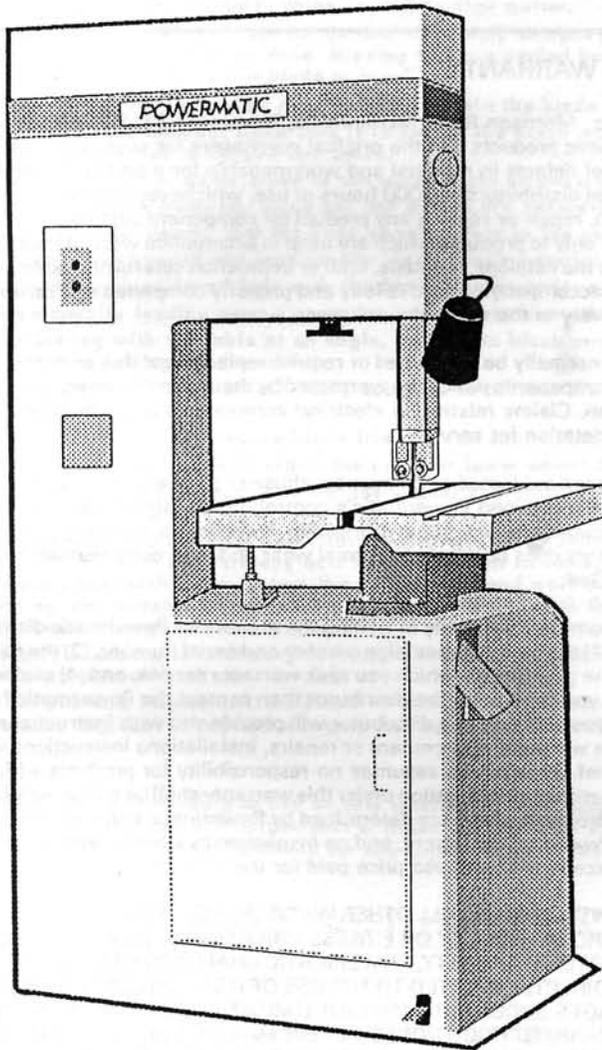


# OPERATING INSTRUCTIONS AND PARTS LIST



Model  
**81**  
BAND  
SAW

Better By Design

**POWERMATIC®**  **®**

McMINNVILLE, TENNESSEE 37110 □ AC 615 / 473-5551

EDP# 0460140

## 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.

## Operating and Safety Instructions

1. Be sure the machine frame is electrically grounded.
2. Remove or fasten loose articles of clothing such as neckties, sleeves, coat and confine long hair.
3. Remove jewelry such as finger rings, watches and bracelets.
4. Use safety shield, goggles or glasses to protect eyes.
5. Keep the floor around the machine clean and free from scraps, sawdust, oil or grease to minimize the danger of slipping.
6. Before starting the band saw:
  - A. Clear table area of tools, chips and all foreign matter.
  - B. Check the band saw blade for general condition, sharpness, proper set and make sure it is the right blade for the work to be done. Missing teeth, a peeled back, dullness place a severe strain on the blade and can cause the blade to break.
  - C. Rotate the band wheel by hand to make certain the blade tracks properly.
  - D. Check blade tension. Make sure it is set for the blade width to be used. Excessive tension can cause the blade to fatigue and break.
  - E. Set the upper guide as close to the work height as possible to insure the maximum blade rigidity.
  - F. Make sure the trunnion, guide bar and guides are securely locked.
7. Make sure, under power, that the band wheels rotate in the correct direction.
8. Use the correct speed and feed for the blade, blade material and work piece to be cut.
9. Do not clear chips from blade with the blade moving under power.
10. When manually feeding narrow parts, use a push stick or other piece of the same material to finish the cut.
11. When cutting with the table at an angle, be sure to block or clamp the work piece to prevent it or the cut off portion from falling off the table.
12. On long piece cutting, use out-board supports to prevent the work piece from becoming overbalanced and falling to the floor.
13. Do not overfeed it will reduce blade life and can cause blade breakage.
14. Never operate the saw with either the upper or lower wheel door or with the blade guard open.
15. If the machine is equipped with a blade welder and grinder, follow the operating and safety instructions provided to insure welding with safety.
16. Give the work you're doing your undivided attention. Looking around, carrying on a conversation and "HORSE PLAY" are careless acts that can result in serious injury.
17. If leaving the machine area, turn the machine off and wait until all moving parts stop before departing.
18. Make no adjustments except speed and feed changes with the band rotating, and always disconnect power source when changing bands or servicing in order to avoid accidental starting.
19. Use only Powermatic or factory authorized replacement parts and accessories, otherwise warranty and guarantee are null and void.
20. Do not use this Powermatic band saw 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 that may result from that use.

**WARNING:** Do not equip or use on this machine a motor larger than 3 horsepower at 1800 R.P.M. The use of a larger and/or higher speed motor voids the guarantee and Powermatic holds itself harmless for any injury that may result.

## GENERAL SET-UP AND ALIGNMENT

### 1. RECEIVING

Uncrate and check for shipping damage. Clean all coated and greased surfaces. Read instructions thoroughly. Locate all lubrication points; adjustments; methods of drive.

### 2. MOUNTING

Mount machine securely to solid foundation. Concrete base mounting preferred. Locate in clean, dry and well ventilated building if possible. Motor and electrical connections should be protected when not in operation or if exposed to weather elements.

### 3. INSPECTION

The above machine requires the minimum amount of attention in service. Periodic or regular inspections are recommended to insure machine is in proper adjustment, positive electrical connections; worn or loose "V" belts and bearings heating or loose.

### 4. BEFORE OPERATING

Check motor nameplate data or wiring diagram of motor and switch for proper voltage connection before wiring into line. Run motor without load to check the connections and direction of rotation. Always refer to motor nameplate for rotation connections.

## OPERATING INSTRUCTIONS

The Powermatic Model 81-20" Band Saw is constructed of steel plate, braced to give maximum rigidity. Streamlined in appearance, all moving parts are completely guarded for safe operation. The top and bottom band wheels are easily accessible through large hinged doors on the front of the saw. Lower wheel is equipped with a foot brake that is convenient to the operator. Sealed dust chute keeps motor and drive free from cuttings and dust.

MOTOR AND WIRING: Electrical wiring is connected to motor wiring in conduit box mounted on the side of the column. Motor should be inspected and checked for rotation before operating machine. Operated lower unit and check rotation before installing blade.

POWER DRIVE: The saw is driven with a motor mounted in the base of the machine. A 1 HP motor is sufficient for light and medium work and a 1 1/2 or 2 HP for heavy work and resawing. The motor is mounted on a adjustable hinge base. An A section belt drives the lower band wheel.

INSTALLING BLADE: To install blade, remove table insert from table; open top and bottom doors. Take the blade in both hands and slide through table slot and over band wheels. With the blade placed in the center of the band wheels, increase tension on upper wheel with tension screw located under upper wheel. Set upper and lower saw guided so they will clear the saw blade. Turn band wheels by hand to see that saw blade tracks properly. For accurate work and maximum blade life it is important that the blade runs centered on the wheels. When the adjustment has been properly made, the blade will track; that is, it will run steadily in the same line.

BLADE GUIDE ADJUSTMENT: For proper operation, the saw blade must be supported by an upper and lower saw guide. The lower guide is mounted under the table and the upper guide on a counterbalanced bar above the table. It is very important that the guides be set in proper relation the saw blade. To set hte guides to saw blade, set tension on blade and start the saw to check tracking on band wheel. Set the side blocks or bearings as close to the saw as possible without causing friction or binding. Guide blocks are held in place with socket head set screws. After blade clearance is set, the guide holder should be set so that edge of the guides are just behind saw teeth gullets. The back guide consists of a ball bearing mounted in an adjustable bar. The bearing is set 1/64" from the back edge of saw blade when blade is running not loaded.

BLADE TENSION: Correct blade tension in very important for efficient operation. The wider and thicker blades require more tension than narrow blades. A tension indicator, graduated for different blade widths is located inside the frame, behind upper

wheel. Tension is regulated by a screw building pressure on tension spring. This spring is designed to give correct tension for standard gauge blades only. Tension may vary on heavier and/or thicker blades. Blade tension does not vary with different length blades.

WHEEL ALIGNMENT: Band wheels are properly aligned at the factory and should operate correctly. However, in shipping, the original adjustments may have moved necessitating realignment. The lower wheel housing is mounted on jack screws, two in the rear and two in the front. The shaft may be leveled by loosening the two bearing locking bolts and adjusting with the two jack screws. Bearing bolts should be retightened after shaft is leveled.

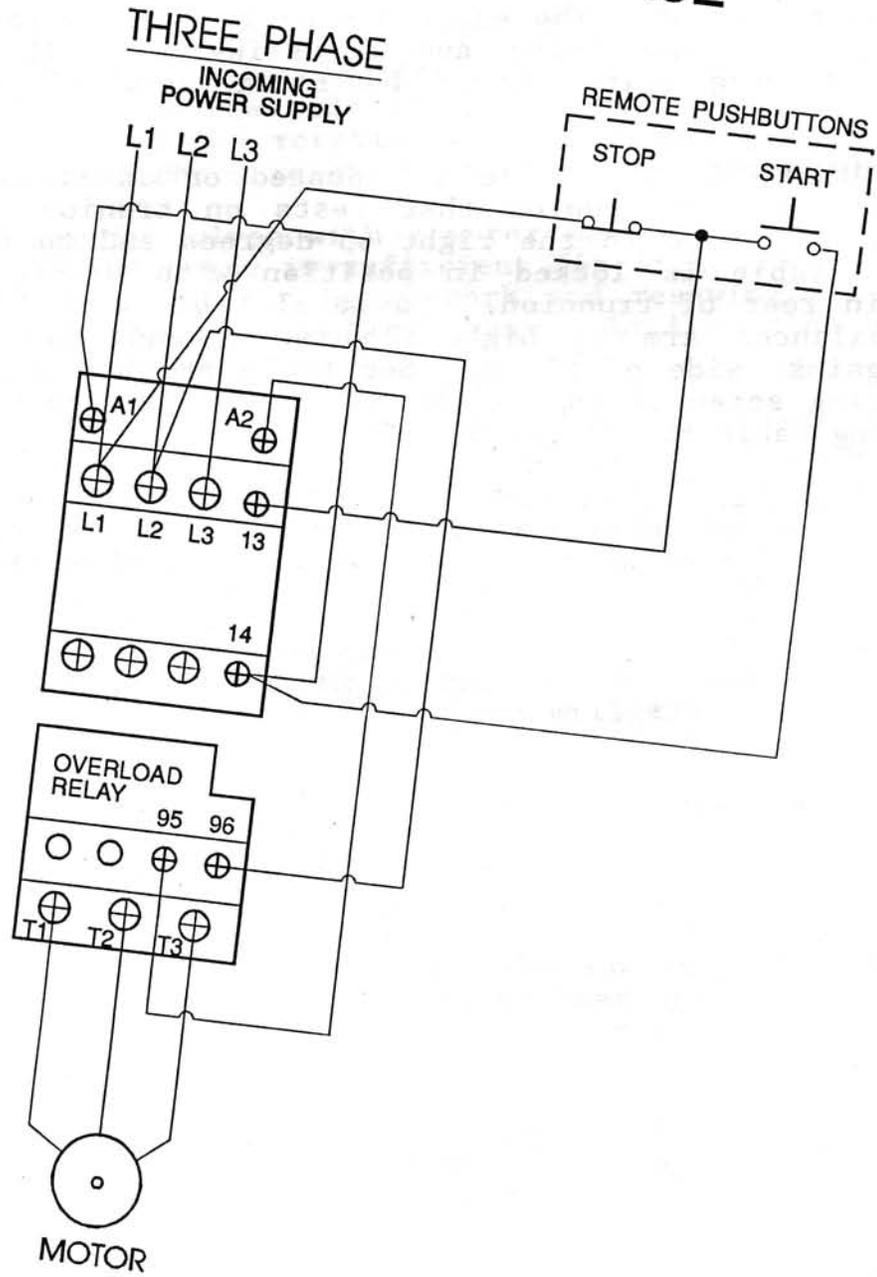
TABLE ADJUSTMENTS: The table is mounted on an extremely heavy duty single action trunion that rests on trunion base. The table may be tilted to the right 45 degrees and to the left 15 degrees. Table is locked in position with wrench thru slot located in rear of trunion. To level table with blade, raise counter-balanced arm to highest position and place machinist square against side of blade. Set table stop on side of table by adjusting screw of top of the stop. Stop bar may be removed for tilting table to the left.

LUBRICATION: The bearings on top and bottom shaft are sealed for life requiring no lubrication. The slides and adjusting screws should be lubricated at regular intervals to insure proper operation.

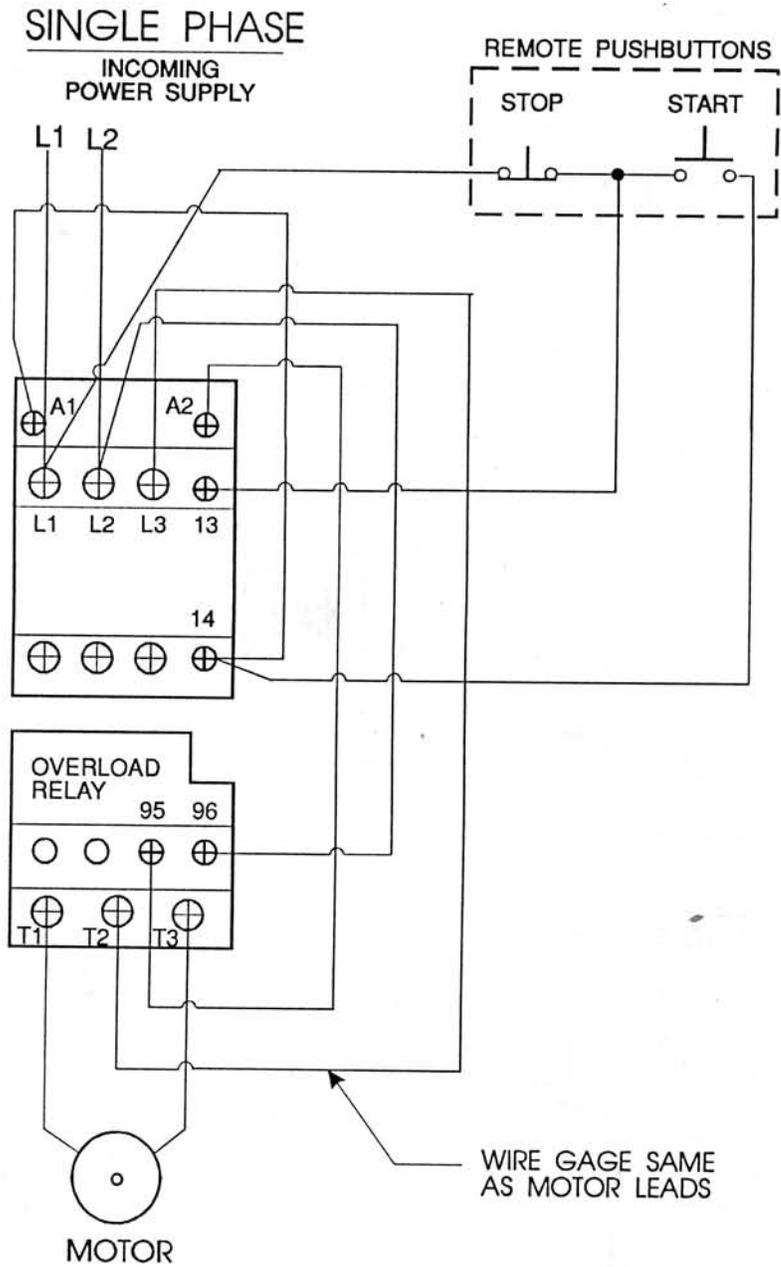
ELECTRICAL:

IEC Control , Magnetic Starter

THREE PHASE

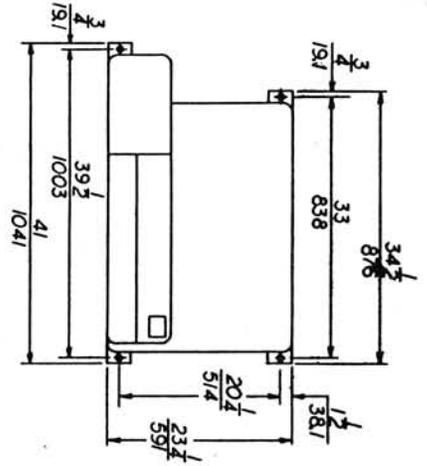
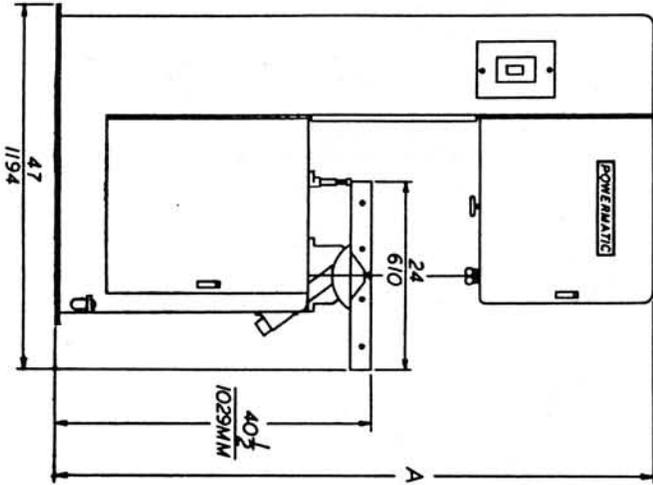


# SINGLE PHASE

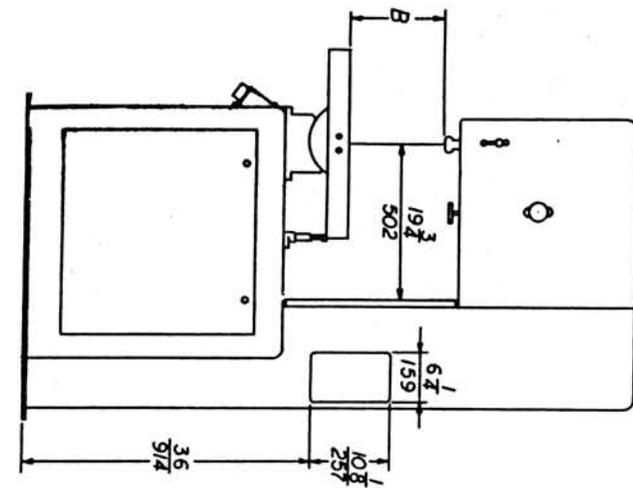
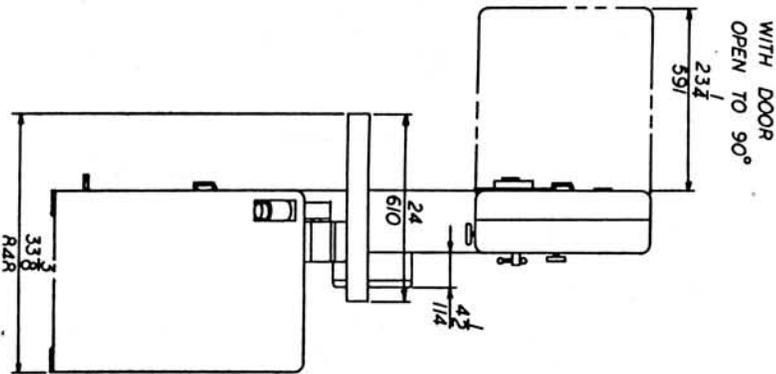


MODEL 81 BAND SAW DIMENSIONAL DRAWING

0140065



NOTE:  
MTG. HOLES ARE  
7/16 (11.1) DIA.



|   | STD.           | 24" UNDER GUIDES |
|---|----------------|------------------|
| A | 76 9/16 (1945) | 89 9/16 (2249)   |
| B | 12 (305)       | 24 (610)         |

81 B.S.  
DIMENSIONAL DWG.  
0140065

Figure 1

**MODEL 81 COUNTERWEIGHT ASSEMBLY**  
0340082

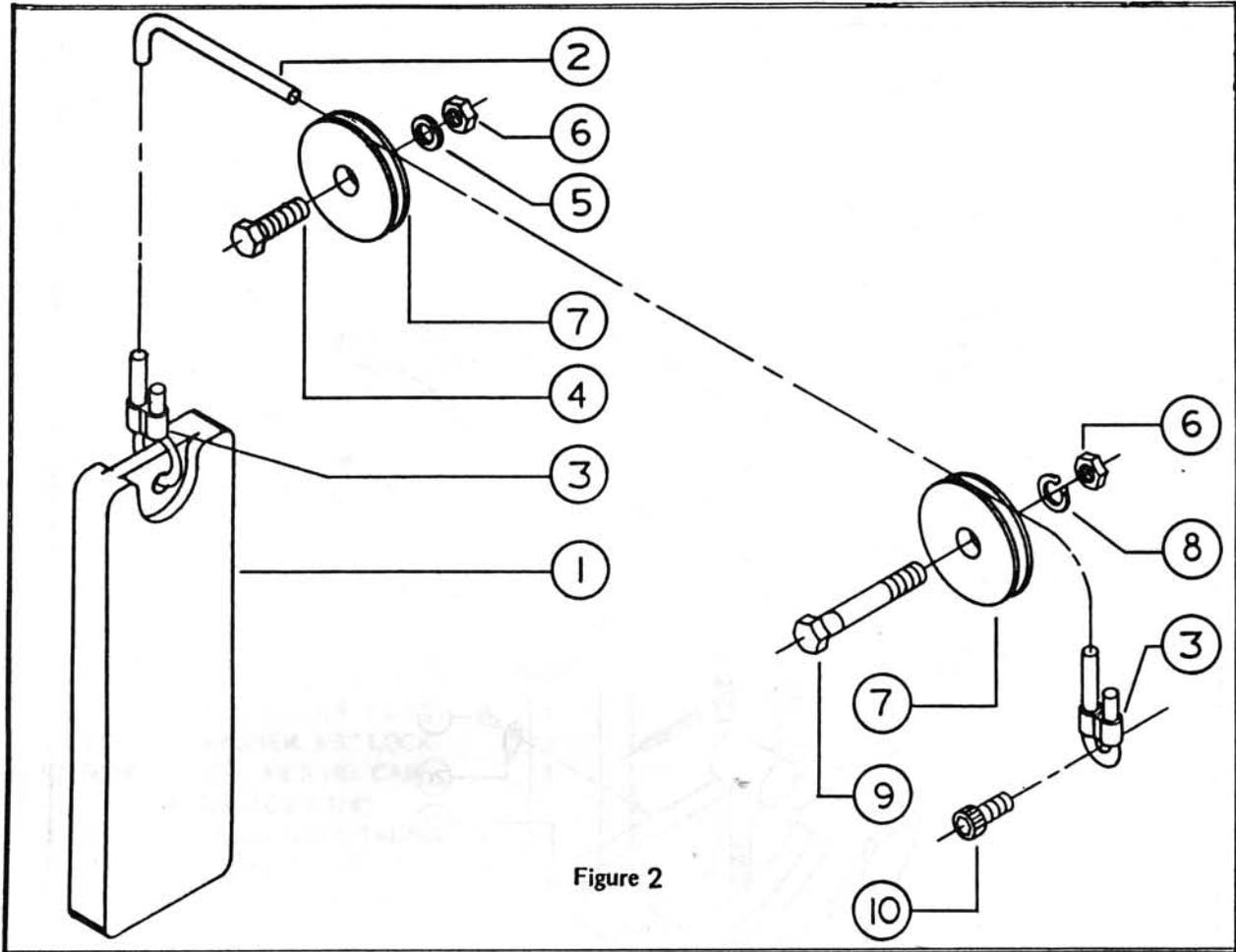


Figure 2

**MODEL 81 COUNTERWEIGHT ASSEMBLY**  
**STANDARD**

**MODEL 81 COUNTERWEIGHT ASSEMBLY**  
**24" UNDER GUIDES**

| ITEM NO. | PART NO.  | DESCRIPTION                          | QTY. | ITEM NO. | PART NO.  | DESCRIPTION                         | QTY. |
|----------|-----------|--------------------------------------|------|----------|-----------|-------------------------------------|------|
|          | 2103001   | Counterweight Assy, (Items 1 thru 3) |      |          | 2103002   | Counterweight Assy. (Item 1 thru 3) |      |
| 1        | 3044042 ✓ | Bar, Balance Weight                  | 1    | 1        | 2040026 ✓ | Bar, Balance Weight Assy.           | 1    |
| 2        | 6102001 ✓ | Cable, Aircraft, 1/16" Dia.          | 6'   | 2        | 6102001 ✓ | Cable, Aircraft, 1/16" Dia.         | 8'   |
| 3        | 6284104 ✓ | Fitting, Cable, Oval Sleeve          | 2    | 3        | 6284104 ✓ | Fitting, Cable, Oval Sleeve         | 2    |
| 4        | 6718009   | Scr., Hex Hd. Cap, 1/2-20 X 1-1/4"   | 1    | 4        | 6718009   | Scr., Hex Hd. Cap, 1/2-13 X 1-1/4"  | 1    |
| 5        | 6861500   | Washer, 1/2" Lock                    | 1    | 5        | 6861500   | Washer, 1/2" Lock                   | 1    |
| 6        | 6518008   | Nut, Hex Jam, 1/2-13                 | 2    | 6        | 6518008   | Nut, Hex Jam, 1/2-13                | 2    |
| 7        | 3673031   | Roller, Guide Bar Weight             | 2    | 7        | 3673031   | Roller, Guide Bar Weight            | 2    |
| 8        | 6670018   | Ring, Retaining                      | 1    | 8        | 6670018   | Ring, Retaining                     | 1    |
| 9        | 3691035   | Scr., Guide Bar Rollwr               | 1    | 9        | 3691035   | Scr., Guide Bar Roller              | 1    |
| 10       | 6714015   | Scr., Soc. Hd. Cap, 1/4-20 X 1/2"    | 1    | 10       | 6714015   | Scr., Soc. Hd. Cap, 1/4-20 X 1/2"   | 1    |

MODEL 81 BAND SAW TABLE AND TRUNNION ASSEMBLY  
0340059

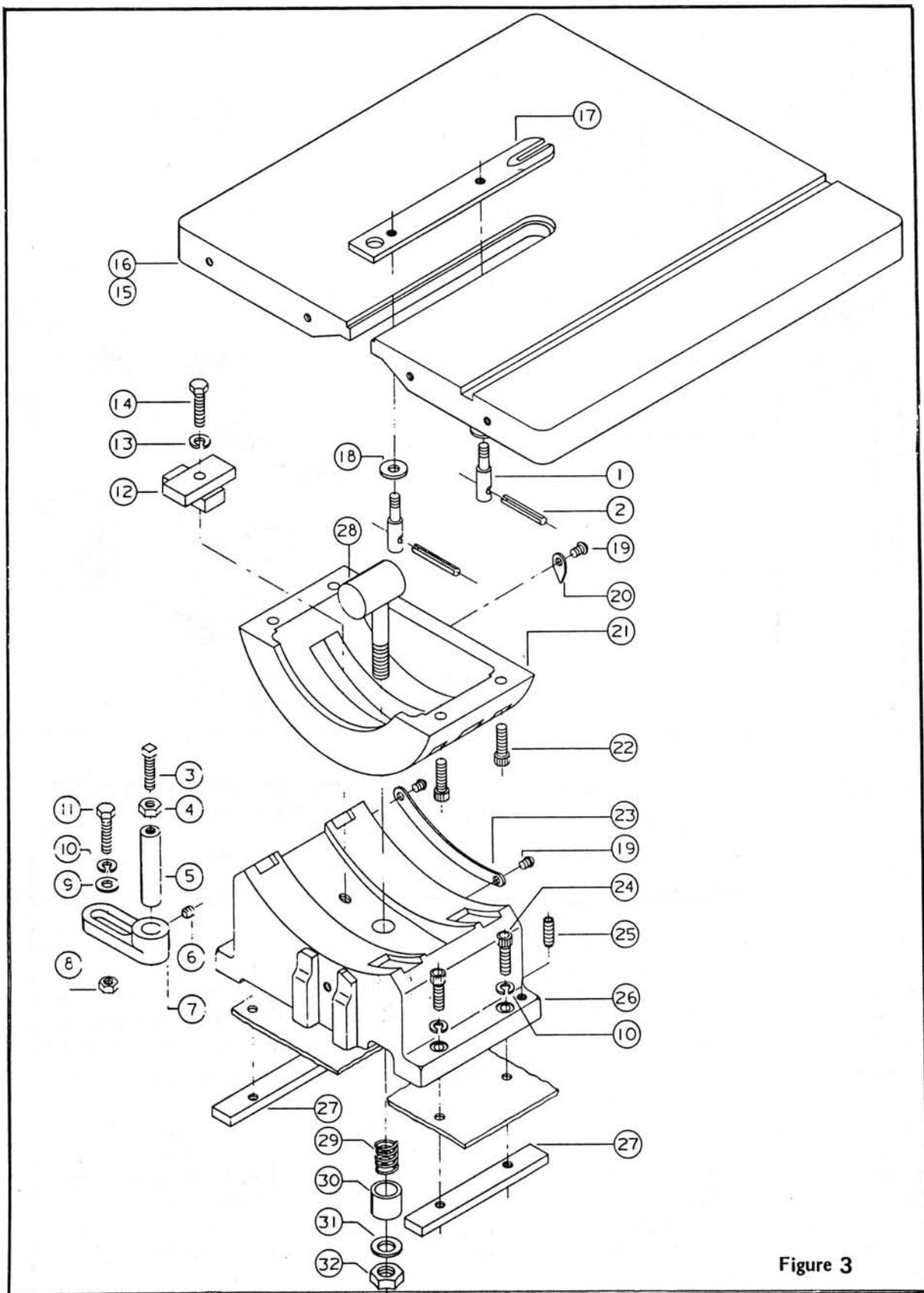


Figure 3

**MODEL 81 TABLE AND TRUNNION  
ASSEMBLY  
0340059**

| ITEM NO. | PART NO.  | DESCRIPTION                                   | QTY |
|----------|-----------|---|-----|
|          | 2695033   | SCREWASSEMBLY, INSERT LOCK (ITEMS 1 & 2)      |     |
| 1        | 3695205 ✓ | SCREW, TABLE INSERT                           | 1   |
| 2        | 6626033 ✓ | PIN, SPRING, 3/16" DIA. x 2" Lg               | 1   |
|          | 2761001   | STOP ASSEMBLY, TABLE BRACKET (ITEMS 3 THRU 7) |     |
| 3        | 6716083 ✓ | SCR., SQ., HD. SET, 3/8-16 x 1-3/4"           | 1   |
| 4        | 6516009 ✓ | NUT, HEX JAM, 3/8-16                          | 1   |
| 5        | 3583013 ✓ | PIN, LOCATING, TABLE STOP BRACKET             | 1   |
| 6        | 6715016 ✓ | SCR., SOC. SET, CUP PT., 5/16-18 x 5/16"      | 1   |
| 7        | 3274011 ✓ | HANGER, COMPOUND SHEAVE                       | 1   |
| 8        | 6516001   | NUT, HEX, 3/8-16                              | 1   |
| 9        | 6861301   | WASHER, 3/8" FLAT                             | 1   |
| 10       | 6861300   | WASHER, 3/8" LOCK                             | 5   |
| 11       | 6716039   | SCR., HEX HD. CAP 3/8-16 x 1-1/4"             | 1   |
| 12       | 2253025   | GUIDE ASSY. TRUNNION                          | 1   |
| 13       | 6861200   | WASHER, 5/16" LOCK                            | 1   |
| 14       | 6715044   | SCR., HEX HD. CAP 5/16-18 x 2"                | 1   |
| 15       | 3797072   | TABLE, BAND SAW (W.O. T-SLOT)                 | 1   |
| 16       | 379073    | TABLE, BAND SAW W. T-SLOT                     | 1   |
| 17       | 3328040   | INSERT, TABLE                                 | 1   |
| 18       | 3837035   | WASHER, 3/8" I.D. x 1-3/8" O.D. x 3/16" THICK | 2   |
| 19       | 6747000   | SCR., DRIVE No. 4 x 3/16"                     | 3   |
| 20       | 3604001   | POINTER                                       | 1   |
| 21       | 3810003   | TRUNNION, TABLE TILTING                       | 1   |
| 22       | 6716016   | SCR., SOC. HD. CAP 3/8-16 x 7/8"              | 4   |
| 23       | 3684212   | SCALE, TRUNNION TILT                          | 1   |
| 24       | 6716017   | SCR., SOC. HD. CAP 3/8-16 x 1-3/4"            | 4   |
| 25       | 6716100   | SCR., SOC. SET, HALF DOG PT., 3/8-16 x 3/4"   | 2   |
| 26       | 3064070   | Bracket, TRUNNION, TABLE TILTING              | 1   |
| 27       | 3044322   | BAR, TRUNNION BRACKET MOUNTING                | 2   |
| 28       | 2440010   | LOCK ASSY., TRUNNION                          | 1   |
| 29       | 6813044   | SPRING, COMPRESSION No. 12101                 | 1   |

**MODEL 81 TABLE AND TRUNNION  
ASSEMBLY  
0340059**

| ITEM NO. | PART NO. | DESCRIPTION                          | QTY     |
|----------|----------|--------------------------------------|---------|
| 30       | 3735054  | SPACER, LOCKING                      | 1       |
| 31       | 6861701  | WASHER, 5/8" FLAT                    | 1       |
| 32       | 6520011  | NUT, HEX, 5/8-11 (Heavy)             | 1       |
| 33       | 3722019  | SHIM, LAMINATED TRUNNION (NOT SHOWN) | AS REQ. |
| 34       | 3722020  | SHIM, TRUNNION (NOT SHOWN)           | AS REQ. |

MODEL 81 UPPER WHEEL HOUSING ASSEMBLY

0340060

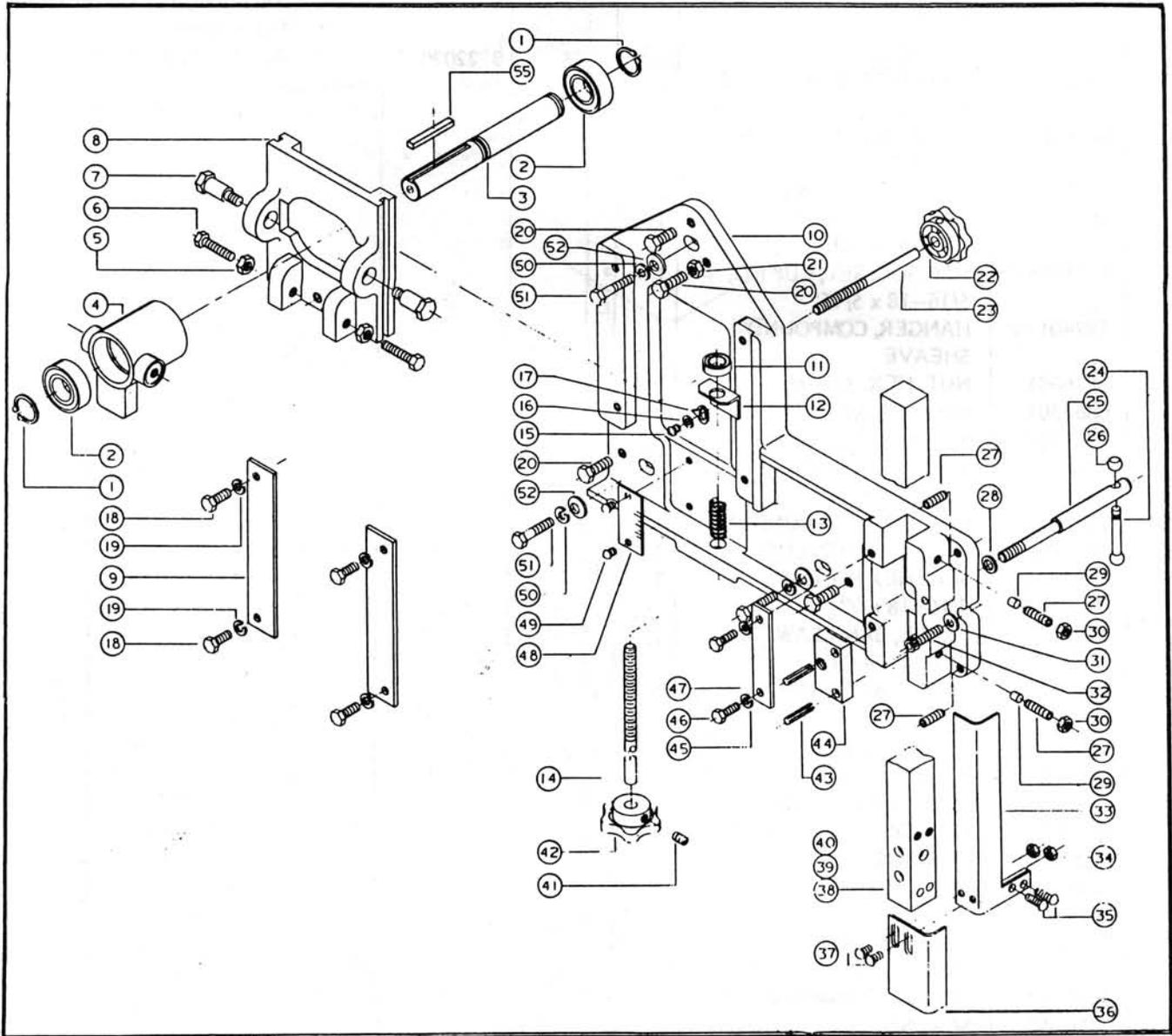
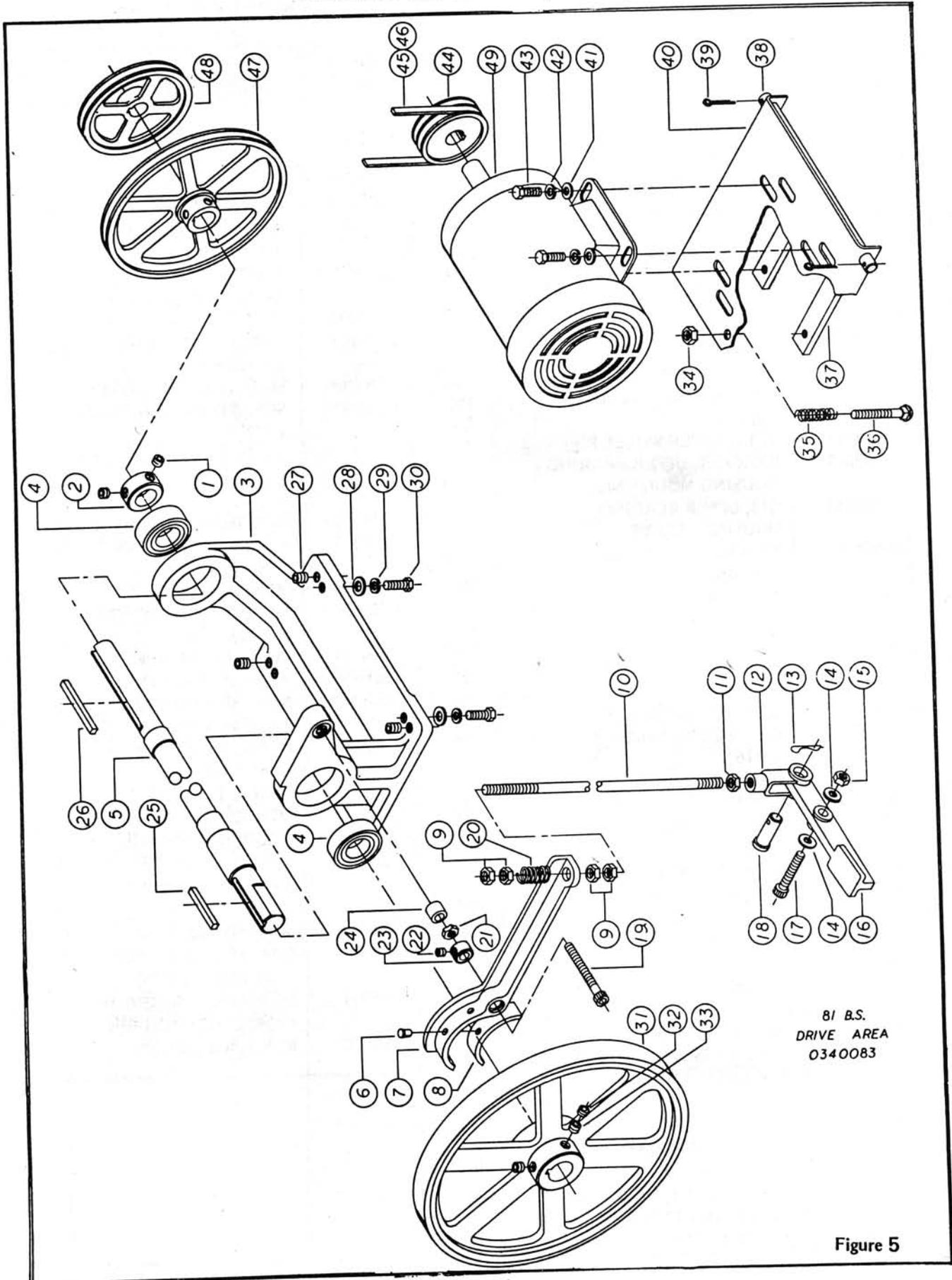


Figure 4

**MODEL 81 UPPER WHEEL HOUSING  
ASSEMBLY (0340060)**
**MODEL 81 UPPER WHEEL HOUSING  
ASSEMBLY (0340060)**

| ITEM NO. | PART NO. | DESCRIPTION                                       | QTY | ITEM NO. | PART NO. | DESCRIPTION   | QTY |
|----------|----------|---|-----|----------|----------|---|-----|
|          | 2730021  | SLIDE ASSEMBLY (ITEMS 1 THRU 21)                  |     | 29       | 3598022  | PLUG, PROTECTOR, 5/16" Dia. x 3/16" Lg.                     | 2   |
|          | 2298029  | HOUSING ASSY., UPPER SHAFT BRG. (ITEMS 1 THRU 4)  |     | 30       | 6516009  | NUT, HEX, 3/8-16  | 2   |
| 1        | 6670096  | RING, RETAINING, TRUAC No. 5160-118               | 2   | 31       | 6861301  | WASHER, 3/8" FLAT   | 1   |
| 2        | 6060014  | BEARING, BALL, SKF No. 6206-2Rs                   | 2   | 32       | 6716015  | SCR., SOC. HD. CAP, 3/8-16 x 1-1/2"                         | 1   |
| 3        | 3700014  | SHAFT, UPPER WHEEL                                | 1   | 33       | 2250059  | GUARD ASSEMBLY, BLADE (WELDMENT)                            | 1   |
| 4        | 3298034  | HOUSING, UPPER SHAFT BEARING                      | 1   | 34       | 6510005  | NUT, HEX, No. 10-24   | 2   |
| 5        | 6516009  | NUT, HEX JAM, 3/8-16                              | 2   | 35       | 6714114  | SCR., RD., HD., MACH., 1/4-20 x 3/8"                        | 2   |
| 6        | 6716032  | SCR., HEX HD., 3/8-16 x 1-1/2"                    | 2   | 36       | 3720015  | SHIELD, BLADE GUARD   | 1   |
| 7        | 3058011  | BOLT, UPPER WHEEL PIVOT                           | 2   | 37       | 6710034  | SCR., RD. HD., No. 10-24 x 1/2"                             | 2   |
| 8        | 3063041  | BRACKET, UPPER BEARING HOUSING MOUNTING           | 1   |          |          |   |     |
| 9        | 3244035  | GIB, UPPER BEARING HOUSING SLEEVE                 | 2   | 40       | 3044102  | BAR, GUIDE (87 B.S.)  | 1   |
| 10       | 3064289  | BRACKET, UPPER WHEEL HOUSING                      | 1   | 41       | 6715013  | SCR., SOC. SET, CUP PT, 5/16-18 x 3/8"                      | 1   |
| 11       | 6064000  | BEARING, THRUST, NICE No. 603-1/4                 | 1   | 42       | 3271008  | HANDWHEEL, 3-1/2"   | 1   |
| 12       | 3094011  | CLIP, SPRING                                      | 1   | 43       | 6626029  | PIN, SPRING, 3/16" DIA. x 1" LG.                            | 2   |
| 13       | 6813061  | SPRING, BAUMBACH No. S-62                         | 1   | 44       | 3448030  | LOCK, GUIDE BAR   | 1   |
| 14       | 3690029  | SCREW, TENSION ADJ.                               | 1   | 45       | 6861100  | WASHER, 1/4" LOCK   | 2   |
| 15       | 6706037  | SCR., ROUND HD., 6-32 x 3/16"                     | 1   | 46       | 6714049  | SCR., HEX HD. CAP, 1/4-20 x 3/4"                            | 2   |
| 16       | 6860600  | WASHER, FLAT No. 6                                | 1   | 47       | 3481041  | PLATE, GUIDE BAR MOUNTING                                   | 1   |
| 17       | 3604004  | POINTER   | 1   | 48       | 3684210  | SCALE, TENSION  | 1   |
| 18       | 6716030  | SCR., HEX HD., 3/8-16 x 3/4"                      | 4   | 49       | 6747000  | SCR., DRIVE, No. 4 x 3/16"                                  | 2   |
| 19       | 6861300  | WASHER, 3/8" LOCK                                 | 4   | 50       | 6861300  | WASHER, 3/8" LOCK   | 3   |
| 20       | 6718010  | SCR., HEX HD., CAP 1/2-13 x 1-1/2"                | 4   | 51       | 6716124  | SCR., HEX HD. CAP, 3/8-16 x 2-1/4"                          | 3   |
| 21       | 6518008  | NUT, HEX, 1/2-13                                  | 1   | 52       | 3838203  | WASHER, BEVEL   | 3   |
|          | 2690001  | SCREW ASSEMBLY, TILT ADJUST. (ITEMS 22 THRU 23)   |     | 53       | 6715092  | SCR., SQ. HD. SET, 5/16-18 x 1-3/4" (HORIZ. ADJ. NOT SHOWN) | 2   |
| 22       | 3406018  | KNOB  |     | 54       | 6515007  | NUT, HEX JAM, 5/16-18 (HORIZ. ADJ. NOT SHOWN)               | 2   |
| 23       | 3690028  | SCREW, TILT ADJ.                                  | 1   | 55       | 3388020  | KEY, 1/4 x 1/4 x 2"   | 1   |
|          | 2695028  | SCREW ASSEMBLY, GUIDE BAR LOCK (ITEMS 24 THRU 26) |     |          |          |   |     |
| 24       | 3268002  | HANDLE  | 1   |          |          |   |     |
| 25       | 3692036  | SCREW, GUIDE BAR LOCK                             | 1   |          |          |   |     |
| 26       | 3406016  | KNOB, HANDLE                                      | 1   |          |          |   |     |
| 27       | 6716093  | SCR., SOC. SET, HALF DOG Pt., 3/8-16 x 1" Nylor   | 4   |          |          |   |     |
| 28       | 6861201  | WASHER, 5/16" FLAT                                | 1   |          |          |   |     |

MODEL 81 DRIVE AREA (0340083)



81 B.S.  
DRIVE AREA  
0340083

Figure 5

## MODEL 81 DRIVE AREA PARTS LIST

## MODEL 81 DRIVE AREA PARTS LIST

| ITEM NO. | PART NO. | DESCRIPTION                                     | QTY. | ITEM NO. | PART NO. | DESCRIPTION  | QTY. |
|----------|----------|---|------|----------|----------|--|------|
|          | 2705010  | Shaft Assy., Lower Wheel (Items 1 thru 5)       |      | 40       | 3042058  | Base, Motor  | 1    |
| 1        | 6716003  | Scr., Soc. Set, Cup Pt., 3/8-16 X 3/8"          | 2    | 41       | 6861201  | Washer, 5/16" Fl at  | 4    |
| 2        | 3096021  | Collar, Lower Shaft                             | 1    | 42       | 6861200  | Washer, 5/16" Lock   | 4    |
| 3        | 3298058  | Housing, Bearing                                | 1    | 43       | 6715032  | Scr., Hex Hd. Cap, 5/16-18 X 1"                              | 4    |
| 4        | 6060014  | Bearing, SKF 6206-2RS                           | 2    | 44       | 6807001  | Sheave, Browning, 2AK-34, 7/8" Bore                          | 1    |
| 5        | 3706018  | Shaft, Lower Drive                              | 1    | 45       | 6077160  | Belt, "V", A Section, Browning No. A41                       | 1    |
|          | 2068006  | Brake Lining & Shoe Assy., (Items 6 thru 8)     |      | 46       | 6077161  | Belt, "V", A Section, Browning No. A55                       | 1    |
| 6        | 6680008  | Rivet, Flat Hd., 3/16 X 5/8" L Aluminum         | 3    | 47       | 6807111  | Sheave, Single Groove, Browning, No. AZ-140 X 1" Bore        | 1    |
| 7        | 3725002  | Shoe, Brake                                     | 1    | 48       | 6807110  | Sheave, Single Groove, Browning, No. AK-64 X 1" Bore         | 1    |
| 8        | 3442003  | Lining, Brake Shoe, 1/4 X 1 X 5-1/2 5-1/2"      | 1    | 49       | 6471603  | Motor, Elec., 2 HP, 3 Ph, 1800 RPM 230/460V, 145T, TEFC      | 1    |
|          | 2670013  | Rod Assy., Brake, (Items 9 thru 12)             |      |          | 6471616  | Motor, Elec., 2 HP, 3 Ph, 1800 RPM 575V, 145T, TEFC          | 1    |
| 9        | 6518008  | Nut, Hex Jam, 1/2-13                            | 4    |          | 6471617  | Motor, Elec., 2 HP, 3 Ph, 1800 RPM 200V, 145T, TEFC          | 1    |
| 10       | 3670062  | Rod, Brake                                      | 1    |          | 6471627  | Motor, Elec., 2 HP, 1 Ph, 1800 RPM 115/230V, 182T, TEFC      | 1    |
| 11       | 6568009  | Nut, Hex Jam, 1/2-20                            | 1    |          | 6471026  | Motor, Elec., 1 HP, 3 Ph, 1800 RPM 200V, 143T, TEFC          | 1    |
| 12       | 6126000  | Clevis, No. 6, Brake Rod                        | 1    |          | 6471301  | Motor, Elec., 1-1/2 HP, 1 Ph, 1800 RPM, 115/230V, 145T, TEFC | 1    |
| 13       | 6620001  | Pin, Hair Pin Clip, No.13 (Yoke Pin)            | 1    |          | 6471304  | Motor, Elec., 1-1/2 HP, 3 Ph, 1800 RPM, 230/460V, 145T, TEFC | 1    |
| 14       | 6861301  | Washer, 3/8" Flat                               | 2    |          | 6471317  | Motor, Elec., 1-1/2 HP, 3 Ph, 1800 RPM, 575V, 145T, TEFC     | 1    |
| 15       | 6516009  | Nut, Hex Jam, 3/8-16                            | 1    |          | 6471322  | Motor, Elec., 1-1/2 HP, 3 Ph, 1800 RPM, 200V, 145T, TEFC     | 1    |
| 16       | 3582003  | Pedal, Brakw                                    | 1    |          |          |  |      |
| 17       | 6716017  | Scr., Soc. Hd. Cap, 3/8-16 X 1-3/4"             | 1    |          |          |  |      |
| 18       | 6621001  | Pin, Clevis, 1/2 X 1-19/32"                     | 1    |          |          |  |      |
| 19       | 6718008  | Scr., Soc. Hd. Cap, 1/2-13 X 3-1/2"             | 1    |          |          |  |      |
| 20       | 6813038  | Spring, Dudek & Bock LP-75 Brake Rod            | 1    |          |          |  |      |
| 21       | 6518001  | Nut, Hex, 1/2-13                                | 1    |          |          |  |      |
| 22       | 6715015  | Scr., Soc. Set, Knurled Cup Pt., 5/16-18 x 1/4" | 1    |          |          |  |      |
| 23       | 3096202  | Collar  | 1    |          |          |  |      |
| 24       | 3735012  | Spacer  | 1    |          |          |  |      |
| 25       | 3388020  | Key, Wheel Mtg., 1/4 X 1/4 X 2" (UPPer & Lower) | 1    |          |          |  |      |
| 26       | 3388026  | Key, Lower Shaft, 1/4 X 1/4 X 2-1/2"            | 1    |          |          |  |      |
| 27       | 6716007  | Scr., Soc. Set, Cup Pt., 3/8-16 X 3/4"          | 4    |          |          |  |      |
| 28       | 6861301  | Washer, 3/8" Flat                               | 4    |          |          |  |      |
| 29       | 6861300  | Washer, 3/8" Lock                               | 4    |          |          |  |      |
| 30       | 6716031  | Scr., Hex Hd. Cap, 3/8-16 X 1"                  | 4    |          |          |  |      |
| 31       | 3850007  | Wheel, Lower                                    | 1    |          |          |  |      |
| 32       | 6716158  | Scr., Hollow Lock, Soc., 3/8-16 X 3/16"         | 1    |          |          |  |      |
| 33       | 6716003  | Scr., Soc. Set, Knurled Cup Pt., 3/8-16 X 3/8"  | 2    |          |          |  |      |
| 34       | 6516001  | Nut, Hex, 3/8-16 X 1"                           | 1    |          |          |  |      |
| 35       | 6813045  | Spring, Motor Base, No. 12103                   | 1    |          |          |  |      |
| 36       | 6086001  | Bolt, Carriage, 3/8-16 X 3"                     | 1    |          |          |  |      |
| 37       | 3767005  | Strap, Motor Mounting                           | 2    |          |          |  |      |
| 38       | 3670061  | Rod, Motor Base Mtg.                            | 1    |          |          |  |      |
| 39       | 6622002  | Pin, Cotter, 1/8 X 1 X 1-1/4"                   | 2    |          |          |  |      |

MODEL 81 BODY ASSEMBLY  
0340084

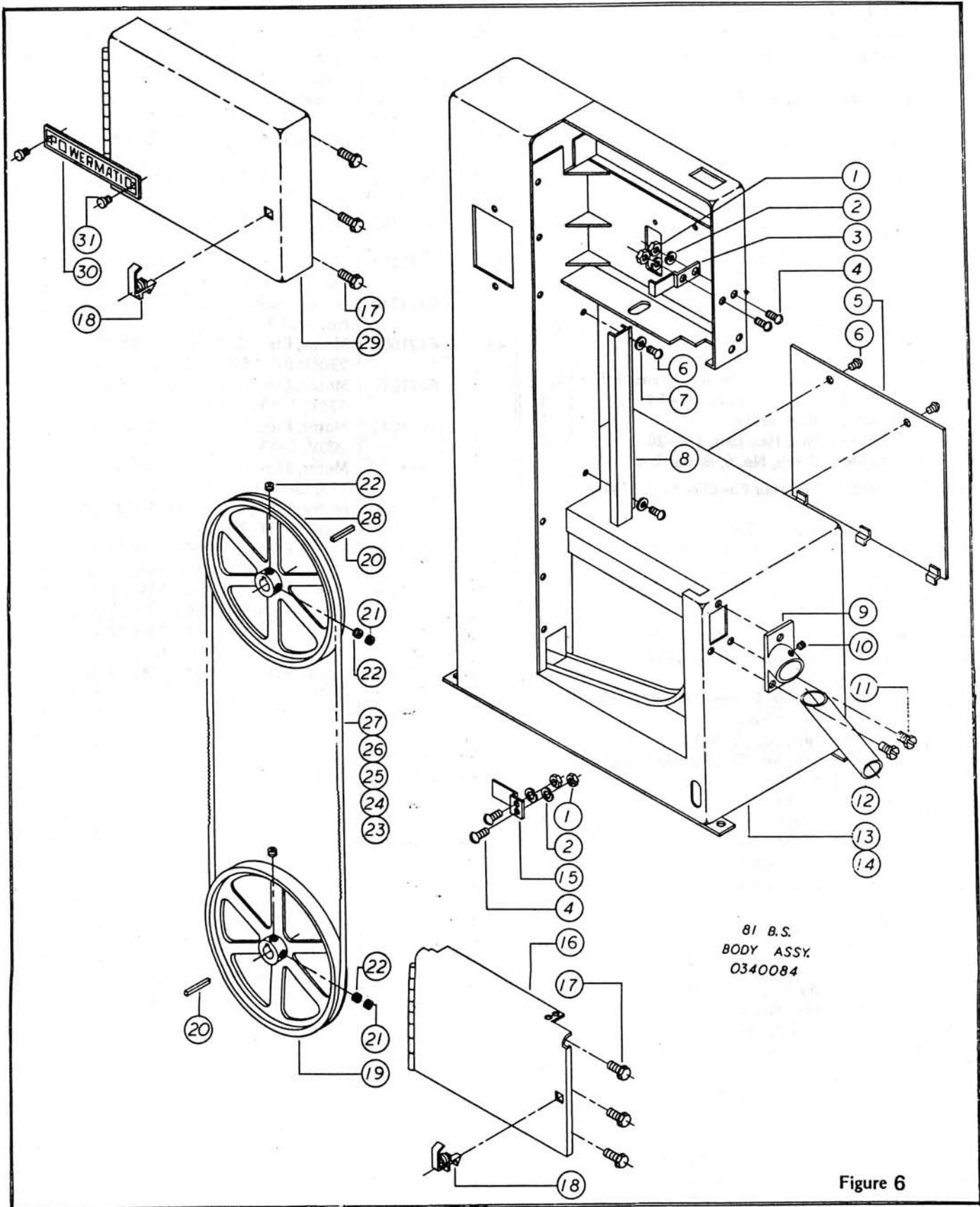


Figure 6

MODEL 81 BODY ASSEMBLY PARTS LIST

| ITEM NO. | PART NO. | DESCRIPTION   | QTY. |
|----------|----------|---|------|
| 1        | 6510001  | Nut, Hex, 10-24   | 4    |
| 2        | 6860802  | Washer, No. 10 Lock   | 4    |
| 3        | 3420009  | Latch Block, Upper  | 1    |
| 4        | 6710034  | Scr., Rd. Hd. Mach., 10-24 X 1/2"                                       | 4    |
| 5        | 2136033  | Door Assy., Motor Drive (Weldment)                                      | 1    |
| 6        | 6714114  | Scr., Rd. Hd. Mach., 1/4-20 x 3/8"                                      | 4    |
| 7        | 6861101  | Washer, 1/4" Flat   | 2    |
| 8        | 3250222  | Guard, Blade Column   | 1    |
| 9        | 3064314  | Bracket, Exhaust Pipe Mounting  | 1    |
| 10       | 6714004  | Scr., Soc. Set, Cup Pt., 1/4-20 x 5/8"                                  | 1    |
| 11       | 6746031  | Scr., Hex Slotted Hd., Self Tapping, 10-24 x 5/8"                       | 3    |
| 12       | 3589031  | Pipe, Exhaust   | 1    |
| 13       | 2056015  | Body Assembly   | 1    |
| 14       | 2056019  | Body Assy., 24" Under Guides  | 1    |
| 15       | 3420008  | Latch Block, Lower  | 1    |
| 16       | 2136029  | Door Assy., Lower (Weldment)  | 1    |
| 17       |          | Scr., Hex Washer Hd. Taptite, 5/16-18 x 1/2"                            | 6    |
| 18       | 6440005  | Latch, Door (Upper & Lower)   | 2    |
| 19       | 3850007  | Wheel, Lower  | 1    |
| 20       | 3388020  | Key, Sq., 1/4 x 1/4 x 2"  | 2    |
| 21       | 6716158  | Scr., Hollow Lock, Soc., 3/8-16 x 3/16"                                 | 2    |
| 22       | 6716003  | Scr., Soc. Set, Knurled Cup Pt., 3/8-16 x 3/8"                          | 4    |
| 23       | 6080014  | Blade, Bandsaw, Wood Cutting, 1/4 x 151x3/8"                            | 1    |
| 24       | 6080015  | Blade, Bandsaw, Wood Cutting, 3/8 x 151 x 5"                            | 1    |
| 25       | 6080016  | Blade, Bandsaw, Wood Cutting, 1/2 x 151 x 4"                            | 1    |
| 26       | 6080017  | Blade, Bandsaw, Wood Cutting, 3/4 x 151 x 3"                            | 1    |
| 27       | 6080078  | Blade, Bandsaw, Wood Cutting, 3/8 x 175 x 14 P (24" Under Guides, Only) | 1    |
| 28       | 3850008  | Wheel, Upper  | 1    |
| 29       | 2136028  | Door Assembly, Upper (Weldment)   | 1    |
| 30       | 3312254  | Plate, I.D. Powermatic  | 1    |
| 31       | 6680020  | Rivet, Aluminum, 5/32 x 1/4"  | 2    |

**MODEL 81 UPPER & LOWER GUIDE ASSEMBLY**

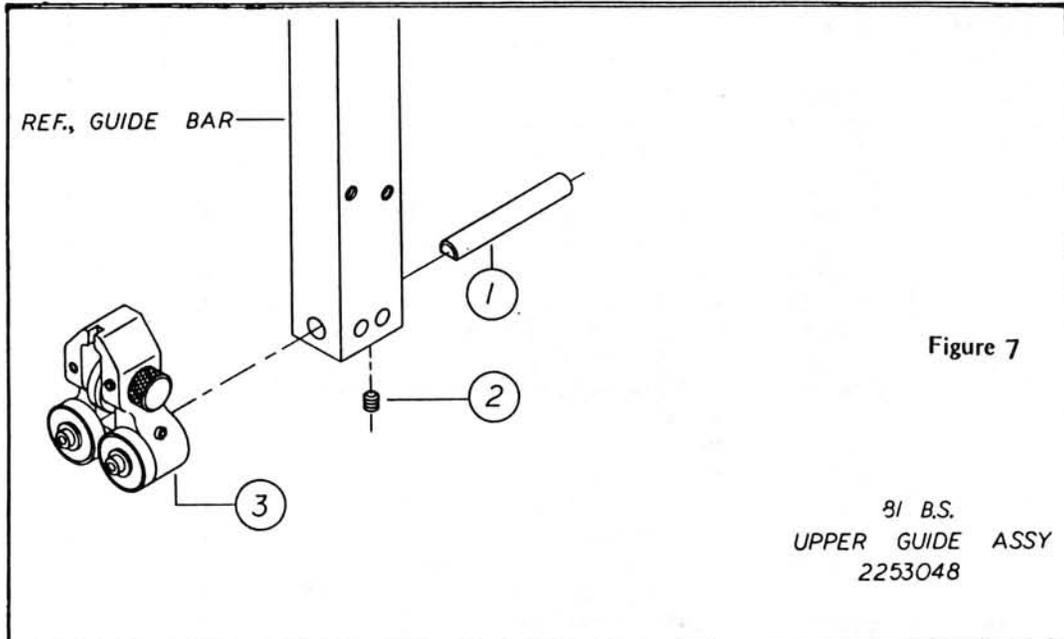


Figure 7

81 B.S.  
UPPER GUIDE ASSY  
2253048

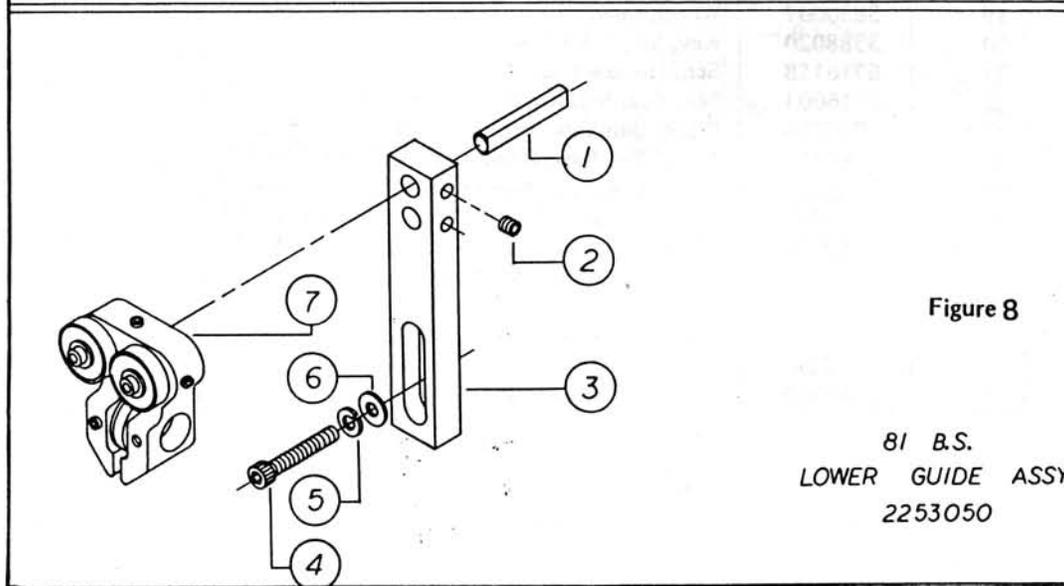


Figure 8

81 B.S.  
LOWER GUIDE ASSY.  
2253050

**MODEL 81 UPPER & LOWER GUIDE ASSEMBLY PARTS LIST**

| ITEM NO. | PART NO. | DESCRIPTION  | QTY. | ITEM NO. | PART NO. | DESCRIPTION  | QTY. |
|----------|----------|--|------|----------|----------|--|------|
|          | 2253048  | Upper Guide Assy. (Item 1 thru 3)                        |      | 2        | 67       | Scr., Soc. Set, Cup Pt., Sps., w/Loc-Well, 1/4-20 x 3/8" | 1    |
| 1        | 3582028  | Pin, Dowel, 7/16 X 2-1/2"                                | 1    | 3        | 3044090  | Bar, Lower Guide Mtg.                                    | 1    |
| 2        | 6714160  | Scr., Soc. Set, Cup Pt., Sps., w/Loc-Well, 1/4-20 X 1/4" | 1    | 4        | 6716015  | Scr., Soc. Hd. Cap, 3/8-16 X 1-1/2"                      | 1    |
| 3        | 6339002  | Guide Assy., Band Saw                                    | 1    | 5        | 6861300  | Washer, 3/8" Lock  | 1    |
|          | 2253050  | Lower Guide Assy. (Item 1 thru 7)                        |      | 6        | 6861301  | Washer, 3/8" Flat  | 1    |
| 1        | 3582026  | Pin, Dowel, 7/16 x 1-3/4"                                | 1    | 7        | 6339002  | Guide Assy., Band Saw                                    | 1    |

**MODEL 81 RIP FENCE ASSEMBLY  
2195001 (OPTIONAL)**

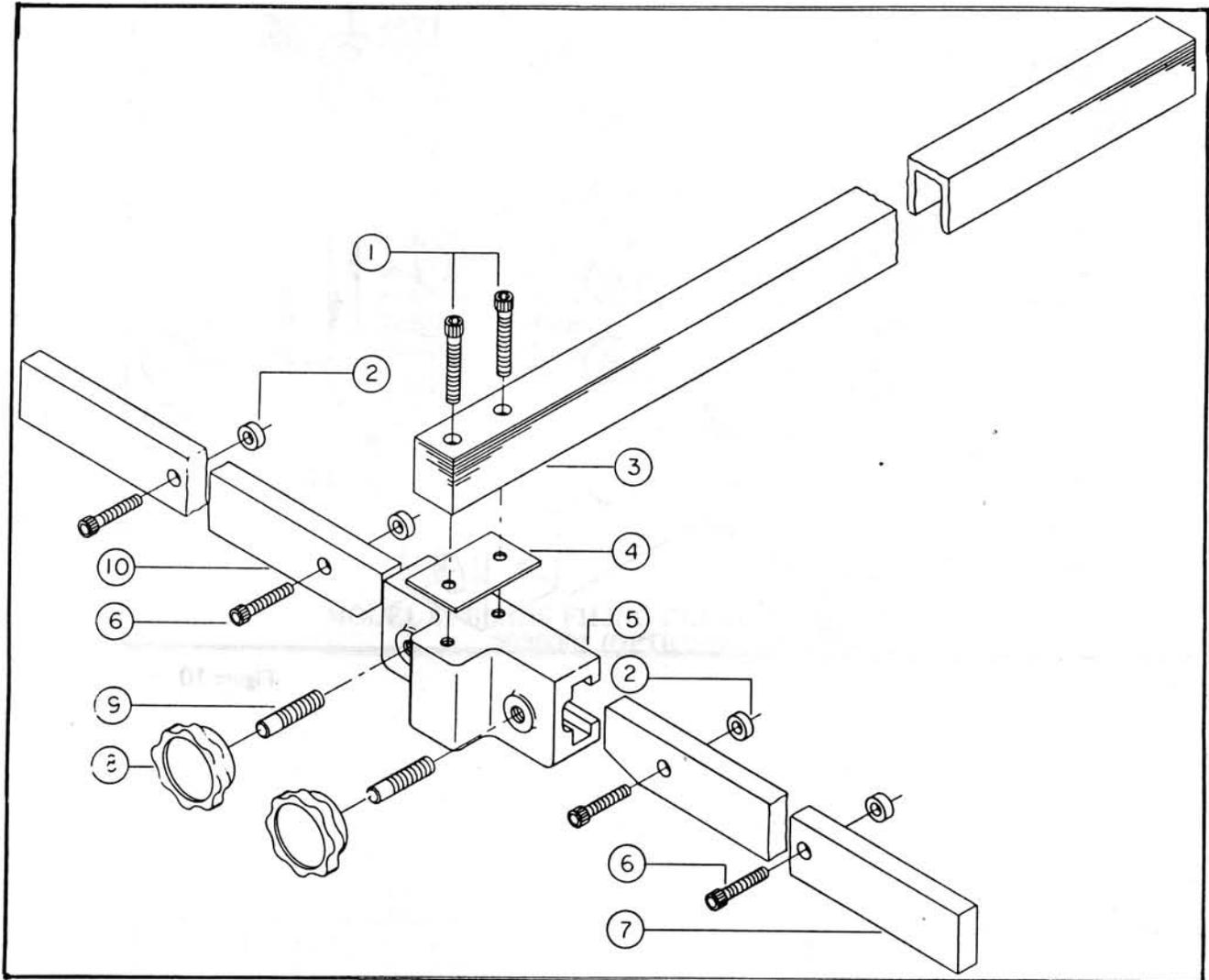


Figure 9

**MODEL 81 RIP FENCE ASSEMBLY PARTS LIST  
2195001 (OPTIONAL)**

| ITEM NO. | PART NO. | DESCRIPTION                         | QTY |
|----------|----------|-------------------------------------|-----|
| 1        | 6716014  | Scr., Soc. Hd. Cap, 3/8-16 x 2-1/2" | 2   |
| 3        | 3735001  | Spacer, Fence Bar                   | 4   |
| 3        | 3195002  | Fence, Rip                          | 1   |
| 4        | 3722004  | Shim, Rip Fence                     | 1   |
| 5        | 3063046  | Bracket, Rip Fence Mounting         | 1   |
| 6        | 6715020  | Scr., Soc. Hd. Cap, 5/16-18 x 1"    | 4   |
| 7        | 3044041  | Bar, Right Hand Fence               | 1   |
| 8        | 3406017  | Knob                                | 2   |
| 9        | 3695032  | Screw, Lock                         | 1   |
| 10       | 3044040  | Bar, Left Hand Fence                | 1   |

**MODEL 81 CIRCLE CUTTING ATTACHMENT  
2028001 (OPTIONAL)**

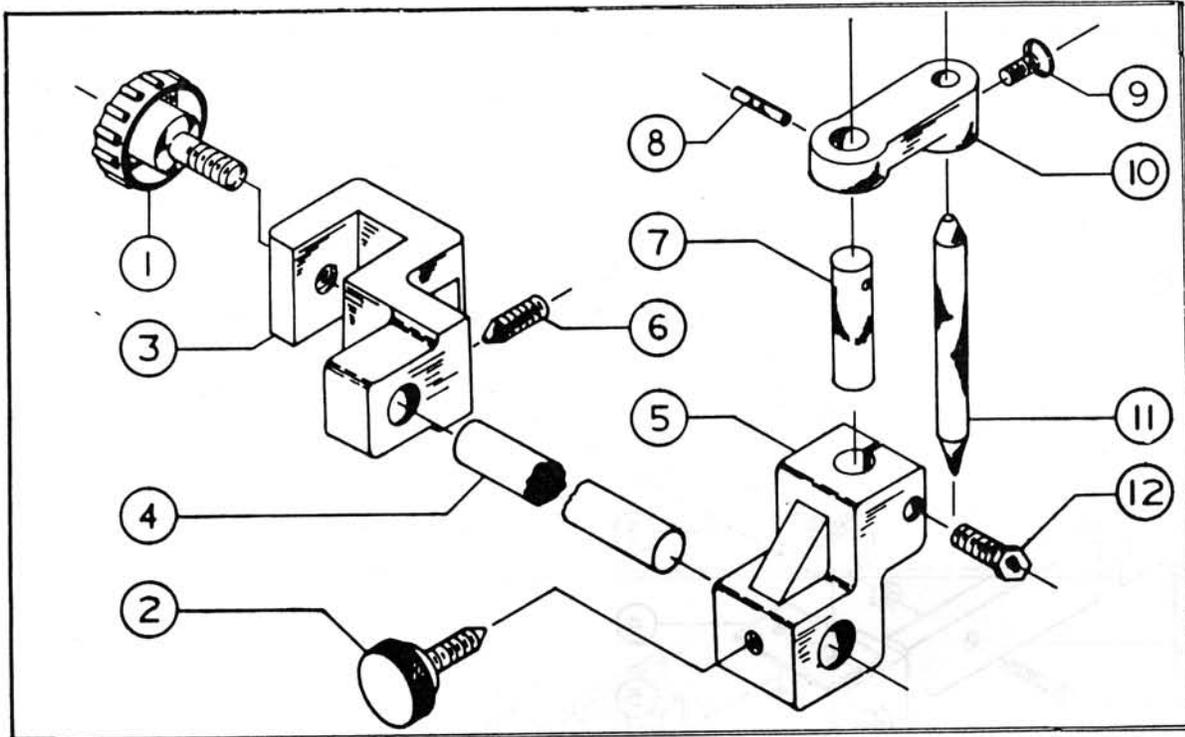


Figure 10

**MODEL 81 BLADE FILING CLAMP  
2028002 (OPTIONAL)**

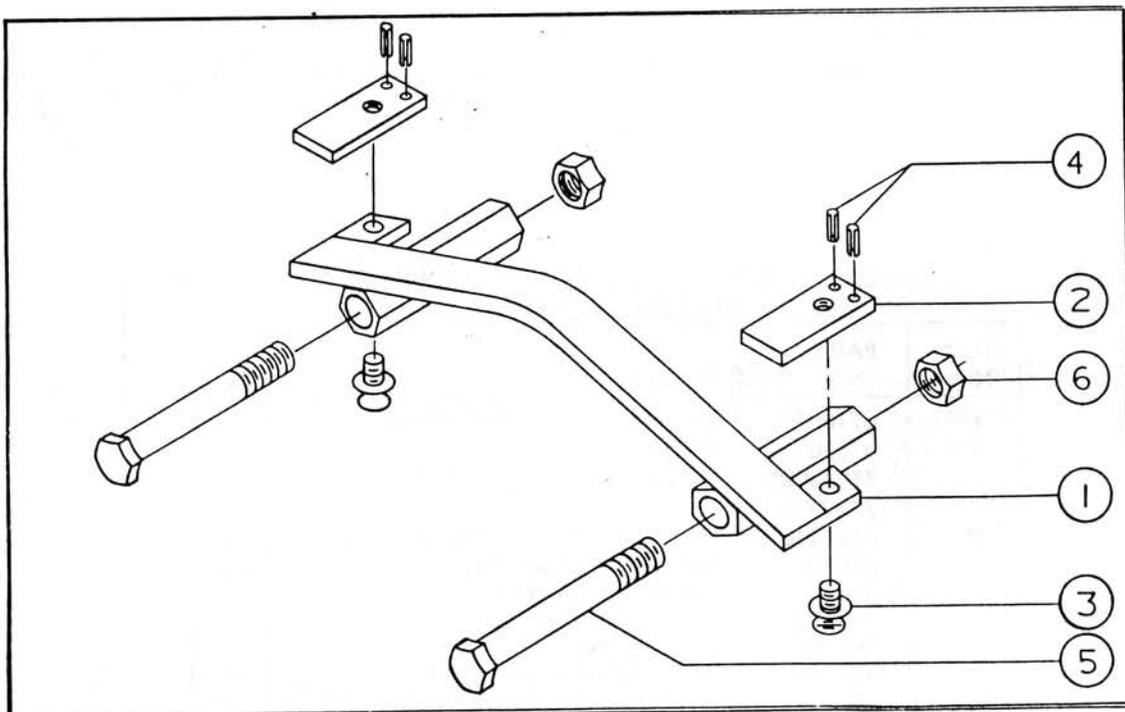


Figure 11

**MODEL 81 CIRCLE CUTTING ATTACHMENT PARTS LIST  
2028001 (OPTIONAL)**

| ITEM NO. | PART NO. | DESCRIPTION                                | QTY |
|----------|----------|--|-----|
| 1        | 2406002  | Knob Assembly                              | 1   |
| 2        | 2406004  | Knob Assembly                              | 1   |
| 3        | 3064054  | Bracket, Clamp                             | 1   |
| 4        | 3044016  | Bar, Guide                                 | 1   |
| 5        | 3064056  | Bracket, Adjusting                         | 1   |
| 6        | 6716117  | Screw, Slot Hd., Cone Pt., 3/8-16 x 1-1/2" | 1   |
| 7        | 3583002  | Pin, Locating Pivot                        | 1   |
| 8        | 6626032  | Pin, Spring, 3/16 x 1-1/4 x 3/4" L         | 1   |
| 9        | 6715106  | Screw, Thumb, 5/16-18 x 3/4" L             | 1   |
| 10       | 3289006  | Holder                                     | 1   |
| 11       | 3604007  | Pointer                                    | 1   |
| 12       | 6715034  | Scr., Hex Hd. Cap, 5/16-18 x 1-1/4" L      | 1   |

**MODEL 81 BLADE FILING CLAMP PARTS LIST  
2028002 (OPTIONAL)**

| ITEM NO. | PART NO. | DESCRIPTION                          | QTY |
|----------|----------|--------------------------------------|-----|
| 1        | 2042003  | Base Assy., Mounting Post (Weldment) | 1   |
| 2        | 3092014  | Clamp, Saw Blade                     | 2   |
| 3        | 6715066  | Screw, Thumb                         | 2   |
| 4        | 6626002  | Pin, Spring, 1/8 x 3/8"              | 4   |
| 5        | 6716149  | Scr., Hex Hd. Cap, 3/8-16 x 3-1/2"   | 2   |
| 6        | 6516001  | Nut, Hex, 3/8-16                     | 2   |

**MODEL 81 BLADE CUTTING ASSEMBLY  
2109001 (OPTIONAL)**

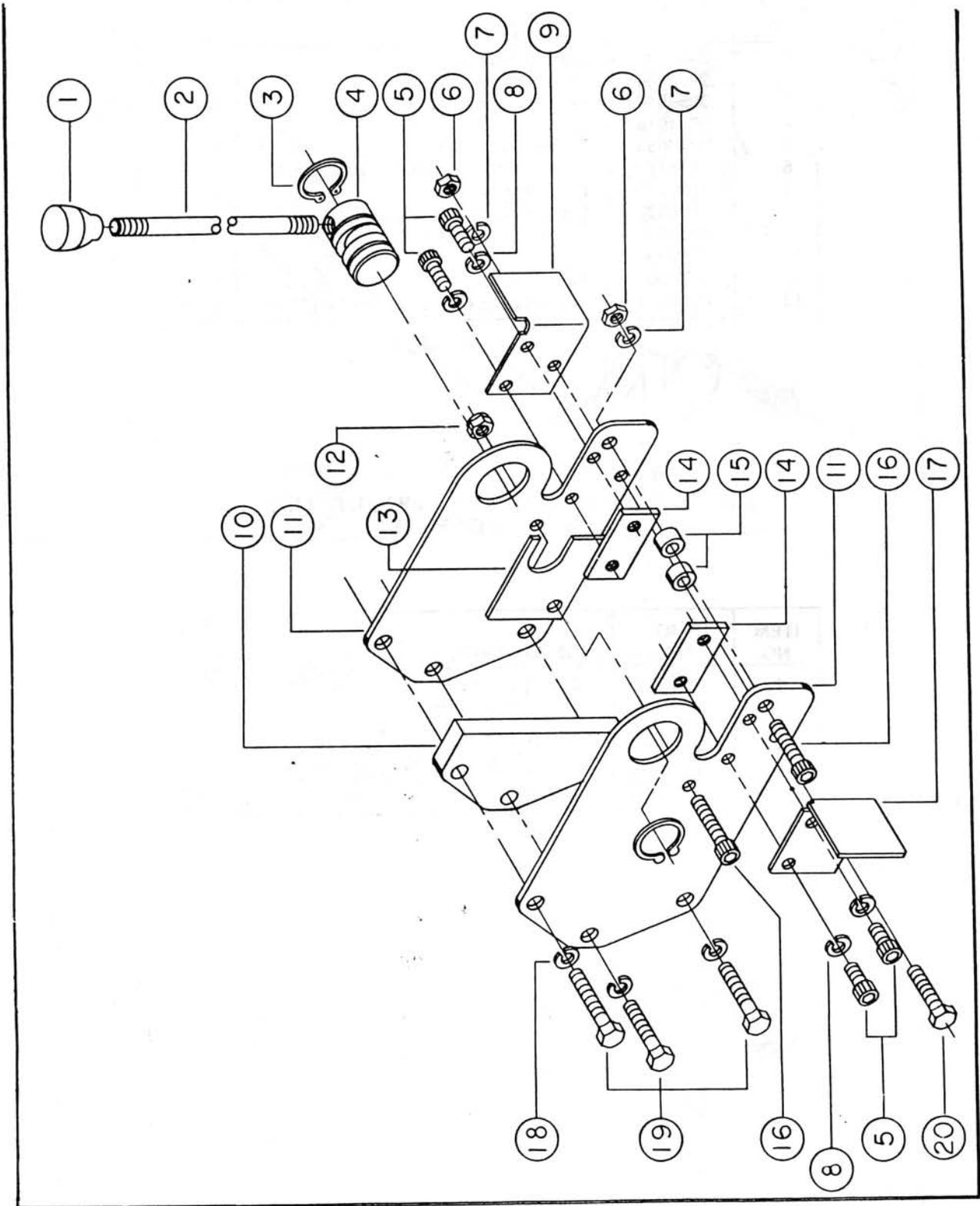
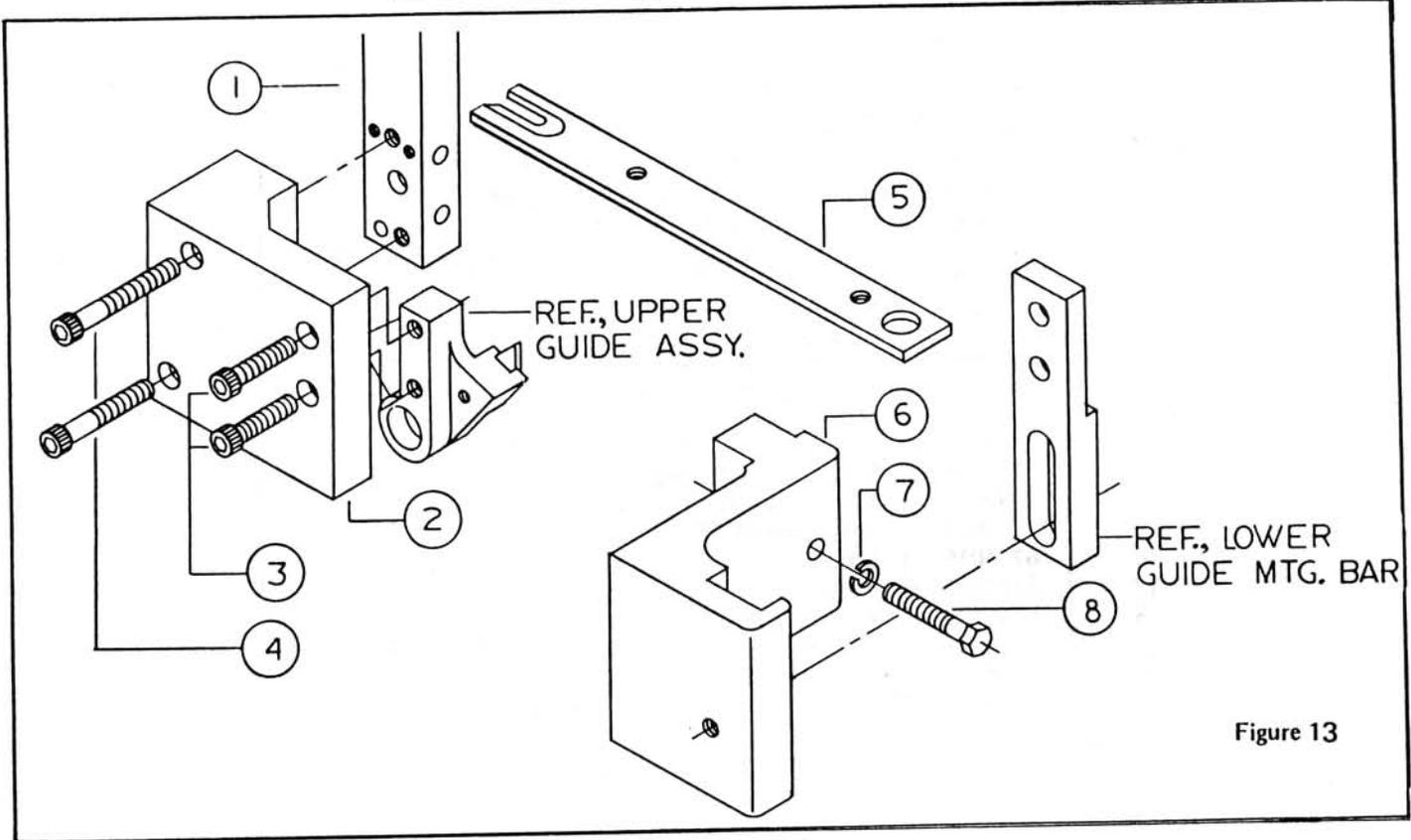


Figure 12

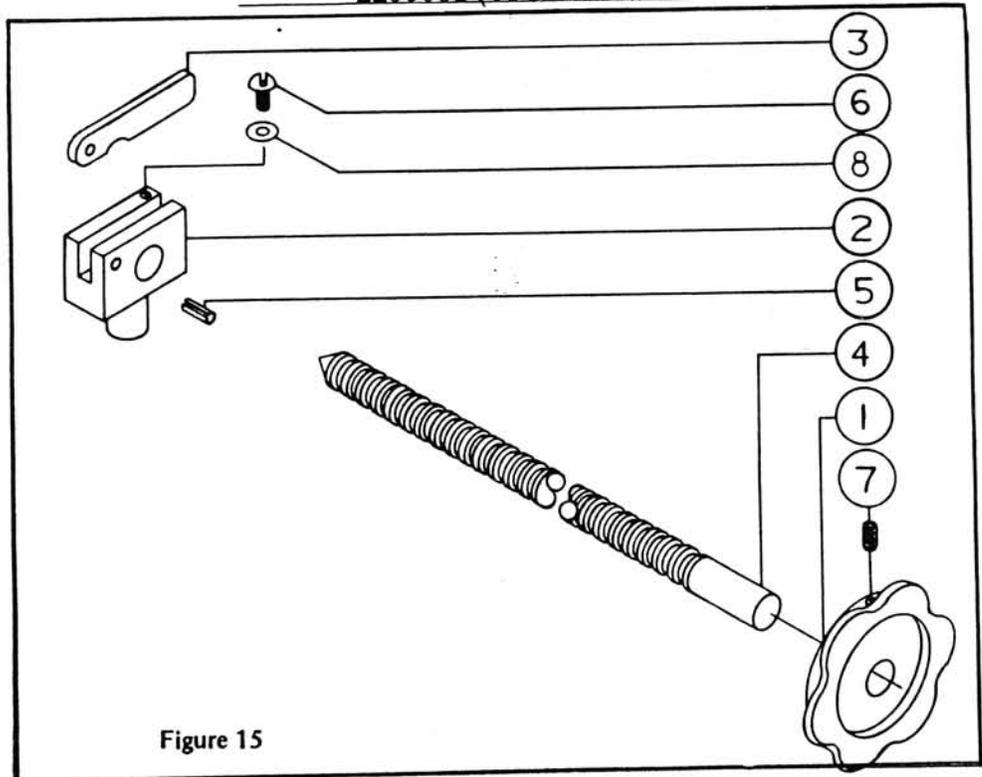
**MODEL 81 BLADE CUTTING ASSEMBLY PARTS LIST  
2109001 (OPTIONAL)**

| ITEM NO. | PART NO. | DESCRIPTION                          | QTY |
|----------|----------|--------------------------------------|-----|
| 1        | 3407201  | Knob, Teardrop                       | 1   |
| 2        | 3670030  | Rod, Cam Operating, Blade Cutter     | 1   |
| 3        | 6670005  | Ring, Retaining, Truac No. 5100-100  | 2   |
| 4        | 3076004  | Cam, Blade Cutter                    | 1   |
| 5        | 6710014  | Scr., Soc. Hd. Cap, No. 20-24 x 3/8" | 4   |
| 6        | 6514008  | Nut, Hex Jam, 1/4-20                 | 2   |
| 7        | 6861100  | Washer, 1/4" Lock                    | 2   |
| 8        | 6860802  | Washer, No. 10 Lock                  | 4   |
| 9        | 3215004  | Flange, Blade Cutter, Right Hand     | 1   |
| 10       | 3042008  | Base, Blade Cutter Spacing           | 1   |
| 11       | 3595015  | Plate, Side                          | 2   |
| 12       | 6514002  | Nut, Hex Lock, 1/4-20                | 1   |
| 13       | 3052001  | Blade, Cutter, Sliding               | 1   |
| 14       | 3052002  | Blade, Cutter, Stationary            | 2   |
| 15       | 3735014  | Spacer, Inside, Blade Cutter         | 2   |
| 16       | 6714016  | Scr., Soc. Hd. Cap, 1/4-20 x 1"      | 2   |
| 17       | 3215001  | Flange, Blade Cutter, Left Hand      | 2   |
| 18       | 6861200  | Washer, 5/16" Lock                   | 3   |
| 19       | 6715034  | Scr., Hex Hd. Cap, 5/16-18 x 1-1/4"  | 3   |
| 20       | 6714048  | Scr., Hex Hd. Cap, 1/4-20 x 1"       | 1   |

**MODEL 81 90° TWIST GUIDE ASSEMBLY  
2253073 (OPTIONAL)**



**MODEL 81 HAND FEED ASSEMBLY  
2266001 (OPTIONAL)**



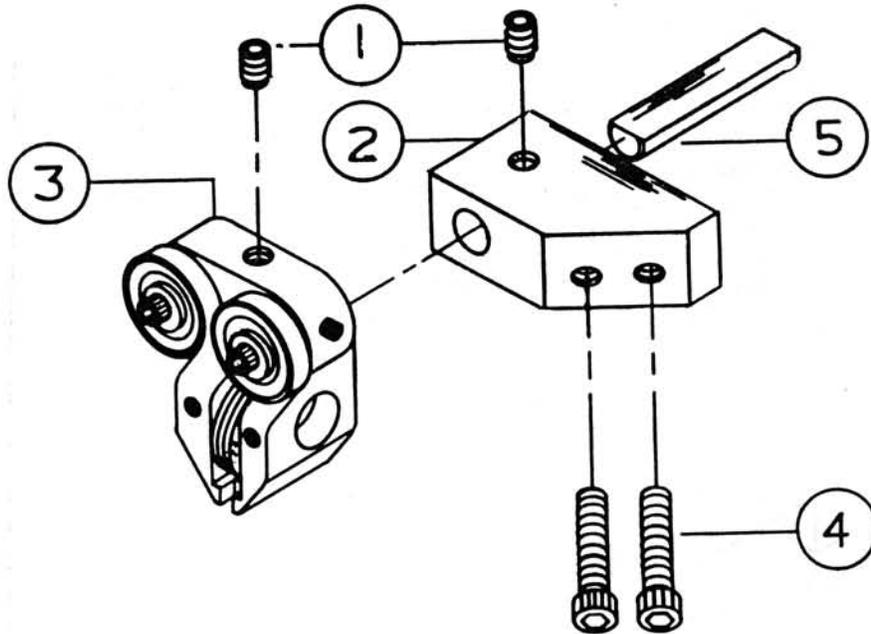
**MODEL 81 90° TWIST GUIDE ASSEMBLY PARTS LIST**  
**2253073 (OPTIONAL)**

| ITEM NO. | PART NO. | DESCRIPTION                          | QTY |
|----------|----------|--------------------------------------|-----|
| 1        | 3044211  | Bar, Guide, 90° Twist                | 1   |
| 2        | 3062031  | Bracket, Upper Guide Mtg., 90° Twist | 1   |
| 3        | 6716012  | Scr., Soc. Hd. Cap, 3/8-16 x 1"      | 2   |
| 4        | 6716024  | Scr., Soc. Hd. Cap, 3/8-16 x 2-1/4"  | 2   |
| 5        | 3328063  | Insert, Table, 90° Twist             | 1   |
| 6        | 3062033  | Bracket, Lower Guide Mtg., 90° Twist | 1   |
| 7        | 6861300  | Washer, 3/8" Lock                    | 1   |
| 8        | 6716124  | Scr., Hex Hd. Cap, 3/8-16 x 2-1/4"   | 1   |

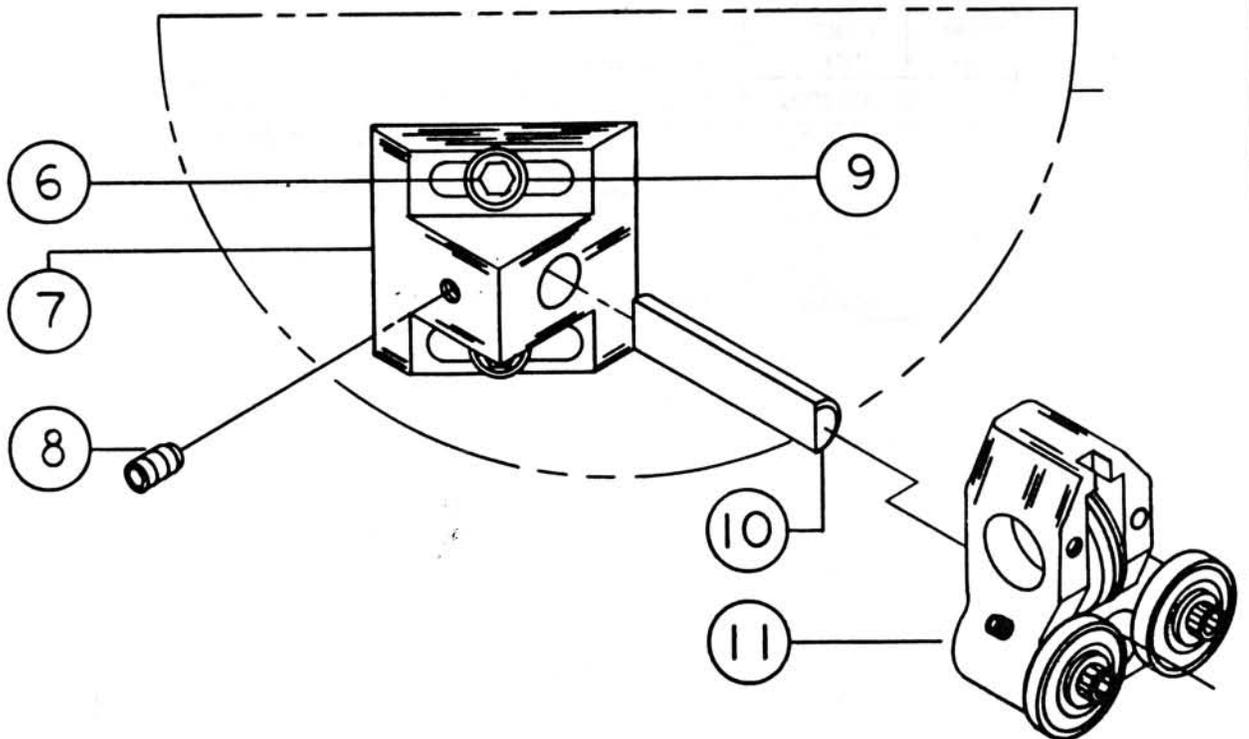
**MODEL 81 HAND FEED ASSEMBLY PARTS LIST**  
**2266001 (OPTIONAL)**

| ITEM NO. | PART NO. | DESCRIPTION                                | QTY |
|----------|----------|--|-----|
| 1        | 3271009  | Handwheel, 3-1/2 x .627"                   | 1   |
| 2        | 3529001  | Nut, Hand Feed Screw, 3/4 x 1-1/4 x 3-3/4" | 1   |
| 3        | 3581003  | Pawl, Hand Feed Nut, .050 x 5/8 x 1-7/8"   | 1   |
| 4        | 3692002  | Screw, Hand Feed, 5/8 x 13-3/4"            | 1   |
| 5        | 6626004  | Pin, Spring, 1/8 x 3/4" L                  | 1   |
| 6        | 6706035  | Screw, Round Hd., 6-32 x 1/4" L            | 1   |
| 7        | 6715016  | Screw, Soc. Set, Cup, 5/16-18 x 5/16" L    | 1   |
| 8        | 6860600  | Washer, Steel, Flat, No. 6                 | 1   |

MODEL 81 - 45° TWIST GUIDE ASSEMBLY  
2403007 (OPTIONAL)



UPPER 45° TWIST ASSY.



LOWER 45° TWIST ASSY.

Figure 15

**MODEL 81 – 45° TWIST GUIDE ASSEMBLY PARTS LIST  
2403007 (OPTIONAL)**

**MODEL 87 – 45° TWIST GUIDE ASSEMBLY  
PARTS LIST**

| ITEM NO. | PART NO. | DESCRIPTION                                 | QTY |
|----------|----------|---|-----|
|          | 2253049  | Guide Assembly, 45° Upper (Items 1 Thru 5)  |     |
| 1        | 6714159  | Scr., Soc. Set, 1/4–20 x 3/8"               | 2   |
| 2        | 3064211  | Bracket, Upper Guide Mounting               | 1   |
| 3        | 6339002  | Guide, Band Saw                             | 1   |
| 4        | 6715027  | Scr., Soc. Hd. Cap, 5/16–18 x 1-3/4"        | 2   |
| 5        | 3582028  | Pin, Dowel, 7/16 x 2-1/2"                   | 1   |
|          | 2253054  | Guide Assembly, 45° Lower (Items 6 Thru 11) |     |
| 6        | 6715020  | Scr., Soc. Hd. Cap, 5/16–18 x 1"            | 2   |
| 7        | 3064212  | Bracket, Lower Guide Mounting               | 1   |
| 8        | 6714159  | Scr., Soc. Set, 1/4–20 x 3/8"               | 2   |
| 9        | 6861201  | Washer, 5/16" Flat                          | 2   |
| 10       | 3582027  | Pin, Dowel, 7/16 x 2-5/8"                   | 1   |
| 11       | 6339002  | Guide, Band Saw                             | 1   |

**MODEL 81 MITER GAUGE ASSEMBLY  
2471010 (OPTIONAL)**

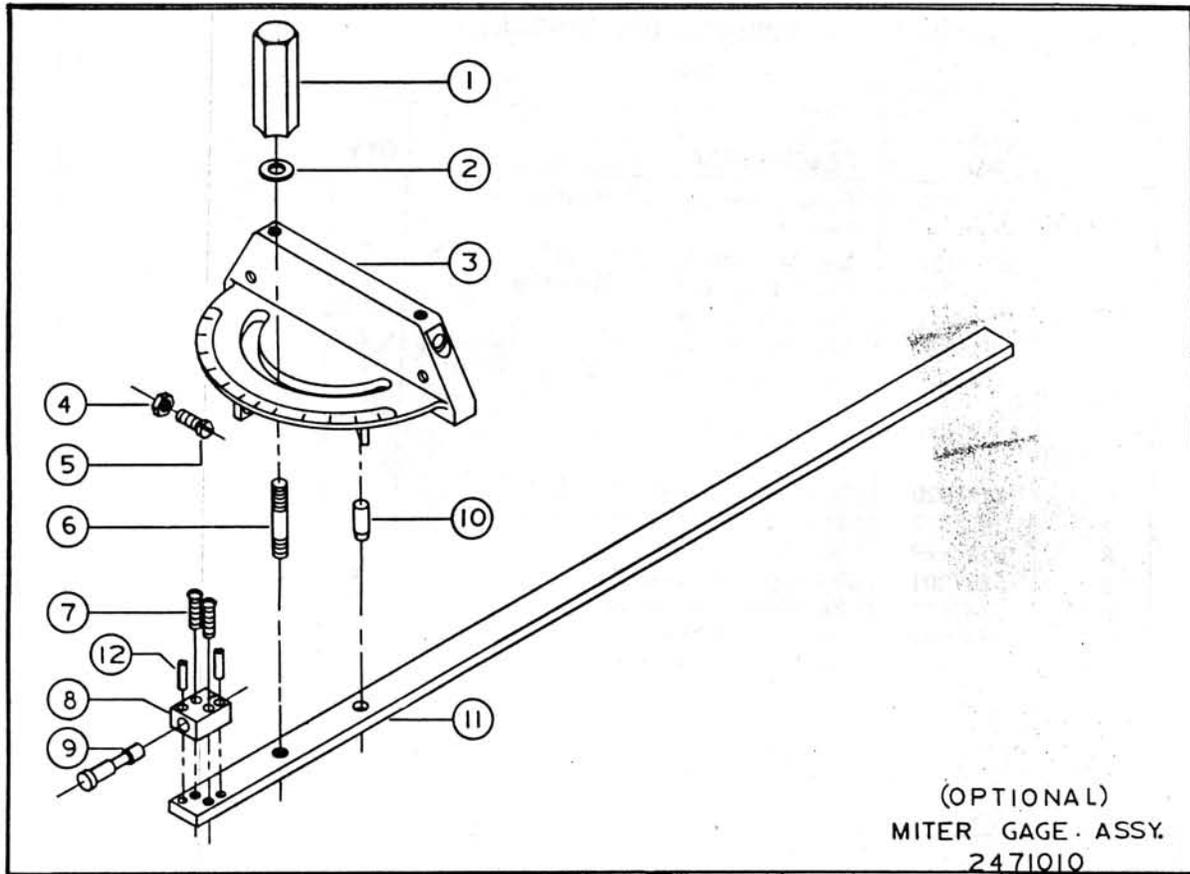
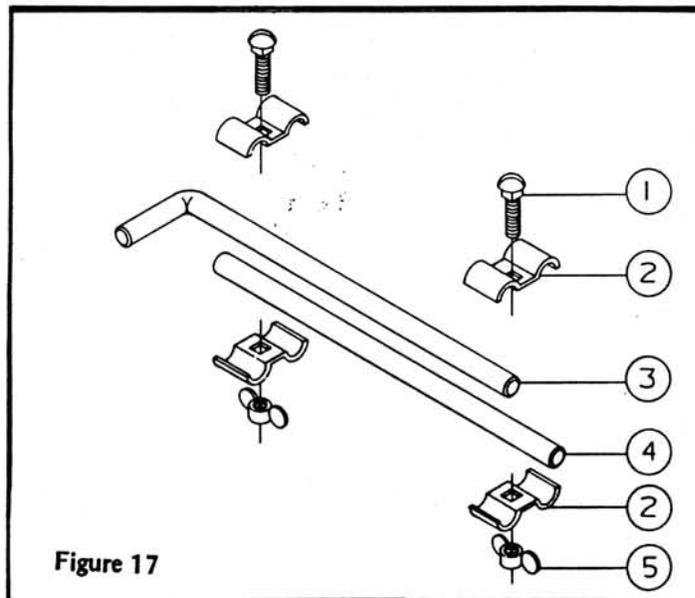


Figure 16

**MODEL 81 STOP ROD ASSEMBLY  
2670003 (OPTIONAL)**



**MODEL 81 MITER GAUGE ASSEMBLY PARTS LIST  
2471010 (OPTIONAL)**

| 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, No. 6-32 (Plated)          | 3   |
| 5        | 6706094  | Scr., Rd. Hd. Mach., No. 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   |

**MODEL 81 STOP ROD ASSEMBLY PARTS LIST  
2671010 (OPTIONAL)**

| ITEM NO. | PART NO. | DESCRIPTION                        | QTY |
|----------|----------|------------------------------------|-----|
| 1        | 6086000  | Bolt, Carriage, No. 10-24 x 3/4"   | 2   |
| 2        | 3092001  | Clamp                              | 4   |
| 3        | 3670002  | Rod, Stop (90° Bend)               | 1   |
| 4        | 3670003  | Rod, Stop (Straight)               | 1   |
| 5        | 6510002  | Nut, Wing, No. 10-24 (Zinc Plated) | 1   |





# POWERMATIC®

McMINNVILLE, TENNESSEE 37110

MODEL 2000 AIR BLOWER KIT PARTS LIST  
 200000 (OPTIONAL)

| QTY. | NO.     | DESCRIPTION                                | QTY. | NO.     | DESCRIPTION                                   | QTY. |
|------|---------|--|------|---------|---|------|
| 1    | 3048349 | Kit, Comp. Wdg. Assy.                      | 10   | 6134001 | Nut, Hex Jam, 5/16-18 Nut Adj.                | 1    |
| 1    | 3048349 | Kit, Comp. Assy.                           | 11   | 6134002 | Nut, Hex Jam, 9/16-12                         | 1    |
| 1    | 3075005 | Washer, Lock 1/2"                          | 12   | 6134003 | Scr., Soc. Hd. Scr., 1/4-20 X 1/2" L.         | 1    |
| 1    | 3075006 | Scr., Soc. Hd. Scr., 1/4-20 X 1/2" L.      | 13   | 6134004 | Scr., Soc. Hd. Scr., 5/16-18 X 1/31"          | 1    |
| 1    | 6134001 | Clamp, Yibs, Timmerman No. 2-2023A-6, 3/8" | 14   | 6134005 | Scr., Pan Hd. Self Tapping, No. 2 X 1/8" Long | 1    |
| 1    | 6134002 | Compressor, Smith No. 20                   | 15   | 6284001 | Tube, Black Pvc, 3/4" X .075"                 | 2    |
| 1    | 6284004 | Fitting, Tube, Imperial Tapered            | 16   | 6284002 | Washer, Lock 1/16"                            | 4    |
| 1    | 6284005 | Nut, Hex Jam, 1/4-20 X 1/8"                |      |         |   |      |
| 1    | 6284006 | Fitting, Tube, 1/4" X 1/8" X 1/8"          |      |         |   |      |
| 1    | 6284007 | Kit, No. 2-2023A-2                         |      |         |   |      |

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