

Operating Manual
and
Replacement Parts
List

SAWMASTER

Power Hack Saws

Portable Models 3114-3112-3112B-3167

Bench Models 3100-3101-3114A

AEC
MODEL . . .

MILLER-KNUTH MANUFACTURING CO.

AUBURN, NEBRASKA

INTRODUCTION

This manual is intended to guide the users of SAWMASTERS in their use, operation, maintenance and repair. All material used in manufacture has been carefully selected for long life, and all machined surfaces are held to accurate limits. With ordinary care and use, SAWMASTERS will give years of satisfactory service.

SPEED

The Model 3167 is geared to give from 100/110 strokes per minute of the saw blade. All other models are geared to give about 90 strokes per minute. At this speed such materials as cast iron, bronze, aluminum, mild and alloy steel can be cut with an ordinary molybdenum steel blade. Faster or slower speeds can be attained by decreasing or increasing the size of the pulley on the drive shaft.

The Bench Model (No. 3100) is equipped with an 8-inch drive pulley which will operate the machine at 90 to 100 strokes per minute when driven with a 1725 RPM motor, equipped with a 2¼-inch O.D. pulley on the motor shaft. If the saw is operated from a line shaft, use a pulley of the proper size to operate the small gear at approximately 500 RPM, or 90 to 100 strokes per minute.

BLADES

Model 3167 SAWMASTERS are equipped with a 14x1-inch blade. Saw frames will take a standard 1-inch blade. These are available with 10, 14 or 18 teeth per inch.

Models 3114, 3114-A and 3112 SAWMASTERS are equipped with a 12x1-inch blade. Saw frames will take a standard 1-inch blade. These are available with 10, 14 or 18 teeth per inch.

Models 3112-B, 3101 and 3100 are equipped with a 12x¾-inch blade. These blades are available with 14 or 18 teeth per inch.

Each tooth spacing fulfills a particular need, and care should be taken to see that the proper blade is being used. Determine the choice of tooth specification by the size and shape of the material. If the material is in the form of large sections of solid stock, the coarser tooth blade should be used. For cutting smaller stock, tubing, pipe or other thin section materials, the finer tooth blade is recommended.

Listed below are the three tooth sizes of blades available and the types of material for which each is best adapted:

10 TEETH PER INCH:

For cutting mild, large steel stock, iron, brass, bronze, copper and aluminum.

BLADES—Continued

14 TEETH PER INCH:

For cutting sections of hard stocks as listed above and materials having smaller cross-sections. This size blade is recommended for general shop use.

18 TEETH PER INCH:

For cutting tubing, pipe, angle iron and other thin section materials.

32 TEETH PER INCH:

For cutting thin wall tubing and conduit.

ALL SAWMASTERS ARE PUSH CUT SAWS! Insert the blade so the teeth will slant toward the FRONT (vise screw end) of the Saw!

♦ **KEEP BLADE TENSIONED AS TIGHTLY AS POSSIBLE AT ALL TIMES!**

♦ **NEVER START THE SAW WITH THE BLADE RESTING ON THE MATERIAL TO BE CUT!**

WISE JAW & PITMAN (Stroke) ADJUSTMENTS

(For maximum Capacity and 45-degree Angle Cutting)

SAWMASTERS are shipped from the factory adjusted for straight cuts and/or angles up to 20/25 degrees. The Pitman is set for the long stroke also, therefore, in order to adjust the machine to its maximum cutting capacity, or for angle cutting up to 45 degrees, the stationary vise jaw must be adjusted, and the Pitman adjusted to the short stroke.

The following adjustments on the various models must be made:

MODEL 3167 — Stationary Vise Jaw Adjustment

Loosen both Cap Screws in the Stationary Vise Jaw.

There are two tapped holes in the vise-ways on the base of the saw. First move the long Cap Screw and the Stationary Vise Jaw to the tapped hole in the vise-way farthest away from the blade.

There is also a tapped hole in each of the two projections on the belt guard side of the base. Move the Cap Screw in the slotted portion of the Stationary Vise Jaw to either the first or second projection—depending upon the angle desired. If you desire to cut at a 45-degree angle, use the hole nearest the Movable Vise Jaw.

An angle square or protractor should be used to set the Stationary Vise Jaw at the desired angle from the cutting blade.

MODEL 3167 PITMAN (Stroke) Adjustment

There are two holes tapped in the large gear used for connecting the Pitman. When cutting large stock, or for angle cutting, the Pitman must be shifted from the outer hole to the hole nearest the center of the gear.

WISE JAW & PITMAN (Stroke) ADJUSTMENTS

Continued

Be sure to tighten all bolts and screws securely after making adjustments!

MODEL 3114 - 3114-A — Stationary Vise Jaw Adjustment

On this model, there are two holes in the Stationary Vise Jaw. The $\frac{1}{2}$ -inch Cap Screw must be shifted from its present hole in the jaw to the hole farthest away from the saw blade. On the base of the saw there are two vise-ways with tapped holes in each. Take the $\frac{3}{8}$ -inch cap screw which holds the jaw to the vise-way out of its present position and move it and the jaw to the vise-way nearest the blade.

MODEL 3114 - 3114-A PITMAN (Stroke) Adjustment

Same as described for Model 3167 Saw.

In shifting to the shorter stroke, be sure to check the clearances on each end of the Saw Frame to be sure the frame will not strike the stock.

MODEL 3112 STATIONARY VISE JAW ADJUSTMENT

Same as described for the Model 3114-3114-A.

There is no PITMAN or stroke adjustment on Model 3112.

MODEL 3112-B STATIONARY VISE JAW ADJUSTMENT

This model is designed for straight cuts OR 45-degree angle cuts ONLY—with no stops in between.

To adjust the Vise Jaw for 45-degree angle cutting, remove the $\frac{3}{8}$ -inch Hex Head Cap Screw in the left-hand side of the Stationary Jaw. Loosen the cap screw on the right side and move the left side of the jaw back until the slot in the jaw is over the third hole drilled in the top of the base and insert cap screw. Left-hand side as referred to here is the Belt Guard side of the Saw.

Tighten both cap screws securely in the jaw.

There is no PITMAN or stroke adjustment on Model 3112-B.

MODEL 3101-3100 STATIONARY VISE JAW ADJUSTMENT

The Stationary Vise Jaw on these models can be adjusted just by loosening the Hex Head Cap Screw and aligning the jaw to the desired angle with a protractor or angle square. Tighten the cap screw securely.

There is no PITMAN or stroke adjustment on the 3100-3101 Models.

LUBRICATION

For filling the oil cup on the Saw Frame, that lubricates the Slide Arm, an oil containing an adhesive should be used so the oil will cling to the arm. The Cam and Cam Lever are very important parts and neglect of lubrication on these parts will subject

LUBRICATION—Continued

them to excessive wear. The large gear guard is provided with a special wick oiler, the wick making direct contact with the cam, oiling both the cam and the lever. An oil containing an adhesive should be used on these parts.

NEVER START THE MACHINE WITHOUT FIRST OILING THESE PARTS. IF THE MACHINE IS IN CONSTANT USE, THESE PARTS SHOULD BE OILED SEVERAL TIMES DAILY!

LENGTH GAUGE

A Length Gauge is provided on the No. 3167, 3114, 3114-A and 3112 Models.

The length gauge is used when cutting duplicate pieces. Insert the $\frac{3}{4}$ -inch steel length gauge rod into the hole under the stock rest to a depth of $1\frac{1}{4}$ inches and secure in place by tightening the set screw. Place length gauge arm on rod followed by steel shaft collar. Adjustment is made by moving both arm and collar to desired position and tightening thumb screw in collar. The collar should be in such position that when the arm is in its gauging position it will rest on the thumb screw. After the material being cut is gauged, let the gauging arm fall free of the stock so that binding will not occur during the cut.

GEAR ROTATION

The direction of rotation of the large gear that drives the saw frame is COUNTER-CLOCKWISE when viewing it from the gear side of the saw. It is important that the saw runs in the right direction, otherwise pressure on the blade will not be applied at the proper time.

GIB SCREW-BACK PLATE-SLIDE ARM ADJUSTMENTS MODELS 3112-3112B-3101 AND 3100

Keep the four gib screws, located on the top of the saw frame, adjusted! Probably the greatest wear occurs on the renewable gib where it travels back and forth on the slide arm. In order to take up any wear at this point, four gib screws with locknuts are provided. When the gib becomes worn, looseness will occur and the saw will start making an unusual noise at the beginning of the cutting stroke. When this occurs, adjust the gib screws until all play is removed. When the gib itself becomes worn, it may be replaced at very small cost. After considerable use, or at any time that looseness develops between the slide arm and saw frame, the back plate should be tightened. The slightest amount of looseness here will result in crooked cuts. To adjust the back plate so that a snug fit is obtained, it may be necessary to remove a shim or shims which are placed between the back plate and slide arm assembly.

MODELS 3167-3114 AND 3114-A

The back plate on these models is a casting containing two bronze discs that can very easily be adjusted to take up any wear.

GIB SCREW-BACK PLATE-SLIDE ARM ADJUSTMENTS

Continued

This adjustment can be made by tightening the two screws on the back plate, without removal of any parts. Gib adjustment same as other models.

CAUTION—The fit should be snug, but should not bind!

BELT ADJUSTMENT

To tighten the belt, slide the motor on the base until the belt has proper tension. Do not get the belt too tight—it is not necessary for V belts to run as tightly as flat belts.

SAW TENSION

The pressure on the cutting stroke is applied by means of a Cam on the back of the large gear. The high and low point of the Cam is so located that when the saw starts the cutting stroke, the cam, through the rocker arm (cam lever), begins to apply pressure. As the blade starts and ends its stroke, it does so with the cutting pressure relieved. This is the reason SAWMASTERS cut fast, give long blade life and are able to cut annealed alloy die steel with an ordinary blade, and do it economically.

Do not tie weights, or apply pressure manually, to the saw arm in an attempt to increase cutting speed. Increase or decrease the pressure by adjusting the red Saw Tension Knob directly above the upper compression spring.

Nothing is gained by applying pressure manually, instead the life of the blade is reduced. A blade will remove stock directly in proportion to the capacity of the teeth. As a blade wears and its cutting flanks are worn, it will take out less and less material. No amount of added pressure will increase its cutting speed.

BEARINGS

All SAWMASTERS are provided with oil-impregnated bearings on both the large and small gear shafts. (They are porous to retain the oil.) They are provided with oil wells and oil cups. The bearings are NOT drilled through so the oil can get directly to the shaft, instead, the oil is fed to the shaft by capillary attraction (seeps through the pores).

Replacement and repair costs can be held to a minimum, and delays avoided, by replacing the inexpensive bearings on both gear shafts when they show excessive wear. New bearings will prevent wear on the large and small gears, replacement cost of which is far greater than that of the bearings.

MOTOR

Do not neglect the motor!

Machines not equipped with ball-bearing motors are equipped with sleeve bearings. These are provided with wick oil sleeve bear-

MOTOR—Continued

ings which should be lubricated about once every two months with a good grade of motor oil.

Clean and oil the motor every sixty days and it will give a long and useful life.

AUTOMATIC SWITCH

All SAWMASTERS, except the No. 3112-B, are equipped with automatic shut-off switches.

On the 3167, 3114, 3114-A and 3112 Models the toggle switch is located just below the Overarm with a rod attached to the overarm that contacts the switch button when the cut is completed.

All shut-off rods are adjusted to the proper clearances when shipped from our plant. If for some reason the switch does not shut off at the proper time, an adjustment can be made on the rod.

If the operator wishes to operate the switch manually, merely loosen the adjusting nut on the shut-off rod and turn the rod out of the way so that it does not make contact with the switch toggle. In adjusting the switch back to automatic, care should be taken that the proper gap is left between the switch toggle and the contact end of the shut-off rod.

STOCK DOLLY NO. 3161

For straight cutting of long bar stock or pipe, it is absolutely necessary to hold the stock parallel to get a straight cut. For this we recommend the use of our No. 3161 Adjustable Stock Dolly. If a Stock Dolly is not available, be sure that whatever is used to support the stock is of the correct height so that the stock is held parallel.

CAUTION

Always have the saw in motion before permitting the blade to contact the material to be cut. If the blade is resting on the stock before the saw is in motion, it is very likely to stall the machine because the teeth will bite into the stock, making it difficult for the motor to start the blade in motion. Neglecting to do this may cause damage to the motor or fuses to be blown.

If you start to cut through a piece of stock and decide to install a new blade before the cut is complete, do not attempt to complete the cut without turning the stock so that the blade will start a new cut. This is necessary because the width of the saw slot made by a new blade is wider than one made by an old blade. If the new blade is let down into the slot of the old blade, it will catch and may break the blade. This, however, may be avoided by rotating the stock so that the new blade does not have to begin the cut in the old slot.

Inspect, adjust and lubricate your saw frequently, thus assuring good operating conditions.

IMPORTANT CAUTIONS TO THE OPERATOR

- 1—NEVER START THE SAW WITH THE BLADE RESTING ON THE MATERIAL TO BE CUT!
- 2—NEVER START THE MACHINE WITHOUT FIRST OILING THE CAM AND SLIDE ARM!
- 3—NEVER APPLY PRESSURE MANUALLY. TIGHTEN TENSION NUT FOR PROPER PRESSURE!
- 4—DON'T NEGLECT THE MOTOR! CLEAN AND LUBRICATE PERIODICALLY! SEE PARAGRAPH ENTITLED "MOTOR".
- 5—ALWAYS INSTALL THE BLADE SO THE TEETH WILL SLANT TOWARD THE FRONT (vise screw end) OF THE SAW. SAWMASTERS ARE ALL PUSH-CUT SAWS!

HINTS FOR POWER HACK SAW USERS

"Straight cuts" is the rule, but failure to observe a few simple facts may result in crooked cuts.

Keep blade tensioned as tightly as possible at all times! A blade that is too loosely tensioned lacks sufficient support and is free to cut in any direction.

Tighten blade after one or two cuts when using a new blade, as blade has tendency to stretch. A loose blade will not cut straight and will wear out or break quicker than a tight blade.

Replacing worn blade with a new blade in the same cut should be avoided, as it will probably wedge and break. Turn material over and saw from opposite side with new blade.

Arrange material in position so that it can be clamped securely and tighten vise. Material loose in vise will result in crooked cuts.

When cutting irregular shaped pieces, place them in the vise so that the blade comes in contact with the largest possible area. Starting a cut on sharp corners should be avoided, as it puts excessive strain on the few teeth contacting the work and may result in teeth ripping out.

Two bars of round stock can be held securely if a double V-block is placed between them.

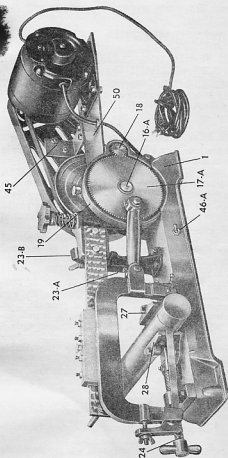
To cut a number of small pieces of stock at the same time, care should be taken to see that all pieces are held firmly. One loose piece can cause a blade to break.

A large number of small round bars can be cut in a V-shaped fixture if clamped from the open side of the V.

To cut a number of pieces of angle iron at once, nest the angle irons.

Too heavy feed when cutting thin sections will cause blade breakage. Reduce pressure on thin sections, pipe or tubing.

Teeth must point correctly. Check teeth when inserting new blade. SAWMASTERS are push-cut saws, therefore, the teeth of the blade should slant toward the vise screw end of the saw.



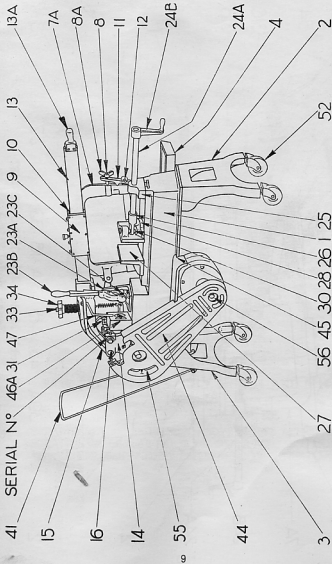
BENCH MODEL

No. 3100—WITHOUT MOTOR

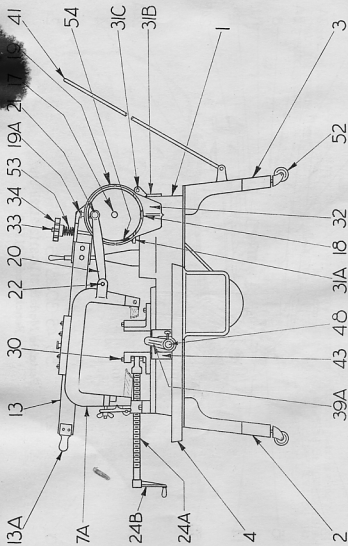
No. 3101—WITH MOTOR

PARTS NOT NUMBERED ON ABOVE MODEL ARE IN THE SAME LOCATION AS SIMILAR PARTS ON THE PORTABLE MODELS AND CAN BE IDENTIFIED BY REFERRING TO PORTABLE MODEL DRAWING. WHEN ORDERING PARTS, SERIAL NUMBER OF SAW MUST BE GIVEN. This is NOT a model or casting number but a stamped number on the milled surface directly above end of large gear shaft.

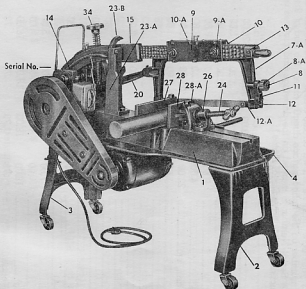
(Later production models have serial plates.)



Portable Models 3114-3112-3112B-3167
 Bench Model 3114A



Portable Models 3114-3112-3112B-3167
Bench Model 3114-A



MODEL 3167
AND
SAW FRAME PARTS ONLY for 3114 AND 3114-A
MODELS

PARTS NOT NUMBERED ON ABOVE MODEL ARE IN SAME LOCATION AS SIMILAR PARTS ON OTHER PORTABLE MODELS AND CAN BE IDENTIFIED BY REFERRING TO PORTABLE MODEL DRAWING.

REPAIR PARTS LIST

IMPORTANT! The SERIAL NUMBER of your Saw must be shown on all orders for parts. This is NOT a model or casting number, but a stamped number on the milled surface directly above the end of the large gear shaft — on all models. Location of the Serial Number is marked on the drawings and pictures of each model on the preceding pages. (Later Production Models have Serial Plates.)

Part No.	Description	No. 3167	3114	3114-A	3112 3112-B	3100 3101
1	BASE	\$35.00	\$30.00	\$30.00	\$26.00	\$16.00
2	LEG, Plain.....	7.80	7.60	.....	5.60	.....
2-B	LEG, Plain (3112-B Model).....	.....	.....	.....	5.60	.....
3	LEG, Lug, for tongue end.....	8.80	8.60	.....	8.60	.....
4	CHIP PAN (None for 3112-B Model).....	4.00	4.00	.....	3.60	.....
7-A	SAW FRAME, complete with slide arm, etc.....	22.00	21.00	21.00	16.00	16.00
8	Blade Tension Stud.....	.60	.60	.60	.60	.35
8-A	Wing Nut for Blade Tension.....	.....	.35	.35	.35	.35
8-A	Blade Tension Knob (3167 only).....	.60	.....	.....	.....	.....
9	Back Plate.....	3.40	3.40	3.40	2.40	2.40
9-A	Brass Discs for Back Plate — each.....	.60	.60	.60	.....	.....
10	Brass Gib.....	.80	.80	.80	.60	.60
10-A	Gib Screws and Lock Nuts (4).....	.40	.40	.40	.40	.40
11	Blade Tension Arm.....	.80	.80	.80	.80	.80
12	Blade Tension Pin.....	.20	.20	.20	.20	.20
12-A	Blade Holders (3167-3114 and 3114-A).....	.60	.60	.60	.....	.....
13	Slide Arm and Handle.....	7.00	6.00	6.00	5.00	3.60
13-A	Slide Arm Handle, only.....	.80	.60	.60	.60	.60
14	Bearing Stand (Gear Shaft Housing).....	18.00	18.00	18.00	18.00	13.00
14-A	Oilless Bearings for Gear Shafts — each.....	.78	.78	.78	.78	.78

REPAIR PARTS LIST — Continued

Part No.	Description	No. 3167	3114	3114-A	3112 3112-B	3100 3101
15	Overarm	\$10.00	\$ 9.00	\$ 9.00	\$ 8.00	\$ 6.60
15-A	Overarm Bearings, Oilless.....	.60	.60	.60	.60	.....
16	Overarm Pin.....	1.20	1.20	1.20	1.20	.....
16-A	Overarm Pin and Large Gear Shaft (3100-3101) (Complete with Oil and Retainer Washer).....	.....	.....	.....	.....	3.60
17	Large Gear, Cam and Shaft.....	18.00	18.00	18.00	18.00	3.60
17-A	Large Gear, Cam and Bearing (3100-3101).....	.....	.....	.....	.....	16.00
18	Small Gear and Shaft (21-tooth Pinion).....	6.00	6.00	6.00	6.00	6.00
19	Large Gear Guard.....	3.00	3.00	3.00	3.00	3.00
19-A	Oil Cup and Wick for Gear Guard.....	.60	.60	.60	.60	.60
20	Pitman, complete with bushings.....	3.80	3.60	3.60	3.00	3.00
21	Pitman Bushing only, large.....	1.00	1.00	1.00	1.00	1.00
22	Pitman Bushing only, small.....	.90	.90	.90	.90	.90
22-A	Bolt to fasten Pitman to Gear.....	.20	.20	.20	.20	.20
22-B	Bolt to fasten Pitman to Frame.....	.10	.10	.10	.10	.10
23	Latch Stand and Lever, complete.....	4.75	4.35	4.35	4.35	2.75
23-A	Latch Stand, only.....	2.60	2.20	2.20	2.20	1.80
23-B	Latch Lever, only.....	2.15	2.15	2.15	2.15	.95
23-C	Latch Stand Spring, only.....	.....	.30	.30	.30	.....
24	Vise Screw and Crank (or Handle).....	3.10	4.10	4.10	3.10	2.50
24-A	Vise Screw, only.....	2.20	3.20	3.20	2.20	1.80
24-B	Vise Crank or Handle, only.....	.80	.80	.80	.80	.80
25	Vise Screw Nut.....	.....	2.20	2.20	2.20	2.20
26	Vise Screw Nut (3167 only).....	2.60	.....	.....	.....	.....

REPAIR PARTS LIST—Continued

Part No.	Description	No. 3167	3114	3114-A	3112-B	3100 3101
26	Vise Screw End.....	\$	\$ 1.20	\$ 1.20	\$ 1.20	\$ 1.20
27	Vise Jaw — Stationary.....	4.40	4.00	4.00	3.00	3.00
27-A	Vise Jaw — Stationary (3112-B only).....					
28	Vise Jaw — Movable.....	4.40	4.00	4.00	2.20	3.00
28-A	Vise Jaw Yoke (only 3167).....	3.00				
28-B	Vise Jaw Yoke Pin (3167).....	.60				
29	Tee Nut — Stationary Vise Jaw.....					
29-A	Tee Nut — Movable Vise Jaw.....		.40	.40	.40	
30	Stud for Movable Vise Jaw, with Nuts.....		.60	.60	.60	
30-A	Stud for Movable Vise Jaw (3100-3101) (Complete with Washer, Hex and Palmnut).....					.80
30-B	1/2" Hex. Head Screw for Stationary Vise Jaw.....	.20	.20	.20	.20	.20
31	CAM (Detachable for 3114-3114-A-3167 only).....	3.00	3.00	3.00		
31-A	Cam Lever.....	1.20	1.20	1.20	1.20	1.20
31-B	Cam Lever Bracket.....	1.60	1.60	1.60	1.60	1.60
31-C	Cam Lever Pin.....	.20	.20	.20	.20	.20
31-D	Cam Lever Hook.....	.10	.10	.10	.10	.10
32	Lower Gear Guard.....	.80	.80	.80	.80	
33	Spring Tension Shaft.....	.80	.80	.80	.80	.80
34	Spring Tension Nut.....	.80	.80	.80	.80	.80
39-A	Length Gauge Arm (None for 3112-B, 3100, 3101).....	.60	.60	.60	.60	.60
41	Tongue — 3/8" Steel Handle.....	1.60	1.60		1.60	
43	Stock Rest.....		1.60	1.60	1.60	
44	Bell Guard.....	4.00	4.00	3.60	3.60	3.60

REPAIR PARTS LIST — Continued

Part No.	Description	No. 3167	3114	3114-A	3112 3112-B	3100 3101
45	Belt Guard Bracket.....	\$ 2.60	\$ 2.60	\$ 2.20	\$ 2.20	\$ 2.20
46	Automatic Switch Bracket.....	2.00	2.00	2.00	2.00	.....
46-A	Toggle Switch (None for 3112-B).....	4.00	4.00	4.00	4.00	2.20
47	Automatic Shut-off Rod (None for 3112-B) (with adjusting nuts).....	.80	.80	.80	.80	.....
48	Length Gauge, complete.....	3.40	3.40	3.40	3.40	.....
	(None for 3112-B-3100-3101)					
49	BELT — A Section — V Type.....	2.60	2.40	2.40	2.40	2.40
50	Motor Mounting Plate (3101 and 3114-A).....	.....	.....	3.60	.....	3.60
52	Castors, without brakes (set of 4).....	2.60	2.60	.....	2.60	.....
52-A	Castors, with brakes, each.....	.80	.80	.....	.80	.....
53	Upper Compression Spring.....	.60	.60	.60	.60	.60
54	Lower Tension Spring.....	.60	.60	.60	.60	.60
55	PULLEY — 8" O.D. (Drive Pulley).....	3.00	3.00	3.00	3.00	3.00
56	PULLEY — 2¼"-2½" O.D. (Motor Pulley).....	1.60	1.60	1.60	1.60	1.60

MOTORSPrice on Application

(Prices and specifications subject to change without notice.)

(See Reverse Side for Blades)

ALL PRICES F.O.B. AUBURN, NEBRASKA

POWER HACK SAW BLADES

POWER HACK SAW BLADES—(Packed) 10 Blades to a Box

No.	Size	Teeth Per Inch	Model	Price Per Blade 10-Blade Quantity	Price Per Blade 1-9 Quantity
No. 1412	12" x 1"	14	3112-3114 & 3114-A	2.05	1.65
No. 1012	12" x 1"	10	"	2.05	1.65
No. 1312	12" x 1"	18	"	2.05	1.65
No. 1414	14" x 1"	14	(For No. 3114 & 3167 Model)	2.38	1.91
No. 1014	14" x 1"	10	"	2.38	1.91
No. 1314	14" x 1"	18	"	2.38	1.91
No. 1812-B	12" x 5/8"	18	(For No. 3112-B-3100 & 3101)	1.17	.94
No. 1412-B	12" x 5/8"	14	"	1.17	.94

NOTE: All No. 3114 Saws manufactured after Serial No. 10878 use 12" x 1" blades. All prior models use 14" x 1" blades.

(Prices and specifications subject to change without notice)

MILLER-KNUTH MANUFACTURING CO.
AUBURN, NEBRASKA

2-4-65
Printed in U.S.A.

Effective April 30, 1963

WARRANTY

All Sawmasters are warranted for one year against defective material or workmanship, with the exception of motors which carry the standard manufacturer's warranty.

The Miller-Knuth Manufacturing Co. will replace, without cost, all defective parts provided such parts are returned to us for inspection, transportation charges prepaid.

Warranty not effective unless Registration Card establishing Serial Number is mailed immediately after purchase.

MILLER-KNUTH MANUFACTURING CO.
AUBURN, NEBRASKA