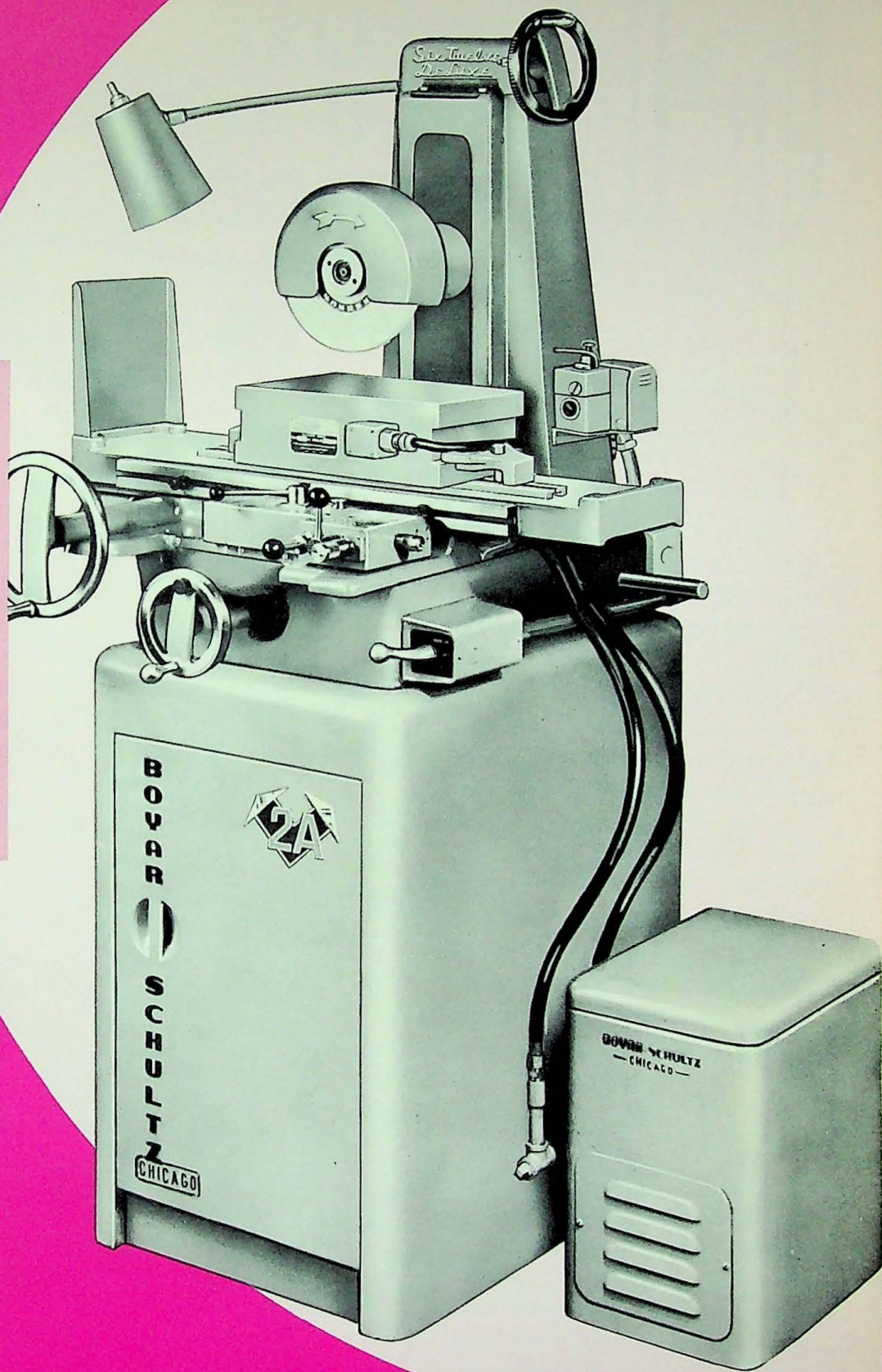


BOYAR-SCHULTZ

6★12

**surface
grinder**

**DELUXE
AND
STANDARD
MODEL**



Big Machine Performance..... Small Machine Cost!

6[★]12 DELUXE SURFACE GRINDER

ACCLAIMED!
... the finest

- ★ HYDRAULIC "2A"
- ★ HYDRAULIC
- ★ HAND FEED

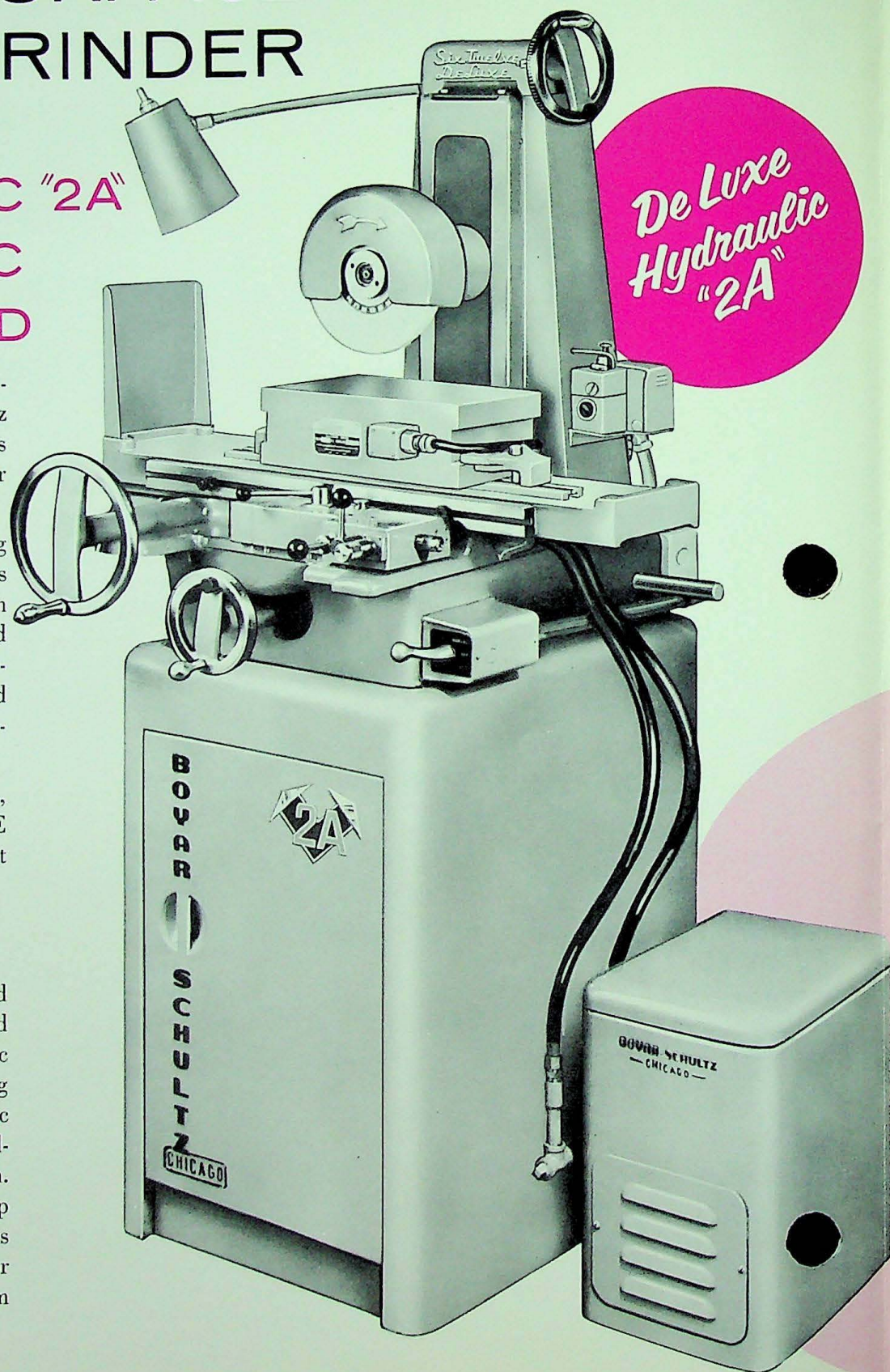
MANUFACTURED TO HIGHEST STANDARDS, Boyar-Schultz 6-12 DE LUXE Surface Grinders out perform other grinders of their size.

Every design and manufacturing advancement, gained through years of experience building precision machine tools, has been incorporated into the DE LUXE models. As a result, unprecedented accuracy and stability have been achieved at remarkably low cost.

Now available in three models, the Boyar-Schultz 6-12 DE LUXE surface grinders will meet the most exacting requirements.

DE LUXE HYDRAULIC "2A"

Hydraulic and hand operated longitudinal feed. Hydraulic and hand operated cross feed. Hydraulic rapid traverse for wheel dressing and work positioning. Automatic disengagement of cross feed hand-wheel during hydraulic operation. Separate 1/2 H.P. hydraulic pump and motor combination provides TWO-WAY hydraulic travel for greatest accuracy and maximum performance.



APPROVED!

... by management

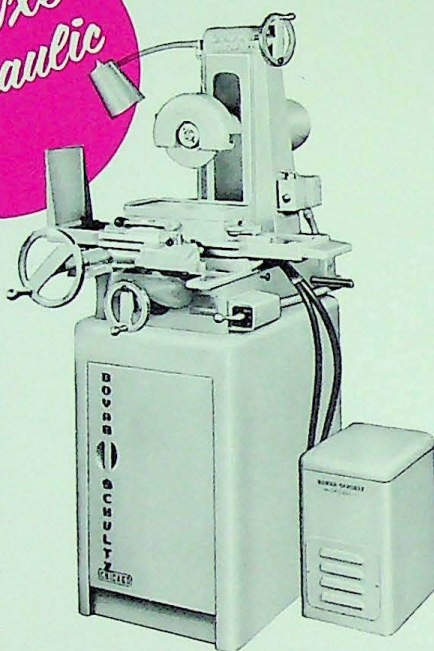
ACCEPTED!

... by workers

De Luxe Hydraulic

DE LUXE HYDRAULIC FEED

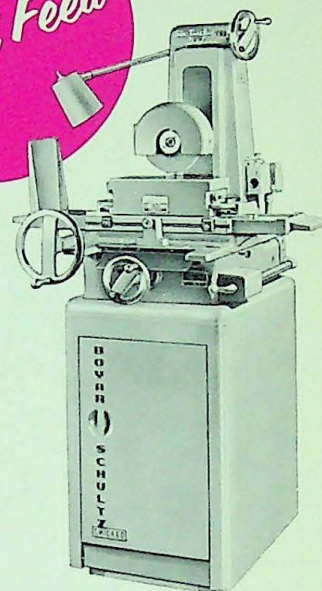
Hydraulic and hand operated longitudinal feed. Hand operated cross feed. Separate 1/2 H.P. hydraulic pump and motor combination. Sturdy, rugged design with the added convenience of hydraulic longitudinal feed. Includes every De Luxe feature to combine precision with long life.



De Luxe Hand Feed

DE LUXE HAND FEED

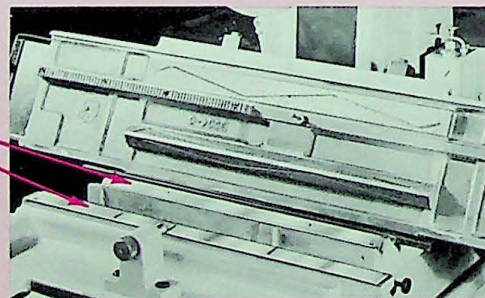
Hand operated longitudinal feed. Hand operated cross feed. Longitudinal feed through precision rack and gear with torsion bar hand-wheel shaft assembly. Extra sturdy construction capable of handling a great percentage of work ordinarily done on larger machines.



DELUXE FEATURES

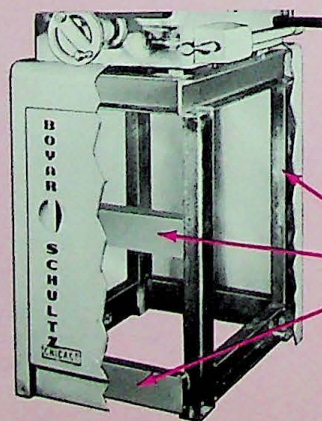
TOOL STEEL SADDLE WAYS — Hardened and precision ground for greater accuracy and long wear.

WORK LIGHT with Safety Shade.

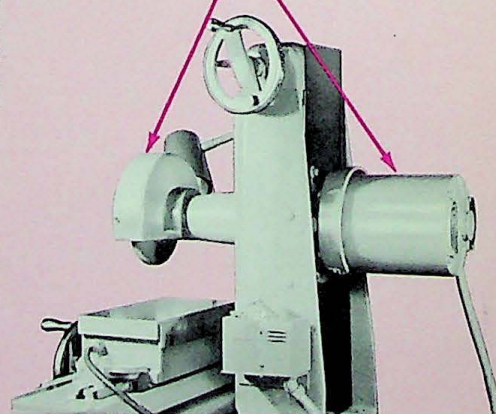


AUTOMATIC OILING SYSTEM providing continuous flow of lubrication to all bearing surfaces.

TABLE STOPS (Hand Feed Models)

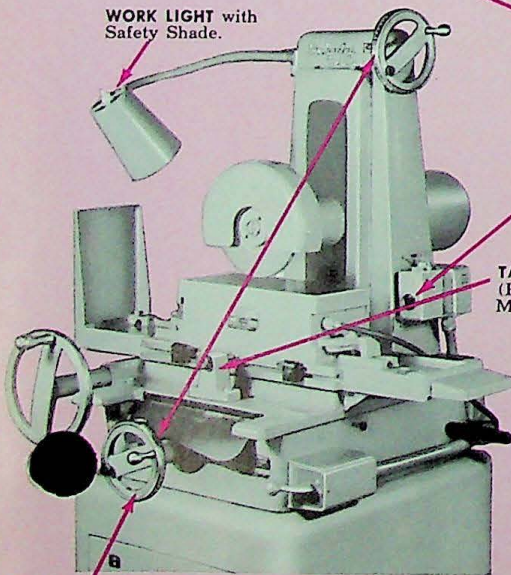


DIRECT DRIVE SPINDLE with Super Precision Pre-Loaded Ball Bearings and 1 H.P. T.E.B.B. Precision Balanced Spindle Motor.



NEW HEAVY DUTY BASE made with welded structural steel inner frame for maximum rigidity and increased weight. Patented Built-In Dust Collector is also available at additional cost.

ZEROING SLIP RINGS on cross feed and vertical hand wheels permit the graduated dials to be set at 0 or any other desired graduation.



TESTED!

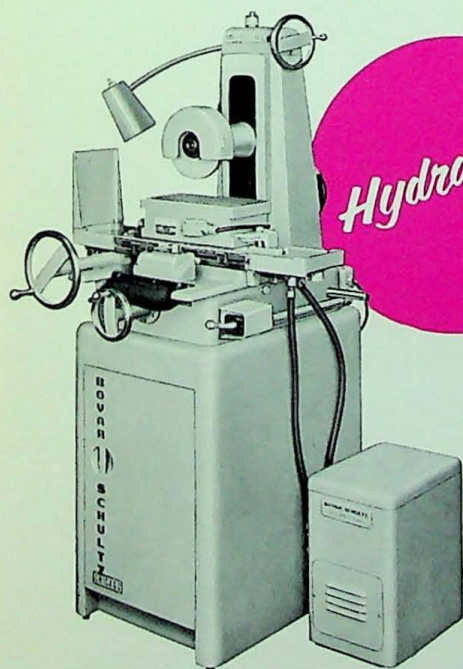
with high favor by those who use it

6-12

STANDARD SURFACE GRINDER

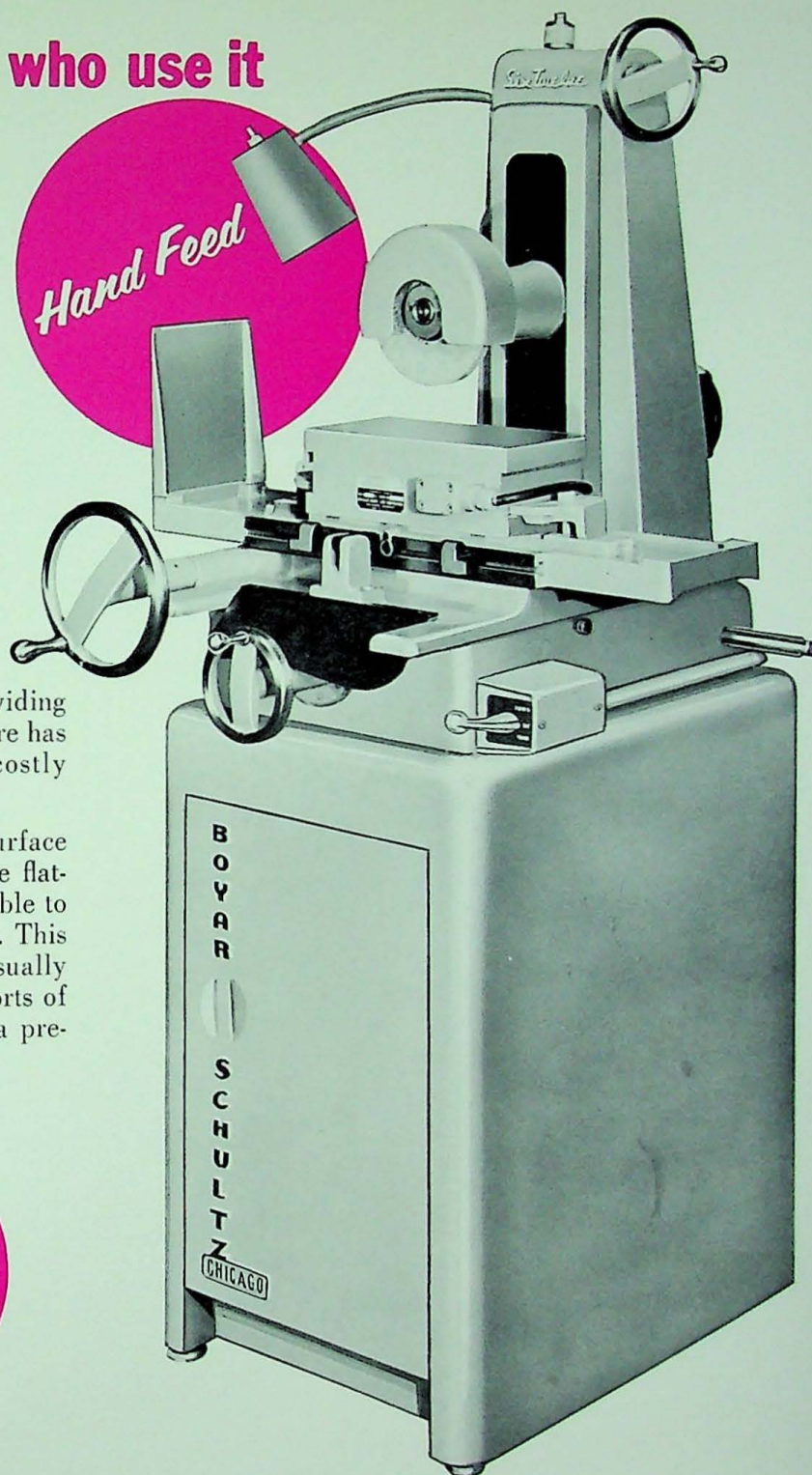
A PRECISION MACHINE TOOL providing close tolerance performance that heretofore has been associated with larger, more costly grinders.

Many users of Boyar-Schultz 6-12 Surface Grinders tell us they are able to produce flatness, parallelism, and finish they are unable to obtain on other makes regardless of size. This excellent performance is the result of unusually sturdy design, fine materials, and the efforts of craftsmen who themselves KNOW what a precision machine tool must do.



HYDRAULIC FEED

Hydraulic and hand operated longitudinal feed. Hand operated cross feed. Separate 1/2 H.P. hydraulic pump and motor combination provides smooth, positive table travel. Designed to fill the need for a hydraulic surface grinder featuring high quality at low cost.



HAND FEED

Hand operated longitudinal feed. Hand operated cross feed. Longitudinal feed through precision rack and gear with torsion bar handwheel shaft assembly. Precision combined with sturdy, compact design have made this grinder a favorite of expert tool and die makers.

CAPACITY — Boyar-Schultz Model 6-12 Surface Grinder, a 6 x 12 machine with actually 7 inch cross feed travel . . . one inch more than the indicated 6 inches. Longitudinal travel is 13 inches and vertical travel of spindle is 11½ inches.

SPINDLE — This is the "working unit", the very heart of the machine, and is designed for very close tolerance, smooth finish grinding; supported at each end by oversize, pre-loaded, radial thrust, precision ball bearings. Sturdily built, it will absorb the heavy demands put upon it during long periods of time.

TABLE — Best material, stress and strain relieved. Made with one vee way and one flat way, ground and hand scraped for smooth operation.

LONGITUDINAL TABLE ACTION (Hand Feed) — Obtained by torsion bar handwheel shaft assembly driving precision gear and rack. Torsion bar shaft assembly supported by needle bearings and compressed "O" rings for smooth, precise table movement. Large handwheel provides extra leverage. Hydraulic grinder can also be fed with conventional hand feed.

HYDRAULIC LONGITUDINAL AND CROSS FEED ACTION (Hydraulic Models) — Obtained through precision cylinders operated by hydraulic pump and motor combination. Table longitudinal feed

and carriage cross feed (Hydraulic "2A" Model only) infinitely variable from 0 to maximum feed. Provides smooth, powerful hydraulic action.

TABLE CARRIAGE — Travels on four flat precision and hand scraped ways, mounted on main grinder base. Cross feed travel is actuated by precision lead screw located between table ways and is supported by needle and ball bearings. Neoprene accordion sleeve seals lead screw from dirt and abrasive dust. A cross feed binding screw prevents transverse motion when face grinding.

SPINDLE ELEVATING SCREW — Supported by ball thrust bearings and operated by a set of carefully selected bevel gears. Ball thrust bearing assures instant response of spindle elevating screw to slightest movement of handwheel.

HANDWHEELS — Placed to afford greatest convenience and are fitted with needle and ball bearings for easy operation. Vertical feed graduated in half thousandths with vernier pointer in tenths; cross feed graduated in thousandths. Working parts enclosed for maximum protection from abrasive dust.

NEEDLE BEARINGS — Five sets of needle bearings are used in Model 6-12 Surface Grinders for long wear and easy operation.

SPECIFICATIONS

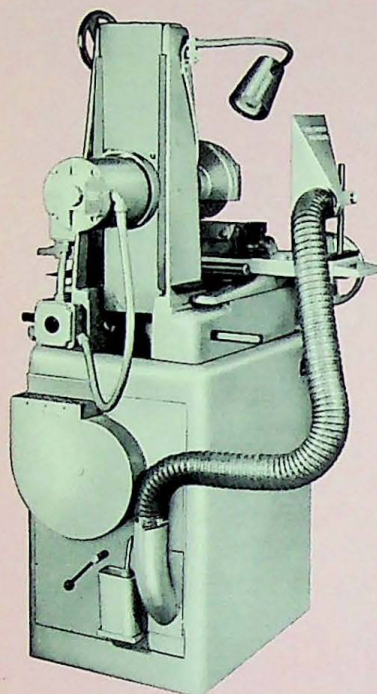
	DELUXE MODELS			STANDARD MODELS	
	HYDRAULIC "2A"	HYDRAULIC	HAND FEED	HYDRAULIC	HAND FEED
TABLE TRAVEL Longitudinal Cross feed	13" 7"	13" 7"	13" 7"	13" 7"	13" 7"
WORK HEIGHT (under 7" Diam. Wheel)	0" to 11¼"	0" to 11¼"	0" to 11¼"	0" to 11¼"	0" to 11¼"
TABLE WORKING SURFACE ("T" slot ⅜" width)	12" x 5½"	12" x 5½"	12" x 5½"	12" x 5½"	12" x 5½"
GRINDING WHEEL (STANDARD) Diameter Thickness Hole Diameter	7" ½" 1¼"	7" ½" 1¼"	7" ½" 1¼"	7" ½" 1¼"	7" ½" 1¼"
SPINDLE SPEED Direct Drive Belt Drive	3450 rpm	3450 rpm	3450 rpm	3450 rpm 3000 rpm	3450 rpm 3000 rpm
HANDWHEEL GRADUATIONS Vertical (Vernier Pointer to .0001") Cross feed	.0005" .001"	.0005" .001"	.0005" .001"	.0005" .001"	.0005" .001"
HYDRAULIC FEED Longitudinal Table Speed Carriage Cross feed (At both ends of table stroke in either direction) Rapid Cross Traverse	0 to 50 fpm 0" to ⅛" per Stroke 0" to 48" ipm	0 to 50 fpm		0 to 50 fpm	
SPINDLE MOTOR (STANDARD)	1 hp-3450 rpm	1 hp-3450 rpm	1 hp-3450 rpm	¾ hp-3450 rpm	¾ hp-3450 rpm
HYDRAULIC PUMP MOTOR	½ hp-1725 rpm	½ hp-1725 rpm		½ hp-1725 rpm	
DIMENSIONS Floor Space Height	44" x 38" 62"	44" x 38" 62"	43" x 38" 62"	44" x 38" 62"	43" x 38" 62"
WEIGHT Net Shipping	791 1016	770 995	612 837	760 985	489 714

Equipment furnished with Deluxe models includes heavy duty cabinet base with welded structural steel inner frame, tool steel saddle ways, automatic oiling system, 1 H.P. T.E.B.B. spindle motor, zero setting slip rings on cross feed and elevating handwheels, mounted work light, table stops, cross feed binding screw, starting switch, wheel adapter, wheel wrench, wheel puller, 8" wheel guard, 7"x½"x 1¼" grinding wheel, and instruction manual.

Equipment furnished with standard models includes heavy duty cabinet base with welded structural steel inner frame (furnished with hydraulic model only, hand feed model has standard cabinet base), ¾ H.P. spindle motor, cross feed binding screw, starting switch, wheel adapter, wheel wrench, wheel puller, 8" wheel guard, 7"x½"x 1¼" grinding wheel, and instruction manual.

Accessories for the

BOYAR-SCHULTZ 6[☆]12 SURFACE GRINDER

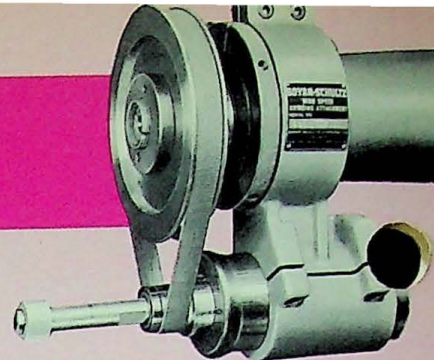


BOYAR-SCHULTZ DUST COLLECTOR

Furnished as optional equipment with Model 6-12 Surface Grinder. The Dust Collector fits into the specially designed streamlined base.

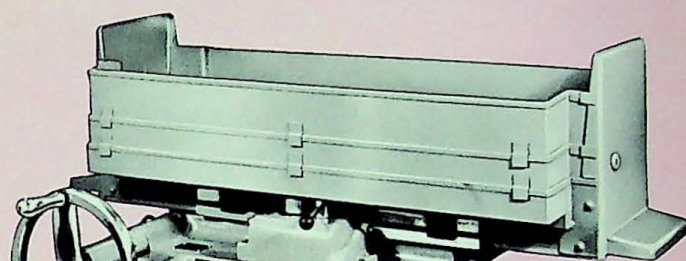
Collectors include a 1/2 H.P. motor and blower combination to provide suction to draw grinding dust into the specially designed dust scoop. Fifteen spark-resistant filter bags trap dust particles in the collector base. An individual nylon fiber brush in each filter bag is used for removing dust that may cling to the inside surfaces. All fifteen brushes are operated simultaneously by a handle at the rear of the unit. Dust from the filter bags drops into a removable tray.

The entire system may be quickly and easily removed for complete cleaning when necessary.



HIGH SPEED GRINDING ATTACHMENT

Designed for grinding angles and slots too small to permit using standard size grinding wheels; for grinding serrations, T-slots, and many other hard-to-get-at surfaces. Provides higher spindle speeds—14,000 R.P.M.—for small radii and contours in die blocks and other parts. Mounted on the surface grinder spindle in a few minutes. Belt tension adjusted through an eccentric bushing. Spindle is equipped with permanently lubricated, pre-loaded, super precision ball bearings.

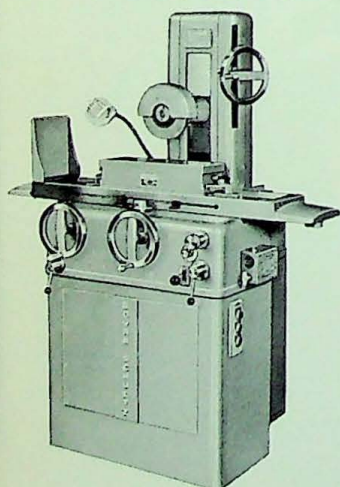


WET COOLANT ATTACHMENT

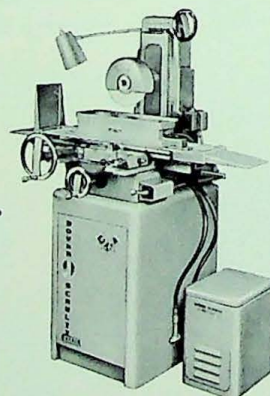
Furnished complete with pump and tank, splash guards, coolant nozzle and hoses. Splash guards available separately.

OTHER GRINDERS BY *Boyar-Schultz*

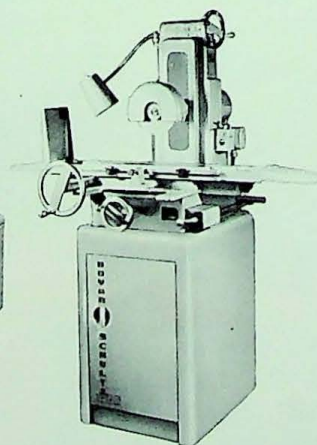
Wherever Boyar-Schultz Grinders have been installed, quality of materials and unexcelled workmanship are quickly recognized.



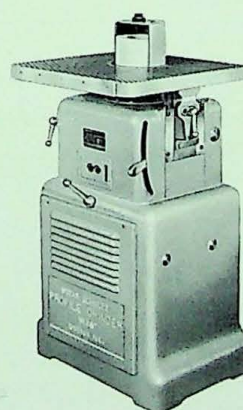
6-18 Hydraulic
Surface Grinder
also available in
Hand Feed Model



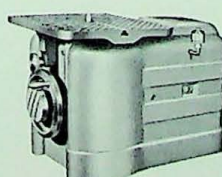
6-18 Challenger
De Luxe Hydraulic
"2A" Surface Grinder
other models with
Hydraulic Longitudinal
Table Feed only.



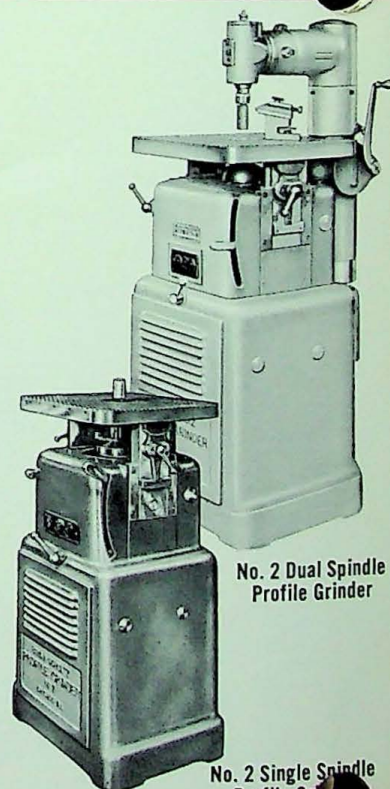
6-18 Challenger De Luxe
Hand Feed Surface Grinder



No. 2-6" Profile Grinder
Single or Dual Spindle
Models



No. 1 Profile Grinder



No. 2 Dual Spindle
Profile Grinder

No. 2 Single Spindle
Profile Grinder

Boyar-Schultz DIVISION
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6-12-1167-10

Printed in U.S.A.