

THE U★S★Burke

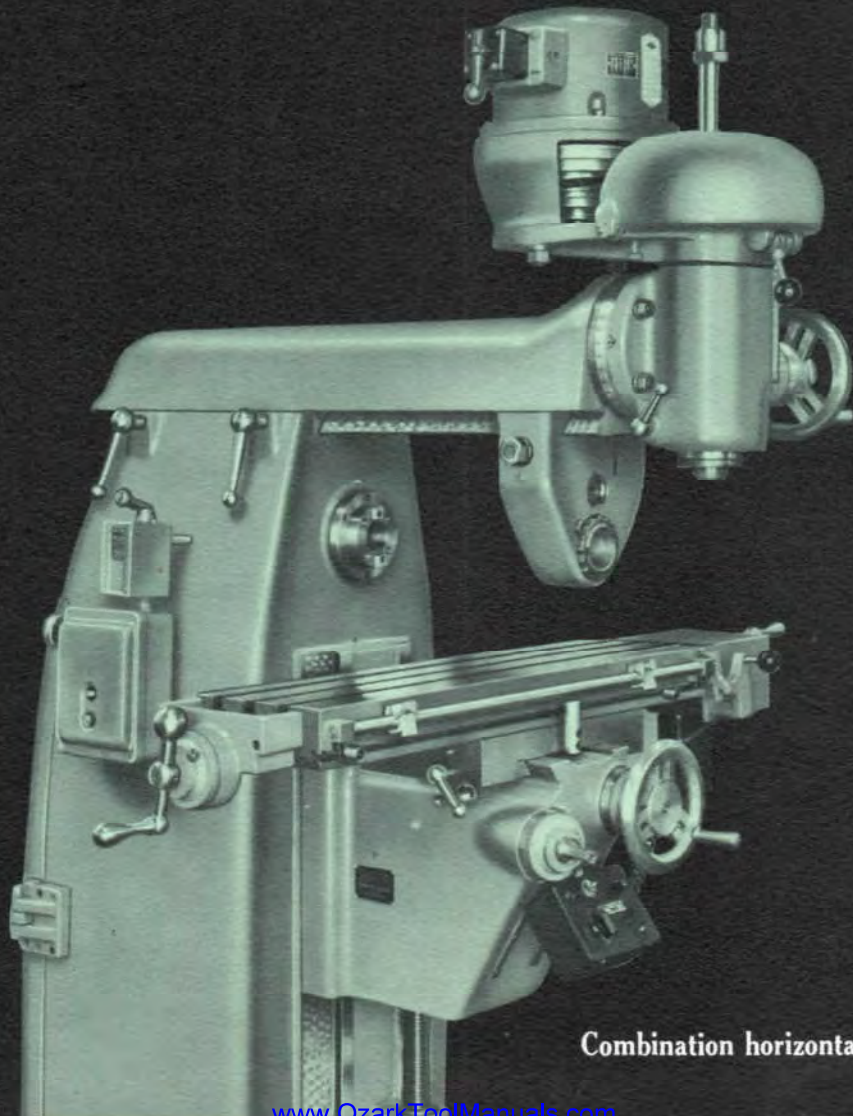
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# BBB

MILLING MACHINE

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HEAVY DUTY 3 H. P. BACK GEARED DRIVE HORIZONTAL OR  
COMBINATION HORIZONTAL AND VERTICAL KNEE TYPE MILL-  
ING MACHINE PRODUCTION OR TOOLROOM MODELS WITH  
HAND OR POWER FEED TABLES AMAZINGLY LOW PRICED



Combination horizontal and vertical model

*\$3745.00*

*f. o. b.  
factory*



**PRODUCTION!  
TOOL ROOM!  
LABORATORY!  
SHOP!**

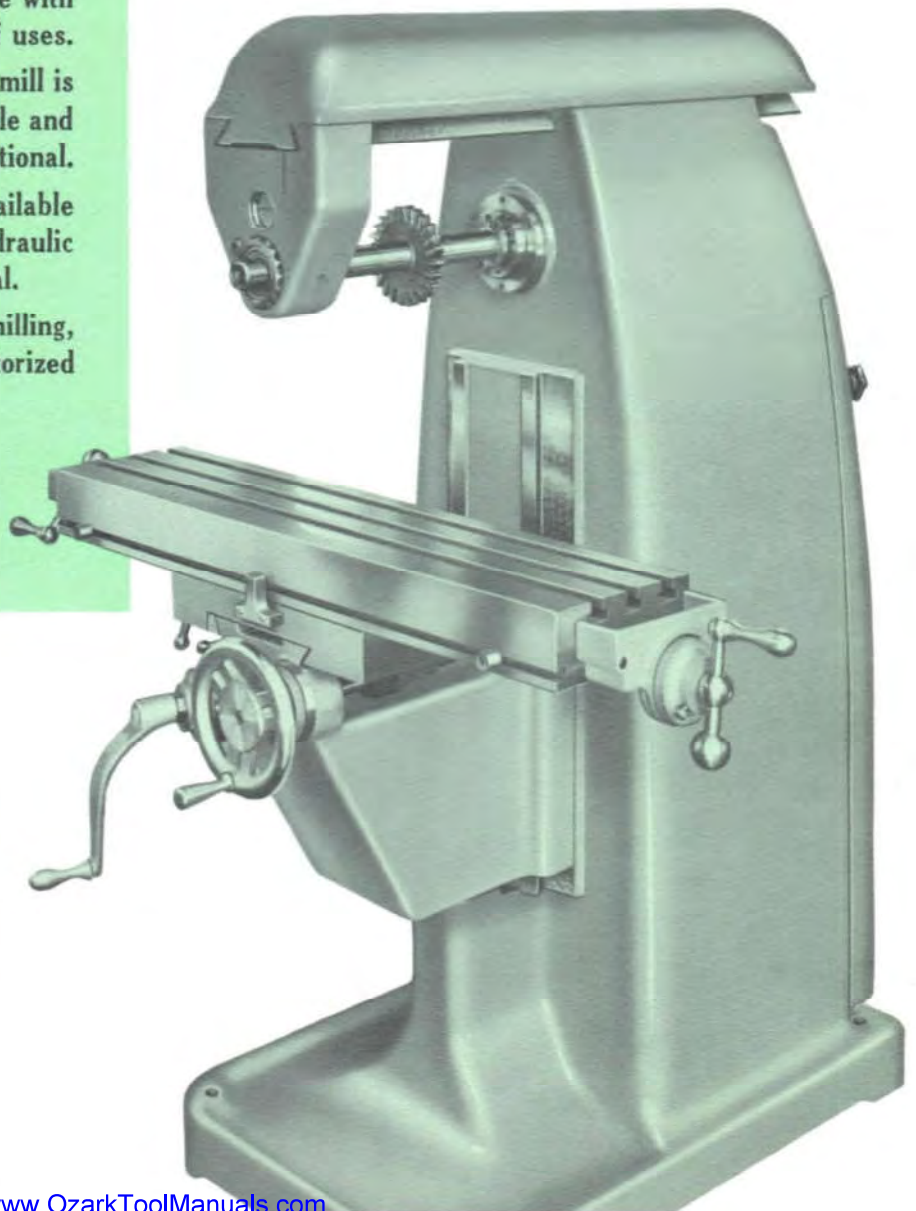


The U.S. Burke No. 333 is a minimum priced, heavy duty, precision built, knee type milling machine. A horizontal mill, it is available with options that adapt it to a wide variety of uses. For toolroom work, the basic horizontal mill is offered with hand screw feed table, saddle and knee. Mechanical table power feed is optional. For production work, the No. 333 is available with rack and pinion table feed. Hydraulic table feed, for high production is optional. For combined horizontal and vertical milling, the No. 333 is offered with optional motorized quill feed vertical head.

**TOOLROOM MODEL**

Standard equipment includes #40 taper spindle mounted on combination ball and widely spaced roller bearings, hand fitted tapered gibs and powerful 3 H.P. combination direct and back geared drive. See back page for complete specifications. Consult price list for optional ways in which the No. 333 can be supplied.

All slides have hand scraped bearing surfaces, dovetail ram and heavy duty cast aluminum outboard support, Acme lead screws with large, chrome plated, easy to read dials. The No. 333 is built and tested to accepted machine tool accuracy standards.



*11/2980*



## MECHANICAL TABLE POWER FEED

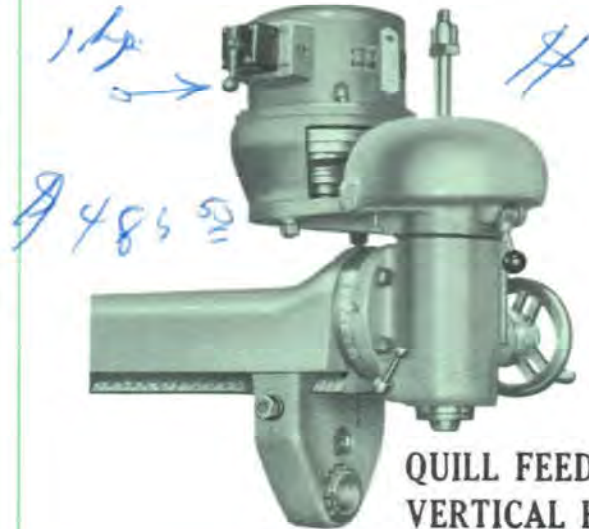
Infinitely variable speeds of 1" to 18" per minute in both longitudinal directions are provided by the optional table power feed, available only on the toolroom model, as the longitudinal lead screw is used for power transmission. Automatic disengagement is provided in both directions. Operator may vary feed rate while milling with convenient panel mounted controls. There is no sacrifice of table travel with power feed, and handles are retained.

## PRODUCTION MODEL

All quality features usually associated with higher priced milling machines are found on the No. 333 production hand feed model. It is a compact, heavy duty unit. Backlash of table rack and pinion as well as the cross feed screw and nut can be easily and quickly adjusted. The heavy duty spindle, 3 H.P. back geared drive, and massive dovetail overarm were all designed to speed production and reduce operator fatigue.

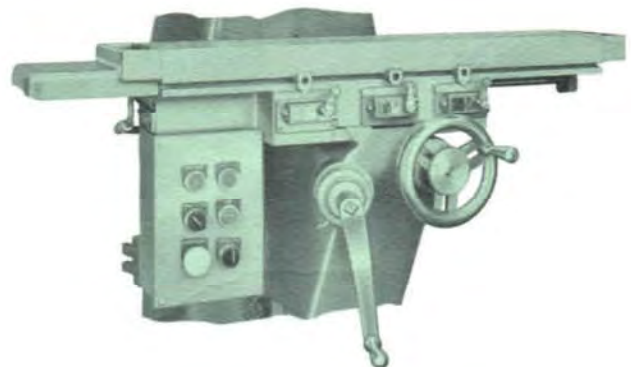


A special flanged ram is factory supplied when the No. 333 is ordered with quill feed, motorized vertical head. Powered by an independent  $\frac{3}{4}$  H.P. motor, the head has a 5 bearing spindle, hard chrome plated quill, choice of spindle tapers with  $\frac{3}{4}$ " collet capacity. Standard equipment includes spindle brake, spindle lock, quill lock, simple speed change motor mount, and anti-friction bearing draw bar.



QUILL FEED  
VERTICAL HEAD

**THE U\*S\*Burke**  
**MACHINE TOOL CO.**  
CINCINNATI 27, OHIO, U.S.A.



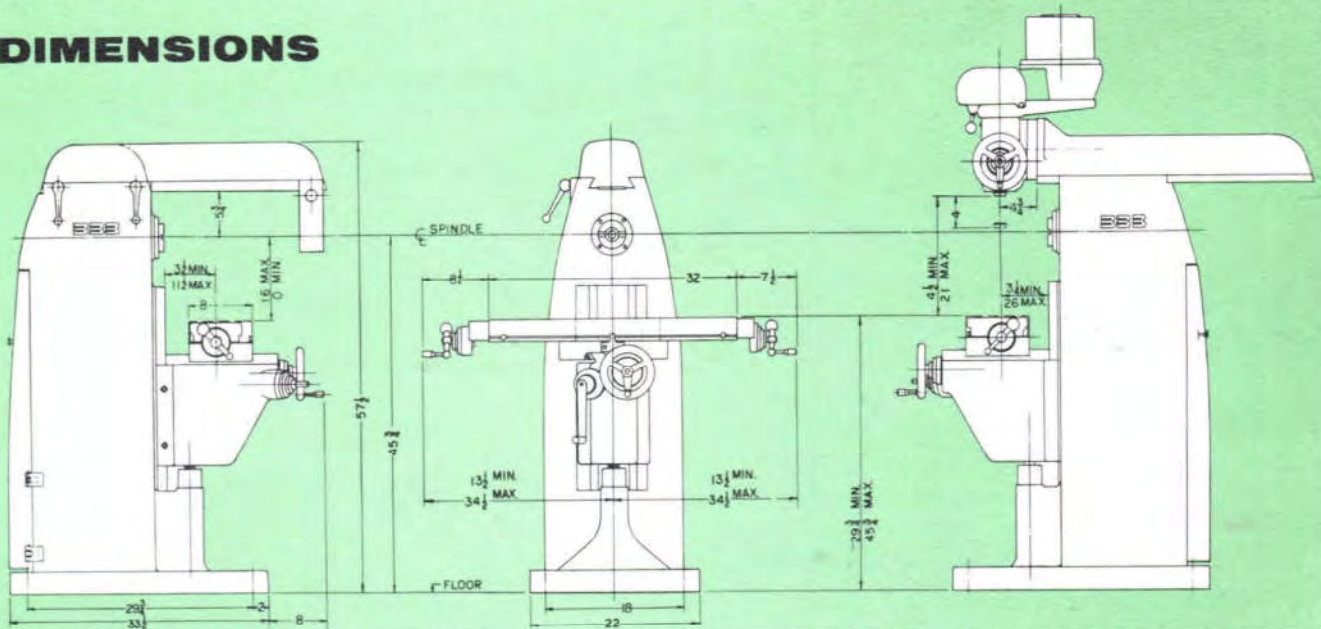
## HYDRAULIC LONGITUDINAL TABLE FEED for semi-automatic production

20" stroke hydraulic feed is electrically controlled, provides rapid traverse advance, controlled cutting speed and distance, plus automatic rapid return.

The hydraulic unit is powered by a 1 HP motor, mounted on a tank in the base of the column. Two flexible hoses connect this self-contained system to a 2" diameter hydraulic cylinder secured beneath the table. The pictured table extensions are standard equipment, furnished to shield the cylinder.



## DIMENSIONS



## SPECIFICATIONS

### SPINDLE

- Spindle nose: #40 National Standard taper.
- Spindle bearings: combination ball and widely spaced tapered roller bearings. Provision made for take up for wear.
- Spindle speeds: choice of 8:  
Direct Drive—475, 900, 1200, 1575 RPM.  
In Gear—140, 300, 400, 520 RPM.
- Optional higher or lower speed ranges available. See price list.
- Distance from center of spindle to bottom of ram:  $5\frac{3}{4}$ " (Permits use of any diameter cutter to 10").
- Drive: 3 HP 1800 RPM 220/440/3/60 1800 RPM motor, by double V-belt to intermediate shaft, and by gearing from intermediate shaft to spindle.

### VERTICAL HEAD (Optional)

- $\frac{3}{4}$  HP drive, providing 6 alternative spindle speeds of: 250, 430, 725, 1160, 2300, 3400 RPM or 185, 320, 540, 860, 1700, 2500 RPM.
- Spindle nose: #9 B & S taper (#30 National, R-8, #2 or #3 Morse tapers optional).
- Collet capacity:  $\frac{3}{4}$ "
- Quill feed: Manual, 4" max.
- Head has hard chrome plated quill, with spindle mounted on combination ball and tapered roller bearings. Lead screw quill feed with micrometer dial and anti-friction bearing draw are exclusive features. Standard equipment includes spindle brake, spindle lock, quill lock, drum type reversing switch, graduated scale for angular settings, and wrench.

### TABLE

- Working Surface: 8" x 32" (8" x 36" optional).
- Tee Slots: 3,  $\frac{1}{4}$ " wide, on  $2\frac{1}{2}$ " centers.
- Longitudinal Feed: 21" with standard table (25" with optional table).
- Table has  $\frac{3}{8}$ " diameter, 5 pitch, Acme lead screw, handles at both ends, with  $3\frac{1}{2}$ " diameter chrome plated dials graduated .001", .200" per revolution. Hand fitted tapered gib with lock provided.

### SADDLE

- Cross feed: 8"
- Saddle has  $\frac{3}{8}$ " diameter, 5 pitch, Acme lead screw, with  $3\frac{1}{2}$ " diameter chrome plated micrometer dial, graduated .001", .200" per revolution. Hand fitted tapered gib with lock provided.

### KNEE

- Vertical feed: 16"
- Knee has  $1\frac{3}{8}$ " diameter, 5 pitch, Acme lead screw, with  $3\frac{1}{2}$ " diameter chrome plated micrometer dial, graduated .001", .100" per revolution. Hand fitted tapered gib with lock provided.

### STANDARD EQUIPMENT

- "B" style outboard support equipped for use with  $2\frac{1}{2}$ " running band, draw bar threaded  $\frac{5}{8}$ " x 11" R.H., manual controls with overload protection, manual lubrication, necessary wrenches.

### OPTIONAL EQUIPMENT

- Low voltage and/or magnetic electrical controls, one shot metered lubrication, coolant system, arbors (all styles and sizes), collets, dividing head, vises, mechanical or hydraulic table feed.

### WEIGHT

- Net: 1750 lbs. approximate.
- Crated: 1850 lbs. approximate.
- Export boxed: 2000 lbs. approximate.

THE **U★S★Burke**  
**MACHINE TOOL CO.**  
 CINCINNATI 27, OHIO, U. S. A.

*Builders of milling machines only*

**McDONALD MACHINERY CO.**  
 CEstral I-9360  
 1535 N. BROADWAY  
 ST. LOUIS 6, MO.