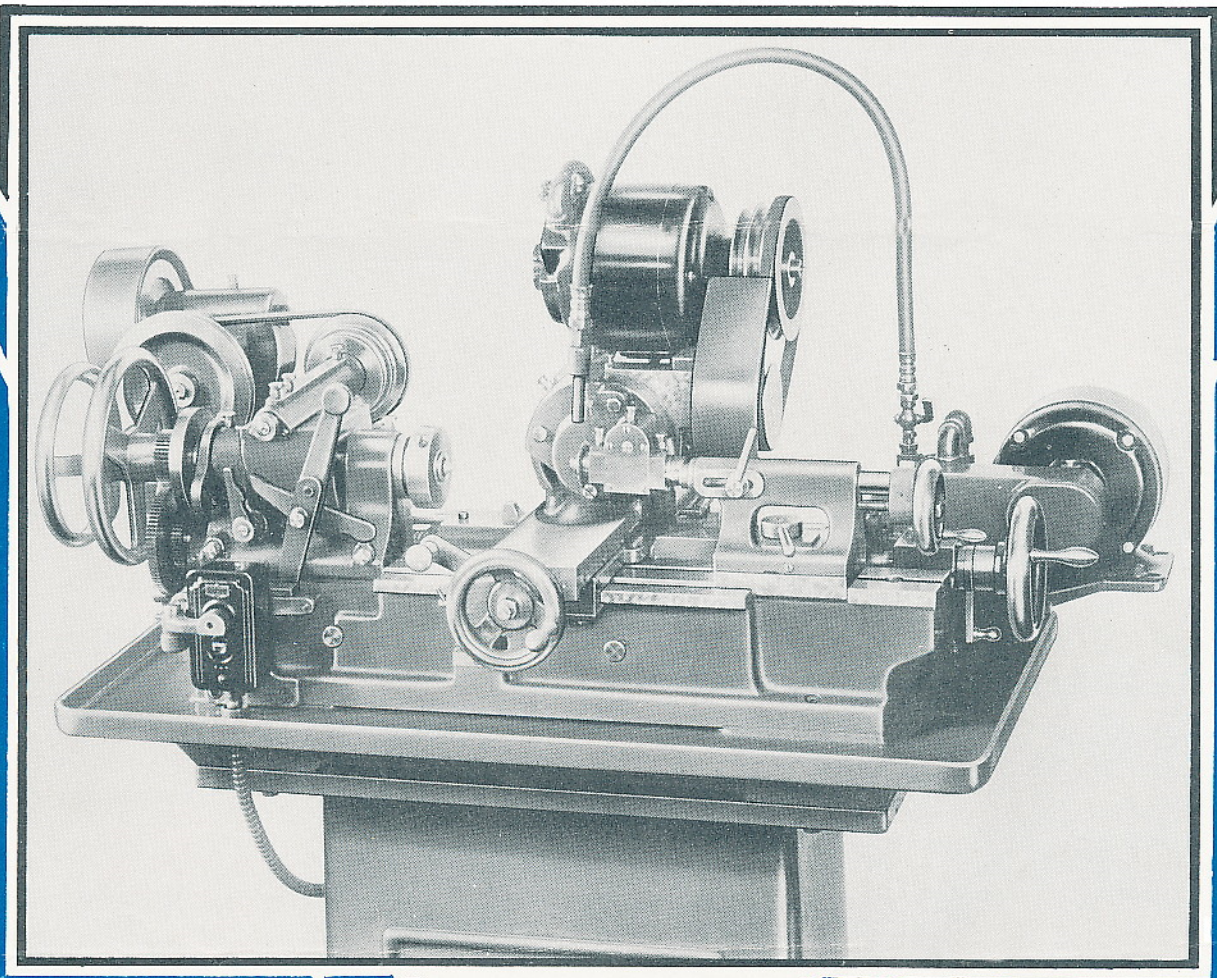
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THREAD MILLER

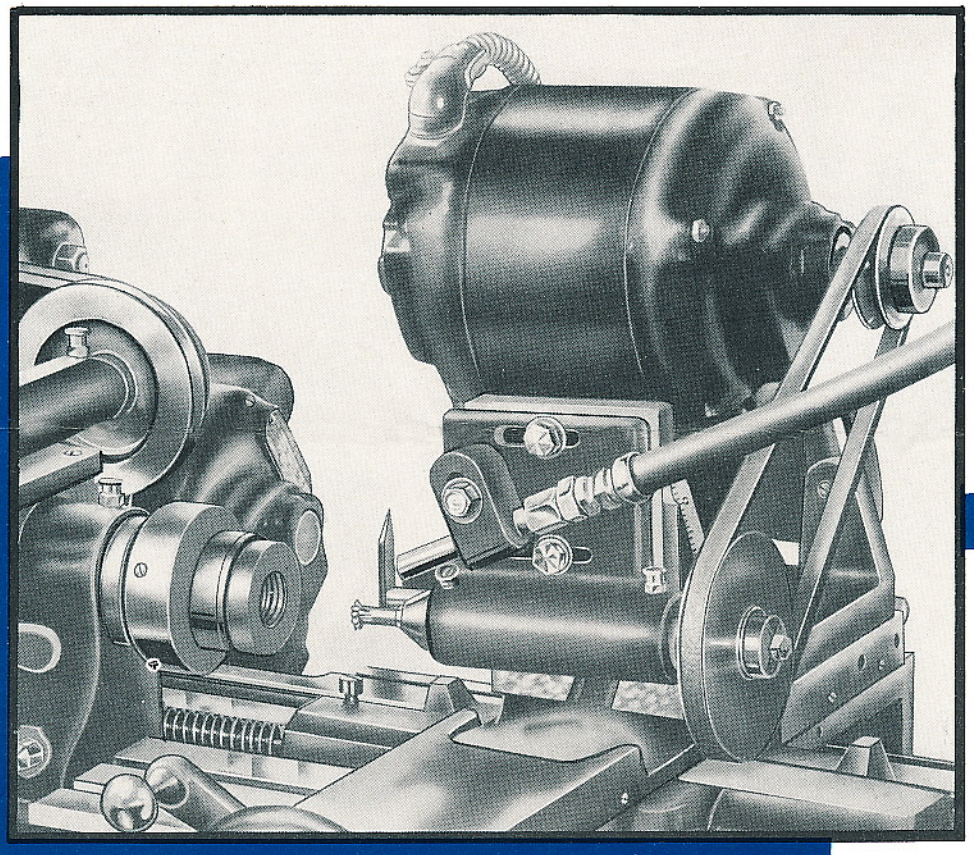


VIEW SHOWING MACHINE WITH STANDARD EQUIPMENT

WALTHAM MACHINE WORKS

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VIEW SHOWING MACHINE EQUIPPED WITH INTERNAL THREADING ATTACHMENT

EXTRA EQUIPMENT

Extra equipment enlarging the usefulness of the machine may be obtained as follows:—

COMPENSATING BAR — A compensating bar for varying the lead of the thread to make allowance for changes in hardening.

PLAIN TAPER ATTACHMENT — covering the working length of the machine.

COMPOUND TAPER ATTACHMENT — for shorter work but which may be set to obtain two angles, automatically shifting from one to the other or to obtain the combined straight and taper cut used on die hob taps.

TRANSLATING GEARS — to provide for cutting the following metric leads: .50, .75, 1.00, 1.10, 1.20, 1.25, 1.30, 1.40, 1.50, 1.60, 1.70, 1.75, 1.80, 1.90, 2.00, 2.20, 2.40, 2.50, 2.60, 2.80, 3.00, 3.20, 3.40, 3.50, 3.60, 3.80, 4.00.

METRIC LEAD SCREW — Machines can be furnished with metric lead screw having lead of 4 m/m and with it the above listed metric threads may be cut.

If equipped with this metric lead screw a set of Translating gears can be supplied to cut all the threads listed under standard equipment.

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RELIEVING A special workhead with the spindle geared to a cam-shaft, taking the place of the leadscrew, and connected by levers to move the cutter in and out provides means for relieving taps, hobs, and multiple cutters. It takes the place of the regular workhead. A compound taper attachment is included with this equipment.

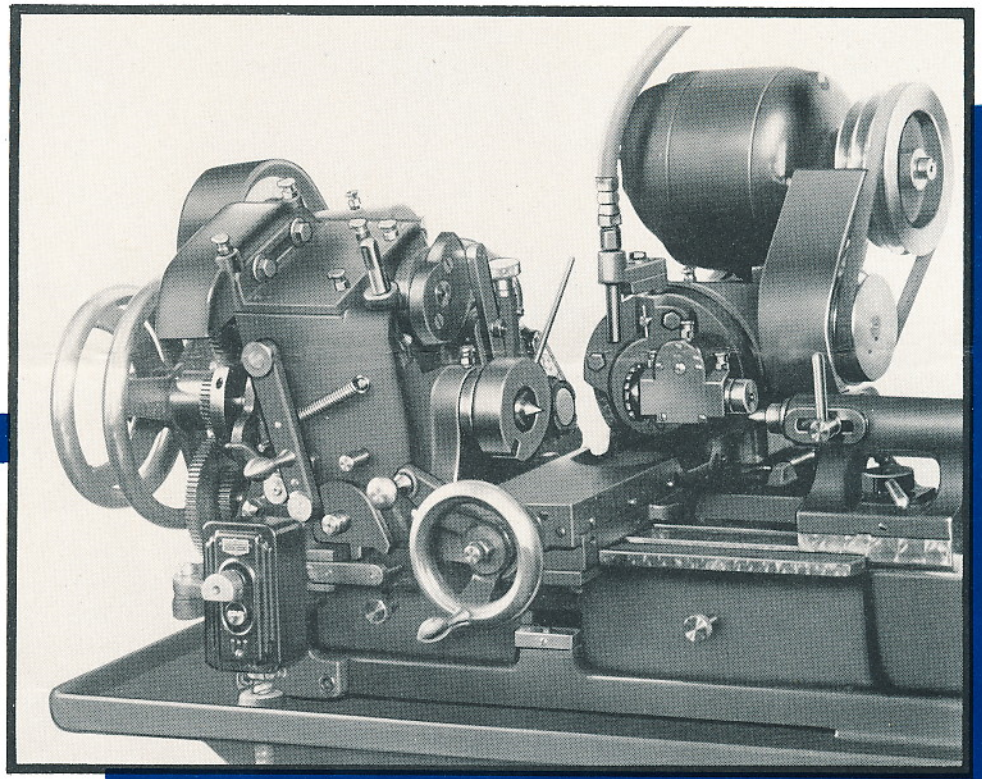
INTERNAL THREADING requires a special motor driven cutter head. It may be swivelled to the helix angle and the cutter may be centered for varying lengths of arbors. It is useful for relieving hobs and multiple cutters when a small diameter cutter is needed.

MULTIPLE CUTTER THREADING is provided for by a rigid motor driven cutter head with outside arbor support and fly wheel.

CAM OPERATION has many advantages for production work. It can be used for short threads or in connection with the multiple cutter head. After starting by push-button, the feeding of the cutter into the work, the threading, withdrawal of cutter at completion, return and stopping at the starting position are all automatic. It cannot be used for miscellaneous threading.

SPECIAL TAILSTOCK to be used between the carriage and workhead is sometimes necessary, especially for multiple cutter work and can be provided.

OTHER EQUIPMENT for special work has been supplied. Bring your problems for small sized threading to us for solution.



VIEW SHOWING MACHINE EQUIPPED WITH RELIEVING ATTACHMENT

SPECIAL ATTACHMENTS

GENERAL SPECIFICATIONS

Swing over the carriage	3″
Diameter of work for which the work is best adapted	2″ or smaller
Length of thread that may be cut if work is held on centers	8¾″
Length of thread if one end is held in a spring chuck	10″
Diameter of hole through spring chuck	⅝″
Diameter of hole through work spindle	¾″
Maximum distance between centers	12″
Dimensions of cutter	1-11/16″ diameter .20″ thick 7/16″ hole 3/32″ keyway
Shelves provided in cabinet base	2
Floor Space	48″ x 34″
Net Weight with standard equipment	850-lbs.
Weight boxed for shipment	1,000-lbs.

The most important change in the improved design is in the use of three motors. It allows individual speed change and reverse for both the cutter and the work and a constant speed for the pump.

Machines can be arranged with speeds suitable for either brass or steel and by changing your ratios for both.

Motors are wired so that a single start and stop station will control all at one time.

Besides the changes made necessary by this design, there have been other improvements which tend to make the machine more flexible in regard to speeds and to increase its rigidity.

STANDARD EQUIPMENT

Machines mounted on cabinet base, with two shelves inside. Standard equipment includes: — Three motors with push button start and automatic or push button stop — follow rest — one milling cutter — indexing device for cutting multiple threads — 5 pitch lead screw — change gears for cutting the following threads per inch: 5, 5½, 5¾, 6, 6½, 7, 7½ 8, 9, 10, 11, 11½, 12, 13, 14, 15, 16, 18, 20, 22, 23, 24, 26, 28, 30, 32, 36, 40.

Motors are generally ⅓-¼ and ½ H.P. but this may vary with varying current specifications.