Becker Lincoln Type Milling Machines

Models No. 7H and 7HS

These machines are used extensively for the manufacture of firearms, sewing machines and production work of similar character. The drive is very powerful and the bearings throughout the machine are exceptionally liberal, making it a very rigid machine for production work. The 7H machine has a longitudinal power feed of 19½″, working surface of table 9″ x 29″, cross adjustment 7″. The 7HS has longitudinal power feed of 36″, working surface of table 11″ x 40″ and cross feed of 6″. The machines are otherwise identical.

TABLE:

The table is supported by saddle or carriage the full length of working surface, giving it a practically full bearing at all times. Power quick return can be furnished at an additional charge.

SPINDLE:

Spindle has a main bearing 6¼″ in length, 2½″ in diameter and runs in adjustable bronze boxes. The wear of the spindle is taken up by adjustable collars. The spindle is slotted for driving arbors, this in addition to the overarm support with outboard bearing and the direct gear drive at a ratio of 6½ to 1 gives the machine power and rigidity to handle High Speed Steel Cutters up to the maximum. The saddle carrying the spindle is adjustable on the main column by a screw equipped with micrometer dial.

ATTACHMENTS:

An oil pump and piping, for giving direct lubrication to the cutters, can be furnished at an additional charge.

To meet the requirements of special conditions, certain modifications of the standard specifications can be made at an additional charge, such as: increased length of table, increased width of table, increased length of bed, gear ratios other than standard, etc.

In order to swing cutters larger than 10 inches in diameter, the overhanging arm and arbor support may be removed; but as the removal of this arm and support impairs, to a certain extent, the rigidity of the machine, we recommend that this be done only when it is to be used for light or medium work.

Becker Milling Machine Company

Hyde Park, Boston, Mass.

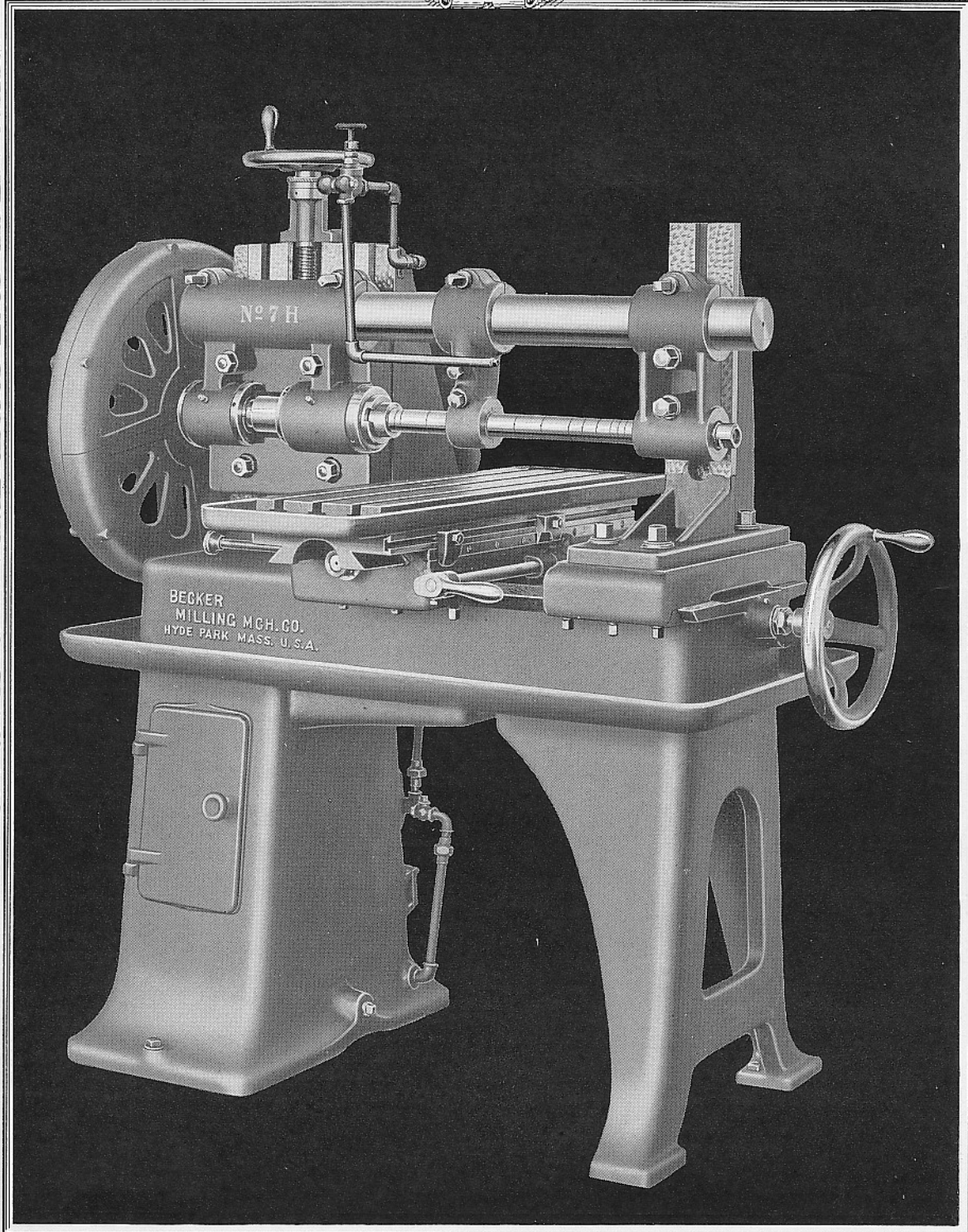
DETROIT, MICH. WORCESTER, MASS. INDIANAPOLIS, IND.

Becker Lincoln Type Milling Machines

Models No. 7H and 7HS

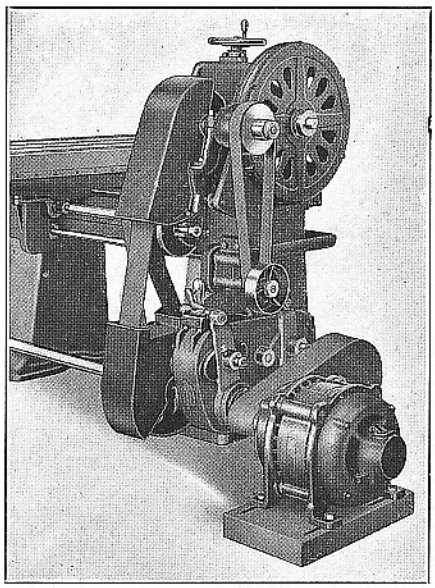
Specifications

	7H	7HS
RANGE:		
Longitudinal feed (power)	19½″	36″
Cross feed (power)	7″	6″
Vertical adjustment of spindle	9″	9″
Maximum distance between spindle and arbor bushing	19″	19″
Maximum distance between center of spindle and top of table	9½″	9½″
Maximum distance between center of spindle and bottom of arm	5⅛″	5⅛″
TABLE:		
Working surface	9x29	11x40″
Size overall	11⅝x38	13⅝x48
Has 3 T slots ⅝″ wide.		
Length of carriage	28⅛″	43½″
Number of feeds per spindle speed	8	8
Longitudinal feed per revolution of spindle	.018″ to .1892″	.018″ to .1892″
Longitudinal feed per minute	.293″ to 7.45″	.293″ to 7.45″
Improved saddle permits rigid locking with knee.		
Feed gear mechanism is fully protected by gear case.		
SPINDLE:		
Diameter of main bearing	2½″	2½″
Length of main bearing	6¼″	6¼″
Number of spindle speeds	3	3
Range of spindle speeds	16–25–37 R.P.M.	24–34 R.P.M.
Ratio of back gears	6.5 to 1	6.5 to 1
Taper hole No. 10 B. & S. Taper.		
Spindle is provided with automatic feed and quick return hand wheel, also micrometer stop gauge which accurately controls depth of cut. Main bearing is unusually long and bushed with hard bronze. The back gears are fully enclosed.		
PULLEYS:		
Diameter of countershaft pulleys tight and loose	14″	14″
Speed of countershaft	160 R.P.M.	160 R.P.M.
Belt pull is taken upon an adjustable auxiliary bearing.		
FLOOR SPACE:		
Length x width x height	61½″x58″x63″	61½″x84″x63″
WEIGHTS AND SHIPPING DIMENSIONS:		
Machine, net, about	2400 lbs.	2500 lbs.
Machine, boxed for ocean shipment, about	3120 lbs.	3280 lbs.
Contents, boxed (length x width x height	63″x44″x67″	63″x54″x67″
EQUIPMENT:		
Regular: Wrenches, hand wheel, tight and loose pulley, countershaft.		
Extra: 6″ flat vise, oil pump and connection, automatic quick return, back gears of other ratios than that specified, driving and feed belts.		
CODE WORDS:		
Cabinet Leg	Amodsomo	Amodless
Quick Return and Cabinet Leg	Amodsero	Amodesero



No. 7H Becker Lincoln Miller
With Over-hanging Arm and Oil Pump

Motor Drive for Lincoln Type Milling Machine



Constant Speed Drive

Constant Speed

The motor is attached by means of a bracket fastened to the base of the machine and the drive is effected by a silent chain running on two sprockets, the one of which is attached to the armature shaft of the motor and the other to the speed box. Sprockets and chain are covered by a cast-iron guard.

There are 7 changes of speed obtained by shifting the gears contained in the speed box, ranging from 15 R. P. M. to 76 R. P. M.

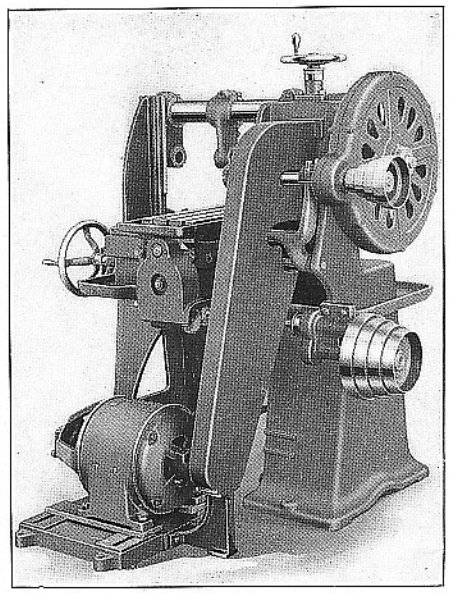
For this drive a 3½ H. P. constant speed motor running at 850 R. P. M. is recommended.

Variable Speed

The motor is attached by means of a bracket fastened to the base of the machine and the drive is effected by a silent chain running on two sprockets, the one of which is attached to the armature shaft of the motor and the other to the pinion shaft mounted on the rear of the machine. Sprockets and chain are covered by a cast-iron guard.

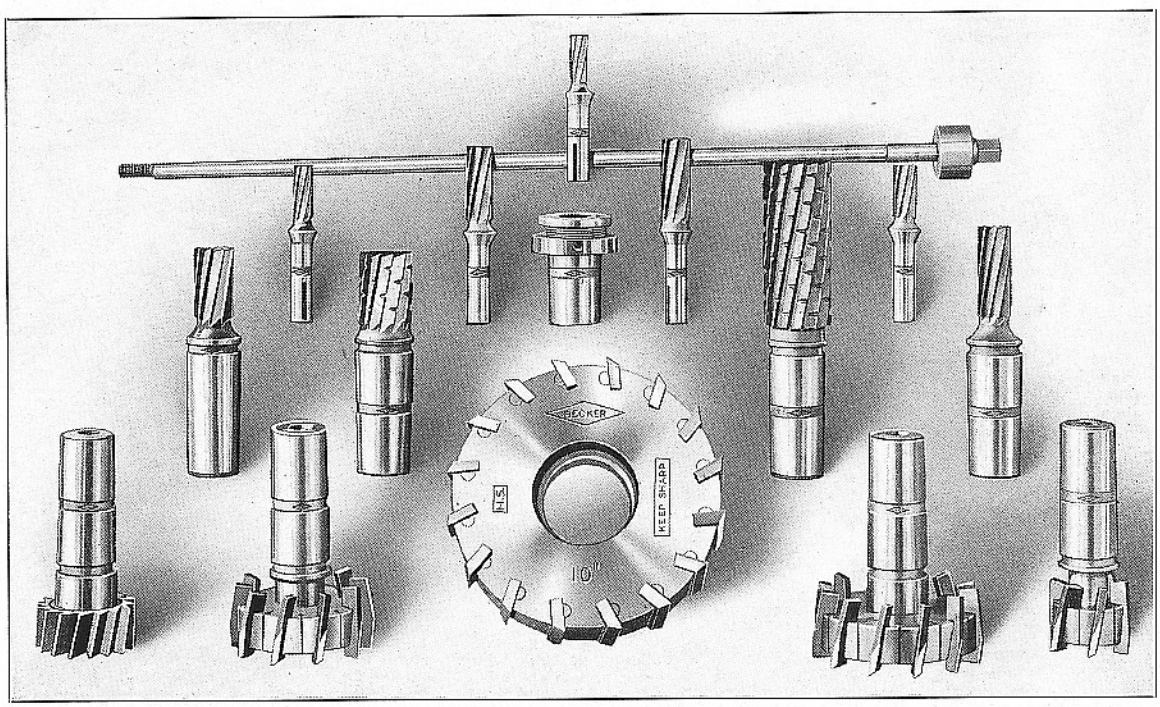
The changes of speed are controlled by a rheostat attached to the machine or in a position adjacent to the machine. The speeds range from 18 R. P. M. to 90 R. P. M.

For this drive a 3½ H. P. variable speed motor running at 500/1500 R. P. M. is recommended.



Variable Speed Drive

Becker High Grade Cutters



Next to the construction of the machine itself, the efficiency of the milling machine as a production tool depends largely upon the durability of the cutters used, the selection of cutters with reference to the work to be done and care in keeping them sharp.

In order to do their best work, Horizontal Milling Machines must be equipped with cutters carefully made and of exceptional strength and quality; cutters that will stand up to the work required of them with the minimum of re-grinding.

Becker cutters meet all requirements because they are built up to the standard of quality established as a result of years of experience in building and operating milling machines and milling cutters. Becker cutters carry the same ironclad guarantee that protects the buyers of Becker Milling Machines.