

SERVICE & INSTRUCTION

MANUAL

PIVOT TYPE DOUBLE MITER SAWS

FOR MODELS: EMN
EMN-14

SERIAL NUMBER: _____

(Record actual machine serial number here)

PISTORIUS MODEL EMN-12, EMN-14

DOUBLE MITER SAW

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WARRANTY
(See back of invoice)

The products covered herein are warranted, for a period of six (6) months from date of shipment, against defects in material and workmanship under normal use and service by Buyer. NO OTHER WARRANTIES ARE TO BE IMPLIED WITH RESPECT THERE-TO. The liability of Seller under its warranty is limited to adjustment, in accordance with the Warranty Adjustment Terms set forth below, for products which are found to be defective by Seller in the form in which they were originally shipped. In no event will Seller be liable for collateral, consequential or other damages of any kind or nature.

WARRANTY ADJUSTMENT TERMS

- (a) Adjustments will be limited to claims which are presented promptly after the product is found to be defective, and within the aforesaid warranty period.
- (b) All products claimed to be defective will be subject to an inspection and test by Seller. Normally, Seller will request return of products for inspection and testing. However, Seller reserves the right to make inspection and test on buyer's premises. Returns are to be made only as and if authorized in writing by Seller.
- © Buyer will pay all packing, inspection, labor, and transportation costs involved. Credit for the transportation costs will only be issued by Seller provided adjustment subsequently is allowed.
- (d) No adjustment will be allowed for products which have been subjected to abuse, improper installation or application, alteration, accident or negligence in use, storage, transportation or handling; nor for products on which original identification markings have been removed, defaced or altered.
- (e) Final determination as to whether any adjustment is allowable, and as to the extent thereof, rests with the Seller. Full adjustment, if allowed, will normally be replaced in kind on an exchange basis. Pro rata adjustment, if allowed, will be made by the issuance of credit. In all cases, however, Seller reserves the right to make adjustment by repair, replacement or credit.
- (f) Replacements for products found subject to adjustment, whether new or repaired, will be shipped F.O.B. city of destination with transportation charges prepaid by Seller.

RESPONSIBILITY OF INSTALLATION

Buyer shall install machinery purchased from Seller at Buyer's cost and expense, unless otherwise expressly stipulated, in writing: At the request of Buyer, Seller will recommend competent engineers to supervise the installation and to instruct the Buyer in the proper operation of the machinery and equipment. During such period of supervision and instruction, such personnel shall be deemed to be employees of the Buyer who shall pay the wages, remuneration, board and traveling expenses of such personnel. Seller's recommendation of such personnel shall not make Seller liable, directly or indirectly, in any manner whatsoever, for any damages resulting from any act of commission, or omission or any misfeasance, on the part of any of said personnel.

IMPORTANT NOTICE TO PURCHASER AND USER

All material contained herein is based on tests and information we believe to be reliable, but the accuracy or completeness thereof is not guaranteed. Neither seller nor manufacturer shall be liable for any injury, loss or damage, direct or consequential arising out of the use or the inability to use the product described herein. Manufacturer offers inspection by buyer and user of product prior to shipment from factory with adequate notice. **BEFORE USING, USER SHALL SOLELY DETERMINE THE SUITABILITY OF THE PRODUCT FOR HIS INTENDED USE AND USER ASSUMES ALL RISK AND LIABILITY WHATSOEVER IN CONNECTION WITH STRICT COMPLIANCE WITH FEDERAL, STATE AND LOCAL HEALTH AND SAFETY ORDINANCES TO ITS INTENDED USE.**

MACHINE SPECIFICATIONS

MODEL	EMN-12	EMN-14
Miter Cutting.....	See cutting capacity chart	
Standard Motor.....	1 horsepower	2 horsepower

Electrics 208 /230 Volt, 1 phase (208/230/460 Volt, 3 phase optional), 60 cycle, 3450 RPM , totally enclosed, fan cooled, single phase equipped with capacitor start induction run motor.

NOTE: When run at 50 hz, motor RPM is reduced to 2950.

Amps (total)

208/1/60.....	14.3	26.4
230/1/60*.....	13.0	24.0*
208/3/60.....	7.1	12.3
230/3/60.....	6.4	11.2
460/3/60.....	3.2	5.6
220/1/50.....	12.2	22.4
575/3/60.....	2.6	4.5
380/3/50.....	3.4	6.8
240/3/50.....	5.6	11.2
415/3/50.....	1.6	3.2

*Standard motor supplied with machine.

Switch.....Pushbutton manual starter with under voltage protection, functions to start, stop and protect the motor from overload.

Drive.....Single poly-vee belt with matching pulleys on motors and spindles.

Arbor.....5/8" (15.88 mm standard)

Sawblade Capacity.....12" 14"

Sawdust exhaust.....Two (2) 4"OD (127 mm) outlets require approximately 850 CFM.

Air Consumption
(with optional air feed kit).....72CFM at 65PSI based on 15 cycles per minute.
(1/4" air line minimum)

Air Pressure.....65 PSI (4.5 bar) needed for air operated option

Weight (without accessories)

Crated (domestic).....	410 lbs. (186 kg)	505 lbs (229 kg)
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Crated (export).....	435 lbs (198 kg)	530 lbs (241 kg)
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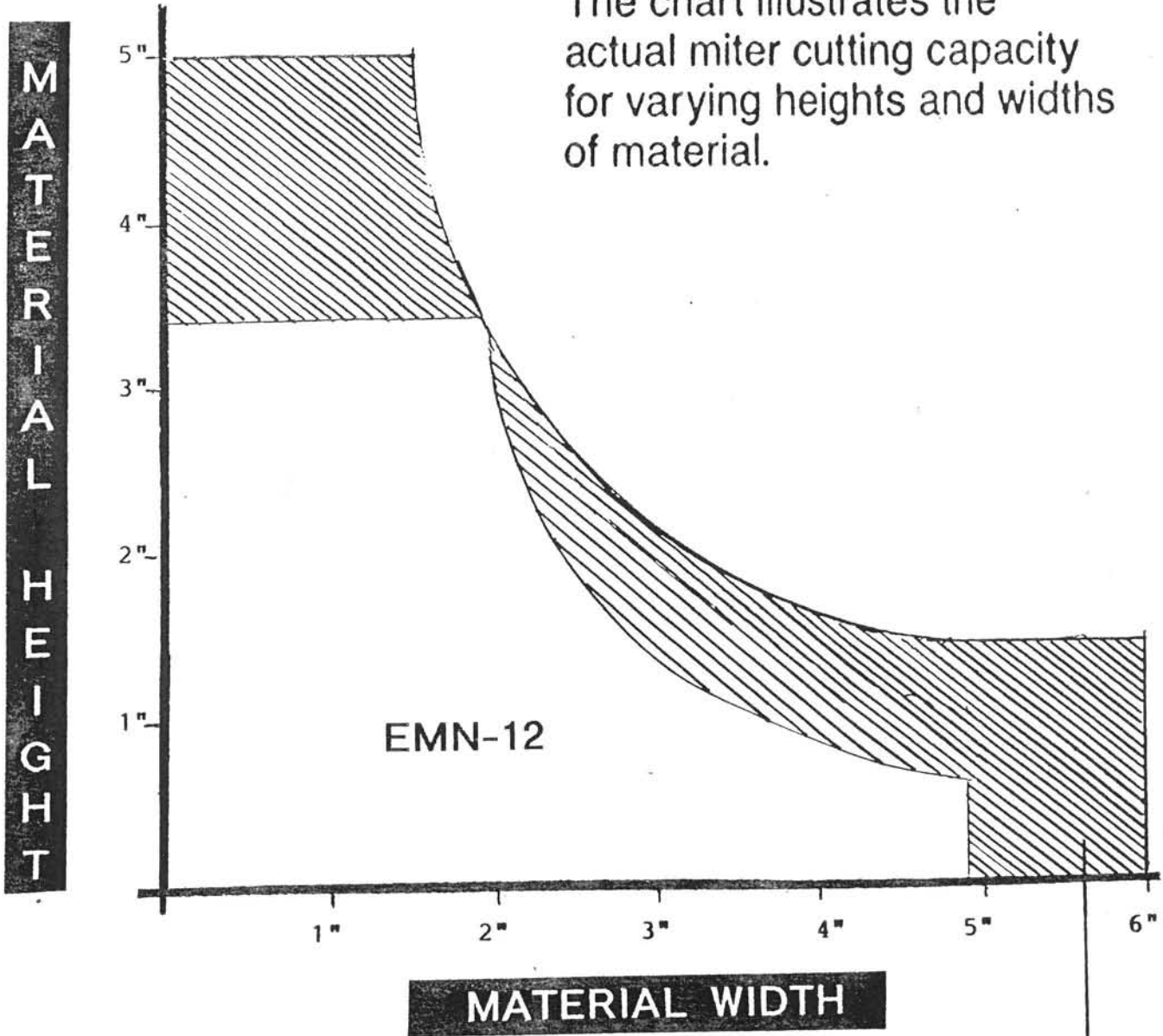
Un-crated.....	310 lbs (141 kg)	405 lbs (184 kg)
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Table height (From floor and without skid).....	36 1/8" (917mm)	36 1/8" (917mm)
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Actuation.....	Manual footpedal with counterbalanced automatic return with hydraulic dampening.	
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Production Rate.....	Actual production rates vary with material profile, type of material and size of frame being cut. Cutting cycle time is typically 4 to 6 seconds	
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Cutting capacity chart for models EMN-12 and EMN-14 only. The chart illustrates the actual miter cutting capacity for varying heights and widths of material.



Red shaded area is the approximate miter cutting capability of model EMN-14

SECTION 1: INSTALLATION

1.1 UNPACKING/INSPECTION

Upon receipt, check the machine and shipping container for any damage. Report any transportation damage to the delivering carrier and indicate same on the bill of lading, and request an immediate inspection for assessment of damage. Claim should then be entered with the carrier. In the event of any damage or shortage we are willing to assist you in every possible way in collecting claims for loss or damage. This willingness on our part does not make us responsible for collection of claims or replacement of the material. **Caution!** *When unpacking the machine use caution for sharp nails, screws or wood splinters. It is recommended to use protective safety glasses and gloves while unpacking.*

1.2 PLACEMENT

After unpacking, select a suitable location, allowing enough room around the machine for safe unobstructed work flow (material handling), cleaning and maintenance. Allow between one (1) to two (2) feet of clearance to the wall for easy maintenance and cleaning access

1.3 SEATING AND ASSEMBLY

The machine should sit firmly on the ground without rocking or wobbling. If necessary shim under the machine legs to compensate for an uneven floor. The machine cabinet has built-in flanges with mounting holes. Where feasible, use these flanges to secure the machine to the floor. For shipping purposes, the sawheads are rotated to the down position and shrink wrapped. Remove the wrapping, the sawheads should advance to the **upright** position. If the sawheads fail to advance, stand behind machine and pull the heads to the **upright** position. For protective purposes, the machine table and any additional bare steel parts are coated with a lightweight protective oil. Before operation, wipe any excess residue from these parts with a clean absorbent cloth. For gage installation see: **SECTION 1.8**

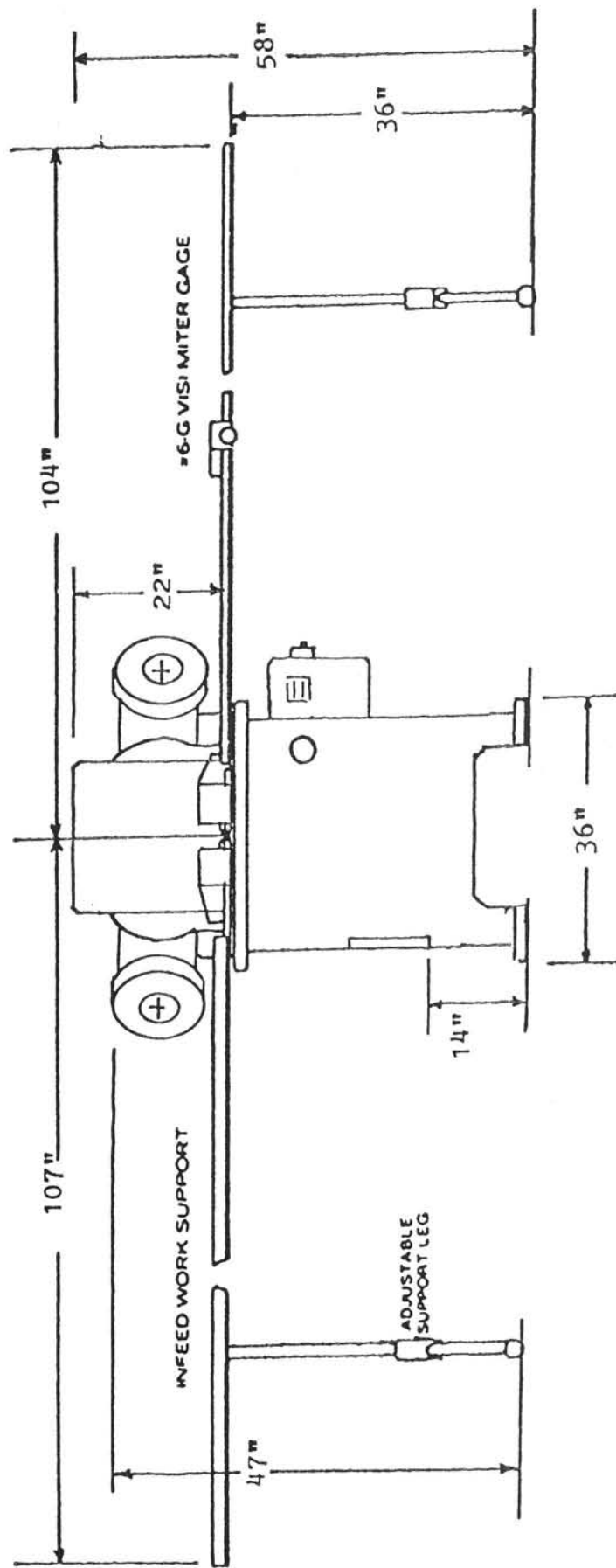
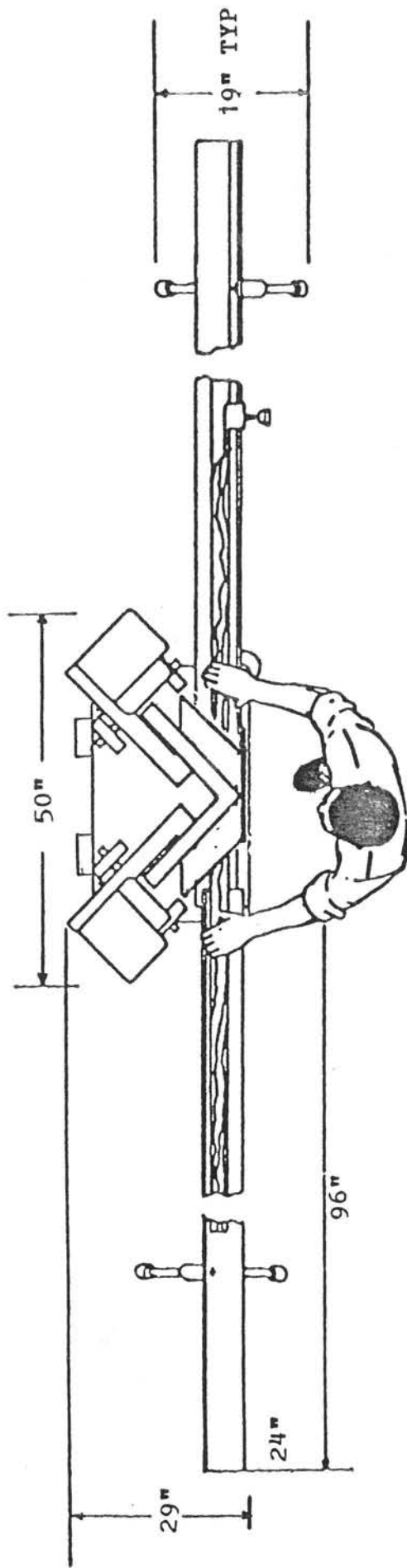
1.4 ELECTRIC CONNECTION

Route electrical lines to the machine with the proper electrical characteristics and wire into the provided switch box located on the right hand side of the machine cabinet. Be sure to provide a fused disconnect switch. It is recommended that the machine **NOT** be hardwired to your supply box, but that a cord with a NEMA approved plug (male/female) be installed to allow positive disconnect of the machine during cleaning, adjustments, maintenance, etc.

Note: For safety and insurance purposes electrical connections must be made by a licensed electrician.

Caution: Before attempting any service on the unit, make sure all electrical lockout devices are activated and plug is disconnected.

MODEL EMN-14 SAW



1.5 **BLADE ROTATION**

After the electrical connection has been made and before attempting to run the machine, the direction of blade rotation must be determined. The spindles/sawblades must rotate in the direction indicated by the rotation decals mounted on the blade guard cover.

Facing the machine, the **left** hand side must rotate **CLOCKWISE** and the **right** hand side must rotate **COUNTER CLOCKWISE**.

To test directions of the spindles as wired, make sure saw blades are removed, front guard is locked in place; jog the start switch and immediately push the stop switch.

The spindles will begin to turn in the direction according to the wiring.

If the rotation is opposite the required rotation indicated, do not operate the machine until electricians are corrected. If the machine is run in reverse rotation, it could cause the saw blades to come loose regardless of how tight the spindle flange is. This would create a dangerous situation.

To remove sawblades, the spindle nuts must be rotated in same rotation as the sawblade. Insert the provided tapered pin through the openings of the rear guard and through the hole of the spindle shaft, locking the shaft. Place the provided spindle wrench onto the face of the spindle nut, following the same sawblade rotation, rotate the tail end of spindle wrench and the nut hard and firmly few times (downwards) until the nut releases the sawblade.

CAUTION: ALWAYS DISCONNECT ELECTRICS AND LOCK OUT SOURCE PRIOR TO REMOVING OR REPLACING SAW BLADES. READ ALL SAFETY INSTRUCTIONS PRIOR ANY INSTALLATION.

1.6 **COMPRESSED AIR CONNECTION**

Some machines require the use of an external source of compressed air. If the machine is equipped with the optional airline filter, regulator and lubricator, make connection to the incoming end of the unit mounted on the side of the machine cabinet. A tag valve is installed at the factory for the quick release of the compressed air from the machine.

It is recommended that the compressed air line drops from overhead the machine. Use adequate air line that complies with local regulations.

CAUTION: If a rubber hose is used, be sure that it does not lay on the floor in the way of normal operator movement. It should not be allowed to cause an accident or a fall.

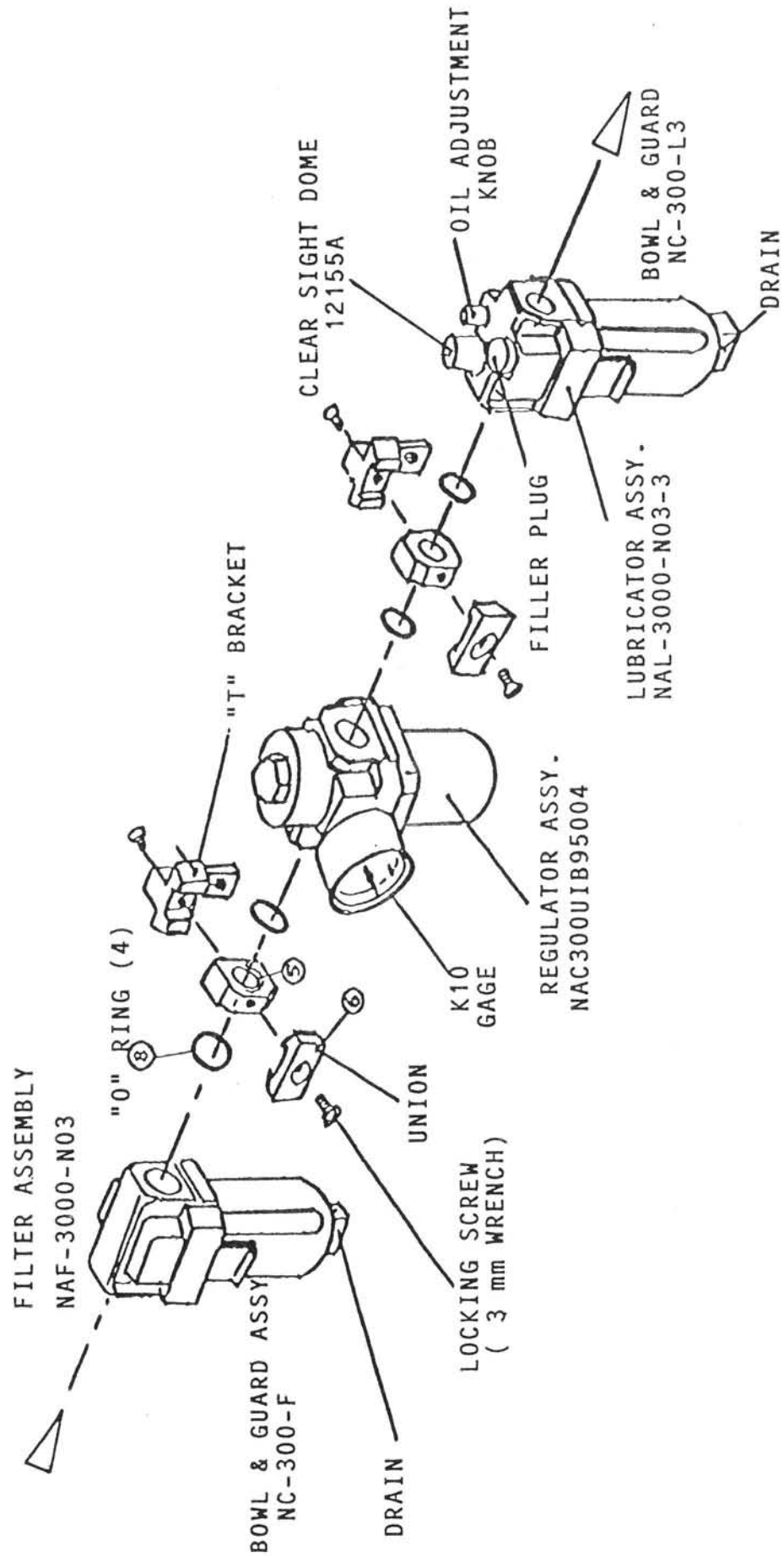
The airline connection should have a minimum of 3/8" I.D.; if the machine is equipped with the optional filter- oiler -regulator, the pressure is set at the factory between 60 and 65 P.S.I.

After the air pressure is connected, the saw is activated by stepping on the footpedal. The footpedal is equipped with a spring that will immediately reverse the direction of the saw when it is released, thereby allowing the operator to interrupt the cycle at any time. The pedal must be held down until the saw has completed its full stroke and cleared the material being cut.

NOTE: NEVER ATTEMPT TO OPERATE THE MACHINE UNLESS ALL SAFETY GUARDS, SHIELDS, COVERS AND SAFETY ATTACHMENTS ARE IN PLACE.

If the machine is not equipped with the filter - oiler - regulator air connection is made to another marked and identified inlet.

MODULAR TYPE F.R.L MODEL NAC3000-N03-3



1.7 AIRLINE FILTER - REGULATOR - LUBRICATOR (OPTIONAL):

The optional combination airline filter, oiler and regulator is mounted on the right hand side of the machine cabinet . Incoming airline connections should be made to the inlet side of the unit. Locate the lockout tag valve installed at the factory.

Following the incoming lockout tag valve is the filter unit (NAF3000). The filter unit is equipped with a sintered brass element. This element prevents water from getting inside the machine and should be occasionally cleaned and inspected. The filter bowl is clear plastic and allows the liquid level to be observed. Drain the bowl daily or as necessary to suit local humidity conditions. Never allow the liquid level to exceed the line marked on the bowl cover. To drain the unit, press the white button located at the bottom of the bowl.

To remove the Bowl for filter inspection or replacement, disconnect the air from machine using the tag valve, follow by pushing down the black tab located on the bowl cover , rotate the entire assembly approx. 1/8 turn, and pull down to remove bowl and cover from the filter body, unit will release. After cleaning, reverse procedure for installation.

To change the pressure setting on the regulator (NAR3000), pull the large adjustment knob down to unlock handle from unit and turn left or right as necessary. When adjustment is completed, push the knob back up to lock setting.

The lubricator unit (NAL3000) is equipped with an adjustable lubricant flow valve. The flow valve is located on the top and is adjusted by turning to the left (+) or to the right (-) to regulate lubricant flow. Flow setting is approximately one drop of oil to every 20 to 25 cycles of the machine. The drop of oil can be seen forming in the clear plastic dome on top of the lubricator. To fill unit, disconnect air flow to the machine, remove small black fill plug on top of the unit next to the clear dome. Fill unit using **PISTORIUS PNEUMALUBE** oil or equivalent 10W non-detergent air tool oil, and replace plug before turning the air pressure back on. Do not exceed the line marked on the bowl cover.

If it is necessary to remove the bowl from the machine, follow the same procedure described previously.

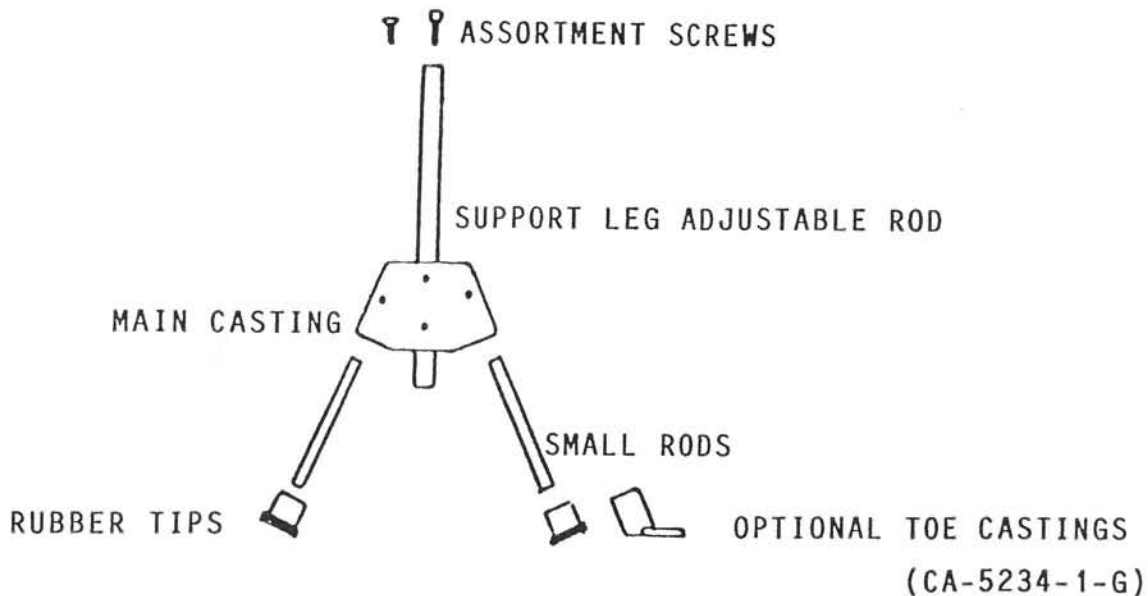
1.8 GAGE INSTALLATION

The machine that the gage will attach to should sit firmly on the ground without rocking or wobbling. If necessary, shim under machine legs to compensate for uneven floor.

Assembly:

- Locate and assemble the tripod type outboard support leg (see illustration) with all the components. The main cast union, one 1 1/4" diameter center support shaft and the two 1" diameter shorter legs. Also supplied, find the two rubber feet and assortment of Allen cup screws and a 5/16" long arm Allen hex wrench.
- Slide the two 1" round bars into the union casting, making sure that the leg shafts are bottomed in the cast union; hit the end of each leg shaft with a hammer to ensure the rods are all the way inside the union.

- Slide the rubber feet over the end of the shafts. If a permanent installation is desired, optional foot mount castings (part # CA-5234-1-G) are available; if the optional foot mount castings were ordered, slide these on in place of the rubber feet and secure the screws provided on the side of the foot mount castings. Secure the leg rods inside the union casting using the provided 3/8 -16 x 1" long Allen screws.
- Slide the 1 1/4" diameter center support rod into the center hole of the union casting with the countersunk hole facing up.



MODEL # 6G VISI-MITER GAGE

The patented VISI-MITER GAGE is designed to measure the rabbet dimensions. Etched and colored visual sighting lines are parallel to the right hand saw blade for accurate and fast reading; this gage is designed for right hand use only.

- **Installation** : Remove the three screws from the top of the table of the machine, these screws will be used for the setting and gage calibration. Prior to gage installation, thoroughly clean the table top removing the oil film that has been applied for shipping and rust protection.

With a help of a second person supporting the outboard end of the gage bar, place the tip end of the black anodized gage bed into the right hand side of the machine and into the machined pocket on the machine table. Insert the two Allen screws through the fence section of the gage to align fence into the table of machine, at this time keep screws loose. Install the threaded end of the adjustable support leg onto the 3/8-16 threaded stud located at the outboard bottom end of the gage bed extrusion.

To tighten the leg into position, rotate the center shaft of leg tripod against the bottom of gage extrusion.

Using a long straight edge and a level, adjust the height to be level with the table of the machine by sliding the center rod of the support of the tripod up or down until alignment is correct, secure the center rod in position using the two Allen screws provided with the tripod leg assembly.

Calibration : Using the straight edge, align the fence on gage bar to be parallel with the machine fences.

Place the material in the proper orientation (rabbet section toward the rear portion of the machine) and against the machine front fence; slide the end tip of the material from the left to the right hand direction. Some hand pressure down against the table and back against the fence is all that is necessary. Make sure the end piece reaches to the center of the machine between the saw blades, making sure it does not pass the cutting path of the right hand saw blade. Activate the foot pedal bringing the saw arms down and the blades into the material and cut the initial miter. Release foot pedal, allowing the blades to return to the up position, slide material into the gage section until rabbet section of the material aligns with the **10" black** line on the scale, slide the stop against the material and cut with both saw blades. Carefully remove the miter section and re-check the rabbet measurement.

To fine tune the dimensions, move the entire gage assembly until dimensions match precisely.

****TIP:** Gage can be adjusted to provide an automatic allowance throughout the entire scale by sliding gage bar away from the machine equal distance as the allowance dimension is necessary. Re-check alignment between the gage with the saw fences and secure all the screws.

**** NOTE:** GAGE STRIP TOLERANCE IS + / - 1/16"

SECTION 2: OPERATION

2:1 MACHINE START UP AND PRECAUTIONS

1. Any operator not familiar with the machine should follow the normal start up procedure. If necessary, remove the saw blades and cycle machine to become familiar with its operation.
2. Make sure the operator has read and has been informed of the correct and safe operating procedures of the machine and understands them.
3. Make sure all safety labels posted on the machine are clear and uncovered.
4. Make sure all safety devices are in place and operating properly.

5. IF ANY SAFETY DEVICE IS NOT IN PLACE OR OPERATING PROPERLY- DO NOT OPERATE THE MACHINE - CONTACT THE MANUFACTURER IMMEDIATELY.
6. Make sure the machine is clean and there is no parts or scraps that could hinder its operation.
7. Make sure the operator and any surrounding workers are wearing safety glasses, respirators and other protective clothing that would be appropriate for the material being cut.

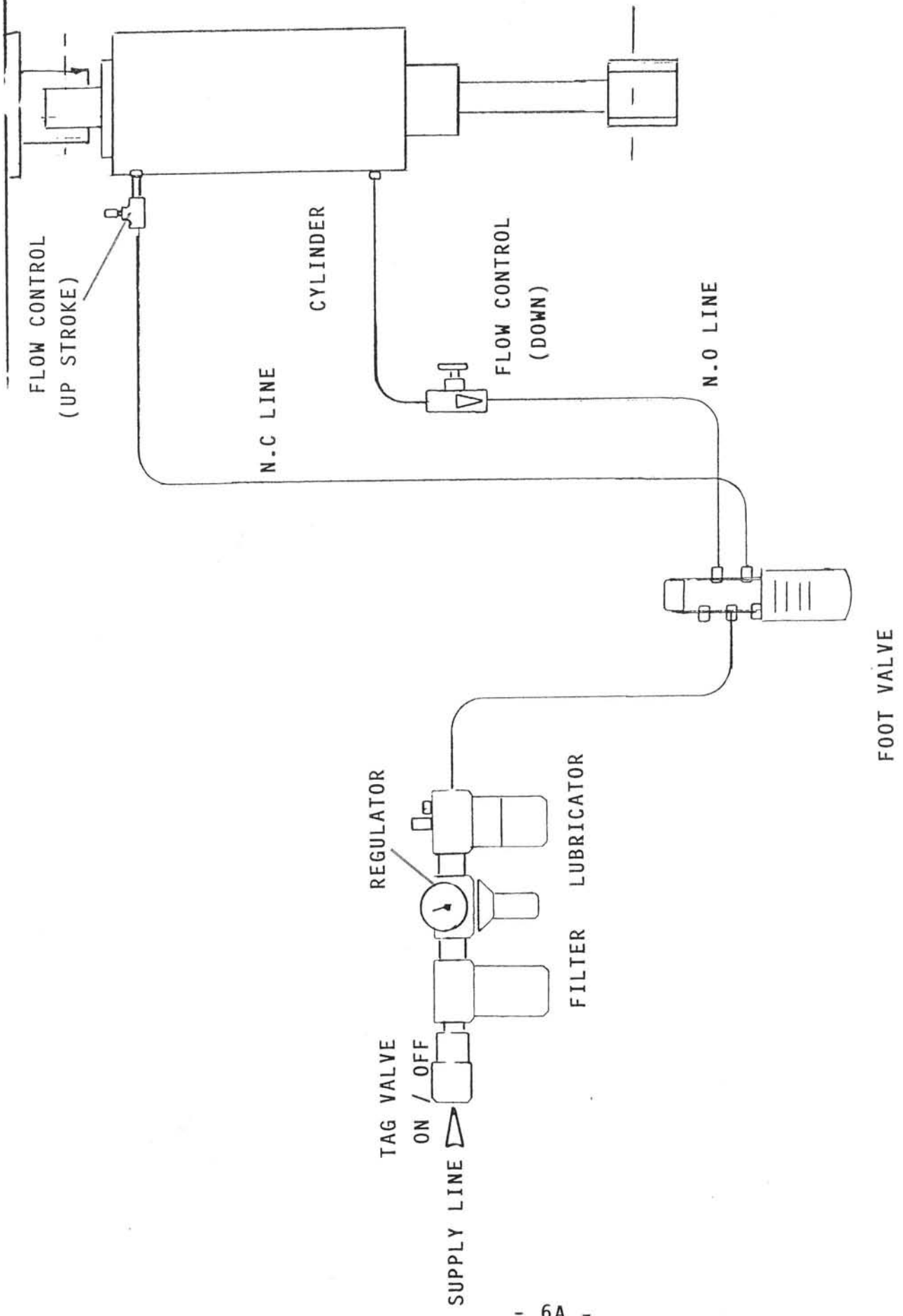
2.2 START UP AND OPERATING INSTRUCTIONS

- Without turning motors on, depress foot pedal gently moving the saw heads down and making sure the path is clear of any foreign material. Remove foot from pedal allowing the saw heads to return to the up position. Saw arms will return smoothly to the up position, as they are balanced between the weight of the motors and the tension of the return spring. The adjustable hydraulic check is used to control the return speed of the saw arm.

- MACHINES EQUIPPED WITH THE AIR POWER FEED (OPTIONAL)

NOTE: If the machine is not equipped with the optional filter, oiler and regulator assembly, the air connection must be made to another pneumatic valve inlet clearly marked and installed on the side of the machine.

- Engage the airline into the filter side of the filter, oiler and regulator assembly.
- Carefully start the saw blade electrics by pressing the start button. The light on the electric panel should come on and stay lit.
- The saw heads are cycled by actuating the foot valve. The moment the pedal is released the saw arms will return to the up position.
- The sawblade feed rate is normally factory set, however, it is infinitely adjustable on the down stroke only. To re-adjust the downstroke speed of the saw, locate the knob marked on the front righthand side of the base of the machine.
- Flow control adjustments are made by rotating the knob left or right to adjust the speed. After the desired speed is achieved, the small jam nut attached to the stem of the knob body can be secured thereby preventing the knob from turning by itself. Do not over-tighten.
- The correct feed speed is determined by the type of material, shape, and saw blade design. As a general rule, the proper speed should not allow the motor to stall or slowdown due to a very aggressive motion into the material. Extremely slow speed may burn the sides of the material. This should be avoided to improve the quality of the cuts



and to extend the life span of the saw blades.

Note: The return speed (up-stroke) is factory set, however, if this needs to be readjusted a second flow control valve is located at the top end of the main drive cylinder.

OPERATING INSTRUCTIONS:

- Start the electrics to the machine by pressing the start button. The saw blades will rotate until they reach operating speed (few seconds).
- Place the material in the proper orientation (rabbet section toward the rear portion of the machine) and against the machine front fence; slide the end tip of the material from left to the right hand direction. Some hand pressure down against the table and back against the fence is all that is necessary. Make sure the end of the piece reaches the center of the table of the machine between the saw blades making sure it does not pass the cutting path of the right hand saw blade. Activate the foot pedal bringing the saw arms down and the blades into the material and cut the initial miter (trim cut). Release foot valve (pedal) allowing the blades to return to the up position, slide the material against the stop face on the measuring gage and activate foot valve again making the 45 degree cut with both sawblades.
- If you should feel the material trying to pull away from your hands or the fence during cutting, check the down cycle speed and adjust accordingly. Check sharpness or compatibility between the type of sawblades and the material being cut.

2.3 ALUMINUM MITERING PROCEDURE

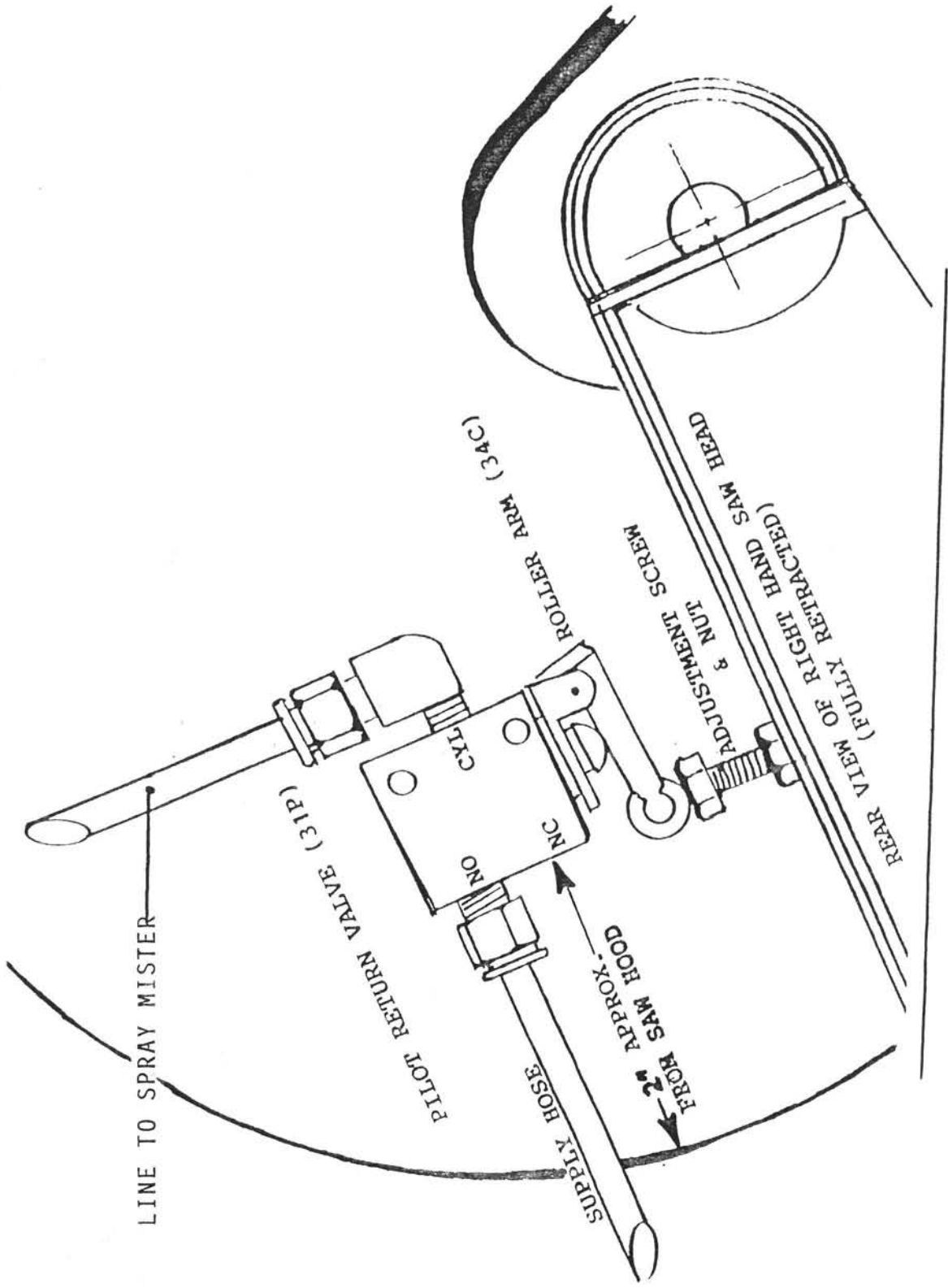
When cutting aluminum profiles, a lubricant must be used to insure longer blade life and smooth, relatively burr free cut.

A) VENTURI TYPE SPRAY MIST SYSTEM

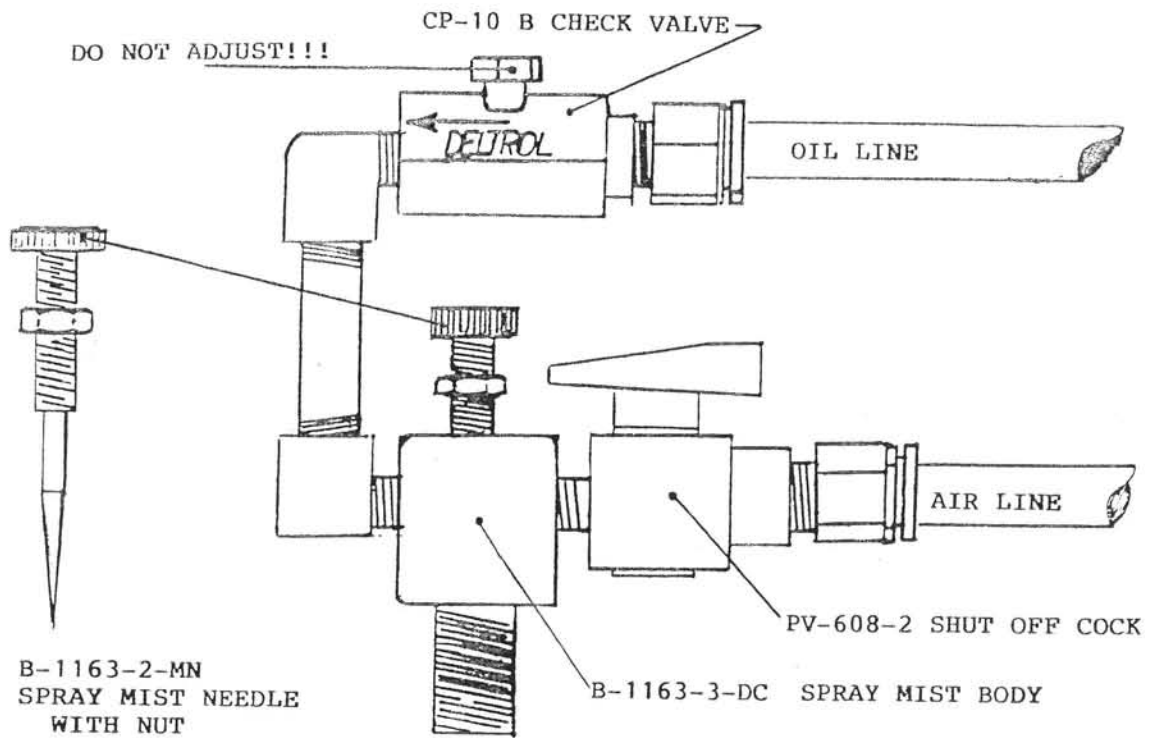
This system is the oldest type of lubrication; it works using a solution 10 parts water mixed with 1 part of water soluble oil. This solution is then sprayed by the use of compressed air into the path of the saw blades while they are cutting, thereby lubricating the tips of the sawblades, providing a burr free cut.

This system requires compressed air regulated between 65 and 80 PSI connected to the labeled incoming valve. The air is then directed into the pilot valve located on the rear right hand side of the guard. The pilot valve is used to activate the compressed air into the nozzle the moment the saw arms start to move, thereby creating an internal vacuum pulling the oil solution from the 1 gallon reservoir located on the left hand side of the machine.

The amount of spray is easily controlled by adjusting the petcock by opening only about 3/4 turn; the spray can be easily turned off by using same valve (check diagram).



CAUTION: THE OPERATOR MUST BE EQUIPPED WITH AN APPROVED RESPIRATOR, PROTECTIVE SAFETY GLASSES AND GLOVES IF APPLICABLE. BE SURE THAT THE M.S.D.S IS DISPLAYED AT THE POINT OF STORAGE FOR THE OPERATORS REFERRAL, ASSURE PROPER VENTILATION TO PROTECT THE AIR QUALITY. THE USE OF WAX STICKS FOR BLADE LUBRICATION IS NOT SAFE.

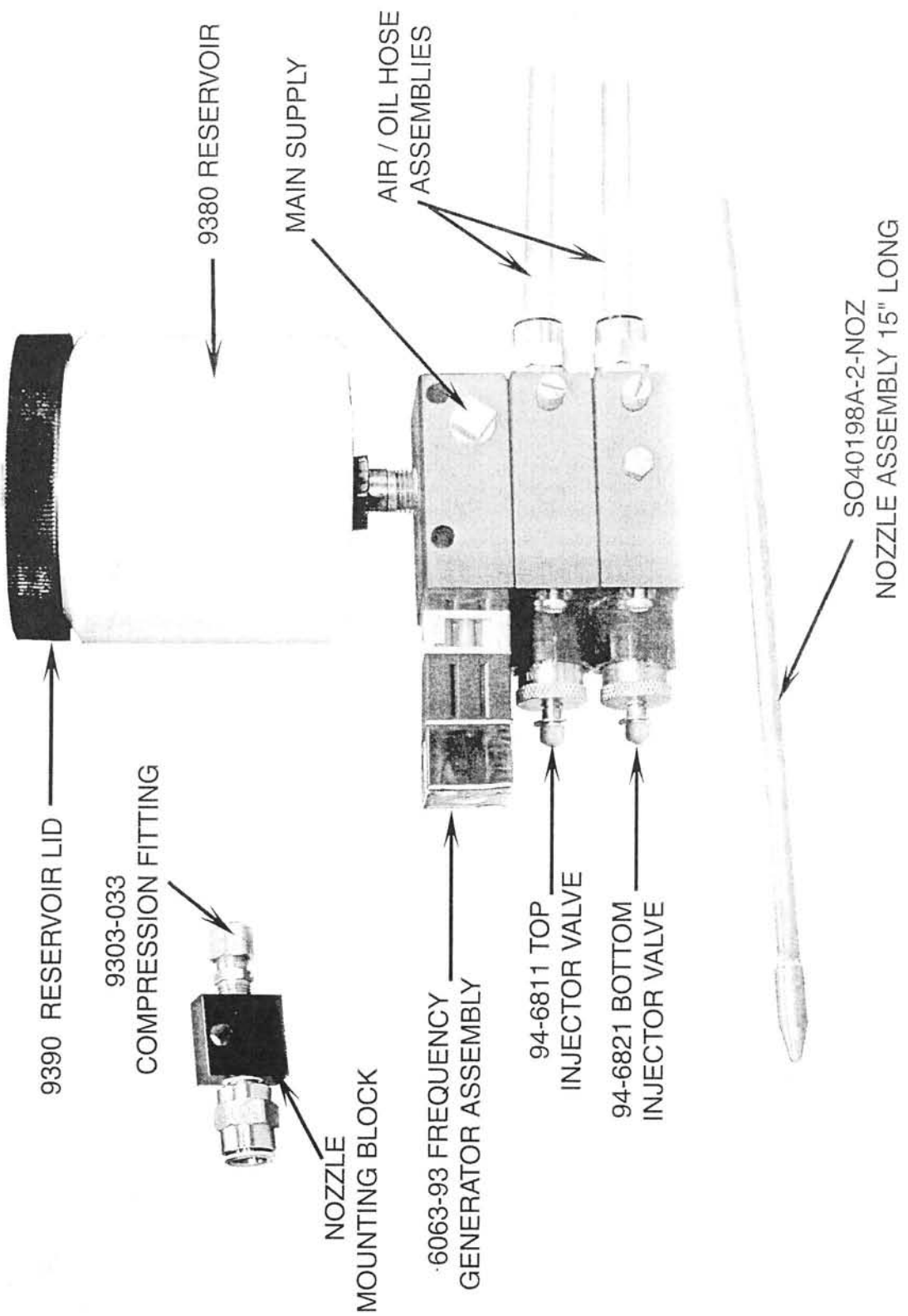


COMPLETE ASSEMBLY REPLACEMENT PART: B-1163-ASSY.

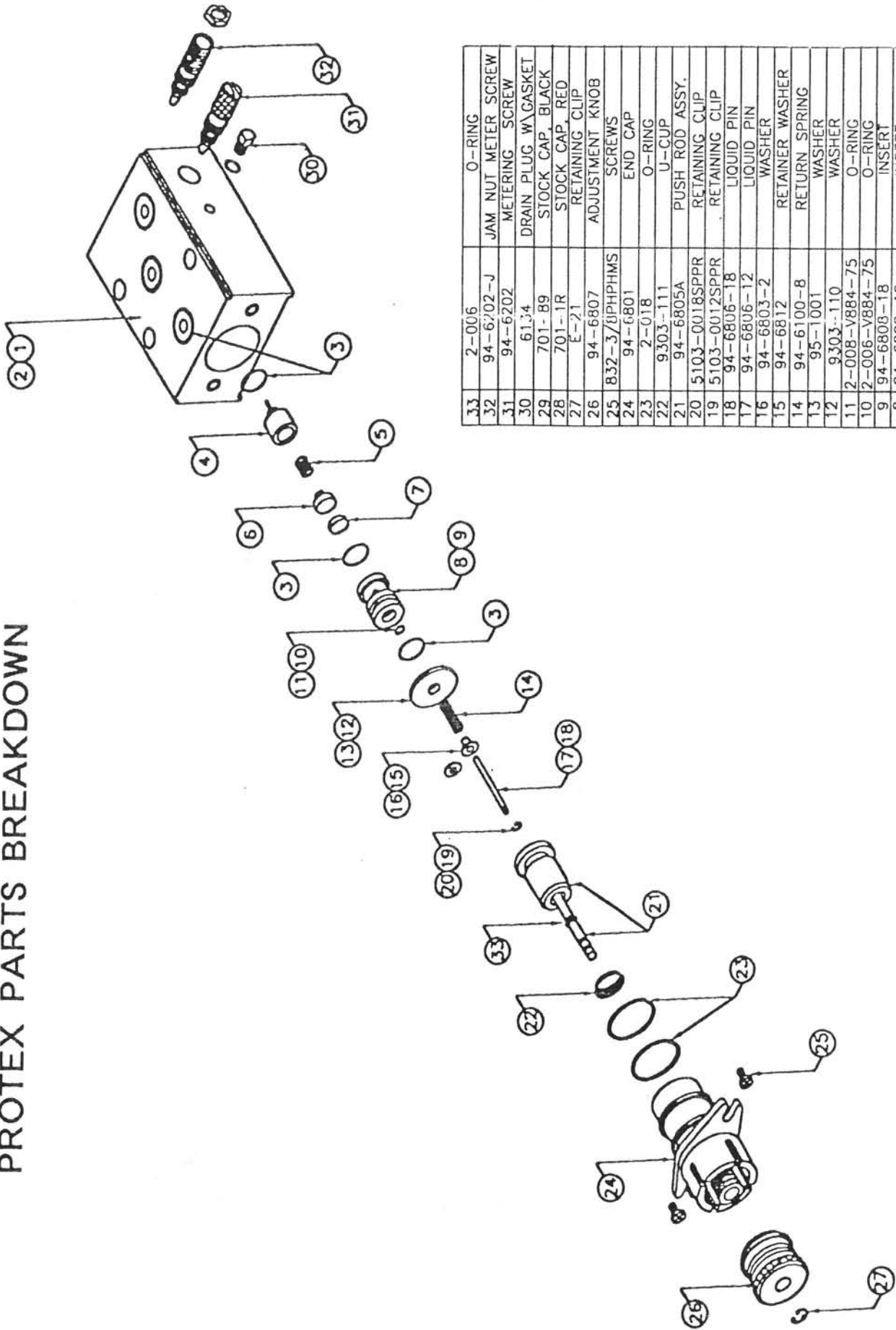
B) PROTEX - LUBRICATION SYSTEM

The Protex systems were designed with an environmentally safe non-toxic, non-allergenic blend of natural ingredients to improve production and quality of metal frames. This lubrication system will create a long-lasting coating onto the saw blades but NOT on the aluminum profiles. This keeps the saw blades sharper for a longer time thereby improving the quality of the cuts and will also eliminating the excessive spray mist normally created by the Venturi type system.

PROTEX SYSTEM PARTS BREAKDOWN



PROTEX PARTS BREAKDOWN



33	2-006	O-RING
32	94-6702-J	JAM NUT METER SCREW
31	94-6202	METERING SCREW
30	61.34	DRAIN PLUG W/GASKET
29	701-89	STOCK CAP, BLACK
28	701-1R	STOCK CAP, RED
27	E-21	RETAINING CLIP
26	94-6807	ADJUSTMENT KNOB
25	832-3/8PHPHMS	SCREWS
24	94-6801	END CAP
23	2-018	O-RING
22	9303-111	U-CUP
21	94-6805A	PUSH ROD ASSY.
20	5103-0018SPPR	RETAINING CLIP
19	5103-0012SPPR	RETAINING CLIP
18	94-6806-18	LIQUID PIN
17	94-6806-12	LIQUID PIN
16	94-6803-2	WASHER
15	94-6812	RETAINER WASHER
14	94-6100-8	RETURN SPRING
13	95-1001	WASHER
12	9303-110	WASHER
11	2-008-V884-75	O-RING
10	2-006-V884-75	O-RING
9	94-6808-18	INSERT
8	94-6808-12	INSERT
7	9303-106	CHECK SEAL
6	9303-107	CHECK BODY
5	9303-108	CHECK SPRING
4	89-6900-10A	CHECK HOUSING
3	2-012-V884-75	O-RING
2	94-6900-3	METER BODY
1	94-6900-2	METER BODY
ITEM	PART NO.	MATERIAL DESCRIPT.

The lubricant is supplied to the pumps from a pre-vented see-through reservoir located on top of the injector-type pumps. Attached to the unit is an adjustable pulse generating valve that activates the injectors to "push" the oil through the small diameter clear plastic line. At the same time, a larger diameter line supplies adjustable compressed air surrounding this smaller oil line, thereby projecting the oil through a copper tube nozzle from the rear of the hood onto the saw blades but not the profile being cut, optimizing oil consumption .

The oil injectors have individual controls for absolute metering and easy adjustments. Applicators are self contained and can be multiplied by adding extra pumps.

ADJUSTMENTS:

Protex applicators are pre-set at the factory to deliver approximately 1 ounce (one) of oil per 8 (eight) hours of usage per nozzle. This rate of lubricant delivery is accomplished by setting the pumps at 38 "clicks" from "0" (0 being wide open) and also, by setting the pulse generator to allow the injector to stroke two times (2) per saw cycle.

To increase the amount of fluid being dispensed, you can either turn the brass adjustment knob in the front of each the injector pump Clockwise to the next few "clicks" or increase the stroke rate on the pump, using a screwdriver and small increments adjust the pulse generator timing control (more strokes per cycle).

NOTE: AIR AND OIL SETTINGS ARE RELATED TO THE SPEED OF CUT, PROPORTIONAL TO THE SIZE OF MATERIAL BEING CUT AND TO TYPE OF SAW BLADES BEING USED.

CAUTION: IF THE OIL ADJUSTMENT KNOB IS TURNED BEYOND 50 "CLICKS" COUNTER CLOCKWISE THE INJECTORS WILL REMAIN CLOSED AND WILL NOT DISPENSE ANY FLUID.

On the earlier design system, the pumps were equipped with interlocking mechanisms built in the adjustment knobs, they need to be pulled away from the assembly to release this mechanism before making any adjustments and they should be locked (pressed inwards) afterwards to prevent the knobs from turning by itself.

WARNING: OIL LEVEL MUST BE MAINTAINED APPROXIMATELY 1" ABOVE THE BOTTOM PORTION OF THE RESERVOIR, IF THE UNIT IS ALLOWED TO RUN DRY, AIR WILL GET INSIDE THE INJECTOR, THEREFORE, PREVENTING THE OIL FROM BEING INJECTED THROUGH THE LINES, UNIT WILL NEED TO BE PRIMED TO DISSIPATE THE AIR BUBBLES FROM THE SYSTEM.

SECTION 3: DUST COLLECTION

Sawdust exhaust ducts are available for the sawdust collection; the machine should be ordered from the factory with the ducts installed. There are two 4" ducts located on the rear section of the machine cabinet. Route high quality 4" I.D flexible rubber wire hose to the outlets and secure the hose with an adjustable hose clamp.

CAUTION: TO PREVENT STATIC ELECTRICITY BUILDUP, USE ONLY HOSES OR DUCTS RECOMMENDED FOR THIS TYPE OF OPERATION.

Attach the flexible hose to a suitable dust collection device or system adequate for the volume and nature of dust / chips created. Each 4" outlet requires at least 450 - 550 **C.F.M** of air volume.

When running the machine, be sure that the dust / chips are clearing the saw hood and not clogging the hose inlet. If the machine is run without a dust collection unit, the dust chips will be thrown from the saw blade during cutting and will accumulate in the surrounding area of the machine rapidly, creating an unsafe condition. Make sure the attachments on the front guard are moved downward enclosing the open area surrounding the material being cut, thereby eliminating the possibility of dust being projected in the direction of the operator and away from the saw dust intake.

Accumulations of dust / chips and waste on the floor or the machine is also a hazard and must be monitored and removed continuously. Do not allow waste accumulation to fall into the foot pedal area, this could prevent the foot pedal from functioning normally.

When using the spray mist system, be sure that the vacuum has been turned OFF, unless the unit is equipped with the proper oil filters. If the system is not equipped with special filters, the oil will adhere to the filter bag contaminating the fibers rapidly and preventing the air from moving through the bag. This will also reduce the air speed of the vacuum force, and the collector will not work properly because it will allow the dust to bounce away from the intakes.

***WARNING: THE OPERATOR MUST BE EQUIPPED WITH AN APPROVED RESPIRATOR, PROTECTIVE SAFETY GLASSES, GOGGLES ADEQUATE FOR THE MATERIAL BEING CUT TO GUARD AGAINST DUST, CHIPS OR FUMES THAT ARE NOT COLLECTED BY THE DUST COLLECTING SYSTEM.**

SECTION 4: MAINTENANCE

Very little is required to keep the machine in perfect operating condition, but the following should be used as a guide:

- Cut a test frame every time blades are replaced to verify miters.
- When changing blades, inspect flanges to be sure they are not damaged, clean and inspect threads preventing build-up of any foreign debris, replace if they look worn or Damaged.
- Always keep a record of when new or re-sharpened saw blades have been installed.
- When saw blades have been replaced, the spindle nuts should not be tightened forcefully. Due to the rotation and resistance created against the tips of the saw blade while cutting the moulding, the spindle nut will continue to tighten, securing the blade against the

spindle flange progressively.

- Maintain the carbide tips of the saw blades (sharp and brittle) away from touching any other metal surface to prevent chipping. Always store blades in separate containers and keep them as matched sets.
- Inspect the drive belts every six months, check for tension, and adjust if necessary. Look for dry spots or cracks, if noticed replace at once.
- Grease spindle bearings using "high-speed" (premium spindle grease) according to the Chart as follows:

3 to 6 intermittent hrs per day = grease each spindle 2 shots every 6 months

4 to 8 continuous hrs per day = grease each spindle 2 shots every 4 months

More than 10 continuous hrs per day = grease each spindle 2 shots every 3 months

If motors are equipped with grease fittings, they must be greased at same time but only half the amount of grease as per the chart for the spindles.

- Maintain oil levels (if applicable) on automatic lubricator on the main air regulator using Pistorius Pneumalube 10 W non-detergent air tool oil or similar.
- Maintain air filter reservoir (if applicable) clean and drain if possible every day to prevent moisture build-up on main pneumatic components.
- Pivot bearings (4 per saw) in the pillow blocks must be greased according to use:

Example: 3 to 6 intermittent hrs per day = 1 shot once a year

4 to 8 continuous hrs per day = 1 shot every 6 months

- Keep cooling fans on the motors clean; motors do not require any internal maintenance.
- Maintain machine and surrounded area clean and scrap free
- Once a month check gage alignment with the saw fences using a straight edge.
- IF ANY PART ON THE MACHINE IS WORN, BROKEN, LOOSE OR NOT WORKING PROPERLY, DO NOT USE THE MACHINE ! ; MACHINE SHOULD BE REPAIRED BY A QUALIFIED FIELD TECHNICIAN.
- Keep all safety equipment in good operating condition, any problems should be reported at once

SECTION 5- TROUBLESHOOTING:

CAUTION: DISCONNECT AIR AND ELECTRICITY AND LOCK OUT THESE SOURCES PRIOR TO MAKING ANY ADJUSTMENTS, REPAIR, OR CLEANING THE MACHINE

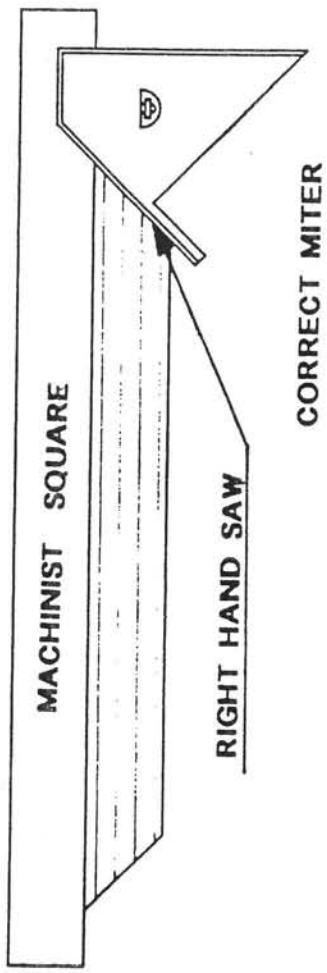
5.1 ANGULAR ADJUSTMENTS:

If the miters do not correctly come together, check the following items before making any adjustments to the machine:

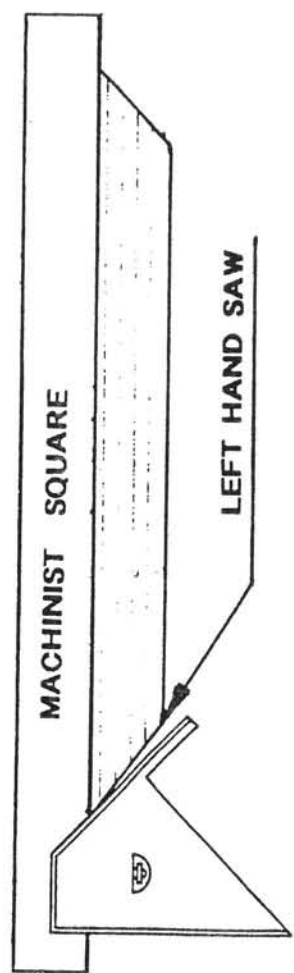
- Saw blades are the proper tooth design to suit the application.
- Saw blades are fresh and sharp.
- Saw blades are not bent and do not wobble as they rotate; this will remove more material at the rabbet section of material as the sawblades enter the moulding being cut.
- Check condition of the spindle bearings, check for side to side play inside arbor arm. If play is detected, spindle assembly should be replaced prior to adjusting the machine.
- Test material being cut, look for evidence of bowing, bending and if possible using a square, check for flatness especially at the back and bottom sections of the moulding. To make a trial cut, use flat, square and wide profile for further testing before making any adjustments.
- Check saw head feed speed to ensure that cutting motion is adequate and not faster than the saw blade can handle, especially if the saw blades are beginning to dull.
- Check fences and measuring arm alignment using a straight edge and or a machinist square, make any adjustments necessary before cutting a new test frame.

CHECKING MITER ANGLE:

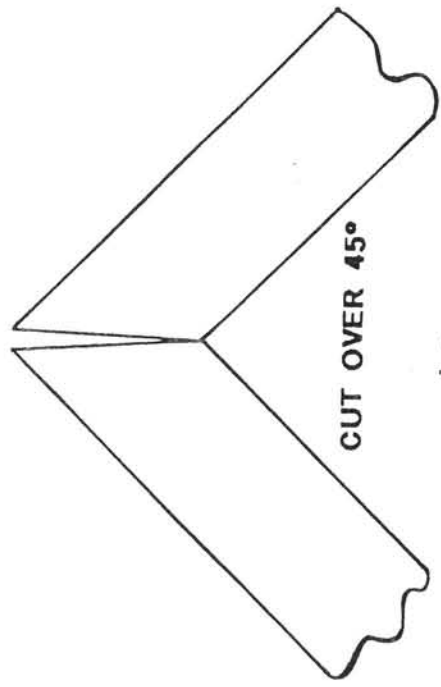
Select a straight length of material approximately 3" wide, reasonably square, carefully cut four pieces about 4" to 6" long (tip to tip) keep the gage stop clean for exact length of the four pieces. Assemble the mitered pieces using a wide and strong rubber band around the perimeter of the frame. Check that all the corners are closed and are not open either on the outside or the inside (rabbet section). Adjustment can be performed following the instructions. Check each individual cut to make sure which side is the one that needs adjustment. If three corners are good and one is showing an open section, this will confirm material or machine movement. If the opening is identically and in all the corners, saw may need to be adjusted. We suggest to contact the factory before attempting any adjustments.



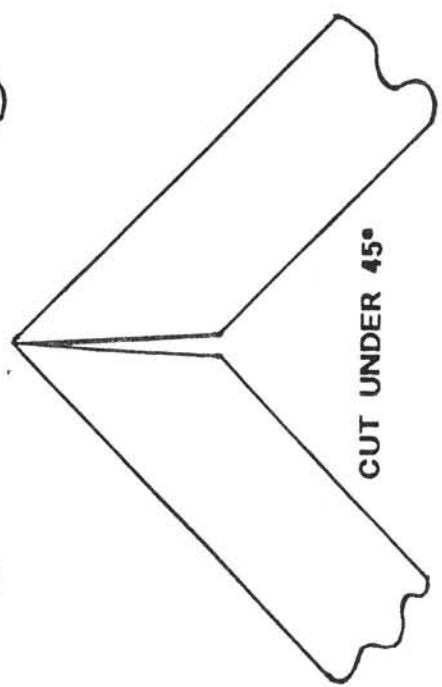
CORRECT MITER



INCORRECT MITER



CUT OVER 45°



CUT UNDER 45°

PISTORIUS MACHINE CO., INC.
 1785 EXPRESS DRIVE NORTH, HAUPPAUGE N.Y. 11788, USA

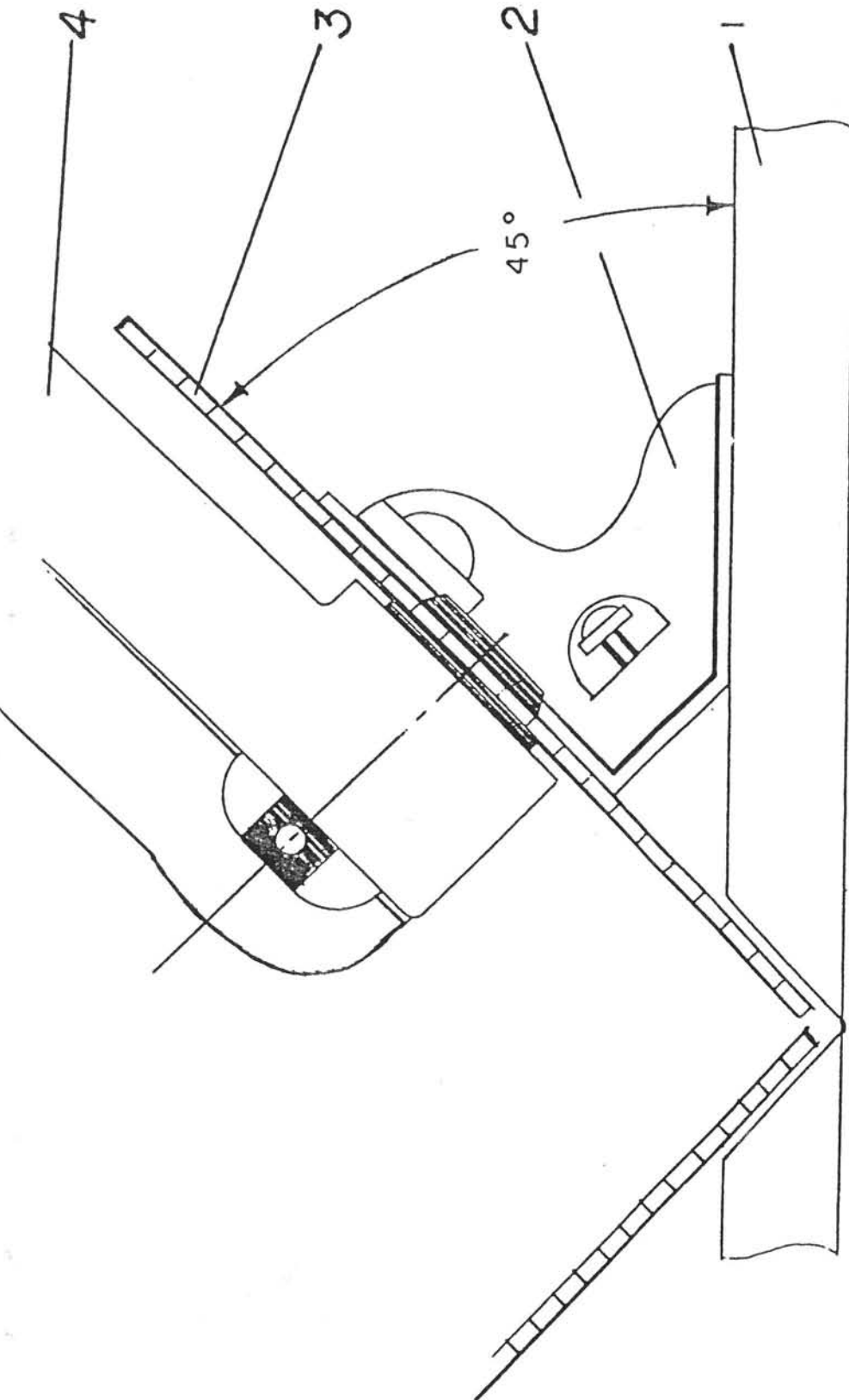
CUSTOMER:	
MACHINE:	SCALE:
DATE:	DRAWN BY:
DESIGN NO.:	INVOICE NO.:

ALL UNSPECIFIED TOLERANCES	
.XX	+/- .01
.XXX	+/- .005
FRACTIONS	+/- 1/64
ANGLES	+/- 1 DGR

NAME:	
QUANTITY:	
MATERIAL:	
TREATMENT:	

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En. 4/85



1	FENCE
2	45° ANGLE
3	SAWBLADE
4	SAW HEAD

- * BEFORE MAKING ANY ADJUSTMENTS, ELECTRICS SHOULD BE DISCONNECTED
- * SOME SAW BLADES MIGHT NOT HAVE A FLAT KERF AND MAY NOT BE SUITABLE FOR MITER CALIBRATION - IF THIS IS THE CASE A FLAT TEST DISC SHOULD BE USED (DUMMY)
- * AFTER CHANGING BLADE POSITION MAKE SURE CLEARANCE IS MAINTAINED BEFORE CYCLING MACHINE
- * DUE TO BLADE SHARPENING, TOOTH CONFIGURATION, MATERIAL AND KERF CONDITION, ANGLE MAY HAVE TO BE SET OUT OF PERFECT CALIBRATION COMPENSATING FOR THIS VARIANCES

ANGLE ADJUSTMENT :

After determining incorrect miter, loosen two locking bolts that secure the pillow block bearing (see diagram) housing. This housing is positioned to the rear section of the machine and supports bearings and the pivot shaft. **DO NOT FULLY OPEN OR REMOVE BOLTS..!**

- If miter is open at the rabbet material, (cut over 45 degrees) slightly tap bearing housing towards the front of the machine. To check the bearing housing movement, bring the saw heads down about 3/4 of the way. Carefully place a 45 block (machinist square) against the fences on the machine and slide until the body of the square comes in contact with the side of the saw blade (clear of the teeth and spindle nut). Both units should meet precisely with no visual gaps.
- Once adjusted, tighten the screws securing the pillow block casing against the base of the machine.
- After adjustment is made, cut a new small frame again and verify miter.
- If the miter is open at the outside edge of the frame, tap the housing toward the rear of the machine, moving the saw blades closer together.

NOTE: IT IS RECOMMENDED TO USE A FLAT (DUMMY) GROUND TEST DISC TO ADJUST THE ANGLE ON THE MACHINE. SOME BLADES HAVE HOLLOW GROUND PLATES AND ARE NOT SUITABLE FOR CHECKING THE ANGLE AGAINST THE 45 DEGREE BLOCK.

NOTE: DUE TO INCORRECT SHARPENING, TOOTH CONFIGURATION AND BLADE DESIGN, THE MITER SETTING WILL NEED A SLIGHT VARIATION FROM THE IDEAL PERFECT 45 DEGREE SETTING TO ACCOMPLISH A GOOD SQUARE FRAME.

ALIGNMENT FOR COMPOUND ANGLE :

This a critical adjustment and should not be needed unless the machine has been dropped, damaged, or if a saw head casting has been replaced. Usually, if the material shows a compound miter, the problem is mostly related to the mis-alignment between the in-feed and out-feed table or the material used is not square. Contact the factory prior to attempting to make any of these adjustments.

5.2 SPINDLE REPLACEMENT:

NOTE: FOR MACHINES MANUFACTURED PRIOR TO 1989, EQUIPPED WITH 4 DRIVE BELTS (2 PER SAW HEAD), THE SPINDLES HAVE A LONGER STEM TO ACCEPT THE WIDER PULLEYS - CURRENT SPINDLES WILL NOT FIT PROPERLY.

NOTE: MAKE SURE TO CONFIRM MACHINE VINTAGE (SERIAL NUMBER IF AVAILABLE) PRIOR ORDERING THE PARTS

CAUTION: DUE TO THE SAW BLADE ROTATION, REPLACE THE SPINDLE ASSEMBLY ONLY WITH SAME IDENTICAL SIDE, **NEVER INTERCHANGE.**

LEFT SPINDLES CAN BE IDENTIFIED BY : THE BLUE PAINT THE END OF THE SPINDLE STEM AND SPINDLE NUT LOOSENS WHEN ROTATED CLOCKWISE.

NOTE : THE SPINDLE ASSEMBLIES ARE REMOVED FROM THE REAR SECTION OF THE MACHINE (BELT AREA)

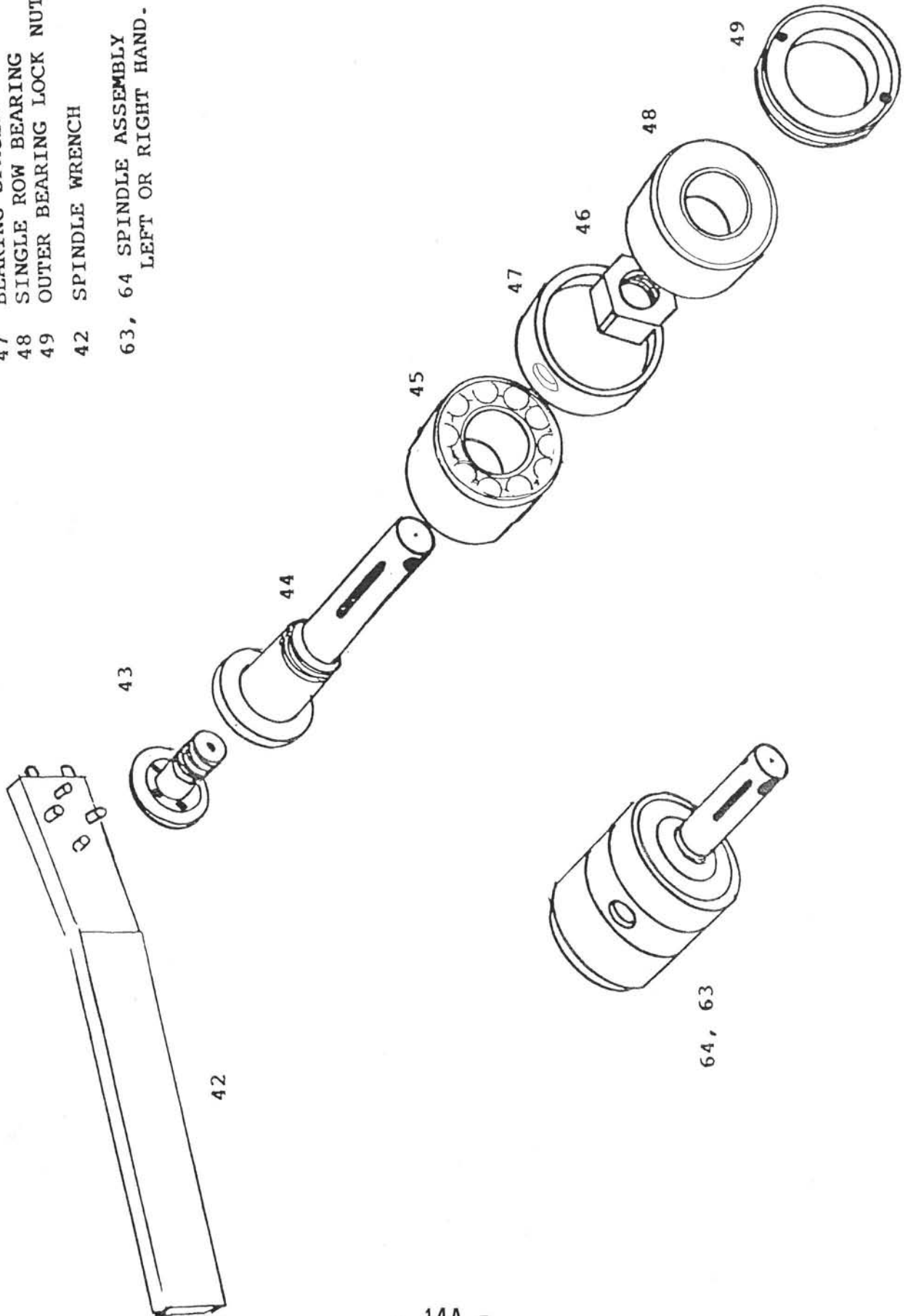
The spindle assembly is the most important part of your double miter saw. Any imperfection will multiply by the length of the saw blade. They should be checked on a regular basis, looking for side - to - side play, heat, and noise. Make sure to prevent any foreign particles from adhering to the main surfaces and flanges. Spindle flange should be cleaned thoroughly every time the sawblades are replaced.

- 1- DISCONNECT POWER AND REMOVE SAW BLADES.
- 2- Remove back shield from the machine and proceed to remove belt cover and then the belt.
- 3- File off any distorted metal around open hole at the end of the spindle shaft. If the shaft is not smooth and burr free, the pulley will not be able to release from the spindle shaft.
- 4- In the grooved section of the pulley (where the belt rides), find 2 set screws and loosen using a 1/8" Allen wrench, releasing the pulley from the spindle shaft. Pull and remove the pulley from the spindle shaft. If the pulley does not release from the spindle shaft, it is recommended to install two 1/4 -20 x 3/4" long screws in the 2 open threaded holes on the exposed side of the pulley, and with the help of a small pulley puller anchor into the head of the installed 1/4 - 20 screws and remove the pulley from the spindle shaft. The small metal 3/16 x 1" spline secured into spindle stem should be removed carefully because it will be re-used with the new spindle.
- 5- Next to the grease fitting on the outside section of the casting, find a 3/16" hole, inside the hole is a small 10 - 32 locking set screw. Using a 3/32 Allen wrench, loosen the screw until the rim of the screw is outside the casting.
- 6- Find the 2 holes in the outer lock nut (ring securing the spindle inside the casting), proceed to unscrew the ring, releasing from the casting and the spindle assembly. Outer lock nut has external fine threads; make sure not to damage and also mark the direction in which it is installed in the casting.
- 7- Spindle assembly can be removed from machine through pulley end of the saw arm.
- 8- Clean inside casting thoroughly, make sure to remove old burned grease and foreign particles; if possible, pump some grease into the grease fitting to remove old and

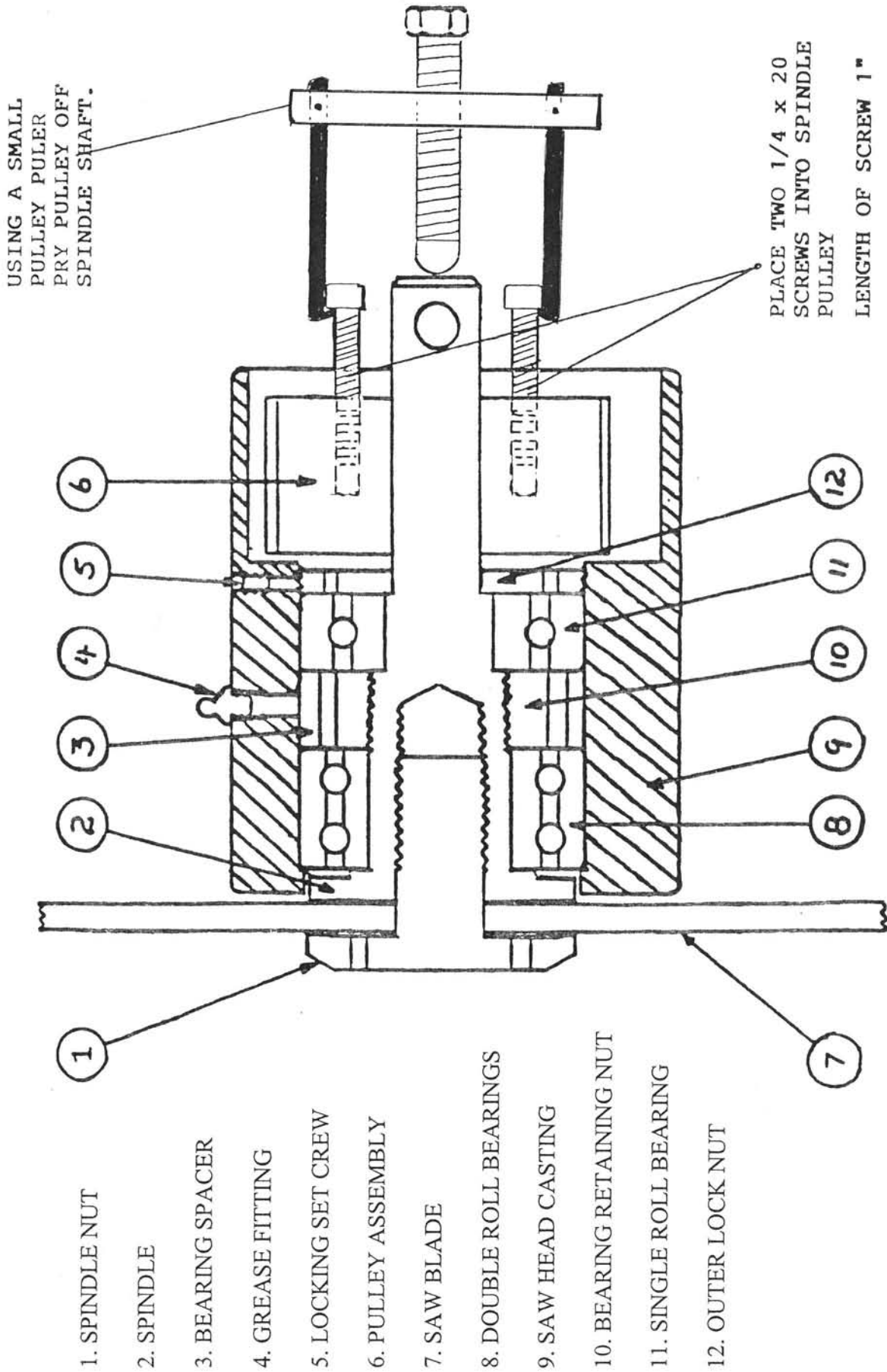
SPINDLE PARTS ASSEMBLY

- 43 SPINDLE NUT (LEFT, RIGHT)
- 44 SPINDLE SHAFT (LEFT, RIGHT)
- 45 DOUBLE ROW BEARING
- 46 BEARING LOCK NUT (LEFT, RIGHT)
- 47 BEARING SPACER
- 48 SINGLE ROW BEARING
- 49 OUTER BEARING LOCK NUT
- 42 SPINDLE WRENCH

- 63, 64 SPINDLE ASSEMBLY
LEFT OR RIGHT HAND.



COMPONENTS OF THE SPINDLE ASSEMBLY



1. SPINDLE NUT

2. SPINDLE

3. BEARING SPACER

4. GREASE FITTING

5. LOCKING SET CREW

6. PULLEY ASSEMBLY

7. SAW BLADE

8. DOUBLE ROLL BEARINGS

9. SAW HEAD CASTING

10. BEARING RETAINING NUT

11. SINGLE ROLL BEARING

12. OUTER LOCK NUT

**CAUTION: LEFT OR RIGHT HAND SPINDLES DO NOT INTERCHANGE, MAKE SURE TO IDENTIFY PRIOR ORDERING.
OLDER MACHINES REQUIRE A LONGER STEM SPINDLE ASSEMBLY**

contaminated internal grease to prevent it from entering the new assembly when the initial shot of grease is applied.

- 9- When installing a new spindle, note the open hole in the center spacer between the bearing assemblies, align with the grease fitting on the outside of the saw arm prior to pressing spindle into the saw arm. DO NOT HAMMER SPINDLE SHAFT AT ANY TIME.
- 10- Fasten outer lock nut against the spindle assembly to eliminate all end play, but do not over tighten; secure the small 10 - 32 set screw next to the grease fitting, do not over tighten.
- 11- Install pulley making sure the 3/16 x 1" spline is inside machined groove on, the new spindle shaft and the 2 threaded holes on side of pulley are facing outward. Align grooves on the pulley with the grooves on the motor pulley and secure set crews.
- 12- Reverse procedure and install belt and guards.
- 13- Before turning machine "ON", grease new spindle 3 shots using fresh premium grease, and after the machine is running for one minute, place 4 or 5 more shots, do not over grease. Clean any grease that may spread to the external portion of spindle.
- 14- Follow all safety precautions and proceed to install saw blades.

SPINDLE REPLACEMENT ON EARLY MODEL EMN SAWS:

- 1- Follow steps 1 through 4 noted previously.
- 2- Loosen set screws on the outside section of the pulley using a 5/32 Allen wrench. With the help of 2 screwdrivers, "pry-out" pulley from spindle shaft until the external belt is fully exposed to allow removal. The easiest way to remove the "V" belt without loosening the setting of the motor, is by twisting the belt around (flat section of the belt into the pulley), rotate belt until the flat section rides inside the motor pulley; with the belt twisted and with a little pressure rotate again, thereby allowing the belt to do the same on the spindle pulley, belt will release from the machine.
Follow same procedure to remove the second (inside) belt.
- 3- Follow steps 5 through 14 from the standard procedure to complete the replacement.

5.3 CHIP BREAKERS :

Machines must be equipped from the factory with the bottom (scrap support) and fence phenolic chip breakers to increase the quality of the cut on the "gesso" or any laminated wood or plastic mouldings.

The bottom unit is used to support the bottom of the scrap (the cut-off piece) between the sawblades) preventing the piece from breaking prematurely from the profile while the saw blades finish cutting through the material. It eliminates the excessive breakage that could occur on the bottom edge (outside perimeter) of the profile being cut.

It is possible that this breakage is also created if one of the saw blades is trailing slightly behind the opposite side, allowing the scrap piece to tear from the length of the moulding. When saw blades are sharpened and or they are not maintained as an "even" set, it is possible that the diameter will vary slightly from one blade to another.

To check if this is the problem, place a piece of tall moulding in the machine, cut the material half way only, not allowing the machine to complete the full stroke. Remove carefully the material from the machine and compare the depth of the cut between the sawblades.

This adjustment can be made on the machine by changing slightly the length of the LEFT pull arm as facing the machine. To adjust, loosen the ½ -13 jam nuts (bottom has left hand threads) and by rotating the ½" rod slightly, the distance between the bottom and upper link rod end bearings will increase or decrease providing the necessary adjustment.

Also, additional to the bottom chip breaker, the machine could be equipped from the factory with a ground steel, solid, "one-piece" fence with a phenolic insert. This insert is a rectangular piece of phenolic installed on a machined pocket at the center of the steel fence. After this insert is secured on the fences, the phenolic insert is cut with the saw blades providing an extra support surrounding the fine and brittle edge on the material, thereby preventing excessive "chipping" as the sawblades exit the material.

After a while the groves created by the sawblades will increase defeating the purpose of this insert. At this point the insert can be reversed and re-install using the opposite side prior replacing. If the sawblade "groves" become too large to support the fine edge of the material being cut, unit should be replaced with a new one.

Also it is very important that the sawblades should be kept fresh and properly sharpened to eliminate the excessive "tear" out even with all the "chip-breakers" installed. These items must be replaced with new one with frequent intervals.

If the chip-breakers were not installed on the machine, contact the factory for installation and replacement instructions.

SECTION 6: ORDERING PROCEDURE

ORDER REPAIR PARTS BY:

MACHINE MODEL

MACHINE SERIAL NUMBER

PART NUMBER

REFERENCE NUMBER

DESCRIPTION

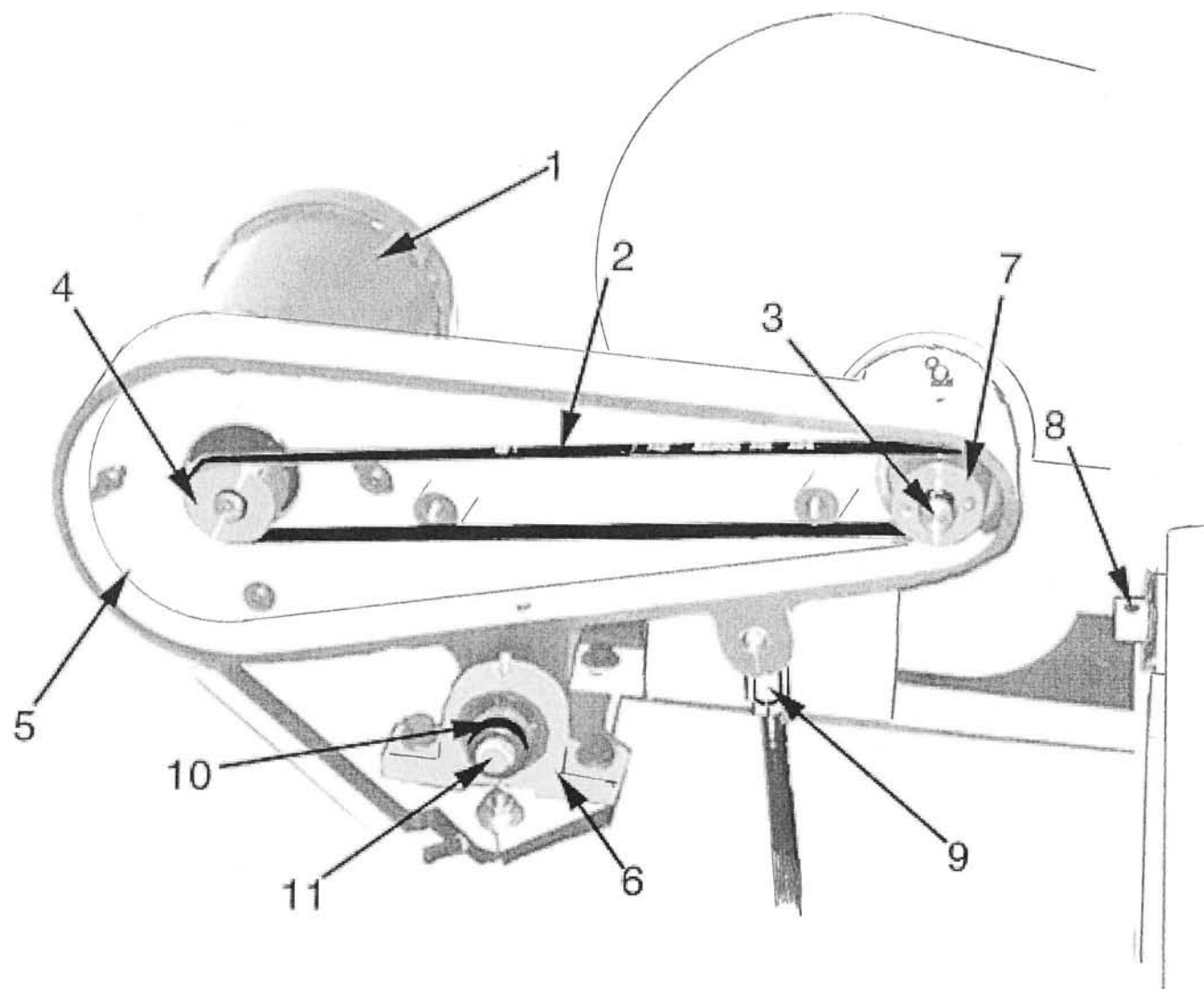
QUANTITY

PICTURE #1 : EMN SAW HEAD ASSEMBLY PARTS LIST

REF #	PART #	MACHINE TYPE	DESCRIPTION
1	1113007103	EMN-12	MOTOR 1HP, 230V, 1 PH, 7/8" SHAFT, C FRANK.
1	3N237	EMN-12	MOTOR 1HP, 230-460 V, 3 PH, 7/8" SHAFT, C BALD.
1	1213007104	EMN-14	MOTOR 2HP, 230V, 1PH, 7/8" SHAFT, C FRANK.
1	35F564S726G1	EMN-14	MOTOR 2HP, 230-460 V 3 PH, 7/8" SHAFT, C BALD.
2	360J6	EMN-12 / EMN-14	POLY-VEE DRIVE BELT STANDARD
3	S-6972-2-MN	EMN-12 / EMN-14	RH SPINDLE ASSEMBLY
4	EMN20029	EMN-12 /EMN-14	MOTOR PULLEY 7/8" BORE / POLY-VEE BELT
4	EMN20027	EMN-12 / EMN-14	MOTOR PULLEY 5/8" BORE / POLY-VEE BELT
5	CIEMN026	EMN-12 / EMN-14	RH SAW HEAD CASTING
6	UCP204-012	EMN-12 / EMN-14	PILLOW BLOCK BEARING 3/4"
7	EMN20028	EMN-12 / EMN-14	SPINDLE PULLEY POLY- VEE
8	S-6872-1-MN	EMN-12/ EMN-14	LH SPINDLE ASSEMBLY
9	KPF-8-G	EMN-12 / EMN-14	ROD END BEARING WITH RH THREADS (UP)
10	SC-12-F	EMN-12 / EMN-14	COLLAR 3/4" SHAFT LOCK
11	S-4458-2-EMN	EMN-12 / EMN-14	PIVOT SHAFT 3/4" SPECIAL

****CAUTION :FOR REPLACEMENT PARTS FOR MACHINES PRIOR TO 1990
PLEASE CHECK : “ OLD MACHINES REPLACEMENT PARTS LIST”**

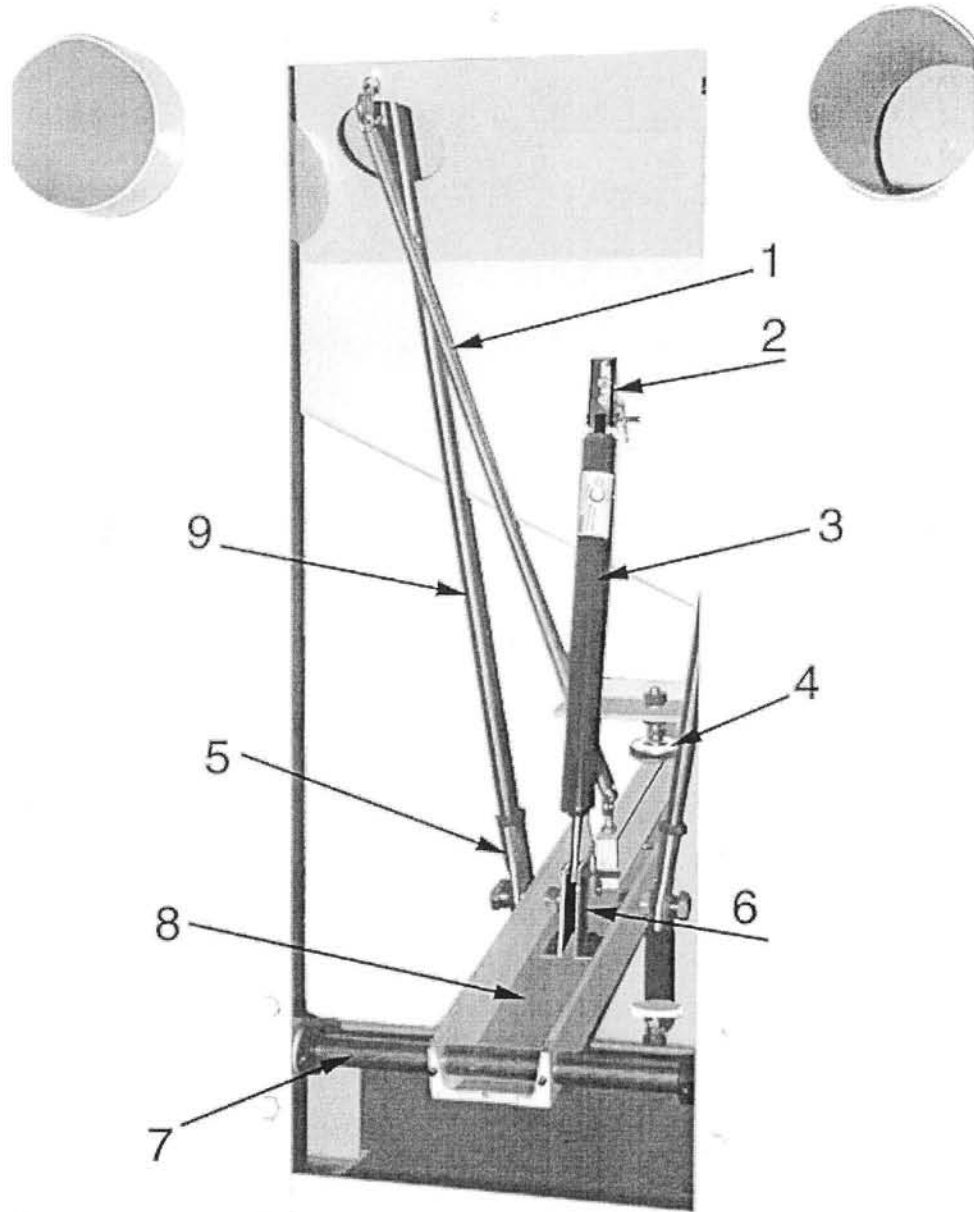
PICTURE #1: EMN SAW HEAD ASSEMBLY



PICTURE #2 : EMN FOOT PEDAL ASSEMBLY PARTS LIST

REF #	PART #	MACHINE TYPE	DESCRIPTION
1	E.060	EMN-12 / EMN-14	SAW HEAD RETURN SPRING
2	EMN00034	EMN-12 / EMN-14	UPPER BRACKET CYLINDER MOUNT
3	V1342	EMN-12 / EMN-14	HYDRAULIC CYLINDER CHECK
4	91090A109	EMN-12 / EMN-14	FOOT PEDAL BUMPER WASHER
5	KPFL-8G	EMN-12 / EMN-14	ROD END BEARING LH THREADS (LOWER)
6	EMN00033	EMN-12 / EMN-14	LOWER BRACKET CYLINDER MOUNT
7	ROD3/4CRS	EMN-12 / EMN-14	FOOT PEDAL PIVOT SHAFT
8	EMN00045	EMN-12 / EMN-14	FOOT PEDAL MAIN CHANNEL
9	S-4458-4-EMN	EMN-12 / EMN-14	FOOT PEDAL PULL ROD

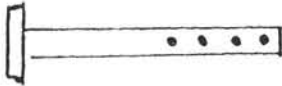
****CAUTION : FOR REPLACEMENT PARTS FOR MACHINES PRIOR TO 1990
PLEASE CHECK : "OLD MACHINES REPLACEMENT PARTS LIST"**



PICTURE #2: FOOT PEDAL ASSEMBLY

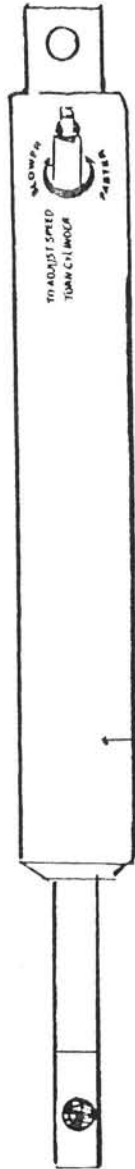
ADJUSTABLE CLEVIS PIN

67925529



67983882

HAIR PIN

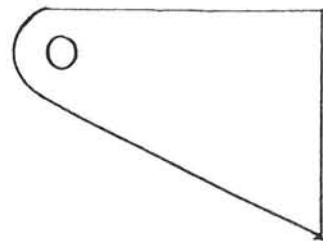
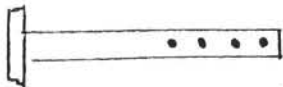


V1342 HYDRAULICK CYLINDER



EMN00034

UPPER BRACKET
CYLINDER MOUNT

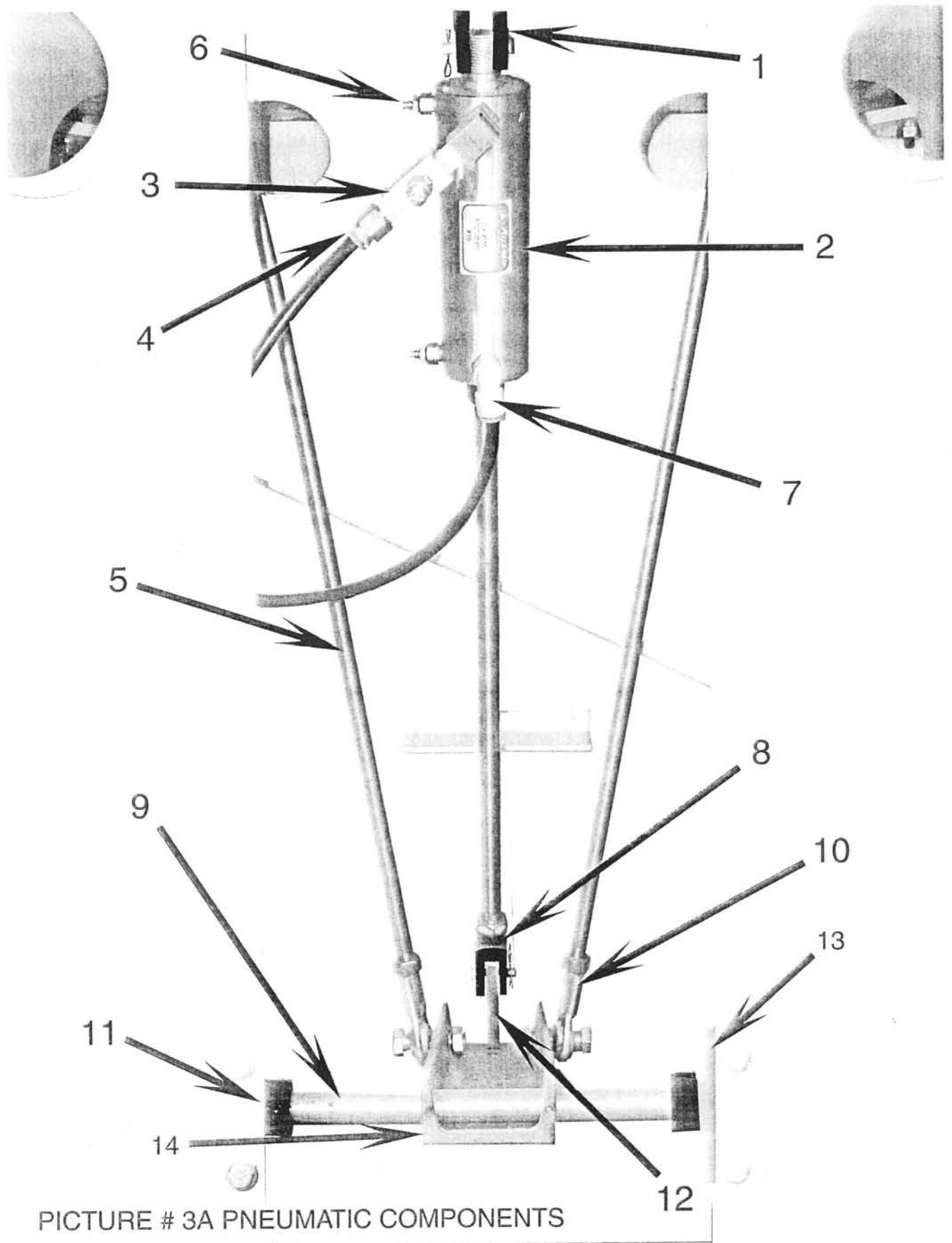


EMN00033

LOWER BRACKET
CYLINDER MOUNT

PICTURE #3A : EMN PNEUMATIC COMPONENTS PARTS LIST

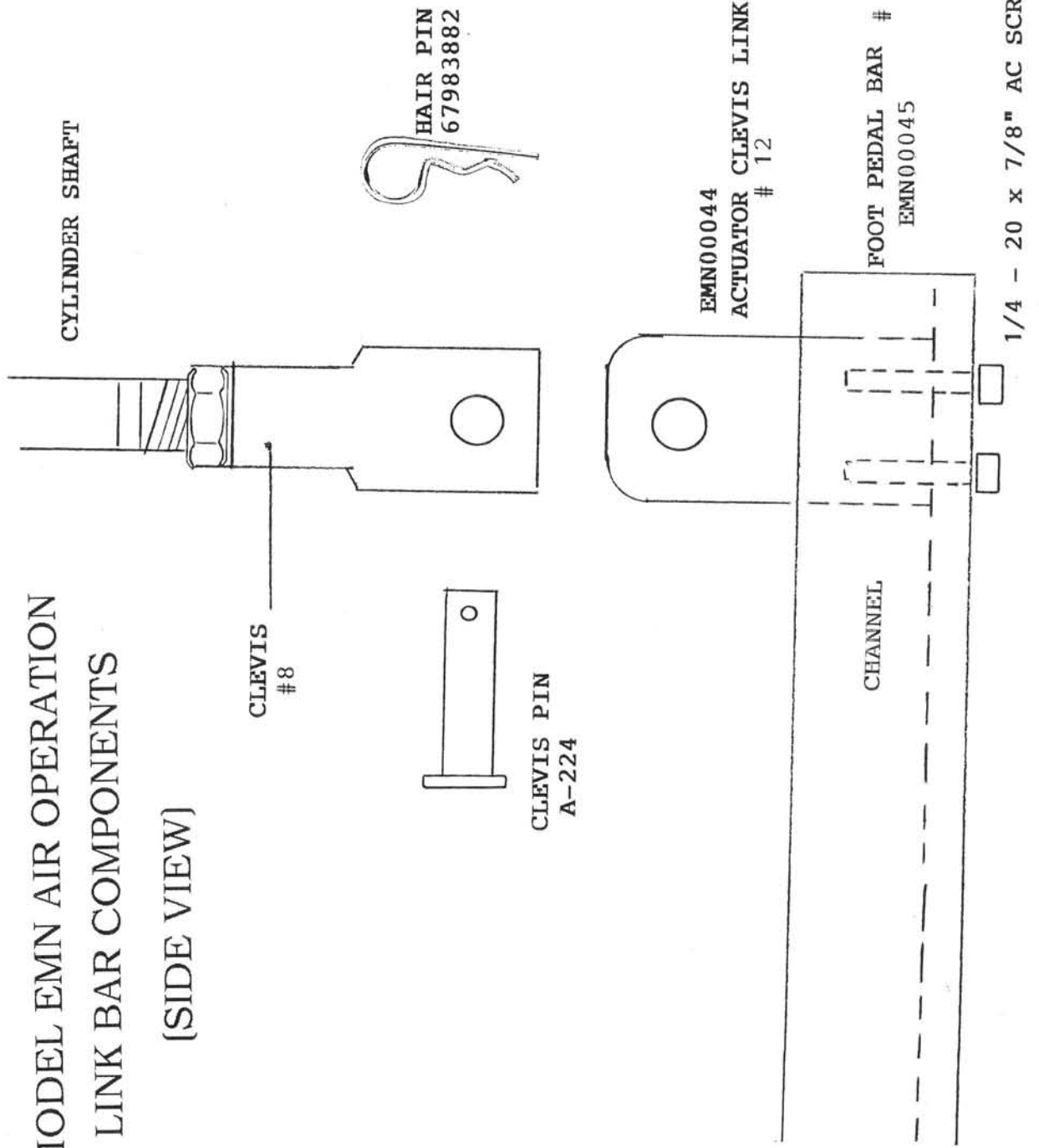
REF #	PART #	MACHINE TYPE	DESCRIPTION
1	239	EMN-12 / EMN-14	CYLINDER SWIVEL MOUNT (UPPER)
2*	A-2X4*16B 12*28BC	EMN-12 / EMN-14	AIR DRIVE CYLINDER / 1999 - CURRENT
2*	A2X6-B-BC	EMN-12/ EMN-14	AIR DRIVE CYLINDER / OLD- 1998-1999
3	NAS2000-N02	EMN-12 / EMN-14	CYLINDER RETURN SPEED FLOW VALVE
4	KQH-11-35H	EMN-12 / EMN-14	STRAIGHT AIR FITTING 3/8" O.D HOSE
5	S-4458-4-EMN	EMN-12 / EMN-14	FOOT PEDAL PULL ROD
6	A-221	EMN-12 / EMN-14	EXTERNAL CUSHION VALVE ASSEMBLY
7	KQL-11-35S	EMN-12 / EMN-14	ELBOW AIR FITTING 3/8" O.D HOSE
8	245	EMN-12 / EMN-14	CYLINDER CLEVIS, NUT AND PIN
9	ROD3/4CRS	EMN-12 / EMN-14	FOOT PEDAL PIVOT SHAFT
10	KPFL-8G	EMN-12 / EMN-14	ROD END BEARING LH THREADS /LOWER
11	SC-12-F	EMN-12 / EMN-14	LOCKING COLLAR 3/4"
12	EMN00044	EMN-12 / EMN-14	ACTUATOR CLEVIS LINK
13	LA-1220-14	EMN-12 / EMN-14	FOOT PEDAL ROD PIVOT BEARING 3/4"
14	EMN00045	EMN-12 / EMN-14	FOOT PEDAL BAR / CHANNEL

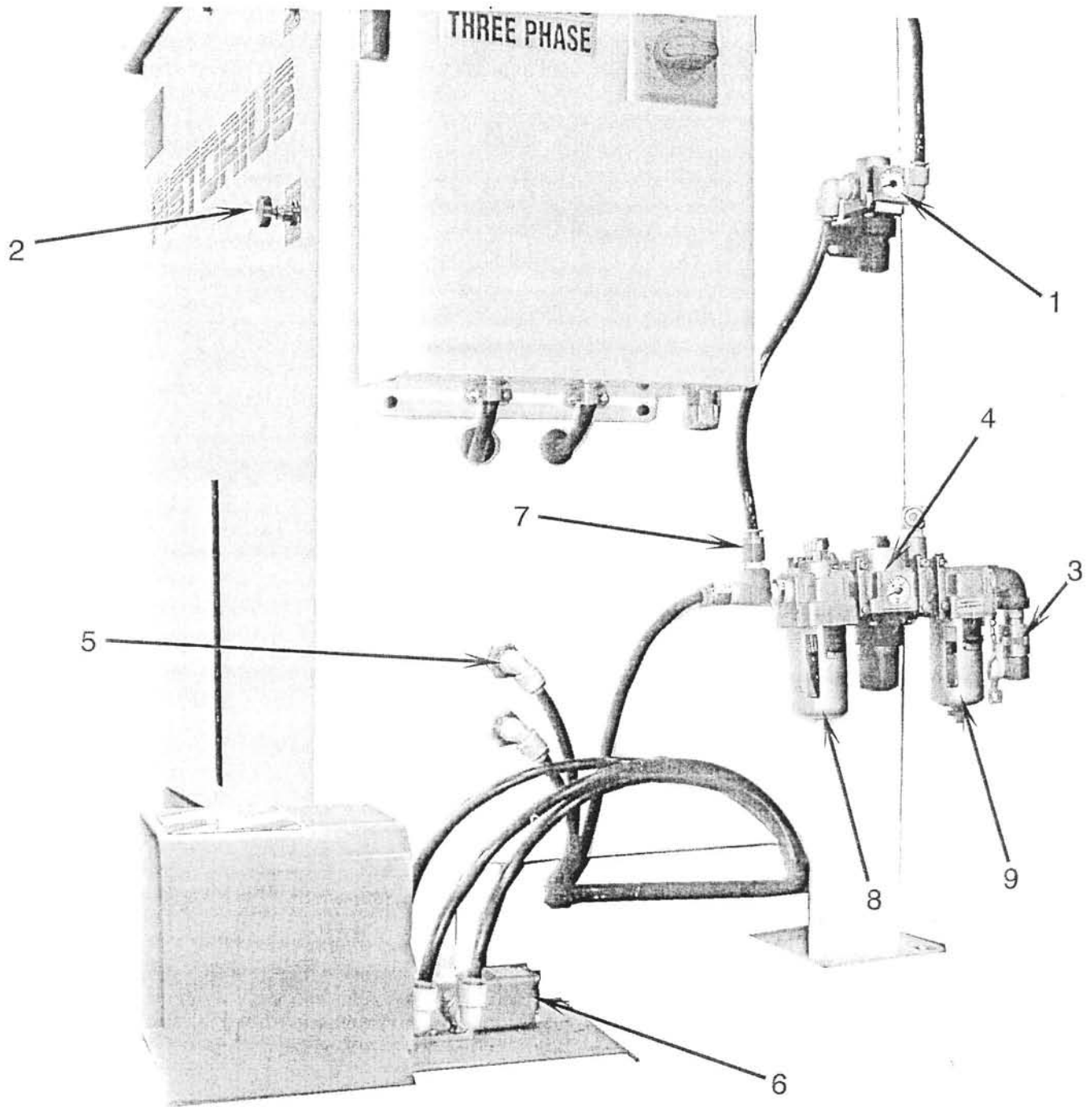


PICTURE # 3A PNEUMATIC COMPONENTS

MODEL EMN AIR OPERATION
LINK BAR COMPONENTS

[SIDE VIEW]

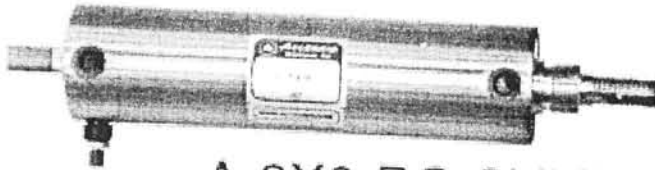




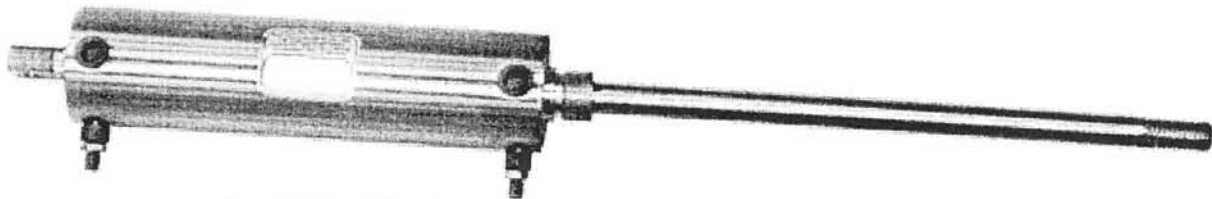
PICTURE # 3B : EMN PNEUMATIC COMPONENTS

PICTURE # 3B: EMN PNEUMATIC COMPONENTS PARTS LIST

1	7177	EMN-12 / EMN-14	MINI PRESSURE REGULATOR
2	6000-4P-E	EMN-12 / EMN-14	SPEED CONTROL VALVE (DOWN STROKE)
3	3W-375/L0375	EMN-12 / EMN-14	ON / OFF TAG VALVE
4	US24023	EMN-12/ EMN-14	FILTER / OILER / REGULATOR ASSY. NEW
4*	NAC3000-N03	EMN-12 / EMN-14	FILTER / OILER / REGULATOR ASSY. (OLD)
5	KQL-11-35S	EMN-12 / EMN-14	AIR FITTING / ELBOW
6	VSF-4302	EMN-12 / EMN-14	FOOT PEDAL VALVE
7	KQH-11-35S	EMN-12 / EMN-14	AIR FITTING / STRAIGHT
8	C3SL	EMN-12 / EMN-14	BOWL & GUARD (LUBRICATOR)
9	C3SF	EMN-12 / EMN-14	BOWL & GUARD (FILTER)



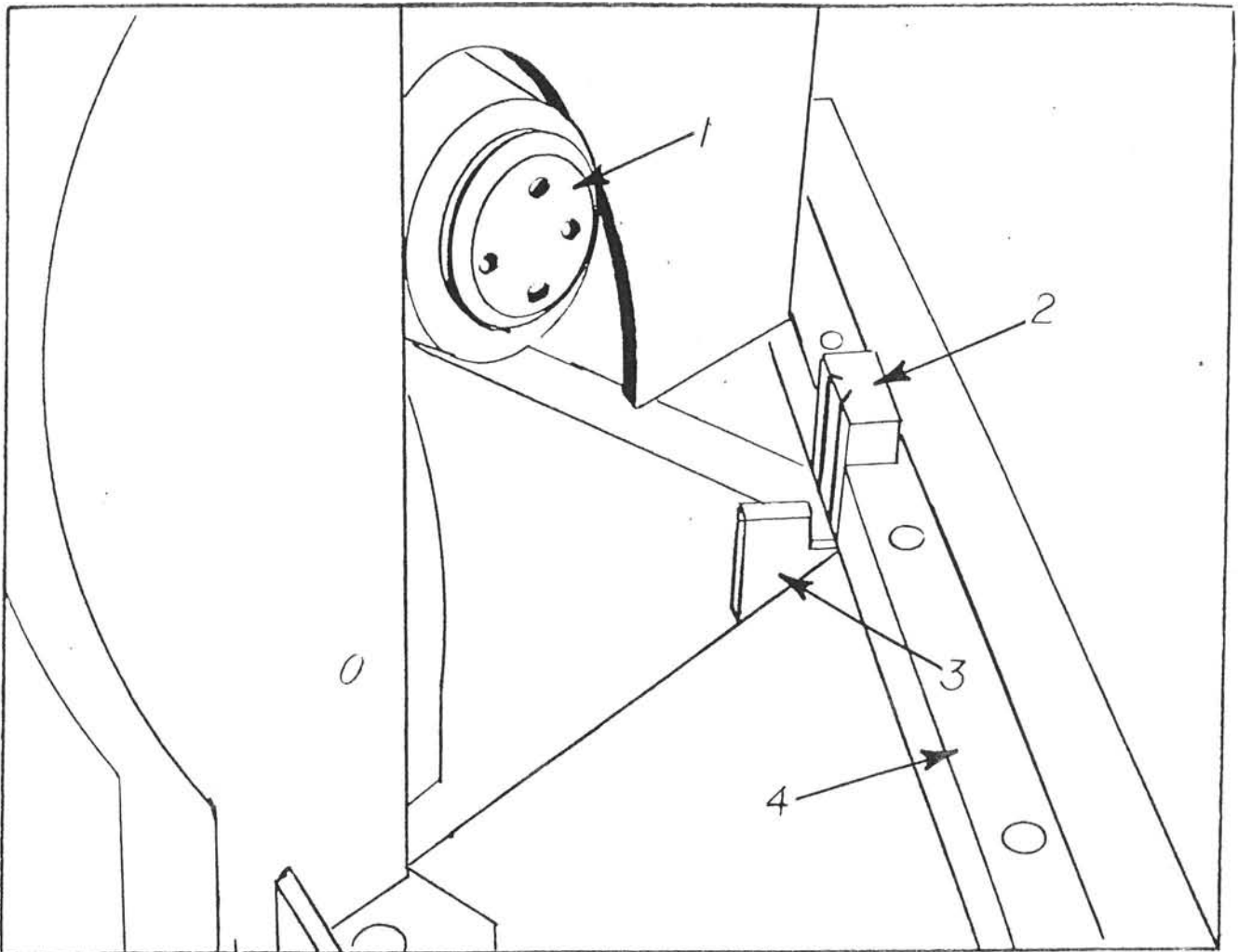
A-2X6-RC CYLINDER
MOUNTED IN FRONT



A-2X6B-BC CYLINDER
OLDER 1998 - 1999



A-2X4*16B12*28-BC
CURRENT CYLINDER

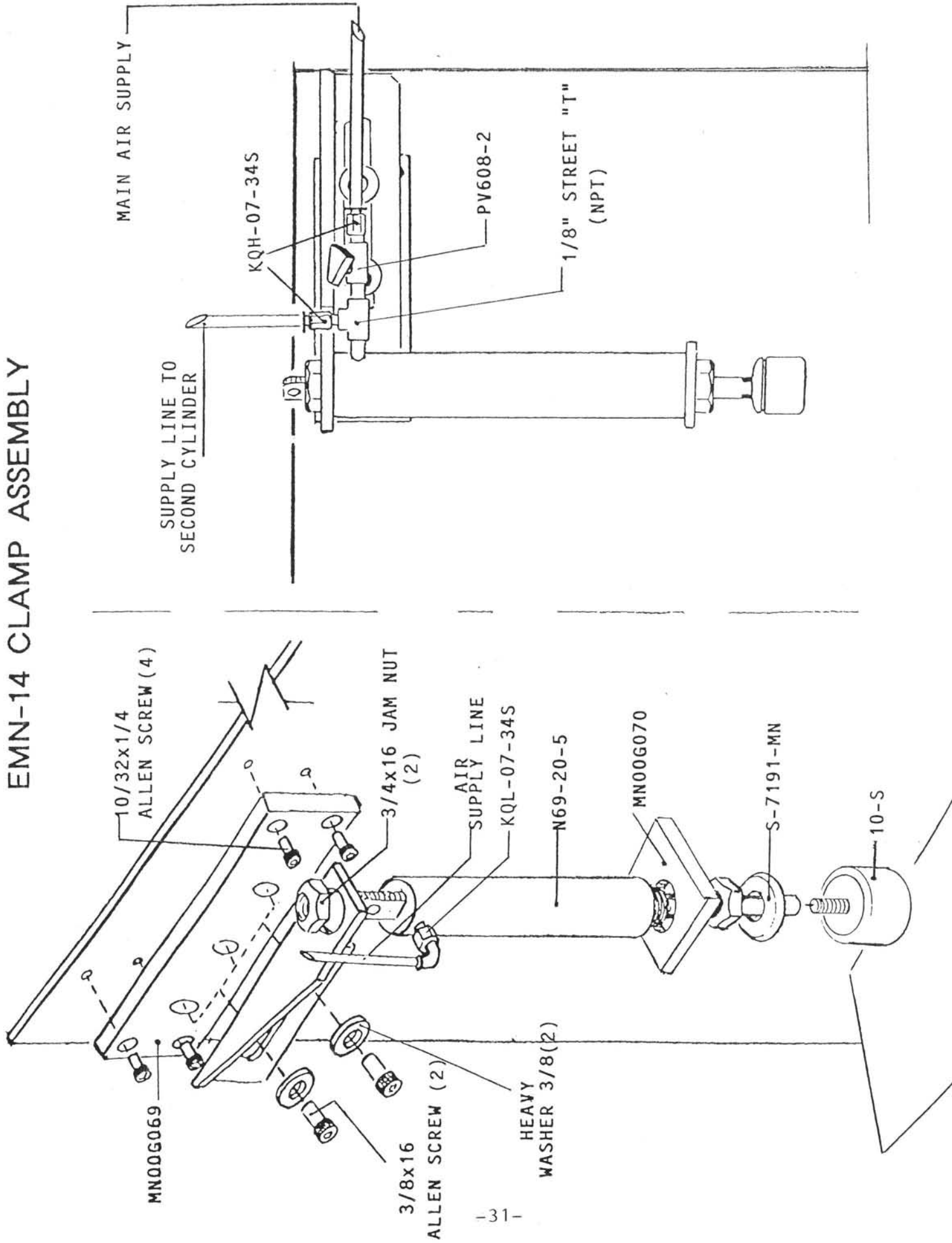


PICTURE #4 : TABLE PARTS LIST

REF #	PART #	MACHINE TYPE	DESCRIPTION
1	S-6872-2-MN	EMN-12 / EMN-14	RH SPINDLE ASSEMBLY
2	EMN30040	EMN-12	PHENOLIC FENCE INSERT (3/4" W x 2 1/4"H)
2	EMN30041	EMN-14	PHENOLIC FENCE INSERT (3/4" W x 2 3/4" H)
3	EMN00049	EMN-12 / EMN-14	ALUMINUM SCRAP SUPPORT
4	EMN30050	EMN-12	GROUND STEEL FRONT FENCE (2 1/4" HIGH)
4	EMN30050	EMN-14	GROUND STEEL FRONT FENCE (2 3/4" HIGH)

****CAUTION: FOR REPLACEMENT PARTS FOR OLDER MACHINES PLEASE CHECK THE OLD MACHINES REPLACEMENT PARTS LIST**

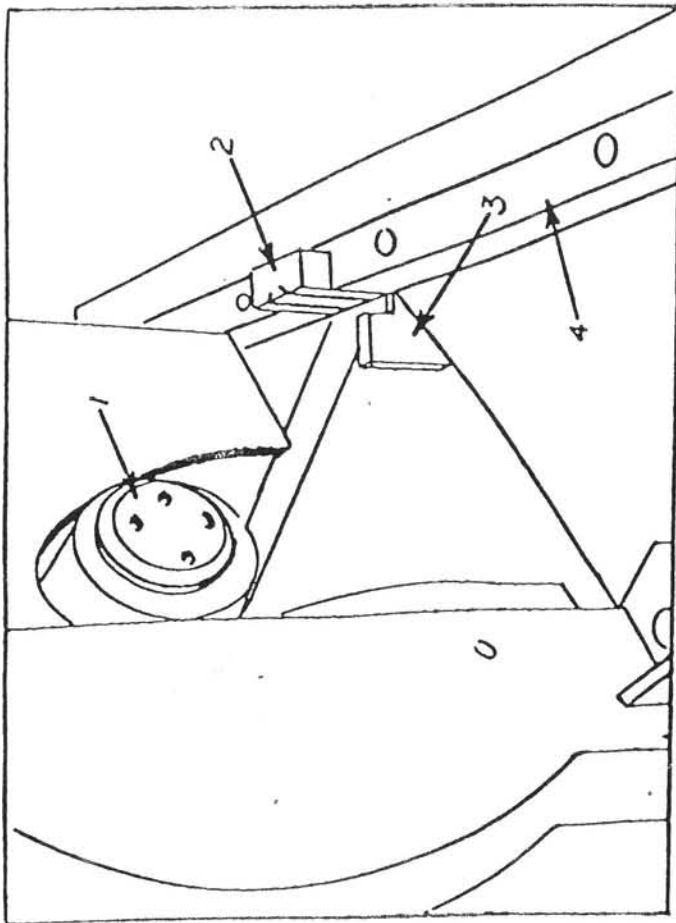
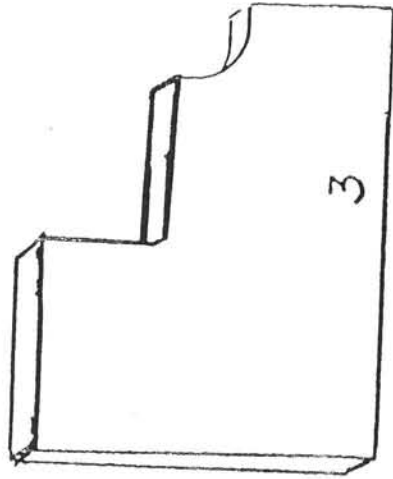
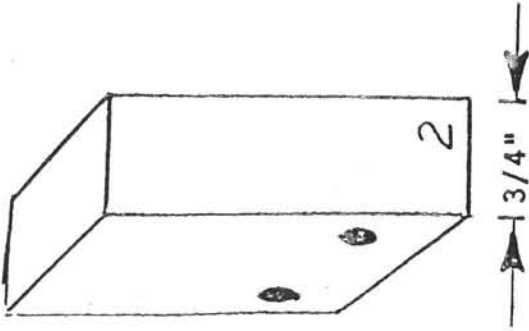
EMN-14 CLAMP ASSEMBLY



EMN-12 NEW STYLE

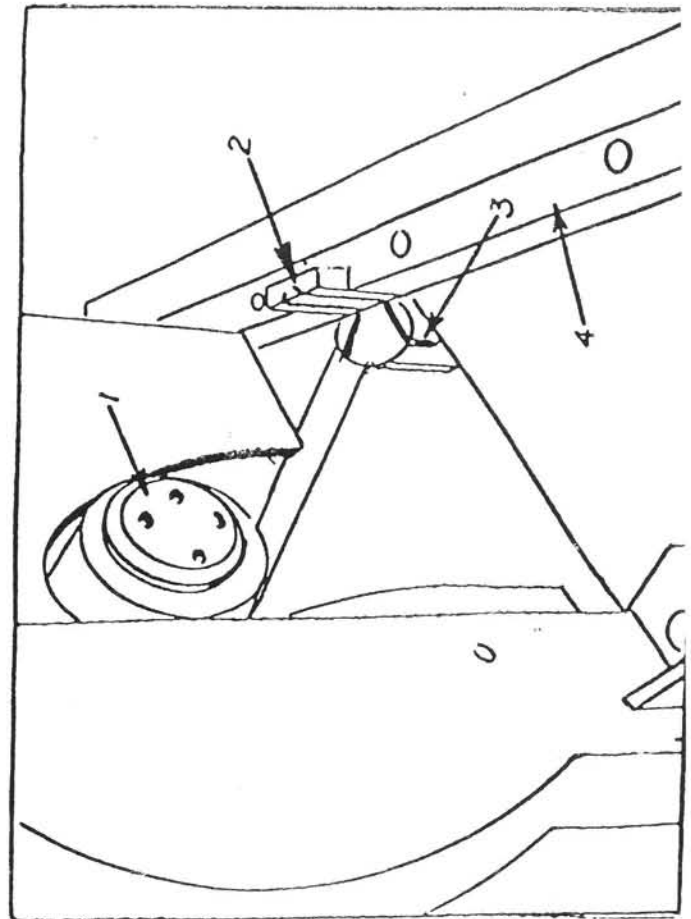
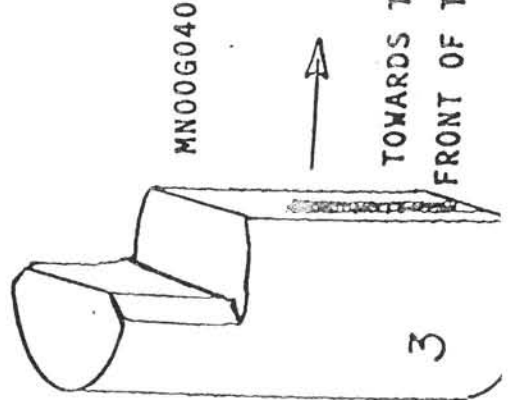
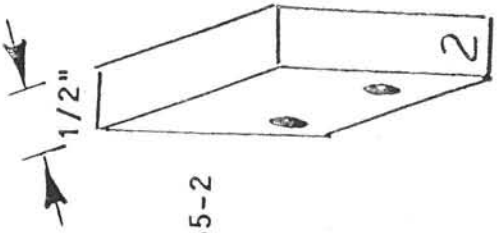
PHENOLIC FENCE INSERT
EMN30040

ALUMINUM SCRAP SUPPORT
EMN00049



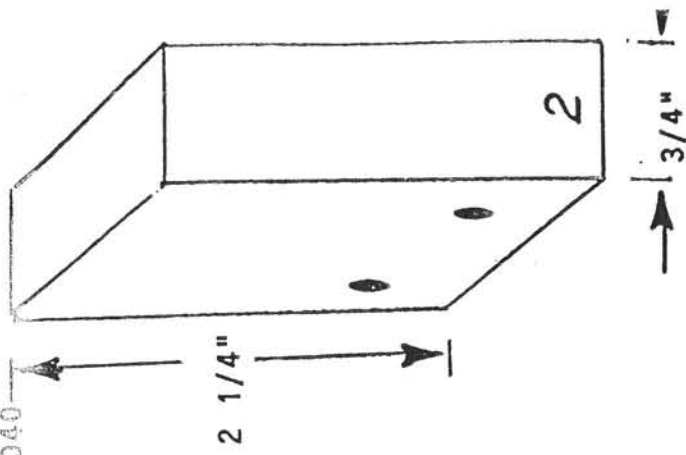
EMN-12 OLD STYLE

(BOTH ITEMS MADE OF PHENOLIC MATERIAL)

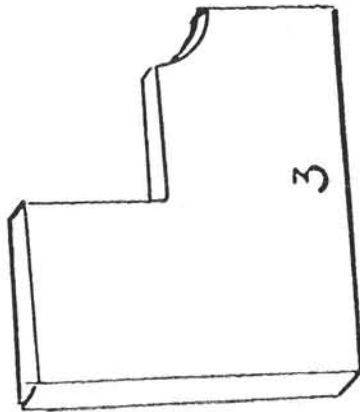


MODEL EMN-14 NEW STYLE

PHENOLIC FENCE INSERT
EMN30040

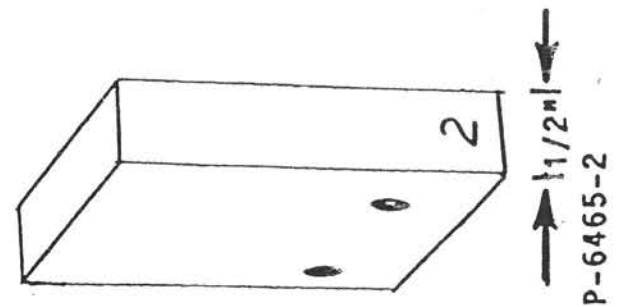


ALUMINUM SCRAP SUPPORT
EMN00049



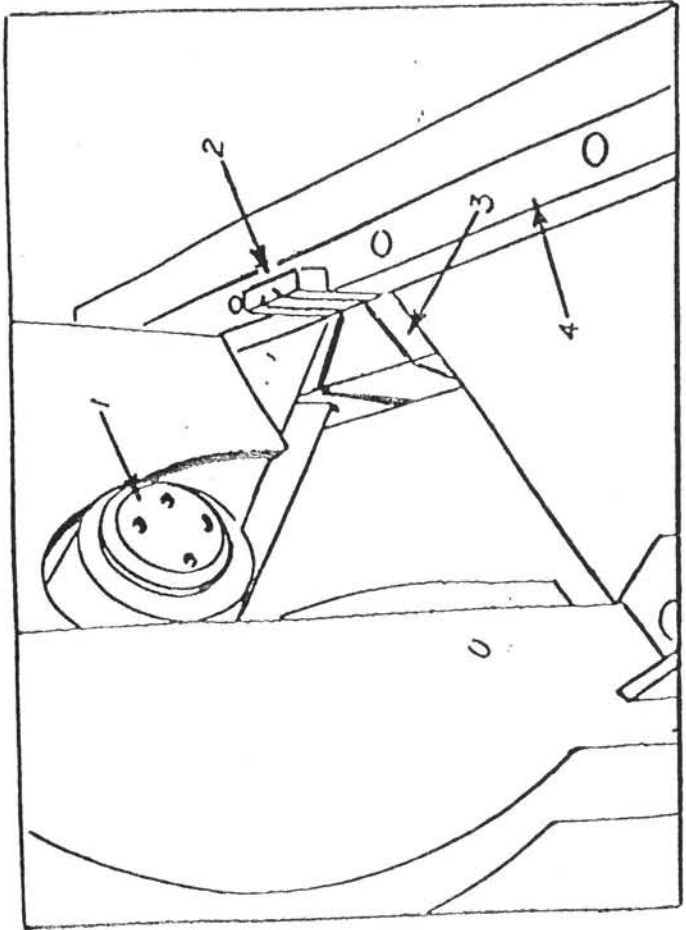
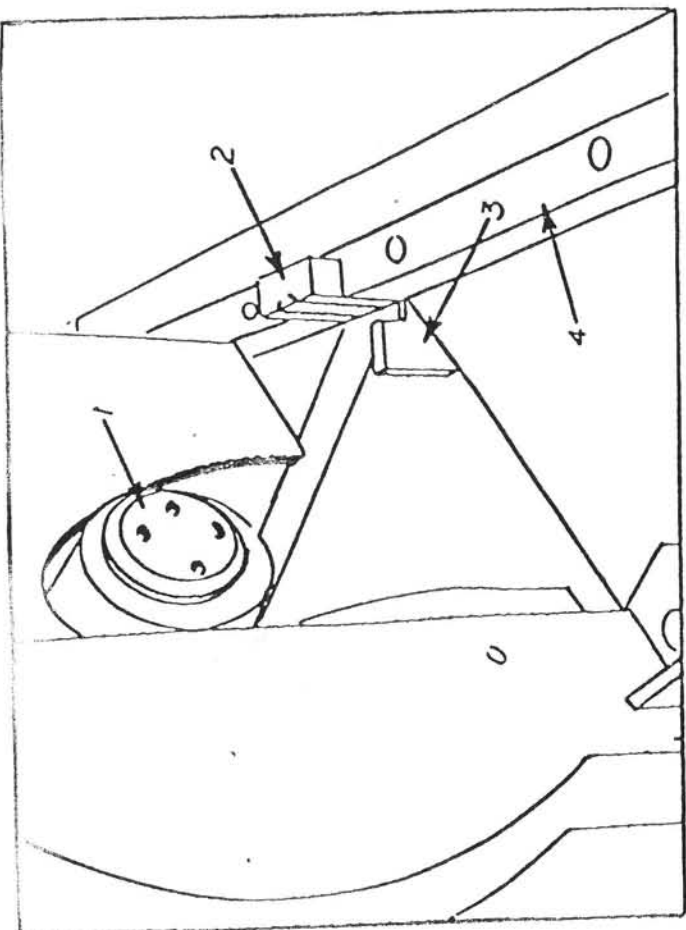
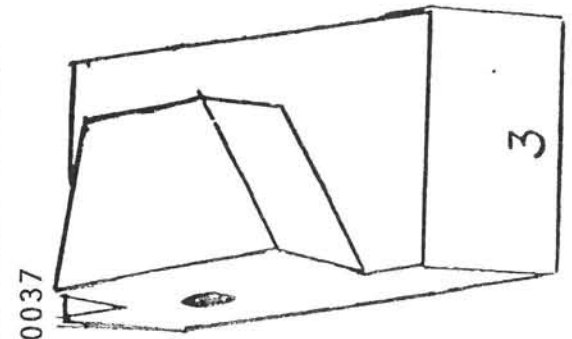
MODEL EMN-14 OLD STYLE

PHENOLIC FENCE INSERT

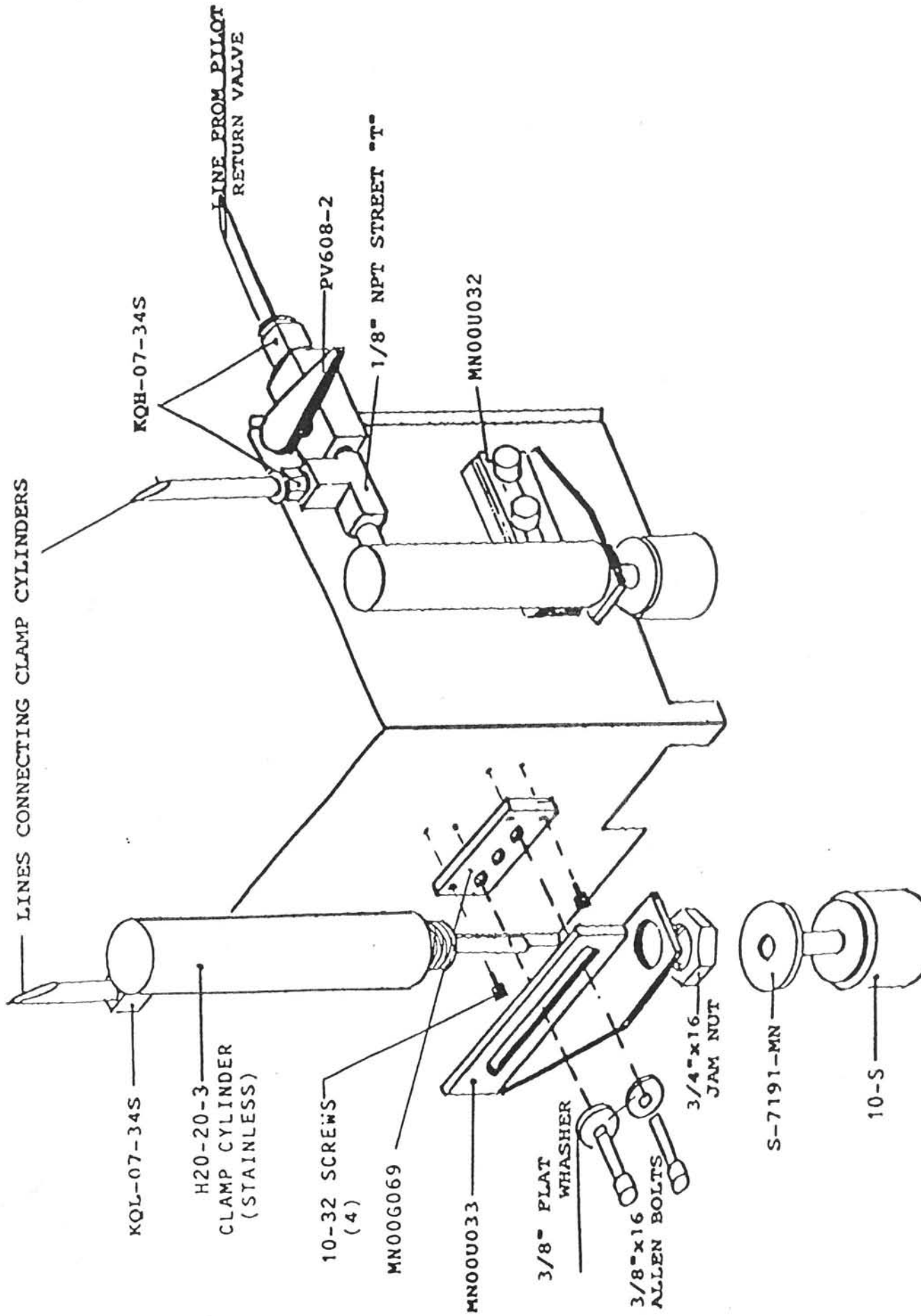


P-6465-2

HARD MAPLE SCRAP SUPPORT
EMN30037



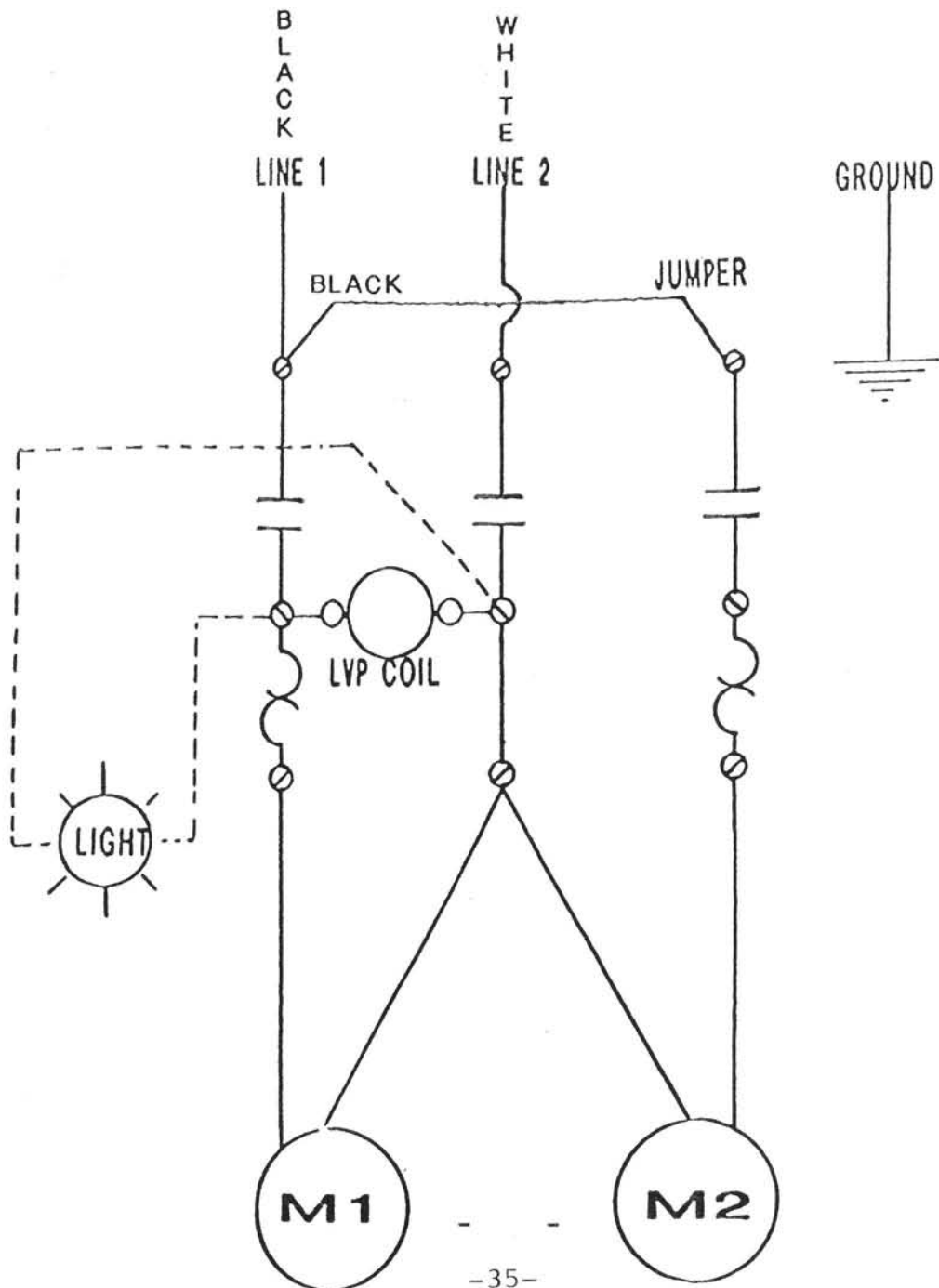
EMN-12 CLAMP ASSEMBLY PARTS LIST



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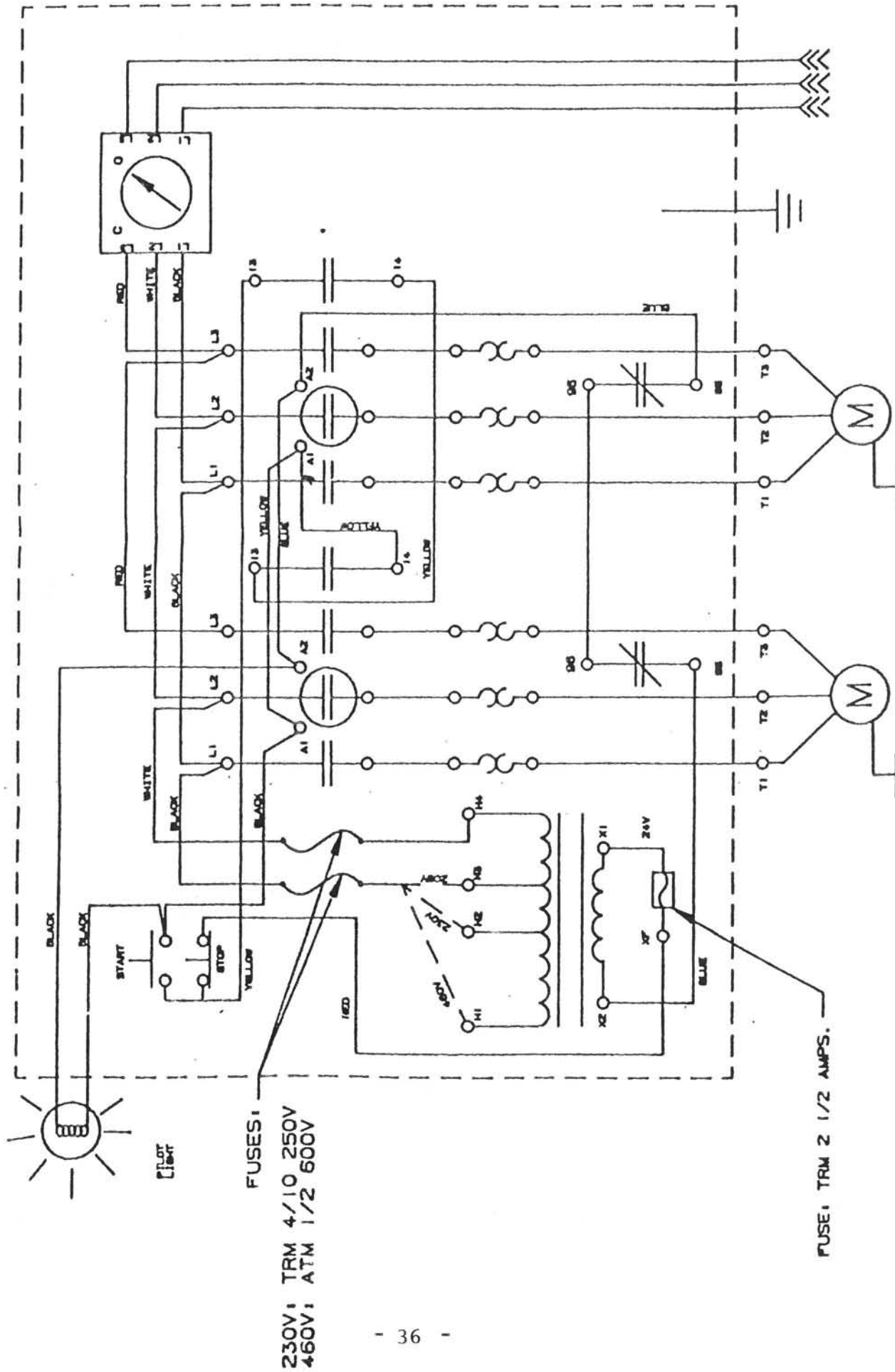
EMN-12 ELECTRIC DIAGRAM

230V 1PH / 1HP MOTORS



EMN-14 ELECTRIC DIAGRAM

230-460 VOLTS / 3 PHASE



PARTS FOR OLDER EMN-12, EMN-14 MACHINES

MOTORS :

34T 35-4599	EMN-12	MOTOR 1HP, 230V, 1PH, 7/8" SHAFT, FOOT MOUNT
5K960	EMN-12	MOTOR 1HP, 230V, 1PH, 5/8" SHAFT, FOOT MOUNT
L3515T	EMN-14	MOTOR 2HP, 230V, 1PH, 5/8" SHAFT, FOOT MOUNT
35E8115726G1	EMN-14	MOTOR 2HP, 230V, 3PH, 5/8" SHAFT, FOOT MOUNT

BELTS:

4L360	EMN-12	BELT ORIGINAL "V," (2 PER SIDE, 4 PER SAW)
340J6	EMN-14	BELT POLY -VEE OLD STYLE (1 PER SIDE)

SPINDLE ASSEMBLIES - MACHINES WITH "V" BELTS (LONGER STEM):

S-6874-1-EMN	EMN-12	LEFT HAND SPINDLE ASSEMBLY
S-6874-2-EMN	EMN-12	RIGHT HAND SPINDLE ASSEMBLY
S-6874-1-EMN	EMN-14	LEFT HAND SPINDLE ASSEMBLY
S-6874-2-EMN	EMN-14	RIGHT HAND SPINDLE ASSEMBLY

PHENOLIC BOTTOM SCRAP SUPPORT:

MN00G040	EMN-12	PHENOLIC BOTTOM SCRAP SUPPORT
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PHENOLIC FENCE INSERT (1/2" THICK):

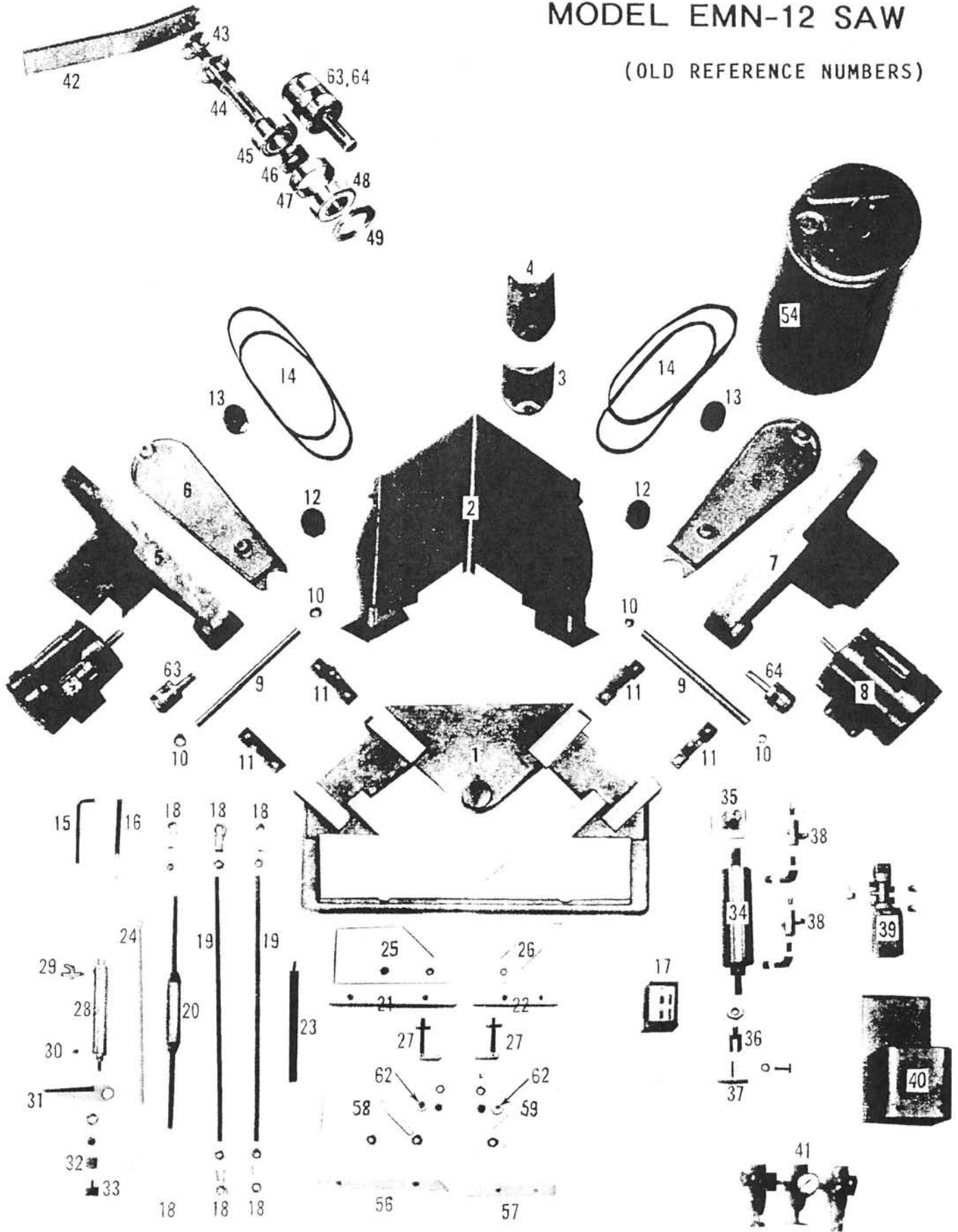
P-6465-2-MN	EMN-12	PHENOLIC FENCE INSERT
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HARD MAPLE SCRAP SUPPORT:

EMN30037	EMN-14	HARD MAPLE SCRAP SUPPORT
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MODEL EMN-12 SAW

(OLD REFERENCE NUMBERS)



1785 EXPRESS DRIVE NORTH • HAUPPAUGE, NEW YORK, U.S.A. 11788

E M N PARTS LIST

11/91

REF #	PART NUMBER	OLD REF#	D E S C R I P T I O N	# ON MACH
1	11CB3BG	17	NEW MAG. STARTER FURNAS, 3PH, W/LVP	1
2	125	23	HYDRAULIC CHECK	1
3	25-2217		C.H. HEATER COIL JUMPER	1
4	2Z866		DAYTON AIR COMPRESSOR	1
5	D25371001		FURNAS COIL JUMPER	1
6	34FH4001A01		BALDOR MOTOR FAN COVER (34T&34-1)	2
7	34FN5002A01		BALDOR PLASTIC FAN ASSEMBLY	2
8	M3545-50	8	SPECIAL MOTOR 50 Hz 1HP, 3PH BALDOR	2
9	34T35-4599	8	STANDARD MOTOR 1HP 1PH 7/8" SHAFT	2
10	3N317	8	SPECIAL MOTOR 1HP 3HP DAYTON	2
11	4631-C	8	SPECIAL MOTOR 240-415 50 Hz 3 PH	2
12	5K960	8	SPECIAL DAYTON 1HP 115-230 VOLTS	2
13	L3509-50	8	SPECIAL MOTOR 50 Hz 1HP, 1PH BALDOR	2
14	34-1257-4599	8	SPECIAL MOTOR 1HP 1PH 5/8" SHAFT	2
15	EMN20027		POLY-VEE MOTOR PULLEY 5/8" (OLD)	2
16	EMN20028		STANDARD POLY-VEE SPINDLE PULLEY 3/4"	2
17	EMN20029		STANDARD POLY-VEE MOTOR PULLEY 7/8"	2
18	2AK22-3/4	12 *	OLD SPINDLE PULLEY (OBSOLETE)	2
19	2AK22-5/8	13 *	OLD MOTOR PULLEY (OBSOLETE)	2
20	340J6	14	STANDARD POLY-VEE DRIVE BELT (PIRELLI)	2
21	4L360	14	OLD STYLE DRIVE BELT	4
22	3R618		MANUAL RESET SWITCH (OLD MOTOR)	2

ASTOR

MACHINE CO., INC.

PHONE: 516-582-6000
FAX NO. 516-582-6278

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23	C400KG1		COVER CONTROL KIT	1
24	H1033		CH HEATER COIL 6.31 < 7.05 AMPS	2
25	H29		FURNAS HEATER COIL 5.9 < 6.7 AMPS.	2
26	R01		1/2" ROMEX WIRE CONNECTOR	1
27	KF-8G	18	ROD-END BEARING (STANDARD)	2
28	KFL-8G	18	ROD-END BEARING (LEFT HAND THREADS)	2
29	S-1057-EMN		CABINET	1
30	S-1153-5-MN	42	SPINDLE WRENCH	
31	S-1231-GC	24	RETURN SPRING	1
32	S-6733-2-MN	25	LH VISI SPACER PLATE	1
33	S-6733-2-MN	26	RH VISI SPACER PLATE	1
34	S-7035-EMN	27	ADJUSTABLE HEIGHT SUPPORTS	2
35	S-6872-1-MN	63	LEFT HAND SPINDLE ASSEMBLY (NEW)	1
36	S-6872-2-MN	64	RIGHT HAND SPINDLE ASSEMBLY (NEW)	1
37	S-6874-1-EMN	63	LEFT HAND SPINDLE ASSEMBLY (OLD)	1
38	S-6874-2-EMN	64	RIGHT HAND SPINDLE ASSEMBLY (OLD)	1
39	S-5288-2-EMN	44	R/H SPINDLE SHAFT (OLD)	1
40	S-5288-1-EMN	44	L/H SPINDLE SHAFT (OLD)	1
41	S-6463-1-MN	44	MN-EMN LEFT SPINDLE SHAFT W/NUT (NEW)	1
42	S-6463-2-MN	44	MN-EMN RIGHT SPINDLE SHAFT W/NUT (NEW)	1
43	S-1150-8-MN	49	OUTER BEARING LOCK NUT	2
44	5205-BZ	45	MN SPINDLE DOUBLE ROLL BEARING	2
45	6304Z/5C	48	MN SPINDLE SINGLE ROLL BEARING	2
46	S-6878-MN		WORK SCHEDULE BOARD (CLIP BOARD)	1
47	S-4235-EMN	2	EMN COMPLETE HOOD ASSEMBLY	1

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48	S-4458-2-EMN	9	GTP SAW HEAD PIVOT SHAFT (3/4")	2
49	S-4458-4-EMN	19	LH / RH PULL ARM	2
50	S-6008-EMN		EXHAUST DUCT W/ BOTTOM PLATES	1
51	S-6308-EMN	1	STANDARD EMN STEEL TABLE	1
52	S-1150-2-MN	43	LEFT HAND SPINDLE NUT	1
53	S-1150-6-MN	43	RIGHT HAND SPINDLE NUT	1
54	S-4249-1-MN	57	STANDARD R H FENCE (1"x 1 1/2")	1
55	S-4249-2-MN	56	STANDARD L H FENCE (1"x 1 1/2")	1
56	S-4249-3-MN	57	STANDARD R H FENCE (1"x 2 3/4")	1
57	S-4249-4-MN	56	STANDARD L H FENCE (1"x 2 3/4")	1
58	S-6733-4-EMN	58	LH SLOTTED SPACER PLATE	1
59	S-6733-5-EMN	59	RH SLOTTED SPACER PLATE	1
60	S-6465-3-MN		FRONT FENCE W/ PHENOLIC INSERT	1
61	P-6465-2-MN		PHENOLIC FENCE INSERT ONLY	1
62	P-7021-MN		PHENOLIC SCRAP SUPPORT	1
63	SC-12-F	10	3/4" STEEL COLLARS	4
64	UCP204-012T	11	3/4" PILLOW BLOCK BEARINGS (NEW)	4
65	CA-1514-EMN	6	R/L HEAD BELT COVER (OLD)	2
66	CA-6995-1-EMN	6	R/L HEAD BELT COVER (NEW)	2
67	CI-1515-EMN	4	REAR SUPPORT LEGS	2
68	CI-1206-GC	3	EMN-GC FRONT SUPPORT LEGS	2
69	CI-1056-EMN	1	CAST TABLE (OLD)	1
70	CI-4663-1-EMN	5	LEFT HAND SAW HEAD (OLD)	1
71	CI-4663-2-EMN	7	RIGHT HAND SAW HEAD (OLD)	1
72	CI-6994-1-EMN	5	NEW LEFT HAND SAW HEAD	1

PORTER MACHINE CO., INC.

PHONE: 516-582-6000
FAX NO. 516-582-6278

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73	CI-6994-2-EMN	5	NEW RIGHT HAND SAW HEAD	1
74	S-7052-EMN		PNEUMATIC POWER FEED KIT NOT INSTALLED	
75	VSF-4302	39	VERSA PNEUMATIC FOOT VALVE	1
76	239	35	CYLINDER SWIVEL BRACKET	1
77	S-5290-MN	40	FOOT PEDAL GUARD	1
78	S-5393-EMN	37	EYE MOUNT	1
79	NAS-2000-NO2	38	FLOW-SPEED CONTROL	2
80	NAC-3000-NO3	41	FILTER OILER REGULATOR W/ GAGE (NEW)	1
81	245	36	ALLEN AIR ROD CLEVIS, NUT & PIN	1
82	A-2 x 6"-RC	34	AIR DRIVE CYLINDER	1
83	V-4332-P		VERSA FOOT PEDAL REPAIR KIT	1
84	A-2 1/2-RC-P		DRIVE CYLINDER REPAIR KIT	1
85	A-221		DRIVE CYLINDER RETURN CUSHION ASS.	1
86	NAR3000-1R		MN SMC REGULATOR REPAIR KIT	1
87	NC300F		MN FILTER BOWL & GUARD REPLACEMENT	1
88	NC300L-3		MN OIL BOWL & GUARD REPLACEMENT	1
89	NAL3000-1R		MN LUBRICATOR REPAIR KIT	1
90	F20BK		SPEED FLOW CONTROL (OLD)	2
91	4302-06		VERSA FOOT PEDAL SPRING	1
92	B-1163-A		SPRAY MIST COMPLETE ASSEMBLY	1
93	B-1163-3-DC	50	SPRAY MIST BODY	1
94	B-1163-2-MN	51	SPRAY MIST NEEDLE WITH NUT	1
95	SMAV0028	54	SPRAY MIST BOTTLE W/CAP (NEW)	1
96	SCC-732		SYNTHETIC WATER SOLUBLE OIL	1
97	PV608-2	29	SHUT-OFF VALVE	1

PETROL MACHINE CO., INC.

PHONE: 516-582-6000
FAX NO. 516-582-6276

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98	CP10B		SPRAY MIST CHECK VALVE	1
99	527		LS-100 ACCULUBE SYSTEM TWO HEAD ASS.	1
100	LB-1		ONE GALLON ACCULUBE OIL (COOLENT)	1
101	S-6876-EMN		HOLD DOWN CLAMPS COMPLETE ASSEMBLY	1
102	S-1291-1-MN	31	RIGHT HAND CLAMP BRACKET	1
103	S-1291-4-MN	31	LEFT HAND CLAMP BRACKET	1
104	S-5344-1-MN	32	CLAMP PAD ADAPTOR	2
105	R-5344-2-MN	33	RUBBER CLAMP PAD	2
106	A-1-1/8x3-SRF	28	HOLD DOWN CLAMP CYLINDER	2
107	ASP-1	30	1/8" ARROW MUFFLER, FILTER	2
108	31P		PILOT RETURN VALVE	1
109	34C		ROLLER ARM ASSEMBLY FOR #31P	1
110	S-7092-MN		DELAY SPACER FOR #31P	1
111	A-1-1/8-P		MN CLAMP CYLINDER REPAIR KIT	2
112	A-101-2x3		RETURN SPRING FOR CLAMP CYLINDER	2
113	798		TAPER PIN	
114	5/16 ALLEN		5/16 ALLEN SOCKET HEAD WRENCH	
115	S-4313-3		TEE SCREWS (FRONT GUARD REPLACEMENT)	4