

Hammond OF KALAMAZOO

CARBIDE TOOL AND CHIP BREAKER GRINDERS • DIAMOND WHEEL AND BELT FINISHERS



CARBIDE TOOL GRINDERS

FOR OTHER

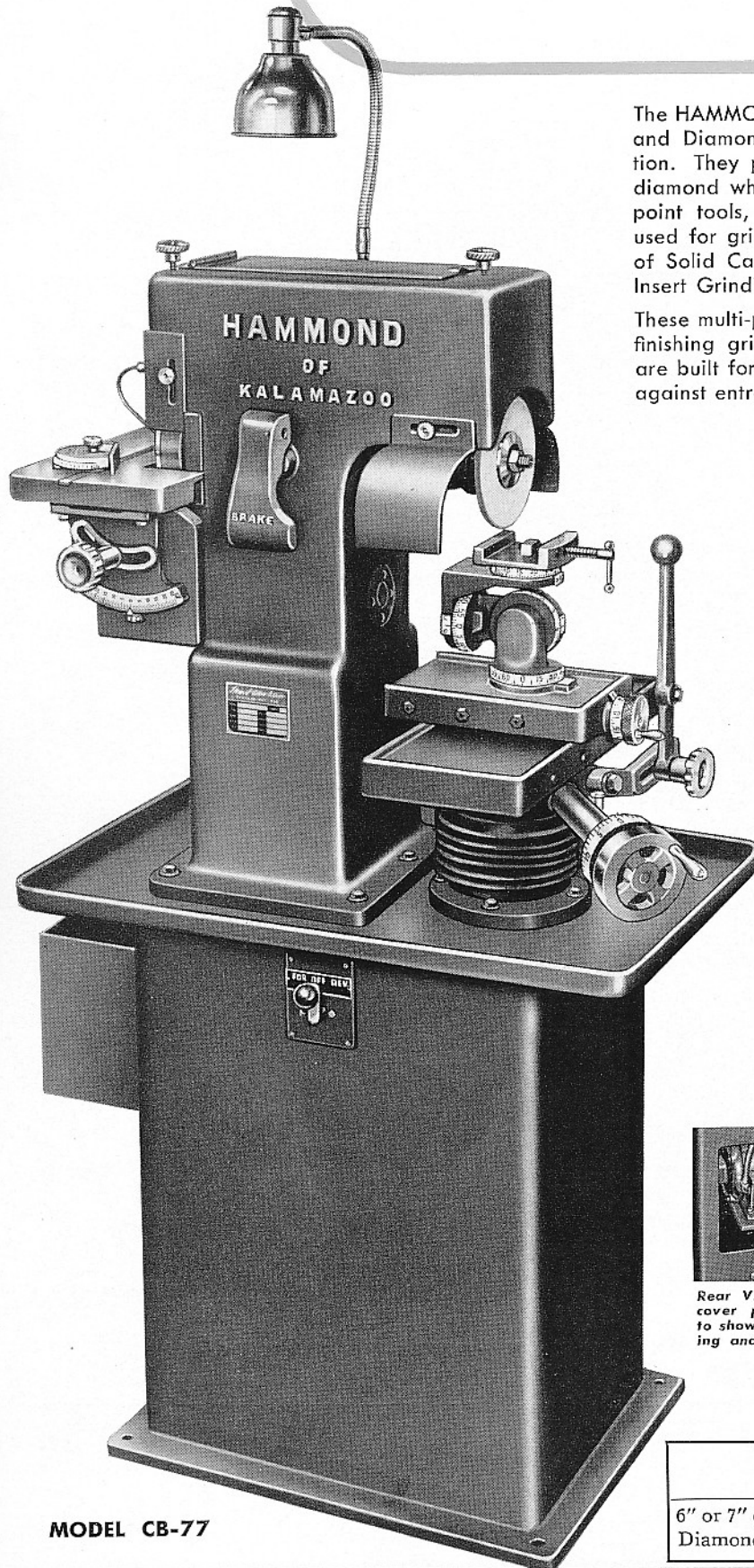
Hammond
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INC.
1600 DOUGLAS AVENUE • KALAMAZOO, MICH.

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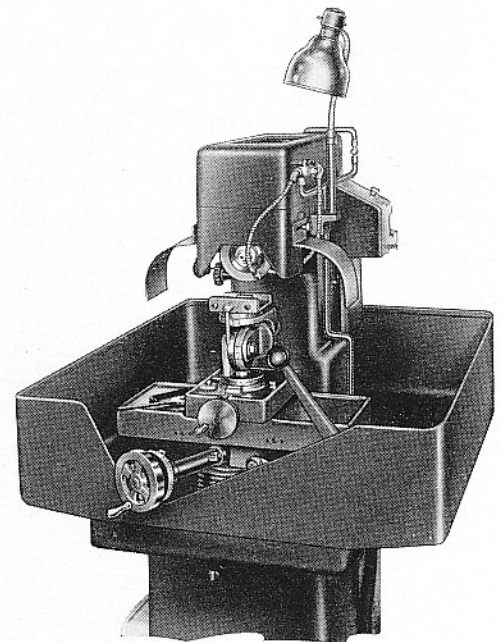
Hammond

CHIP BREAKER and



The HAMMOND Models CB-77 and CB-77W are Combination Chip Breaker and Diamond Finishing Grinders and are of the same general construction. They provide rapid chip breaker grinding on one side and precise diamond wheel finishing on the other, handle all types of box and single point tools, and accommodate the required angles. They also can be used for grinding chip breaker grooves and for rough and finish grinding of Solid Carbide Inserts when used with the Model "VC" Solid Carbide Insert Grinding Fixture described on page 5.

These multi-purpose grinders are built to handle chip breaker and diamond finishing grinding on both precision and production basis. Further, they are built for long lasting efficient service and every point is fully protected against entrance of abrasive material.

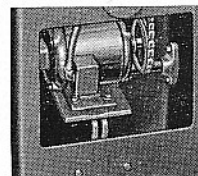


MODEL CB-77W WET CHIP BREAKER AND DIAMOND FINISHING GRINDER

Model CB-77W (above) is for those preferring a constant flow of coolant, and is equipped with wheel guards, No-Splash pans, coolant spouts, shut-off valves, and self-contained tank and pump unit that serves both the chip breaker and cup wheel sides.

Model CB-77 (at left) has drip-feed tank with wick and tube that supplies enough coolant to prevent excessive loading of the wheels.

Standard equipment and specifications for both models are listed on opposite page.



Rear View — Steel cover plate removed to show motor mounting and V-belt drive.

	Thickness	Face Width	Center Hole Dia.	No. of Mtg. Holes	Size of Mtg. Holes	Bolt Circle Dia.
6" or 7" dia. Diamond Cup Wheel	See Wheel Mfrs. Cat.	See Wheel Mfrs. Cat.	1 1/4"	4	17/64" Ctsk.	3 3/4"

MODEL CB-77

Hammond of Kalamazoo

GOOD MACHINERY SINCE '82

DIAMOND FINISHING GRINDERS

CHIP BREAKER SIDE

The chip breaker side provides the necessary movements and angular settings required for chip breaker grinding. The movements are: vertical with handwheel and dial calibrated to .001" — distance from bottom of vise jaws to center of spindle, 5½"; traverse in and out from wheel with handwheel and dial calibrated to .001" — 3¾" maximum movement, and reciprocation underneath wheel with a lever operated table traveling on ball bearing ways — 8" maximum stroke. An Any-Angle Vise provides all the necessary angular settings with four swivels, each of which is graduated in degrees. These swivels are numbered from 1 to 4 for easy identification and are: No. 1 top swivel for side cutting edge angle, Nos. 2 and 3 for back and side rake angles, and No. 4 bottom swivel for chip breaker groove angle. An instruction plate on the vise makes clear the purpose of each swivel and the settings. The settings require no figuring or guessing. When the four swivels are locked they form a single rigid unit. The vise jaws accommodate tools up to 2" in width but greater width can be provided. Any-Angle Vise is standard equipment.

Model "VC" Solid Carbide Insert Grinding Fixture, page 5, can be mounted on the chip breaker side for grinding chip breaker grooves and for rough and finish grinding of Solid Carbide Inserts. On Model CB-77 a drip feed tank of large capacity supplies the two wheels by use of a tube for the cup wheel and a wick for the straight wheel. Valves control the flow to each.

On Model CB-77W, self-contained pump and tank unit supplies a constant flow of coolant to both the chip breaker and cup wheel sides.

Heavy machine tool construction and a precision ball bearing spindle insure vibrationless grinding, which is of utmost importance with diamond wheels. Spindle is driven by "V" belt from motor in base. Spindle speed is 3500 RPM.

CUP WHEEL SIDE

The cup wheel side accommodates either 6" or 7" dia. cup wheel. Table tilts to any point between 25° above to 30° below horizontal by simply unlocking a lever. The table assembly is moved in and out from the wheel by a feed screw rather than being manually slid and damage to the wheel is thus avoided. Wheel is easily changed by simply backing table away and removing wheel mounting screws.

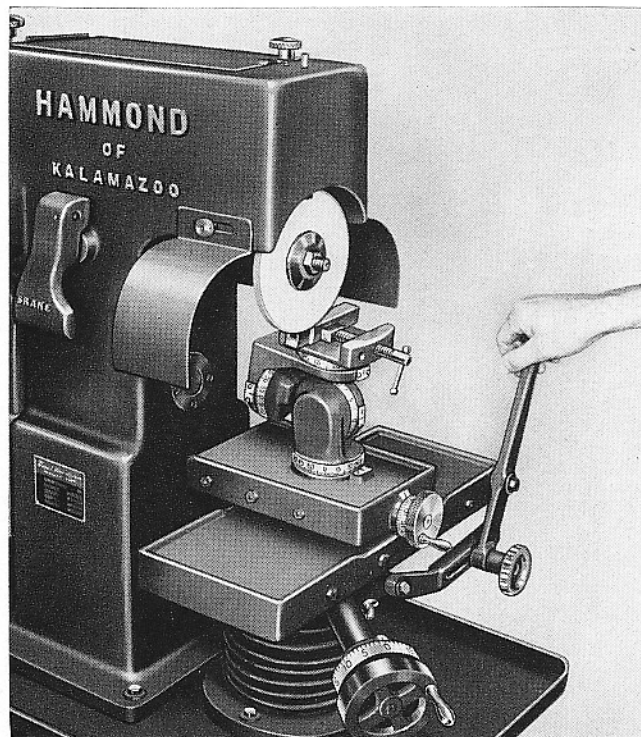
The table is equipped with a compound rather than plain protractor gauge. This gauge slides in the table slot parallel to the cup wheel and also has a cross slide for moving the gauge face in toward the wheel, which feature is exceedingly useful when grinding with the gauge face parallel to the wheel or almost so. Table dimensions are 8" x 14".

STANDARD EQUIPMENT AND SPECIFICATIONS

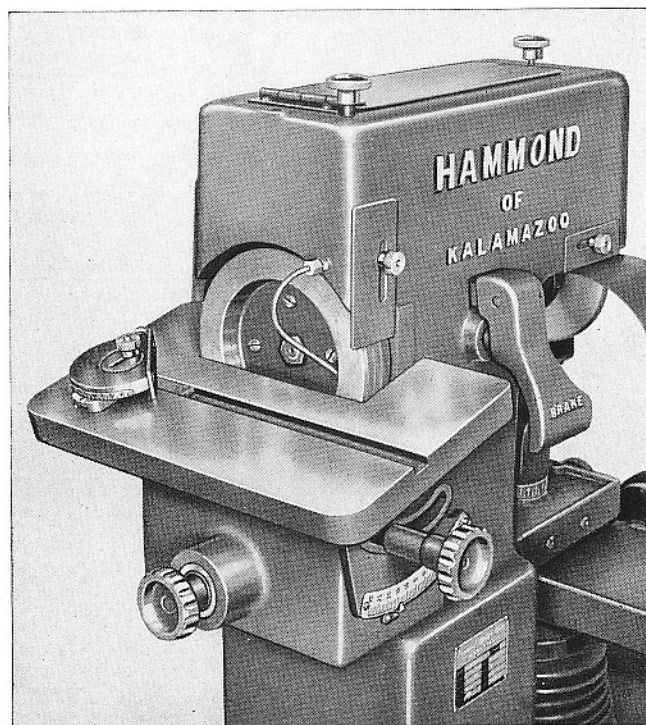
Both Models: Complete as shown and described except wheels, but including Compound Protractor Tool Gauge, Flexible Lighting Fixture, Reversing Switch, and ½ HP Motor of any electrical specification. (¾ or 1 HP can be furnished).

	Space Required	Net Weight	Shipping Weight
Model CB-77	17" x 33"	525	625
Model CB-77W	29" x 34"	600	700

Grinding Wheels: We do not supply wheels, but for your convenience in ordering from your regular wheel supply source we list wheel specifications as follows: **Diamond Chip Breaker Wheel:** 4" to 6" diameter, ⅛" to ½" face, 1¼" hole. **Diamond Cup Wheel:** See chart for wheel specifications on opposite page.



Chip Breaker Side



Cup Wheel Side

Hammond

TOOL FINISHER — CHIP BREAKER GRINDER

SINGLE-POINT TOOL FINISHER



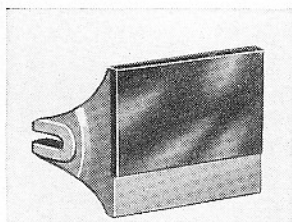
MODEL 454

The HAMMOND Model 454 Single-Point Tool Finisher is for final finishing single-point carbide tools after rough grinding on a silicon carbide wheel. It may also be used for light grinding and finishing high speed steel tools.

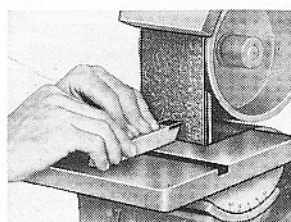
Finishing is done against a **carbide faced platen**, permitting the finishing of tool tops as well as end and side clearance angles. Nose radius is easily generated and smoothly blended. Table adjusts between 20° above and below horizontal. There are two abrasive belt trackings — pivot and lateral. Abrasive belts are changed in seconds without disturbing the table setting. Sealed ball bearings are used throughout. Dynamically balanced pulleys are grooved to exhaust air and eliminate "belt float".

STANDARD EQUIPMENT AND SPECIFICATIONS: Abrasive Belt Size 4" wd. x 54" lg. (We do not furnish); Abrasive Belt Speed 4500 SFPM; Work Table 10" x 7½"; Manual Starter; Motor — 1 HP, 115/230 V, 1 ph, 60 c, TEBB or ½ HP or 1 HP, 220/440 V, 3 ph, 60 c, TEBB — DC, 25 and 50 c on application (For quantity finishing of tools larger than ¾" and of tool tops, 1 HP is recommended.) Net Wt. 335 lbs. Shipping Wt. 410 lbs.

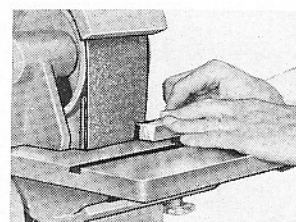
EXTRA EQUIPMENT: Compound Protractor Tool Gauge and Flexible Light Fixture.



CARBIDE PLATEN — Platen is carbide faced for long wear and to prevent platen hollowing — and surface ground for accuracy.



FINISHING CLEARANCE ANGLES — Final finishing of end and side clearance angles is easily and quickly performed.



FINISHING TOP OF TOOL — Tops of tools can also be finished. A true flat plane is obtained with the carbide platen.

CHIP BREAKER GRINDER

The HAMMOND Model C-4 is a high quality Chip Breaker Grinder designed to meet the needs of the plant which does not have enough chip breaker grinding to justify our heavier Models CB-77 and CB-77W shown on pages 2 and 3. No longer is it necessary to tie up expensive grinding equipment or put up with slow make-shift methods to grind chip breakers.

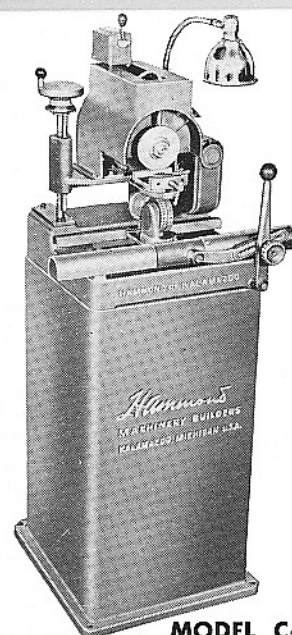
Its many features include: Reciprocating Table. Any-Angle Vise with four swivels, each with dial graded in degrees; capacity up to 2" for box and single point tools. Machine tool construction employed throughout.

STANDARD EQUIPMENT AND SPECIFICATIONS: Furnished complete as shown except for diamond wheel. Includes Any-Angle Vise, Drip Feed Tank, Flexible Lighting Fixture, Brake, Reversing Switch and ¼ HP, 115/230 dual voltage, 1 phase, 50 or 60 cycle, AC or 220/440 dual voltage, 3 phase, 50 or 60 cycle, AC motor. Not available for 25 cycle. Speed with 60 cycle and DC motors 3500 RPM; with 50 cycle motor 2900 RPM. Table travel 6½".

Floor Model — Space required 22" x 24", Net weight 300 lbs., Shipping weight 400 lbs.

Bench Model — Space required 22" x 24", Net weight 240 lbs., Shipping weight 285 lbs.

We do not sell diamond wheels but for your convenience in ordering from your regular wheel source use the following specifications: 4" diameter, ⅛" to ½" face, 1¼" hole.

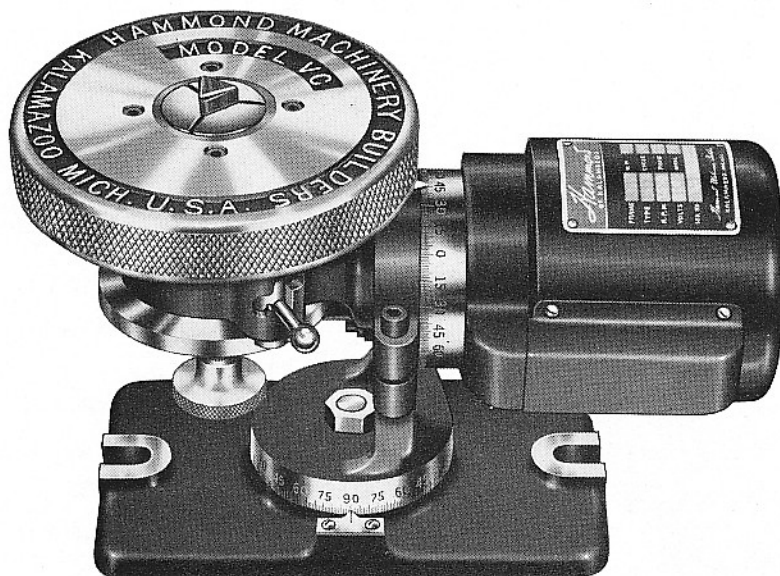


MODEL C-4

Hammond of Kalamazoo
GOOD MACHINERY SINCE '82

Hammond

SOLID CARBIDE INSERT GRINDING FIXTURES



MODEL VC STYLE M

SPECIFICATIONS

Height — Both styles with lug base, $7\frac{1}{4}$ " to top of collet with collet axis vertical. $4\frac{1}{4}$ " to center of collet with collet axis horizontal.

Width — Both styles $5\frac{3}{4}$ ".

Overall Length — Style "M" — 11". Style "H" — $8\frac{1}{2}$ ".

Lug Base — $7\frac{1}{2}$ " x $4\frac{1}{4}$ ".

Collet RPM — Style "M" only — 180 RPM on 60 cycles and 150 RPM on 50 cycles.

Motor — Style "M" only — totally-enclosed fan-cooled for 115 volts, 1 phase, 60 or 50 cycles.

Weight — Style "M" — Net 24 lbs. Shipping 29 lbs. Style "H" — Net 19 lbs. Shipping 24 lbs.

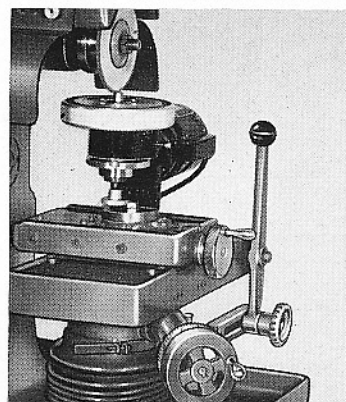
COLLETS

ROUND INSERT TYPE	SQUARE INSERT TYPE	TRIANGULAR INSERT TYPE	RECTANGULAR INSERT TYPE

Collets for both Styles (Maximum Carbide Insert Sizes): 1" Round; $\frac{3}{4}$ " Square; $\frac{1}{2}$ " Inscribed Circle Triangular; $\frac{3}{8}$ " x $\frac{3}{4}$ " Rectangular.

Standard Equipment: Style "M" — Complete as shown with totally-enclosed motor, 6' neoprene motor cord with switch and plug, lug base and one round collet. (Specify size.) VC fixtures are supplied in a finished birch carrying case.

Style "H" — Complete as shown with lug base and one square collet. (Specify size.) (Extra collets available as listed above.)

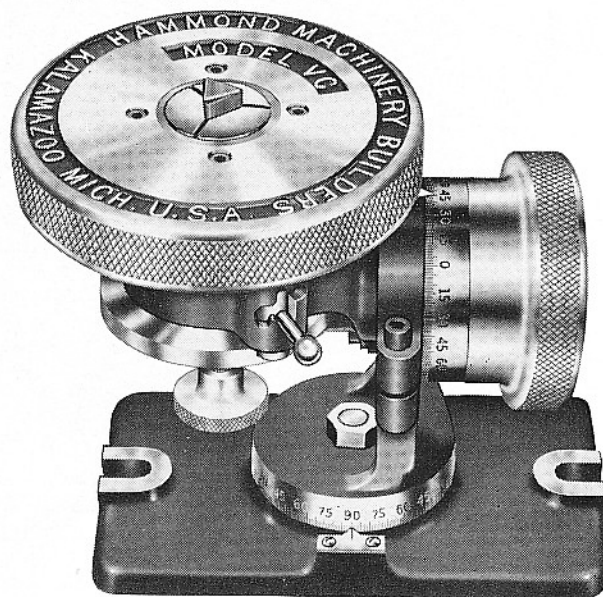


At left is Style "M" Insert Grinding Fixture Mounted on a Hammond Model CB-77 Chip Breaker Grinder (see pages 2 and 3). The motor shaft is set at right angles to the grinding wheel spindle—the position required for grinding neutral and positive rake chip breakers in all types of inserts. For rough and finish grinding all inserts, and 7° negative rake chip breakers, the motor shaft is set parallel with the grinding wheel spindle.

HAMMOND Solid Carbide Insert Grinding Fixtures — Model VC, Style "M" (motorized) and Style "H" (without motor) — meet the increasing demand for a faster, better and more economical method of grinding chip breaker grooves in round, square, triangular and rectangular shapes, and for rough and finish grinding of dull and damaged inserts.

Motorized Style "M" with lug base, shown at left, can be mounted on most tool and surface grinders. The motor is employed for sharpening all shapes, and for grinding chip breakers in round inserts. For grinding chip breakers in square, triangular and rectangular shapes the motor is shut off and the spindle is indexed by hand with lock pin engaging index plate in underside of hand wheel for 2, 3, or 4 divisions. Collet spindle can be swiveled on horizontal axis 90° from vertical to right, and 45° to left when looking at motor end of fixture, and 360° on vertical axis. Lock pin handle when in lowest position locks spindle for changing or tightening collets. It is placed in central or neutral position for rotating collet spindle by motor or by hand, and upper position for indexing. Style "H", shown below, is for hand operation, and is the same as Style "M" except it does not have the motor or driving gears. It is recommended for use in plants needing more than one insert grinding fixture, and where the motorized Style "M" is employed for sharpening dull and damaged inserts of all shapes, and for power grinding of chip breakers in round inserts. When motorized Style "M" is used in this manner then Style "H" becomes an ideal fixture for grinding chip breakers in square, triangular and rectangular shapes. Style "H" however can be used for sharpening all shapes of inserts, but is slower than the motorized Style "M".

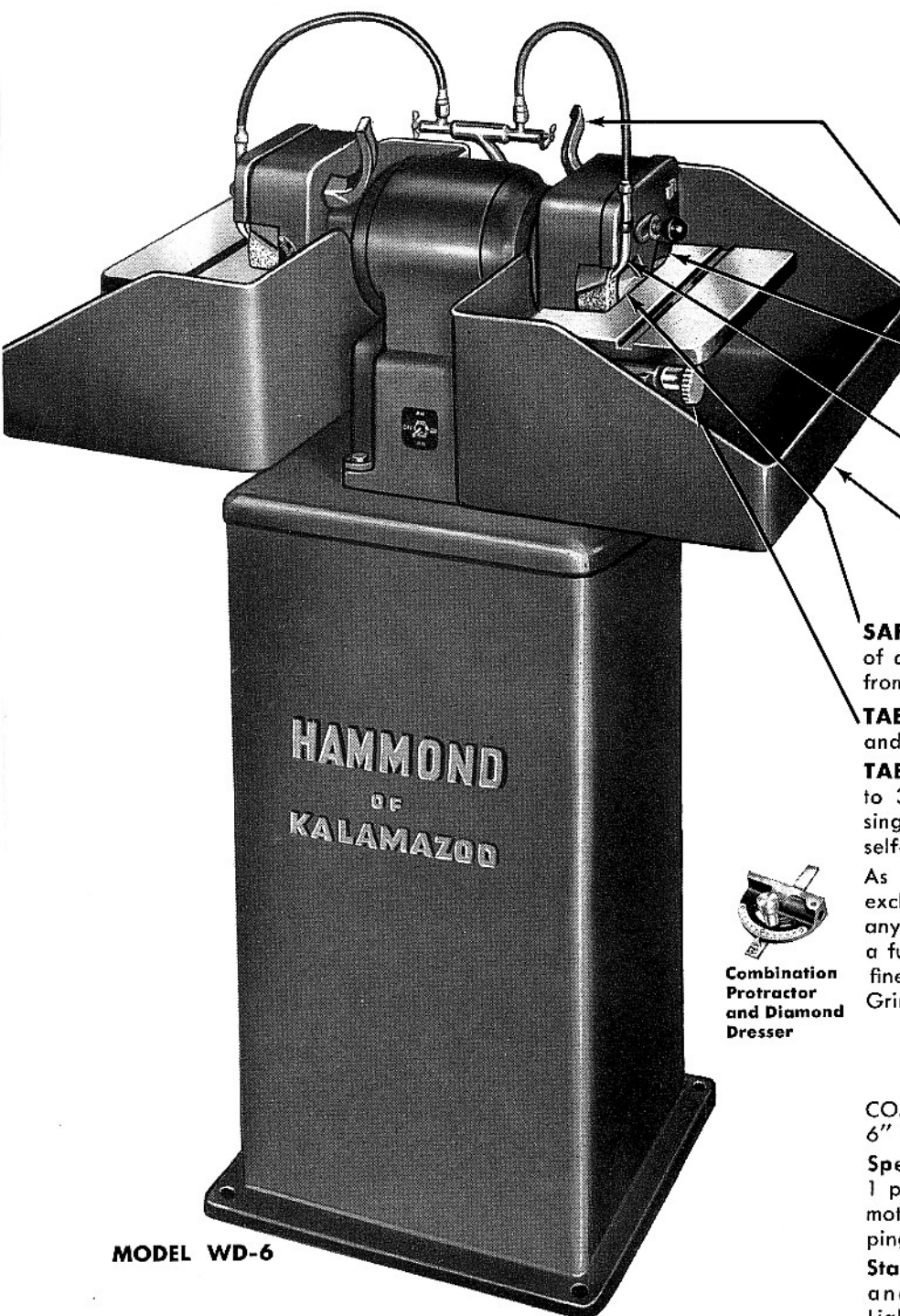
Both styles can be mounted on all HAMMOND Models CB-77, CB-77W and CB-76 chip breaker grinders by removing the Any-Angle Vise.



MODEL VC STYLE H

Hammond

6" WET or DRY CARBIDE TOOL GRINDER



MODEL WD-6

EXCLUSIVE FEATURES —

BRAKE on each end for handy, quick stopping when reversing.

NO SPRAY-NO SPLASH SWIVEL GUARD closes one side of wheel while other is in use. It is the heart of Hammond's No Spray-No Splash feature. (pat. 2,292,229).

NO SPRAY-NO SPLASH SPOUT aerates and breaks up coolant which flows without force.

NO SPRAY-NO SPLASH PAN catches any excess spray or splash and keeps operator and floor dry.

SAFETY CUP DISC (patent 2,361,550) fills the cup of a silicon carbide wheel, preventing tool or hand from entering. An important safety feature.

TABLE SCREW FEED makes table adjustment easy and protects against wheel damage.

TABLE easily tilts to any degree from 30° above to 30° below horizontal and quickly locks with a single lever. Table is surface ground and has a self-cleaning slot.



Combination
Protractor
and Diamond
Dresser

As the above illustrates, there are more new and exclusive features in the Hammond WD-6 than in any other low-cost wet 6" carbide grinder. It is a full-fledged machine which incorporates the many fine features of our larger Hammond Carbide Grinders including: —

- Safety cup discs
- No Spray — No Splash
- Screw Feed "in and out" tables

COMPARE — You'll find no equal in the low-cost 6" field.

Specifications — ½ HP TEBB, 110v, 1 ph, or 220V, 1 ph, 60 cy or 220/440v, 3 ph, 60 cy, 3450 RPM motor. Reversing switch. Net Wt. 210 lbs. Shipping Wt. 280 lbs.

Standard Equipment — Combination Protractor and Diamond Dresser without diamond, Flexible Light Fixture, Coolant Tank and Pump Unit.

Grinding Wheels: 6" diameter wheels are used. We do not supply wheels and for your convenience in ordering from a regular wheel supply source we list wheel specifications at left.

	Thickness	Face Width	Center Hole Diameter	No. of Mounting Holes	Size of Mounting Holes	Bolt Circle Diameter
6" diameter Diamond Cup Wheel	See Wheel Mfrs. Cat.	See Wheel Mfrs. Catalog	1¼"	4	1⅞" Ctsk.	3¼"
6" diameter Silicon Carbide Cup Wheel	1¼" max.	1" max. face	1¼"	4	9/32"	3¼"

Hammond of Kalamazoo

GOOD MACHINERY SINCE '82

Hammond

6" and 10" DRY CARBIDE TOOL GRINDERS

6" GRINDER



FLOOR MODEL D-6

The Hammond Model D-6 Dry Carbide Tool Grinder is the ideal machine for the plant which has a limited amount of carbide tool grinding to do. It is the same general construction as the Wet or Dry Model WD-6 shown on page 6, only does not incorporate the "wet" features. However, it can be converted to the Wet or Dry arrangement by the addition of the "wet" parts.

The Model D-6 incorporates many of the superior features heretofore found only in the larger Hammond 10" and 14" Carbide Grinders. It was designed with the operators safety and convenience in mind and has these "plus" features: Brake on each end of machine; Safety Cup Discs (pat. 2,361,550) to prevent dropping tool into cup of wheel; Screw Feed Tables adjustable from 25° above to 30° below horizontal; **Exhaust Type** Wheel Guards for connecting to dust collector. **Compare** and you'll agree this is the finest dry grinder in the low-cost 6" field.

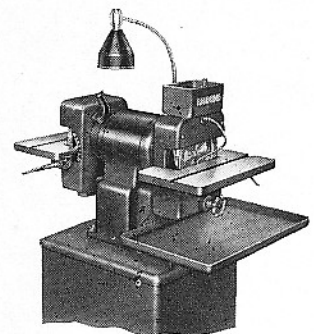
SPECIFICATIONS

Furnished complete as shown, including Combination Protractor and Diamond Dresser without diamond; Reversing Switch; 1/2 HP Totally Enclosed Ball Bearing, 110 volt, or 220 volt, 1 phase, 60 cycle, or 220/440 dual voltage, 3 phase, 60 cycle 3450 RPM Motor, but without wheels. (See page 6 for wheel specifications.)

Bench Model Net Wt. 110 lbs., Shpg. Wt. 140 lbs.

Floor Model Net Wt. 165 lbs., Shpg. Wt. 225 lbs.

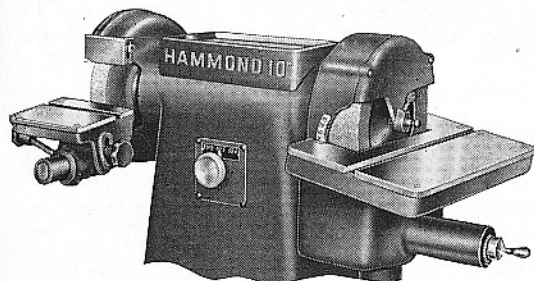
Extra Equipment — Flexible Light Fixture, Drip Feed Pot and Removable Lubricant Tray.



Model D-6 is available as Bench or Floor Model. Flexible Light Fixture; Drip Feed Pot and Removable Lubricant Tray for diamond wheel grinding are extra.

10" GRINDERS

The HAMMOND Model D-10-B is a Dry Carbide Tool Grinder especially built for those definitely wanting a dry grinder. (Not practical to convert for wet operation.) It is identical to the 10" Wet or Dry Model WD-10 illustrated on pages 8 and 9 except does not incorporate the coolant system or sludge pans. The many features include: heavy oversize spindle running in one double row and one duplex pre-loaded ball bearings; exhaust guards; Multi-V-belt drive; Safety Cup Discs (pat. 2,361,550) to prevent dropping tool into cup of wheel; 10" x 19" tables fitted with "Dual-Life" reversible, precision ground steel wear plates with adjustments from 15° above to 30° below horizontal.



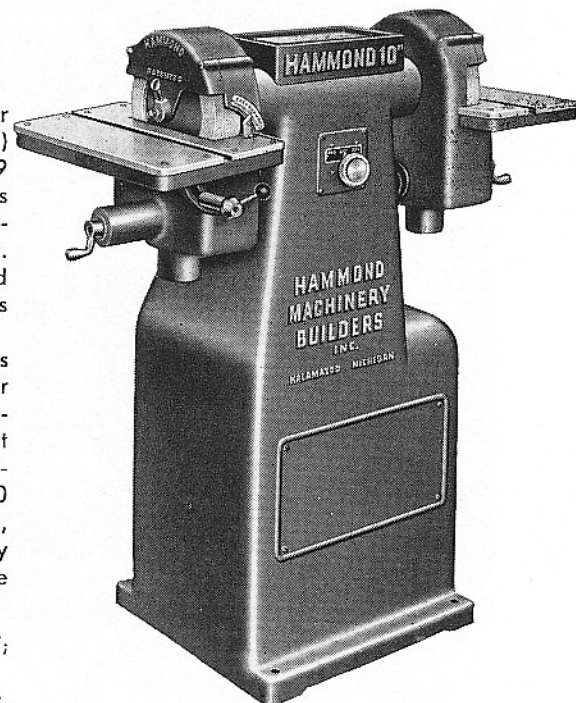
MODEL D-10-SB

Identical to the Model D-10-B except it has straight and cup wheel construction.

Both models furnished complete as shown, including Compound Protractor Tool Gauge, Wheel Dresser without diamond, and Reversing Switch, but without wheels. (See page 8 for wheel specifications.) **Motors:** 1 or 2 HP, 220/440 dual voltage or 550 volt, 2 or 3 phase, 50 or 60 cycle, AC, Ball Bearing, Totally Enclosed Motor. (1 HP, DC or 25 cycle can also be used.)

Model D-10-B — Space required 24" x 38"; Net Wt. 675 lbs.; Shipping Wt. 800 lbs.

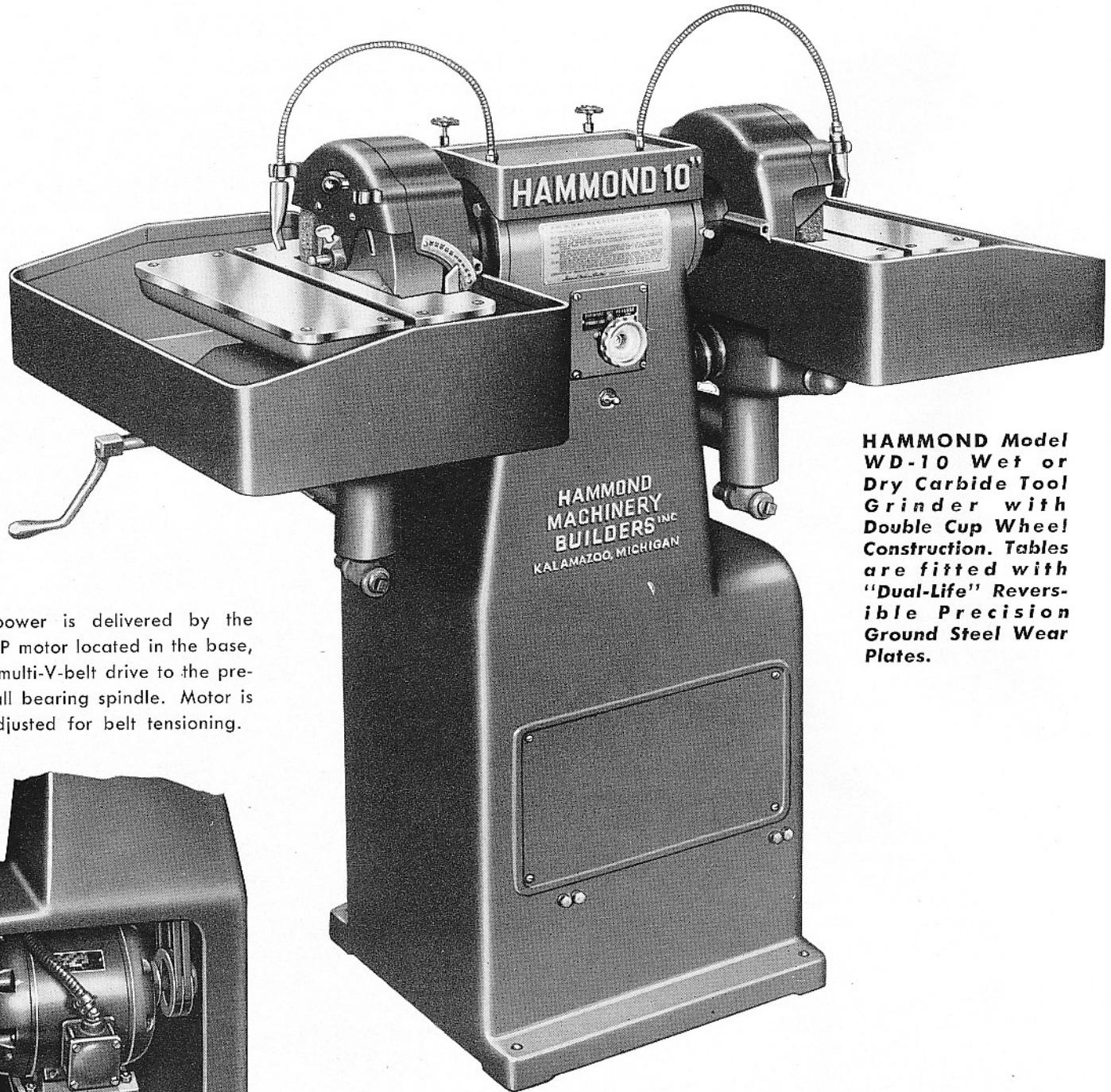
Model D-10-SB — Space required 28" x 33"; Net Wt. 630 lbs.; Shipping Wt. 765 lbs.



MODEL D-10-B

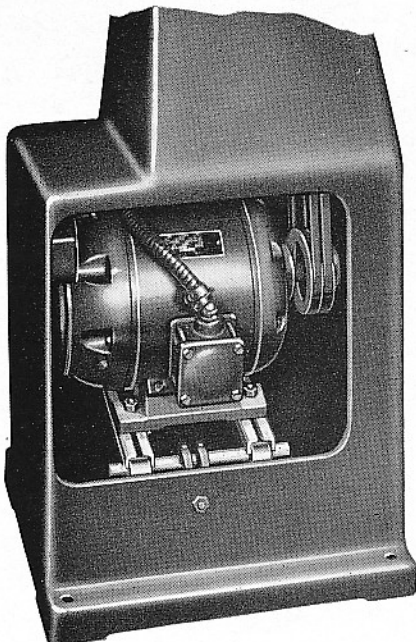
Double cup wheel construction.

Hammond 10" WET or DRY



HAMMOND Model WD-10 Wet or Dry Carbide Tool Grinder with Double Cup Wheel Construction. Tables are fitted with "Dual-Life" Reversible Precision Ground Steel Wear Plates.

Ample power is delivered by the 1 or 2 HP motor located in the base, through multi-V-belt drive to the precision ball bearing spindle. Motor is easily adjusted for belt tensioning.



	Thickness	Face Width	Center Hole Diameter	No. of Mounting Holes	Size of Mounting Holes	Bolt Circle Diameter
10" diameter Cup Wheel	1½" and 2"	1½"	2"	6	1⅜"	3½"
10" diameter Straight Wheel	1½"	1½"	2"	.....	.....	.....

Hammond of Kalamazoo
GOOD MACHINERY SINCE '82

CARBIDE TOOL GRINDERS

YOU'RE DRY WHEN YOU GRIND WET!

The HAMMOND 10" Wet or Dry Carbide Tool Grinder Model WD-10 is of modern design and heavy construction for fast, accurate, and large volume tool grinding. It is suitable for use with Silicon Carbide, Diamond, and Aluminum Oxide Wheels for grinding carbide or high-speed tools.

Heavy duty construction and precision oversize spindle with one double row and one duplex preloaded ball bearing insure vibrationless operation.

Spindle speed of 1900 RPM is obtained through a multi-V-belt drive from the 1 HP motor in the base. (2 HP available.) Wheel flanges are ground on spindle to insure true running wheels. 10" x 19" surface ground tables, fitted with "Dual-Life" Reversible Precision Ground Steel Wear plates, are quickly adjusted to any angle from 15° above to 30° below horizontal and locked into position by a single handle. A machined table slot running parallel to the wheel face permits use of the Compound Protractor Tool Gauge that may be adjusted to and from the wheel face to accommodate tool width.

Wheels are quickly changed by backing table away with feed screw. The No Spray — No Splash guards permit unrestricted vision, yet keep operator and floor dry. The "heart" of this is the swivel guard (patent 2,292,229) that closes up one side of the wheel when the other side is in use.

Coolant is applied through flexible metal hose equipped with spouts which can be moved from one side of the wheel to the other. The coolant pump is located at the rear of the machine and is controlled by an independent switch.

Hammond Models WD-10 and WD-10S can be used either wet or dry. Collector hoses can be attached to exhaust outlets provided.

HAMMOND Model WD-10-S Wet or Dry Carbide Tool Grinder

The HAMMOND Model WD-10-S Wet or Dry Carbide Tool Grinder is identical in construction to the Model WD-10 double cup wheel machine except it has straight wheel construction on the left-hand end. Right-hand end is of cup wheel construction.

STANDARD EQUIPMENT AND SPECIFICATIONS on both models includes: Coolant Tank and Pump Unit; Wheel Dresser without Diamond; Compound Protractor Tool Gauge; Reversing Switch; 1 or 2 HP Totally Enclosed Motor — 220/440 dual voltage or 550 volt, 2 or 3 phase, 60 cycle, 1750 RPM (available for DC, 25 or 50 cycle). **WHEELS NOT INCLUDED** but for your convenience in ordering from your regular wheel source we list wheel specifications at the left. Space required 28" x 47". Net weight Model WD-10 800 lbs., shipping weight 975 lbs. Net weight Model WD-10-S 765 lbs., shipping weight 945 lbs.

EXTRA EQUIPMENT: Light Fixture.



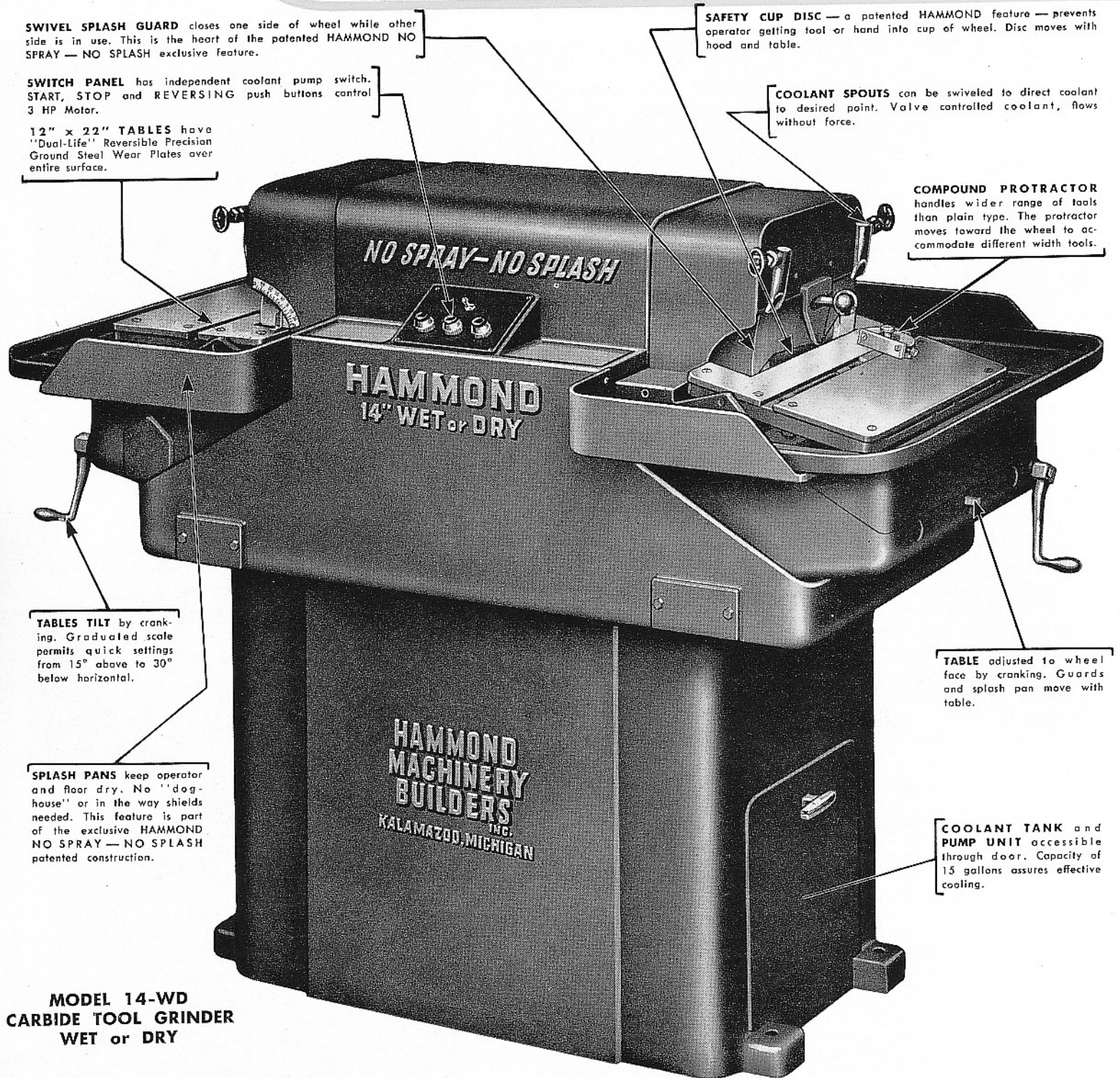
Safety Cup Disc (patent 2,361,550) is one of the finest features ever employed on a cup wheel grinder. Disc completely fills the open cup of the wheel and prevents hand injuries or dropping tools into cup of wheel. It is quickly adjusted by a thumb screw to compensate for wheel wear.



HAMMOND Model WD-10-S Wet or Dry Carbide Tool Grinder with straight and cup wheel construction.

Hammond of Kalamazoo
GOOD MACHINERY SINCE '82

Hammond 14" WET or DRY



SWIVEL SPLASH GUARD closes one side of wheel while other side is in use. This is the heart of the patented HAMMOND NO SPRAY — NO SPLASH exclusive feature.

SWITCH PANEL has independent coolant pump switch. START, STOP and REVERSING push buttons control 3 HP Motor.

12" x 22" TABLES have "Dual-Life" Reversible Precision Ground Steel Wear Plates over entire surface.

SAFETY CUP DISC — a patented HAMMOND feature — prevents operator getting tool or hand into cup of wheel. Disc moves with hood and table.

COOLANT SPOUTS can be swiveled to direct coolant to desired point. Valve controlled coolant, flows without force.

COMPOUND PROTRACTOR handles wider range of tools than plain type. The protractor moves toward the wheel to accommodate different width tools.

NO SPRAY-NO SPLASH

HAMMOND
14" WET or DRY

HAMMOND
MACHINERY
BUILDERS
INC.
KALAMAZOO, MICHIGAN

TABLES TILT by cranking. Graduated scale permits quick settings from 15° above to 30° below horizontal.

SPLASH PANS keep operator and floor dry. No "dog-house" or in the way shields needed. This feature is part of the exclusive HAMMOND NO SPRAY — NO SPLASH patented construction.

TABLE adjusted to wheel face by cranking. Guards and splash pan move with table.

COOLANT TANK and **PUMP UNIT** accessible through door. Capacity of 15 gallons assures effective cooling.

MODEL 14-WD
CARBIDE TOOL GRINDER
WET or DRY

	Thickness	Face Width	Center Hole Diameter	No. Mounting Holes	Size of Mounting Holes	Bolt Circle Diameter
14" diameter Cup Wheel	4"	.....	1 1/4"	4	1 7/32"	8"
14" diameter Straight Wheel	2"	2"	1 1/4"	.....	.....	.....

Hammond of Kalamazoo

GOOD MACHINERY SINCE '82

CARBIDE TOOL GRINDERS

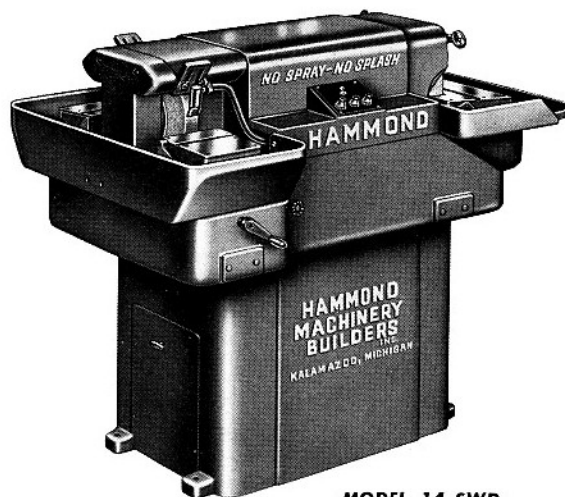
YOU'RE DRY WHEN YOU GRIND WET!

It is not an overstatement to say the HAMMOND 14" Wet or Dry Carbide Tool Grinders are the finest and most modern available. First of all, they are the product of engineers and practical men who have had a great many years of experience designing and building tool grinding machinery. Secondly, they incorporate in their design suggestions of carbide tool makers, tool engineers, machine shop superintendents, and others who learned the grinding of carbide tools the hard way.

The HAMMOND 14-WD is a Wet or Dry Carbide Tool Grinder and employs the use of 14" diameter Silicon Carbide Wheels. Machine is equipped with exhaust outlets for dry grinding and a coolant system for wet grinding. The coolant system includes a coolant pump and coolant supply tank located in the base of the machine. Spouts and shut-off valves are provided at each side of both wheels. The HAMMOND 14-WD has proved very successful equipped with Aluminum Oxide Wheels for grinding high-speed tools, etc.

Full power is delivered through a multi-V-belt drive from the 3 HP totally enclosed, fan cooled motor in base to the heavy, precision, oversize spindle which runs on oversize ball bearings. Bearings are positively protected by an oilwater seal and also by a labyrinth seal. Wheel flanges are accurately "ground on spindle" to provide true wheel face.

12" x 22" work tables are quickly adjusted by a crank to any point from 15° above to 30° below horizontal. The NO SPRAY — NO SPLASH hoods and tables, controlled by a crank, move as an integral unit for adjustment to the face of the wheel to compensate for wheel wear. Tables are fitted with "Dual-Life" Reversible Precision Ground Steel Wear Plates and the bottom of the table slot in which the Compound Protractor Tool Gauge slides has openings to allow for coolant drainage.



MODEL 14-SWD

Model 14-SWD Wet or Dry CARBIDE TOOL GRINDER

The construction of the Model 14-SWD Wet or Dry Carbide Tool Grinder is identical throughout to the double cup wheel model except the left-hand end is equipped for use with straight wheel for fast roughing and the right-hand end for use with a cup wheel. The straight wheel end is equipped with two 8" x 8" tables.

STANDARD EQUIPMENT on both models includes: Coolant Tank and Pump Unit; Compound Protractor Tool Gauge; Wheel Dresser without Diamond; 3 HP, 220/440 dual voltage or 550 volt, 2 or 3 phase, 60 cycle, AC, ball bearing, totally enclosed, fan cooled motor with magnetic control. (Available for DC, 25 or 50 cycle at extra cost.) **WHEELS NOT INCLUDED.** We do not sell wheels, but for your convenience in ordering from your regular wheel source we list wheel specifications on opposite page.

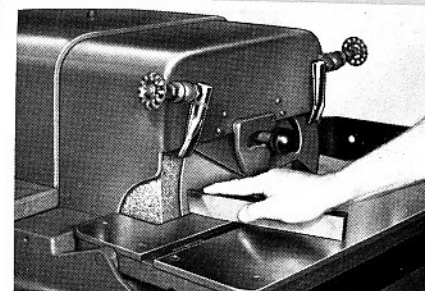
EXTRA EQUIPMENT: Light Fixture.

SPECIFICATIONS

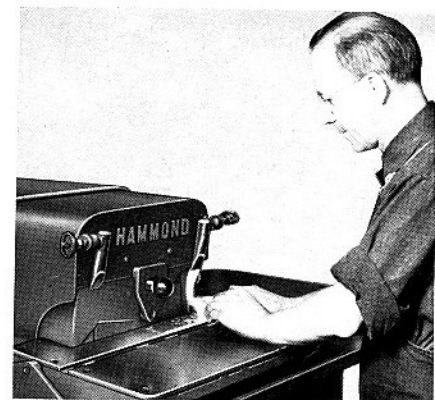
Model and Type	14-WD 2 Cupwheels	14-SWD 1 — Cupwheel 1 — Straight
WHEELS.....	Two 14"x4"x1½" face	One 14"x4"x1½" face One 14"x2" face
MOTOR V-BELT DRIVE	3 HP	3 HP
SPINDLE SPEED.....	1350 RPM	1350 RPM
TABLES.....	Two 12"x22"	One 12"x22" Two 8"x8"
TABLE FROM FLOOR	41"	41"
SPACE REQUIRED.....	62"x38"	62"x40"
NET WEIGHTS.....	2250	2365
SHIPPING WEIGHTS	2525	2665

Model 14-D and 14-SD Dry Carbide Tool Grinders

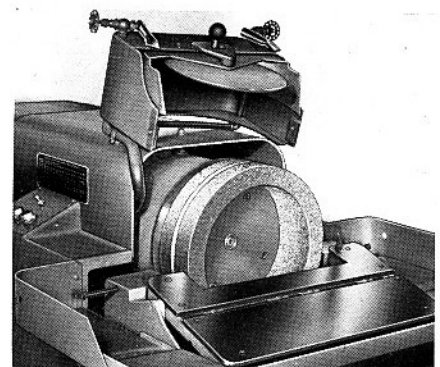
Owing to the occasional demand for a DRY 14" Carbide Grinder we build two Dry Models — 14-D and 14-SD. (Not practical to convert for wet operation.) They are the same as Models 14-WD and 14-SWD as shown, except are furnished without splash pans, coolant spouts and coolant tank and pump unit.



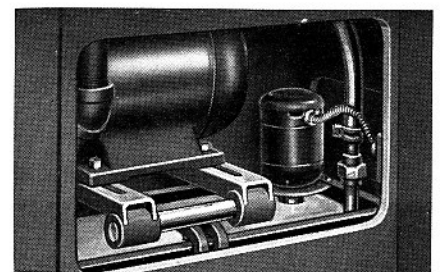
SAFETY CUP DISC (pat. 2,361,550) closes cup of the wheel, preventing hand injuries or dropping tools into cup of wheel. Disc moves in with hood and table when table is adjusted for wheel wear.



NO SPRAY — NO SPLASH (pat. 2,292,229) is what its name implies. Swivel guard closes up one side of wheel while other side is in use, preventing coolant escape, yet permitting freedom of movement and unobstructed vision. Table slot is open on bottom for coolant drainage.



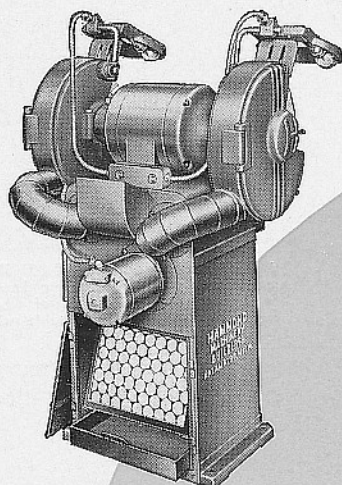
WHEEL CHANGES MADE EASY by removing two cap screws, and placing Wheel Hood on top of machine, allowing easy access to wheel. Spout connections are flexible and do not require disconnecting.



EFFICIENT DRIVE AND COOLANT SYSTEM. The 3 HP full reversing totally enclosed, fan cooled motor in base assures adequate power and is easily adjusted for multi-V-belt tension. The coolant system includes a coolant pump and a 15-gallon coolant tank.

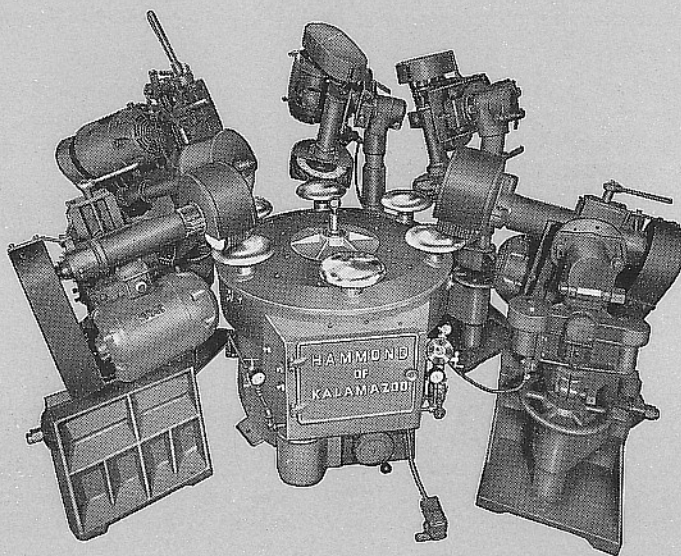
Hammond of Kalamazoo
GOOD MACHINERY SINCE '82

A FEW OTHER HAMMOND PRODUCTION MACHINES

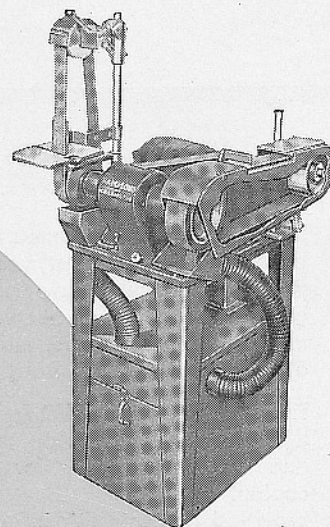


No-Dust Grinders 10" — 12" — 14" with Self-Contained Dust Collector. Other Grinders for 6" to 18" wheels available.

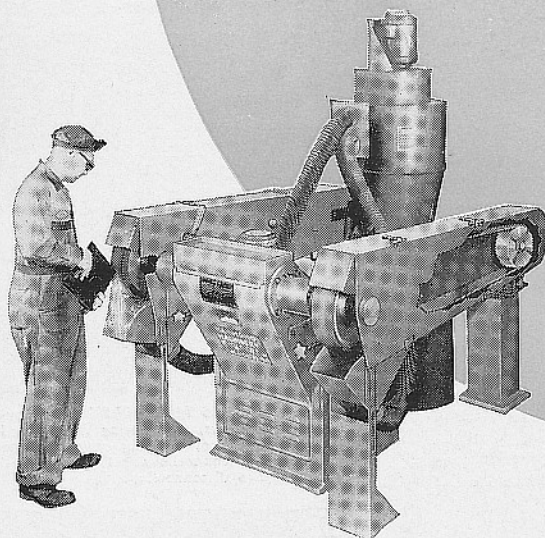
Hammond
of KALAMAZOO



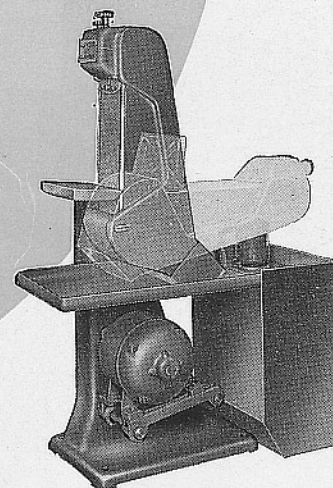
K-46-6 Super 5-Head Rotary Automatic — for high production polishing, buffing and deburring. One in a wide line of Junior, Rotary and Strait Line Automatics.



Model 50-DD Abrasive Belt Grinder-Polisher with Built-In Dust Collector. 11 Models to choose from.



Self-Contained Grinder-Polisher Model VRO Variable Speed Polishing Lathe with Backstands and Cyclone Duskolector.



VH-6 Vertical — Horizontal 6" Wet-N-Dri Abrasive Belt Grinder. One in a wide line of Abrasive Belt Machines.

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