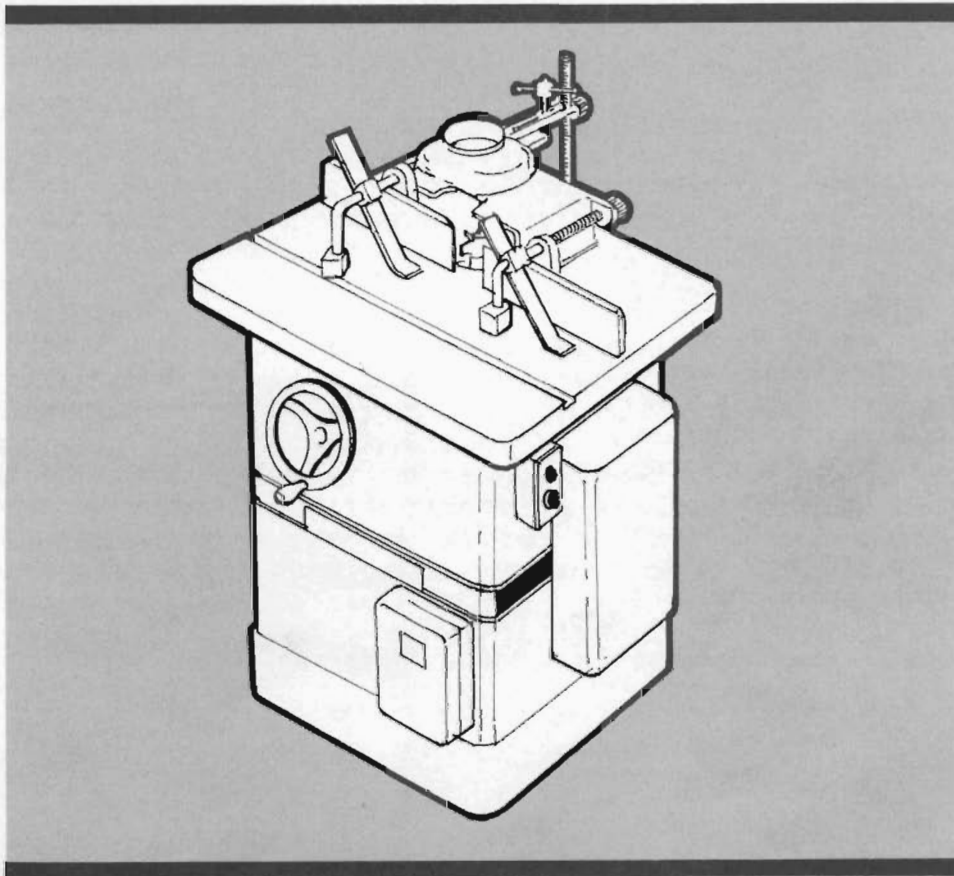


Model 26 SHAPER

MAINTENANCE INSTRUCTIONS AND PARTS LIST



Better By DesignTM

POWERMATIC[®] *mti*[®]

McMINNVILLE, TENNESSEE 37110 ☐ AC 615-473-5551

TABLE OF CONTENTS

FOREWORD.....	3
WARRANTY.....	4
SAFETY:	
General Rules.....	5
Specific Rules.....	6
Decal Instruction.....	8
SPECIFICATIONS: MODEL 26 Shaper.....	9
QUILL SLIDE: Schematic.....	10
RECEIVING THE SHAPER:.....	11
Installation.....	11
Belt Tension.....	11
Electrical.....	11
Inspection.....	12
Exhaust System.....	12
SHAPER ADJUSTMENTS:	
Squaring The Fence.....	12
Spindle Replacement.....	13
Spindle Assembly Removal.....	13
Replacing The Cutters.....	14
Quill Slide Adjustment.....	14
Changing Speeds.....	14
Miter Gauge Adjustment.....	15
Fence Assembly Removal.....	15
Before Operating.....	15
PARTS LIST: Stand And Table.....	16
PARTS: Exploded View.....	17
PARTS LIST: Body Assembly.....	18
PARTS: Exploded View.....	19
3/4 INCH SPINDLE ASSEMBLY.....	20
1 INCH SPINDLE ASSEMBLY.....	21
INTERCHANGEABLE SPINDLE ASSEMBLY.....	22
SPINDLE ASSEMBLIES: Shank Arbors, Wrenches.....	23
GUARD: Safety Ring And Parts List.....	24
MITER GAUGE: (Optional) and Parts List.....	24
GUIDE ASSEMBLY, Hold Down: (Optional) And Parts List.....	25
NOTES.....	25
ELECTRICAL: Parts List.....	26
ELECTRICAL: Schematic.....	27
PREVENTIVE MAINTENANCE CHECK LIST.....	28
NOTES.....	29

FOREWORD

This manual has been prepared for the owner and those responsible for the operation of a Powermatic Model 26 Shaper.

Its purpose, aside from machine operation, is to promote safety through the use or accepted correct operating and maintenance procedures. Read the safety and maintenance instructions thoroughly before operating or servicing the machine.

In order to obtain maximum life and efficiency from your Powermatic shaper and to aid in operating and maintaining the shaper with safety, read this manual thoroughly and follow all instructions carefully.

The specifications put forth in this manual were in effect at the time of publication. However, owing to Powermatic's policy of continuous improvement, changes to these specifications may be made at any time without obligation on the part of POWERMATIC.

The information and recommendations contained in this publication come from sources believed to be reliable and to represent the best current practice. Powermatic does not intend this manual to be a complete course of instruction on how to use this machine with safety and does not guarantee or represent that the information is absolutely correct or sufficient. In addition, it cannot be assumed that all acceptable safety measures are listed or that other additional measures are not needed under particular or exceptional circumstances or conditions.

WARRANTY

POWERMATIC WARRANTY

Powermatic, a Division of Stanwich Industries, Inc., Morrison Road, McMinnville, Tennessee 37110 ("Powermatic") warrants to its authorized distributors of Powermatic products and the original purchasers for such distributors, all products manufactured by Powermatic to be free of defects in material and workmanship for a period of twelve (12) months from the date of delivery from its authorized distributors or 2000 hours of use, whichever occurs first. During said warranty period Powermatic will, at its option, repair or replace any product (or component part thereof proving defective during said period. This warranty applies only to products which are used in accordance with all instructions as to operation, maintenance and safety set forth in the catalogs, manuals, and/or instruction sets furnished by Powermatic. This warranty becomes effective only if the accompanying card is fully and properly completed and returned to Powermatic within ten (10) days from date of delivery to the original purchaser.

This warranty does not apply to items that would normally be consumed or require replacement due to normal wear (blades, lubricants, etc.); to electrical motors and components which are warranted by their manufacturer; or the costs of removal, shipment for service and reinstallation. Claims relating to electrical components must be taken to the component manufacturer's local authorized repair station for service.

This warranty is null and void if the product has been subjected to (1) misuse, abuse or improper service or storage; (2) accident, neglect, damage or other circumstances beyond Powermatic's control; (3) modifications, disassembly tampering, alterations or repairs outside of Powermatic's factory not authorized by Powermatic; or to any product not bearing its original serial number plate. This warranty does not apply to normal wear and tear, corrosion, abrasion, or repairs required due to natural causes or acts of God.

To obtain the fastest possible warranty service you must first notify in writing the authorized Powermatic distributor from whom you purchased the product specifying (1) the product by catalog number and serial number, (2) the date the product was delivered to you, (3) a description of the problem for which you seek warranty service, and (4) evidence of proof of purchase. Should circumstances prohibit you contacting the distributor then contact the Powermatic factory directly. If your claim is covered by this warranty, your Powermatic distributor will provide you with instructions as to how and where service will be provided. On simple warranty replacement or repairs, installations instructions will be provided to allow correction by customer personnel. Powermatic assumes no responsibility for products which are returned without its prior written authorization. Powermatic's obligation under this warranty shall be exclusively limited to repairing or replacing (at Powermatic's option) products which are determined by Powermatic to be defective upon delivery, F.O.B. (return freight paid by customer) Powermatic's factory, and on inspection by Powermatic. In no event shall Powermatic's liability under this warranty exceed the purchase price paid for the product.

THIS IS POWERMATIC'S SOLE WRITTEN WARRANTY. ANY AND ALL OTHER WARRANTIES WHICH MAY BE IMPLIED BY LAW, INCLUDING ANY WARRANTIES FOR MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE HEREBY LIMITED TO THE DURATION OF THIS WRITTEN WARRANTY. POWERMATIC SHALL NOT BE LIABLE FOR ANY LOSS, DAMAGE, OR EXPENSES DIRECTLY OR INDIRECTLY RELATED TO THE USE OF ITS PRODUCTS OR FROM ANY OTHER CAUSE OR FOR CONSEQUENTIAL DAMAGES (INCLUDING WITHOUT LIMITATION, LOSS OF TIME, INCONVENIENCE, AND LOSS OF PRODUCTION). THE WARRANTY CONTAINED HEREIN MAY NOT BE MODIFIED AND NO OTHER WARRANTY, EXPRESS OR IMPLIED, SHALL BE MADE BY OR ON BEHALF OF POWERMATIC.

SAFETY: General Rules

■ **READ THE MANUAL** Read, Understand, and follow the safety and maintenance instructions found in this manual. Know the limitations and hazards associated with the 26 shaper.

■ **WORK AREA** Keep the floor around the machine clean and free of scrap material, saw dust, oil or grease to minimize the danger of tripping or slipping. POWERMATIC recommends the use of anti-skid strips for the operator. Provide ample unobstructed floor area around the machine for free flow of stock from the infeed to the outfeed side of the cutter. Mark off the machine area, and make sure it is well lighted with a proper exhaust system to minimize dust.

■ **ELECTRICAL GROUNDING** Your machine must be electrically grounded. If a cord and plug are used, make certain the grounding lug connects to a suitable ground. Follow the grounding procedure indicated by the National Electric Code. Keep power tools in dry areas free from moisture.

■ **PROTECTION** Take every precaution to protect yourself, others around you, and the machine itself from improper use.

■ **CARELESS ACTS** Give the work you are doing your undivided attention. Looking around, talking to someone, and horseplay are careless acts that can result in serious injury.

■ **DO NOT OVER-REACH** Maintain a balanced stance and keep your body under control at all times. Do not overreach or use excessive force to perform any operation.

■ **EYES** Always wear approved safety goggles, glasses, or a face shield when operating the shaper. There are no exceptions to this rule.

■ **DRESS CODE** Do not wear loose clothing, neckties, jewelry, or gloves that can get caught in moving parts. Confine long hair. Keep sleeves above the elbow.

■ **GUARDS** Be sure shaper guard, feather-boards, hold-downs, and specially designed devices are used whenever possible. If the guard must be removed for any operation, make sure it is replaced immediately following completion of that operation.

■ **HOUSEKEEPING** Before turning on machine, remove all extra equipment such as keys, wrenches, scrap, and cleaning rags away from the shaper. Keep the area around machine clean and free of sawdust to minimize danger of slipping.

■ **POWER ON** Before connecting power to the shaper, make sure the start switch is in the "0" position.

■ **POWER OFF** Make sure the shaper is unplugged or electrically disconnected and locked out before performing maintenance, changing cutters, or service work.

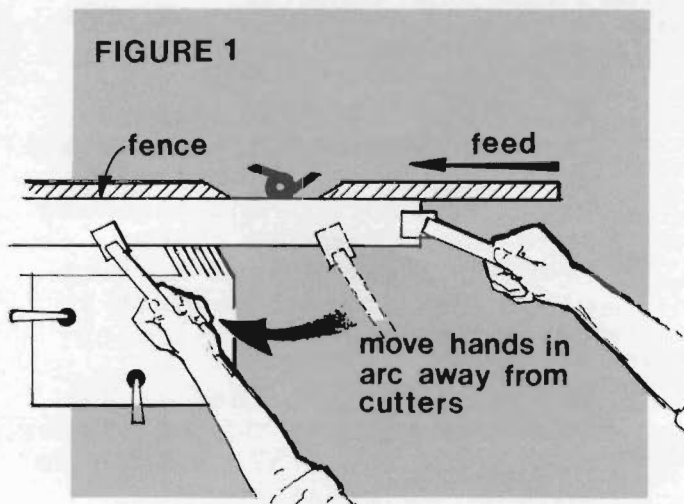
SAFETY: Specific Rules

■ **READ THE MANUAL** Know the limitations and hazards in using the 26 shaper. One SAFETY rule decal and one DANGER decal (p.8) are placed on each machine as reminders of good safety practice.

■ **SHORT STOCK** Never shape stock less than 12 inches in length without special fixtures. Where practical, shape longer stock and cut to size.

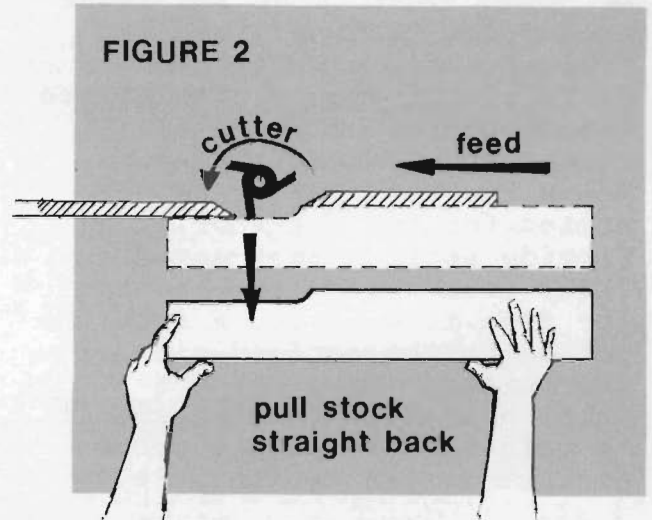
■ **12 INCH RULE** When shaping, never allow your hands to come closer than 12 inches to the cutters.

■ **HAND SAFETY** Never pass the hands directly over, or in front of, the cutters. As one hand approaches the 12 inch radius point, remove it (or the push stick) in an arc motion and reposition hands 12 inches beyond the cutters (Fig. 1).



■ **BLIND CUT** When blind cutting, the workpiece is positioned on top of the template. This keeps the cutter(s) cutting only the underside of the workpiece and providing a "distance" guard for the operator.

■ **STOCK FEED** Feed stock opposite to the direction of the cutter rotation (p.15). Never back stock out of the cutter once the cut has been started. Instead, pull the stock straight back away from cutter and begin the cut again (Fig. 2).

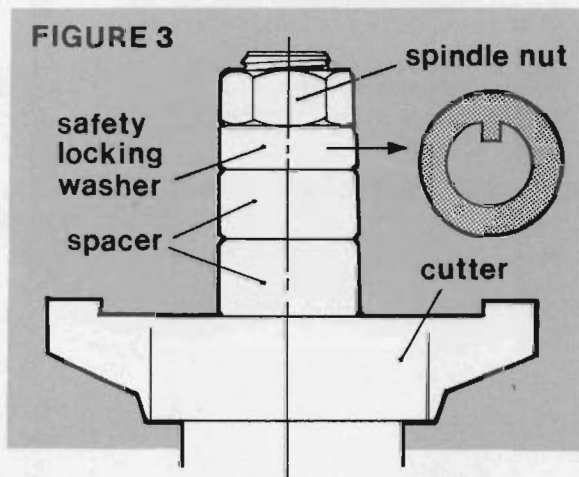


■ **CUTTER CLEARANCE** With the power disconnected, always revolve the spindle by hand with any new set-up to insure proper clearance with the cutters. At the same time, check to be sure the cutterhead is turning in the correct direction.

■ **GUIDE PIN** Whenever possible, use a guide pin when performing pattern shaping and collar shaping operations.

■ **TOOL MAINTENANCE** Clean and sharp tools give safer and better performance. Dull tools can cause kickbacks and excessive chatter. Before making a cut, always check the condition and adjustment of the tools. Never use a tool that is not balanced and rated for the selected RPM.

■ **SAFETY LOCK WASHER** Never operate the shaper without the safety locking keyed washer located immediately under the spindle nut (Fig.3). This washer prevents the nut from coming loose when the spindle is run in a counter clockwise direction. Do not substitute any other type washer in place of the safety lock washer.



■ **SPINDLE SPEED** Do not operate tools at speeds higher than rated by the manufacturer.

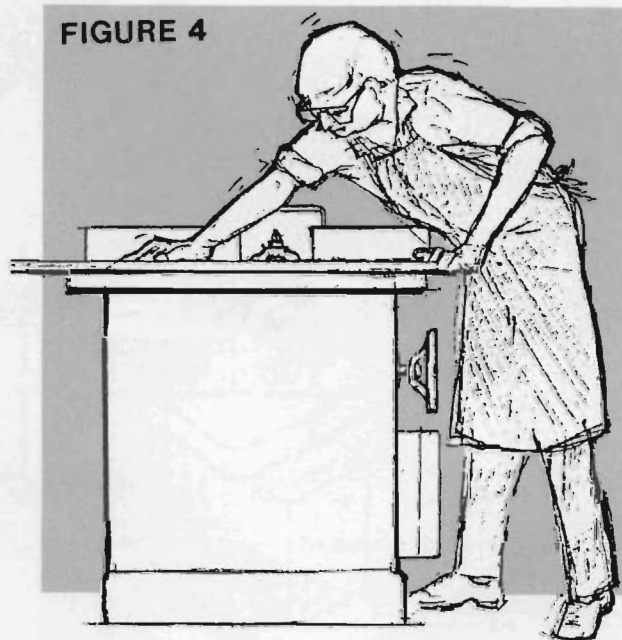
■ **CUTTER SELECTION** Use only those cutters designed to be used on the machine, and mount only safety type cutters on the 26 shaper spindle.

■ **STOCK CONDITION** The danger of kicked back stock can occur when the stock has knots, holes, or foreign objects such as nails. Warped or in-wind stock should first be jointed on one surface before attempting to use it on the shaper.

■ **JOB COMPLETION** The operator should never leave his work station for any reason without turning off the shaper and waiting for the spindle to

come to a complete stop. When the operation is complete he should clean up the shaper and work area. Never clean the shaper with the power "ON" and never use the hands to clear sawdust and debris- use a brush.

■ **DO NOT REACH** over shaper. There is danger of kickback which can pull the hand back into the cutter. Use push sticks to assist in pushing the work through.

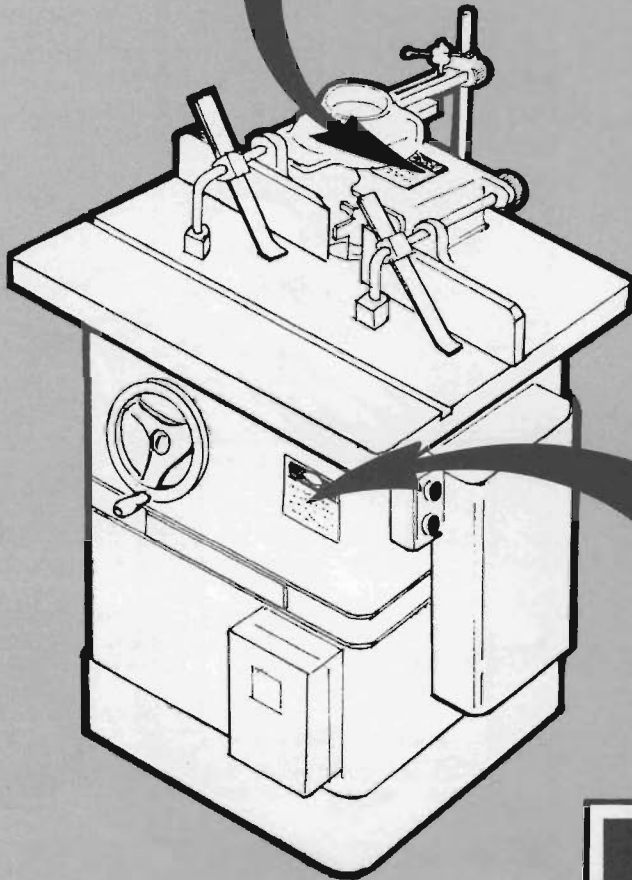


■ **MISUSE** Do not use this shaper for other than its intended use. If used for other purposes, POWERMATIC disclaims any real or implied warranty and holds itself harmless for any injury which may result from that use.

■ **REPLACEMENT PARTS** Use only POWERMATIC or factory authorized replacement parts and accessories; otherwise, the shaper warranty and guarantee will be null and void.

SAFETY: Decal Instruction

FIGURE 5



SAFETY RULES

CAREFULLY READ INSTRUCTION MANUAL BEFORE OPERATING MACHINE.

DO NOT OPERATE WITHOUT ALL GUARDS AND COVERS IN POSITION.

BE SURE MACHINE IS ELECTRICALLY GROUNDED.

REMOVE OR FASTEN LOOSE ARTICLES OF CLOTHING SUCH AS NECKTIES, ETC. CONFINE HAIR.

REMOVE JEWELRY SUCH AS FINGER RINGS, WATCHES, BRACELETS, ETC.

USE SAFETY FACE SHIELD, GOGGLES, OR GLASSES TO PROTECT EYES AND OTHER PERSONAL SAFETY EQUIPMENT AS REQUIRED.

STOP MACHINE BEFORE MAKING ADJUSTMENTS OR CLEANING CHIPS FROM WORK AREA.

KEEP THE FLOOR AROUND THE MACHINE CLEAN AND FREE FROM SCRAPS, SAWDUST, OIL OR GREASE TO MINIMIZE THE DANGER OF SLIPPING.

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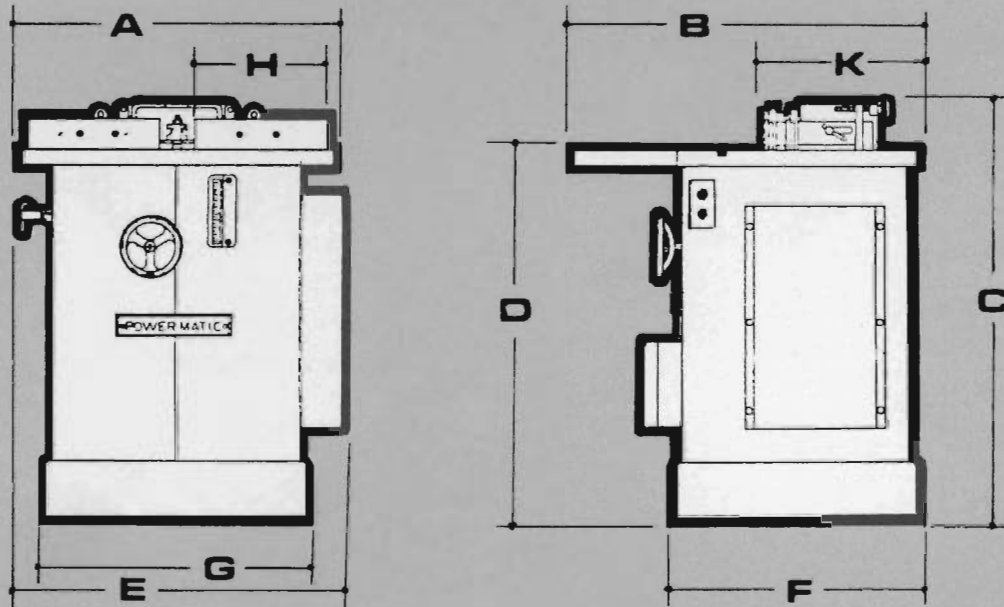
DANGER

TURN CUTTER WHILE IN THE RAISED AND LOWERED POSITIONS BY HAND TO CHECK FOR INTERFERENCE. MAKE SURE CUTTER IS FREE FROM INTERFERENCE WITH MACHINE BEFORE CONNECTING ELECTRICAL POWER TO MOTOR TO AVOID PERSONAL INJURY.

3408224

SPECIFICATIONS: Model 26 Shaper

FIGURE 6



	A	B	C	D	E	F	G	H	K
in.	28	29 ¹ / ₂	38	34	30	21 ¹ / ₂	23 ¹ / ₂	12	10 ¹ / ₄
mm.	711	749	965	864	762	546	597	305	260

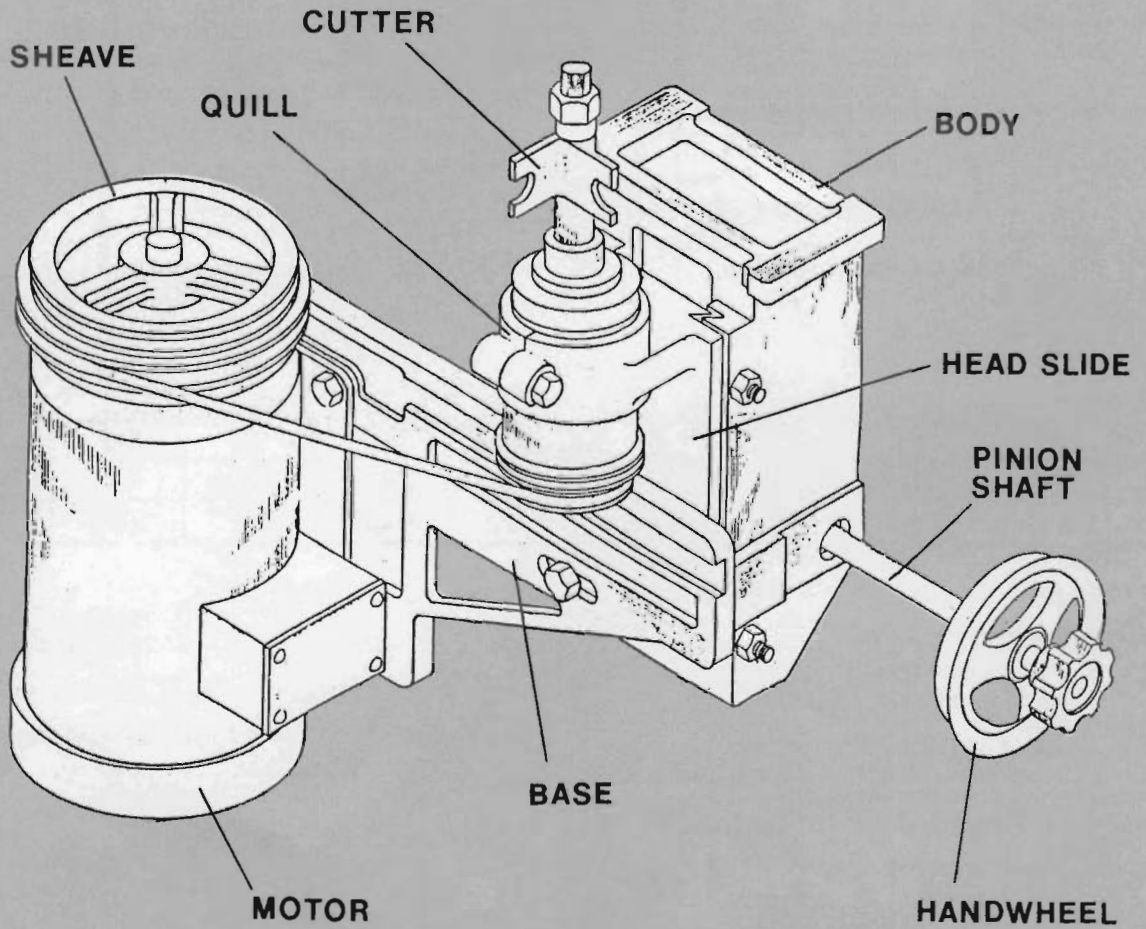
Table size with standard extensions	29-7/8" x 28"	758.825mm x 601.2mm
Table extension	8-3/8" x 28"	212.725mm x 601.2mm
Table height from floor	34"	673.6mm
Spindle opening, diameter	5-1/2", 4", 2-3/4" & 1-3/4"	139.7mm, 101.6mm, 69.85mm & 21.175mm
Spindles available		
Interchangeable type, diameter	1/2" & 3/4"	7.9375mm, 12.7 & 17mm
Stub spindle, pilot diameter	1/2"	12.7mm
Solid spindle type, diameter	1"	25.4mm
Spindle capacity under nut:		
1" solid	4-7/8"	123.825mm
3/4" Interchangeable	3"	76.2mm
1/2" Interchangeable	2-1/4"	57.15mm
Spindle travel	3"	76.2mm
Spindle speed, RPM	7,000 & 10,000	7,000 & 10,000 RPM
Table counterbore	7" dia. x 11/16" deep	177.8 dia. x 17.4625mm deep
Fence size each side	3-3/4" x 12-3/8"	94.25 x 314.325mm
Weight, domestic boxed with 2hp motor	450 lbs. app.	204.12kg app.

The above specifications, dimensions and design characteristics are subject to change without notice.

WARNING: DO NOT EQUIP OR USE THIS JOINTER WITH A MOTOR LARGER THAN 5 HORSEPOWER AT 3600 R.P.M. OR OPERATE THE CUTTERHEAD IN EXCESS OF 10,000 R.P.M. USE OF A LARGER HORSEPOWER MOTOR OR HIGHER CUTTERHEAD SPEED VOIDS THE WARRANTY AND POWER-MATIC HOLDS ITSELF HARMLESS FOR ANY INJURY WHICH MAY RESULT.

QUILL SLIDE: Schematic

FIGURE 7



RECEIVING THE SHAPER

Remove the shaper assembly and base from their respective shipping cartons and inspect for damage. Any damage should be reported to your distributor and shipping agent immediately.

Before proceeding further, read your manuals thoroughly to familiarize yourself with proper assembly, operation, set-up, maintenance and safety procedures.

INSTALLATION

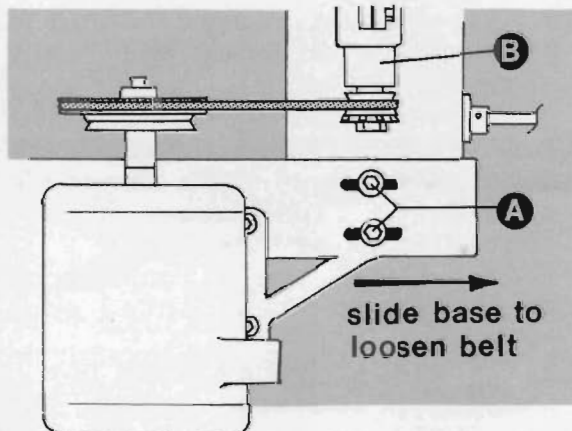
Mount base to the floor with high quality anchor bolts. Bolts are attached through the mounting holes on each end of the base.

After base has been secured to a solid foundation, align the holes in the bottom of the shaper with the holes in the top of the base and secure with the mounting bolts provided.

BELT TENSION

Attach the drive belt as follows:

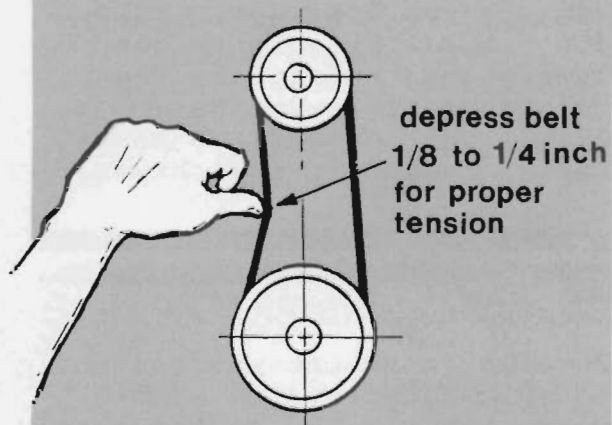
Loosen the two hex head cap screws -A that hold the motor



base to the quill side, and slide the motor base towards the quill -B (Fig. 8). Attach the belt and tighten by sliding the motor base away from the quill. Proper belt tension is reached when the belt can be depressed about 1/8 inch to 1/4 inch between the pulleys (Fig. 9). Tighten the two hex head cap screws.

NOTE: Check to see that the sheaves of the motor and the spindle line up absolutely level with each other.

FIGURE 9



ELECTRICAL

Check the voltage and phase of the shaper. Be absolutely sure they correspond with the power supply.

DANGER: If the machine does not come wired to run, the electricals and motor wiring must be done by a qualified electrician. The machine must be properly grounded to help avoid electrical shock and possible death. Follow the recommendations of the National Electrical code for grounding.

INSPECTION

Before connecting power to the shaper check all mounting screws and bolts to see that they are locked. Since the spindle and quill assembly have permanently sealed bearings, lubrication is not necessary. Turn the spindle by hand to see that it turns freely.

Regularly inspect the shaper to insure that the machine is in proper adjustment and free of dust in the electrical enclosure. Make sure all mechanical functions work freely, and there are no loose or worn electrical connections. Inspect the cutters, collars, and spacers for rust, nicks, and flaws. Be sure to read, understand, and follow the recommendations in the OPERATING INSTRUCTIONS MANUAL before operating the shaper.

EXHAUST SYSTEM

Powermatic recommends the use of an exhaust system with a wood shaper. The system should be large enough to remove from 400 to 1400 cubic feet of air per minute. The operator is cautioned against the health hazard and limitations in OSHA regulations for exposure to dust particles.

SHAPER ADJUSTMENTS

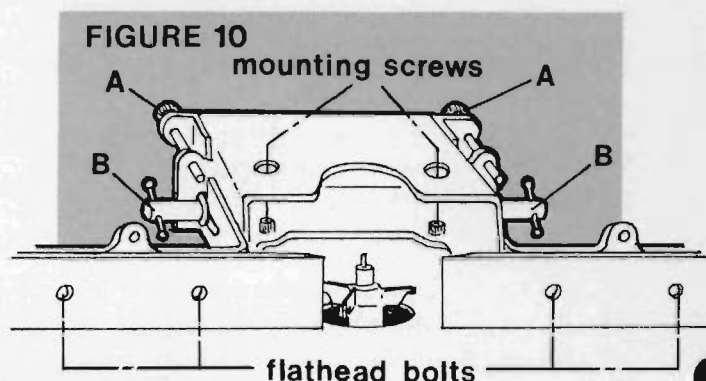
Check all mounting screws and bolts to see that they are locked.

When changing tools, adjusting the drive belt, or doing clean-up and maintenance, always unplug the machine from its power source and turn the start switch to the "OFF" position.

Squaring The Fence

Periodically the wood fence will have to be squared with the mounting surface and adjusted parallel to each other. To correct, do the following:

- 1 Check to see that the two mounting screws holding the fence assembly to the table are tight (Fig.10).



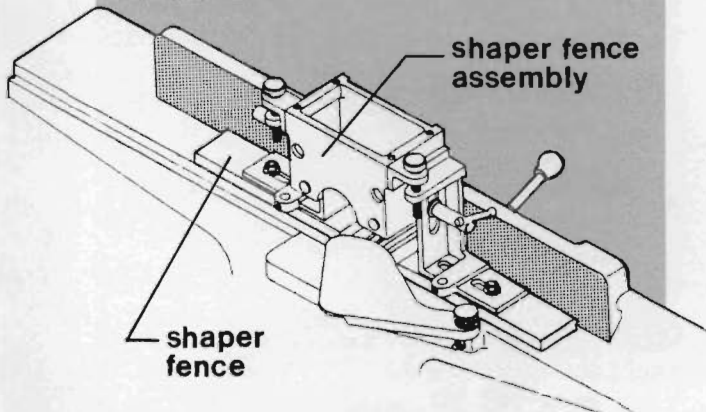
- 2 Check to see that the four countersunk flathead bolts holding the wooden fences are tight (Fig.10).
- 3 Clamp a 2 x 4 board with a jointed edge to the table and make sure the jointed edge is absolutely parallel with the miter groove and close to the fences.
- 4 Loosen the two lock handles -B on either side of the fence assembly. (Fig.10).
- 5 Turn the fence adjustment knobs -A to move both fences forward and flush against the jointed edge of the 2 x 4 board. Check the alignment of the fences to the jointed edge.
- 6 If either fence does not make flush contact, loosen the two mounting screws and make a

slight swivel adjustment of the fence assembly to bring fences into flush contact with the jointed edge.

- 7 Retighten the mounting screws.
- 8 Retighten the lock levers.

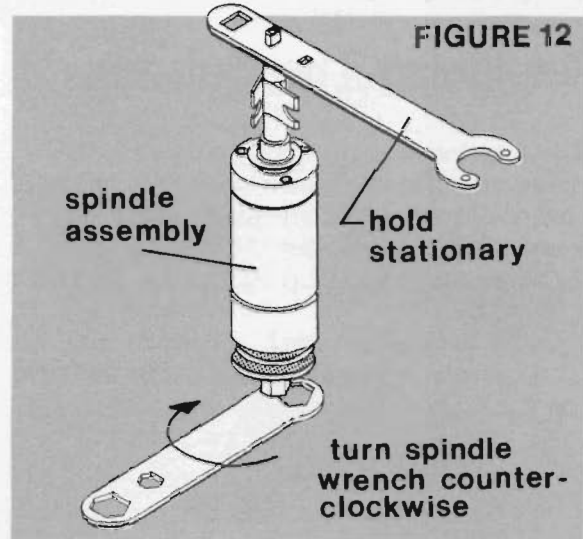
If the fences do not remain parallel and square with the table, remove the entire fence assembly from the shaper (p.15). Resurface the wood fences on a jointer as shown in Figure 11, and recountersink the existing bolt holes, if necessary. Make sure the fence is held square with the jointer table. The bottom of the shaper fence assembly must be held firmly against the jointer fence in order for the cut to be square with the shaper table. This procedure can be used several times to renew the fences before they require replacement.

FIGURE 11



Spindle Replacement

To remove the interchangeable spindle, select the proper rectangular hole in the standard shaper wrench and place it over the flats on the top of the spindle (Fig.12).

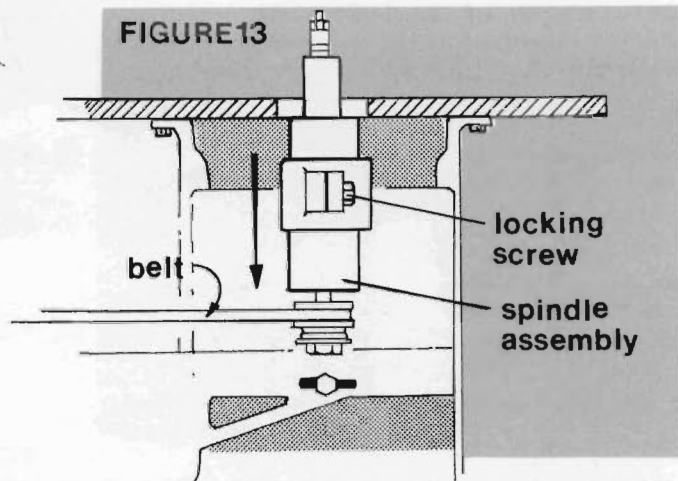


Place a wrench on the hexagonal drawbar nut as shown. Hold the top of the spindle stationary, and turn the drawbar nut counterclockwise. Remove the drawbar nut. Remove the spindle vertically and replace with the size of your choice.

Spindle Assembly Removal

To remove spindle assembly, first remove the belt from spindle sheave (p.11). Loosen the split casting locking screw and remove the spindle assembly out the bottom (Fig.13). To reinstall, reverse the above procedure.

FIGURE 13



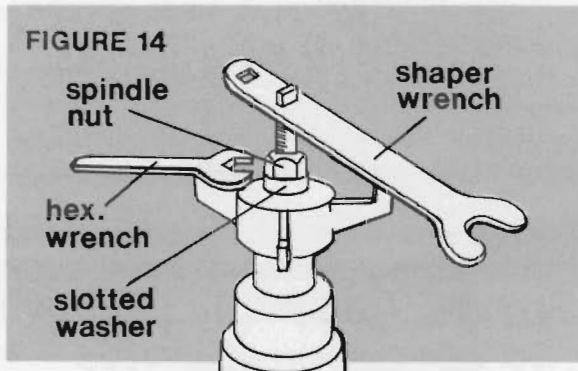
Replacing The Cutters

To replace the cutter(s), select the proper rectangular hole in the standard shaper wrench and place it over the flats on the top of the spindle (Fig.14).

Place a hexagonal wrench on the 3/4 inch spindle nut, hold the top of the spindle stationary and turn the spindle nut counterclockwise.

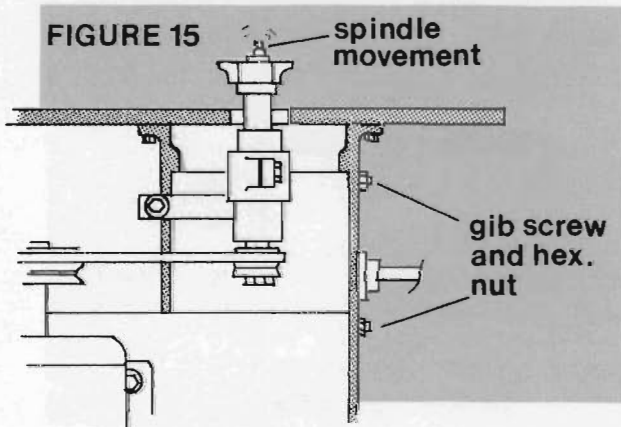
Remove the spindle nut and the slotted washer.

Remove the cutter(s) vertically and replace with the size of your choice.



Quill Slide Adjustment

Periodically, due to wear, the quill slide will develop side play. This is noticeable when clamping the slide in position and there is a definite

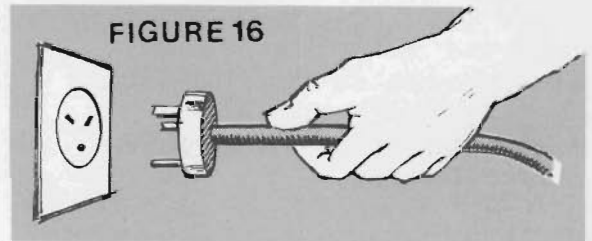


movement at the top of the spindle. To adjust the slide, loosen the two gib screw hex nuts (Fig.15), and lightly tighten the gib screws with an allen wrench. Lock the gib nuts down to provide the slight play required to allow the slide free movement. Readjust gib screws if the slide is difficult to move.

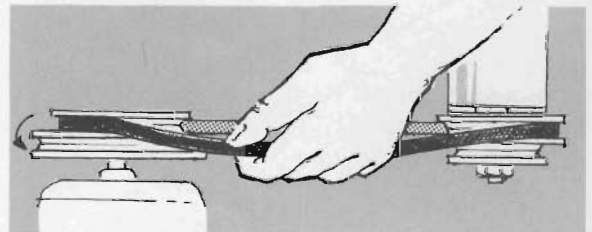
Changing Speeds

With the belt properly tensioned, changing speeds is an easy operation (Fig. 16 A,B,C).

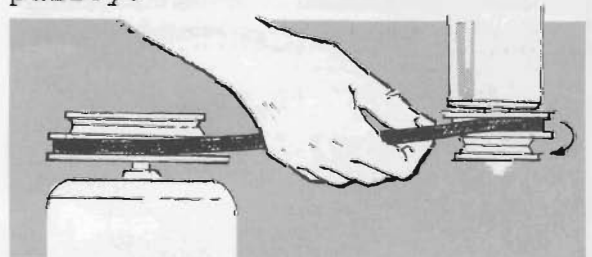
A Disconnect power from the machine.



B Roll the belt off one pulley to the other on the motor side.



C Rotate that pulley and roll pulley until the belt snaps into the groove of the other spindle pulley.



Miter Gauge Adjustment

The miter gauge is used when doing accurate end grain cutting and to assist in handling certain types of parts. To adjust the stops to exact 90 degree and 45 degree angles, use a combination square as a gauge along with a screwdriver and 5/16 inch open end wrench (Fig. 17-A,B).

FIGURE 17

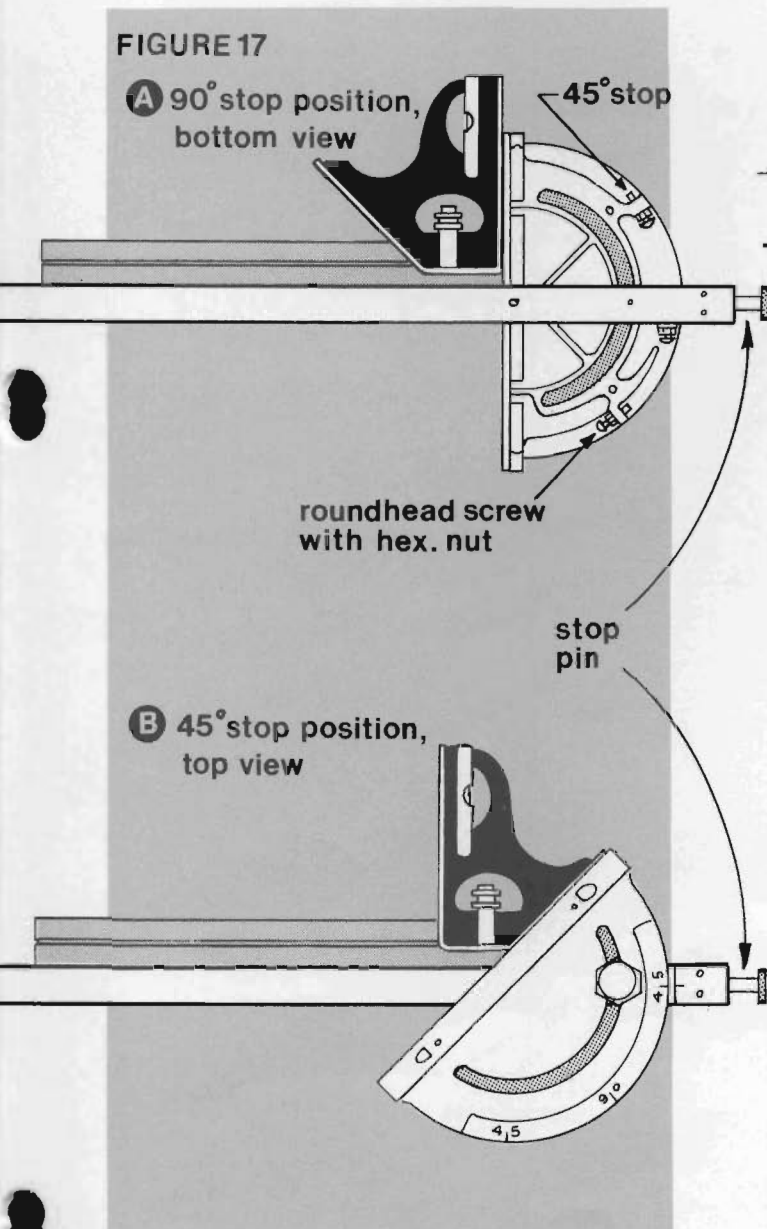
A 90° stop position, bottom view

45° stop

roundhead screw with hex. nut

stop pin

B 45° stop position, top view

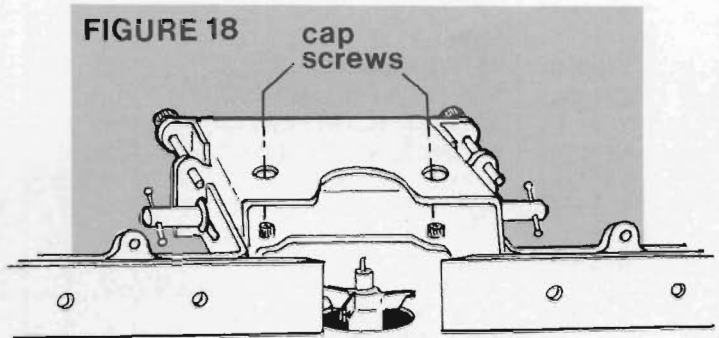


Fence Assembly Removal

To remove the entire fence assembly, simply remove the two 3/8" x 1" socket head cap screws (Fig.18). Store the fence assembly in a safe place and clean before re-mounting on table.

FIGURE 18

cap screws



Before Operating....

Check the motor and switch wiring diagrams for proper voltage connections before applying power to the machine (see pp. 26, 27 for wiring diagrams).

Turn the main drive motor on momentarily to check for proper rotation. The spindle should rotate counterclockwise when looking down on the spindle. Correct as required. Run the machine for a short period of time to insure that the moving parts are working properly with no excessive vibration. If a problem develops, correct before turning the shaper over for general use.

Be sure to read, understand, and follow the recommendations in the OPERATING INSTRUCTIONS manual when operating the shaper.

PARTS LIST : Stand & Table

ITEM NO.	PART NO.	DESCRIPTION	QTY.	ITEM NO.	PART NO.	DESCRIPTION	QTY.
	2195003	FENCE ASSY., SHAPER (ITEMS 1 THRU 19)		39	3063009	BRACKET, SWITCH MTG.	1
	2695008	SCREW, LOCK ASSY. (ITEMS 1 THRU 3)		40	3595013	PLATE, SHAPER TABLE	1
1	3268002	HANDLE	2	41	3585014	PIN, STARTER	1
2	3695003	SCREW, LOCK	1	42	3696201	SCREW, SET	3
3	3406016	KNOB, HANDLE	1	43	6714037	SCR., FILLISTER HD., 1/4-20 X 1" (PLATED)	3
4	6515007	NUT, HEX JAM, 5/16-18	4	44	3328202	INSERT, RING	1
5	6861205	WASHER, FLAT, 5/16" ZINC PLATED	4	45	3078007	CAP	1
6	3063074	BRACKET, MOUNTING, FENCE SHAPER, R.H.	1		2388035	KIT PLATE, SHAPER (ITEMS 46 THRU 51)	
7	3195007	FENCE, BOARD	2	46	6680020	RIVET, SOUTHCO ALUM., 5/32 X 1/4" LG.	2
8	6715051	SCR., FLAT HD. MACH., 5/16-18 X 1/2" (ZINC PLATED)	4	47	3312251	I.D. PLATE, POWERMATIC	1
9	3838203	WASHER, BEVEL, LOCK SCR.	2	48	3312228	I.D. PLATE, SERIAL & MODEL NUMBER	1
10	6811281	SPACER, 3/8 X 5/8 X .032"	4	49	6747000	SCR., DRIVE, No. 4 X 3/16" (NICKEL PLATED)	2
11	6715013	SCR., SOC. SET, CUP PT., 5/16-18 X 3/8"	2	50	3408206	LABEL, CAUTION SPINDLE SHIPPED DRY (NOT SHOWN)	1
12	6715025	SCR., SOC. HD. CAP, 5/16-18 X 3/4"	2	51	3330283	PLATE, SAFETY (NOT SHOWN)	1
13	6714004	SCR., SOC. SET, CUP PT., 1/4-20 X 1/4"	2				
14	3406005	KNOB, ADJUSTING SCREW	2				
15	3690005	SCREW, ADJUSTING	2				
16	3064035	BRACKET, FENCE	2				
17	3250060	GUARD, SHAPER BODY	1				
18	6716012	SCR., SOC. HD. CAP, 3/8-16 X 1"	2				
19	3063073	BRACKET, MOUNTING, FENCE SHAPER, L.H.	1				
	2136001	DOOR ASSY. (ITEMS 20 & 21)					
20	6440003	LATCH, No. 61-1-1-0	1				
21	2136004	DOOR ASSY. (WELDMENT)	1				
	2689001	SCALE ASSY., HEIGHT ADJ. (ITEMS 22 & 23)					
22	3481012	PLATE, MTG., HEIGHT ADJ.	1				
23	3684203	SCALE, PLATE	1				
	2271004	HANDWHEEL ASSEMBLY (ITEMS 24 THRU 27)					
24	6624006	PIN, GROOVE, 1/4 X 3" LG.	1				
25	3268201	HANDLE	1				
26	3271051	HANDWHEEL, 6" DIA.	1				
27	6715013	SCR., SOC. STE, 5/16-18 X 3/8"	1				
28	6714057	SCR., FLAT HD., 1/4-20 X 1-1/4"	2				
29	6514001	NUT, HEX, 1/4-20	2				
30	6861100	WASHER, LOCK, 1/4"	2				
31	3186008	EXTENSION, 8" TABLE	1				
32	6861300	WASHER, LOCK, 3/8"	6				
33	6716031	SCR., HEX HD., 3/8-16 X 1"	6				
34	6861301	WASHER, FLAT, 3/8"	9				
35	2759006	STAND ASSY., SHAPER (WELDMENT)	1				
36	3797042	TABLE, SHAPER	1				
37	2104003	COVER ASSY., MOTOR (WELDMENT)	1				
38	6746023	SCR., HEX HD., 1/4-20 X 5/8" (SELF-TAPPING)	8				

PARTS: Exploded View

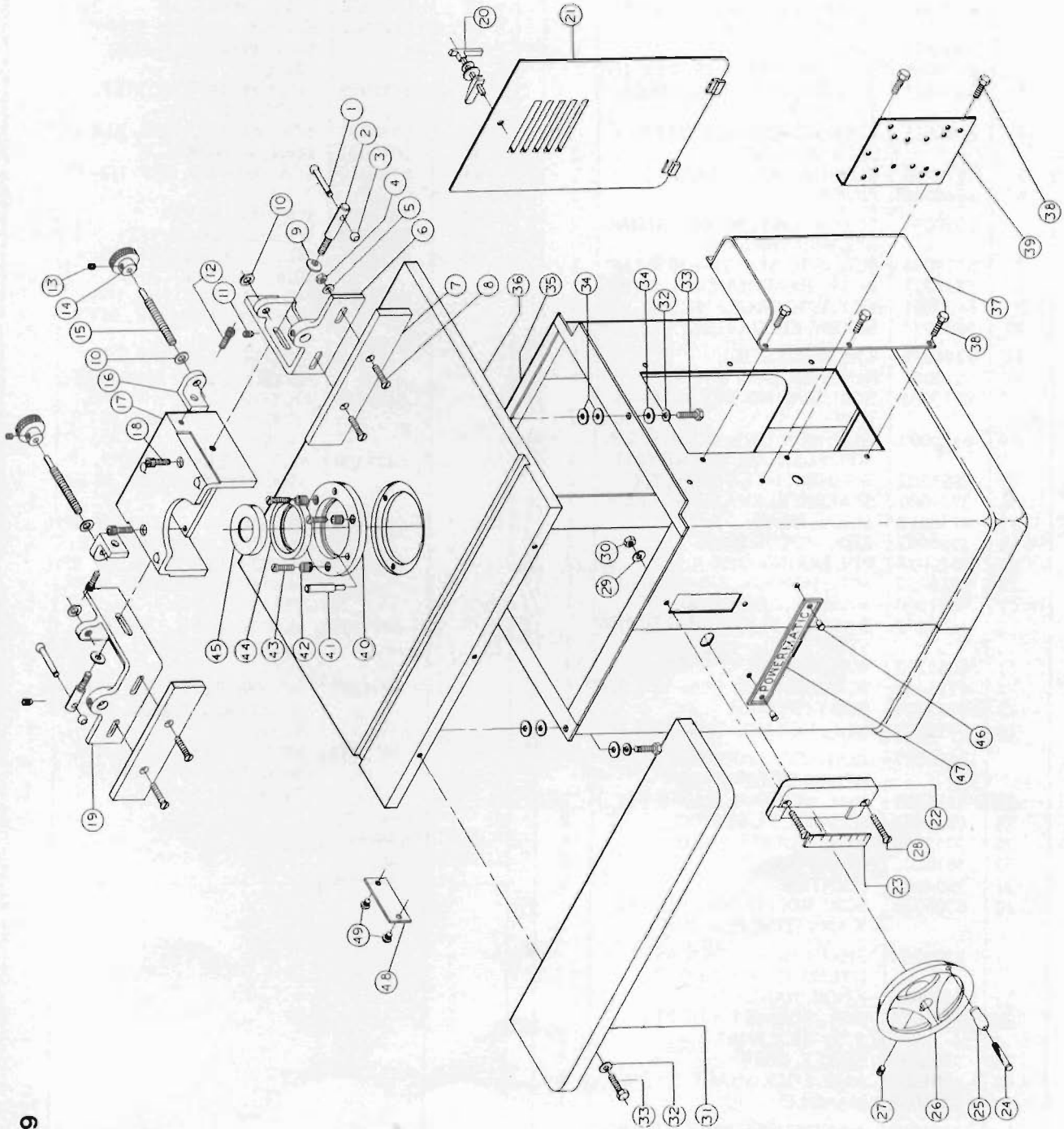


FIGURE 19

PARTS LIST: Body Assembly

ITEM NO.	PART NO.	DESCRIPTION	QTY.	ITEM NO.	PART NO.	DESCRIPTION	QTY.
	2277001	HEAD ASSY., SLIDE (ITEMS 1 THRU 26)		42	6715016	SCR., SOC. SET, CUP PT., 5/16-18 X 5/16"	1
	2586002	PINION ASSY., WORM GEAR (ITEMS 1 THRU 6)		43	6077076	BELT, 7M710	1
1	3096244	COLLAR	1	44	3718041	SHEAVE, MOTOR, STEP 1-1/8" BORE (ALT. FOR) 3781011)	1
2	6715015	SCR., SOC. SET, 5/16-18 X 1/4"	2				
3	6861901	WASHER, FLAT, NYLATRON 3/4" E-12	2	45	3718039	SHEAVE, MOTOR, STEP, 7/8" BORE	1
4	6095025	BUSHING, BRONZE 3/4 I.D. X 7/8 O.D. X 3/4"	2	46	6714127	SCR., HED HD., 1/4-20 X 1/2"	2
5	3070006	BUSHING, ADJ. SHAFT	1	47	3042047	BASE, MOTOR	1
6	3586008	PINION	1	48	6718010	SCR., HEX HD. CAP, 1/2-13 X 1-1/2"	6
	2690003	SCREW ASSY., HEAD RAISING (ITEMS 7 THRU 10)		49	3838008	WASHER, BEVEL	2
7	6714004	SCR., SOC. SET, 1/4-20 X 1/4"	1	50	6861500	WASHER, LOCK, 1/2"	4
8	3237003	GEAR, HEAD RAISING, SPIRAL	1	51	6715006	SCR., HEX WASHER HD., 5/16-18 X 3/4"	4
9	6420001	KEY, WOODRUFF No. 606	1	52	6471100	MOTOR, ELEC, 1HP, 1PH, 3600RPM, 115/230V, 56 FR. TEFC	1
10	3691003	SCREW, ELEVATING	1				
11	3244039	GIB, HEAD SLIDE	1	6471118	MOTOR, ELEC, 1HP, 3PH, 3600RPM, 200V 56FR. TEFC	1	
12	6515007	NUT, HEX JAM, 5/16"	2	6471119	MOTOR, ELEC. 1HP, 3PH, 3600RPM, 230/460V, 56 FR. TEFC	1	
13	6715008	SCR., SOC. HD. SET. 5/16-18 X 1"	2	6471400	MOTOR, ELEC, 1-1/2HP, 1PH, 3600 RPM, 115/230V, 56 FR. TEFC	1	
14	6520009	NUT, HEX THIN HEIGHT, 5/8 -11, FLEXLOC, 31 FKF-1011	1	6471412	MOTOR, ELEC., 1-1/2HP, 3PH, 3600RPM, 200V, 56FR, TEFC	1	
15	6861702	WASHER, NYLATRON, 5/8"	2	6471413	MOTOR, ELEC., 1-1/2HP, 3PH, 3600 RPM, 230/460V, 56 FR. TEFC	1	
16	3735006	SPACER, ELEVATING SCREW	1	6471706	MOTOR, ELEC., 2HP, 3PH, 3600RPM, 230/460V, 145T FR. TEFC	1	
17	3730012	SLIDE, HEAD	1	6471707	MOTOR, ELEC., 2HP, 1PH, 3600RPM, 115/230V, 145T FR. TEFC	1	
18	3387002	KEY, MOTOR BASE	2	6471717	MOTOR, ELEC., 2HP, 3PH, 3600RPM, 200V, 145T FR. TEFC	1	
19	6626028	PIN, SPRING, 3/16 X 1/2"	2				
20	6716032	SCR., HEX HD., 3/8-16 X 1-1/2"	1				
21	6861300	WASHER, LOCK, 3/8"	1				
22	3837002	WASHER, ELEVATING SCREW STOP	1				
23	6861200	WASHER, LOCK, 5/16"	4				
24	6715042	SCR., HEX HD., 5/16-18 X 3/4"	1				
25	3057006	BODY, SHAPER	1				
26	6715032	SCR., HEX HD., 5/16-18 X 1"	3				
	2670002	ROD ASSY., POINTER (ITEMS 27 THRU 32)					
27	6516009	NUT, HEX JAM, 3/8-16	2				
28	6861301	WASHER, FLAT, 3/8"	2				
29	3042004	BASE, POINTER ROD	1				
30	3670009	ROD, POINTER	1				
31	3604001	POINTER	1				
32	6706035	SCR., RD. HD. MACH., 6-32 X 1/4" (ZINC PLATED)	1				
	2708004	SHAFT HEAD LOCK ASSY. (ITEMS 33 THRU 37)					
33	3406016	KNOB, HANDLE	1				
34	6715016	SCR., SOC. SET, CUP PT., 5/16-18 X 5/16"	1				
35	3708001	SHAFT, LOCK	1				
36	3301004	HUB, LOCK SHAFT	1				
37	3268002	HANDLE	1				
	2271004	HANDWHEEL ASSY., (ITEMS 38 THRU 41)					
38	6624006	PIN, GROOVE, 1/4 X 3" LG.	1				
39	3268201	HANDLE	1				
40	3271051	HANDWHEEL, 6" DIA:	1				
41	6715013	SCR., SOC. HD. SET, 5/16-18 X 3/8"	1				

PARTS: Exploded View

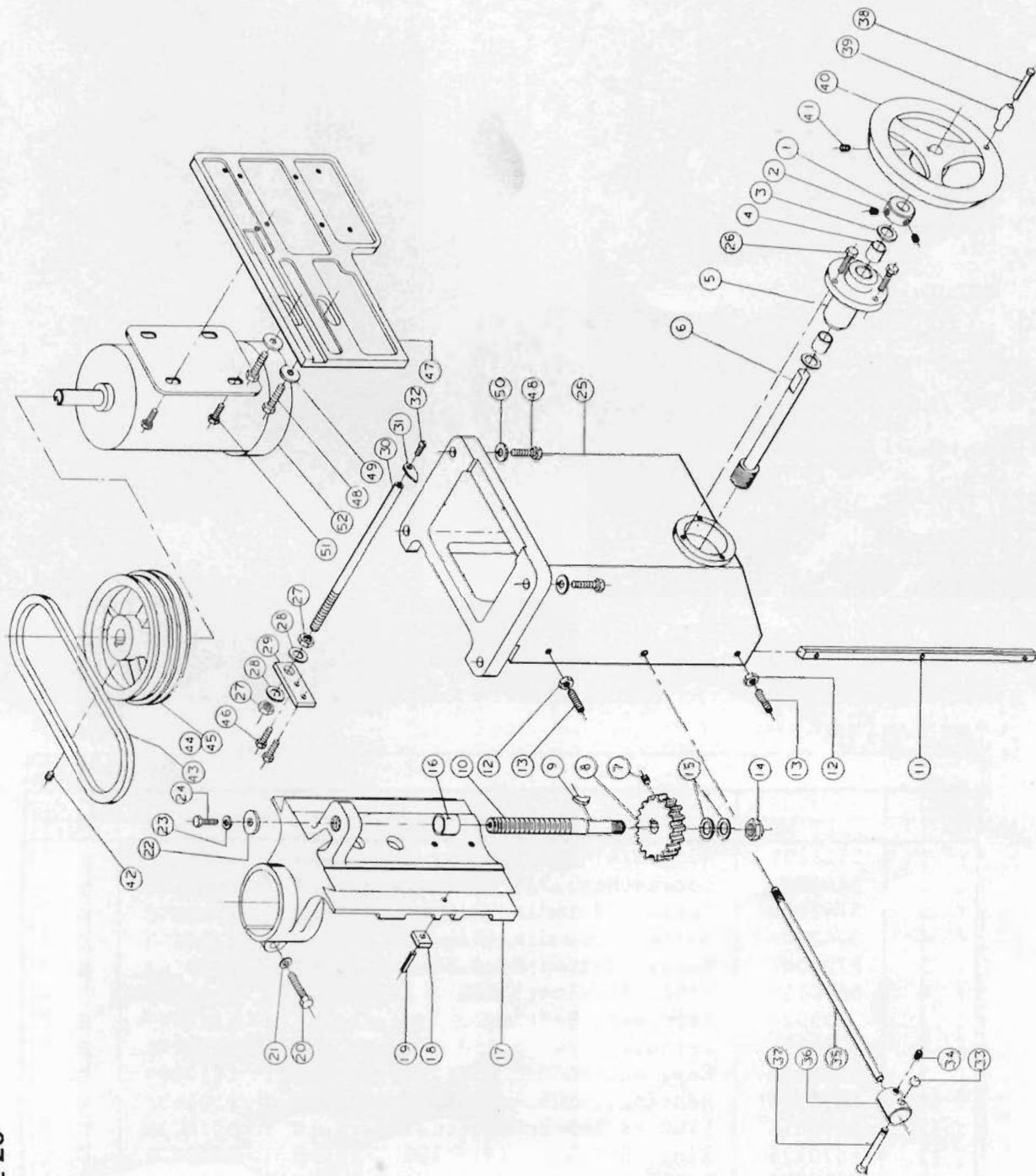
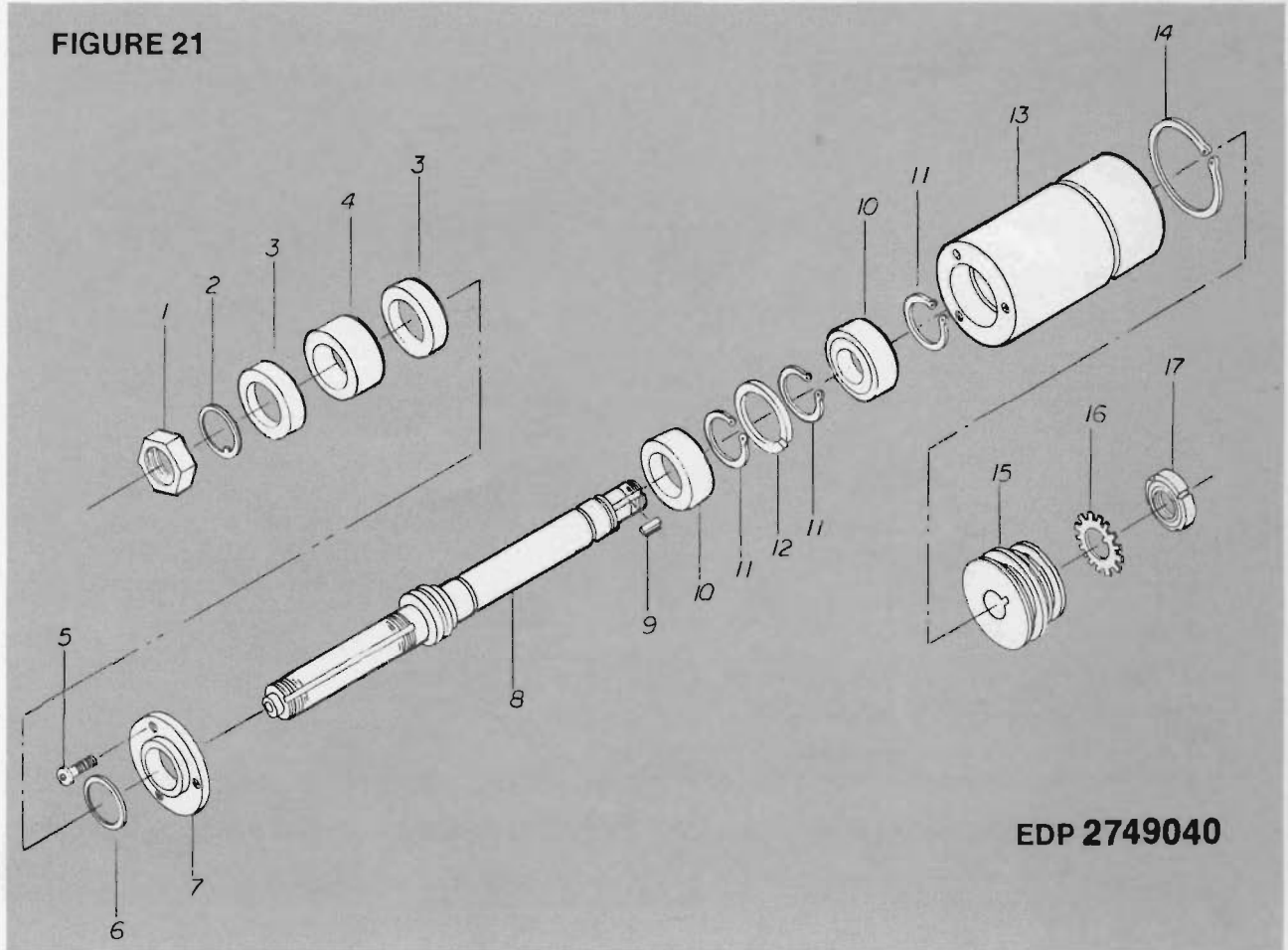


FIGURE 20

3/4 INCH SPINDLE ASSEMBLY

FIGURE 21



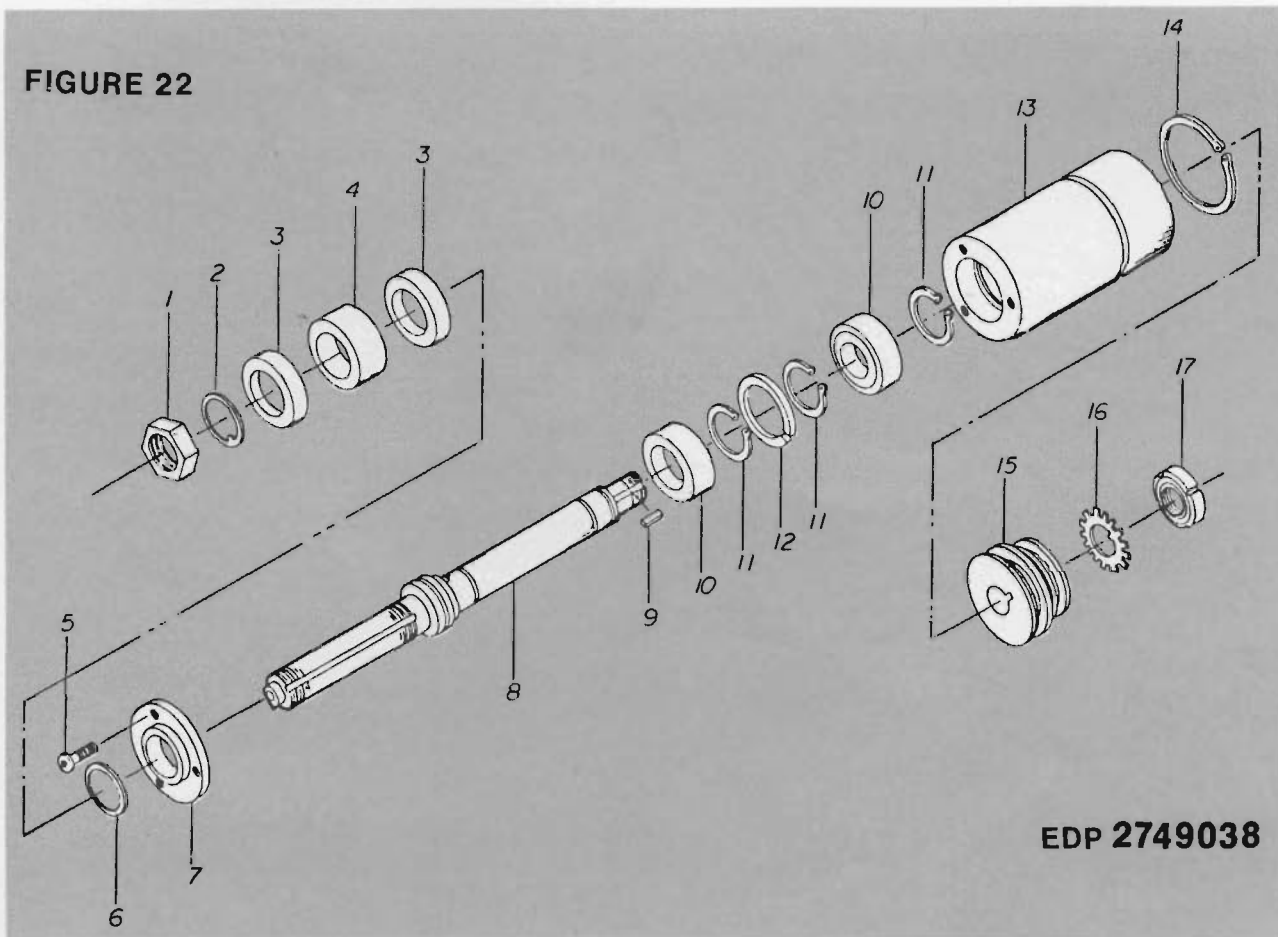
EDP 2749040

Parts List

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	3526005	Nut, 3/4" Spindle	1
2	3840003	Lockwasher, 3/4" Spindle	1
3	3742004	Spacer, Spindle 3/4 x 1/2	2
4	3742005	Spacer, Spindle 3/4 x 3/4	1
5	6708067	Screw, Button Head Soc. 8-32 x 1/2	3
6	6670129	Ring, Retainer RSN - 137	1
7	3659024	Retainer, Bearing	1
8	3749115	Spindle, 3/4" Solid	1
9	3388062	Key, Square	1
10	6060191	Bearing, 6205 - 2 RSTG	2
11	6670014	5100 98 Truarc External	3
12	6670128	Ring, Retainer IN - 206	1
13	3298253	Quill	1
14	6670130	Ring, Retainer 5100 - 275	1
15	3718038	Sheave, Spindle	1
16	6864004	Washer WD 4, Lock Bearing Steel Plain	1
17	6549004	Nut, Bearing Lock N - 04	1

1 INCH SPINDLE ASSEMBLY

FIGURE 22



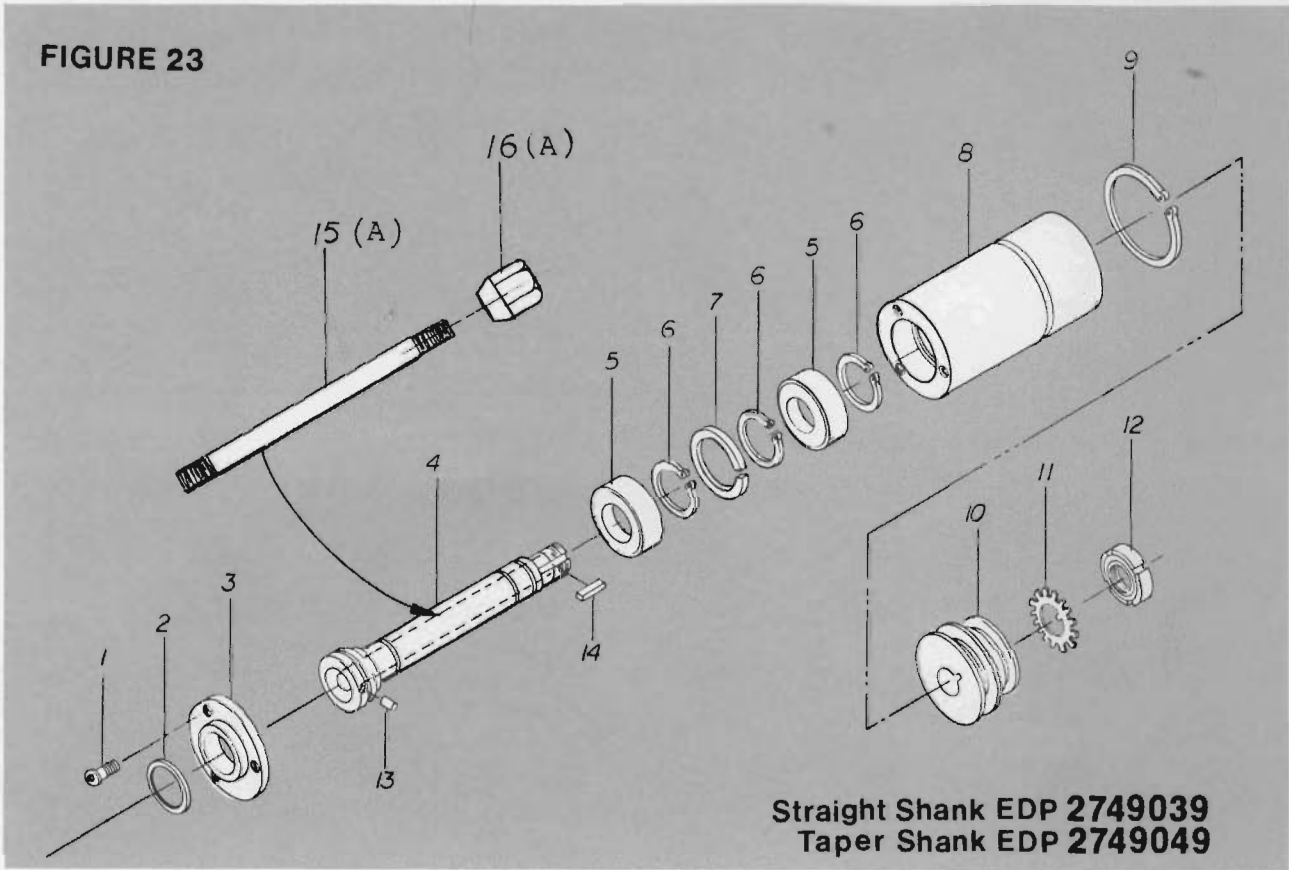
EDP 2749038

Parts List

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	3526006	Nut, 1" Spindle	1
2	3840004	Lockwasher, 1" Spindle	1
3	3742006	Spacer, Spindle 1 x 1/2	2
4	3742007	Spacer, Spindle 1 x 3/4	1
5	6708067	Screw, Button Head Soc. 8-32 x 1/2	3
6	6670129	Ring, Retainer RSN - 137	1
7	3659024	Retainer, Bearing	1
8	3749111	Spindle, 1" Solid	1
9	3388062	Key, Square	1
10	6060191	Bearing, 6205 - 2RSTG	2
11	6670014	5100 98 Truarc External	3
12	6670128	Ring, Retainer IN - 206	1
13	3298253	Quill	1
14	6670130	Ring, Retainer 5100 - 275	1
15	3718038	Sheave, Spindle	1
16	6864004	Washer, Lock Bearing Steel Plain	1
17	6549004	Nut, Bearing Lock N - 04	1

INTERCHANGEABLE SPINDLE ASSEMBLY

FIGURE 23



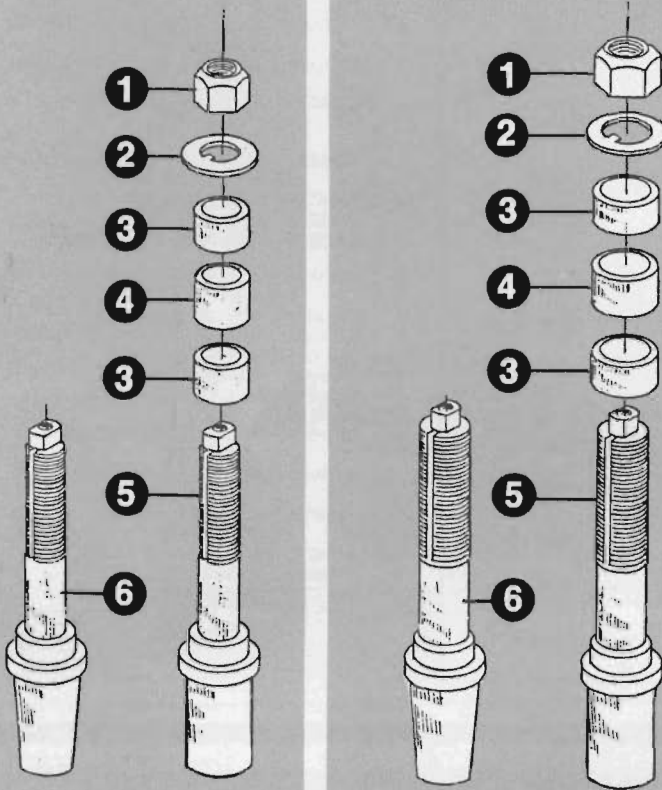
Straight Shank EDP 2749039
Taper Shank EDP 2749049

Parts List

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	SCREW	Bottom Head Sco. 8-32 X 1/2	3
2	6670129	Ring, Retainer RSN - 137	1
3	3659024	Retainer, Bearing	1
4	3749112	Spindle, Interchangeable straight shank	1
4A	3749123	Spindle, Interchangeable taper shank	1
5	6060191	Bearing 6205 - 2RSTG	2
6	6670014	5100 98 Truarc External	3
7	6670128	Ring, Retainer 5100 - 275	1
8	3298253	Quill	1
9	6670130	Ring, Retainer IN - 206	1
10	3718038	Sheave, Spindle	1
11	6864004	Washer, WD 4, Bearing Lock Steel Plain	1
12	6549004	Nut, Bearing Lock N - 04	1
13	3583208	Pin, Dowel	1
14	3388062	Key, Square	1
15	3140001	Drawbar, Spindle, for straight shank	1
15A	3140009	Drawbar, Spindle, for taper shank	1
16	3526202	Nut, Drawbar, for straight shank	1
16A	3526232	Nut, Drawbar, for taper shank	1

SPINDLE ASSEMBLIES: Shank Arbors, Wrenches

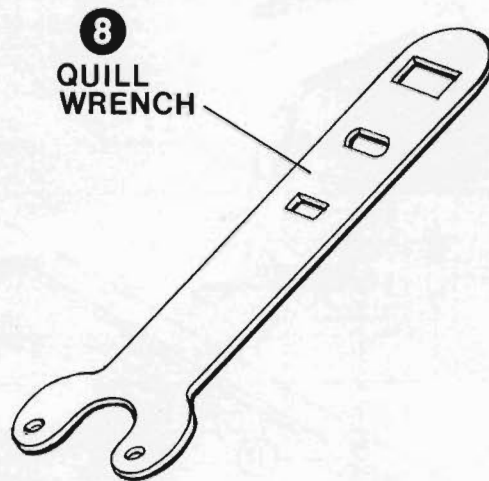
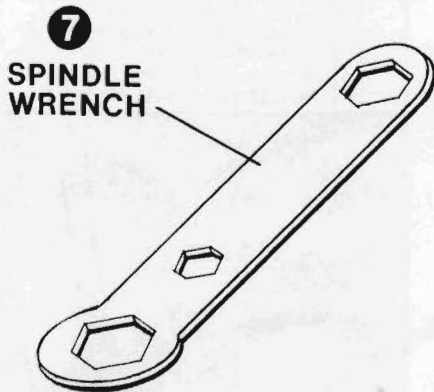
FIGURE 24



Parts List

ITEM NO.	PART NO.	DESCRIPTION	QTY.
	2749004	1/2" SPINDLE ASSY., (ITEMS 1 THRU 5 STANDARD)	
1	3526004	NUT, SPINDLE, 1/2"	1
2	3840002	WASHER, SPINDLE LOCK, 1/2"	1
3	3742002	SPACER, SPINDLE, 1/2 X 1/2"	2
4	3742003	SPACER, SPINDLE, 1/2 X 3/4"	1
5	3749016	SPINDLE, 1/2"	1
	2749047	1/2" TAPER SPINDLE ASSY., (ITEMS 1 THRU 4 (as above) AND ITEM 6 STANDARD)	
6	3749124	1/2" TAPER SPINDLE	1
	2749003	3/4" SPINDLE ASSY., (ITEMS 1 THRU 5 STANDARD)	
1	3526005	NUT, SPINDLE, 3/4"	1
2	3840003	WASHER, SPINDLE LOCK, 3/4"	1
3	3742004	SPACER, SPINDLE	2
4	3742005	SPACER, SPINDLE	1
5	3749017	SPINDLE, 3/4"	1
	2749048	3/4" TAPER SPINDLE ASSY., (ITEMS 1 THRU 4 (as above) AND ITEM 6 STANDARD)	
6	3749125	3/4", TAPER SPINDLE	1
7	3868004	WRENCH, SPINDLE	1
8	3868005	WRENCH, QUILL	1

FIGURE 25



GUARD, SAFETY RING:

Parts List

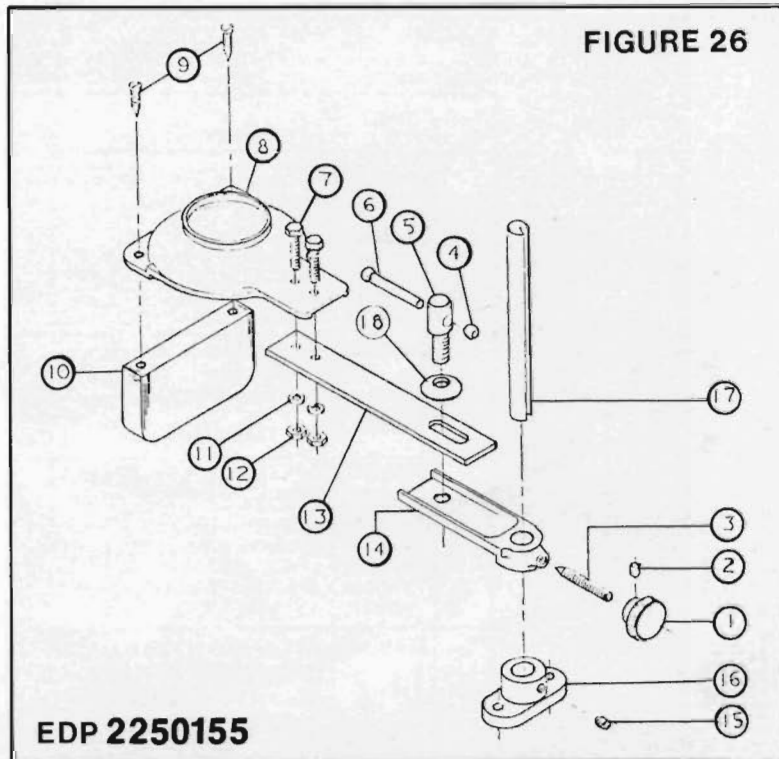


FIGURE 26

ITEM NO.	PART NO.	DESCRIPTION	QTY.
	2406001	KNOB ASSY., (ITEMS 1 THRU 3)	
1	3406005	KNOB, SCREW ADJ., CHROME PLATED	1
2	6714004	SCR., SOC. SET, CUP PT., 1/4 - 20 X 1/4"	1
3	6716117	SCR., SET, 60° STUD PT., 3/8-16 X 1-1/2"	1
	2695027	SCREW, LOCK ASSEMBLY (ITEMS 4 THRU 6)	
4	3406016	KNOB, HANDLE	1
5	3695039	SCREW, LOCK	1
6	3268002	HANDLE, LOCK SCREW	1
7	6715035	SCR., HEX HD. CAP, 5/16-18 X 3/4"	2
8	3250043	GUARD, SHAPER	1
9	6748005	SCR., RD. HD. WOOD, 10 X 1" L	2
10	3782006	SUPPORT, GUARD	1
11	6861200	WASHER, LOCK, 5/16"	2
12	6515007	NUT, HEX JAM, 5/16-18	2
13	3044015	BAR, ADJUST	1
14	3064037	BRACKET, SHAPER, GUARD ADJUSTING	1
15	6716009	SCR., SOC. SET, CUP PT., 3/8-16 X 1/2"	1
16	3064036	BRACKET, SHAPER, GUARD, MOUNTING	1
17	3670012	ROD, HEIGHT ADJUSTING	1
18	3338008	WASHER, LOCKSCREW	1

EDP 2250155

MITER GAUGE: Optional

Parts List

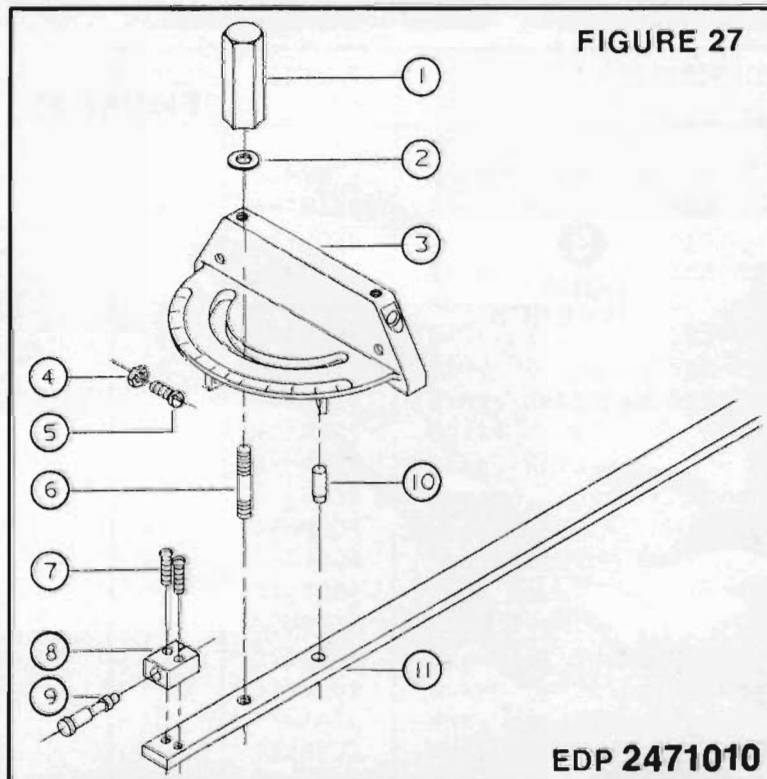


FIGURE 27

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	3268050	KNOB, MITER	1
2	6861101	WASHER, FLAT, 1/4"	1
3	3230007	GAUGE, MITER	1
4	6506003	NUT, HEX, 6-32 (PLATED)	3
5	6706094	SCR., RD. HD. MACH., 6-32 X 1/2"	3
6	3695220	SCREW, LOCK	1
7	6706041	SCR., RD. HD. MACH., 6-32 X 3/4"	2
8	3055101	BLOCK, POINTER	1
9	3582097	PIN, STOP	1
10	6623012	PIN, DOWEL, 1/4 X 1"	1
11	3044312	BAR, MITER, GAUGE	1

EDP 2471010

ELECTRICAL: Parts List

MANUAL

REF.	QTY.	POWERMATIC NO.	MFG. DESCRIPTION
S1	1	(3Ø) 6821135	SWITCH, FURNAS, 12BA34P
		(1Ø)6821134	SWITCH, FURNAS, 12BA24P

MAGNETIC

REF.	QTY.	POWERMATIC NO.	MFG. DESCRIPTION
M1	1	(3Ø) 6816112	STARTER, MAGNETIC, FURNAS, 14CF32BC71
		(1Ø) 6816106	STARTER, MAGNETIC, FURNAS, 14DF12BA7
(PB1) (PB2)	1	6821200	SWITCH, FURNAS, MOMENTARY PB, 50D54688

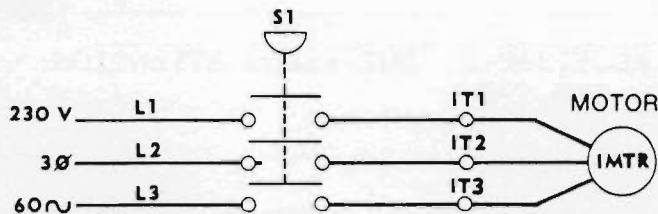
MAGNETIC WITH LOW VOLTAGE CONTROL

REF.	Qty.	POWERMATIC NO.	MFG. DESCRIPTION
(PB1) (PB2)	1	6821200	SWITCH, FURNAS, MOMENTARY PB, 50D54688
T1	1	6831068	TRANSFORMER, 115/230-24V, 50 VA
		6831069	TRANSFORMER, 230/460-24V, 75 VA
		6831070	TRANSFORMER 230/460-115V, 50 VA
IM (With XMR)	1	6816120	STARTER, MAG., W/XMR, 1Ø, 24V, FURNAS, 14DF107014
		6816139	STARTER, MAG., W/XMR, 1Ø, 115V, FURNAS, 14DF107018
		6816123	STARTER, MAG., W/XMR, 3Ø, 24V, FURNAS, 14CF32BJ71BD
		6816127	STARTER, MAG., W/XMR, 3Ø, 115V, FURNAS, 14CF32BA71BA
MTR	1	6471100	MOTOR, ELEC., 1HP, 1Ø, 3600 RPM, 115/230V, 56FR
		6471118	MOTOR, ELEC. 1 HP, 3Ø, 3600 RPM, 200 V, 56 FR
		6471119	MOTOR, ELEC., 1 HP, 3Ø, 36000 RPM, 230/460V, 56 FR
		6471400	MOTOR, ELEC., 1 ½ HP, 1Ø, 36000 RPM, 115/230V, 56 FR
		6471412	MOTOR, ELEC., 1 ½ HP, 3Ø, 3600 RPM, 200 V, 56 FR
		6471413	MOTOR, ELEC., 1 ½ HP, 3Ø, 3600 RPM, 230/460V, 56 FR
		6471706	MOTOR, ELEC., 2 HP, 3Ø, 3600 RPM, 230/ 460V, 145T FR
		6471707	MOTOR, ELEC, 2 HP, 1Ø, 3600 RPM, 115/230V, 145T FR
		6471717	MOTOR, ELEC., 2 HP, 3Ø, 3600 RPM, 200V, 145T, FR
		6472013	MOTOR, ELEC., 3 HP, 1Ø, 3600 RPM, 230 V, 145T, FR.
		6472026	MOTOR, ELEC, 3 HP, 3Ø, 3600 RPM, 230/460V, 145T, FR .
6472319	MOTOR, ELEC., 5 HP, 3Ø, 3600 RPM, 230/460V, 182 T,FR		

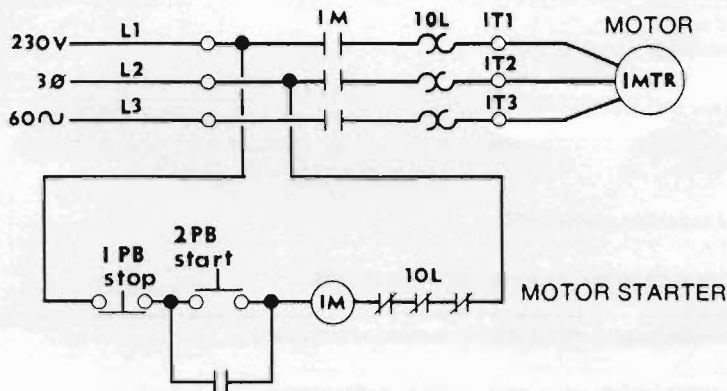
ELECTRICAL: Schematic

FIGURE 29

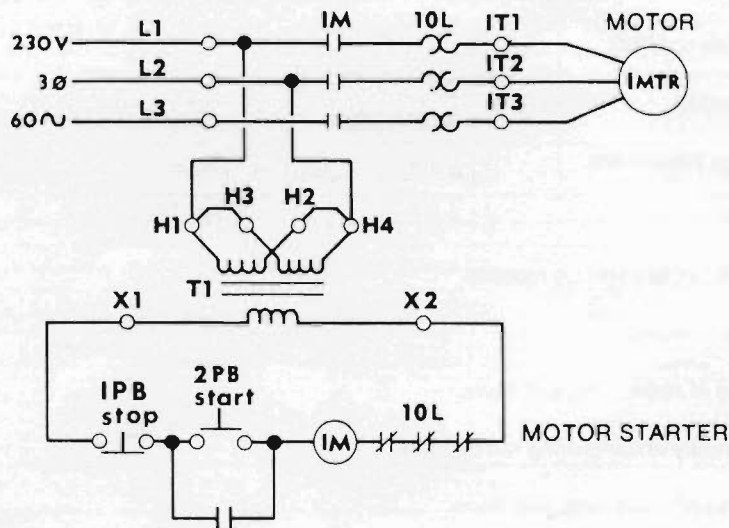
MANUAL



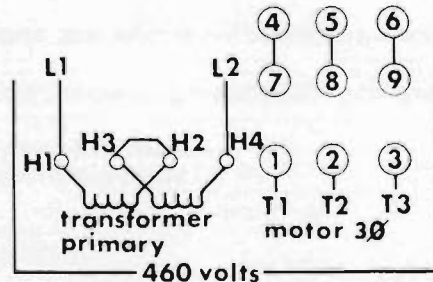
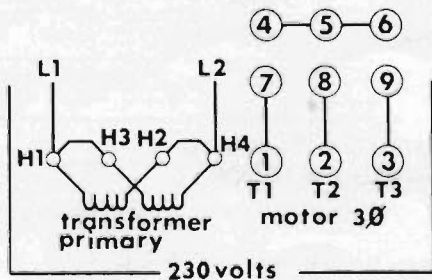
MAGNETIC



MAGNETIC W/LOW VOLTAGE CONTROL



NOTE: FOR SINGLE PHASE UNITS, OMIT LINE L3



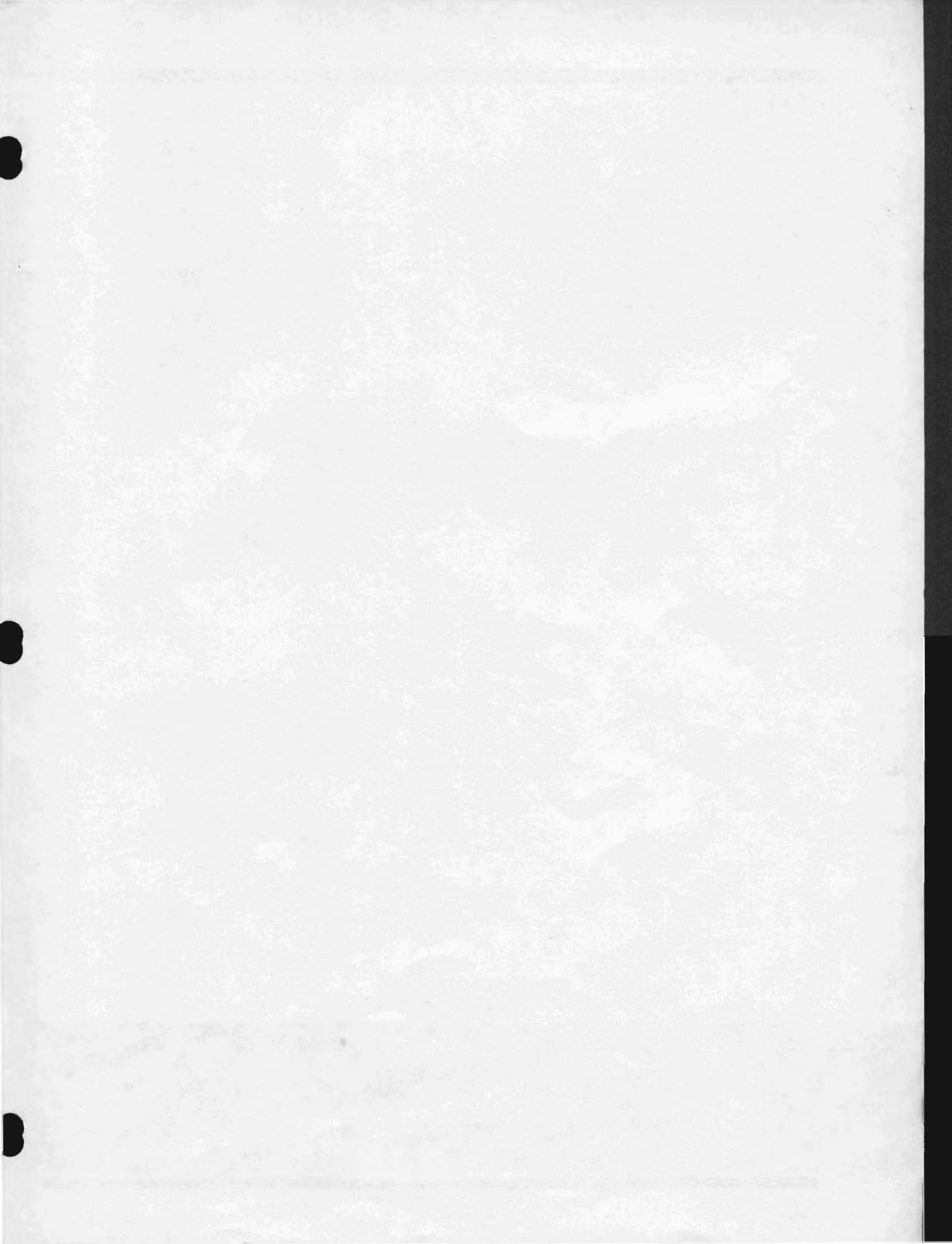
PREVENTIVE MAINTENANCE CHECK LIST

OPERATOR _____ DATE: _____
 MODEL NO. _____ S/N _____ ASSET NO. _____

SATISFACTORY; ACCEPTABLE, BUT NEEDS ATTENTION;
 UNSATISFACTORY--RED TAG

- | | | | |
|--------------------------------------------------------------------------|---|---|---|
| ● The lock ring, cutter(s), and arbor locked securely on. | S | A | U |
| ● Cutters sharp and free of nicks and flaws. | S | | U |
| ● Guard in place and working properly. | S | | U |
| ● Fences properly aligned and square with table. | S | | U |
| ● All safety decals in place. | S | | U |
| ● Working area around machine marked off. | S | A | U |
| ● Anti-skid strips on floor area where operator normally stands. | S | | U |
| ● Various types of push blocks and sticks readily available to operator. | S | | U |
| ● Kickback path not aimed at other work areas, aisles, or doorways. | S | A | U |
| ● Wood fence attached tightly to fence shoulders. | S | | U |
| ● No missing parts or loose screws. | S | A | U |
| ● Machine stable in operation. | S | A | U |
| ● Foot pedals have proper adjustment. | S | | U |
| ● Belts adjusted to proper tension. | S | | U |
| ● Table free of pitch, resin, or any foreign material. | S | A | U |
| ● Shaper lubricated where necessary. | S | A | U |
| ● Collars and spacers free of nicks, rust, and flaws. | S | A | U |
| ● Keyed collar in used directly under locking nut on arbor. | S | A | U |
| ● Spindle taper socket free of nicks, rust, and flaws. | S | A | U |
| ● Shaper properly grounded. | S | A | U |
| ● Arbor and locking nut thread free or nicks, rust, dings, and flaws. | S | A | U |
| ● Fixtures, templates, and clamps in good working order. | S | A | U |

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McMinnville, Tennessee 37110