



Drawing above shows how the belt may be run either straight down through the bench to motor or shaft underneath, or through the rear of the housing when driving from behind. Drawing at right shows how double belt and pulley may be used for more power.

No. 1248 Belt-Drive Bench Grinder, complete as illustrated, with balanced wheels, combination lamp attachment and safety shield with cables, one water pot and swinging bracket, toggle switch wired to lamps, wrenches, pulley and belt, but no motor pulley or lamp bulbs. **\$25.75**
Shipping Weight 58 lbs. Code Word GRINH.

No. 387 V-belt for above \$.85

No. 5500 5" Motor pulley, 3/2" bore..... \$.75

NOTE: With the above motor pulley a 1725 R.P.M. motor is recommended. Machine should not run over 3400 R.P.M. Nos. 800 and 900 motors are suitable for this machine for average work. For heavy work use No. 820 or 1120 motor, and double-belt drive.

Set New Standards of Efficiency

No. 1240 Ball-Bearing, Single-Phase Grinder

Designed for general shop work, tool sharpening, wire brushing and buffing, this new Delta Motor Grinder, like the belt-drive machine, is the most advanced tool of its type ever offered.

The motor is a full $\frac{1}{2}$ H.P., providing ample power for all work within its capacity, and drives the $\frac{3}{4}$ "x7" wheels at 3450 R.P.M. The spindle is a full $\frac{5}{8}$ " diameter at the wheels. The end housings of the motor are extended to provide plenty of room for handling odd-shaped work around the wheels—a feature that will be appreciated by those who know the limitations of the ordinary bench grinder in this respect. Motor is of the single-phase type, and comes complete with built-in toggle switch, cord and plug, ready for work. The lamp attachment is wired to light when the motor is switched on, making the unit independent of the shop lighting system.



Tool rests on Delta grinders are completely machined and fully adjustable; they are not rough castings, hard to adjust and impossible to make "stay put".

Lamp Attachment Useful for Other Machines

The usefulness of the new Delta Lamp Attachment and Safety Shield is not confined to Delta grinders alone. It can be adapted to many other grinders, and will be found of value on any machine where there is danger of flying chips and dust getting into the operator's eyes. See price of separate lamp attachment at the right.



The Lamp Attachment throws a flood of light on the face and on BOTH SIDES of the wheel, making close work easy and fast. (Patent Applied For).



View of the underside of the lamp attachment, showing the bayonet-type bulbs No. 1280, polished reflectors, neat, safe wiring and strong construction. (Patent Applied For).

Overall Dimensions
22 $\frac{3}{4}$ " Wide: 13 $\frac{1}{2}$ " High: 10 $\frac{1}{2}$ " Front to Back

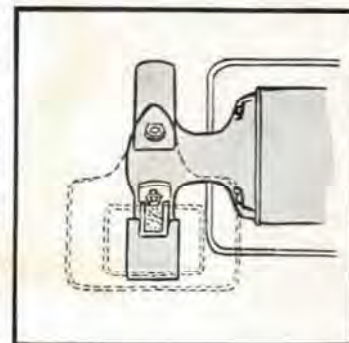


1/3-H.P.; 3450 R.P.M.; Double-Seal Ball Bearings; Twin-Lite Safety Shield; Built-In Switch; Balanced Wheels; Fully Machined Tool Rests; Swinging Water Pot; Approved Guards

From the double-seal New Departure ball bearing mounting of the shaft (requiring no lubrication for the life of the bearings) to the practical Twin-Lite safety-glass shield, every feature of this machine has been designed for the utmost efficiency, convenience and safety. The balanced wheels insure smooth running and accurate work, and the tool rests—completely machined instead of rough castings as are usual in moderate-priced grinders, make accurate adjustments a pleasure instead of a task. The lamp attachment floods each side and the face of the wheel with light, making good work easy even when the shop lighting facilities are inadequate, while the safety-glass shield (instantly replaceable if accidentally broken) adds still further to the safety and convenience of the operator.

The shields are so designed that the operator's view of the wheel and work is completely unobstructed, and all wiring is designed to eliminate completely danger of damage to insulation, or of accidental shocks. The wheel guards meet the very strict requirements of the Wisconsin Industrial Commission.

No grinders so thoroughly useful for general shop use as these new Delta machines have ever been designed, and you owe it to yourself to see them before considering the purchase of any grinder.



End housings on motor are extended so that there is plenty of room for moving odd-shaped work around the wheels.

- | | | |
|-----------------|--|----------------|
| No. 1240 | Motor-Driven Bench Grinder, for 110v. A. C. 60 cycle current, complete with $\frac{3}{4}$ "x7" 60-J and 60-K Aloxite wheels, two Lamp Attachments, Water Pot and Bracket, Tool Rests, Wheel Guards, Toggle Switch, Cord and Plug, without bulbs..... | \$42.50 |
| | Shipping Weight 88 lbs. Code Word GRINA.
(For 110v. 60 cyl. Single Phase A. C. only.) | |
| No. 1245 | 7" Aloxite wheel, balanced within 1/100 oz.-inch, 60 grit, Grade J, $\frac{5}{8}$ " Hole... | \$1.85 |
| | Shipping Weight 2 lbs. Code Word GRINJ. | |
| No. 1247 | 7" Aloxite wheel, balanced within 1/100 oz.-inch, 60 grit, Grade K, $\frac{5}{8}$ " Hole.. | \$1.85 |
| | Shipping Weight 2 lbs. Code Word GRINK. | |
| No. 1250 | Lamp Attachment and Safety Shield (one only) with sockets, reflectors and armored cable, but without lamp bulbs.....each | \$3.75 |
| | Shipping Weight 3 lbs. Code Word GRILT. | |
| No. 1280 | Lamp Bulb for Safety Shield..... | \$.40 |
| | Shipping Weight 8 oz. Code Word GRILB. | |

[Please Order by Catalog Number to Avoid Mistakes and Delay]

NEW Delta Pedestal-Type Grinders

With Twin-Lite Safety Shield

The Finest, Safest and Most
Accurate General-Purpose Grinder
Ever Made:—Regardless of Price

Designed for the production and school shop, these new Delta Pedestal Grinders, with Twin-Lite Safety Shield, are the very last word in general-purpose grinders. Available with either single or three-phase motors, they can be used either on lighting circuit or power line, and, when fitted with relay switch, offer complete protection against overload.

Read over the specifications of these grinders; see them at your dealers or send for special circular describing the entire line. We are certain that you will recognize them to be the finest tools of their kind you have ever seen—a wonderful machine-tool value at a very moderate price.

Specifications

Heavy, well proportioned cast-iron base, 14½ in. by 15½ in. with cast-iron column, 12 in. by 18 in. tool tray and two 4 in. by 4 in. water pots. Floor space 14½ in. by 18 in.

Motor equipment: Either ½ H. P. single-phase, ball-bearing motor for 110-volt 60-cycle A. C. or ¾ H. P. three-phase ball-bearing motor for 220-volt 60-cycle A. C. 3450 R.P.M.

Single-phase motors may be equipped with either plain toggle switch or with push-button overload relay switch, as required. Three-phase motors are equipped with overload relay switch as standard equipment, but no cord or plug.

Twin-Lite Safety Shield standard equipment on all models. Each shield fitted with safety glass, and equipped with bakelite sockets for bayonet-base bulbs, which light wheels on both sides and face.

Perfect safety from flying chips and abrasive dust, and efficient light just where it is needed on wheel and work, without any glare in operator's eyes.

Lights wired to switch so they light when grinder is operated and are switched off automatically. Bulbs extra. Armored cable to lamps, vulcanized in

rubber. Polished reflectors and ventilated lamp housings. Balanced 60J and 60K Aloxite wheels, ¾" face by 7" diameter, 5/8" hole. Absolutely true running to prevent vibration and permit accurate tool grinding.

Tool rests are 39" from floor, and fully machined—not rough castings difficult to adjust—and are fully adjustable vertically and horizontally. Designed so that full advantage may be taken of side of wheels as well as face. Instantly removable.

Heavy cast-iron wheel housings with steel end plates. Designed to meet the specially strict requirements of the Wisconsin Industrial Commission. Chute discharges abrasive dust to rear. Spark guard at top of wheel adjustable for wheel wear.

Extended motor end housings provide plenty of room around wheel for handling odd-shaped work—one of the great drawbacks of ordinary grinders.

Two single-phase motor models: One with plain toggle switch to control motor and lamps; one with overload relay switch to prevent danger of accidental overloads. Three-phase grinder has overload relay switch as standard equipment.



Two Single-Phase
and
One Three-Phase Models
Available

No. 1242 Motor Driven Pedestal Grinder, for single-phase 110v. 60-cycle A. C. with Toggle Switch, ¾"x7" balanced Aloxite wheels, Tool Rests, Wheel Guards, Tool Tray, Two Water Pots, Twin-Lite Safety Shields, wired to switch, Armored Cables to Safety Shields, Wheel Wrench, Allen Wrench, 8-foot Cord and Soft-Rubber Plug. Without Lamp Bulbs..... **\$59.50**
Shipping Weight 194 lbs. Code Word GRINC.

No. 1268 Motor Driven Pedestal Grinder for single-phase 110-v. 60-cycle A. C. Similar to No. 1242, but with push-button overload relay switch, as illustrated. Without Lamp Bulbs..... **\$66.85**
Shipping Weight 194 lbs. Code Word GRINT.

No. 1246 Motor Driven Pedestal Grinder, for three-phase 220-v. 60-cycle A. C. Equipment same as No. 1242, but with three-phase push-button overload relay switch. Without cord, plug or lamp bulbs..... **\$72.50**
Shipping Weight 194 lbs. Code Word GRING.



Balanced Wheels Essential for Grinder Satisfaction

The abrasive wheels used on Delta Grinders are not only the highest grade Aloxite—they are balanced to 1/100 inch-ounce on a dynamic balancing machine in the same manner as the Delta pulley shown in the illustration at the left. Naturally, this is an expensive operation, and it is one that is omitted by makers of cheaper grinders on the theory that "customers won't know the difference". But there is a difference—and a great one.

Everyone has had the experience of trying to do an accurate job of tool

grinding on a grinder with wobbly, untrue wheels, and everyone knows that an accurate job is impossible under such conditions—you can't grind accurately when the grinder is trying to jump off the bench. In addition to this, untrue wheels are hard on the bearings, shortening the life of the whole machine.

When you buy a Delta grinder you get wheels that run true and steady, on which you can do accurate grinding and which will permit the machine to run for years as accurately and with as little vibration as when you first purchased it.