

# **POWERMATIC®**

## **Operating Instructions and Parts Manual 18-, 20-, 24-inch Band Saws Models PM1800B, PM2013B, PM2415B**



*PM2013B shown*

**Powermatic**  
427 New Sanford Road  
LaVergne, Tennessee 37086  
Ph.: 800-274-6848  
[www.powermatic.com](http://www.powermatic.com)

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# 1.0 Warranty and service

Powermatic warrants every product it sells against manufacturers' defects. If one of our tools needs service or repair, please contact Technical Service by calling 1-800-274-6846, 8AM to 5PM CST, Monday through Friday.

### Warranty Period

The general warranty lasts for the time period specified in the literature included with your product or on the official Powermatic branded website.

- Powermatic products carry a limited warranty which varies in duration based upon the product. (See chart below)
- Accessories carry a limited warranty of one year from the date of receipt.
- Consumable items are defined as expendable parts or accessories expected to become inoperable within a reasonable amount of use and are covered by a 90 day limited warranty against manufacturer's defects.

### Who is Covered

This warranty covers only the initial purchaser of the product from the date of delivery.

### What is Covered

This warranty covers any defects in workmanship or materials subject to the limitations stated below. This warranty does not cover failures due directly or indirectly to misuse, abuse, negligence or accidents, normal wear-and-tear, improper repair, alterations or lack of maintenance. Powermatic woodworking machinery is designed to be used with Wood. Use of these machines in the processing of metal, plastics, or other materials outside recommended guidelines may void the warranty. The exceptions are acrylics and other natural items that are made specifically for wood turning.

### Warranty Limitations

Woodworking products with a Five Year Warranty that are used for commercial or industrial purposes default to a Two Year Warranty. Please contact Technical Service at 1-800-274-6846 for further clarification.

### How to Get Technical Support

Please contact Technical Service by calling 1-800-274-6846. **Please note that you will be asked to provide proof of initial purchase when calling.** If a product requires further inspection, the Technical Service representative will explain and assist with any additional action needed. Powermatic has Authorized Service Centers located throughout the United States. For the name of an Authorized Service Center in your area call 1-800-274-6846 or use the Service Center Locator on the Powermatic website.

### More Information

Powermatic is constantly adding new products. For complete, up-to-date product information, check with your local distributor or visit the Powermatic website.

### How State Law Applies

This warranty gives you specific legal rights, subject to applicable state law.

### Limitations on This Warranty

POWERMATIC LIMITS ALL IMPLIED WARRANTIES TO THE PERIOD OF THE LIMITED WARRANTY FOR EACH PRODUCT. EXCEPT AS STATED HEREIN, ANY IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE EXCLUDED. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU. POWERMATIC SHALL IN NO EVENT BE LIABLE FOR DEATH, INJURIES TO PERSONS OR PROPERTY, OR FOR INCIDENTAL, CONTINGENT, SPECIAL, OR CONSEQUENTIAL DAMAGES ARISING FROM THE USE OF OUR PRODUCTS. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.

Powermatic sells through distributors only. The specifications listed in Powermatic printed materials and on the official Powermatic website are given as general information and are not binding. Powermatic reserves the right to effect at any time, without prior notice, those alterations to parts, fittings, and accessory equipment which they may deem necessary for any reason whatsoever.

### Product Listing with Warranty Period

90 Days – Parts; Consumable items
1 Year – Motors, Machine Accessories
2 Year – Woodworking Machinery used for industrial or commercial purposes
5 Year – Woodworking Machinery

NOTE: Powermatic is a division of JPW Industries, Inc. References in this document to Powermatic also apply to JPW Industries, Inc., or any of its successors in interest to the Powermatic brand.

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### 3.0 IMPORTANT SAFETY INSTRUCTIONS

**WARNING: For your own safety read instruction manual before operating Band Saw.**

- Wear eye protection.
- Do not remove jammed cutoff pieces until blade has stopped.
- Maintain proper adjustment of blade tension, blade guides, and thrust bearings.
- Adjust upper guide to just clear workpiece.
- Hold workpiece firmly against table.

1. Read and understand entire owner's manual before attempting assembly or operation.
2. Read and understand the warnings posted on the machine and in this manual. Failure to comply with all of these warnings may cause serious injury.
3. Replace warning labels if they become obscured or removed.
4. This band saw is designed and intended for use by properly trained and experienced personnel only. If you are not familiar with the proper and safe operation of a band saw, do not use until proper training and knowledge have been obtained.
5. Do not use this band saw for other than its intended use. If used for other purposes, Powermatic disclaims any real or implied warranty and holds itself harmless from any injury that may result from that use.
6. Always wear approved safety glasses/face shield while using this machine. (Everyday eyeglasses only have impact resistant lenses; they are not safety glasses.)
7. Before operating band saw, remove tie, rings, watches and other jewelry, and roll sleeves up past the elbows. Remove all loose clothing and confine long hair. Non-slip footwear or anti-skid floor strips are recommended. Do not wear gloves.
8. Keep work area clean. Cluttered areas and benches invite accidents.
9. Use proper extension cord. Make sure your extension cord is in good condition. When using an extension cord, be sure to use one heavy enough to carry the current your product will draw. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating. Table 1 shows the correct size to use depending on cord length and nameplate ampere rating. If in doubt, use the next heavier gage. The smaller the gage number, the heavier the cord.
10. Secure work. Use clamps or a vise to hold work when practical. It's safer than using your hand and it frees both hands to operate tool.
11. Disconnect tools before servicing; when changing accessories, such as blade, bits, cutters and the like.
12. Direction of feed: Feed work into a blade or cutter against the direction of rotation of the blade or cutter only.
13. Adjust upper blade guides to approximately 1/8" above workpiece.
14. Make sure blade tension, tracking and blade guides are all properly adjusted.
15. Make relief cuts where possible, when cutting curved stock.
16. When feeding small work pieces into blade, always use push stick, fixture, or similar device to keep hands at a safe distance.
17. Hold stock firmly and flat against table.
18. Wear ear protectors (plugs or muffs) during extended periods of operation.
19. Do not operate this machine while tired or under the influence of drugs, alcohol or any medication.
20. Make certain switch is in OFF position before connecting machine to power supply.
21. Make certain machine is properly grounded.
22. Do not back stock out of blade while blade is running.
23. Remove adjusting keys and wrenches. Form a habit of checking to see that keys and adjusting wrenches are removed from the machine before turning it on.
24. Keep safety guards in place at all times when machine is in use. If removed for maintenance purposes, use extreme caution and replace the guards immediately after completion of maintenance.
25. Check damaged parts. Before further use of machine, a guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting and any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced.
26. Keep floor around machine clean and free of scrap material, oil and grease.

27. Keep visitors a safe distance from work area. Keep children away.
28. Make your workshop child proof with padlocks, master switches or by removing starter keys.
29. Give your work undivided attention. Looking around, carrying on a conversation and “horse-play” are careless acts that can result in serious injury.
30. Maintain a balanced stance at all times so that you do not fall into blade or other moving parts. Do not overreach or use excessive force to perform any machine operation.
31. Use the right tool at the correct speed and feed rate. Do not force a tool or attachment to do a job for which it was not designed. The right tool will do the job better and more safely.
32. Use recommended accessories; improper accessories may be hazardous.
33. Maintain tools with care. Keep blades sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.
34. Turn off machine before cleaning. Use a brush or compressed air to remove chips or debris — not your hands.
35. Do not stand on machine. Serious injury could occur if machine tips over.
36. Never leave machine running unattended. Turn power off and do not leave band saw until blade comes to a complete stop.
37. Remove loose items and unnecessary work pieces from area before starting machine.
38. Keep hands out of line of saw blade.
39. Don't use in dangerous environment. Do not expose machine to rain or use in wet or damp locations. Keep work area well lighted.
40. Remove safety key from switch whenever band saw is turned “OFF”, and keep safety key out of reach of unauthorized persons or children.

**⚠ WARNING:** This product can expose you to chemicals including lead which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to <http://www.p65warnings.ca.gov>.

**⚠ WARNING:** Drilling, sawing, sanding or machining wood products generates wood dust and other substances known to the State of California to cause cancer. Avoid inhaling dust generated from wood products or use a dust mask or other safeguards for personal protection.

Wood products emit chemicals known to the State of California to cause birth defects or other reproductive harm. For more information go to <http://www.p65warnings.ca.gov/wood>.

Familiarize yourself with the following safety notices used in this manual:

**⚠ CAUTION**

This means that if precautions are not heeded, it may result in minor injury and/or possible machine damage.

**⚠ WARNING**

This means that if precautions are not heeded, it may result in serious injury or possibly even death.

## 4.0 About this manual

This manual is provided by Powermatic covering the safe operation and maintenance procedures for a Powermatic Model PM1800B, PM2013B and PM2415B Band Saw. This manual contains instructions on installation, safety precautions, general operating procedures, maintenance instructions and parts breakdown. Your machine has been designed and constructed to provide consistent, long-term operation if used in accordance with the instructions as set forth in this document.

This manual is not intended to be an exhaustive guide to band saw operational methods, use of jigs or after-market accessories, choice of stock, etc. Additional knowledge can be obtained from experienced users or trade articles. Whatever accepted methods are used, always make personal safety a priority.

If there are questions or comments, please contact your local supplier or Powermatic. Powermatic can also be reached at our web site: [www.powermatic.com](http://www.powermatic.com).

Retain this manual for future reference. If the machine transfers ownership, the manual should accompany it.

**⚠WARNING** Read and understand the entire contents of this manual before attempting assembly or operation! Failure to comply may cause serious injury!

Register your product using the mail-in card provided, or register online:

<http://www.powermatic.com/us/en/service-and-support/product-registration/>

## 5.0 Features and Terminology

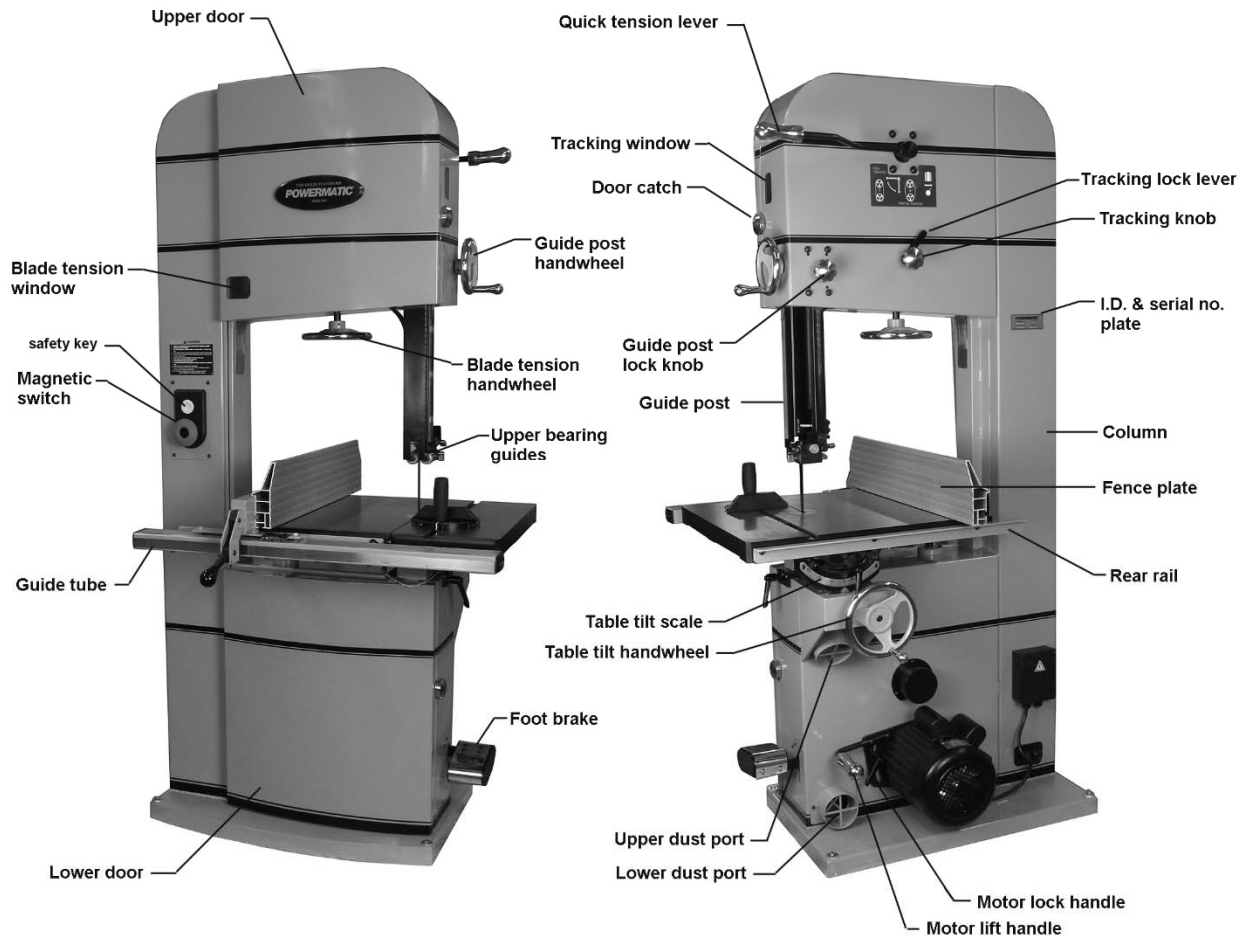


Figure 1

## 6.0 Specifications

Model number ..... **PM1800B** ..... **PM1800B-3**  
 Stock number ..... 1791800B ..... 1791801B

Model number ..... **PM2013B** ..... **PM2013B-3**  
 Stock number ..... 1791257B ..... 1791258B

Model number ..... **PM2415B** ..... **PM2415B-3**  
 Stock number ..... 1791259B ..... 1791260B

### Single phase of motor and electricals:

Motor type ..... totally enclosed fan cooled, induction, capacitor start  
 Horsepower ..... 5 HP  
 Phase ..... single  
 Voltage ..... 230V  
 Cycle ..... 60Hz  
 Listed FLA (full load amps) ..... 22A  
 Starting amps ..... 105A  
 Running amps (no load) ..... 9A  
 Start capacitor ..... 300MFD, 250VAC  
 Run capacitor ..... 45µF, 450VAC  
 Power transfer ..... Poly-V, PK 7 ribs belt drive  
 On/off switch ..... Magnetic, with power indicator lamp and safety key  
 Motor speed ..... 1720 RPM  
 Blade speed (PM1800B / PM2013B) ..... 2300/4400 SFPM  
 Blade speed (PM2415B) ..... 2500/4800 SFPM  
 Power cord length ..... N/A  
 Power plug installed ..... N/A  
 Recommended circuit size <sup>1</sup> ..... 30A  
 Sound emission <sup>3</sup> ..... 72 dB at 39" (1000mm) from blade, without load

### Three phase of motor and electricals:

Motor type ..... totally enclosed fan cooled, induction, split-phase start  
 Horsepower ..... 5 HP  
 Phase ..... Three  
 Voltage <sup>2</sup> ..... 230/460V  
 Cycle ..... 60Hz  
 Listed FLA (full load amps) ..... 15/7.5A  
 Starting amps ..... 105A  
 Running amps (no load) ..... 8.5/4.3A  
 Start capacitor ..... N/A  
 Run capacitor ..... N/A  
 Power transfer ..... Poly-V, PK 7 ribs belt drive  
 On/off switch ..... Magnetic, with power indicator lamp and safety key  
 Motor speed ..... 1720 RPM  
 Blade speed (PM1800B-3 / PM2013B-3) ..... 2300/4400 SFPM  
 Blade speed (PM2415B-3) ..... 2500/4800 SFPM  
 Power cord length ..... N/A  
 Power plug installed ..... N/A  
 Recommended circuit size <sup>1</sup> ..... 20A  
 Sound emission <sup>3</sup> ..... 72 dB at 39" (1000mm) from blade, without load

<sup>1</sup> subject to local/national electrical codes.

<sup>2</sup> for 460V, magnetic switch (part no. PM1800B-043C) must be purchased separately and installed. A qualified electrician is recommended.

<sup>3</sup> the specified values are emission levels and are not necessarily to be seen as safe operating levels. As workplace conditions vary, this information is only intended to allow the user to make a better estimation of the hazards and risks involved.



PM1800B/1800B-3 Capacities:

Maximum cutting height/resaw capacity .....	18" (457mm)
Throat capacity.....	18" (457mm)
Minimum blade width .....	1/8" (3.2mm)
Maximum blade width .....	1-1/2" (38mm)
Blade length .....	160 +/-1/2" (4064mm)
Blade provided .....	hook type, 3/4" x 0.03" x 4 TPI
Wheel diameter .....	18" (457mm)

PM2013B/2013B-3 Capacities:

Maximum cutting height/resaw capacity .....	18" (457mm)
Throat capacity.....	20" (508mm)
Minimum blade width .....	1/4" (6.35mm)
Maximum blade width .....	1-1/2" (38mm)
Blade length .....	170 +/-1/2" (4318mm)
Blade provided .....	hook type, 1" x 0.035" x 3 TPI
Wheel diameter .....	20" (508mm)

PM2415B/2415B-3 Capacities:

Maximum cutting height/resaw capacity .....	15" (381mm)
Throat capacity.....	24" (609mm)
Minimum blade width .....	1/4" (6.35mm)
Maximum blade width .....	1-1/2" (38mm)
Blade length .....	183 +/-1/2" (4648mm)
Blade provided .....	hook type, 1" x 0.035" x 3 TPI
Wheel diameter .....	24" (609mm)

Miscellaneous:

Fence plate .....	30-1/2"L x 6-1/2"H (775 x 164mm)
Resaw pin .....	2" dia x 6-1/2"H (50.8 x 164mm)
Stand footprint (PM1800B).....	31-1/2"L x 20-3/8"W x 2"H (800 x 518 x 51 mm)
Stand footprint (PM2013B).....	33-1/2"L x 20-3/8"W x 2"H (851 x 518 x 51 mm)
Stand footprint (PM2415B).....	37-1/2"L x 20-3/8"W x 2"H (956 x 518 x 51 mm)
Overall dimensions, assembled (PM1800B).....	38" x 42" x 81-1/2" (965 x 1067 x 2070mm)
Overall dimensions, assembled (PM2013B).....	40" x 42" x 81-1/2" (1016 x 1067 x 2070mm)
Overall dimensions, assembled (PM2415B).....	44" x 42" x 81-1/2" (1118 x 1067 x 2070mm)
Miter gauge positive stops .....	45°, 90°

Materials:

Table .....	ground cast iron
Trunnion .....	cast iron
Enclosed cabinet.....	steel
Band wheels.....	cast iron
Tires (PM1800B).....	polyurethane
Tires (PM2013B/PM2415B).....	rubber coating
Blade guides .....	ball bearing
Resaw fence .....	extruded aluminum
Handwheels .....	cast iron, chrome finish
Paint finish.....	powder coat

PM1800B/1800B-3 & 2013B/2013B-3 Table:

Table dimensions .....	24"L x 27"W x 2"Thk (609 x 686 x 51mm)
Table tilt.....	10° left, 45° right
Table height from floor at 90-degrees (PM1800B/1800B-3).....	38" (965mm)
Table height from floor at 90-degrees (PM2013B/2013B-3).....	36" (914mm)
Miter T-slot .....	7/8"W x 3/8"D; opening 3/4"W (22 x 9.5; 19mm)
Edge bevel .....	front

PM2415B/2415B-3 Table:

Table dimensions .....	24"L x 34"W x 2"Thk (609 x 864 x 51mm)
Table tilt.....	10° left, 45° right
Table height from floor at 90-degrees .....	35" (889mm)
Miter T-slot .....	7/8"W x 3/8"D; opening 3/4"W (22 x 9.5; 19mm)
Edge bevel .....	front

Dust collection:

Dust port outside diameter .....	two at 4" (100mm)
Minimum extraction volume required .....	600 CFM

Overall dimensions:

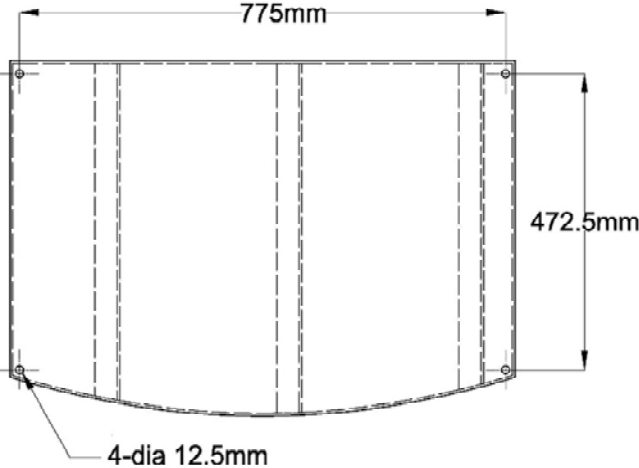
	Assembled dimensions	Shipping dimensions
PM1800B/1800B-3 .....	39-1/2" x 42" x 81-1/2"	38" x 33-1/4" x 87-1/2"
PM2013B/2013B .....	41-1/2" x 42" 81-1/2"	40" x 33-1/4" x 87-1/2"
PM2415B/2415B .....	46-3/4" x 42" 81-1/2"	45" x 33-1/4" x 87-1/2"

Weights:

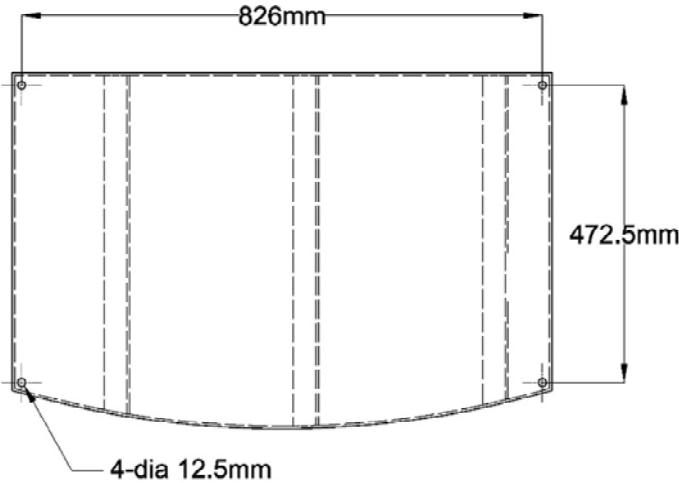
	Net weight (fully assembled)	Shipping weight
PM1800B .....	840 lb (381 kg)	936 lb (425 kg)
PM1800B-3 .....	834 lb (378 kg)	930lb (422 kg)
PM2013B .....	860 lb (390 kg)	959 lb (435 kg)
PM2013B-3 .....	854 lb (387 kg)	953 lb (432 kg)
PM2415B .....	974 lb (442 kg)	1073 lb (487 kg)
PM2415B-3 .....	968 lb (439 kg)	1067 lb (484 kg)

The specifications in this manual were current at time of publication, but because of our policy of continuous improvement, Powermatic reserves the right to change specifications at any time and without prior notice, without incurring obligations.

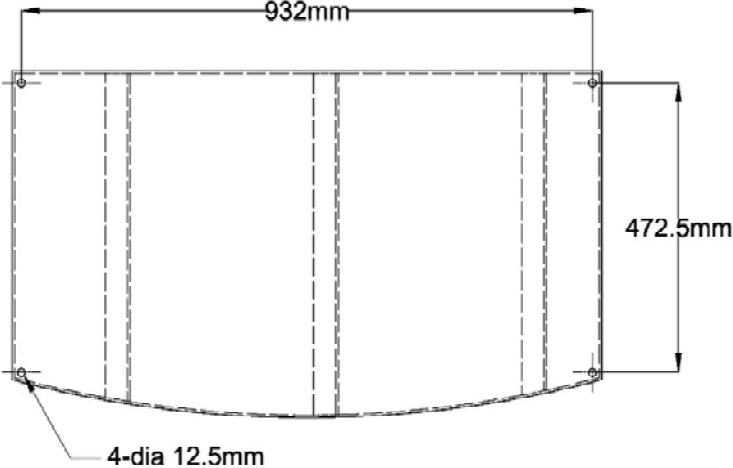
# 7.0 Base hole centers



PM1800B



PM2013B



PM2415B

Figure 2

## 8.0 Setup and assembly

### 8.1 Shipping contents

Carton contents (see Figure 3)

- 1 Band saw
- 1 Fence plate – A
- 1 Fence body – B
- 1 Resaw pin – C
- 1 Fence lever knob – D
- 1 Resaw pin lock knob – E
- 2 Eye bolts – F
- 1 Miter gauge – G
- 1 Front rail – H
- 1 Rear rail – J
- 1 Guide rail – K

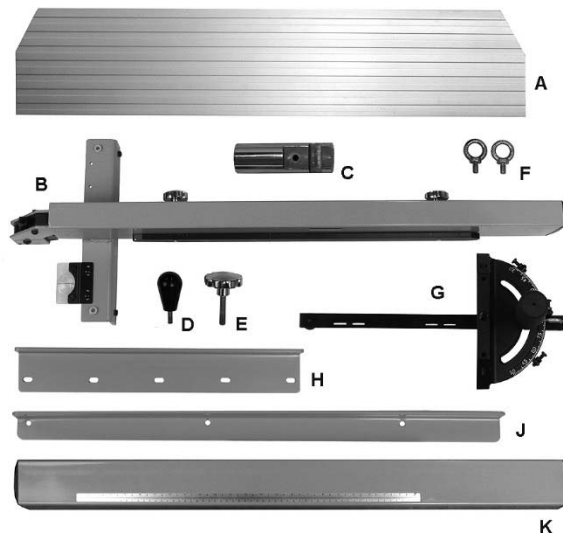


Figure 3: contents (items not to scale)

Hardware for PM1800B/2013B (Figure 3a):

- 3 Socket head button screws, M8x20 – HP-1
- 8 Socket head button screws, M8x16 – HP-2
- 8 Flat washers, M8 – HP-3
- 11 Lock washers, M8 – HP-4
- 1 Hex wrench, 8mm – HP-5

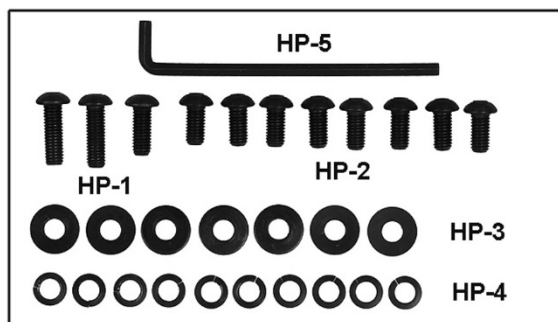


Figure 3a

Hardware for PM2415B (Figure 3b):

- 3 Socket head button screws, M8x20 – HP-1
- 8 Socket head button screws, M8x16 – HP-2
- 8 Flat washers, M8 – HP-3
- 11 Lock washers, M8 – HP-4
- 1 Hex wrench, 8mm – HP-5

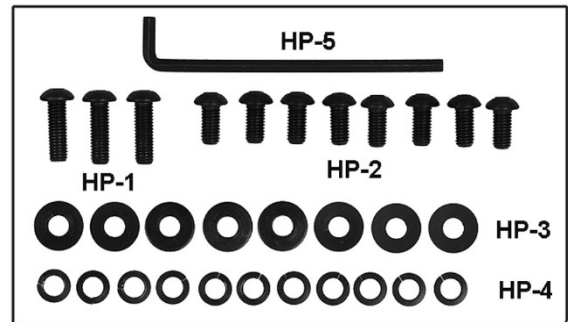


Figure 3b: (part # PM2415B-HP)

**WARNING** Read and understand all assembly instructions before attempting assembly. Failure to comply may cause serious injury.

### 8.2 Unpacking

1. Remove all contents from shipping carton. Do not discard carton or packing material until saw is assembled and running satisfactorily.
2. Inspect contents. Report any shipping damage or part shortages to your distributor.

### 8.3 Spotting the band saw

Tools required for assembly and set up:

- Hoist or forklift, with straps/hooks
- 8mm hex wrench (provided)
- Square

Remove all crating and plastic from around machine. Remove any screws or straps holding band saw to shipping pallet.

**CAUTION** Exercise care when removing machine from shipping pallet.

Install two eye bolts (F, Figure 2) to top of band saw. Use hoist or forklift with straps/hooks to remove machine from pallet. Straps must have a lifting capacity greater than the band saw weight. Do NOT place forks or straps directly beneath table or against handles or levers.

Move band saw to its permanent location, which should be dry and well lit, with enough space on all sides to handle long stock or perform routine maintenance on machine. Make sure floor is able to support weight of machine. If desired, band saw can be secured to floor using lag screws (not provided) through the four holes in the base.

Exposed metal surfaces, such as table surface and blade guides, have been given a protective coating at the factory. This coating should be removed with a soft cloth moistened with solvent. Do not get solvents near plastic or rubber parts; and do not use an abrasive pad as it may scratch the exposed surfaces.

## 8.4 Rear rail

Refer to Figures 4 and 5.

1. Install rear rail to rear edge of table, using M8x16 button screws (HP-2), and M8 lock washers (HP-4) as shown. Hand tighten only.
2. Exact distance from rear rail to table top is not important, but rear rail should be made parallel to table top. Place a measuring device, such as a combination square (Figure 5) at front and back of table as shown. The measurement should be the same at both ends of rear rail. Adjust as needed.
3. Tighten screws with the hex wrench.

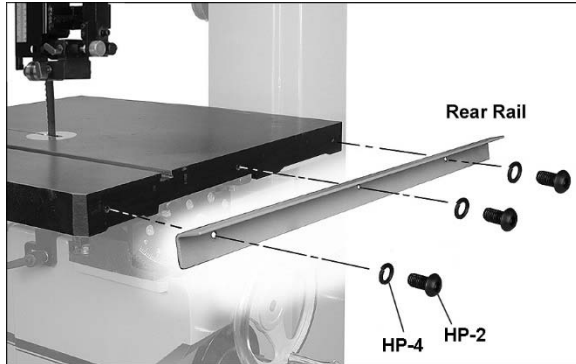


Figure 4: installing rear rail



Figure 5: aligning rear rail

## 8.5 Front rail and guide rail

Refer to Figure 6.

1. Install front rail to front edge of table, using M8x20 button screws (HP-1), with M8 lock washers (HP-4), and M8 flat washers (HP-3), through the slotted holes in rail. Place the screws approximately center of the slots; this can be adjusted later as needed. Tighten the screws with the hex wrench.

2. Install guide rail to bottom holes in front rail, using five M8x16 button screws (HP-2), with lock washers and flat washers (HP-5/4). Hand tighten only. Pull guide rail away from table as far as it will go, then tighten all five screws in the guide tube with the hex wrench. Do not overtighten.

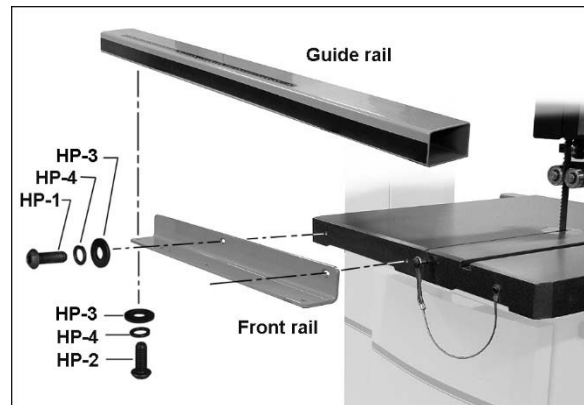


Figure 6: installing front rail

## 8.6 Fence assembly

Refer to Figures 7 and 8.

Place fence body onto guide rail (as shown in Figure 8). Raise fence lever all the way up to install or remove fence, or to position fence along guide rail. Push down lever all the way to lock fence.

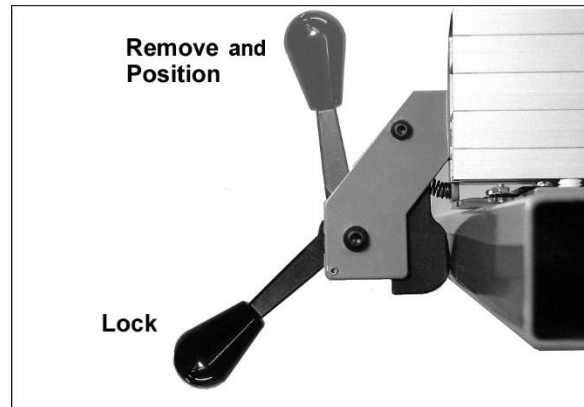


Figure 7: fence lever positions

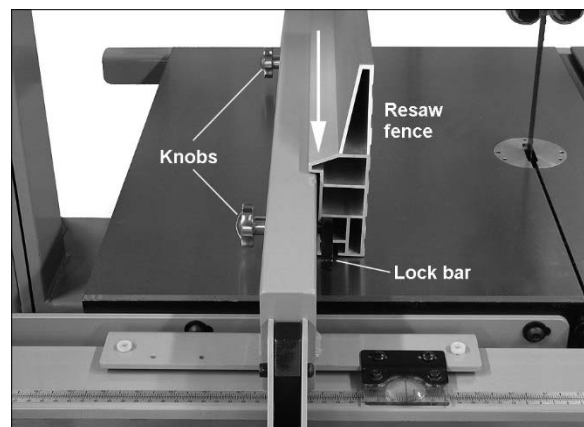


Figure 8: vertical fence position

## 8.7 Resaw fence

Refer to Figures 8 and 9.

Loosen lock bar using the knobs, until lock bar protrudes enough to slide aluminum resaw fence on from either end, as shown in Figure 8. Re-tighten knobs.

NOTE: The aluminum resaw fence can be installed in one of two positions; vertically (resaw position), as shown in Figure 8; or horizontally as shown in Figure 9. Horizontal position is useful for smaller workpieces. (Zero setting of the cursor cannot be used with horizontal fence position.)

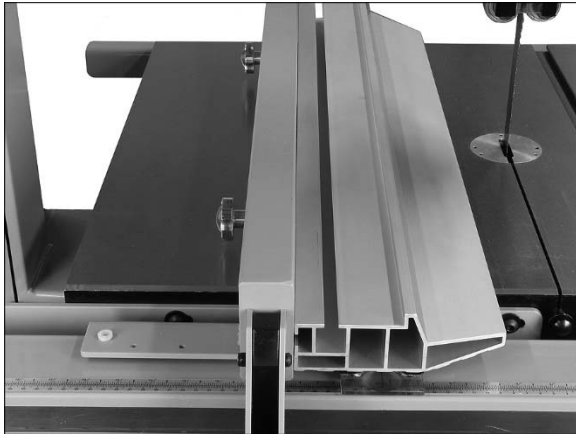


Figure 9: horizontal fence position

## 8.8 Fence to table clearance

1. Check clearance between table and bottom of fence (Figure 10). The fence should not rub against the table surface but be slightly above it. This gap should be the same at front of table as at the back.

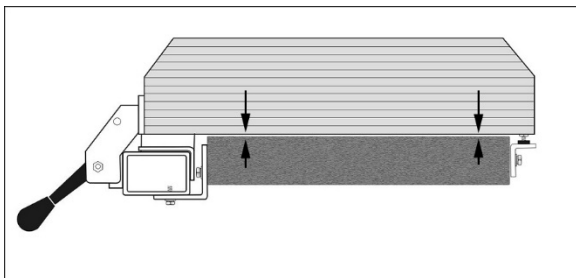


Figure 10: fence-to-table clearance

2. If clearance is not the same, use a combination of the following two adjustments:
  - With the provided 8mm hex wrench, rotate two nylon adjustment screws (A, Figure 16) the *same amount* to raise or lower fence body from the guide rail. Clockwise raises fence body, counterclockwise lowers.
  - And/or....Adjust back end of fence by loosening hex nut (A, Figure 11) with 10mm wrench, and rotating sliding pad (B) in or out. When fence-to-table gap is equal, retighten hex nut (A) against fence body.

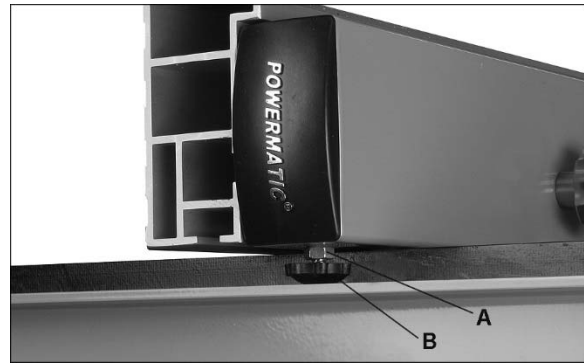


Figure 11: fence rear adjustment

## 8.9 Setting cursor (zero) position

Refer to Figure 12.

The fence must be set so that the cursor reads zero at the line of the blade. The resaw fence must be installed on the fence body in vertical position, and the blade must be installed and fully tensioned.

1. Slide fence flush against flat of blade, as shown. (Do not force the fence into the blade so that the blade bends.)
2. If cursor is not at zero, loosen the two screws and slide it as needed. Then re-tighten screws.



Figure 12: calibrating fence cursor

## 8.10 Setting table parallel to blade

Refer to Figures 13 and 14.

The table has been aligned by the manufacturer so that the miter slot is parallel to the flat of the blade; it should not require adjustment. However, in the future you may wish to confirm this setting is still accurate. A wide blade is recommended for the procedure.

1. Disconnect band saw from power source.
2. Blade should be fully tensioned and properly tracked (*see sect. 10.4 and 10.5*).
3. Place a long straightedge flush against blade, making sure it contacts both front and back of blade. (Do not deflect blade by pushing into it.) See Figure 13.
4. Use a gauge to carefully measure distance from miter slot to straight edge. Take measurements

at both front and back of table – these should be the same.

5. If miter slot is not parallel to blade, loosen the four hex cap screws (17mm wrench) that secure the table to the trunnion (Figure 14 shows three of them), and shift table as needed until miter slot is parallel to blade.
6. Tighten the four hex cap screws.

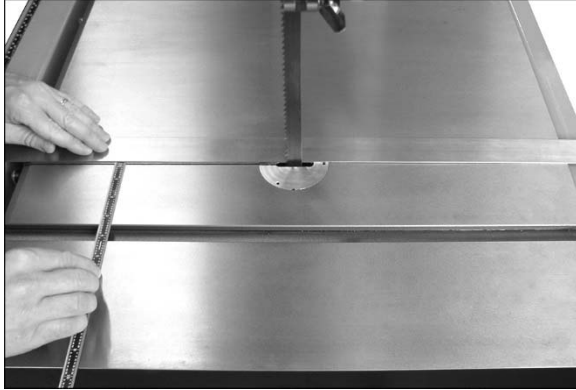


Figure 13: setting table parallel to blade

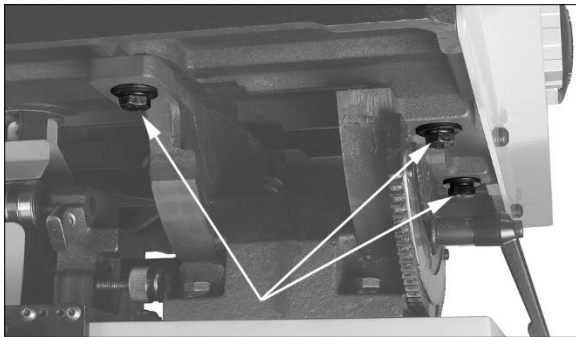


Figure 14: table adjustment screws

### 8.11 Setting fence parallel to blade

Refer to Figures 15 and 16.

The fence should be parallel to the flat of the blade for accurate cutting. Since the miter slot has been set parallel to the blade from the manufacturer (and confirmed by the user, as described above), you can use the table miter slot to set the fence parallelism.

1. Remove the aluminum resaw fence and the lock bar from the fence body, and slide fence body to edge of miter slot, as shown in Figure 15. The fence should align with miter slot along the entire length of fence.

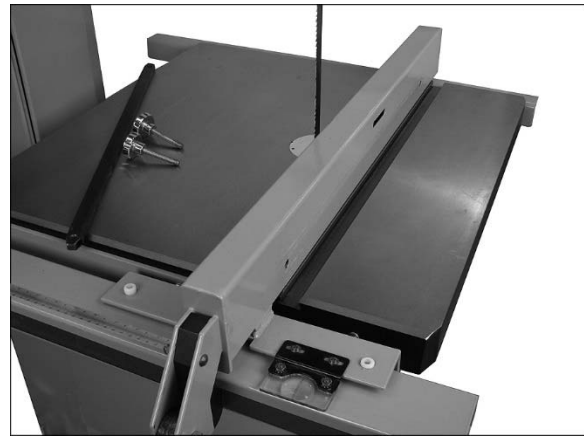


Figure 15: setting fence parallel to blade

2. If adjustment is needed, turn one of the back adjustment screws (B, Figure 16) to turn fence in line with miter slot.

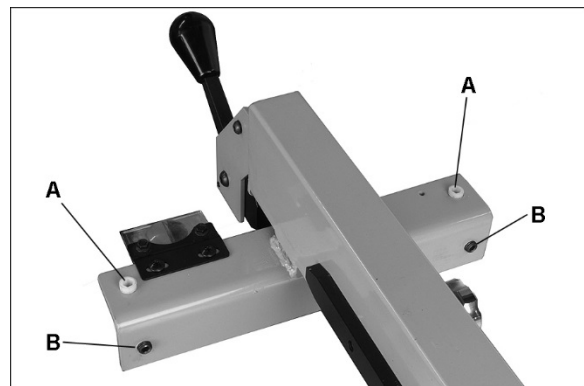


Figure 16: back adjustment screws

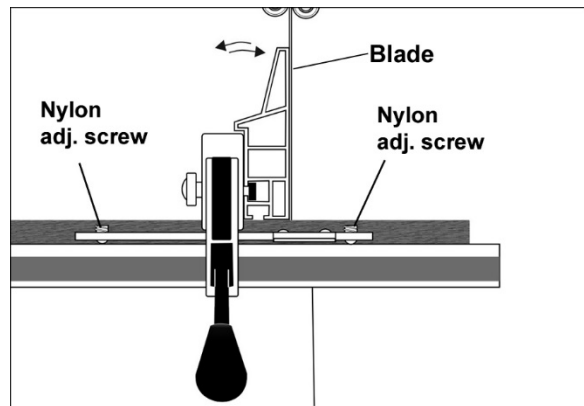


Figure 17: setting vertical parallelism

The fence must also be parallel to blade vertically.

Refer to Figure 17.

3. Make sure table has been set 90° to blade (see sect. 8.10).
4. Mount the resaw fence, and slide fence up against blade; do not push into blade. Turn either of the nylon adjustment screws until fence is parallel to blade along the vertical length of fence.

## 8.12 Fence locking tightness

Tightness of the fence against the guide rail can be adjusted by rotating the two back screws (B, Figure 16). Rotate the two screws *equally* (clockwise to tighten) with the hex wrench.

Because these screws are also used to align the fence to the blade, after adjusting fence locking tightness, you should double check fence-to-blade relationship, as explained under *sect. 8.11*.

## 8.13 Dust collection

The use of a dust collection system is strongly recommended for this band saw. It will help keep the shop clean, as well as reduce potential health hazards caused by inhalation of wood dust. The collector should have a capacity sufficient for this size machine – 600 CFM is recommended.

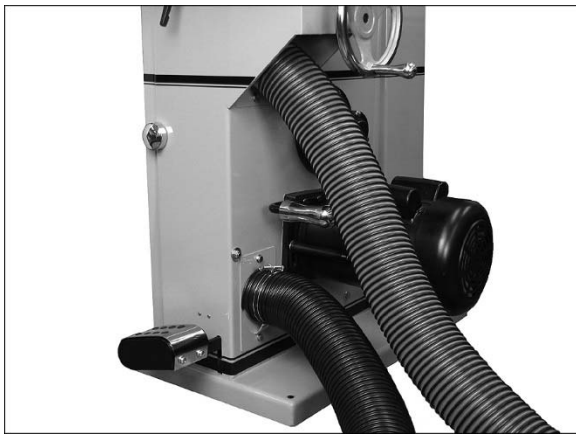


Figure 18: dust ports

JET has a line of dust collection systems available; see your dealer or visit our website listed on the cover.

Connect the hoses of your dust collection system to the 4" dust ports at rear of band saw. Secure tightly with hose clamps (not provided). See Figure 18.

## 9.0 Electrical connections

**⚠WARNING** Electrical connections must be made by a qualified electrician in compliance with all relevant codes. This machine must be properly grounded to help prevent electrical shock and possible fatal injury.

### 9.1 Single phase connections

The single phase Band Saw is factory wired for 230 volts. It is not supplied with a plug. You may either install a UL/CSA-listed plug suitable for 230 volt operation, or “hard-wire” the Band Saw directly to a service panel.

It is recommended that the *single phase* Band Saw be connected to a grounded and dedicated 30-amp circuit with circuit breaker or time delay fuse marked

“D”. **Local codes take precedence over recommendations.**

### 9.2 Three phase connections

The three phase Band Saw is factory wired for 230 volts. It is not supplied with a plug. You may either install a UL/CSA-listed plug suitable for 230 volt operation, or “hard-wire” the Band Saw directly to a service panel.

It is recommended that the *three phase* Band Saw be connected to a grounded and dedicated 20-amp circuit with circuit breaker or time delay fuse marked “D”. **Local codes take precedence over recommendations.**

#### 9.2.1 Voltage conversion

The three phase Band Saw may be converted to 460V operation:

1. Replace 230V contactor with 460V magnetic contactor (part no. PM1800B-043C, purchased separately).
2. Re-connect motor leads according to diagram inside motor junction box. (Similar diagrams are found in *sect. 18.0* of this manual.)

If the single phase or three phase Band Saw is to be “hard-wired” to a service panel, make sure a disconnect is available for the operator. During hard-wiring of the machine, make sure the fuses have been removed or the breakers have been tripped in the circuit to which the Band Saw will be connected.

Place a warning placard on the fuse holder or circuit breaker to prevent it being turned on while the machine is being wired.

### 9.3 Grounding instructions

This machine must be grounded. In the event of a malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock.

Improper connection of the equipment-grounding conductor can result in a risk of electric shock. The conductor with insulation having an outer surface that is green with or without yellow stripes, is the equipment-grounding conductor.

If repair or replacement of the electric cord or plug is necessary, do not connect the equipment-grounding conductor to a live terminal.

Check with a qualified electrician or service personnel if the grounding instructions are not completely understood, or if in doubt as to whether the tool is properly grounded. Repair or replace a damaged or worn cord immediately.

Make sure the voltage of your power supply matches the specifications on the motor plate of the Band Saw.



## 9.4 Extension cords

Use of extension cords is discouraged; try to position machines within reach of the power source. If an extension cord becomes necessary, be sure to use one heavy enough to carry the current your product will draw. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating. Table 1 shows correct size to use depending on cord length and nameplate ampere rating. If in doubt, use the next heavier gauge. The smaller the gauge number, the heavier the cord.

Ampere Rating		Volts	Total length of cord in feet			
More Than	Not More Than		25	50	100	150
		120	25	50	100	150
		240	50	100	200	300
			AWG			
0	6		18	16	16	14
6	10		18	16	14	12
10	12		16	16	14	12
12	16		14	12	Not Recommended	

*Extension Cord Recommendations*

*Table 1*

## 10.0 Adjustments

### 10.1 Table tilt

Refer to Figures 19 and 20.

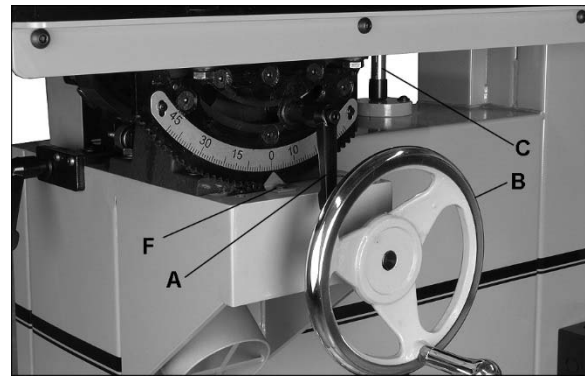
1. Loosen lock lever (A).
2. For **right tilt** (as viewed from front or operator's side of saw), rotate handwheel (B) counter-clockwise to tilt table up to 45°.
3. For **left tilt** (as viewed from front or operator's side of saw), loosen lock lever (A) and rotate handwheel clockwise a turn or two to release pressure on the 90° stop bolt (C). Rotate circular plate (D) out of the way. Then rotate handwheel clockwise to tilt table up to 15°.

The now-exposed hole in the band saw body allows the stop bolt to descend through it, to keep intact the setting of the 90° stop.

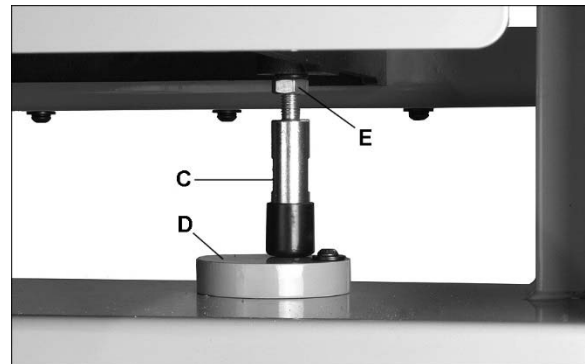
4. Tighten lock lever (A, Figure 20) to secure setting.

NOTE: The circular plate (D) can be tightened or loosened as desired by using a 4mm hex wrench on the screw.

Also, the lever (A, Figure 20) can be pivoted to a more convenient position. Simply lift straight out on the lever and rotate it on the pin, then release the lever making sure it seats itself on the pin.



*Figure 19: table tilt*



*Figure 20: table stop*

### 10.2 90° table stop

Refer to Figures 19 through 21.

The 90° positive stop ensures that table will always be perpendicular to blade after table is returned to horizontal position. Check and adjust this 90° stop as follows:

1. Disconnect machine from power source.
2. Make sure blade is under full tension.
3. Loosen lever (A, Figure 19) and tilt table with handwheel (B), until stop bolt (C) rests on circular plate (D).
4. Make sure table insert lies flush with table surface. Place a square on table and against blade to check that table is 90° to blade. See Figure 21. NOTE: Do not push square into blade.
5. If table and blade are not square, use a 17mm wrench to loosen lock nut (E) then rotate stop bolt. Turn stop bolt as needed until there is no longer light showing between square and blade.
6. Tighten lock nut (E) to secure table stop position.
7. Tighten lever (A).
8. Check that scale pointer (F, Figure 19) is at zero. If necessary, loosen screw on pointer and shift pointer to zero. Then retighten screw.

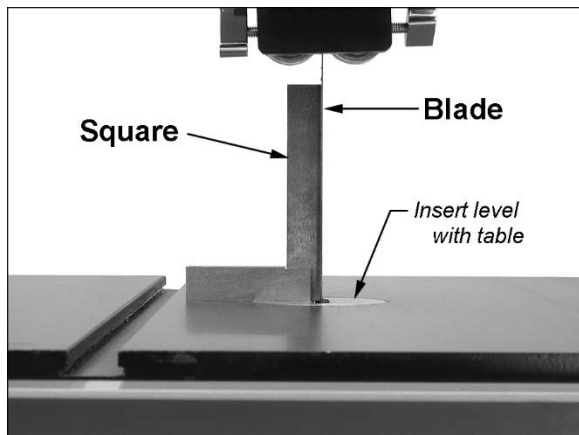


Figure 21: setting table stop

### 10.3 Installing/changing blades

**CAUTION** Always wear gloves when handling blades. New blades are usually packaged in a coiled position; to prevent injury uncoil them slowly and carefully, while wearing work gloves and safety glasses.

Refer to sect. 6.0, *Specifications*, for maximum and minimum blade widths for your machine.

Refer to Figures 22 and 23.

1. Disconnect machine from power source.
2. Remove table insert (A, Figure 22).
3. Pull out table pin (B) at end of slot.
4. Adjust upper and lower blade guides away from blade.
5. Move blade tension lever to “Partial Tension” position.
6. Open upper and lower doors by rotating door catches. Open lower blade guard and remove insert block (Figure 23).
7. Carefully remove blade from top wheel, then from between upper and lower blade guides and lower wheel. Slide old blade out through slot in table.
8. Guide new blade through table slot. Place blade loosely in the upper and lower blade guides. Make sure blade teeth point down toward table, and toward the front of the saw. (If the teeth will not point down, no matter how you orient the blade, then the blade is twisted inside-out. Twist it into correct position and re-install it.)
9. Position blade at center of upper and lower wheels.
10. Re-install table insert (A) and table pin (B).
11. Before operating band saw, the new blade must be *tensioned* and *tracked*, in that order. See sect. 10.4 and 10.5. The blade guides must also be set properly according to instructions in sect. 10.6.

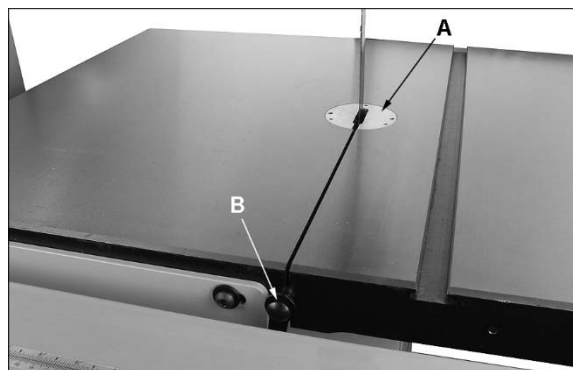


Figure 22: blade removal

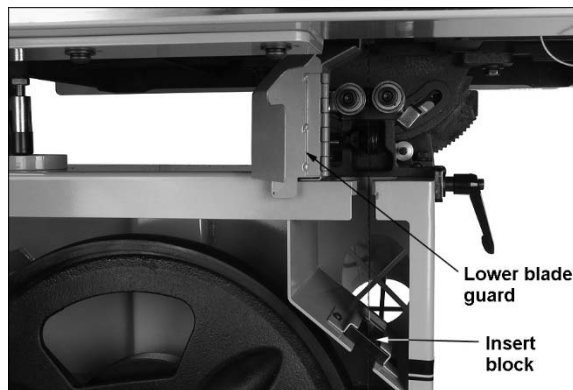


Figure 23

### 10.4 Blade tension

**IMPORTANT:** An interlock switch prevents the band saw from starting if the blade is de-tensioned. Blade must be tensioned for start switch to activate.

Refer to Figure 24.

1. Disconnect machine from power source.
2. Back off upper and lower guide bearings to eliminate any contact with blade.
3. With blade centered on wheels, move quick tension lever to “Full Tension” position, as shown in Figure 24. NOTE: You will be able to feel the lever fall into each position.

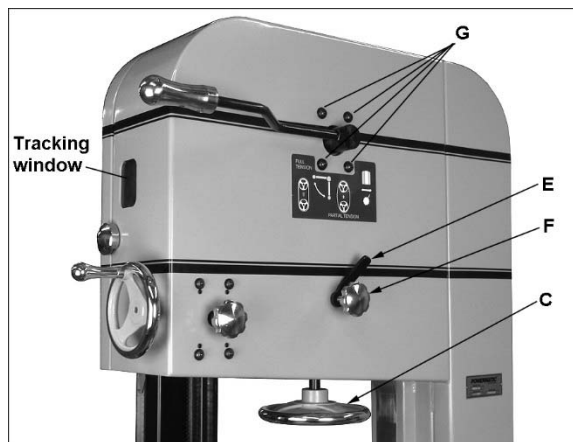


Figure 24: blade tension/tracking

4. Rotate tension handwheel (C, Figure 24) until scale pointer (Figure 25) reaches appropriate measurement for blade width.



Figure 25: blade tension scale

**TIP:** Use the band saw's gauge setting initially. As you become familiar with the machine and with the different properties of band saw blades, you may find it necessary to change blade tension from the initial setting. Keep in mind that not only changes in blade width, but also the type of material being cut will have an effect on blade tension. Too little or too much blade tension can cause blade breakage and/or poor cutting performance.

Make a note of the specific tension setting for a particular blade. The tension can then be re-set quickly when band saw operations are resumed.

**IMPORTANT:** When band saw is sitting idle, move quick tension lever to "Partial Tension" position. This will prolong the life of the blade and tires, and reduce load on wheels, bearings and other components.

## 10.5 Blade tracking

After being properly tensioned, the blade must be tracked. "Tracking" refers to the position of the blade on the wheels while the machine is in operation. Tracking should be checked periodically, and is mandatory after every blade change. Blade tracking is done by hand with the machine disconnected from power.

1. Disconnect machine from power source.
2. Blade should be correctly tensioned.
3. Make sure blade guides and other parts of machine will not interfere with blade movement. Lower guide post until you can see blade through tracking window.
4. Set quick tension lever to "Full Tension" position, as shown in Figure 24.
5. Open upper door to expose upper wheel. Rotate upper wheel by hand, and observe position of blade on the wheel through the tracking window. The blade should ride upon center of wheel (Figure 26).

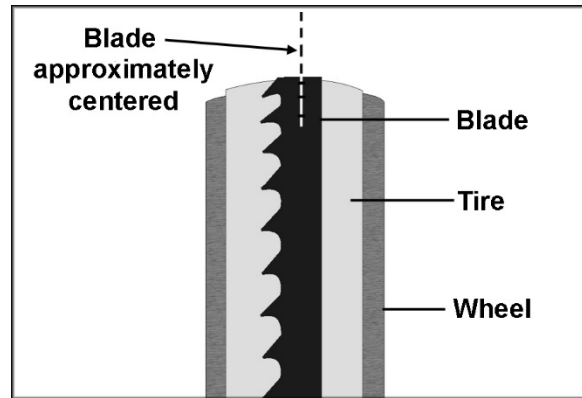


Figure 26: blade track

**IMPORTANT:** Make tracking adjustments with knob (F, Figure 24) while blade is at full tension. DO NOT use screws (G, Figure 24); these were used by the manufacturer for wheel alignment and should NOT be used for tracking.

6. If blade tends to move toward edge of wheel, loosen locking lever (E, Figure 24) and slightly rotate tracking knob (F) with your right hand while continuing to rotate wheel with your left. Observe blade through tracking window. Rotate tracking knob clockwise to move blade toward rear edge of wheel. Rotate counterclockwise to move blade toward front edge of wheel.

**IMPORTANT:** This adjustment is sensitive; perform it in small increments and give blade time to react to the changes.

7. When blade is tracking in center of wheel, re-tighten locking lever (E), and close upper door.
8. Connect band saw to power, and turn it on for a brief time to observe the blade in action through the tracking window.
9. Make further adjustments if needed, with saw disconnected from power.

## 10.6 Blade guides

### 10.6.1 Upper blade guides

The bearing guides should be set so that contact between blade and guides will occur only when blade is under pressure from a workpiece. To adjust upper bearing guides for proper blade control, proceed as follows.

Refer to Figures 27 through 30.

1. Disconnect machine from power source.
2. Blade must already be tensioned and tracking correctly. Place quick tension lever in "Full Tension" position.
3. Lower guide post until upper guide bearings are a few inches above table. (The reason for this will be shown later under "Guide Post Parallelism.")
4. Loosen locking screw (A, Figure 27). Make sure knob (C, Figure 28) is tightened.

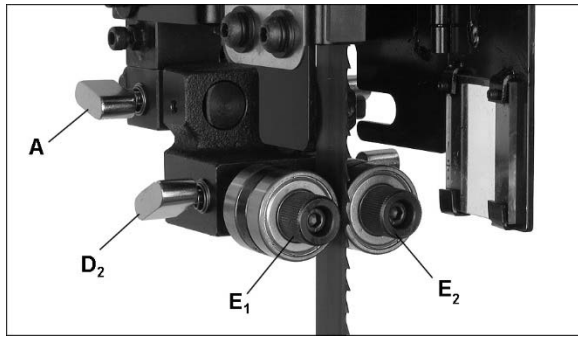


Figure 27: upper blade guide adjustment

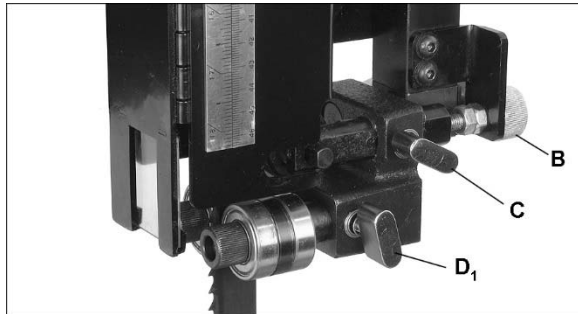


Figure 28: upper blade guide adjustment

5. Move entire guide bracket by rotating knurled knob (B) until front of guide bearings are about 0.015" (1/64") behind blade gullet (curved area at base of tooth). See Figure 29.

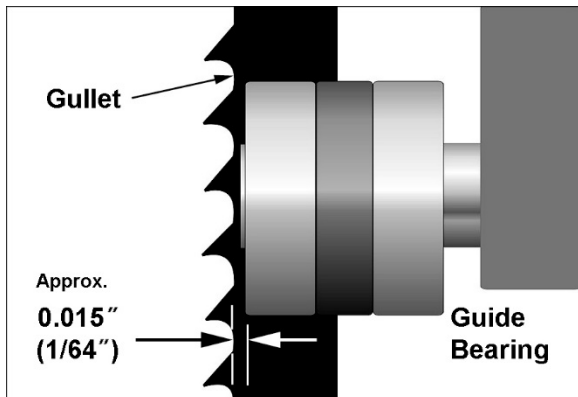


Figure 29: guide bearing position

6. Tighten locking screw (A) to secure position.
7. Loosen locking screw (D<sub>1</sub>,D<sub>2</sub>) for the guide bearings.
8. The guide bearing rotates on an eccentric shaft. Adjust guide bearing by rotating knurled knob (E<sub>1</sub>,E<sub>1</sub>) until guide bearing is approximately 0.004" from the blade. A quick way to achieve this spacing is by placing a single thickness of a crisp dollar bill (a dollar bill is approximately 0.004" thick) between blade and guide bearing. Adjust guide bearing until it just lightly grips the dollar bill.

NOTE: Do not force guide bearing against side of blade. It should only make contact with blade when there is pressure from cutting operation.

9. Tighten locking screw (D<sub>1</sub>,D<sub>2</sub>) and remove dollar bill.
10. Repeat process for opposite guide bearing.

### 10.6.2 Upper thrust bearing

Refer to Figures 27 and 30.

The thrust bearing prevents backward deflection of the blade during cutting. The thrust bearing has three options for stabilizing the back of blade (see Figure 30).

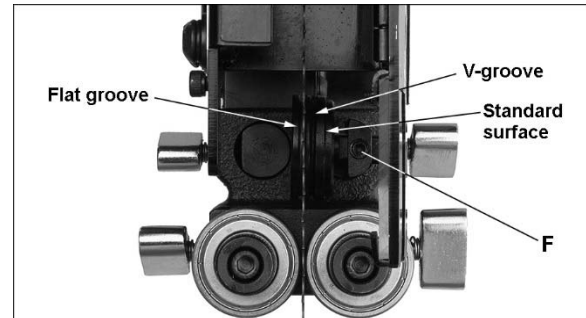


Figure 30: thrust bearing adjustment

The v-shaped groove is for smaller blades. The flat bottomed groove and standard surface support thicker blades.

1. Loosen set screw (F, Figure 30) and slide thrust bearing laterally to desired position.
2. Retighten set screw (F).
3. Loosen knob (C) and rotate knurled knob (B) to move thrust bearing toward back of blade.
4. Adjust thrust bearing until the space between the thrust bearing surface (or groove bottom) and the back edge of blade is approximately 0.015" (1/64"). On the non-grooved surface, a convenient way to achieve this spacing is by placing a dollar bill folded twice (four thicknesses of a dollar bill is approximately 1/64") between blade and thrust bearing. If using a groove, set this distance by eye.
5. Tighten knob (C).
6. Make sure all locking screws and knobs on upper guide bearing assembly are tightened when adjustments are finished.

### 10.6.3 Lower blade guides

Refer to Figure 31.

1. Disconnect band saw from power source.
2. Open lower door and lower blade guard.
3. Adjust lower guide and thrust bearings below table, using similar procedure as for upper guides.

*Movement summary:* Loosen locking lever (G) to move guide bracket using dial (H)(Knob J must be tight). Loosen knob (K<sub>1</sub>,K<sub>2</sub>) to rotate guide bearings using knob (L<sub>1</sub>,L<sub>2</sub>). To adjust thrust bearing loosen (J) and rotate dial (H).

4. Make sure all screws, knobs and lever are tightened when adjustments are complete.

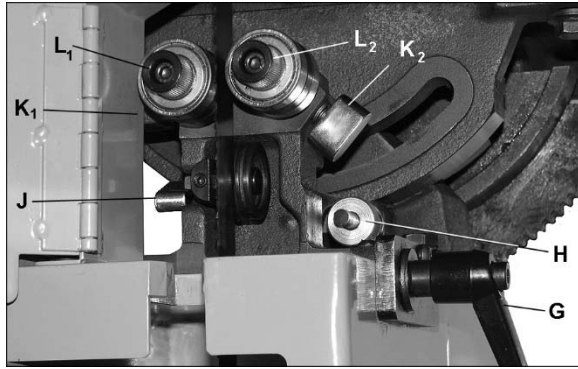


Figure 31: lower blade guides

NOTE: The locking lever (G, Figure 31) can be re-positioned for convenience. Simply pull out on lever, rotate it on hub, and release it. Make sure it re-seats itself on hub.

## 10.9 Guide post

Refer to Figure 32.

1. Disconnect band saw from power source.
2. Loosen lock handle (A) and raise or lower guide post by rotating handwheel (B).
3. Position blade guide assembly so that bottom of guide bearings are about 3/16" above material to be cut. Or, simply lower guide post until scale pointer (C) indicates the height of your workpiece. This provides minimal clearance between workpiece and bottom of guide bearings, which will minimize blade deflection as well as enhance operator safety.
4. Tighten lock handle (A).

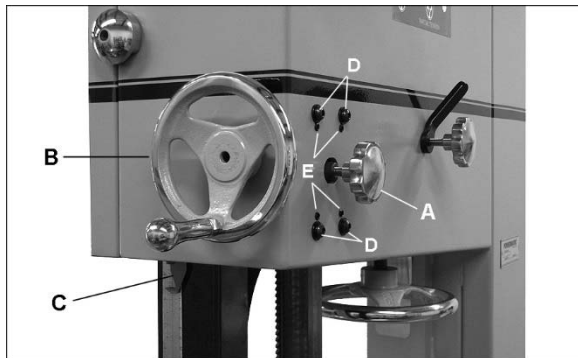


Figure 32: guide post adjustment

## 10.10 Guide post parallelism

The guide post should be parallel to blade throughout the vertical travel of the guide post; thus the guide bearings will maintain their relationship to the blade at any height from the table and won't have to be re-set each time the guide post is moved. This setting has been accurately made by the manufacturer and should not require immediate

attention, but it may be checked in the future as follows:

1. Disconnect band saw from power source.
2. Move blade tension lever to "Full Tension" position.
3. The guide bearings in low position should already be set in relation to blade (sect. 10.6.1). Also, table should be square with blade (sect. 10.2).
4. Loosen lock handle (A, Figure 32) and raise guide post to a high position.
5. Confirm that guide post travels straight up and down, and the guide bearings maintain their relationship to blade.
6. If guide post does not move straight up and down (blade begins deflecting when guide post is raised), slightly loosen four screws (D, Figure 32).
7. Left and right adjustment is accomplished using a combination of the four screws (D); forward/back adjustment is accomplished using the set screws (E).
8. When finished adjusting, securely tighten screws (D).
9. Re-check setting by raising and lowering guide post.

## 10.11 Resaw pin

Refer to Figure 33.

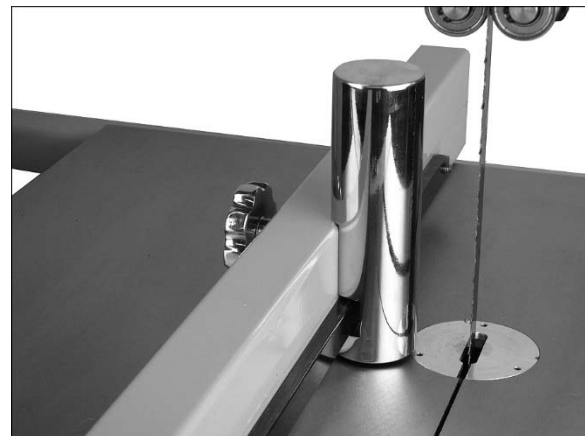


Figure 33: resaw pin

A resaw pin is provided with the band saw. It provides a single contact point while ripping a workpiece into thinner boards.

Remove fence plate and mount resaw pin to the slot in the fence body, securing it with the knob, as shown.

The resaw pin is usually positioned so that its center is approximately even with front edge of blade.

See under "Operation" for further information on using the resaw pin.

## 10.12 Miter gauge

Refer to Figures 34 and 35.

A miter gauge is provided for crosscutting operations. Install miter gauge by sliding the end of miter gauge bar into table's T-slot.

The miter gauge should fit snugly within miter slot while still sliding easily. The bar of the miter gauge has two slots, each with a set screw (Figure 34). Rotate one or both of these set screws with a 4mm hex wrench as needed to eliminate any play between miter gauge bar and miter slot.

If table/miter slot is square to blade (*sect. 8.10*), the miter gauge will also be square to blade. Before operating, however, the 90° setting of miter gauge should be checked in relation to the blade, as follows.

1. Place a square against miter gauge face, and against flat of blade, as shown in Figure 33. (Place square against flat of blade, not the teeth which are set wider than the blade body). A wide blade is preferred for this procedure.
2. Flip 90° stop plate (C) out of the way, and loosen handle (A). Shift miter gauge body until it is flush with square, then retighten handle (A).
3. Flip stop plate (C) back down, and loosen 90° stop hex nut and adjust screw until it contacts the 90° stop plate.
4. Retighten hex nut.
5. Loosen set screw at base of pointer (B), and shift pointer so that it lines up with 90° mark on scale.
6. Retighten set screw.

The 45° stops can be checked in similar fashion, using an angle gauge similar to that shown in Figure 37.

To adjust miter gauge angle for operations:

1. Loosen handle (A).
2. Rotate gauge body until pointer (B) lines up with desired angle on scale. You may have to pivot 90° stop plate (C) out of the way to allow the body to rotate.
3. Tighten handle (A).
4. There are three stops – at 90°, and 45° left and right. Each of these can be adjusted by loosening hex nut (D) and turning screw (E) as needed. Retighten hex nut (D) when adjustment is finished.

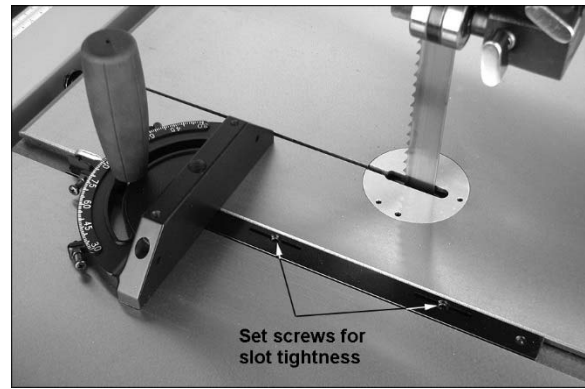


Figure 34: miter gauge adjustment

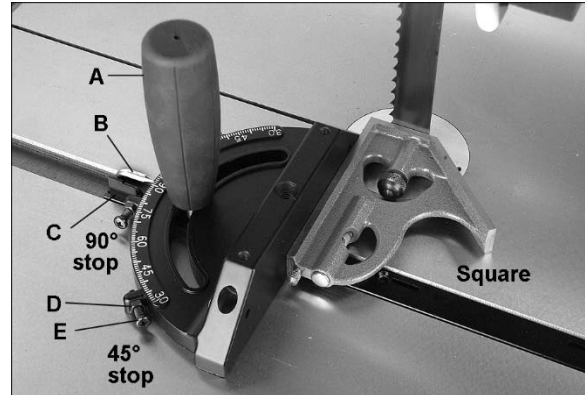


Figure 35: miter gauge adjustment

## 10.13 Blade speed adjustment

Refer to Figures 36 through 38.

Figure 37 shows appropriate belt position to achieve each speed according to the particular band saw model.

To change speed:

1. Disconnect machine from power source.
2. Loosen motor lock handle and raise motor lift handle to release tension on belt.
3. Tighten motor lock handle to keep motor in raised position.
4. Slide belt onto appropriate set of pulleys.
5. Loosen motor lock handle and allow motor to lower. The weight of the motor itself should produce proper tension for the belt. Check tension by pushing with moderate pressure against center of belt (Figure 38). An adequately tensioned belt will deflect about 1/2". If tension isn't strong enough, push down on the motor.
6. Tighten motor lock handle.

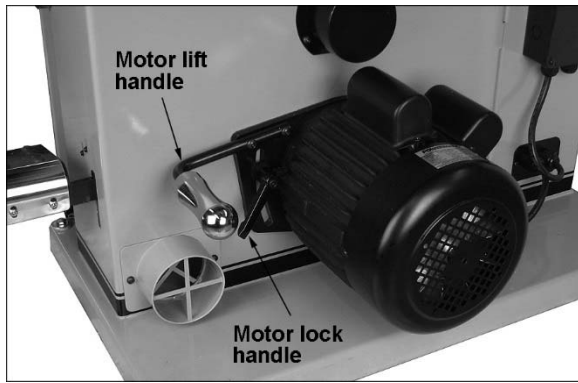


Figure 36: belt detension

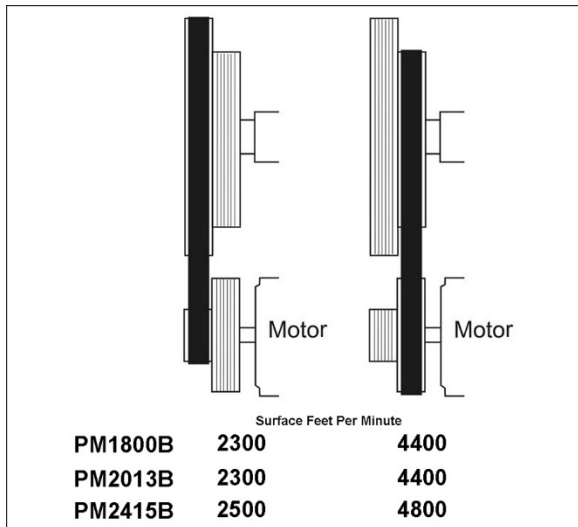


Figure 37: belt position



Figure 38: belt deflection

2. Open upper and lower doors and remove blade.
3. Remove screw from lower wheel shaft and remove lower wheel.
4. Loosen motor lock handle.
5. Raise motor lift handle and retighten motor lock handle to hold motor in raised position.
6. Remove old belt and install new one, making sure it seats properly in the pulley grooves.
7. Loosen motor lock handle and allow motor to lower.
8. The weight of the motor itself should generally produce the proper tension for the belt. Check tension by pushing with moderate pressure against center of belt (Figure 38). An adequately tensioned belt will deflect about 1/2". If tension isn't strong enough, push down on the motor.
9. Tighten motor lock handle, reinstall lower wheel, and install hex nut securely on shaft.
10. Re-check blade tension and tracking before operating saw.

## 10.14 Drive belt tension and replacement

The drive belt and pulleys are properly adjusted at the factory. However, belt tension should be occasionally checked when the band saw is new, as a new belt may stretch slightly during the breaking-in process.

If the belt becomes worn, cracked, frayed or glazed, it should be replaced as follows:

Refer to Figures 36 and 38.

1. Disconnect machine from power source.

## 10.15 Wheel brush

Refer to Figure 39.

The brush (A) must contact tire to clear it of dust and debris before it touches the blade. Loosen screw to make adjustments to brush position. Retighten after positioning.

## 10.16 Insert block

Refer to Figure 39.

The insert block (B) should remain in position to prevent dust and chips from falling onto lower wheel. If it should ever become damaged, it should be replaced. Some band saw users make their own out of scrap wood.



Figure 39: brush and insert block

# 11.0 Operating controls

## 11.1 Start/stop

**Power Indicator Light** – The *start switch* has a power indicator lamp which is *on whenever there is power connected* to the Band Saw, not just when the Band Saw is running. *Do not assume that no light means there is no power to the machine.* If the bulb is bad, there will be no indication. Always check before use.

**⚠WARNING** Do not rely that no light means no power to the machine. Always check for power first. Failure to comply may cause serious injury!

Refer to Figure 40:

**Start** – Press green start switch.

When power is connected to machine, the green light is always on regardless of whether Band Saw is running or not.

**Stop** – Press red switch to stop.

**Reset** – In the event that the Band Saw stops without pressing the stop button, as the result of a tripped fuse or circuit breaker, etc.:

1. Press red button to re-set main switch.
2. Press green button to restart the machine.

**IMPORTANT:** An interlock switch prevents the band saw from starting if the blade is de-tensioned. Blade must be tensioned for start switch to activate. Likewise, if the blade breaks during operation, the band saw motor will shut off.

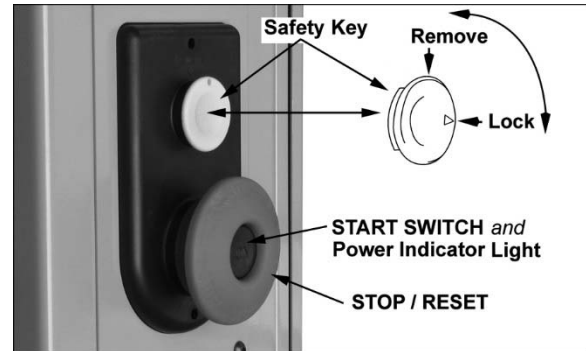


Figure 40: on/off switch

## 11.2 Safety key

The start/stop switch on the Band Saw comes equipped with a magnetic safety key. When in place on the switch, as shown in Figure 40, the magnetic safety key trips a relay which will allow the machine to start and stop when the respective switches are pressed. Being magnetic, the lock can be removed to make the machine inoperable and can be hidden for safe storage by attaching it to another magnetic surface.

When using the Band Saw, place the key on the switch cover lining up the arrow on the key with the REMOVE arrow on the cover. Then rotate key so that the arrow lines up with the LOCK arrow on the cover. This will prevent the safety key from coming loose from vibration when the machine is in use.

## 11.3 Brake pedal

When the stop button is used to shut off the Band Saw, the blade will coast slowly to a stop. An alternate method of stopping the machine is to press and hold the foot brake (see Figure 1). The blade will stop moving approximately four seconds after foot brake is pressed. Re-start saw by pressing start button on the column.

NOTE: Unnecessary and excessive use of the brake pedal may shorten the life of the brake pad.

**⚠WARNING** After machine is shut off, allow wheels and blade to come to a complete stop before opening the doors, making adjustments, or leaving the area.



## 12.0 Operation

The following section contains basic information, and is not intended to cover all possible applications or techniques using the Band Saw. Consult published sources of information, acquire formal training, and/or talk to experienced Band Saw users to gain proficiency and knowledge of band saw operations.

The following Figures may or may not show your particular model, but the procedures are the same.

### 12.1 General procedure

1. Make sure the blade is adjusted correctly for tension and tracking, and that upper and lower guide bearings and thrust bearings are set in proper relation to the blade.
2. Adjust guide post so that the guide bearings are just above the workpiece (about 3/16") allowing minimum exposure to the blade.
3. If using the fence, move it into position and lock it to the guide rail. If you are using the miter gauge for a crosscut, the fence should be moved safely out of the way.
4. Turn on the band saw and allow a few seconds for the machine to reach full speed.

**⚠WARNING** Whenever possible, use a push stick, hold-down, power feeder, jig, or similar device while feeding stock, to prevent your hands getting too close to the blade.

5. Place the straightest edge of the workpiece against the fence for a rip cut; or against the miter gauge for a crosscut.
6. Push the workpiece slowly into the blade, while also keeping it pressed against the fence or held against the miter gauge. Do not force the workpiece into the blade.

Some further operating tips:

Make *relief cuts* whenever possible. A relief cut is an extra cut made through the waste portion of a workpiece up to the layout line. When that intersection is reached by the blade while following the layout line, the waste portion comes free. This helps prevent pinching of the back edge of the blade in the cut.

**⚠CAUTION** When cutting, do not overfeed the blade; overfeeding will reduce blade life, and may cause the blade to break.

When cutting long stock, the operator should use roller stands, support tables, or an assistant to help stabilize the workpiece.

### 12.2 Ripping

Ripping is cutting lengthwise down the workpiece, and with the grain (of wood stock). See Figure 41. *Always use a push stick or similar device when ripping narrow pieces.*

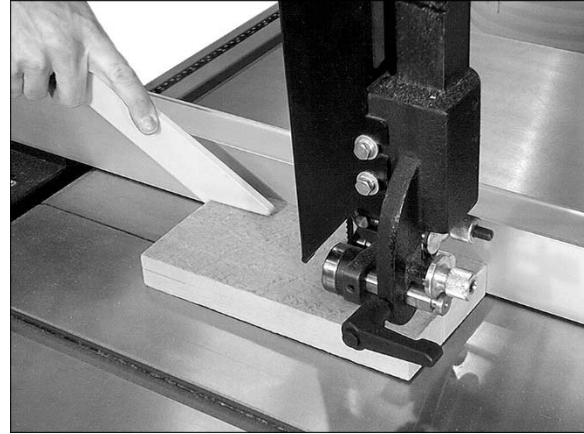


Figure 41: ripping

### 12.3 Crosscutting

Crosscutting is cutting across the grain of the workpiece, while using the miter gauge to feed the workpiece into the blade.

The right hand should hold the workpiece steady against the miter gauge, while the left hand pushes the miter gauge past the blade, as shown in Figure 42.

Do not use the fence in conjunction with the miter gauge. The offcut of the workpiece must not be constrained during or after the cutting process.

**⚠CAUTION** Using the fence in conjunction with the miter gauge can cause binding and possible damage to the blade.

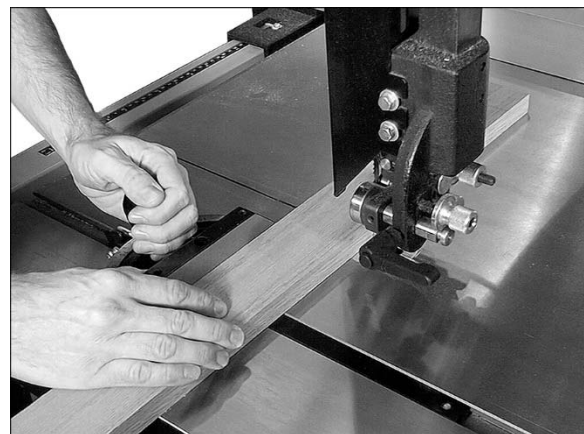


Figure 42: crosscutting

### 12.4 Resawing

Resawing is the process of slicing stock to reduce its thickness, or to produce boards that are thinner than the original workpiece, such as veneers.

The ideal blade for resawing is the widest one the machine can handle, as the wider the blade the better it can hold a straight line.

Resawing can be performed using the aluminum resaw fence or the resaw pin. When using the resaw fence, use a push block, push stick, or similar device to keep your hands away from the blade. The resaw pin offers a pivot point by which you can carefully follow your layout line; it is especially useful for sawing curves, when the fence can't be used and it's difficult to control the cut freehand.

Figure 43 demonstrates resawing with the aluminum resaw fence; Figure 44, with the resaw pin.

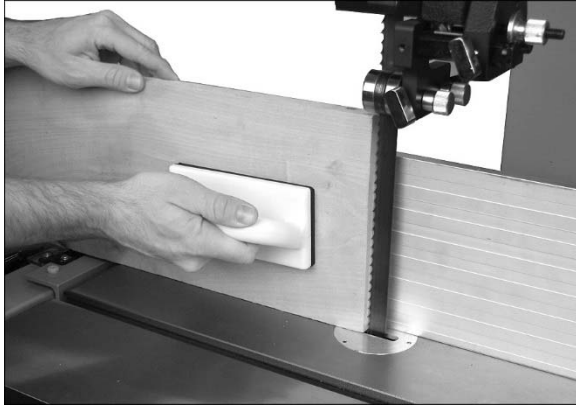


Figure 43: resawing

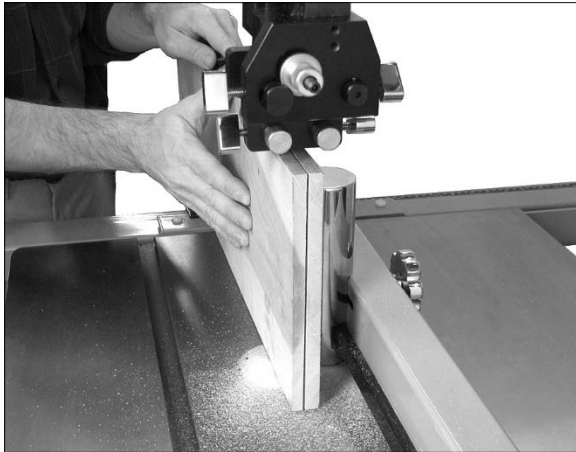


Figure 44: resaw pin

## 12.5 Blade Lead

Blade lead, or drift, is when the blade begins to wander off the cutting line even when the band saw fence is being used. Figure 45 shows an example of blade lead. It is more common with small, narrow blades, and is almost always attributable to poor blade quality, or lack of proper adjustments. Inspect the band saw for the following:

- Fence is not parallel to miter slot and blade.
- Blade is not tensioned correctly.
- Blade is dull.

- Teeth have too much “set” on one side of the blade.
- Workpiece is being fed too quickly.

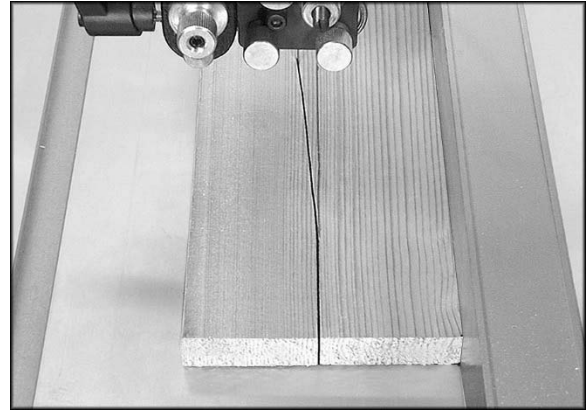


Figure 45: blade lead

If the blade is suspect, but replacing it is not currently an option, the blade lead can be temporarily compensated for by skewing the fence:

1. Cut a scrap piece of wood about the same length as the band saw table, and joint one edge along its length, or rip it on a table saw to give it a straight edge.
2. Draw a line on the board parallel with the jointed, or straight edge of the board.
3. Move the band saw fence out of the way, and carefully make a freehand cut along your drawn line on the board. Stop about midway on the board, and shut off the band saw (allow the blade to come to a complete stop) but do not allow the board to move.
4. Clamp the board to the table.
5. Slide the band saw fence over against the board until it contacts the straight edge of the board at some point. Lock the fence down.
6. Use the back adjustment screws (B, Figure 16) to line up the fence against the board.
7. Re-tighten the four hex cap screws.

**NOTE:** Skewing the fence to correct blade lead is effective for that particular blade; when a new blade is installed, the fence will need re-adjustment and re-squaring to miter slot. See appropriate section in this manual.

## 13.0 Maintenance

**⚠WARNING** Before doing maintenance on the machine, disconnect it from the electrical supply by pulling out the plug or switching off the main switch! Failure to comply may cause serious injury.

Clean the band saw regularly to remove any resinous deposits and sawdust.

Keep the miter slot, and the guide bearings, clean and free of resin.

Keep the blade clean and sharp. Check it periodically for cracks or other signs of wear.

The drive belt should be checked periodically. If it looks worn, frayed, glazed or otherwise damaged, replace it.

Remove any deposits from the band wheels to avoid vibration and potential blade breakage.

Vacuum or blow out dust from inside the cabinet. (Use proper dust mask equipment).

The table surface must be kept clean and free of rust for best results. If rust appears, you can use a mixture of household ammonia, good commercial detergent and #000 steel wool. Alternatively, commercial rust removers can be found at many hardware stores.

Apply a light coat of paste wax to the table. There are also products in aerosol form available in major hardware stores and supply catalogs. Whatever method is chosen, the coating should protect the metal and provide a smooth surface, without staining workpieces.

If the power cord is worn, cut, or damaged in any way, have it replaced immediately.

### 13.1 Lubrication Points

Periodically apply a light, non-hardening grease to rack and pinion system of guide post (Figure 46).

Grease sliding surfaces of table trunnions (Figure 47). Also grease contact area of trunnion scale and handwheel gear (Figure 47), and the other gears connected to the handwheel (Figure 48).

Grease blade tension screw (Figure 49).

Oil any pins, shafts, and joints. Do not get oil on pulleys or belts.

Note: Bearings on the band saw are sealed for life and do not require lubrication.

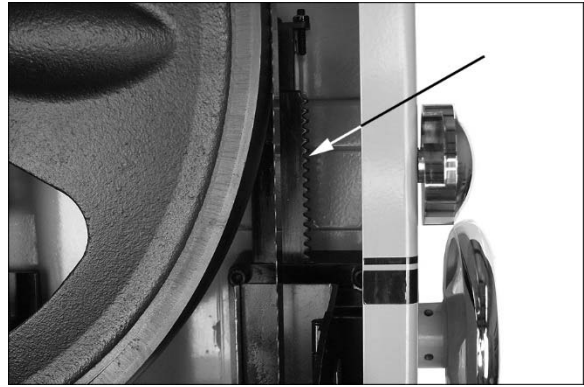


Figure 46

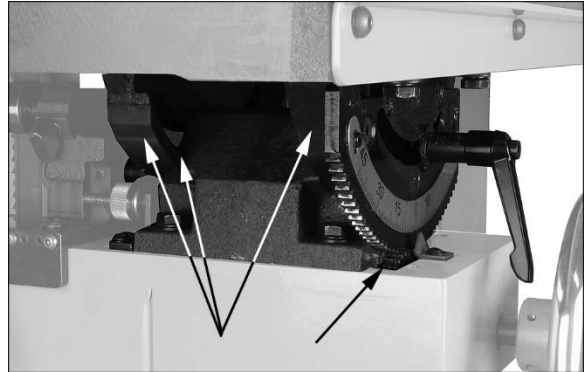


Figure 47

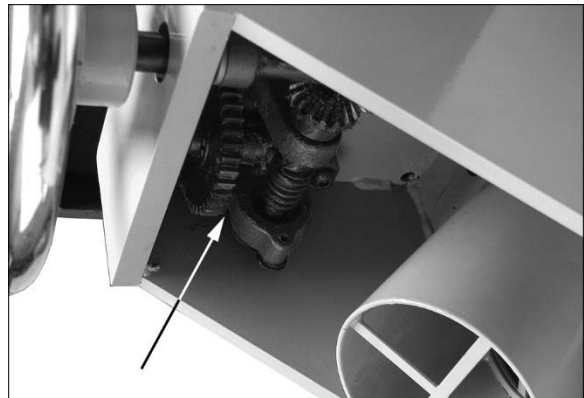


Figure 48

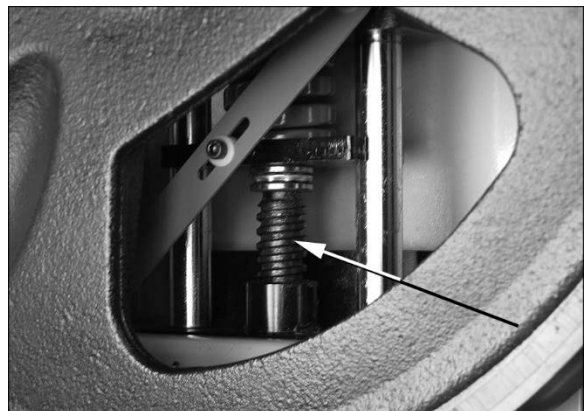


Figure 49

## 14.0 Blade Selection

Using the proper blade for the job will increase the operating efficiency of your band saw, help reduce necessary saw maintenance, and improve your productivity. Thus, it is important to follow certain guidelines when selecting a saw blade.

Here are factors to consider when selecting a blade:

- The type of material you will be cutting.
- The thickness of the workpiece.
- The features of the workpiece, such as bends or curves with small radii.

These factors are important because they involve basic concepts of saw blade design. There are five (5) blade features that are normally changed to meet certain kinds of sawing requirements. They are:

1. width
2. pitch (number of teeth per inch)
3. tooth form (or shape)
4. the “set” of the teeth
5. the blade material itself

### 14.1 Width

Band saw blades come in different standard widths, measured from the back edge of the blade to the tip of the tooth. Generally, wider blades are used for ripping or making straight cuts, such as resawing. Narrower blades are often used when the part being cut has curves with small radii. When cutting straight lines with a narrow blade, the blade may have a tendency to drift (see “Blade Lead”).

### 14.2 Pitch

Pitch is measured in “teeth per inch” (T.P.I.) and can be constant or variable. Figure 50 shows blades with different pitches.

A fine pitch (more teeth per inch) will cut slowly but more smoothly. A coarse pitch (fewer teeth per inch) will cut faster but more roughly.

As a rule of thumb, the thicker the workpiece, the coarser will be the blade pitch. If you have to cut a hard or very brittle material, you will probably want to use a blade with a finer pitch in order to get clean cuts.

Using a blade with too few teeth may cause vibration and a rough cut, while too many teeth may cause the gullets to fill with sawdust and overheat the blade.

As a general rule, use a blade that will have from 6 to 12 teeth in the workpiece at any given time.

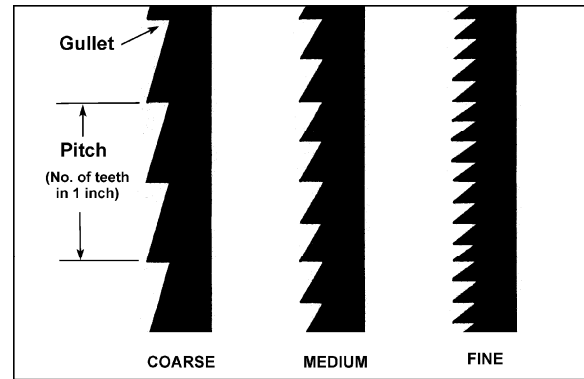


Figure 50 – Blade Pitch

### 14.3 Shape

Figure 51 shows common types of tooth shape, or form. Tooth shape has an effect on cutting rate.

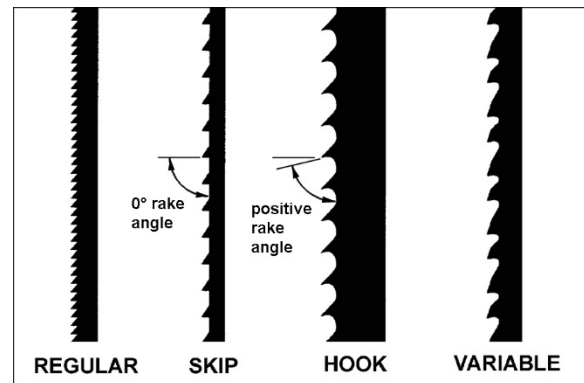


Figure 51 – Blade Tooth Shape

The *Regular*, or standard blade, has evenly spaced teeth that are the same size as the gullets, and a zero-degree rake (i.e. cutting angle). These offer precise, clean cuts at slower rates. It is usually a good choice for cutting curves and making crosscuts.

The *Skip* type has fewer teeth and larger gullets with a zero rake. It allows faster cutting rates than the *Regular* type, with a slightly coarser finish. It is useful for re-sawing and ripping thick stock, as well as cutting softwoods.

The *Hook* type blade has larger teeth and gullets and a positive rake angle for more aggressive, faster cutting when re-sawing or ripping thick stock, especially hardwoods.

*Variable-tooth* blades combine features of the other shapes, with tooth style and spacing varying on the same blade. This produces smooth cuts while dampening vibration.

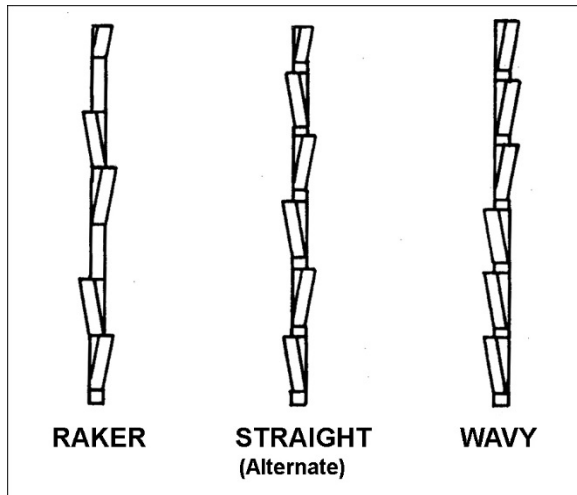


Figure 52 – Blade Set

#### 14.4 Set

The term “set” refers to the way in which the saw teeth are bent or positioned. Bending the teeth creates a kerf that is wider than the back of the blade. This helps the operator more easily pivot a workpiece through curve cuts, and decreases friction between blade and workpiece on straight cuts.

Set patterns are usually selected depending upon the type of material that needs to be cut. Three common set patterns are shown in Figure 52.

Generally, the *Raker* set is used for cutting metal workpieces; the *Wavy* set, when the thickness of the workpiece changes, such as cutting hollow tubing or structurals. The *Straight*, or *Alternate*, set is the one most used for woodworking blades, and is also used to cut plastics.

#### 14.5 Material

Band saw blades can be made from different types of metals. The most common include spring steel, carbon steel, bimetal (alloy steel equipped with a high speed cobalt steel edge welded to it), or carbide tips.

Because of the importance of blade selection, it is recommended that you use the blade selection guide, *sect. 14.0*. Also, listening to experienced band saw users will produce valuable information as to the types of blades currently on the market along with their pros and cons.

#### 14.6 Blade Breakage

Band saw blades are subject to high stresses and breakage may sometimes be unavoidable. However, many factors can be controlled to help prevent most blade breakage. Here are some common causes for breakage:

1. Misalignment of the blade guides.
2. Feeding workpiece too quickly.
3. Using a wide blade to cut a tight radius curve.
4. Excessive tension.
5. Teeth are dull or improperly set.
6. Upper guides are set too high off the workpiece.
7. Faulty weld on blade.

Although not essential, some users round or “stone” the back edge of their blade. This is done by placing a sharpening stone on the table and in light contact with the back corners of the blade as the blade is running. Rounding can help the back blade edge move more smoothly through the kerf, smooths the weld, and helps prevent cracks from starting at the back corners.

## 15.0 Blade Selection Guide

Identify the material and thickness of your workpiece. The chart will show the recommended PITCH, blade TYPE, and FEED RATE.

Key: H – Hook      L – Low  
       S – Skip      M – Medium  
       R – Regular    H – High

Example: 10/H/M means 10 teeth per inch / Hook Type Blade / Medium Feed

MATERIAL/S		WORKPIECE THICKNESS			
		½"	1"	3"	6+"
WOODS	HARDWOOD	10/R/L	8/R/L	3/H/M	3/H/M
	SOFTWOOD	10/R/L	8/R/L	3/H/M	3/H/M
NON-METALS	CARBON	10/R/L	6/R/L	3/S/M	3/S/M
	MICA	32/R/L	—	—	—
	ASBESTOS	8/R/L	6/R/L	3/S/M	3/S/M
	HARD RUBBER	10/R/L	8/R/L	6/R/M	2/S/H
PLASTICS	FORMICA	14/R/M	10/R/M	4/H/H	4/H/H
	MASONITE	10/R/L	4/S/L	3/S/M	3/H/M
	MICARTA	14/R/M	10/R/M	4/H/H	3/H/H
	PLEXIGLAS	10/R/L	6/R/L	3/S/M	3/S/M
	PAPER	14/R/L	10/R/L	4/S/L	3/S/M

### For Radius Cutting

Study the part drawing or prototype, or actually measure the smallest cutting radius required, and locate this radius (in inches) on the chart at the right. Follow the curve to where the approximate blade width is specified. If a radius falls between two of the curves, select the widest blade that will saw this radius.

This procedure should be used for making initial blade selections. These recommendations can, of course, be adjusted to meet specific requirements of a cutting job. Compromises may be necessary if you cannot find all needed specifications in a single blade.

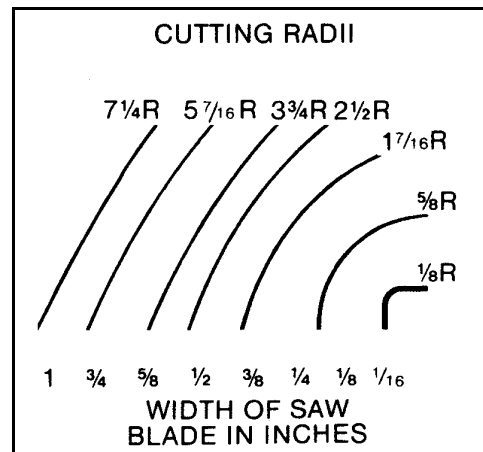


Table 2

## 16.0 Troubleshooting PM1800B/2013B/2415B Band Saws

### 16.1 Operational Problems

Table 3

Symptom	Possible Cause	Correction
Table tilt does not hold position under load.	Locking lever is not tight.	Tighten locking lever (A, Figure 19).
	Trunnion locking mechanism is broken or worn.	Replace trunnion locking mechanism.
Table will not tilt.	Trunnion is not lubricated.	Lubricate trunnion.
	Trunnion is jammed.	Disassemble and replace jammed parts.
Table vibration while sawing.	Incorrect blade speed.	Position belt for correct speed (see Figure 37). Also use acceptable feed rate for the material being worked.
	Drive belt is too slack.	Increase tension on drive belt. (sect. 10.14). Replace belt if worn.
	Incorrect choice of saw blade pitch.	Check blade selection chart and use correct blade (sect. 14.0).
	Saw dust or debris on band wheel. Or tire is worn/damaged.	Keep band wheels clean. Replace tires if necessary.
	Support bearing(s) are worn.	Replace support bearings.
Surface finish on workpiece is rough.	Saw blade speed is too low.	Increase speed.
	Saw blade pitch is too coarse.	Change to finer pitch blade.
Saw blade cutting inaccurately. Cuts are not straight.	Gum or pitch on blade.	Clean blade.
	Worn blade teeth or damaged blade.	Replace blade.
	Fence not parallel to blade.	Align fence properly (sect. 8.11).
	Incorrect adjustment of blade guides.	Adjust blade guides properly (sect. 10.6).
	Incorrect blade speed used.	Change to correct speed.
	Workpiece being fed too strongly.	Reduce feed force.
	Upper blade guides not located close enough to workpiece.	Guides should be about 3/16" above workpiece.
	Incorrect choice of saw blade for that particular cutting operation.	Change to correct blade.
Blade cannot be tensioned properly.	Tension spring is fatigued.	Replace tension spring (contact service representative).
	Blade tension too light.	Increase tension.
Blade binds in the workpiece.	Incorrect blade tension or damaged blade.	Correct accordingly.
	Blade too wide for desired radius.	Select narrower blade (sect. 14.0).

Symptom	Possible Cause	Correction
Blade forms cracks at base of teeth.	Teeth not suitable for particular job, or are incorrectly set.	Replace with proper blade for job.
	Blade thickness not suitable for band wheel diameter.	Replace with proper thickness blade.
	Blade sharpened incorrectly, becomes overheated.	Sharpen blade properly or replace.
	Band wheels have become misaligned.	Contact service representative.
Cracks on back edge of blade.	Workpiece being fed too quickly.	Reduce feed speed to lessen strain on the blade.
	Welding on blade not perfectly aligned.	Eliminate the welded part, and re-weld properly; or acquire a new blade. Round the back edge of a new blade.
	Thrust bearing is worn; caused by constant contact with back of blade.	Replace thrust bearing. Adjust new bearing according to instructions (sect. 10.6.2).
Blade breaks prematurely.	Feed force too great.	Reduce feed force.
	Blade pitch too coarse.	Refer to blade selection chart; use finer pitch blade.
	Support bearing not properly supporting blade.	Check support bearing for correct position and signs of wear. Adjust or replace as needed.
	Blade tensioned too tightly.	Reduce tension.
Blade breaks close to weld.	Blade overheated during welding.	Have blade annealed, or eliminate brittle part and weld correctly.
	Blade cooled too rapidly after welding.	Have blade annealed, or eliminate brittle part and weld correctly.
Premature dulling of saw teeth.	Blade "pitch" too fine.	Refer to blade selection chart. Use blade with coarser pitch.
	Feed pressure too light.	Increase feed pressure.
	Cutting rate too low.	Increase feed pressure and cutting rate.
	Incorrect choice of blade.	Re-examine material. Select proper blade from the chart.
	Chipped tooth or foreign object lodged in cut.	Stop the saw and remove lodged particle. Replace blade if damaged.



## 16.2 Mechanical and Electrical Problems

Table 4

Trouble	Probable Cause	Remedy
Machine will not start/restart or repeatedly trips circuit breaker or blows fuses.	No incoming power.	Verify machine is connected to power source, and that the safety key is installed on the switch.
	Cord damaged.	Replace cord.
	Overload automatic reset has not been reset.	Re-set the overload by pushing in completely the OFF (red) button on the magnetic switch. Allow a few minutes for the machine to cool. If problem persists, check amp setting on the motor starter.
	Band Saw frequently trips.	One cause of overloading trips which are not electrical in nature is too heavy a cut. The solution is to reduce feed pressure into the blade. If too heavy a cut is not the problem, then check the amp setting on the overload relay. Match the full load amps on the motor as noted on the motor plate. If amp setting is correct then there is probably a loose electrical lead. Check amp setting on motor starter.
	Building circuit breaker trips or fuse blows.	Verify that band saw is on a circuit of correct size. If circuit size is correct, there is probably a loose electrical lead. Check amp setting on motor starter.
	Switch or motor failure (how to distinguish).	If you have access to a voltmeter, you can separate a starter failure from a motor failure by first, verifying incoming voltage at 220+/-10 and second, checking the voltage between starter and motor at 220+/-10. If incoming voltage is incorrect, you have a power supply problem. If voltage between starter and motor is incorrect, you have a starter problem. If voltage between starter and motor is correct, you have a motor problem.
	Motor overheated.	Clean motor of dust or debris to allow proper air circulation. Allow motor to cool down before restarting.
	Motor failure.	If electric motor is suspect, you have two options: Have a qualified electrician test the motor for function or remove the motor and take it to a qualified electric motor repair shop and have it tested.
	Miswiring of the unit.	Double check to confirm all electrical connections are correct. Refer to wiring diagrams to make any needed corrections.

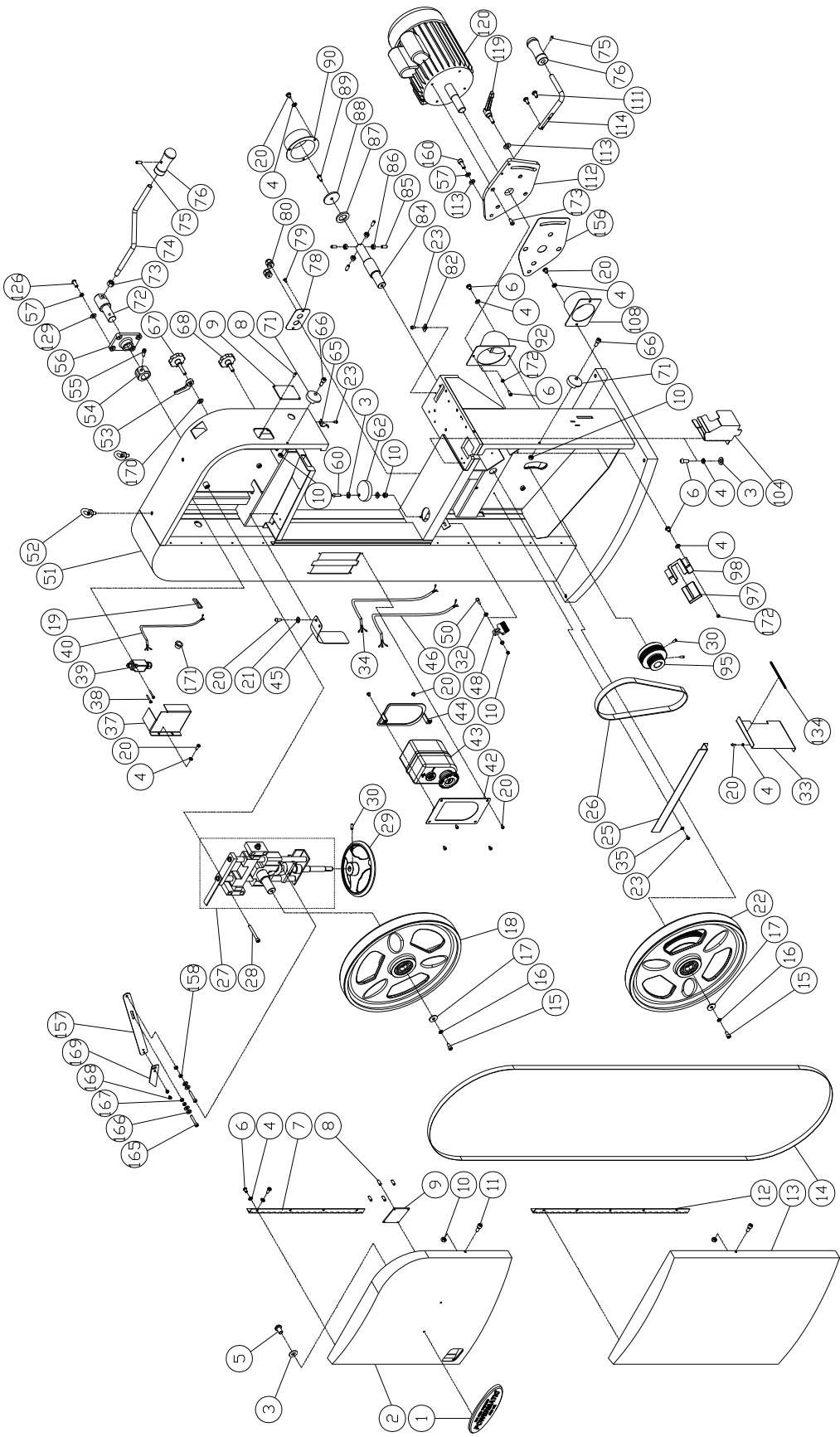
Trouble	Probable Cause	Remedy
Machine will not start/restart or repeatedly trips circuit breaker or blows fuses. (continued)	Switch failure.	If the start/stop switch is suspect, you have two options: Have a qualified electrician test the switch for function, or purchase a new start/stop switch and establish if that was the problem on change-out.
Band Saw does not come up to speed.	Extension cord too light or too long.	Replace with adequate size and length cord.
	Low current.	Contact a qualified electrician.

## 17.0 Replacement Parts

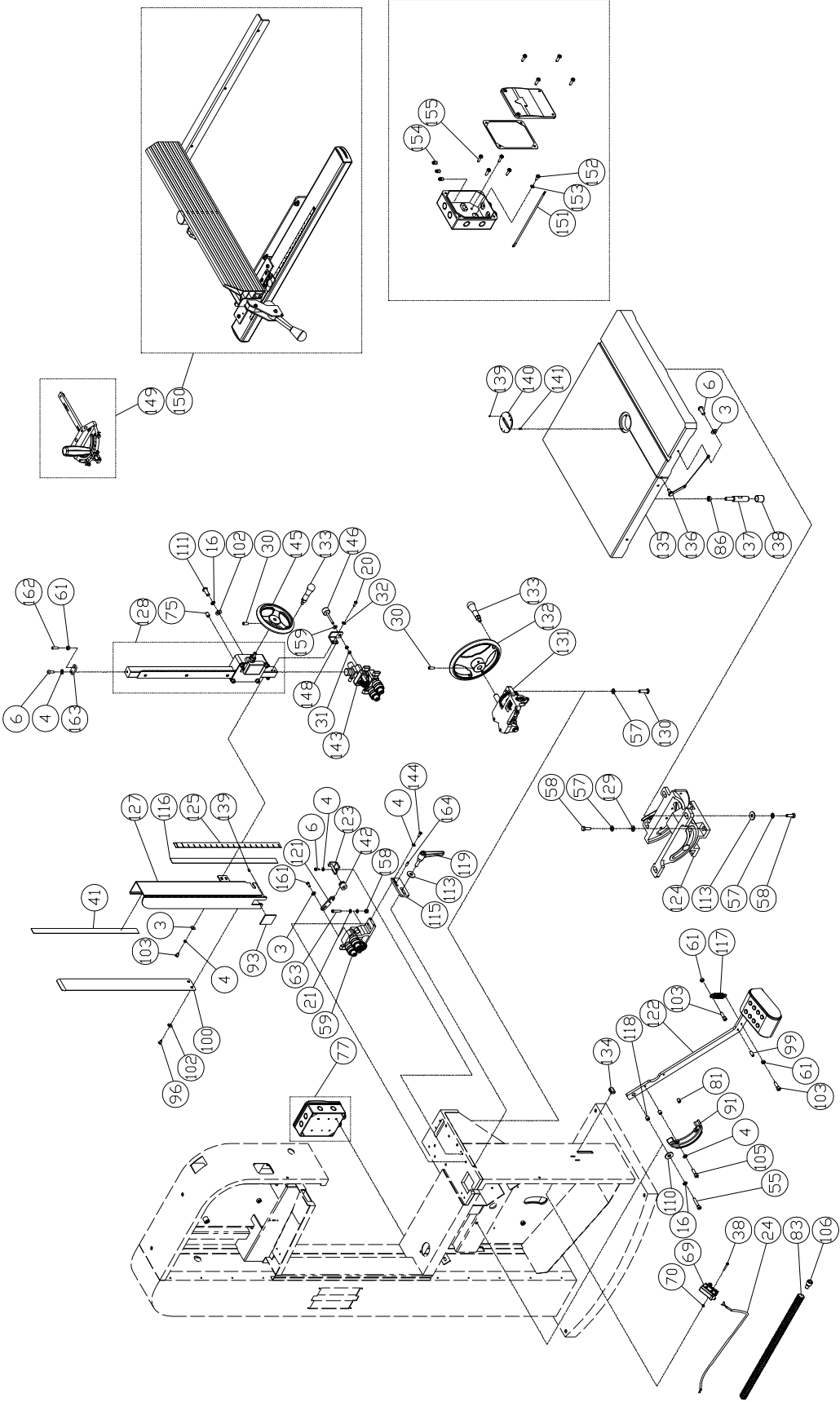
Replacement parts are listed on the following pages. To order parts or reach our service department, call 1-800-274-6848 Monday through Friday, 8:00 a.m. to 5:00 p.m. CST. Having the Model Number and Serial Number of your machine available when you call will allow us to serve you quickly and accurately.

Non-proprietary parts, such as fasteners, can be found at local hardware stores, or may be ordered from Powermatic. Some parts are shown for reference only, and may not be available individually.

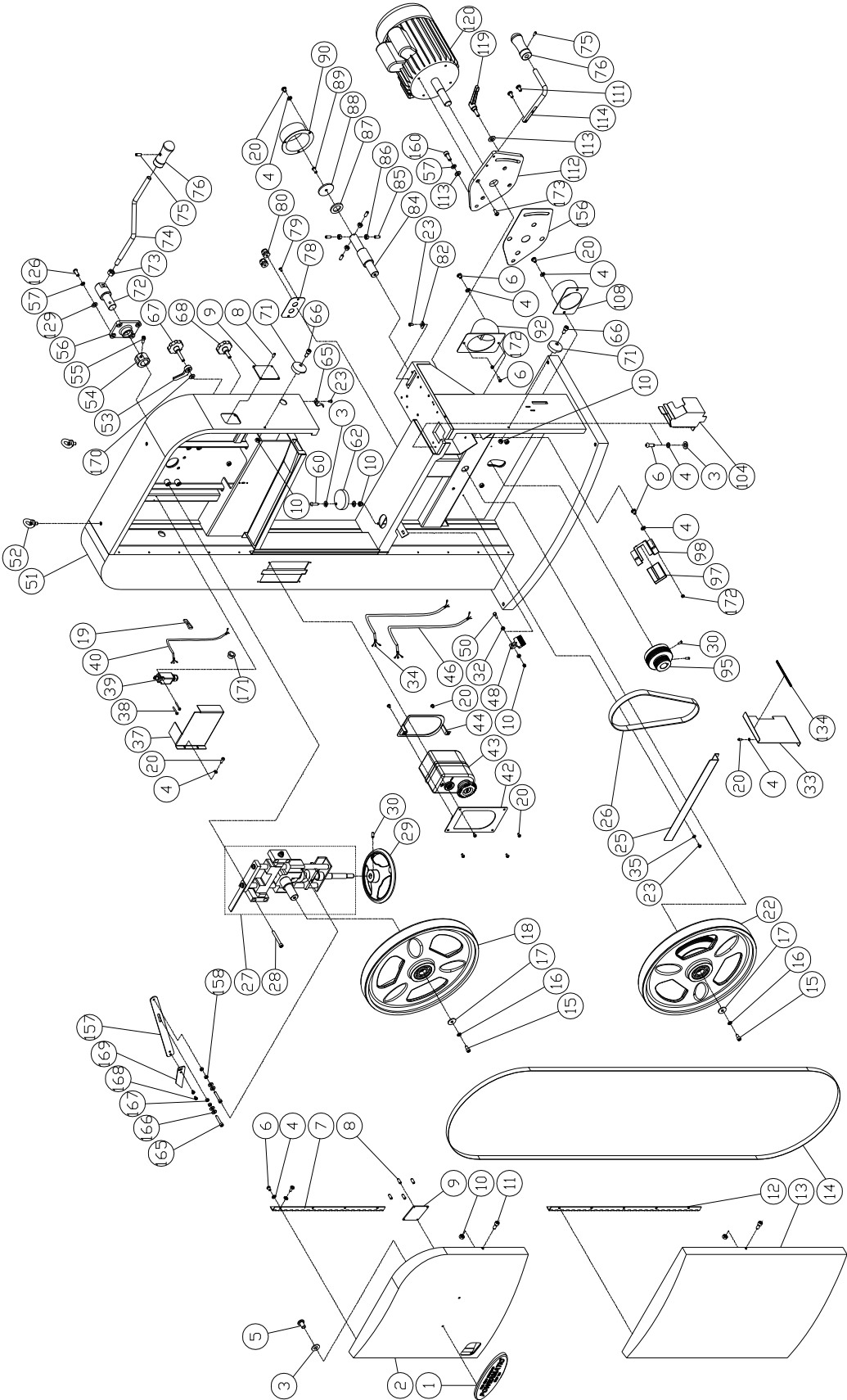
17.1.1 Complete Machine with Accessories – PM 1800B & 2013B Exploded View I



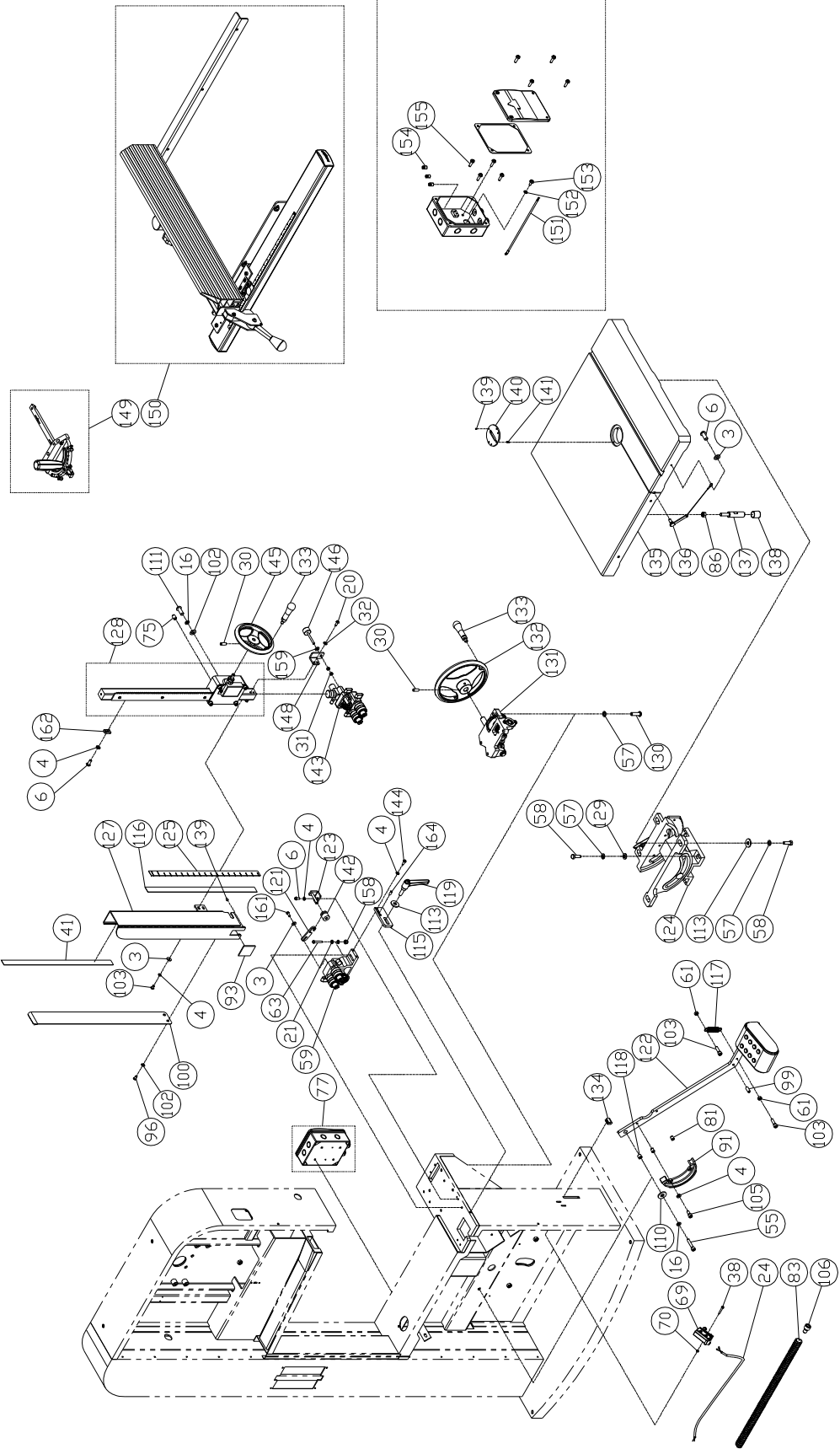
17.1.2 Complete Machine with Accessories – PM 1800B & 2013B Exploded View II



17.1.3 Complete Machine with Accessories – PM2415B Exploded View I



17.1.4 Complete Machine with Accessories – PM2415B Exploded View II



## 17.1.5 Complete Machine with Accessories – PM1800B, PM2013B and PM2415B – Parts List

Index No	Part No	Description	Size	Qty
1	PM2000-105	Powermatic Nameplate, Large		1
2	PM1800B-002	Upper Cabinet Door		1
	PM2013B-002	Upper Cabinet Door		1
	PM2415B-002	Upper Cabinet Door		1
3	TS-1550041	Flat Washer	M6 x $\varnothing$ 16	10
4	TS-2361061	Spring Washer (for 1800B & 2013B)	M6	42
	TS-2361061	Spring Washer (for 2415B)	M6	44
5	TS-081F021	Phillips Pan Head Machine Screw	1/4"-20UNC x 3/8"L	2
6	TS-2246202	Hex Socket Button Hd Screw (for 1800B & 2013B)	M6x12	28
	TS-2246202	Hex Socket Button Hd Screw (for 2415B)	M6x12	30
7	PM1800B-007	Upper Door Hinge		1
	PM2013B-007	Upper Door Hinge		1
	PM2415B-007	Upper Door Hinge		1
8	TS-1521031	Set Screw	M4 x 8	8
9	PM1500-050	Viewing Window		2
10	TS-1541021	Nylon Lock Hex Nut	M6	6
11	TS-1503021	Hex Socket Hd Cap Screw	M6 x 10	2
12	PM1800B-012	Lower Door Hinge		1
	PM2013B-012	Lower Door Hinge		1
	PM2415B-012	Lower Door Hinge		1
13	PM1800B-013	Lower Cabinet Door		1
	PM2013B-013	Lower Cabinet Door		1
	PM2415B-013	Lower Cabinet Door		1
14	PM1800B-014	Saw Blade, Hook type	160"L / 3/4" / 0.65mm THK	1
	PM2013B-014	Saw Blade, Hook type	170"L / 1" / 0.9mm THK	1
	PM2415B-014	Saw Blade, Hook type	183"L / 1" / 0.9mm THK	1
15	TS-1490031	Hex Cap Screw	M8 x 20	2
16	TS-2361081	Lock Washer	M8	7
17	PM1800B-017	Special Flat Washer		2
18	PM1800B-018	Upper Wheel Assembly		1
	PM2013B-018	Upper Wheel Assembly		1
	PM2415B-018	Upper Wheel Assembly		1
19	PM1500-040	Wire Connector	224-201	1
20	TS-2246082	Hex Socket Button Hd Screw (for 1800B & 2013B)	M6 x 8	19
	TS-2246082	Hex Socket Button Hd Screw (for 2415B)	M6 x 8	17
21	TS-1550041	Flat Washer (for 1800B & 2013B)	M6 x $\varnothing$ 16	4
	TS-1550041	Flat Washer (for 2415B)	M6 x $\varnothing$ 16	2
22	PM1800B-022	Lower Wheel Assembly		1
	PM2013B-022	Lower Wheel Assembly		1
	PM2415B-022	Lower Wheel Assembly		1
23	PM1800B-023	Hex Socket Button Head Screw	M5 x 8	4
24	PM1800B-024	Limit Switch Cord	18AWG x 2C x 2.8M	1
25	PM1800B-025	Brake Cable Bracket	L:456mm	1
	PM2013B-025	Brake Cable Bracket	L:507mm	1
	PM2415B-025	Brake Cable Bracket	L:613mm	1
26	PM1800B-026	Belt	PK x 7 ribs x 37"	1
	PM2013B-026	Belt	PK x 7 ribs x 35"	1
	PM2415B-026	Belt	PK x 7 ribs x 32"	1
27	PM1800B-027	Upper Wheel Sliding Bracket Assembly		1
	PM2013B-027	Upper Wheel Sliding Bracket Assembly		1
	PM2415B-027	Upper Wheel Sliding Bracket Assembly		1
28	PM1800B-028	Hex Head Bolt	M10 x 55	4
29	PM1800B-029	Hand wheel		1
30	TS-1523041	Set Screw	M6 x 12	8
31	PM1800B-031	Hex Nut	M8 x 1.25 (LH)	2
32	TS-1550041	Flat washer	M6 x $\varnothing$ 13	4
33	PM1800B-033	Protective Cover (for 1800B)		1
	PM2013B-033	Protective Cover (for 2013B & 2415B)		1

Index No	Part No	Description	Size	Qty
34	PM1800B-034-1	Motor Cord	12AWG x 3C, 300V, SJT, 105°C, CSA/UL	1
	PM1800B-034-3	Motor Cord	14AWG x 4C, 600V, ST, 105°C, CSA/UL	1
35	TS-2361051	Lock Washer	M5	2
37	PM1800B-037	Limit Switch Guard		1
	PM2013B-037	Limit Switch Guard		1
	PM2415B-037	Limit Switch Guard		1
38	TS-2284302	Phillips Pan Head Machine Screw	M4 x 30	4
39	PM1500-051	Limit Switch	AZD-1112(UL)	1
40	PM1800B-040	Switch Cord	18AWG x 2C x 1.1M	1
41	PM1800B-041	Magnet Strip		1
42	PM1500-043	Switch Plate		1
43	PM1800B-043A	Magnetic Switch(C-18D/NTH-25)	5HP/230V/60Hz/1PH	1
	PM1800B-043B	Magnetic Switch(C-12D10/NTH-17)	5HP/230V/60Hz/3PH	1
	PM1800B-043C	Magnetic Switch(C-09D10/NTH-8)	5HP/460V/60Hz/3PH	1
	PM2000-298	Safety Key		1
44	PM1500-006	Switch Bracket		1
45	PM1800B-045	Guide Plate (for 1800B & 2013B)		1
46	PM1800B-045-1	Power Cord	12AWG x 3C, 300V, SJT, 105°C, CSA/UL	1
	PM1800B-045-3	Power Cord	14AWG x 4C, 600V, ST, 105°C, CSA/UL	1
48	PM1500-058	Brush		1
50	TS-1482051	Hex Cap Screw	M6 x 25	1
51	PM1800B-051	Machine Main Body Frame		1
	PM2013B-051	Machine Main Body Frame		1
	PM2415B-051	Machine Main Body Frame		1
52	DT45-309	Lifting Eye Bolt	M10	2
53	PM1800B-053	Lock Handle	M10	1
54	PM1800B-054	Cam		1
55	TS-1490041	Hex Cap Screw	M8 x 25	2
56	PM1800B-056	Shaft Fixed Block		1
57	TS-2361101	Lock Washer	M10	17
58	TS-1491041	Hex Cap Screw	M10 x 30	8
59	PM1800B-059	Lower Blade Guide Support Assembly		1
60	TS-2246302	Hex Socket Button Head Screw	M6 x 30	1
61	TS-1540041	Hex Nut (for 1800B & 2013B)	M6	3
	TS-1540041	Hex Nut (for 2415B)	M6	2
62	PM1800B-062	Bracket		1
63	PM1800B-063	Hex Socket Button Head Screw	M5 x 35	1
65	PM1500-063	Pointer		1
66	TS-1503061	Hex Socket Hd Cap Screw	M6 x 25	2
67	PM1500-067	Lock Knob	M10 x 50	1
68	PM1500-055	Lock Knob	M10 x 30	1
69	PM1800B-069	Limit Switch	MN-5141	1
70	TS-1540021	Hex Nut	M4	2
71	PM1500-060	Door Lock Knob		2
72	PM1800B-072	Tension Quick Release Lever Shaft		1
73	TS-154009	Hex Nut	M14	1
74	PM1800B-074	Tension Quick Release Lever	L:371mm	1
	PM2013B-074	Tension Quick Release Lever	L:397mm	1
	PM2415B-074	Tension Quick Release Lever	L:450mm	1
75	TS-1524011	Set Screw	M8 x 8	6
76	PM1800B-076	Tension Quick Release Handle		2
77	PM1800B-077	Wire Connection Box		1
78	PM1500-083	Strain Relief Fixed Plate		1
79	PM1500-039	Tapping Screw	M4 x 8	2
80	PM1800B-080	Strain Relief	M20	2
81	PM1500-127	Bushing		2
82	PM1800B-082	Pointer		1
83	PM1800B-083	Protective Tube	ø12 x 1100mm	1
84	PM1800B-084	Lower Wheel Shaft		1
85	TS-2279301	Set Screw	M10 x 30	4
86	TS-2311101	Hex Nut	M10	5

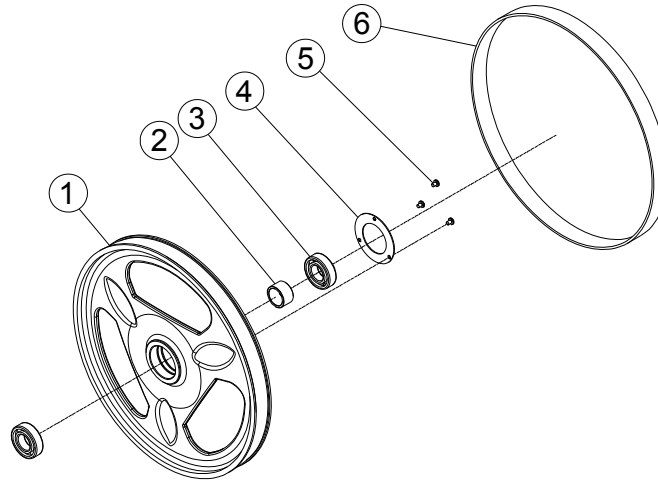


Index No	Part No	Description	Size	Qty
87	PM1800B-087	Special Washer		1
88	PM1800B-088	Special Washer		1
89	TS-1504051	Socket Head Cap Screw	M8 x 25	1
90	PM1800B-090	Cover		1
91	PM1500-128	Brake Pad		1
92	PM1800B-092	Dust Chute		1
93	PM1800B-093	Viewing Window		1
95	PM1800B-095	Motor Pulley	ø100mm/60mm	1
	PM2013B-095	Motor Pulley	ø91mm/55mm	1
	PM2415B-095	Motor Pulley	ø82mm/55mm	1
96	TS-2248122	Hex Socket Button Head Screw	M8 x 12	2
97	JWBS18DX-249	Insert Block		1
98	PM1800-243	Shelf		1
99	PM1500-124	Nylon Set Screw	M7 x 10	1
100	PM1800B-100	Sliding Plate		1
102	TS-1550061	Flat Washer	M8 x ø18	6
103	TS-1482031	Hex Cap Screw	M6 x 16	4
104	PM1800B-104	Lower Blade Guard		1
105	TS-1482051	Hex Cap Screw	M6 x 25	2
106	PM1800B-106	Wire Bushing		1
108	PM1800B-108	Dust Chute		1
110	TS-1550061	Flat Washer	M8 x ø30	1
111	TS-2248202	Hex Socket Button Head Screw	M8 x 20	6
112	PM1800B-112	Motor Mount Plate		1
113	TS-1550071	Flat Washer	M10 x ø27 x 3	7
114	PM1800B-114	Lift Lever		1
115	PM1800B-115	Bracket		1
116	PM1800B-116	Sponge		1
117	PM1500-122	Spring		1
118	PM1500-133	Bushing		1
119	PM1800B-119	Tension Quick Release Handle		2
120	PM1800B-120A	Motor	230V,5HP,1Ph	1
	PM1800B-120MF	Motor Fan (not shown)		1
	PM1800B-120MFC	Motor Fan Cover (not shown)		1
	PM1800B-120SC	Starting Capacitor (not shown)	300MFD, 250VAC	1
	PM1800B-120RC	Running Capacitor (not shown)	45µf, 450VAC	1
	PM1800B-120CC	Capacitor Cover (not shown)		1
	PM1800B-120JB	Junction Box (not shown)		1
	PM1800B-120JBC	Junction Box Cover (not shown)		1
	PM1800B-120CS	Centrifugal Switch (not shown)		1
	PM1800B-120B	Motor	230/460V,5HP,3Ph	1
121	PM1800B-121	Connection Plate		1
122	PM1800B-122	Brake Linkage Assembly		1
	PM2013B-122	Brake Linkage Assembly		1
	PM2415B-122	Brake Linkage Assembly		1
123	PM1800B-123	Fixed Bracket		1
124	PM1800B-124	Trunnion Support Bracket Assembly		1
125	PM1800B-125	Guide Post Scale (for 1800B & 2013B)		1
	PM2415B-125	Guide Post Scale		1
126	TS-2249252	Hex Socket Button Head Screw	M10 x 25	4
127	PM1800B-127	Blade Guard Cover		1
128	PM1800B-128	Guide Bar Bracket Assembly		1
129	TS-1550071	Flat Washer	M10 x ø20 x 2	8
130	TS-2248302	Hex Socket Button Head Screw	M8 x 30	4
131	PM1800B-131	Gear Bracket Assembly		1
132	PM1800B-132	Handwheel		1
133	3520B-126	Handle		2
134	PM1800B-134	Rubber Set	9 x 160	1
135	PM1800B-135	Table (for 1800B & 2013B)	24" x 27"	1
	PM2415B-135	Table	24" x 34"	1
136	PM1800B-136	Table Pin Assembly		1

Index No	Part No	Description	Size	Qty
137	PM1800B-137	Stop Bolt		1
138	PM1800B-138	Sheath		1
139	PM1800B-139	Set Screw	M4 x 5	5
140	PM1800B-140	Table Insert		1
141	PM1800B-141	Pin	ø4 x 10	2
142	PM1800B-142	Adjusting Knob		1
143	PM1800B-143	Upper Blade Guide Support Assembly		1
144	TS-2246202	Hex Socket Button Head Screw	M6 x 20	2
145	PM1500-090	Handwheel		1
146	PM1800B-146	Adjusting Knob		1
148	PM1800B-148	Fixed Bracket		1
149	PM1800B-149	Miter Gauge Assembly		1
150	PM1800B-150	Fence Assembly		1
	PM2013B-150	Fence Assembly		1
	PM2415B-150	Fence Assembly		1
151	PM1800B-151	Ground Wire		1
152	TS-1533032	Phillips Pan Head Machine Screw	M5 x 10	2
153	JWS25X-405	Star Washer	M5	2
154	PM1800B-154	Wire Cap	P4	3
155	PM1800B-155	Phillips Pan Head Machine Screw (Big)	M5 x 10	4
156	PM1800B-156	Motor Protective Plate		1
157	PM1800B-157	Tension Pointer		1
158	TS-1541011	Nylon Lock Hex Nut	M5	3
159	PM1800B-159	Special Washer	ø16 x ø8.2 x 0.4t	1
160	TS-1505051	Socket Head Cap Screw	M10 x 35	1
161	TS-1482021	Hex Cap Screw	M6 x 12	1
162	TS-1523081	Set Screw (for 1800B & 2013B)	M6 x 30	1
	PM2415B-162	Adjust Block (for 2415B)		1
163	PM1800B-163	Plate (for 1800B & 2013B)		1
164	TS-1523021	Set Screw	M6 x 8	2
165	PM1800B-165	Hex Socket Button Head Screw	M5 x 35	2
166	PM1800B-166	Plastic Flat Washer	ø6 x ø13 x 1.5t	4
167	TS-1540031	Hex Nut	M5	2
168	PM1800B-168	Phillips Pan Head Machine Screw (Big)	M4 x 5	2
169	PM1800B-169	Tension Scale Indicator	L:75mm	1
	PM2013B-169	Tension Scale Indicator	L:115mm	1
	PM2415B-169	Tension Scale Indicator	L:175mm	1
170	PM1800B-170	Copper Washer	ø10 x ø20 x 0.5t	1
171	PM1800B-171	Bushing	Type 0813C	1
172	PM1800B-172	Hex Flange Nut	M6	2
173	TS-2288202	Phillips Flat Head Machine Screw	M8 x 20	4
	3520B-157	Upper (Narrow) Stripe, 50°L (not shown)		3
	3520B-158	Lower (Wide) Stripe, 50°L (not shown)		1
	PM1500-WL	Warning Label (not shown)	4"H x 5-1/4"W	1
	PM1800B-ID-1	I.D. Label (not shown)	1791800B	1
	PM1800B-ID-3	I.D. Label (not shown)	1791801B	1
	PM2013B-ID-1	I.D. Label (not shown)	1791257B	1
	PM2013B-ID-3	I.D. Label (not shown)	1791258B	1
	PM2014B-ID-1	I.D. Label (not shown)	1791259B	1
	PM2014B-ID-3	I.D. Label (not shown)	1791260B	1
	PM1800B-TLL	Tension Lever Label (not shown)		1
	PM1800B-BTL	Blade Tension Label (not shown)		1
	PM2013B-BTL	Blade Tension Label (not shown)		1
	PM2415B-BTL	Blade Tension Label (not shown)		1
	PM1800B-ML-1	Motor Label (not shown)	1791800B	1
	PM1800B-ML-3	Motor Label (not shown)	1791801B	1
	PM2013B-ML-1	Motor Label (not shown)	1791257B	1
	PM2013B-ML-3	Motor Label (not shown)	1791258B	1
	PM2014B-ML-1	Motor Label (not shown)	1791259B	1
	PM2014B-ML-3	Motor Label (not shown)	1791260B	1

## 17.2.1 Upper Wheel Assembly – Exploded View

Part Assembly No.: PM1800B-018 (#1-6) / PM2013B-018 (#1-5) / PM2415B-018 (#1-5)

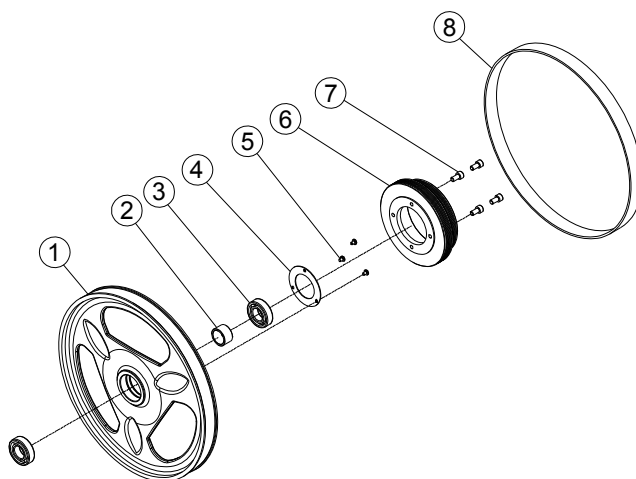


## 17.2.2 Upper Wheel Assembly – Parts List

Index No	Part No	Description	Size	Qty
1	PM1800B-018-01	Upper Wheel		1
	PM2013B-018-01	Upper Wheel (Rubber Coating)		1
	PM2415B-018-01	Upper Wheel (Rubber Coating)		1
2	PM1800B-018-02	Spacer		1
3	BB-6306LLU	Ball Bearing	6306LLU	2
4	PM1800B-018-04	Plate		1
5	PM1800B-018-05	Phillips Pan Head Machine Screw	M6 x 8	3
6	PM1800B-018-06	Tire		1

### 17.3.1 Lower Wheel Assembly – Exploded View

Part Assembly No.: PM1800B-022 (#1~8) / PM2013B-022 (#1~7) / PM2415B-022 (#1~7)

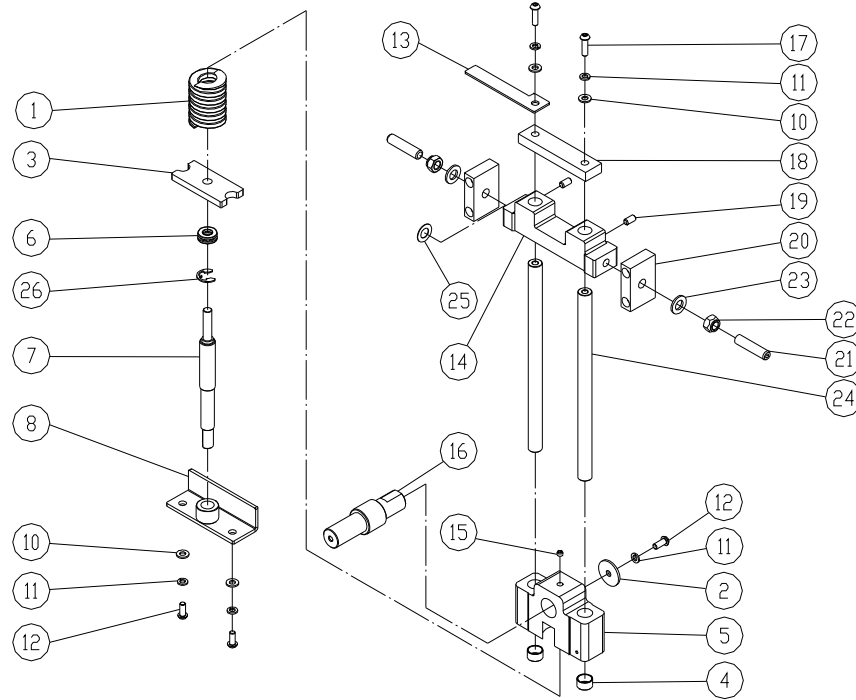


### 17.3.2 Lower Wheel Assembly – Parts List

Index No.	Part No.	Description	Size	Qty
1	PM1800B-022-01	Lower Wheel		1
	PM2013B-022-01	Lower Wheel (Rubber Coating)		1
	PM2415B-022-01	Lower Wheel (Rubber Coating)		1
2	PM1800B-018-02	Spacer		1
3	BB-6306LLU	Ball Bearing	6306LLU	2
4	PM1800B-018-04	Plate		1
5	PM1800B-018-05	Phillips Pan Head Machine Screw	M6 x 8	3
6	PM1800B-022-06	Pulley	ø190mm/218mm	1
7	TS-1504041	Socket Head Cap Screw	M8 x 20	4
8	PM1800B-018-06	Tire		1

### 17.4.1 Upper Wheel Sliding Bracket Assembly –Exploded View

Part Assembly No.: PM1800B-027 (#1~26) / PM2013B-027 (#1~7-1, 8~26) / PM2415B-027 (#1~7-2, #8~26)



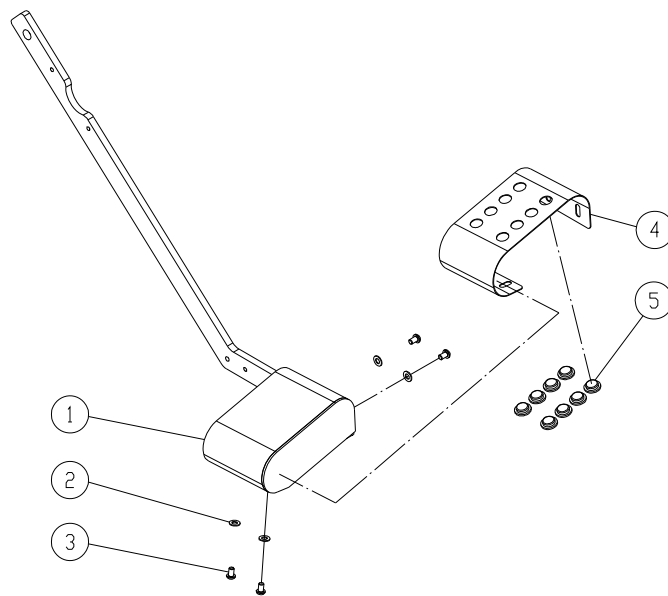
### 17.4.2 Upper Wheel Sliding Bracket Assembly –Part List

1	PM1800B-027-01	Spring		1
2	PM1800B-027-02	Flat Washer		1
3	PM1800B-027-03	Plate		1
4	PM1800B-027-04	Bushing	DU20 x 20	4
5	PM1800B-027-05	Upper Wheel Sliding Bracket		1
6	BB-51201	Thrust Bearing	51201	1
7	PM1800B-027-07	Adjusting Bolt	L:244mm	1
7-1	PM2013B-027-07	Adjusting Bolt	L:281mm	1
7-2	PM2415B-027-07	Adjusting Bolt	L:329mm	1
8	PM1800B-027-08	Adjust Plate Weldment		1
10	TS-1550061	Flat Washer	M8 x ø18	4
11	TS-2361081	Lock Washer	M8	5
12	TS-2248202	Hex Socket Button Head Screw	M8 x 20	3
13	PM1800B-027-13	Adjust Plate		1
14	PM1800B-027-14	Block		1
15	5302731	Set Screw	M8 x 6	1
16	PM1800B-027-16	Wheel Shaft		1
17	TS-2248302	Hex Socket Button Head Screw	M8 x 30	2
18	PM1800B-027-18	Block		1
19	TS-1525011	Socket Set Screw	M10 x 10	2
20	PM1800B-027-20	Locate Block		2
21	PM1800B-027-21	Set Screw	M14 x 60	2
22	TS-2342141	Hex Nylon Lock Nut	M14	2
23	TS-155009	Flat Washer	M14 x ø25	2
24	PM1800B-027-024	Shaft		2
25	PM1800B-027-025	Brass Washer	ø16.1 x ø23.5 x 1.0t	2
26	PM1800B-027-026	E-Ring <sup>1</sup>	ø15 x 1.5t	1

<sup>1</sup> serial no break: 1791800B from 15050014; 1791801B from 15050003; 1791257B from 15050004; 1791258B from 15050005; 1791259B from 15050005; 1791260B from 15050006.

## 17.5.1 Brake Linkage Assembly – Exploded View

Part Assembly No.: PM1800B-122 / PM2013B-122 / PM2415B-122

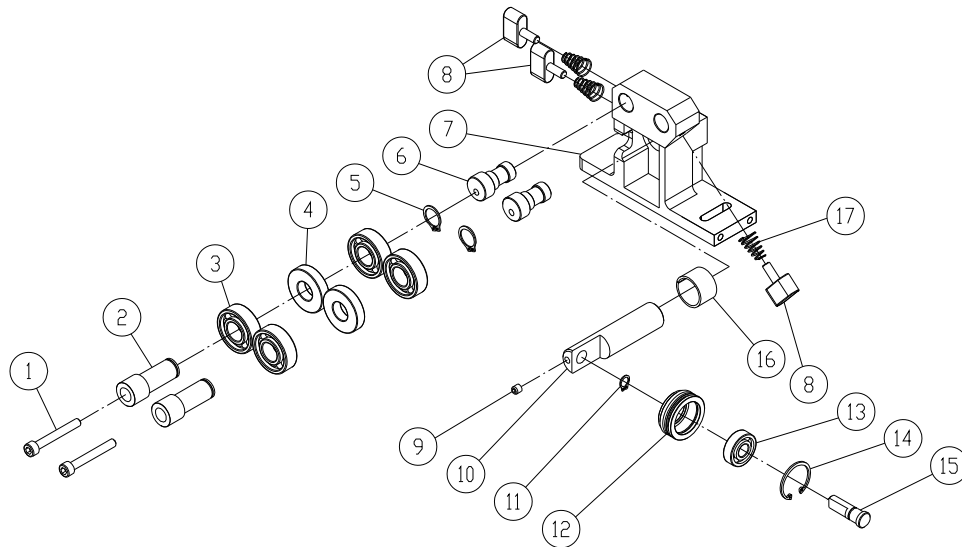


## 17.5.2 Brake Linkage Assembly – Parts List

Index No.	Part No.	Description	Size	Qty
1	PM1800B-122-01	Brake Arm	L:573mm	1
	PM2013B-122-01	Brake Arm	L:607mm	1
	PM2415B-122-01	Brake Arm	L:662mm	1
2	TS-1550041	Flat Washer	M6 x $\phi$ 13	4
3	TS-2246102	Socket Head Button Screw	M6 x 10	4
4	PM1800B-122-04	Foot Brake Cover		1
5	PM1800B-122-05	Rubber Block		8

## 17.6.1 Lower Blade Guide Support Assembly – Exploded View

Part Assembly No.: PM1800B-059

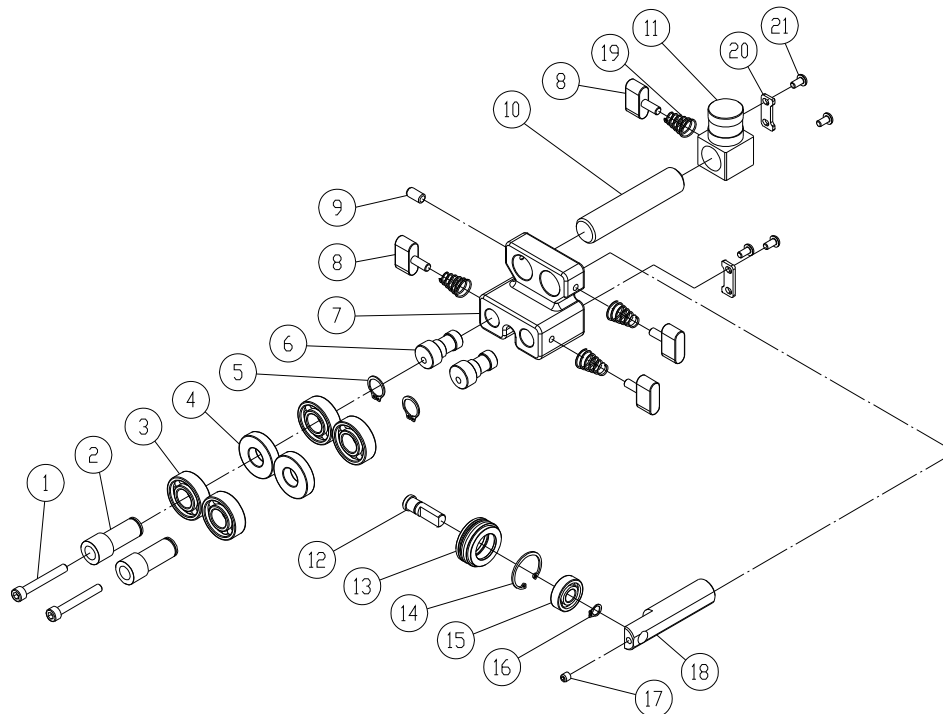


## 17.6.2 Lower Blade Guide Support Assembly – Parts List

Index No.	Part No.	Description	Size	Qty
1	TS-1503101	Socket Head Cap Screw	M6 x 1 x 45	2
2	PM1800B-059-02	Knurled Adjusting Knob		2
3	BB-6202ZZ	Ball Bearing	6202ZZ	4
4	PM1800B-059-04	Spacer		2
5	PM1800B-059-05	Retaining Ring	S15	2
6	PM1800B-059-06	Lower Eccentric Shaft		2
7	PM1800B-059-07	Lower Blade Guide Support Bracket		1
8	PM1800B-059-08	Knob		3
9	TS-1523011	Socket Set Screw	M6 x 1 x 6	1
10	PM1800B-059-10	Lower Spacing Sleeve		1
11	PM1800B-059-11	Retaining Ring	S10	1
12	PM1800B-059-12	Thrust Bearing Holder		1
13	BB-6000ZZ	Ball Bearing	6000ZZ	1
14	PM1800B-059-014	Retaining Ring	R26	1
15	PM1800B-059-015	Adjustment Shaft		1
16	PM1800B-059-016	Bushing	DU20 x 15	1
17	PM1800B-059-017	Taper Spring		3

## 17.7.1 Upper Blade Guide Support Assembly – Exploded View

Part Assembly No.: PM1800B-143



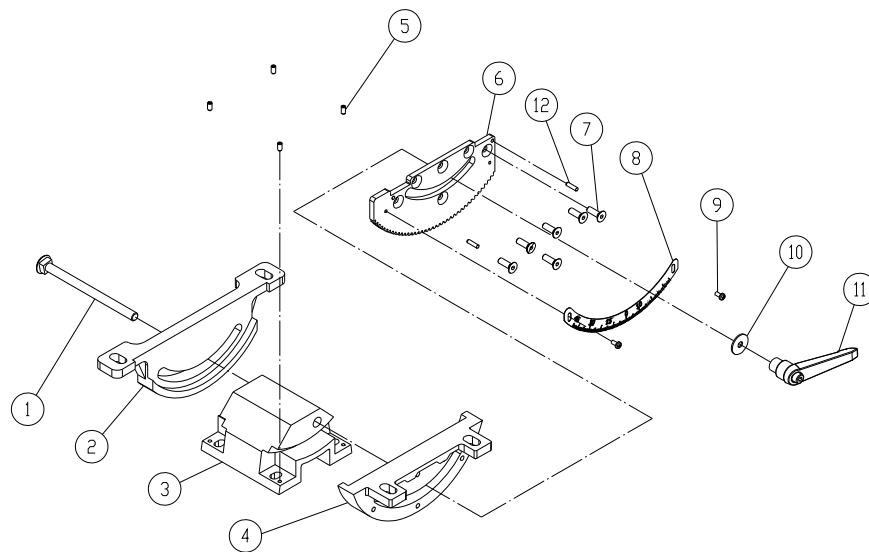
## 17.7.2 Upper Blade Guide Support Assembly – Parts List

Index No.	Part No.	Description	Size	Qty
1	TS-1503101	Socket Head Cap Screw	M6 x 1 x 45	2
2	PM1800B-143-02	Knurled Adjusting Knob		2
3	BB-6202ZZ	Ball Bearing	6202ZZ	4
4	PM1800B-059-04	Spacer		2
5	PM1800B-059-05	Retaining Ring	S15	2
6	PM1800B-143-06	Upper Eccentric Shaft		2
7	PM1800B-143-07	Upper Blade Guide Support Bracket		1
8	PM1800B-059-08	Knob		4
9	TS-2276081	Socket Set Screw	M6 x 1 x 8	1
10	PM1800B-143-10	Adjustment Shaft		1
11	PM1800B-143-11	Upper Blade Guide Support Block		1
12	PM1800B-143-12	Adjustment Shaft		1
13	PM1800B-059-12	Thrust Bearing Holder		1
14	PM1800B-059-014	Retaining Ring	R26	1
15	BB-6000ZZ	Ball Bearing	6000ZZ	1
16	PM1800B-059-11	Retaining Ring	S10	1
17	TS-1523011	Set Screw	M6 x 1 x 6	1
18	PM1800B-143-18	Upper Spacing Sleeve		1
19	PM1800B-059-017	Taper Spring		4
20	PM1800B-143-20	Holding Plate		2
21	TS-2284082	Socket Head Button Screw	M4 x 0.7 x 8	4



## 17.8.1 Trunnion Support Bracket Assembly – Exploded View

Part Assembly No.: PM1800B-124

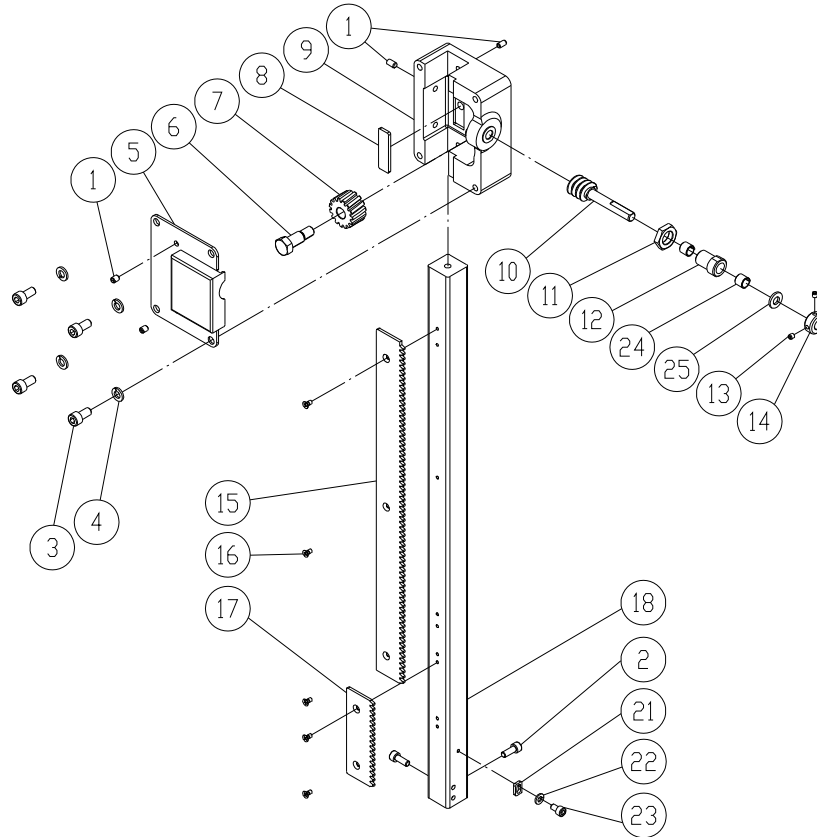


## 17.8.2 Trunnion Support Bracket Assembly – Parts List

Index No.	Part No.	Description	Size	Qty
1	PM1800B-124-01	Carriage Bolt		1
2	PM1800B-124-02	Trunnion Block (Front)		1
3	PM1800B-124-03	Trunnion Support Bracket		1
4	PM1800B-124-04	Trunnion Block (Back)		1
5	TS-1523041	Socket Set Screw	M6 x 1 x 12	4
6	PM1800B-124-06	Angle Gear Plate		1
7	TS-1515031	Socket Head Flat Screw	M8 x 25	6
8	PM1800B-124-08	Angle Scale		1
9	TS-1533032	Phillips Pan Head Machine Screw	M5 x 0.8 x 10	2
10	TS-2360121	Flat Washer	M12 x $\varnothing$ 27 x T2	1
11	PM1800B-124-11	Lock Handle		1
12	PM1800B-124-12	Pin	$\varnothing$ 5 x 20	2

## 17.9.1 Guide Bar Bracket Assembly – Exploded View

Part Assembly No.: PM1800B-128

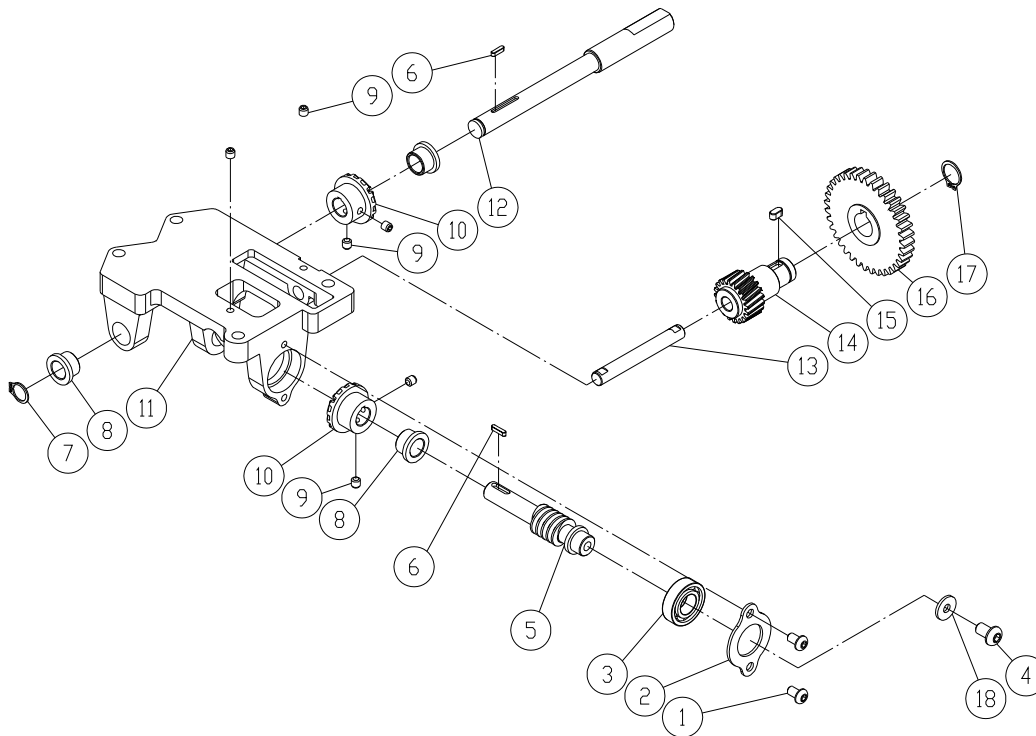


## 17.9.2 Guide Bar Bracket Assembly – Parts List

Index No.	Part No.	Description	Size	Qty
1	PM1800B-128-01	Socket Set Screw	M7 x 10	4
2	TS-1503021	Socket Head Cap Screw	M6 x 1 x 10	2
3	TS-1504031	Socket Head Cap Screw	M8 x 1.25 x 16	4
4	TS-2361081	Lock Washer	M8	4
5	PM1800B-128-05	Cover		1
6	PM1800B-128-06	Fixed Pin		1
7	PM1800B-128-07	Gear		1
8	PM1800B-128-08	Fixed Plate		1
9	PM1800B-128-09	Guide Bracket		1
10	PM1800B-128-10	Worm Shaft		1
11	TS-154010	Hex Nut	M16	1
12	PM1800B-128-12	Bushing		1
13	TS-1522011	Socket Set Screw	M5 x 0.8 x 5	2
14	PM1800B-128-14	Collar		1
15	PM1800B-128-15	Guide Bar Rack (long)		1
16	TS-2284082	Phillips Pan Head Machine Screw	M4 x 0.7 x 8	5
17	PM1800B-128-17	Guide Bar Rack (Short)		1
18	PM1800B-128-18	Guide Bar		1
21	PM2415B-162	Adjust Block		1
22	TS-2361061	Lock Washer	M6	1
23	TS-1503021	Socket Head Cap Screw	M6 x 1 x 10	1
24	PM1800B-128-24	DU Bearing	DU10 x 12	2
25	PM1800B-128-25	Fiber Washer		1

## 17.10.1 Gear Bracket Assembly – Exploded View

Part Assembly No.: PM1800B-131

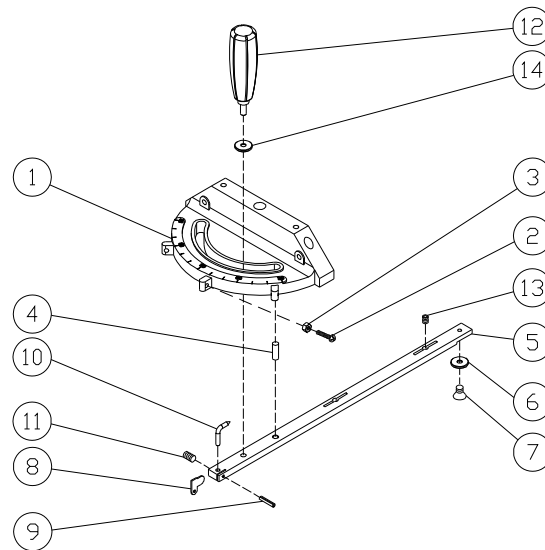


## 17.10.2 Gear Bracket Assembly – Parts List

Index No.	Part No.	Description	Size	Qty
1	TS-1534032	Phillips Pan Head Machine Screw	M6 x 1 x 10	2
2	PM1800B-131-02	Bearing Cover		1
3	BB-6002ZZ	Ball Bearing	6002ZZ	1
4	PM1800B-131-04	Phillips Pan Head Machine Screw	M8 x 1.25 x 16	1
5	PM1800B-131-05	Worm Shaft		1
6	PM1800B-131-06	Key	4 x 4 x 12	2
7	PM1800B-131-07	Retaining Ring	S13	1
8	PM1800B-131-08	Bushing		3
9	TS-1523011	Socket Set Screw	M6 x 1 x 6	6
10	PM1800B-131-10	Bevel Gear		2
11	PM1800B-131-11	Gear Bracket		1
12	PM1800B-131-12	Drive Shaft		1
13	PM1800B-131-13	Shaft		1
14	PM1800B-131-14	Worm		1
15	PM1800B-131-15	Key	5 x 5 x 10	1
16	PM1800B-131-16	Gear		1
17	PM1800B-131-17	Retaining Ring	S17	1
18	TS-1550061	Flat Washer	M8 x ø18 x 3	1

## 17.11.1 Miter Gauge Assembly – Exploded View

Part Assembly No.: PM1800B-149

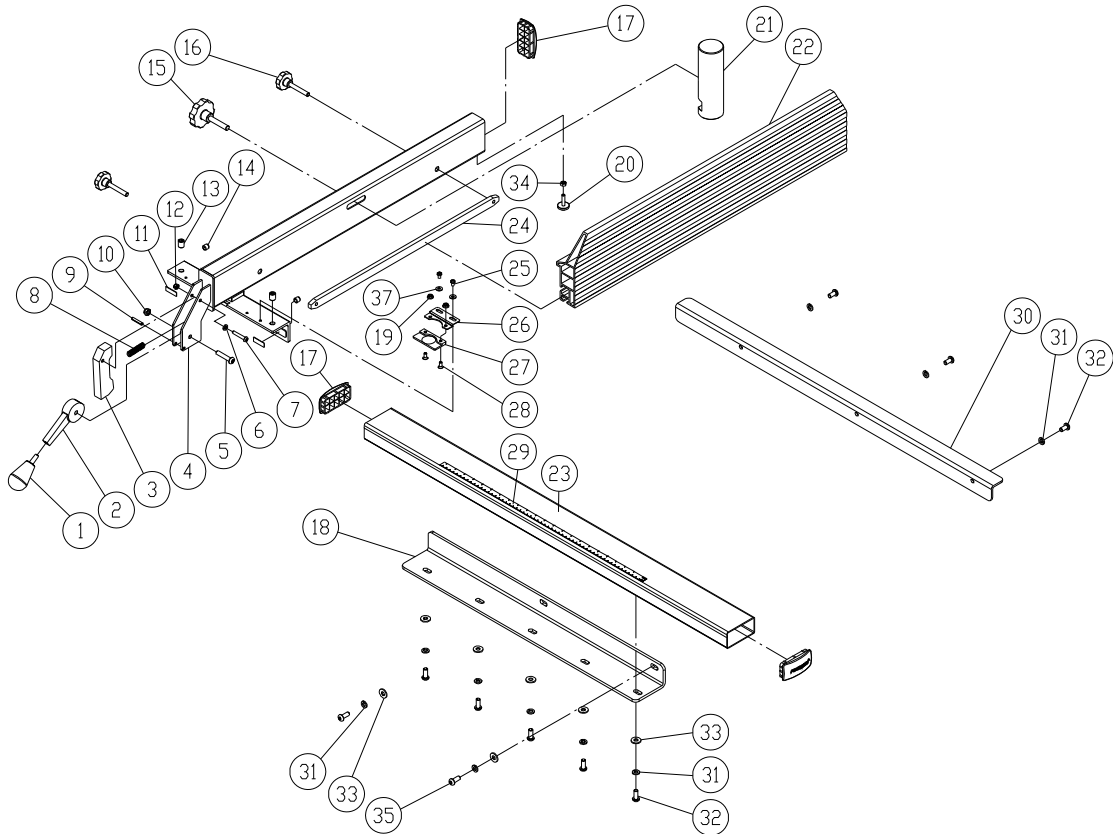


## 17.11.2 Miter Gauge Assembly – Parts List

Index No.	Part No.	Description	Size	Qty
1	6295167	Miter Gauge Body		1
2	TS-1533062	Pan Head Screw	M5 x 0.8 x 20	3
3	TS-1540031	Hex Nut	M5	3
4	6295168	Steel Pin	6.2 x 16	1
5	PM1500-109-05	Guide Bar		1
6	6295163	Guide Disc		1
7	PM1800-461	Flat Head Screw	M6 x 8	1
8	6295171	Stop Tab		1
9	PM1800-462	Spring Pin	∅3 x 6	1
10	6295169	Pointer		1
11	SS050100	Socket Set Screw	M5 x 0.8 x 5	1
12	PM1800-451	Handle	M8 x 20	1
13	PM2000-343	Socket Set Screw	M8 x 1.25 x 6	2
14	TS-0680031	Flat Washer	M8 x ∅18	1

## 17.12.1 Fence Assembly – Exploded View

Part Assembly No.: PM1800B-150 / PM2013B-150 / PM2415B-150



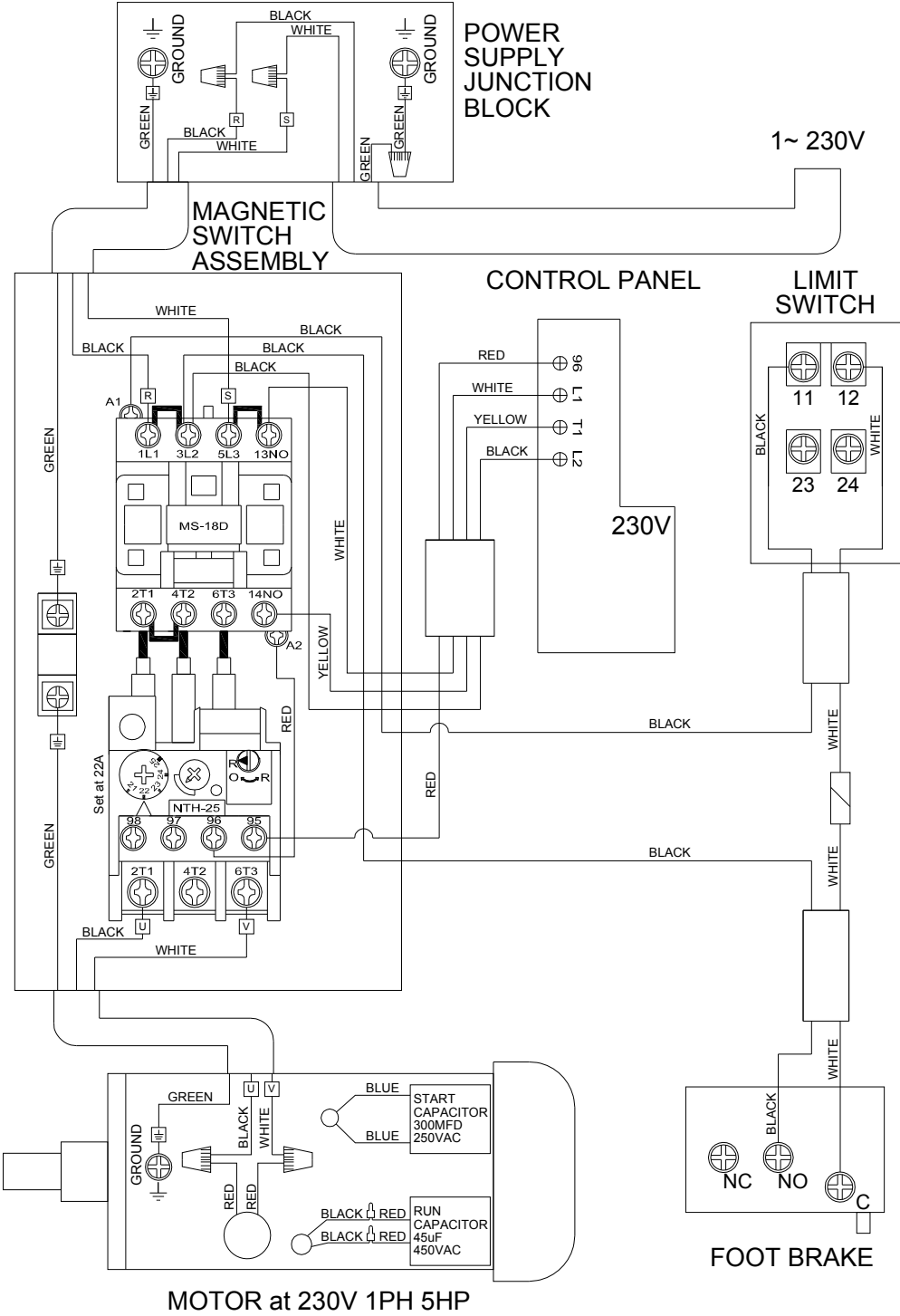
## 17.12.2 Fence Assembly – Parts List

Index No.	Part No.	Description	Size	Qty
1	PM1500-107-20	Knob		1
2	PM1800B-150-02	Lock Handle		1
3	PM1800B-150-03	Handle Lock Bracket		1
4	PM1800B-150-04	Fence Body		1
5	9180-56	Socket Head Button Screw	M8 x 1.25 x 35	1
6	TS-2361061	Lock Washer	M6	2
7	TS-2246352	Socket Head Button Screw	M6 x 1 x 35	1
8	PM1500-107-16	Spring		1
9	3P12312	Roll Pin	∅5 x 28	1
10	TS-1541031	Lock Nut	M8 x 1.25	1
11	PM1500-107-10	Pad	10 x 28 x 1mm	2
12	TS-1541021	Nylon Lock Hex Nut	M6	1
13	PM1800B-150-13	Nylon Set Screw	M12 x 1.75 x 16	3
14	TS-1525011	Socket Set Screw	M10 x 1.5 x 10	2
15	PM1500-107-03	Resaw Lock Knob	M10 x 50	1
16	PM1500-107-02	Lock Knob		2
17	PM1800B-150-17	Tube Plug		3
18	PM1800B-150-18	Front Rail (for 1800B & 2013B)	L:565mm	1
	PM2415B-150-18	Front Rail (for 2415B)	L:670mm	1
19	PM1500-107-22	Hex Flange Nut	M5 x 0.8	2
20	6295181	Sliding Pad		1
21	PM1800B-150-21	Resaw Pin		1
22	PM1800B-150-22	Fence Plate		1

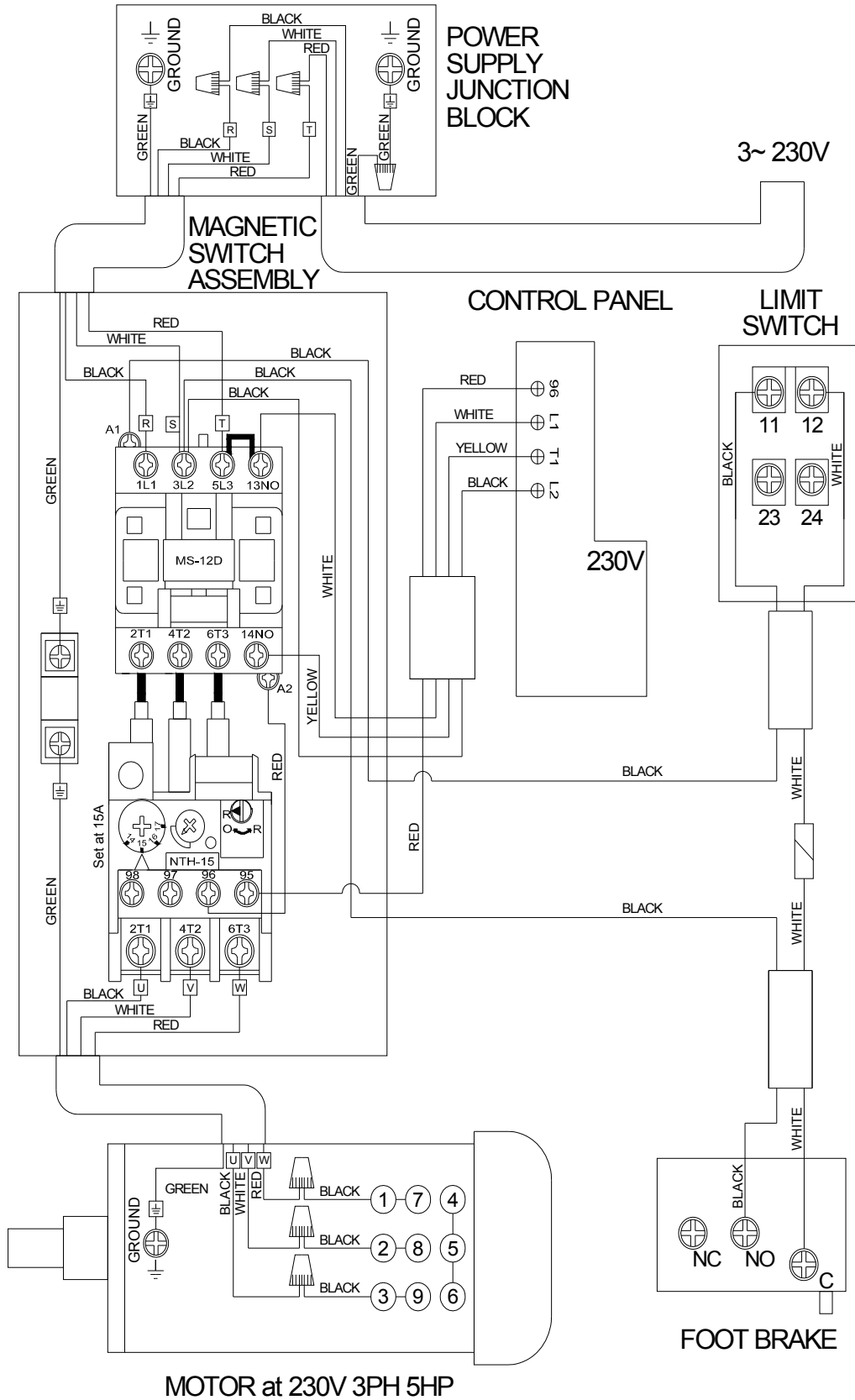
Index No.	Part No.	Description	Size	Qty
23	PM1800B-150-23	Guide Rail (for 1800B)	L:890mm	1
	PM2013B-150-23	Guide Rail (for 2013B)	L:928mm	1
	PM2415B-150-23	Guide Rail (for 2415B)	L:1033mm	1
24	PM1800B-150-24	Lock Bar		1
25	PM1900-108-6	Phillips Pan Head Machine Screw	M5 x 0.8 x 8	2
26	PM1500-107-25	Cursor Bracket		1
27	PM1500-107-26	Convex Cursor	PC	1
28	TS-2285121	Phillips Flat Head Machine Screw	M5 x 0.8 x 12	2
29	PM1800B-150-29	Scale Label		1
30	PM1800B-150-30	Rear Rail (for 1800B & 2013B)	L:767mm	1
	PM2415B-150-30	Rear Rail (for 2415B)	L:927mm	1
31	TS-2361081	Lock Washer (for 1800B & 2013B)	M8	10
	TS-2361081	Lock Washer (for 2415B)	M8	11
32	TS-2248162	Socket Head Button Screw	M8 x 1.25 x 16	8
33	TS-1550061	Flat Washer (for 1800B & 2013B)	M8 x $\phi$ 20	7
	TS-1550061	Flat Washer (for 2415B)	M8 x $\phi$ 20	8
34	TS-1540031	Hex Nut	M5 x 0.8	2
35	TS-2248202	Socket Head Button Screw (for 1800B & 2013B)	M8 x 1.25 x 20	2
	TS-2248202	Socket Head Button Screw (for 2415B)	M8 x 1.25 x 20	3
36	TS-227D081	L type Hex Wrench (not shown)	M8	1
37	TS-1550031	Flat Washer	M5 x $\phi$ 10	2
	PM2415B-HP	Hardware Package (not shown), see sect. 8.1 for contents		

# 18.0 Electrical Connections

## 18.1 Electrical Connections – 5HP 1PH 230V

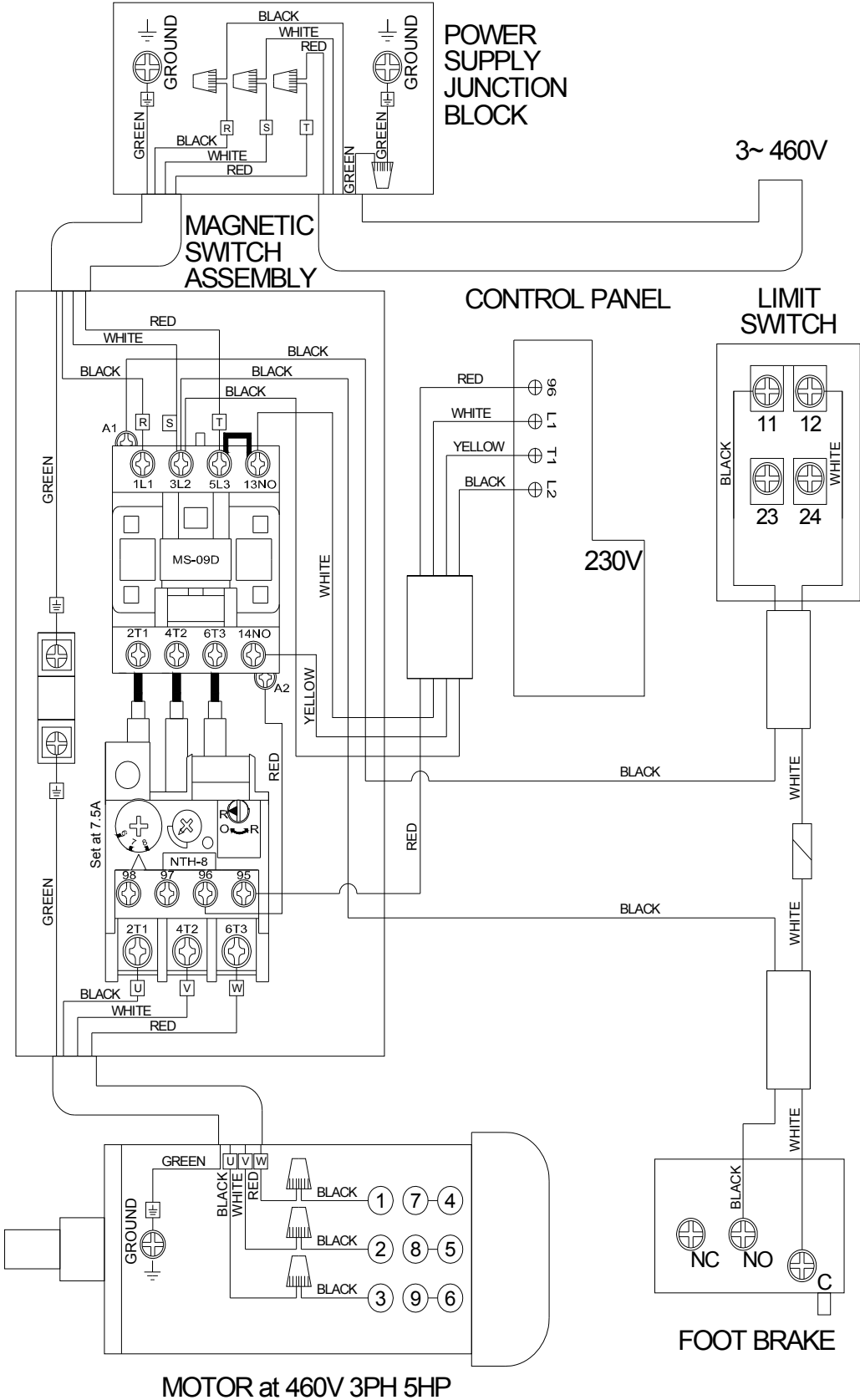


## 18.2 Electrical Connections – 5HP 3PH 230V





### 18.3 Electrical Connections – 5HP 3PH 460V



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427 New Sanford Road  
LaVergne, Tennessee 37086  
Phone: 800-274-6848  
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