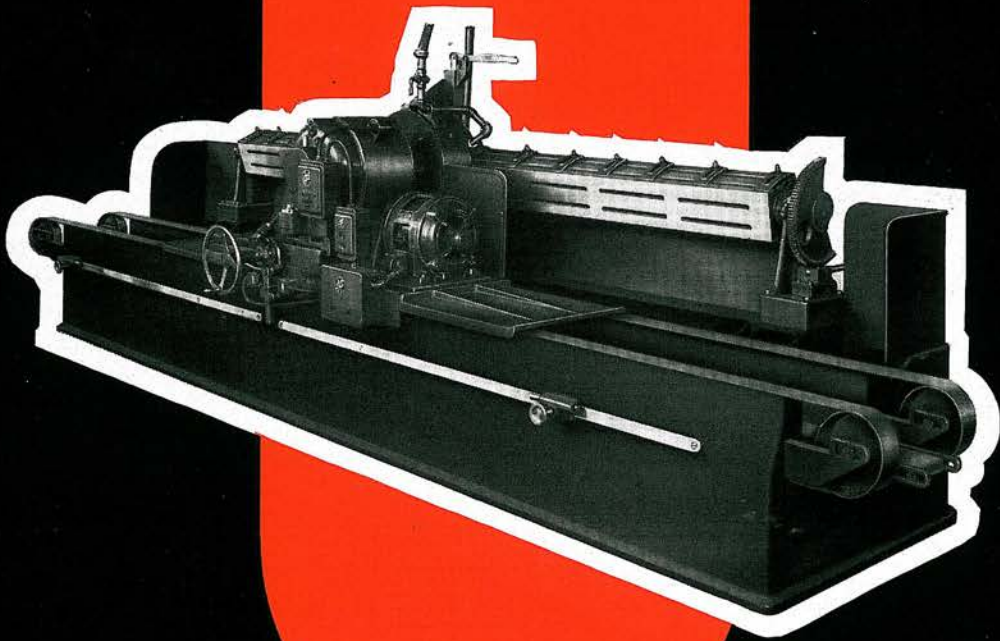
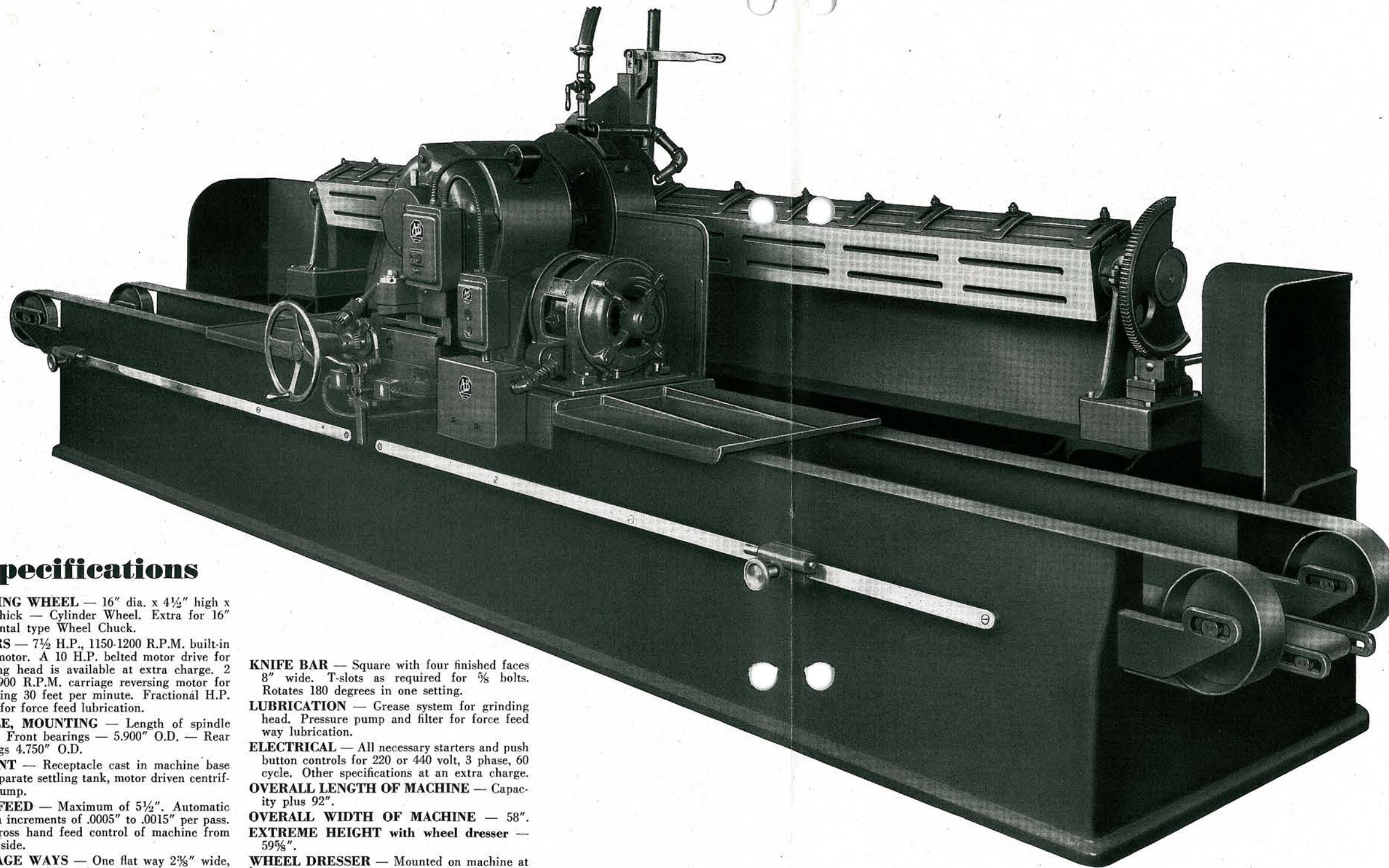


TYPE AK KNIFE GRINDER



**COVEL-HANCHETT COMPANY
BIG RAPIDS, MICHIGAN, U. S. A.**

TYPE AK TRAVELING WHEEL KNIFE AND SHEAR



Specifications

GRINDING WHEEL — 16" dia. x 4½" high x 1½" thick — Cylinder Wheel. Extra for 16" Segmental type Wheel Chuck.

MOTORS — 7½ H.P., 1150-1200 R.P.M. built-in head motor. A 10 H.P. belted motor drive for grinding head is available at extra charge. 2 H.P., 900 R.P.M. carriage reversing motor for traversing 30 feet per minute. Fractional H.P. motor for force feed lubrication.

SPINDLE, MOUNTING — Length of spindle 22½". Front bearings — 5.900" O.D. — Rear bearings 4.750" O.D.

COOLANT — Receptacle cast in machine base and separate settling tank, motor driven centrifugal pump.

HEAD FEED — Maximum of 5½". Automatic feed in increments of .0005" to .0015" per pass. Full cross hand feed control of machine from either side.

CARRIAGE WAYS — One flat way 2¾" wide, one vee-way 2¾" wide. 16¼" from center to center.

KNIFE BAR — Square with four finished faces 8" wide. T-slots as required for ¾ bolts. Rotates 180 degrees in one setting.

LUBRICATION — Grease system for grinding head. Pressure pump and filter for force feed way lubrication.

ELECTRICAL — All necessary starters and push button controls for 220 or 440 volt, 3 phase, 60 cycle. Other specifications at an extra charge.

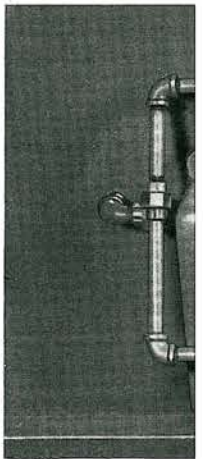
OVERALL LENGTH OF MACHINE — Capacity plus 92".

OVERALL WIDTH OF MACHINE — 58".

EXTREME HEIGHT with wheel dresser — 59¾".

WHEEL DRESSER — Mounted on machine at extra charge. Adjustable for dressing desired bevel.

The oil pump and a constant clean making for long

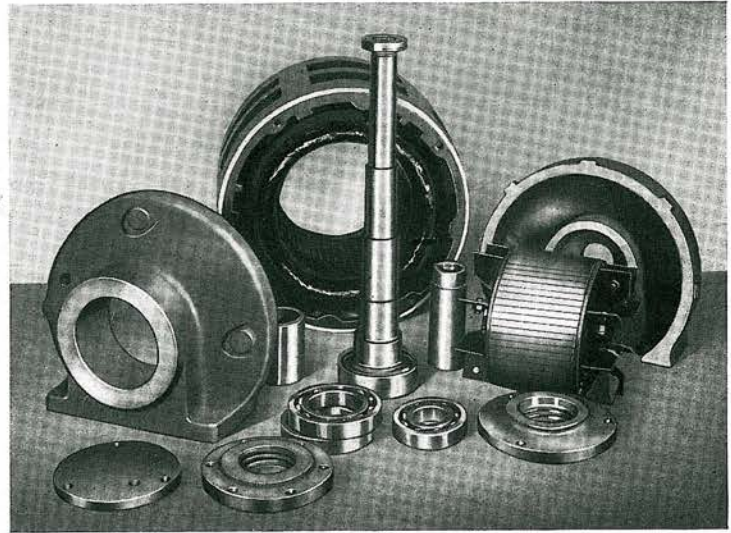
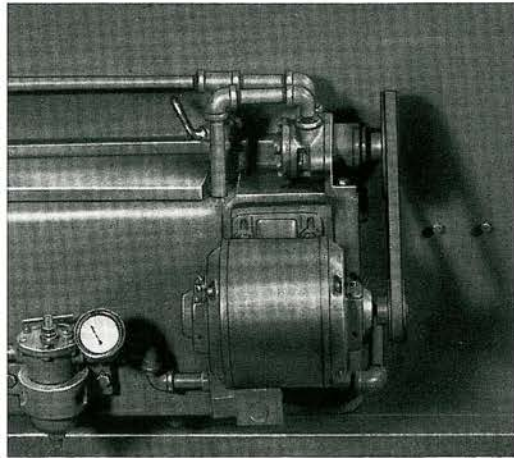


Suitable for planer, hog barker, chipper, tobacco paper and veneer knives shear blades, and all similar work within the capacity of the size selected. Will grind flat or concave bevel on any desired angle or square edge. Built in lengths 84" to 190".

COVEL-HANCHETT COMPANY

AB BLADE GRINDERS

reservoir for force feed lubrication assures film of oil for the table and bed ways, and continued accuracy of table travel.



A built-in motor driven wheel head completely disassembled. For smooth qualities and long continued accuracy, this unit, as we build it, is greatly superior to any other knife grinding head on the market.

CABINET BASE — The latest models have a full cabinet base with a large V and flat way planed and hand scraped to a perfect bearing, with a rigid traveling table that carries the grinding unit, the carriage being designed with the proper proportion to hold perfect alignment through years of service without attention. The cabinet base is of sufficient length so as to eliminate over-hang at the ends by the carriage in its reciprocation.

MOTORIZED GRINDING HEAD — The grinding wheel motor is of the largest approved built-in type construction, substantially totally enclosed fan cooled designed, which eliminates all intermediate driving mechanism. The grinding spindle of special spindle steel is of large diameter and reciprocated construction and is mounted in preloaded precision spindle bearings to prevent any possibility of end play to cause the wheel to "jump off" the work after clearing it. The entire grinding unit — spindle, stator, rotor, wheel, flange and bearings — is both statically and dynamically balanced with great precision to assure smoothness of operation and perfection of finish. No other knife grinder spindle is built with equal precision.

Grinding wheel spindle speed 1150 R.P.M., carriage speed 30 feet per minute, other speeds if desired. The knife bar is square, with four faces 7 inches wide, with T-slots crosswise and lengthwise as desired, for $\frac{5}{8}$ -inch

bolts, knife bar bearing 4 inches in diameter, 4 inches long.

THE GRINDING HEAD CARRIAGE is driven at 30 feet per minute by a separate 2 H.P. reversing motor, driving with silent chain through bull gear and rack with 2-inch face, 6 pitch, the bull gear running in bronze bearings. The carriage ways are one flat and one V-way, which automatically take up wear and insure continued accuracy after long service.

FORCE FEED LUBRICATION — Built into the cabinet base is a motorized force feed lubrication system with a pump, oil filter and pressure gauge which constantly supplies ample clean filtered oil to the ways, with a pressure gauge showing at all times the pressure of the oil, thus making for especially long life to the bed and carriage ways.

BELTED WAY COVERS — The ways of the Mammoth Traveling Wheel Grinder are fully protected from dirt by our patented endless belt covers. Belts pass entirely around through the bed and are attached to opposite ends of the carriage, so that the belt ways are never exposed to dirt and grit. The life of our bed and carriage ways is several times that of any other make of grinding way.

BIG RAPIDS, MICHIGAN

WHEEL GRINDERS

These machines are equipped with both automatic and hand cross feed of the grinding wheel to the work, with automatic feed variable as desired. Cross feed $5\frac{1}{2}$ inches by hand from either front or rear of machine; automatic, .0005 inch to .0015 inch. Full control of feed and carriage travel, start, stop, and reverse from either side of machine.

Standard equipment includes wet or dry grinding with attachments for water or cooling compound, with receptacle cast in the base of machine and separate screened settling tank with motor-driven submerged centrifugal pump for water or cooling compound.

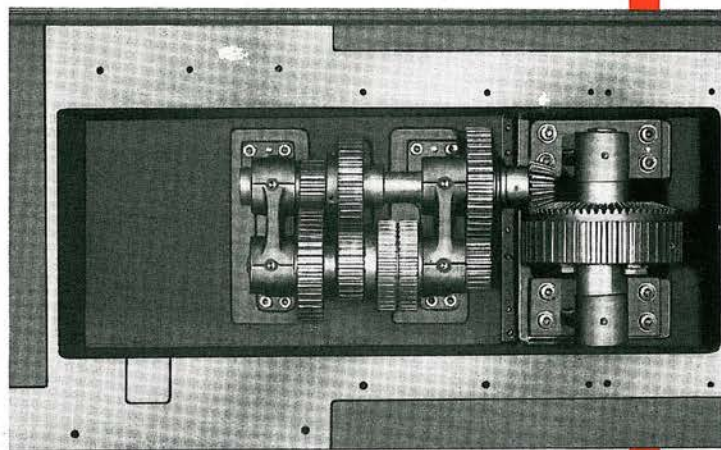
When grinding knives, standard installation places the knives with the edge up, for grinding from the edge to the heel of the knife. These machines are equipped for grinding knives with the edge either up or down.

The Mammoth Grinders require little floor space for the capacity of service provided (about half the length of traveling carriage grinders), require minimum power to operate, and the short length design, with an exceptionally sturdy construction, insures extreme accuracy, fast production and convenient operation. They are free from complication but with complete adjustments for full automatic action and accurate control.

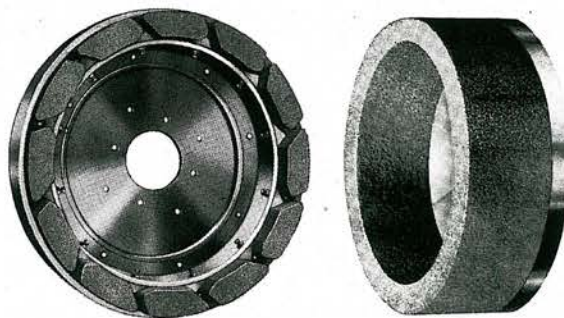
Grinding Wheel. The Mammoth Grinders are equipped with either cup, ring, or segmental grinding wheel (segmental wheel at additional cost). Standard equipment includes our new Red Anchor cylinder grinding wheel 16-inch diameter, 4 inches high, $1\frac{1}{4}$ inches thick, giving a saving of from one-third to one-half over the use of ordinary cup wheels, because enabling use of all of the grinding element, there being no part of the wheel to discard as with ordinary cup wheels.

Regular Equipment. Red Anchor Grinding Wheel, 16 inches by 4 inches by $1\frac{1}{4}$ inches; $7\frac{1}{2}$ H.P. motor, 1150-1200 R.P.M. for the grinding head and 2 H.P. reversing motor, 900 R.P.M. for the traveling carriage; motor-driven submerged centrifugal pump for water or cooling compound, motor-driven oil pump for lubricating the ways, mounted wheel dresser when ordered separately. The sizes of knives or shear blades to be ground and the slots or bolt holes should be fully described in correspondence or order.

PEDESTAL BASE MODEL — The pedestal base Mammoth Grinder, is also offered, and has the same construction as the cabinet base model described above, except that the base is pedestal type, and does not have the belt covered ways and force feed lubrication system furnished with the cabinet base model.



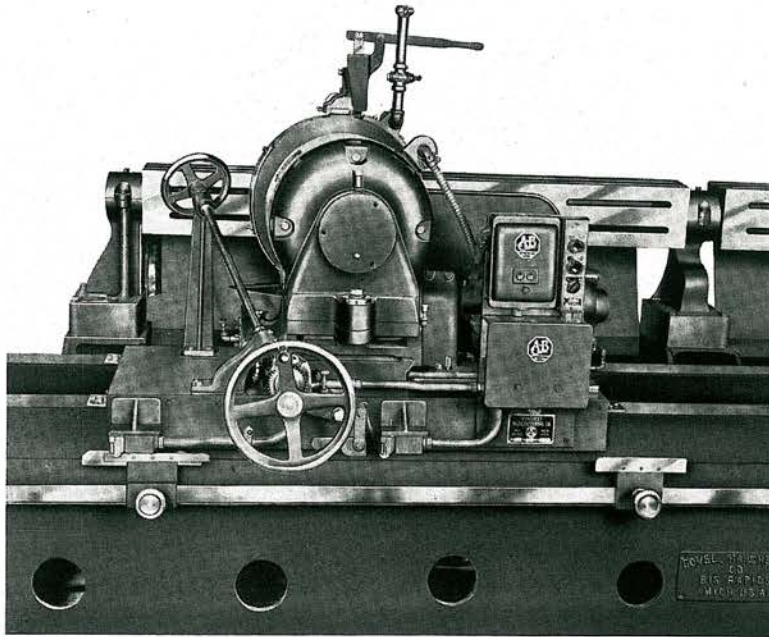
A simple reciprocating transmission is employed for long and economical service. All gears cut from the solid assures smooth positive movement of the carriage at all times.



Our patented nut inserted type cylinder wheel is standard equipment on our Grinders. It makes for a 40% saving in cost over the standard cup wheels regularly supplied on other makes of grinders. Segmental type grinding chucks for extra heavy service are supplied at a nominal extra charge.

COMPANY

BIG RAPIDS MICHIGAN



The traveling carriage unit is compact and self contained with all adjustments convenient to the operator and of proper proportion to give accurate results through years of service.

New AK Mammoth Traveling Wheel Grinder

For Accurate, High Production, Knife and Shear Blade Grinding

Cabinet Base Model

With Belt Covered Ways and Force Feed Lubrication

Size	Capacity	Crated Wt.	Boxed Wt.	Cu. Ft.	Code Word
No. 84C.....	84-in.	9,000 lbs.	10,000 lbs.	275	Gekal
No. 100C.....	100-in.	10,500 lbs.	11,750 lbs.	325	Geker
No. 130C.....	130-in.	12,500 lbs.	14,000 lbs.	375	Gekil
No. 150C.....	150-in.	13,500 lbs.	15,000 lbs.	440	Gekos
No. 170C.....	170-in.	15,000 lbs.	17,000 lbs.	500	Gekum

COVEL-HANCHETT CO.

BIG RAPIDS, MICHIGAN