

DIRECTIONS

Care and operation of Robertson's Economy Power Hack Saw Machines.

NO.....TYPE.....PULLEY SPEED.....SPEED OF MOTOR.....TESTED BY.....
You now have in your possession a new Robertson ECONOMY Power Saw, truly a real machine tool. To secure maximum efficiency and proper operation give it the care you give all other first class machines in your plant. The following suggestions for their operation and care are the results of years of experience and tests, both at our plant and in the field. OBSERVE THEM CAREFULLY.

SETTING UP

Care should be taken in setting up these machines. First remove from crate and level it on floor in desired position. Clamp securely in place and, if of Belt Drive Type, use straight belt whenever possible. If a stock rest is used, be sure it is of proper height so stock will rest parallel across vise surface. NEVER try to hold long bar in vise without using stock support at outer end.

ROTATION

Be sure to have machine run so that crank wheel rotates in direction as indicated by arrow. On Motor Driven Machines have motor running in proper direction. Also be sure motor rating conforms to your power line.

SPECIAL NOTE IN REGARD TO BEARINGS

All BEARINGS on this machine are bored and reamed (not drilled) and all SHAFTS are fitted to very close limits, therefore, KEEP ALL MOVING PARTS OVER OILED FOR AT LEAST THE FIRST WEEK OF OPERATION. (A little extra care at this time will pay large dividends in longer machine life.)

HYDRAULIC LIFT

This Machine is equipped with our famous HYDRAULIC LIFT for raising the frame on the return stroke and relieving the blade teeth of all back drag. Before starting saw, remove oval tank from beneath bed of machine and fill Three Quarters full of Medium Bodied Machine Oil (Not Cylinder Oil). Replace with cotter-pin. Next, with crank pin at top centre of crank wheel, raise and lower frame a few times to draw oil into the cylinders. Due to climatic conditions or a difference in the viscosity, which should be 250 at 100 deg., an adjustment is sometimes necessary. The Blade should clear the work by about $\frac{1}{8}$ " on the return stroke. To adjust the Lift either raise or lower the rear plunger by means of the two jam nuts on top and bottom of eccentric strap. Lowering this plunger gives more lift and raising it gives less. After adjustment is made, tighten these jam nuts but be sure the slot in plunger is parallel with side of machine. If the frame is to be lowered from an elevated position, raise hooked rod that extends thru pump body and at the same time ease up on frame handle. When desired depth is reached drop rod before relieving frame. Be sure neither dirt nor chips get into pump or tank as it will interfere with proper operation of lift if foreign matter gets into ball valve seat. It is well to remove oil tank at regular intervals to check this.

PULLEY SPEEDS

On DRY CUTTING Machines drive pulleys should run at 155 RPM; HIGH SINGLE SPEED Machines at 220 RPM and HIGH TWO SPEED Machines (except No. 4X) at 155 RPM. (The No. 4X pulley should run at 170 RPM.) ALL HIGH THREE SPEED Machines at 200 RPM.

MULTIPLE SPEEDS

On TWO SPEED and THREE SPEED Machines, the changes of speeds are obtained by means of the button lever at outer end of the back or drive shaft. DO NOT CHANGE SPEEDS WITHOUT STOPPING MACHINE.

MOTOR DRIVE

When Motor is furnished by customer and is to be mounted at his own plant, be sure to use the proper speed motor. Observe the following table carefully:

No. 2 Dry Cutting Saw.....	Takes Motor Speed of 1700-1800 RPM
All other Dry Cutting Saws.....	Take Motor Speed of 1100-1200 RPM
All High Two Speed Saws.....	Take Motor Speed of 1100-1200 RPM
All High Three Speed Saws.....	Take Motor Speed of 1100-1200 RPM
All High Single Speed Saws.....	Take Motor Speed of 1700-1800 RPM

25 or 50 Cycle Motors MUST BE 1400-1500 RPM for all Saws.

The BAKELITE PINION furnished will operate the machine at proper speed ONLY when correct speed motor is used.

LIQUID PUMP

A Piston Type pump is mounted at rear of all High Single, High Two Speed and High Three Speed Machines to furnish coolant to the blade. It is suggested that this be taken apart and cleaned once in awhile. A good grade of soluble oil should be used. (We recommend our own KEEP COOL CUTTING OIL. Price upon application.) This can be mixed with from 30 to 40 parts of water. Coolant is kept in square tank beneath bed on leg type machines and in base of Cabinet type machines and is returned to reservoir for re-use. DO NOT USE PLAIN WATER FOR CUTTING.

CLUTCH

All Machines, except No. 2 Motor Driven, are driven thru expanding type friction clutch. The only adjustment on this part is to screw down on set screw if clutch slips. Do not make it so tight that the trip will not release it.

AUTOMATIC STOP

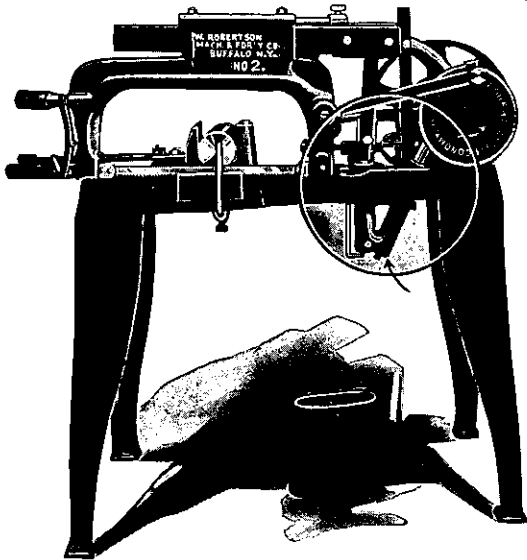
Machines will stop automatically at the end of cut. This is accomplished thru a series of levers. In making adjustments, the lever which clamps around the fork casting should be set so the steel cone is about $\frac{1}{4}$ " from crankshaft collar when set screw in trip slide bar is against cast slide bar block. The set screw in the cross piece should be set so that the trip dog on frame contacts set screw head about $\frac{1}{4}$ ".

FRAME

All Frames are equipped with gibs for adjustment. All "X" Types have gib on one side while all other sizes have gibs on top and side. Keep frame adjusted so there is no play either sideways or up and down but not so tight that it will bind. This adjustment will insure straight cutting.

BLADES

A Good Quality blade should be used and MUST BE inserted with teeth pointing towards rear or gearing end of machine. Also see that it is applied to inside of blade bar nearest vise, with blade screw head in and nuts on the outside. Tighten blade with hand nut to give enough tension to keep blade from warping. A fine tooth blade (14 point) should be used for thin sections or high carbon steel. A medium tooth (10 point) for small solids and a coarse tooth (4-6 or 8 points) for large solids. Use a blade approximately 8" longer than the thickness of stock to be cut to allow for stroke and blade end clearance.

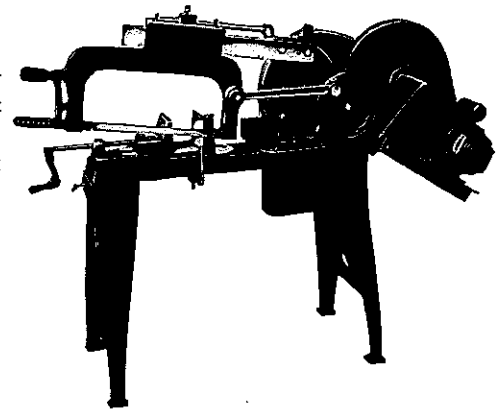


No. 2 Belt Drive

Economy No. 2

Capacity 6" x 6". Blades 10"-12"-14". 6" Stroke. Automatic Stop. Plain Screw Type Vise, swivels to 45°. Driven direct to Crankshaft. Equipped with Hydraulic Lift on return stroke. Pulley on Belt Drive Machine 2½" x 12". Made in the Dry Cutting Type ONLY, operating at 60 Strokes per Minute.

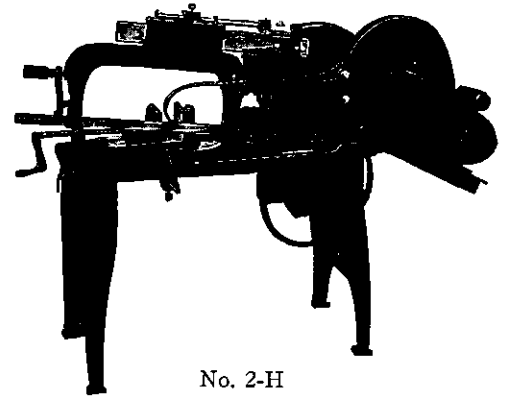
Motor Drive Arrangement is thru double reduction V-Belts. Belts and Pulleys are totally enclosed. Expanding clutch is eliminated. Automatic Stop is thru special motor switch. Furnished in leg type mounting ONLY.



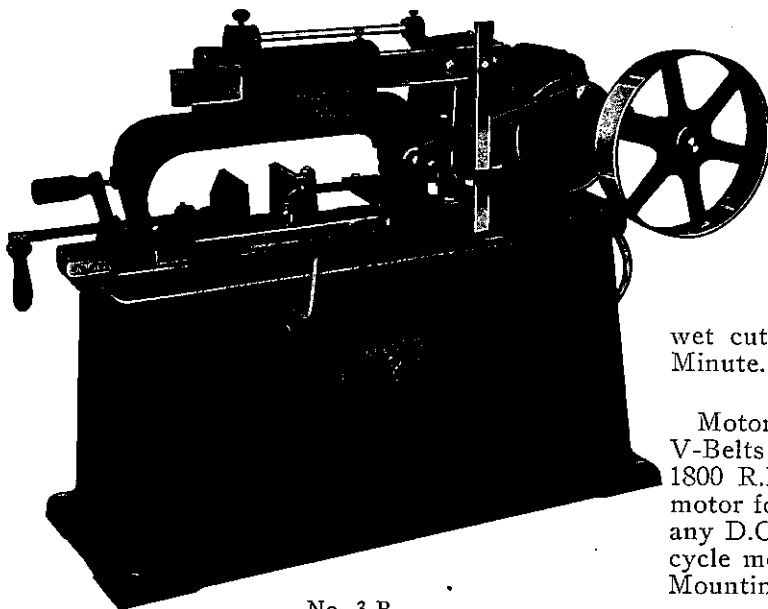
No. 2 Motor Drive

Economy No. 2-H

The specifications for the No. 2-H are the same as the No. 2 except that it is made in the Wet Cutting Type only. Operates at 100 Strokes per Minute, and can be furnished only in the direct connected motor driven type. The motor drive arrangement is similar to the No. 2, thru double reduction V-Belts. Belts and Pulleys are enclosed. Regularly furnished in open leg type mounting. Can also be furnished in cabinet base type mounting at extra cost.



No. 2-H



No. 3-B

Economy No. 3-B

Capacity 6" x 6". Will take blades 10"-12"-14". 6" Stroke. Back geared. Stops automatically when cut is completed. Has Plain Screw Type Vise which swivels to 45°. Driven thru expanding type friction clutch. Hydraulic Lift on the return stroke.

Can be furnished in High Single Speed, wet cutting type, operating at 100 Strokes per Minute; High Two Speed, wet cutting type, operating at 60 and 100 Strokes per Minute or High Three Speed, wet cutting type, operating at 60, 90 and 120 Strokes per Minute.

Motor drive arrangement can be furnished thru enclosed V-Belts or enclosed spur gearing. Requires ½ H.P. motor of 1800 R.P.M. for the High Single Speed Type, 1200 R.P.M. motor for the High Two or Three Speed Types, if 60 cycle or any D.C. motor is used. 1500 R.P.M. for all types if 25 or 50 cycle motor is used. Regularly furnished with Cabinet Base Mounting. Can also be furnished with open leg type mounting.

KEEP KOOL SOLUBLE CUTTING OIL

We can furnish a soluble coolant which can be mixed with water for cooling the blade.

STOCK REST

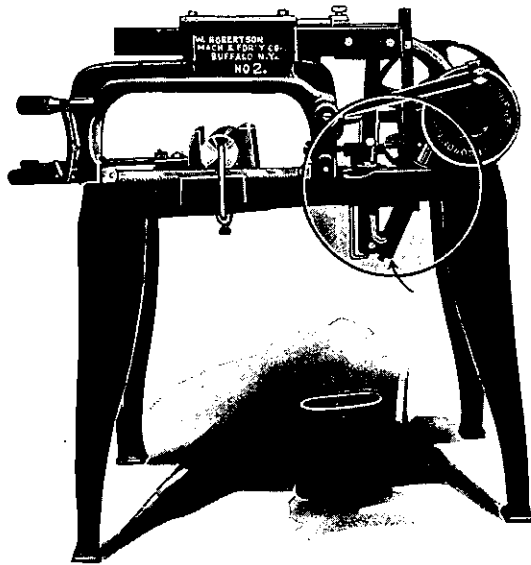
When cutting long lengths of steel, the outer end should be supported. We can furnish a Roller Stock Rest for any of our ECONOMY Power saws.

ECONOMY SAWS ARE BEST—THEY STAND THE SERVICE TEST

Over thirty years on the market, giving excellent service in large and small plants throughout the world

Economy No. 2

Oil Lift—Draw Cut



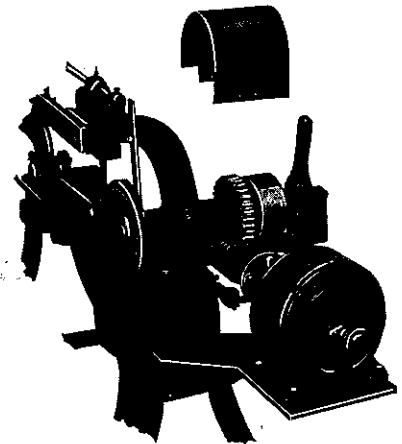
CAPACITY 6" x 6"—10", 12", 14" BLADES

No. 2, is a revelation in hacksaw construction. Equipped with our famous OIL LIFT FEATURE, (described on front page).

Swivel vise to cut at 45 degrees. Automatic stop—friction clutch in pulley. 6" head sleeve bearing. Pulley 2½" x 12". 60 strokes a minute.

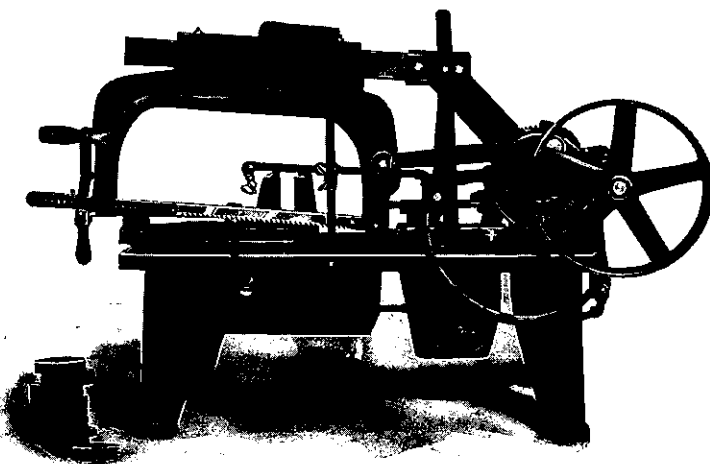
**ECONOMY, SPEED,
ACCURACY, and
DURABILITY.**

Right shows No. 2 motor application. Direct gear connected, worm in oil bath, ball thrust bearing, with flexible coupling. Gears enclosed.



No. 2 MOTOR APPLICATION

No. 4—High Speed Economy Saw



CAPACITY 8" x 8"—12" to 17" BLADES.
ECONOMY No. 4 HIGH SPEED POWER SAW.

This machine is largely used in manufacturing plants where stock from 1" to 8" x 8" is cut. We have many customers who use from 6 to 50 machines for cutting all kinds of steel. This is a heavy tool, equipped with our famous OIL LIFT (described on front page). It is geared, driven by a friction clutch and stops automatically when cut is completed. The bearings are large with ample oiling facilities. Center frame support gibbed for wear adjustment. Vise swivels to 45 degrees for cutting at angles.

Furnished in dry cutting type, also in high single and two speed types with cooling liquid equipment.

Can be furnished in direct connected motor drive type. See last page for application.

SEPTEMBER 1, 1931

ECONOMY POWER HACK SAWS

W. Robertson Machine and Foundry Co., Inc.

Cable Address
"ECOSAW" Buffalo

Buffalo, N. Y.

PRICE LIST OF

Economy Power Hack Saw Machines

SUBJECT TO CHANGE WITHOUT NOTICE

ALL PRICES ARE NET LIST, MACHINES CRATED, F. O. B. BUFFALO, N. Y.

This is the new form of Price List approved by the Associated Machine Tool Dealers and the National Machine Tool Builders' Association

BELT DRIVE TYPE

Code	Size No.	Capacity Inches	Type	Shipping Weight	Pulley	Pulley Speed	Blade Length Inches	Price
Castle	2	6 x 6	Dry Cutting	288	2 1/2 x 12	60	10-12-14	\$ 80.00
Demand	3	6 x 6	High Speed	425	2 1/2 x 12	210	10-12-14	110.00
Market	3	6 x 6	Two-Speed	432	2 1/2 x 12	155	10-12-14	135.00
Emerald	4	8 x 8	Dry Cutting	435	2 1/2 x 12	155	12-17	102.00
Forest	4	8 x 8	High Speed	465	2 1/2 x 12	210	12-17	121.00
Formark	4	8 x 8	Two-Speed	472	2 1/2 x 12	155	12-17	146.00
Glazier	5	8 x 15	Dry Cutting	477	2 1/2 x 12	155	12-24	121.00
Harvest	5	8 x 15	High Speed	507	2 1/2 x 12	210	12-24	140.00
Harmark	5	8 x 15	Two-Speed	514	2 1/2 x 12	155	12-24	165.00
Ivory	6	8 x 18	Dry Cutting	507	2 1/2 x 12	155	12-26	146.00
Kinsey	6	8 x 18	High Speed	537	2 1/2 x 12	210	12-26	165.00
Kinmark	6	8 x 18	Two-Speed	544	2 1/2 x 12	155	12-26	190.00
Ring	40 on Legs	8 x 8	High Speed	480	2 1/2 x 12	210	12-17	133.00
Rose	40 on Legs	8 x 8	Two-Speed	487	2 1/2 x 12	155	12-17	158.00
State	40-B Base	8 x 8	High Speed	645	2 1/2 x 12	210	12-17	185.00
Swing	40-B Base	8 x 8	Two-Speed	652	2 1/2 x 12	155	12-17	212.00
User	4X	9 x 9	Two-Speed	900	3 1/2 x 15	170	12-18	300.00
Utley	7X	13 x 13	Two-Speed	1225	3 1/2 x 15	155	17-21	500.00
Utter	8X	13 x 16	Two-Speed	1250	3 1/2 x 15	155	18-24	550.00

THREE SPEEDS—All capacities can be furnished with Three Speed Transmission having hardened steel pinions. Add \$70.00 to the price of the Two Speed types for this equipment.

For SHIPPING WEIGHT of all saws complete with motors, add 135 pounds to weights of BELT DRIVEN SAWS. SPECIAL SIZES MADE TO YOUR REQUIREMENTS. PRICES UPON APPLICATION

MOTOR AND MOTOR EQUIPMENT FOR ROBERTSON'S ECONOMY POWER SAWS EXTRA TO PRICE OF BELT DRIVEN SAWS

Motors are mounted on a base, clamped and dauled to rear leg of machines. No. 2 is direct connected to a 6 pitch worm, driving a worm gear on the crankshaft. No. 3 and all larger sizes are direct connected to machine by a series of spur gears. No. 4X TAKES 1 H. P. MOTOR. No. 7X and 8X - 2 H. P. ALL OTHER SIZES 1/2 H. P.

We can furnish motors in either direct current or alternating current in any frequency.

Prices of MOTOR EQUIPMENT, consisting of bracket, gearing and connections are as follows: THESE PRICES DO NOT INCLUDE MOTORS.

For No. 2 Saw \$38.00
For Nos. 3, 4, 5, 6, 40, 40B, 4X, 7X and 8X \$49.00
Prices of motors given upon request. Specify the current, cycles, phase, voltage, etc., available.

"A charge of \$3.00 net will be made for mounting motors or \$8.00 for mounting and wiring when motors are furnished by customers."

MOTOR SPEEDS FOR DIFFERENT TYPES.

No. 2 takes motor speed of 1700 to 1800 R. P. M.
All other DRY CUTTING SAWS " " " of 1100 to 1200 R. P. M.
" " TWO SPEED " " " of 1100 to 1200 R. P. M.
" " HIGH SINGLE SPEED " " " of 1700 to 1800 R. P. M.
All THREE SPEED " " " of 1700 to 1800 R. P. M.

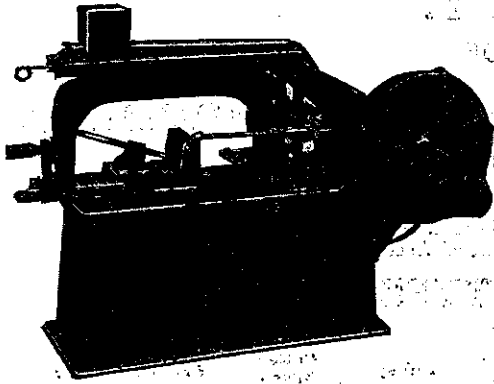
25 cycle current motors must be 1400 to 1500 R. P. M. for all saws. The two motor applications are clearly shown in cuts on other side of page.

PRICE LIST ON "ECONOMY" BLADES

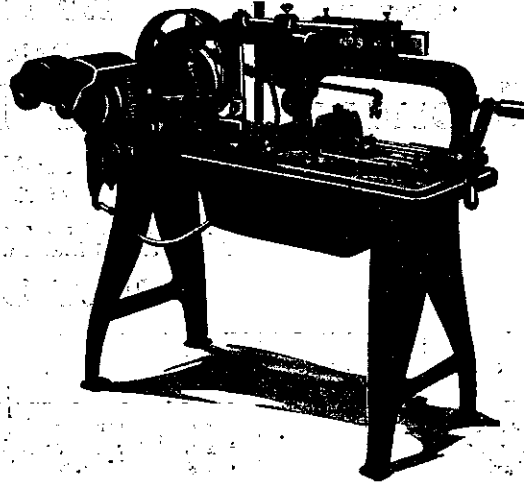
Per Dozen	Per Dozen
10" x 3/4" x 18 ga. for No. 2 and 3 machines, \$2.06	17" x 1" x 18 ga. for No. 4, 5 and 6 machines, \$4.31
12" x 3/4" x 18 ga. for No. 2 and 3 machines, 2.41	17" x 1" x 16 ga. for No. 4, 5 and 6 machines, 4.96
12" x 1" x 18 ga. for No. 3, 4, 5 and 6 machines, .. 3.16	24" x 1" x 18 ga. for No. 5 and 6 machines, 5.86
14" x 3/4" x 18 ga. for No. 2 and 3 machines, 2.76	24" x 1" x 16 ga. for No. 5 and 6 machines, 6.61
14" x 1" x 18 ga. for No. 3, 4, 5 and 6 machines, .. 3.63	

BLADE PRICES SUBJECT TO CHANGE WITHOUT NOTICE.

30,000 Economy Power Saws are in service and making good
They cut FAST and ACCURATELY with the greatest Economy on Blades



No. 4X Two Speed.
 Blades 12 to 18 Inches.
 Capacity 9 x 9 Inches.

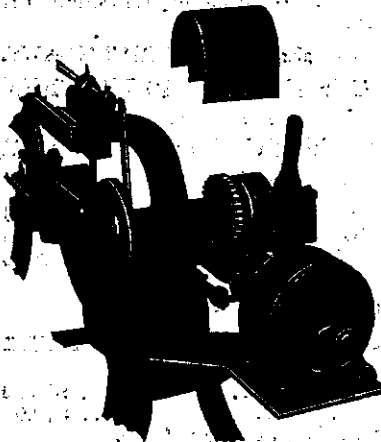


No. 3 Economy Saw

Note—Economy Saws are furnished in dry cutting, high speed with liquid for cooling, high-two speed and high-three speed types. The High Speed types are recommended, as much faster cutting is obtained with greater service from the blades. Economy Saws are equipped with our Oil Compression Lift feature for lifting the frame on the idle stroke, the only positive and fool-proof lift known. We furnish the best Tungsten Steel Blades, in all sizes and lengths for our Saws.

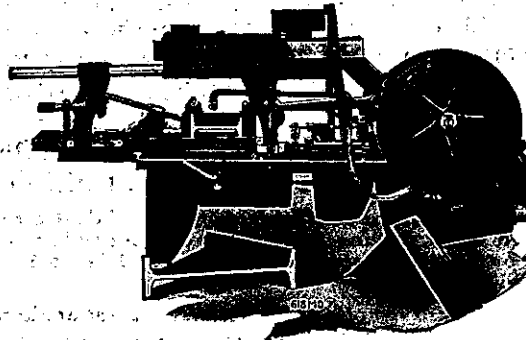
MOTOR APPLICATIONS

No. 2 Motor Drive



This Application is used on No. 2

No. 6 High Speed Motor Drive



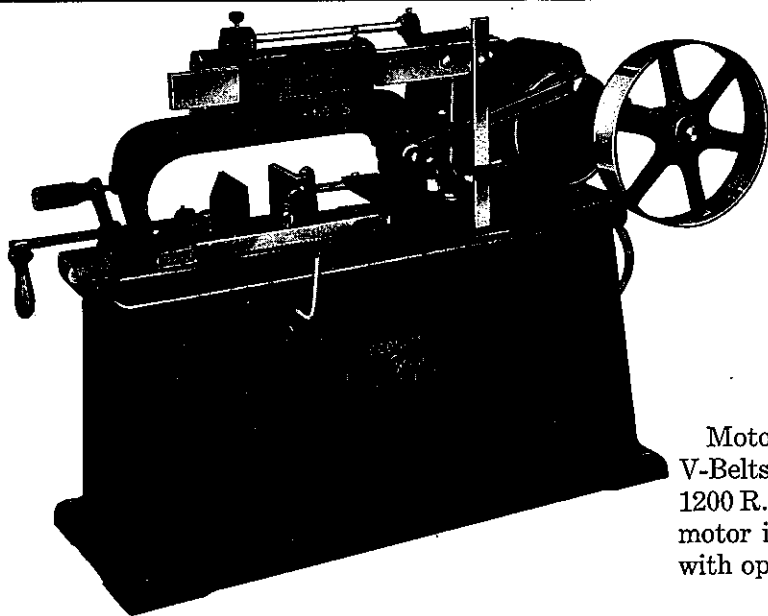
This Application is used on Nos. 3, 4, 5, 6, 40, 40B, 4X, 7X and 8X

Keep Kool Cutting Oil Keeps Tools Cool at All Times

Every man who runs a cutting machine knows the inconvenience caused by the cutting tools becoming heated. KEEP KOOL is a soluble cutting oil which prevents this undesirable condition. Using it on the cutting tools is figuratively like putting them on ice. Truly, it is a wonderful invention. Easy to use and decidedly efficient, it will mix readily with cold water, and when once thoroughly mixed it will not separate.

For sawing, it may be diluted with twenty to thirty parts of water. For milling and grinding operations, from ten to twenty parts of water should be used. For threading or tapping, the proportion is from five to ten parts of water.

Shipped in 1, 5 and 10 gallon cans and in 20, 30 and 50 gallon steel drums.



No. 3-B

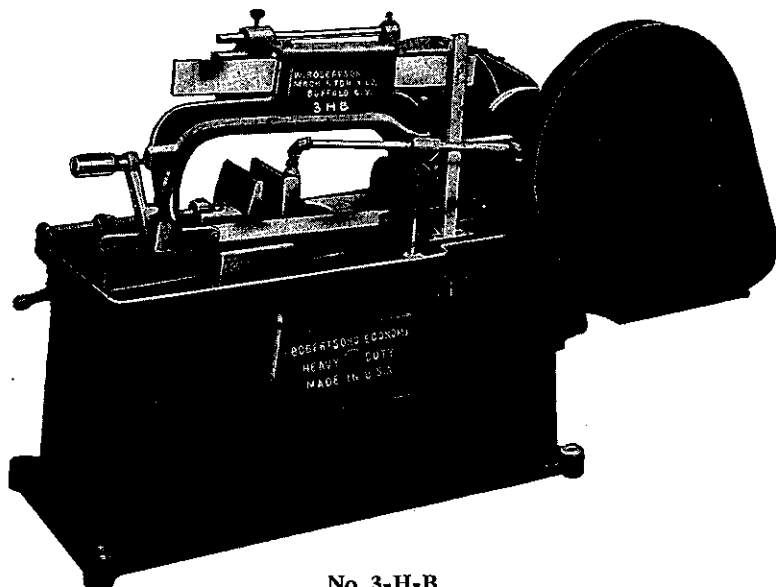
Economy No. 3-B

Capacity 6" x 6". Blades 10"-12"-14". 6" Stroke. Back geared. Stop automatically when cut is completed. Plain Screw Type Vise which swivels to 45°. Driven through expanding type friction clutch. Hydraulic Lift on the return stroke. Can be furnished in the High Two Speed and High Three Speed, wet cutting, types ONLY. The High Two Speed operates at 65 and 100 Strokes per Minute and the High Three Speed at 65, 90 and 120 Strokes per Minute.

Motor Drive Arrangement can be furnished through enclosed V-Belts or enclosed spur gearing. Requires 1/2 H.P. motor of 1200 R.P.M. if D.C. or 60 cycle A.C. current is used. 1500 R.P.M. motor if 25 or 50 cycle current is used. Can also be furnished with open leg type mounting.

Economy No. 3-H-B

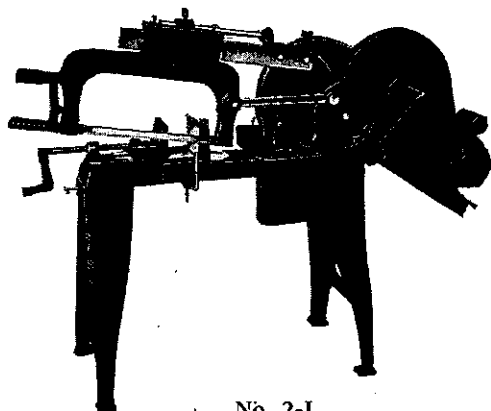
ECONOMY No. 3-H-B and 3-H-L can be furnished in the High Single Speed, wet cutting, motor driven Type ONLY. Capacity 6" x 6". Blades 10"-12"-14". 6" Stroke. Automatic Stop through motor switch. Plain Screw Type Vise which swivels to 45°. Equipped with Hydraulic Lift on the return stroke. Operates at 100 S.P.M. Motor Drive Arrangement is through V-Belts. Belts and pulleys are totally enclosed. Can be furnished in leg or cabinet base type mounting. Requires 1/2 H.P. motor of 1800 R.P.M. if D.C. or 60 cycle A.C. current is used. 1500 R.P.M. motor if 25 or 50 cycle current is used.



No. 3-H-B

Economy No. 2-L

Capacity 6" x 6". Blades 10"-12"-14". 6" Stroke. Plain Screw Type Vise which swivels to 45°. Hydraulic Lift on the return stroke. Operates at 65 Strokes per Minute. Can be furnished in the Dry Cutting, Leg Mounted, motor driven Type ONLY. Motor Drive Arrangement is through double reduction V-Belts. Belts and pulleys are totally enclosed. Expanding clutch is eliminated. Automatic Stop is through special motor switch. Requires 1/3 H.P. motor of 1800 R.P.M. if D.C. or 60 cycle A.C. current is used. 1500 R.P.M. if 25 or 50 cycle current is used.



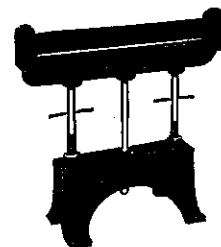
No. 2-L

KEEP KOOL SOLUBLE CUTTING OIL

We can furnish a soluble coolant which can be mixed with water for cooling the blade.

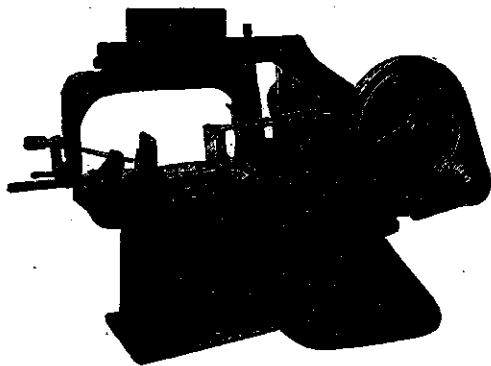
STOCK REST

When cutting long lengths of steel, the outer end should be supported. We can furnish a Roller Stock Rest for any of our ECONOMY Power Saws.

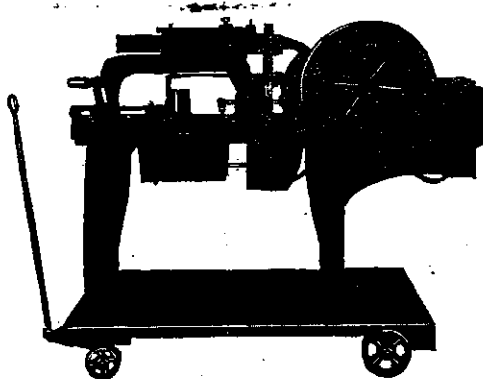


PRICE LIST OF OPEN LEG MOUNTED MACHINES BELT DRIVE TYPE

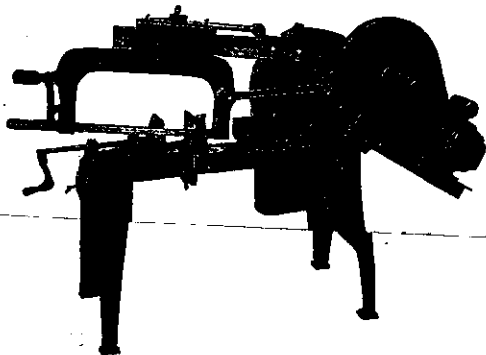
Code	Size and Mounting	Capacity Inches	Type	Shipping Weight	Pulley	Pulley Speed	Blade Length Inches	Price
Castle	No. 2 On Legs	6 x 6	Dry Cutting	288	2½ x 12	60	10-14	\$ 98.00
Demand	3 " "	6 x 6	High Single Speed	425	2½ x 12	210	10-14	132.00
Delete	3 " "	6 x 6	High Two Speed	432	2½ x 12	155	10-14	161.00
Emerald	4 " "	8 x 8	Dry Cutting	435	2½ x 12	155	12-17	124.00
Forest	4 " "	8 x 8	High Single Speed	465	2½ x 12	210	12-17	145.00
Formark	4 " "	8 x 8	High Two Speed	472	2½ x 12	155	12-17	174.00
Glazier	5 " "	8 x 15	Dry Cutting	477	2½ x 12	155	12-24	150.00
Harvest	5 " "	8 x 15	High Single Speed	507	2½ x 12	210	12-24	171.00
Harmark	5 " "	8 x 15	High Two Speed	514	2½ x 12	155	12-24	200.00
Ivory	6 " "	8 x 18	Dry Cutting	507	2½ x 12	155	12-26	177.00
Kinsey	6 " "	8 x 18	High Single Speed	537	2½ x 12	210	12-26	198.00
Kinmark	6 " "	8 x 18	High Two Speed	544	2½ x 12	155	12-26	227.00
Ring	40 " "	8 x 8	High Single Speed	480	2½ x 12	210	12-17	160.00
Rose	40 " "	8 x 8	High Two Speed	487	2½ x 12	155	12-17	189.00
Cattle	No. 2H " "	6 x 6	High Single Speed MOTOR DRIVE ONLY Including Motor	480	10-14	175.00



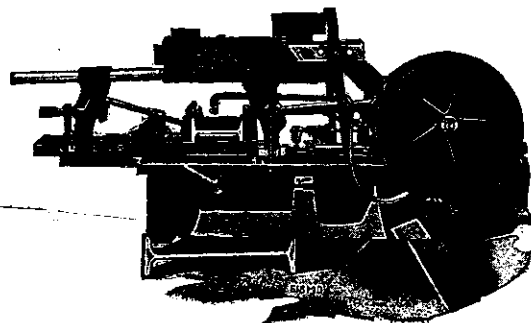
Cabinet Base Type Machine — No. 4X Two Speed
Showing "V" Belt Motor Drive
This Application used on Nos. 3, 4, 5, 6,
40, 40B, 4X, 7X and 8X



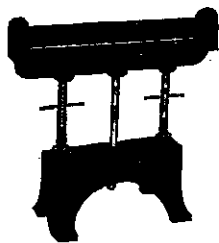
No. 3 Motor Driven Machine,
Mounted on low Platform Truck
Open Leg Type Mounting



No. 2 Motor Drive
This Application used on Nos. 2 and 2-H only



No. 6 High Speed Motor Drive
showing geared motor drive



STOCK REST

When cutting long lengths of steel, the outer end should be supported. We can furnish this Stock Rest for any of our ECONOMY Power saws.

PRICE \$22.00

ECONOMY BLADES

ECONOMY BLADES in all sizes and number of teeth in LOW TUNGSTEN and HIGH SPEED STEEL can be furnished. PRICES upon application.

KEEP KOOL CUTTING OIL

For sawing it can be diluted with several parts water. Furnished in 1, 5 and 10 Gallon Cans and in 20, 30 and 50 Gallon Steel Drums. This can also be used for DRILLING, MILLING and SCREW MACHINE WORK. PRICES UPON APPLICATION.

We can furnish SINGLE PULL COUNTERSHAFTS and BELT SHIFTERS, also ELECTRIC CITY HALF ROUND GUTTER FORMERS and STERLING BEADING MACHINES. PRICES AND CIRCULARS UPON APPLICATION.

April 1, 1941 — PRICE LIST NO. 130
FOR DOMESTIC SHIPMENTS ONLY

ROBERTSON'S ECONOMY POWER
HACK SAW MACHINES

W. ROBERTSON MACHINE & FOUNDRY COMPANY, Inc.

Cable Address
"ECOSAW" Buffalo

RANO ST., BUFFALO, N. Y.

ALL PRICES ARE NET LIST, MACHINES CRATED, F. O. B. BUFFALO, N. Y.
TERMS—2% for cash 10, net 30 days. Interest at 6% charged on all accounts not paid within thirty days from date of invoice.

BELT DRIVE TYPE — CABINET BASE MOUNTED

Code	Size and Mounting	Capacity Inches	Type	Shipping Weight	Pulley	Pulley Speed	Blade Length Inches	Price
Denote	No. 3 Cabinet Base	6 x 6	High Single Speed	645	2 1/2 x 12	210	10-14	\$184.00
Demark	3 " "	6 x 6	High Two Speed	652	2 1/2 x 12	155	10-14	213.00
Emblem	4 " "	8 x 8	Dry Cutting	655	2 1/2 x 12	155	12-17	176.00
Foster	4 " "	8 x 8	High Single Speed	685	2 1/2 x 12	210	12-17	197.00
Former	4 " "	8 x 8	High Two Speed	692	2 1/2 x 12	155	12-17	226.00
Glade	5 " "	8 x 15	Dry Cutting	697	2 1/2 x 12	155	12-24	202.00
Harvey	5 " "	8 x 15	High Single Speed	727	2 1/2 x 12	210	12-24	223.00
Hare	5 " "	8 x 15	High Two Speed	734	2 1/2 x 12	155	12-24	\$252.00
Iris	6 " "	8 x 18	Dry Cutting	727	2 1/2 x 12	155	12-26	229.00
King	6 " "	8 x 18	High Single Speed	757	2 1/2 x 12	210	12-26	250.00
Keep	6 " "	8 x 18	High Two Speed	764	2 1/2 x 12	155	12-26	279.00
State	40B " "	8 x 8	High Single Speed	645	2 1/2 x 12	210	12-17	219.00
Swing	40B " "	8 x 8	High Two Speed	652	2 1/2 x 12	155	12-17	248.00
User	4X " "	9 x 9	High Two Speed	900	3 1/2 x 15	170	12-18	348.00
Utley	7X " "	13 x 13	High Two Speed	1125	3 1/2 x 15	155	17-21	558.00
Utter	8X " "	13 x 16	High Two Speed	1200	3 1/2 x 15	155	18-24	613.00

FOR SHIPPING WEIGHTS of all saws complete with motors, add 135 pounds to weights of belt driven saws.
SPECIAL SIZES MADE TO YOUR REQUIREMENTS. PRICES UPON APPLICATION.

THREE SPEEDS—All capacities can be furnished with Three Speed Transmission, with hardened steel pinions at an extra cost of \$45.00 to price of Two Speed Machines.

OPEN LEG MOUNTING—All machines, as listed above, can be furnished mounted on open legs, instead of Cabinet Base. See cut and prices on other side.

TRUCK MOUNTING—All machines can be mounted on low platform truck to make machines portable. See cut on other side. Price—For 4X, 7X, and 8X—\$55.00. All other sizes \$44.00.

MOTOR AND MOTOR EQUIPMENT FOR ROBERTSON'S ECONOMY SAWS EXTRA TO PRICE OF BELT DRIVEN SAWS

Motors are mounted on a base, clamped to rear of machines and held in place by dowels. The No. 2 and No. 2-H are driven by "V" belts thru intermediate shaft. No. 3 and all larger sizes are connected thru "V" belt direct to drive shaft. However, the No. 3 and larger sizes can be furnished in direct connected geared motor drive if desired. No. 4X requires 1 H.P. motor; Nos. 7X and 8X, 1 1/2 H.P. ALL OTHER SIZES, except Nos. 2 and 2-H require 1/2 H.P. motor. Nos. 2 and 2-H require 1/3 H.P.

PRICES OF MOTOR EQUIPMENT consisting of brackets, belts and sheaves or gears are as follows:

- For Nos. 2 and 2-H Saws, including Special Start and Stop Switch..... \$46.00
- For Nos. 3, 4, 5, 6, 40, 40B, 4X, 7X, and 8 X (Without Switch) "V" Belt Drive..... \$59.00
- For Nos. 3, 4, 5, 6, 40, 40B, 4X, 7X, and 8X (Without Switch) Geared Drive..... \$49.00

TO QUOTE ON ELECTRIC MOTORS WE MUST KNOW THE VOLTAGE, CYCLE, PHASE, ETC., OF CURRENT AVAILABLE.

SPECIAL NOTE—A CHARGE of \$5.00 NET will be made for MOUNTING ONLY or \$10.00 NET for MOUNTING and WIRING motors and starters when furnished by customer. There will be a charge of \$5.00 NET for WIRING motors ONLY when furnished by us, but no charge will be made for Mounting motors ONLY, when furnished by us.

MOTOR SPEEDS FOR DIFFERENT TYPES

- No. 2 and No. 2-H..... Require motor speed of 1700-1800 R.P.M.
- All Other Dry Cutting Saws..... Require motor speed of 1100-1200 R.P.M.
- All High TWO Speed Saws..... Require motor speed of 1100-1200 R.P.M.
- All High THREE Speed Saws..... Require motor speed of 1100-1200 R.P.M.
- All High SINGLE Speed Saws..... Require motor speed of 1700-1800 R.P.M.

NOTE—25 or 50 Cycle Motors MUST BE 1400 to 1500 R.P.M. for ALL Saws. The Two Motor applications are clearly shown in cuts on other side of page.

IMPORTANT—To Customers who furnish their own motors: Wire leads must come out right hand side of motor when facing shaft extension end. When customer furnishes and mounts own motor SPEEDS MUST BE in accordance with above tables and we must know the speed and diameter of motor shaft to furnish proper size pinion. On No. 2 Machines we must know Amperes of motor.

NOTE—ECONOMY SAWS are furnished in the Dry Cutting Type, High SINGLE Speed, High TWO and High THREE Speed Types with liquid for cooling. The Dry Cutting Type is used where cutting time is not a factor and where thin sections alone are to be cut; the High SINGLE Speed is used where cutting time is a factor and where soft metals only are to be cut; the High TWO and High THREE Speed Types are used where hard and soft metals are to be cut. The High TWO and High THREE Speed Types are strongly recommended as greater service is obtained from the blade.