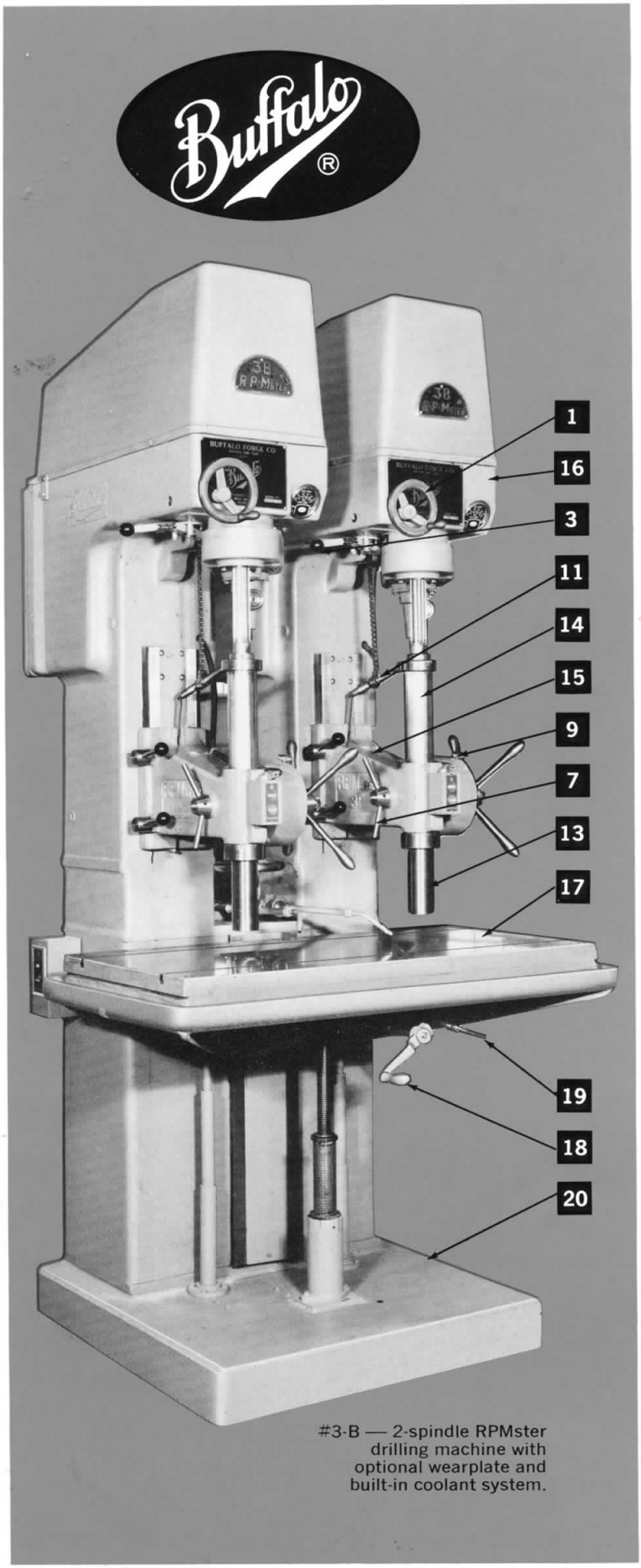

#3-B — 2-spindle RPMster drilling machine with optional wearplate and built-in coolant system.

"for shops that demand the finest!"

Buffalo RPMster Drilling Machines were the pioneers of variable speed drills. The latest models, while retaining their fundamental design, feature increased capacity, greater speed range, ease of operation and new modern styling.

The popular pedestal model is shown on the left, the versatile round column type on the right. Both have massive construction and readily accessible controls. An electric tachometer indicates actual spindle speeds. The power feed automatically engages upon contacting the work, disengages with a reverse motion of the feed handle, or at a pre-set depth. The spindle and sliding head are counterbalanced so that the feed handle will operate with finger-tip pressure even when heavy tooling is attached to the spindle or quill.

Extra heavy design and fine balance assure vibration-free drilling. All high speed rotating parts are fully enclosed. The materials of construction are carefully selected to guarantee built-in longevity. All machines are factory tested. The spindle, quill, sliding head and table of each drill is indicated to assure perfect alignment and close machining tolerances.

Standard #3-B RPMsters include motor, magnetic starter, push buttons, back gears, power feed and variable speed drives. Multi-spindle pedestal models are available in 2 to 6 spindle units. Optional accessories or modifications include:

Coolant System ■ 2 T-slot wearplates ■ Oversized tables ■ Reverse tapping controls ■ NMTBA or JIC electricals ■ Flanged quill ■ 6" or 12" Riser blocks ■ Extended round columns ■ High slip reversing brake motors ■ 4:1 or 7:1 Feed Reducer ■ Increased spindle speeds — 45 to 3000 rpm ■ Hollow spindle for diamond core bit or high pressure coolant tool drilling ■ 3:1, 6000 rpm hollow spindle speeder attachment ■ Air engagement of power feed ■ Power table adjustment ■ Machine light with transformer ■ Additional spindle travel.

DESIGN FEATURES:

1. VARIABLE SPEED DRIVE — combines a set of adjustable cone sheaves and timing belt pulleys to deliver greater spindle torques at infinitely variable speeds. Rotating components are mounted in "sealed for life" ball bearings. Adjustment is made by a hand wheel while machine is running.

2. ELECTRIC TACHOMETER — easy-to-read dial indicates spindle RPM at a glance, in direct drive or with back gears engaged.

3. BACK GEARS — forged alloy steel mounted in ball bearings, grease-lubricated and enclosed in a grease tight housing. The engagement is through an eccentric actuated by a shifting lever with the machine stopped. A single motion of the lever engages or disengages the direct drive clutch and puts the back gears in or out of mesh simultaneously. When in direct drive, no back gears are in mesh. Spindle speeds are 255 to 2,000 RPM in direct drive and 45 to 345 with the back gears engaged.

4. POWER FEED — a rugged all-geared positive drive is protected with a shear pin in case of overloads. The upper portion contains the feed change gears which have hardened tool steel inserts to engage an adjustable sliding key. The lower portion contains a steel worm mounted in ball and thrust bearings meshing with a bronze gear. Gears and pinions are of alloy steel, heat-treated and have hobbed helical teeth. The gearing is completely enclosed, oil and dust tight. Grease seals prevent leakage.

5. POWER FEED SELECTOR — A turn of the knob selects one of four feeds, .006"-.010"-.014"-.018" per revolution which can be changed while the machine is running at low speed.

6. FEED HANDLE — advances spindle to the work and automatically engages the power feed. The reverse motion of the feed handle will disengage the power feed prior to the depth stop knock-out.

7. LEFT HAND FEED HANDLE — to engage power feed before drill enters the work if desired.

8. FINE FEED HAND WHEEL — mounted on the lower end of the feed shaft worm is actuated by turning power feed selector control knob to neutral, advancing tool to the work and engaging the power feed clutch.

9. DEPTH STOP — quickly set for automatic disengaging of power feed and spindle return when drill reaches a pre-determined depth. Also serves as a positive depth stop for sensitive hand feed drilling.

10. RIGHT HUB PIN — locks out the power feed for sensitive hand feed drilling.

11. COUNTER-BALANCE BAR — regulates the spindle return, compensating for the weight of various chucks or tools.

12. MOTOR CONTROL — a magnetic, non-reversing, full voltage starter with separate push button station is standard equipment.

13. SPINDLE — alloy steel with six driving splines, mounted in ball bearings to carry both radial and thrust loads. Spindle nose has a #5 Morse taper. 3 HP models have a #4 Morse taper sleeve. For special applications, a hollow spindle with threaded nose can be furnished. Spindle is indicated at assembly and held to a maximum of .002" run-out at the end of a 6" test arbor.

14. SPINDLE SLEEVE (QUILL) — has 7" of bearing length in the sliding head. The sleeve is of alloy steel with rack teeth cut integrally, thereby eliminating the conventional large and clumsy combination key and rack. The key is separate and prevents lateral motion of the spindle sleeve. Spindle bearings are mounted in oversized cages at the ends of the feed sleeve.

15. SLIDING HEAD — a quarter turn of two clamp screw handles quickly releases the sliding head for adjustment within its 8" of travel. The sliding head attaches to the column by a dove-tail slide and is counter balanced for easy adjustment.

16. UPPER FRAME — high grade cast iron, accurately machined to receive the drive components, is fitted with a removable fiberglass belt guard and a removable motor plate for servicing and maintaining the drive.

PEDESTAL TYPE

17. TABLE — is heavily ribbed and has a large working area (500 sq. in.) completely surrounded by an oil trough. Gib block extends above the table top to protect the pedestal dove-tail.

18. TABLE RAISING CRANK — large square thread screws insure ease of table adjustment and provide a rigid support directly under the spindle.

19. TABLE LOCKING SCREW — securely locks the table gib to the pedestal dovetail.

20. PEDESTAL AND BASE — alloy cast-iron, well ribbed to insure vibration free drilling. Multiple spindle pedestals and bases are of welded steel construction. Provision is made in the base for a self-contained coolant system with reservoir of large capacity.

ROUND COLUMN TYPE

21. COLUMN — steel accurately ground to 10.625" diameter, .625" wall thickness.

22. COLUMN ADAPTORS — compression type attach the column to the head and base.

23. TABLE — fitted with 4 T-slots and 4 through-slots spaced at 45 degree intervals. The table rotates 360° and is locked to the table fork by a clamping screw.

24. TABLE FORK — vertically adjustable by means of a crank operated screw and locked to the column by two locking screws. The table and yoke may be rotated about the column as a unit to provide drilling of large work clamped to the base.

25. BASE — has a 20 x 22" machined working surface and is provided with two T-slots and an oil trough.