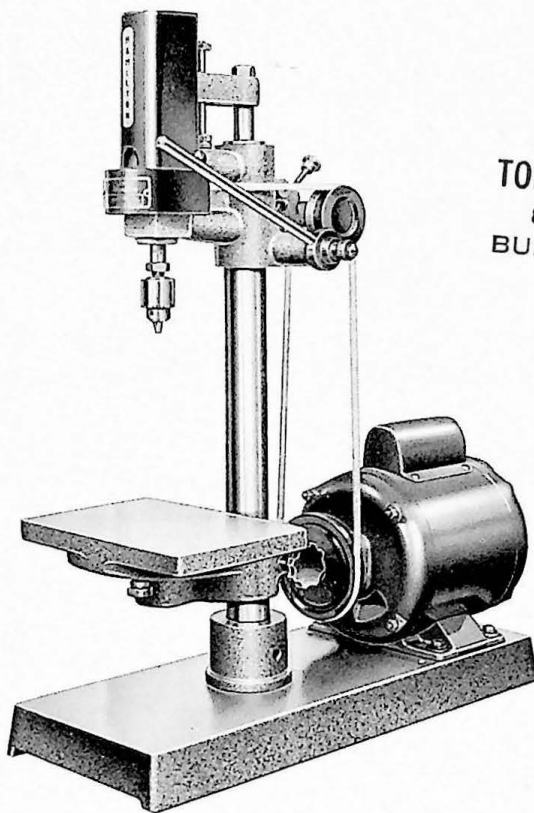




**NEW
HAMILTON
"A-M"
SUPER SENSITIVE · SMALL HOLE
PRECISION
DRILLING MACHINE**



**TORNQUIST MACHINERY CO.
864 BURLWAY ROAD
BURLINGAME, CALIFORNIA
DIAMOND 2-3505**

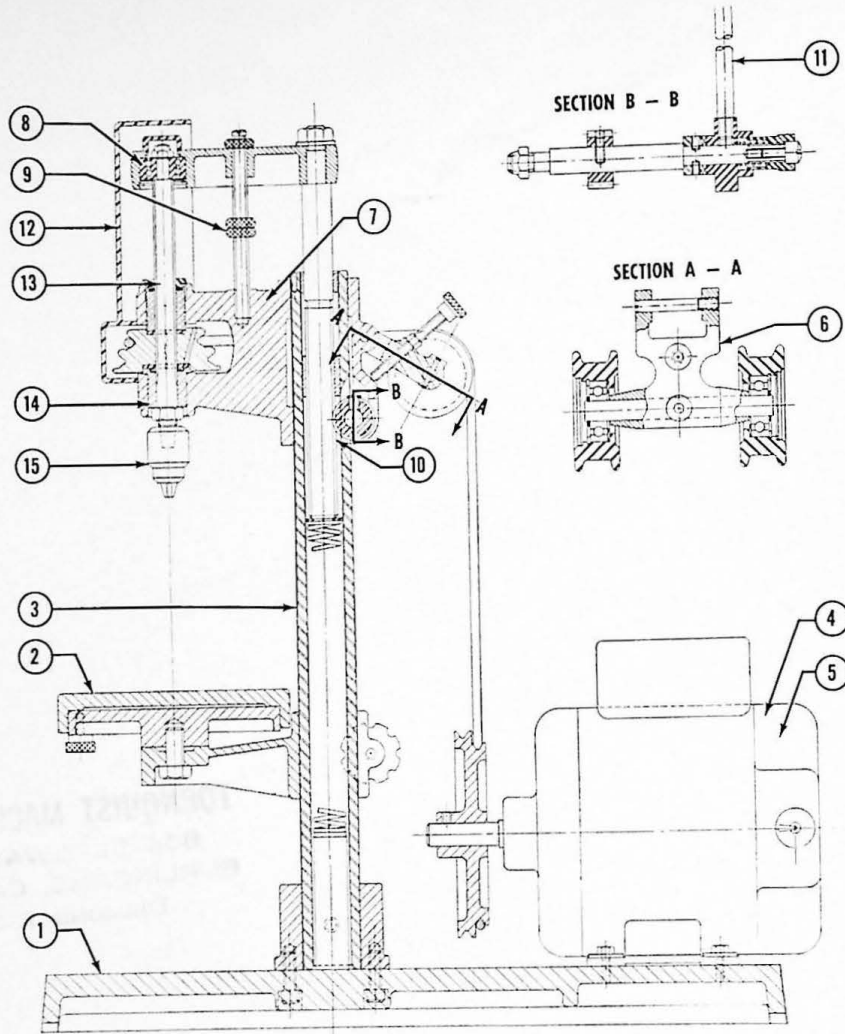


THE HAMILTON TOOL COMPANY

NINTH STREET AT HANOVER

HAMILTON, OHIO

Numbers refer to paragraphs of descriptive text on the facing page.



MOTOR AND SPINDLE SPEEDS

	DRIVE NO. 1	DRIVE NO. 2	DRIVE NO. 3	DRIVE NO. 4
SPINDLE RPM (TO NEAREST 100) WITH 1750 RPM MOTOR	800 1000 1100 1400	1800 2100 2200 2600	2500 2700 3100 3400	3400 3800 4200 4800
SPINDLE RPM (TO NEAREST 100) WITH 3500 RPM MOTOR	1600 2100 2200 2800	3600 4100 4500 5100	4900 5700 5900 7000	#4 DRIVE NOT FURNISHED WITH 3500 RPM MOTOR
MOTOR PULLEYS	1 1/4" 1 1/4" 1 5/8" 1 5/8"	2 9/16" 2 15/16" 2 3/16" 2 15/16"	3 3/16" 3 15/16" 3 3/16" 3 15/16"	4 3/4" 5 3/8" 4 3/4" 5 3/8"
SPINDLE PULLEYS	2 1/2" 2" 2 1/2" 2"	2 1/2" 2 1/2" 2" 2"	2 1/2" 2 1/2" 2" 2"	2 1/2" 2 1/2" 2" 2"

HAMILTON "A-M" DRILLING MACHINE

The NEW Hamilton "A-M" Super Sensitive, Small Hole, Precision Drilling Machine, while offering most of the new features which have been added to the larger machines of the Hamilton line, yet retains such simplicity of design and operation that both cost and maintenance remain the lowest of any comparable machine in the precision drilling field.

NEW Machine Tool Motor is electrically and dynamically balanced.

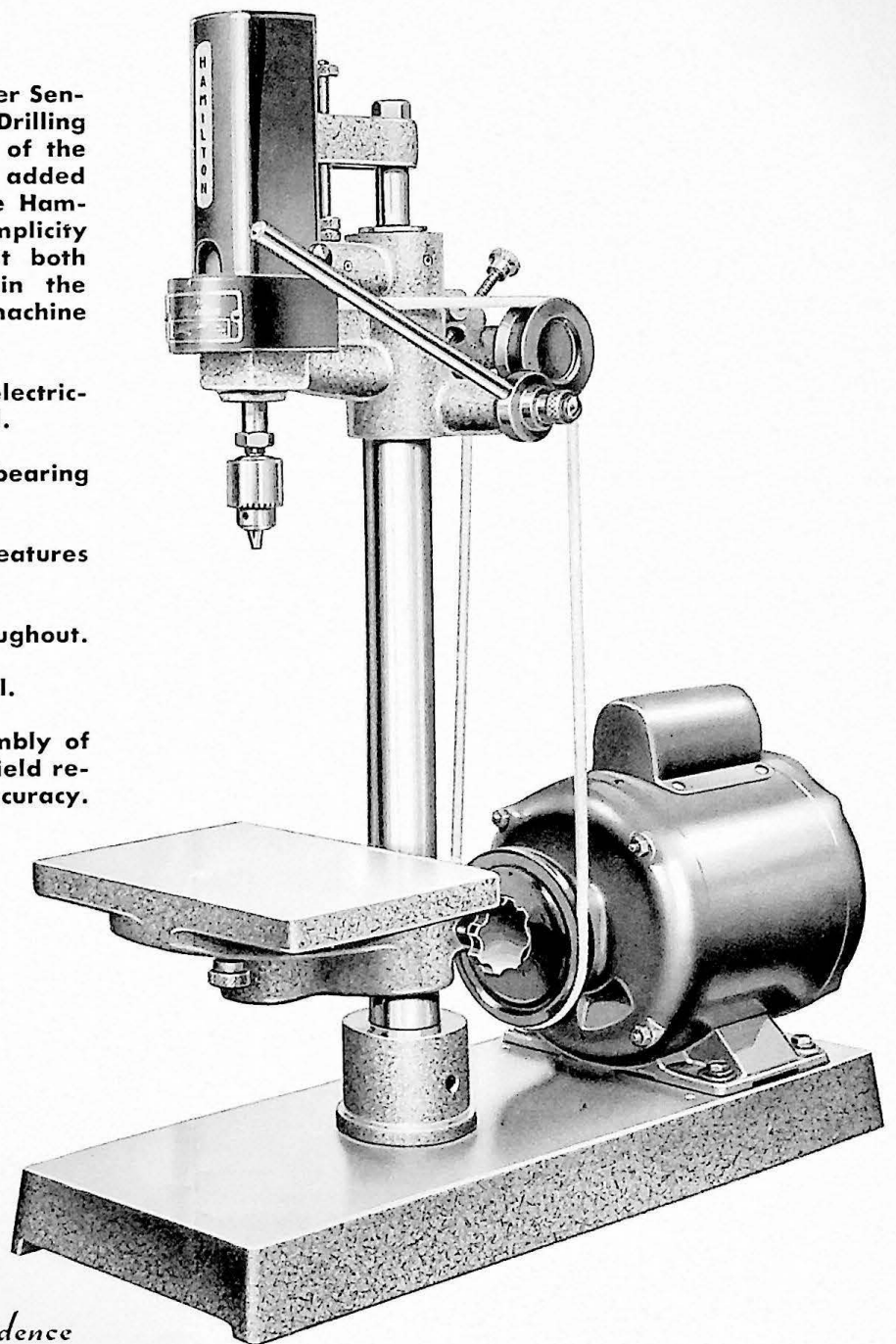
NEW pre-loaded, double row bearing in bridge.

NEW, longer, heavier base features machined work surface.

NEW, tighter tolerances throughout.

NEW, increased spindle travel.

NEW method of factory assembly of precision components allows field replacement without risk to accuracy.



It's a



Use It with Confidence

"A-M" DRILLING MACHINE

AM
22

FEATURES

- 11 Super sensitive feed lever may be set to any position convenient for operator.
- 12 Head mechanism is guarded.
- 13 $\frac{3}{16}$ " spindle is made of spindle steel, hardened, seasoned, and ground.
- 14 Anti-friction annular spindle bearings of special construction.
- 15 Drill chuck. Your choice of special $\frac{1}{8}$ " capacity chuck or special $\frac{1}{4}$ " capacity chuck. (For holes of .004" to $\frac{1}{8}$ ", a $\frac{1}{8}$ " capacity chuck with #0 taper is recommended. For holes of $\frac{1}{16}$ " to $\frac{1}{4}$ ", a $\frac{1}{4}$ " capacity chuck with a #1A taper is recommended.)

NOTE: Each of these chucks requires an individual spindle. And while the spindles may be interchanged in the machine, the chucks should not be interchanged on the spindles. We recommend that both chucks and both spindles be ordered at the time the machine is purchased. One as standard equipment and one at extra cost.

YOU MUST SPECIFY CHUCK OR CHUCKS WANTED

SPECIFICATIONS

Base	7 $\frac{1}{4}$ " x 19 $\frac{3}{4}$ "
Base Pad (Accurately machined)	7" x 19 $\frac{1}{2}$ "
Round Table	5 $\frac{1}{2}$ "
Rectangular Table	10 $\frac{5}{8}$ " x 6"
Column (ground)	19" x 1 $\frac{1}{2}$ "
Feed of Chuck Spindle	2 $\frac{1}{4}$ "
Drilling Capacity	.004" to .250"
Center of Chuck to Column	3 $\frac{1}{4}$ "
Base to Chuck	13"
Round Table to Chuck (Max.)	8 $\frac{1}{2}$ "
Rectangular Table to Chuck (Max.)	8"
Adjustment of Table on Column	8 $\frac{1}{2}$ "
Spindle Speeds (to nearest 100 RPM)	800 to 7000 RPM
Size Overall	25" x 20" x 8 $\frac{1}{4}$ "
Weight (Approx.)	110 lbs.

WARRANTY

We warrant that the equipment covered by our proposal will be free from defects of workmanship or material, and will do the work for which it is designed in the manner and with the efficiency stated in our specifications, if properly used. We will replace or repair, at our option, any part or parts found defective on our examination, within six months from the date of shipment from our plant, if the equipment is still in the possession of the original purchaser. This warranty shall be our only obligation in respect to the guaranty of such equipment.

BUYING INFORMATION

Multiple spindles may be mounted on a common base.

Steel stands for individual machines, batteries of machines, or multiple spindles on a common base may be ordered separately. (Ask for Bulletin DS/1.)

Finishes other than standard black wrinkle instrument type may be had at extra cost.

In the absence of shipping instructions, shipment will be made by best available carrier and route.

All shipments are made F. O. B. Hamilton, Ohio.



THE HAMILTON TOOL COMPANY

NINTH STREET AT HANOVER

HAMILTON, OHIO

"A-M" DRILLING MACHINE

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DESCRIPTION

The NEW Hamilton "A-M" Super Sensitive, Small Hole, Precision Drilling Machine is the smoothest, most rigid "A-M" we have ever built. Tolerances have been tightened throughout. All castings are of premium metal and are normalized.

Simplicity of design leads naturally to lower first cost and reduced maintenance. Precision construction and premium quality materials leads to extra years of trouble free precision performance. Work which falls within the capacity of this machine can be performed on the "A-M" at less cost and with greater accuracy than on any other machine which we have examined.

The head of the "A-M" is rigidly positioned. Table moves radially on the column and may be positioned vertically to provide clearance of 0" to 8" between table and chuck. Machined base pad may be used also as a work supporting surface. Controls are manually operated. Black, wrinkle, instrument finish is hard and durable. All moving parts are covered. Machine is delivered ready for service.

When grouped to accommodate successive drilling operations rectangular tables butt to form a continuous, plane work surface.

FEATURES

BASE

- 1 New, larger base (7 $\frac{1}{4}$ " x 19 $\frac{3}{4}$ ") has ground top surface (7" x 19 $\frac{1}{2}$ ") to provide additional working area.
- 2 Round table is 5 $\frac{1}{2}$ " in diameter and a removable rectangular table, 10 $\frac{3}{8}$ " x 6", is fitted over the round table. Round table is mounted on a swinging bracket. (Positioning of fixtures can be accomplished quickly and easily by using rectangular tables as fixture mounts. Additional rectangular tables may be purchased at modest cost.)
- 3 Ground column is 19" long and 1 $\frac{1}{2}$ " diameter.

DRIVE

- 4 Machine Tool Motor, $\frac{1}{4}$ H. P., 110 volt, 60 cycle, single phase, AC, ball bearing type, with built-in switch and grounded extension cord with three prong plug, is electrically and dynamically balanced.
- 5 Motors of other specifications are available at extra cost.
- 6 Adjustable ball bearing idler maintains wanted belt tension.

HEAD

- 7 Stationary head.
- 8 Pre-loaded, double row bearings in the new and more rigid bridge exert gentle back pressure on the spindle, reduce possibility of "spindle-drop" at instant of break-through.
- 9 2 $\frac{1}{4}$ " feed of chuck spindle is controlled by positive, adjustable stops.
- 10 2 $\frac{1}{4}$ " vertical travel of chuck spindle is obtained through a 14 position universal ratchet.

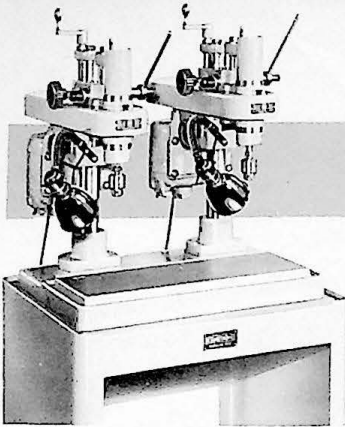


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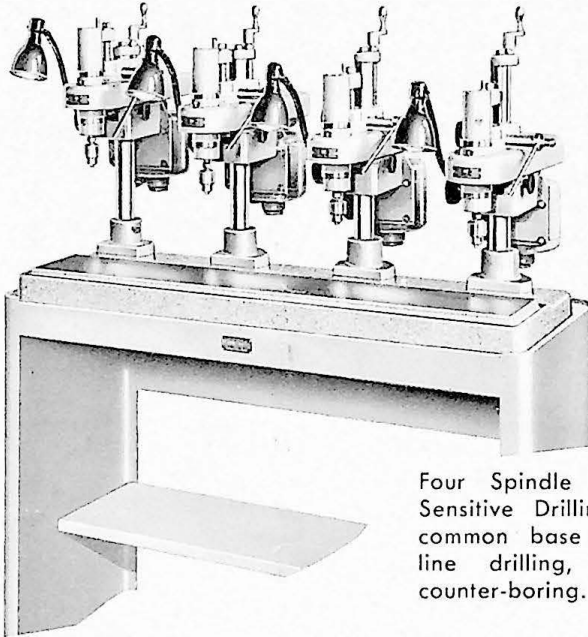
HAMILTON, OHIO

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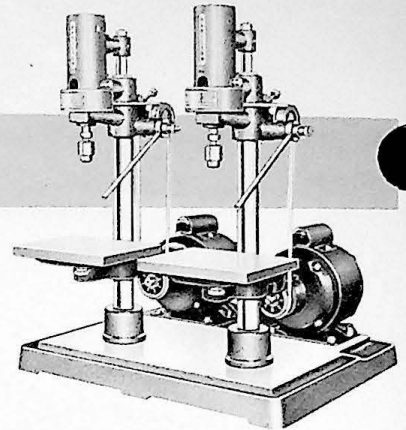


Two spindle Maxi-Jr. Super Sensitive Drilling Machine on common base for jig multiple drilling operation.

**FOR SPECIALIZED DRILLING
OF SMALL PRECISION HOLES**



Four Spindle Maxi-Jr. Super Sensitive Drilling Machine on common base for production line drilling, reaming, and counter-boring.

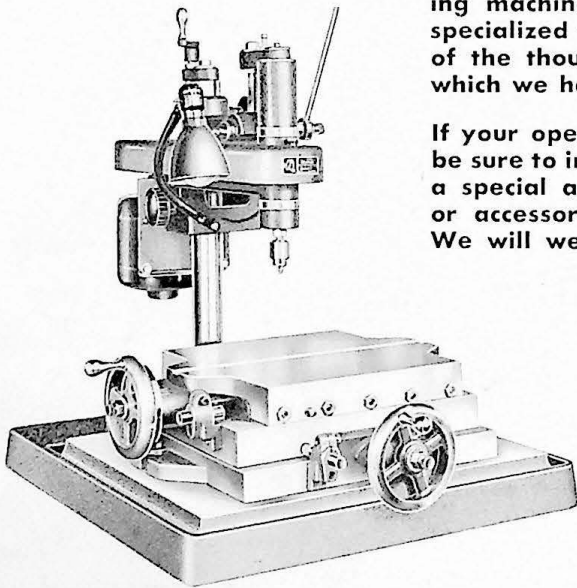


Two spindle "A-M" Super Sensitive Drilling Machine with common base for production drilling with one spindle, and reaming with the second spindle.

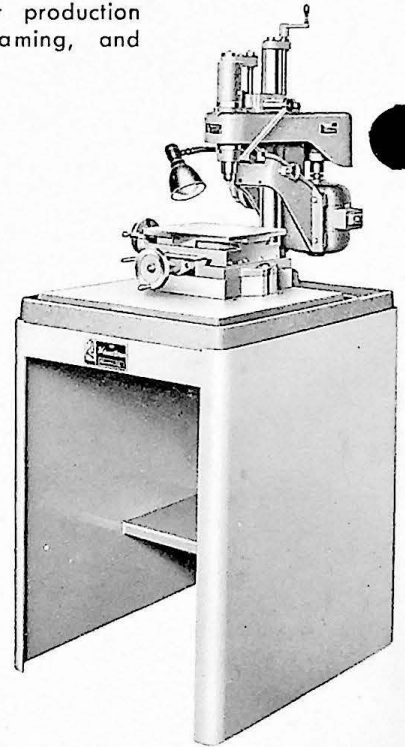
Often, we are asked to supply our high precision drilling machines mounted and equipped for specialized work. We illustrate here a few of the thousands of special arrangements which we have provided.

If your operation is of a "special" nature, be sure to investigate the advantages which a special arrangement of spindles, bases, or accessories could bring to your work. We will welcome your communication.

Hamilton Super Sensitive Drilling Machine on special steel stand.



Maxi-Jr. Super Sensitive Drilling Machine on "tool room" base equipped with compound table for fast and accurate production line drilling.



Hamilton Maxi-Jr. Super Sensitive Drilling Machine equipped with "tool-room" base only.

