

# ROCKFORD HY-DRAULIC

# SHAPER

## 24" 28"

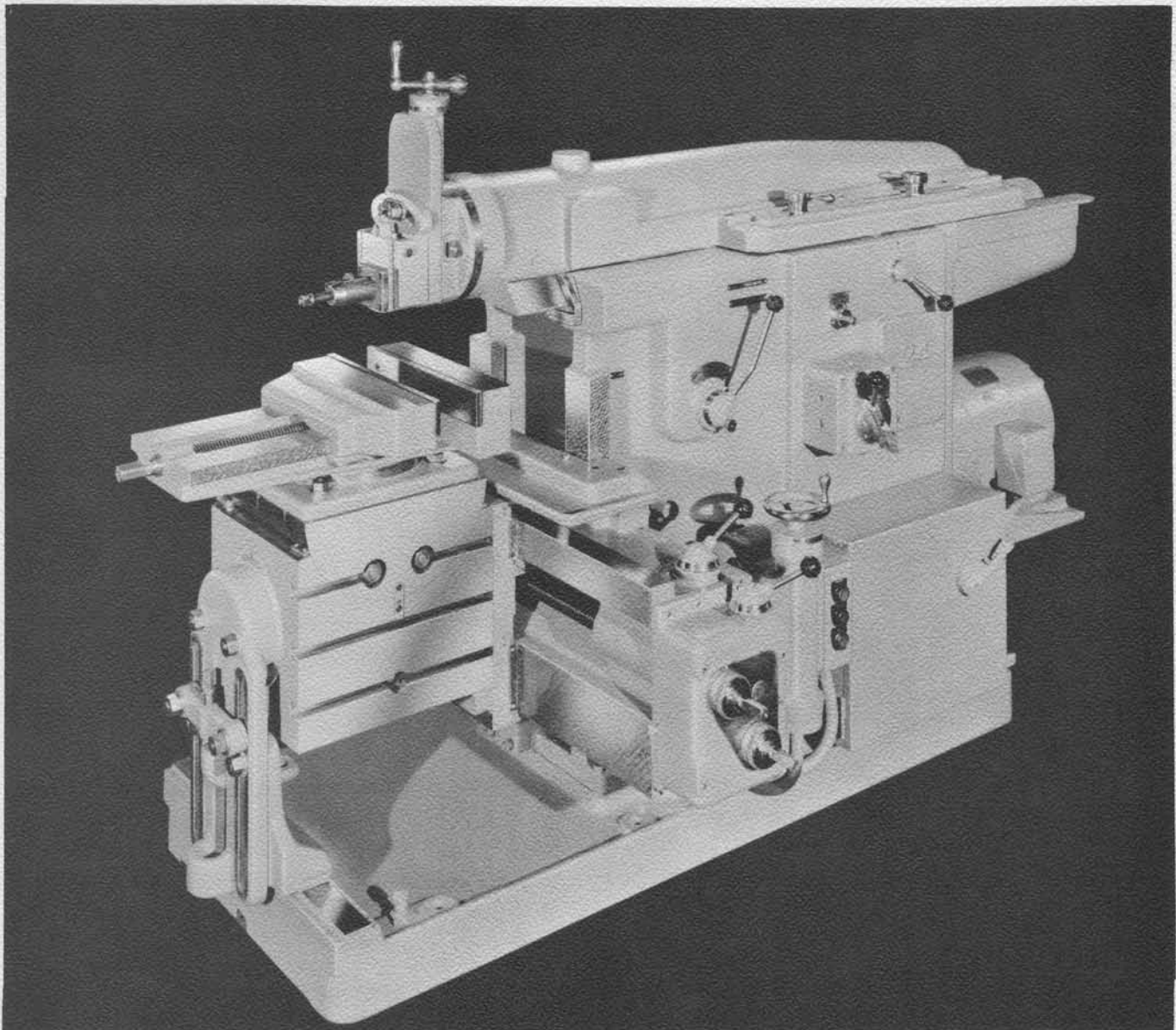
Rockford Hy-Draulic Ram Type Shapers bring new speed . . . ease . . . and economy to modern shaping work.

- HYDRAULIC DRIVE . . . an exclusive feature . . . provides efficient, economical and constant cutting speeds; finer finishes; practically instantaneous reversals smooth and free from shock.
- INFINITE FEEDS are easily adjustable.
- FLAME HARDENED & GROUND WAYS on Ram, top of Cross Slide and Table Support Bearing help prevent scoring under heavy cuts & high cutting speeds.

- SIMPLE STROKE CONTROL . . . so easy . . . no need to ever "cut air". A pair of trip dogs governs both stroke length and its position relative to work and may be easily, quickly adjusted by hand – without tools, even when Ram is in motion, without affecting cutting speeds.

For further information write or call:—

**ROCKFORD MACHINE TOOL CO**  
SUBSIDIARY OF GREENLEE BROS & CO  
2500 Kishwaukee Street, Rockford, Ill. 61101 U.S.A.  
A Unit of Ex-Cell-O Corporation 



## FEATURES OF HY-DRAULIC SHAPER CONSTRUCTION

Ram is box section, well ribbed for strength; well supported, for accuracy; light, for high speed operation.

Safety guard at rear protects workmen, ram hydraulic cylinder, motor.

Ram movement can be reversed instantly anywhere in either direction of movement.

Standard main drive motor mounted at rear is out of the way, protected, easily inspected.

Accurately machined rigid column, securely mounted on base, contains compact hydraulic equipment, its oil reservoir, and filters; all readily accessible.

Ram speeds, indicated on etched plate, are infinitely adjustable by conveniently placed lever.

Built-in push button station enables operator easily to start and stop main drive and rapid traverse motors.

Any cross feed whatever up to specified maximum can be obtained by turning the feed adjusting handwheel.

Rapid traverse of work up or down, toward operator or away; and direction of cross feed; are all governed by two levers at end of cross rail.

Hand operation of table sideways and vertically is obtained with safety crank. Micrometer dials indicate exact settings, and amounts of feeds.

Heavy extended base provides solid foundation for column and outboard table-support.

Outboard support for table is rigid, easily adjusted.

Table has widely separated bearings, latest type wipers to seal in lubricant and keep surfaces clean. Universal Table can be tilted forward or backward through 15° each side of center, and revolved through 360° around a horizontal axis. Adjustments are made quickly, easily and accurately. Positive clamping is provided.

Hydraulic tool lifter available as extra equipment permits use of carbide tools.

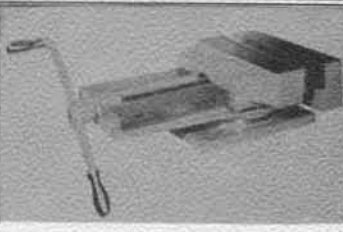

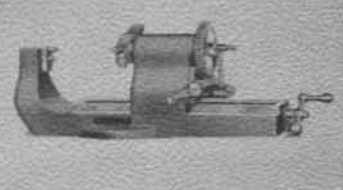
All Hy-Draulic Shapers listed in specifications can be equipped at any time with power feed to the tool head, operating downward or upward, and in any angular position of the slide. Adjustment of feed ranges from 0 to maximum of .018" per stroke.

Single-lever control for start, stop, and speed ranges of ram. This is duplicated on opposite side of column for operating convenience in starting and stopping ram.

New control, high speed return valve, permits use of maximum return speed independently of cutting speed. With a flick of the wrist, the operator may select maximum return speed at all times, or vary the return speed with the cutting speed, for setups, indicating work, etc.

Double adjustable nuts are provided on both the tool head down feed and table cross feed screws which allows for take-up adjustment on both screws to insure new machine accuracy after years of service.

## SPECIFICATIONS

Hy-Draulic Shaper	24" HC	28" HE	Accessories
Stroke length { maximum .....	26"	30"	
{ minimum .....	1"	1"	
Table travel { horizontal .....	26"	30-1/2"	
{ vertical .....	10-3/8"	13-1/8"	
Vertical hand adjustment to Head .....	8"	8-1/4"	
Table top, Standard, width x depth .....	13"x24"	14"x28"	
Table top, Universal, width x depth .....	13 1/2"x16"	15"x19"	
Table to Ram (Standard Table) max. distance .....	14-3/4"	17-1/2"	
Table to Ram (Universal Table) max. distance .....	14-1/8"	16-5/8"	
Tee slots in table-top and side .....	3	3	
Tee slots in top, center to center .....	4"	4-1/2"	
Tee slots in side, center to center (Standard Table only) .....	5"	5-1/2"	
Tee slot bolt diameter .....	5/8"	5/8"	
Cutting speed range, feet a minute .....	10 to 140 feet	10 to 100 feet	
Number of cutting speeds in above ranges .....	Infinite	Infinite	
Cross-feeds to Table, range .....	.002 to 0.110"	.002 to 0.110"	
Vise Jaw size, single screw .....	2-1/2"x15"	3"x17"	
Vise opens, single screw .....	14"	15"	
Tool Post Slot size .....	7/8"x1-7/8"	1"x2"	
Main Drive Motor { size .....	7-1/2 h.p.	10 h.p.	
{ speed .....	1200 r.p.m.	1200 r.p.m.	
Rapid Traverse Motor { size .....	1 h.p.	1 h.p.	
{ speed .....	1800 r.p.m.	1800 r.p.m.	
*Weight with motor, net .....	5000 lbs.	7000 lbs.	
*Shipping weight, domestic crated .....	8150 lbs.	8100 lbs.	
*Shipping weight, boxed for export .....	7250 lbs.	9000 lbs.	
*For Universal Table add .....	400 lbs.	500 lbs.	
*Dimensions of export box .....	64"x62"x38"	68"x62"x113"	
*Cubeage of export box .....	225 cu. ft.	311 cu. ft.	
(*--Average)			

Design, construction and specifications of products shown herein are subject to change without notice.

Index Center, Optional Equipment


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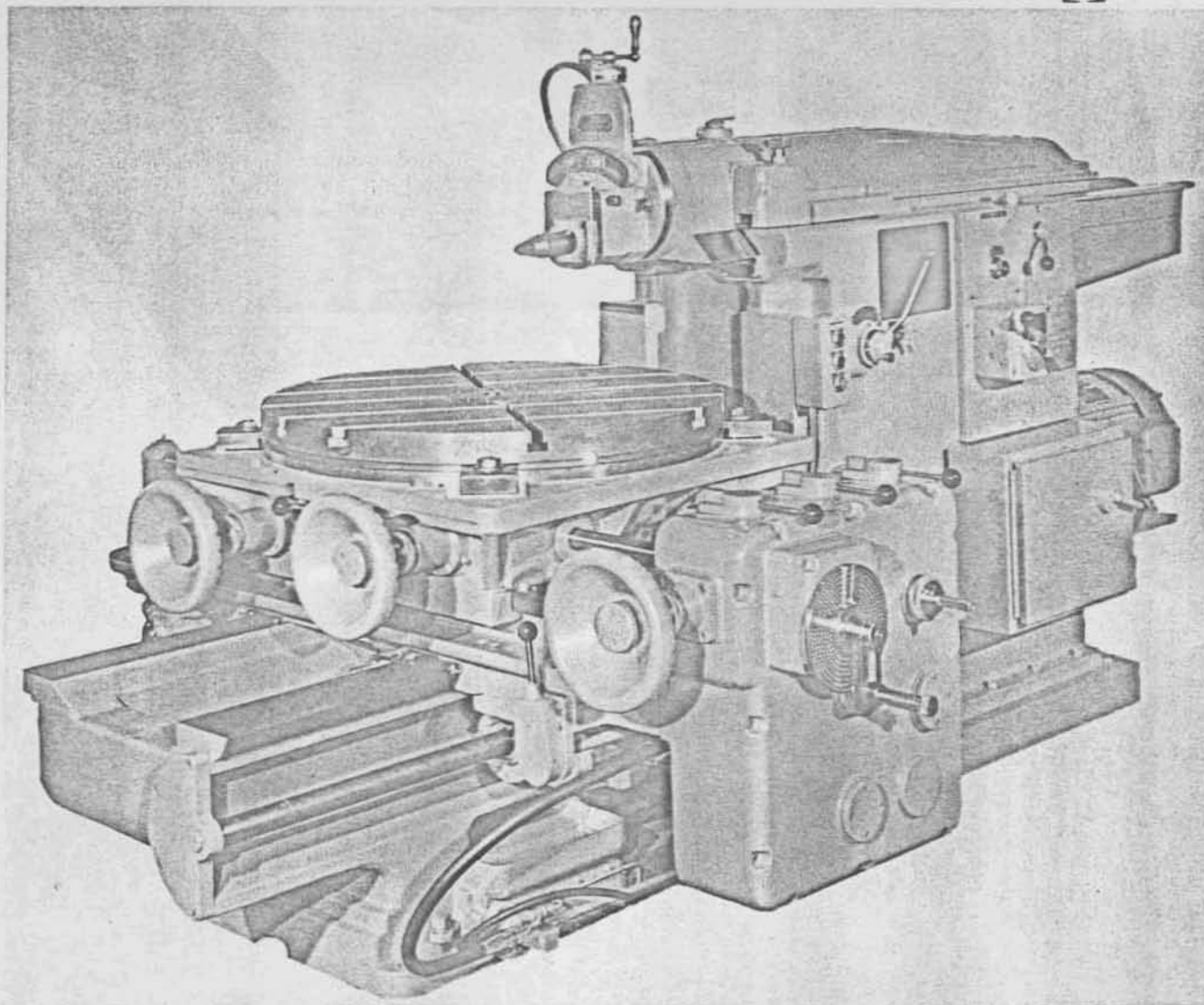


# ROCKFORD HY-DRAULIC SHAPER WITH ROTARY TABLE

Many ways . . . to increase, improve and speed the production of your shaping work . . . can be yours . . . with a new Rockford Hy-Draulic Ram-Type Shaper with Rotary Table. The Rockford Hy-Draulic Shaper, long a mainstay in toolroom and general shop area work, is now more versatile than ever. Look over this new, heavy-duty model. It has all the notable features and economies of Rockford Hy-Draulic Shaper design . . . plus a Rotary Table . . . that has power feed in the X, Y and rotary axis, as well as vertical power feed to the tool head. N/C could be applied to these functions if the job requires it. Could be . . . just the modern machining capability you need to give you top efficiency and more profitable production. This Shaper is especially suited for the machining of chipper discs for the paper industry. For further information write or call:

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## ROTARY TABLE FEATURES

- Rigid, heavy semi-steel casting, arranged to rotate any angle; graduated in degrees on periphery . . . provided with T-slots in 4 directions.
- Rotary feed is hydraulic, through worm and worm gear.
- Slide, saddle and rotary movements, have manual feed, power feed and power rapid traverse in all directions using a 1 HP Electric Motor.

- Micrometer dials are provided for all movements.
- Built-in Dividing Head.
- Tapered locating pin for accurately indexing table 90 degrees.
- Table graduated through 360 degrees.
- Tolerances of working surfaces parallel to ram within .001" in 18" at any position throughout its vertical or horizontal range.

## QUALITY CONSTRUCTION

All main castings are semi-steel for maximum strength and rigidity. All machined parts and bearing surfaces are finished to close tolerances to assure top operating performance.

## COLUMN

Accurately machined, heavy-box type column has hand scraped vee type ram ways; contains compact hydraulic equipment, oil reservoir, filters; all easily accessible.

## RAM

Well ribbed for strength, box-section ram has hardened and ground ways for best wearing qualities; one piece gib takes up any possible wear. Stroke is adjustable, for length and position, easily and safely, without use of tools or stopping machine.

## POWER DOWN FEED

Machine has power feed to tool head. Adjustment of feed ranges from .001" to .018" per stroke is made by means of a conveniently located adjustment screw.

## CONTROLS

Control levers & push buttons are grouped within easy reach of operator. Indicator for cutting speed has direct reading plate, indicating feet per minute. Dials for table & head movement are graduated in thousandths of an inch for easy reading.

## LUBRICATION

Pressure lubrication is provided for ram ways. Bearings are lubricated by Bijur-one-shot system and means for manual lubrication is provided for all other points requiring it.

## SAFETY FEATURES

Safety features protect operator and machine. All moving parts that may cause injury are protected by suitable guards.

## SPECIFICATIONS

Length of Stroke—28" (Max.)	30"	Floor Space (Approximate)	90" x 120"
Length of Stroke (Minimum)	1"	Floor Space (left to right)	90"
Cutting Speed Range (Infinite)	10' to 100'/M	(front to back)	120"
Return Speed Range (Infinite)	20' to 150'/M	Table traverse (Longitudinal)	32"
Cutting Force at 60'/M (Max.)	6400 lbs.	(Transverse)	24"
Cutting Force at 100'/M (Max.)	4300 lbs.	Table top to floor	38" and 42"
Vertical Travel of Head	7"	Table diameter	36"
Tool Shank size (Max.)	1" x 2"	Table tee slots, width	13/16"
Length of Ram Bearing in column	45"	Maximum cross feed	.100
Width of Ram Bearing in column	14-1/4"	Maximum longitudinal feed	.100
Length of Ram without Head	64"	Maximum rotary feed (10" circle)	.150

ELECTRICAL EQUIPMENT conforms to NMTBA Standards and consists of the following: 1 15 HP 1200 RPM, 220/440 volt, 3 phase, 60 cycle, open ball bearing motor, with NEMA type 12 control cabinet, complete with unfused main line disconnect switch, magnetic across-the-line starter with overload and under voltage protection, with control transformer to provide 110 volt push button control, attached & wired for 220 or 440 volt operation.

**GUARANTEE:** The machine is guaranteed to be free from defects in workmanship and material and any parts which may fail due to any such defect during the period of one year after date of installation will be replaced without cost.

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