

# **Operating Instructions and Parts Manual** 8-3/4" Zip-Miter Bandsaw

**Model J-9225** 



### WALTER MEIER (Manufacturing) Inc.

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# **Warranty and Service**

Walter Meier (Manufacturing) Inc., warrants every product it sells. If one of our tools needs service or repair, one of our Authorized Service Centers located throughout the United States can give you quick service. In most cases, any of these Walter Meier Authorized Service Centers can authorize warranty repair, assist you in obtaining parts, or perform routine maintenance and major repair on your JET<sub>®</sub> tools. For the name of an Authorized Service Center in your area call 1-800-274-6848.

#### MORE INFORMATION

Walter Meier is consistently adding new products to the line. For complete, up-to-date product information, check with your local Walter Meier distributor, or visit waltermeier.com.

#### WARRANTY

JET products carry a limited warranty which varies in duration based upon the product (MW = Metalworking, WW = Woodworking).



#### WHAT IS COVERED?

This warranty covers any defects in workmanship or materials subject to the exceptions stated below. Cutting tools, abrasives and other consumables are excluded from warranty coverage.

#### WHO IS COVERED?

This warranty covers only the initial purchaser of the product.

#### WHAT IS THE PERIOD OF COVERAGE?

The general JET warranty lasts for the time period specified in the product literature of each product.

#### WHAT IS NOT COVERED?

Five Year Warranties do not cover woodworking (WW) products used for commercial, industrial or educational purposes. Woodworking products with Five Year Warranties that are used for commercial, industrial or education purposes revert to a One Year Warranty. This warranty does not cover defects due directly or indirectly to misuse, abuse, negligence or accidents, normal wear-and-tear, improper repair or alterations, or lack of maintenance.

#### **HOW TO GET SERVICE**

The product or part must be returned for examination, postage prepaid, to a location designated by us. For the name of the location nearest you, please call 1-800-274-6848.

You must provide proof of initial purchase date and an explanation of the complaint must accompany the merchandise. If our inspection discloses a defect, we will repair or replace the product, or refund the purchase price, at our option. We will return the repaired product or replacement at our expense unless it is determined by us that there is no defect, or that the defect resulted from causes not within the scope of our warranty in which case we will, at your direction, dispose of or return the product. In the event you choose to have the product returned, you will be responsible for the shipping and handling costs of the return.

#### **HOW STATE LAW APPLIES**

This warranty gives you specific legal rights; you may also have other rights which vary from state to state.

#### **LIMITATIONS ON THIS WARRANTY**

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- 1. Read and understand the 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 the warning labels if they become obscured or removed.
- 4. This bandsaw 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 bandsaw for other than its intended use. If used for other purposes, Walter Meier (Manufacturing) Inc., 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 shields while using this bandsaw. Everyday eyeglasses only have impact resistant lenses; they are not safety glasses.
- 7. Before operating this bandsaw, 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. Wear ear protectors (plugs or muffs) during extended periods of operation.
- Some dust created by power sanding, sawing, grinding, drilling and other construction activities contain chemicals known to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:
  - Lead from lead based paint.
  - Crystalline silica from bricks, cement and other masonry products.
  - Arsenic and chromium from chemically treated lumber.

Your risk of exposure varies, depending on how often you do this type of work. To reduce your exposure to these chemicals, work in a well-ventilated area and work with approved safety equipment, such as face or dust masks that are specifically designed to filter out microscopic particles.

- 10. Do not operate this machine while tired or under the influence of drugs, alcohol or any medication.
- 11. Make certain the switch is in the **OFF** position before connecting the machine to the power supply.
- 12. Make certain the machine is properly grounded.
- 13. Make all machine adjustments or maintenance with the machine unplugged from the power source.
- 14. 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.
- 15. Keep safety guards in place at all times when the machine is in use. If removed for maintenance purposes, use extreme caution and replace the guards immediately.
- 16. Check damaged parts. Before further use of the 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.
- 17. Provide for adequate space surrounding work area and non-glare, overhead lighting.
- 18. Keep the floor around the machine clean and free of scrap material, oil and grease.
- 19. Keep visitors a safe distance from the work area. **Keep children away.**



- 20. Make your workshop child proof with padlocks, master switches or by removing starter keys.
- 21. Give your work undivided attention. Looking around, carrying on a conversation and "horse-play" are careless acts that can result in serious injury.
- 22. Maintain a balanced stance at all times so that you do not fall or lean against the blade or other moving parts. Do not overreach or use excessive force to perform any machine operation.
- 23. 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 safer.
- 24. Use recommended accessories; improper accessories may be hazardous.
- 25. Maintain tools with care. Keep blades sharp and clean for the best and safest performance. Follow instructions for lubricating and changing accessories.
- 26. Make sure the work piece is securely clamped in the vise. Never use your hand to hold the work piece.
- 27. Turn off the machine before cleaning. Use a brush or compressed air to remove chips or debris do not use your hands.
- 28. Do not stand on the machine. Serious injury could occur if the machine tips over.
- 29. Never leave the machine running unattended. Turn the power off and do not leave the machine until the blade comes to a complete stop.
- 30. Remove loose items and unnecessary work pieces from the area before starting the machine.

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

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

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

#### -- SAVE THESE INSTRUCTIONS --

## Introduction

This manual is provided by Walter Meier (Manufacturing) Inc., covering the safe operation and maintenance procedures for a JET Model J-9225 zip-miter bandsaw. This manual contains instructions on installation, safety precautions, general operating procedures, maintenance instructions and parts breakdown. This machine has been designed and constructed to provide years of trouble free operation if used in accordance with instructions set forth in this manual. If there are any questions or comments, please contact either your local supplier or Walter Meier. Walter Meier can also be reached at our web site: www.waltermeier.com.

The JET Model J-9225 bandsaw is designed for medium production cut-off work. Two cutting speeds and a hydraulic feed control allow the efficient cutting of virtually any material.

The Model J-9225 bandsaw is equipped with a coolant system which can greatly extend blade life and speed the cutting of a variety of materials which are best cut with cutting fluids and coolants.

# **Specifications**

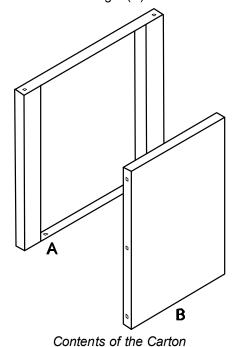
Model	
Stock Number	414467
Cutting Capacity	
Round at 90° (in.)	8-3/4
Round at 45° (in.)	6-1/4
Round at 60° (in.)	3-1/2
Rectangle at 90° (in.)	8-3/4 x 7
Rectangle at 45° (in.)	6-1/4 x 7-1/4
Rectangle at 60° (in.)	3-1/2 x 3-7/8
Blade Size (in.)	1 x 0.035 x 96-1/2
Blade Speeds (SFPM)	
Blade Wheel Diameter (in.)	
Coolant Capacity (qt.)	12
Bed Height (in.)	38-7/16
Motor	TEFC 1.5HP, 230V, 3Ph, 60Hz
Floor Space Required (L x W x H)(in.)	
Net Weight (lbs.)	

The above specifications were current at the time this manual was published, but because of our policy of continuous improvement, Walter Meier reserves the right to change specifications at any time and without prior notice, without incurring obligations.

# **Shipping Contents**

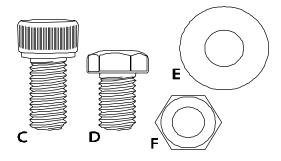
#### **Contents of the Carton**

- 1 Band Saw (not shown)
- 2 Side Plate front/back (A)
- 2 Side Plate left/right (B)



## Hardware

- 4 M8 x 25 Socket Head Cap Screw (C)
- 12 M8 x 20 Hex Cap Screw (D)
- 28 M8 Flat Washer (E)
- 24 M8 Hex Nut (F)



Hardware (Actual Size)

# **Machine Features**

Figures 1 depicts the main features of the Model J-9225 Bandsaw. The machine consists of a machine base onto which is installed a saw head.

### **Machine Base**

The machine base consists of four panels that require assembly.

#### Saw Head

The saw head (Figure 1) consists of a drive motor, gearbox, blade wheels, blade guides and supports, control panel, blade tension mechanism, wire brush, and the saw blade.

The drive wheel is installed on the output shaft of the gearbox. The driven wheel is located on the left side of the machine and is mounted on a shaft that is part of the blade tension mechanism. The blade tension mechanism is used to tighten the saw blade on the blade wheels.

Blade tension generally requires adjustment only after the saw blade is changed, but the tension should be monitored with the convenient blade tension indicator.

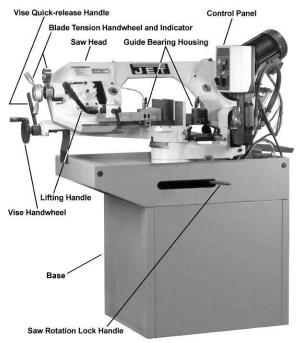


Figure 1

## **Work Stop**

A work stop is provided with the machine to allow cutting multiple pieces of identical length (refer to Figure 6). The stop consists of a set rod onto which is installed a distance set bracket, stop rod assembly and two lock handles. The rod is installed in a bore in the front of the saw bed. The distance set bracket is moved in or out on the set rod to establish the length of the workpiece and the stop rod can be adjusted to accommodate workpieces of various widths.

#### Control Panel

The control panel is mounted on the top of the saw head. Refer to the *Controls and Indicators* section (page 9) for a description of the controls. Switches and fuses required for operation and protection of the drive motor are inside the box.

## **Assembly**

## **Stand Assembly**

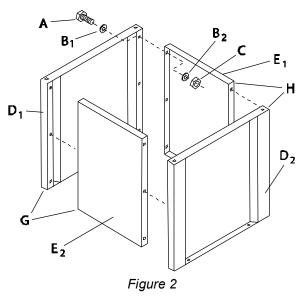
Tools required for assembly:

Two 1/2-inch wrenches (**Note:** A ratchet wrench may speed assembly time.)

Referring to Figure 2:

- Assemble the *left* (D<sub>1</sub>) and *rear* (E<sub>1</sub>) *side* plates with three M8 x 20 hex cap screws

   (A), six M8 flat washers
   (B<sub>1</sub>, B<sub>2</sub>) and three M8 hex nuts
   (C). Tighten the hex nuts.
- 2. Assemble  $E_2$  and  $D_2$  in the same manner.
- 3. Finish assembling  $E_2$  to  $D_1$  and  $E_1$  to  $D_2$  in the same manner.



## **Mounting Saw to Stand**

Tools required for assembly:

- 8mm hex wrench

Remove any plastic or holding straps from around the bandsaw. Areas of the machine have been given a protective coating at the factory. This should be removed using a soft cloth moistened with kerosene or a cleaner-degreaser. Do not use gasoline, paint thinner, or lacquer thinner as these will damage painted surfaces. Do not use an abrasive pad.

Determine the final location for the saw and allow for a sufficient work space around it.

The saw is extremely heavy. Use a hoist to lift.

Mhen moving the saw/stand top assembly the cutting head, or "bow", should be in the down position.

Referring to Figure 3:

- The saw (A) and stand top (B) come as an assembled unit. Use a hoist to lift and place the saw onto the stand (C).
  - Note that the *front* of the saw faces the same direction as the *flat panel* of the stand.
- 2. Adjust the *stand top* (B) and *stand* (C) so the corner mounting holes (D) are aligned.
- 3. Secure the *stand top* (B) to the stand (C) with four each M8 hex socket head screws (E) with M8 flat washers (F). Tighten with an 8mm hex wrench.

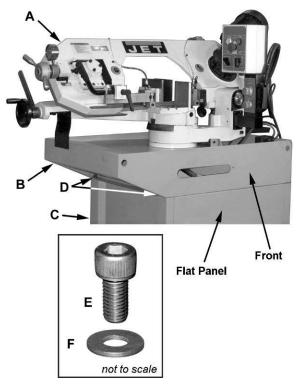


Figure 3

# **Electrical Connection**

All electrical connections must be done by a qualified electrician. All adjustments or repairs must be done with the machine disconnected from the power source, unplugged. Failure to comply may result in serious injury!

The Model J-9225 bandsaw is rated at 230V.

This machine is not supplied with a plug. Use a plug and outlet rated at least 20amps. The circuit for the machine should also be protected by at least a 20 amp circuit breaker or fuse.

Make sure that the blade moves in the correct direction. If it does not, simply reverse two of the phase wires on the supply input.

The sawing machine is now ready for use.

## **Controls and Indicators**

#### **Control Panel**

The operating controls for the bandsaw are located on the control panel (Figure 4) and consist of the following controls and indicators:

Emergency Stop Switch – by depressing this switch the user can quickly stop the machine when it is in operation; to restart, turn clockwise slightly to release then press Start switch

Feed Rate Control – used in conjunction with the Feed Rate Start/Stop Control (see below); this knob is used to set the downward head speed that is applied to the saw blade. The feed rate is proportional to the opening of the valve. When set to zero, the saw head is locked in position. Increasing the valve opening (counter-clockwise adjustment) increases the feed rate; decreasing the valve opening (clockwise adjustment) reduces the feed rate.

Feed Rate Start/Stop Control – used in conjunction with the Feed Rate Control (see above); in the locked position the saw head is prevented from descending; in the unlocked position the saw head will descend at the rate determined by the Feed Rate Control setting.

Motor Speed Selector – select Low for 137 SFPM, High for 275 SFPM; machine will not operate when Off is selected.

On/Off Switch - main power switch

Standby Lamp Indicator – indicates that power is present, i.e., machine is plugged in and On/Off Switch in set to ON.

Start Switch – press to start machine, also: set On/Off Switch to ON, select Motor Speed Selector to Low or High, Emergency Stop must be released.

## **Blade Speeds**

The Model J-9225 bandsaw has two blade speeds which are set by the *Motor Speed Selector* dial (D, Fig. 4). In normal operation the machine is stopped, the speed selected (*Low/High*) then restarted. Changing the speed while in operation will shut the machine off and will require restarting (E, Fig. 4).

A - On/Off Switch

B — Standby Lamp Indicator

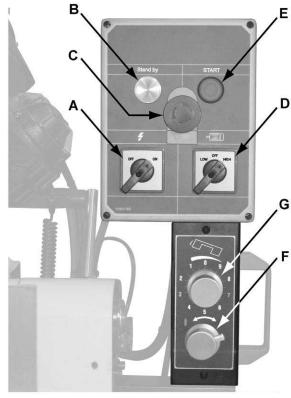
C - Emergency Stop Switch

D - Motor Speed Selector

E - Start Switch

F - Feed Rate Start /Stop Control

G - Feed Rate Control



Control Panel Figure 4

## **Blade Selection**

The bandsaw is delivered with a saw blade that is adequate for a variety of cut-off jobs on a variety of common materials. A general-purpose blade is provided as standard equipment with the machine.

Optional blades for specific applications are available from JET. (Refer to the *Parts* section for saw blade part numbers.)

A coarse blade could be used for a solid steel bar, but a finer tooth blade would be used on a thin-wall steel tube. In general, the blade choice is determined by the thickness of the material; the thinner the materials; the finer the tooth pitch.

A minimum of three teeth should be on the workpiece at all times for proper cutting. The blade and workpiece can be damaged if the teeth are so far apart that they straddle the workpiece.

For very high production on cutting of special materials, or to cut hard-to-cut materials such as stainless steel, tool steel, or titanium, call JET for more specific blade recommendations. JET can provide you with very specific instructions regarding the best blade (and coolant or cutting fluid, if needed) for the material or shape supplied.

#### **Blade Break-in Procedures**

New blades are very sharp and, therefore, have a tooth geometry that is easily damaged if a careful break-in procedure is not followed. Consult the blade manufacturer's literature for break-in of specific blades on specific materials. However, the following procedure will be adequate for break-in of JET-supplied blades on lower alloy ferrous materials.

- Clamp a section of round stock in the vise. The stock should be 2 inches or larger in diameter.
- 2. Operate the saw at low speed. Start the cut with a very light feed rate.
- When the saw has completed 1/3 of the cut, increase the feed rate slightly and allow the saw to complete the cut.
- 4. Keep the hydraulic cylinder needle valve in the same position and begin a second cut on the same or similar workpiece.
- 5. When the blade has completed about 1/3 of the cut, increase the feed rate.

Watch the chip formation until cutting is at its most efficient rate and allow the saw to complete the cut (refer to *Evaluating Blade* 

Efficiency below). The blade is now considered ready for use.

# **Operations**

## **Hydraulic Feed Control**

The weight of the saw head provides the force needed to cut through the workpiece. The cut-off saw has a hydraulic cylinder that controls the feed rate of the saw.

The hydraulic feed control circuit consists of a single acting *hydraulic cylinder* and a *feed rate control*. The feed control cylinder resists motion in the downward direction to control the feed rate. The control cylinder offers no resistance when raised upward.

The feed rate control knob (Figure 4) controls the rate at which the saw head is lowered. The control knob (needle valve) controls the rate at which the hydraulic fluid is released from the hydraulic cylinder. When the needle valve is closed, the cylinder is locked. With the needle valve slightly open, the cylinder permits slow, or light, downward force. Opening the needle valve further increases the feed rate.

The needle valve is adjusted until the saw is operating efficiently. The efficiency of operation is usually evaluated by observing chip formation. Blade efficiency is further described below.

### **Evaluating Cutting Efficiency**

Is the blade cutting efficiently? The best way to determine this is to observe the chips formed by the cutting blade.

If the chip formation is powdery, then the feed is much too light or the blade is dull.

If the chips formed are curled, but colored – blue or straw colored from heat generated during the cut – then the feed rate is too high.

If the chips are slightly curled and are not colored by heat – the blade is sufficiently sharp and is cutting at its most efficient rate.

## **Setting the Work Stop**

Referring to Figure 5:

The work stop is an accessory that is included with the JET J-9225 Bandsaw. It is used to set up the saw for making multiple cuts of the same length.

Do not allow the blade to rest on the workpiece when the saw is not cutting.

#### Installation

- 1. Insert the *distance set rod* (A) into the *hole* (B) at the front of the base as shown.
- 2. Secure by tightening the *socket setscrew* (C) with a 3mm hex wrench.

#### Adjustment

3. The distance set bracket (D) is moved along the distance set rod (A) by loosening the lock handle (E). The stop rod (F) can be repositioned (G) by loosening lock handle (H) and also by rotating the set rod (A) to reposition the angle of the bracket (D).

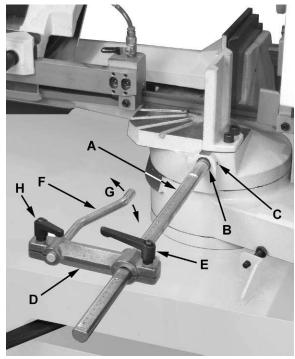


Figure 5

## **Quick Release Vise Operation**

Referring to Figure 6:

The vise on the J-9225 bandsaw comes equipped with a quick-release handle that permits the workpiece to be rapidly repositioned or changed for a repeated cutting operation while requiring only one initial adjustment of the vise handwheel. This is done as follows:

- 1. Place the *quick-release handle* (A) in the up position as shown.
- 2. Turn the *handwheel* (B) counterclockwise until the workpiece can be placed in position.
- 3. Place the workpiece (C) in the vise (D) and against the work stop (E); turn the hand-wheel (B) until the vise begins to clamp onto the workpiece. Then back the handwheel off just enough to permit the workpiece to slide in and out of the vise.
- 4. Place the *quick-release handle* (A) in the down position. The workpiece is secure and ready for cutting.

The vise is now set up for a repeated cutting operation. Simply raise the quick-release handle, reposition or replace the workpiece and reset the handle down again.

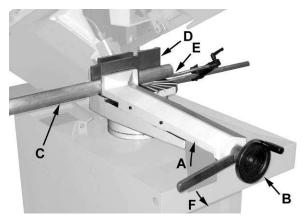


Figure 6

#### **Miter Cuts**

Referring to Figure 7, the J-9225 band saw is capable of making angle cuts from 0–60°. The vise remains stationary while the saw head is adjusted as follows:

- 1. Place the *saw head* (F) in the raised position so the blade doesn't catch in the table slots.
- 2. Set the *lock handle* (A) to the *unlock* position as indicated by the arrows.
- 3. Using *handles* (B and C), rotate the *saw head* (F) to any desired angle within a range of 0° (square cut) to 60°, setting it to the *scale* (D) on the base.
- 4. Set the lock handle (A) to the lock position.

**Note:** Two miter stops (E) on either side of the saw base set the miter range of 0–60°. Adjust only if necessary so the saw travel stops at 0° and 60°.

#### **Coolant Flow Control**

The coolant pump must be submerged before operating to prevent damage to the pump.

A coolant pump, which provides coolant to the workpiece, runs at all times when the machine is turned on.

Two coolant flow control valves (A, Fig. 8), located on the top of the bearing blocks, control the amount of flow from the nozzles. Coolant flow should be adjusted to be no more than the saw blade can draw into the workpiece by the movement of the blade. To stop coolant flow, turn the control valves fully counterclockwise.

# **Adjustments**

#### **Blade Guide Adjustment**

Refer to Figure 9. The J-9225 Bandsaw has two blade guide assemblies; one is stationary (A) and mounted to the body of the saw head. The other, consisting of a *blade guide support* or *bracket* (B) and *blade guide* (C), is adjustable.

The position of the blade guides is important in order to make accurate cuts and prolong blade life and is determined by the size of the workpiece. Adjustment is made as follows:

- 1. Place the *workpiece* (D) in the *vise* (E) and clamp tightly.
- 2. Loosen the lock handle (F).
- 3. Slide the *guide support* (B) left or right so that it just clears the piece to be cut (D).
- 4. Tighten the lock handle (F).

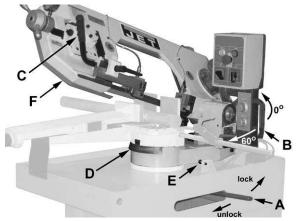


Figure 7

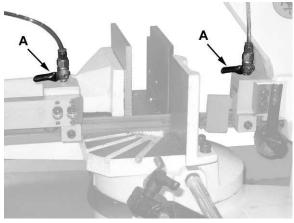


Figure 8

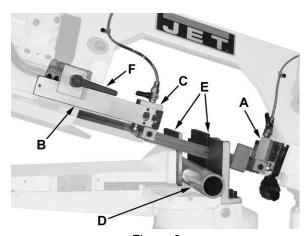


Figure 9

## **Bearing and Guide Block Adjustment**

Referring to Figure 10:

Guide bearings and carbide guide blocks are located on either side of the saw blade and provide stability for the blade when the saw is in operation. These bearings rotate on an eccentric shaft so the distance from the blade can be adjusted for optimal performance.

Guide blocks provide additional blade stability.

Guide bearings and guide blocks are initially adjusted at the factory and should rarely require adjustment.

It is always better to try a new blade when cutting performance is poor. If performance remains poor after changing the blade, check the blade guides for proper guide bearing spacing. For most efficient operation and maximum accuracy, clearance between the blade and the guide bearings should be 0.001-inch. The bearings will still turn freely with this clearance. If the clearance is incorrect, the blade may track off the drive wheel.

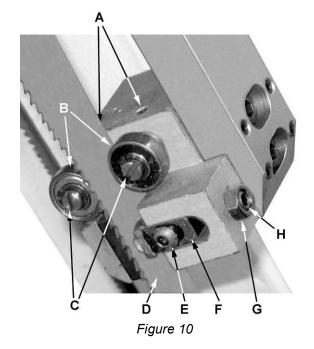
# **AWARNING** Disconnect the bandsaw saw from its electrical power source.

If required, adjust the *bearing* and *guide block* on one assembly then the other as follows:

- Using a 3mm hex wrench, loosen two set-screws
   (A) that secure the eccentric bushings.
- 2. Using a 4mm hex wrench, loosen the socket head cap screw (E) securing the guide block (F).
- 3. With a 12mm wrench, loosen the *hex nut* (G) that secures the guide block *adjustment setscrew* (H).
- Position the bearings (B) by turning the bushings (C) with a flat-head screwdriver. Set the clearance between the bearings (B) and blade (D) at approximately 0.001 inch.

When properly adjusted, the blade should be in a vertical position between the bearings as shown in Figure 11.

- 5. Secure the bushing settings by tightening the setscrews (A).
- 6. With a 4mm wrench adjust *setscrew* (H) so the *guide block* (F) supports the blade without pinching the blade.
- 7. Tighten the socket head cap screw (E).
- 8. Maintain the position of the *setscrew* (H) with the hex wrench while tightening the *hex nut* (G).



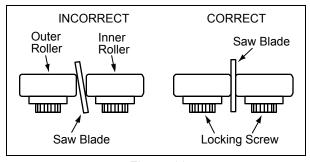


Figure 11

#### **Blade Tension**

See Adjusting the proper Blade Tension on page 16.

## **Limit Switch Adjustment**

Refer to Figure 12.

The J-9225 bandsaw should shut off automatically when a cut is completed. If not, the limit switch probably needs to be adjusted as follows:

# **AWARNING** Disconnect the cut-off saw from its electrical power source.

- 1. Place the saw in the lowered position to represent the completion of a cutting operation
- 2. Using a crosspoint screwdriver and 5/16" wrench, loosen two *mounting screws* (A).
- 3. Position the *limit switch assembly* (B) to actuate to the off position as it presses against the *back plate* (C) of the control panel when the saw has cut through the workpiece.

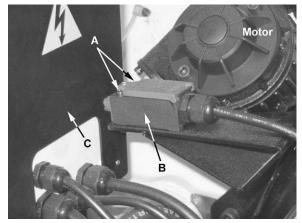
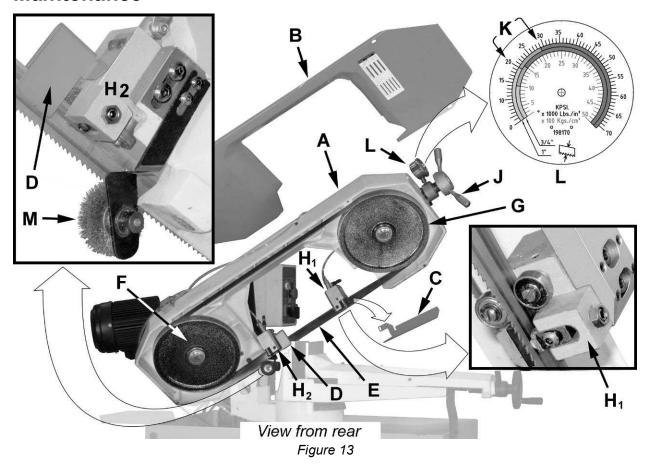


Figure 12

## **Maintenance**



## **Changing Blades**

Refer to Figure 13 except where specified otherwise.

AWARNING Use leather gloves when changing the saw blade to protect your hands from cuts and scratches. Use protective eye wear that meets ANSI Specification Z87.1

AWARNING Disconnect the cut-off saw from its electrical power source.

#### Tools required:

- -- 3mm, 4mm and 5mm hex wrenches
- -- 12mm wrench

#### Removing the Blade

- Lock the hydraulic cylinder that controls the descent of the saw head with the feed rate start/stop control (F, Fig. 4). Raise the saw head (A) about half way up.
- 2. Remove the *wheel cover* (B) and *blade guards* (C, D) and brush (M).
- 3. Turn the *blade tension handle* (J) counter-clockwise until the *blade* (E) hangs loose.

Pull the blade (E) off the drive wheel (F) and idler wheel (G) and out of the blade guides (H<sub>1</sub>, H<sub>2</sub>). Store the removed blade carefully before proceeding.

#### Installing New Blade

- Slide the new blade into the blade guides (H<sub>1</sub>, H<sub>2</sub>), then loop the blade (E) around the drive wheel (F) and idler wheel (G) such that the teeth face towards the rear of the saw and the smooth side faces towards the front.
- 6. Push the blade so it seats against the shoulders of the *wheels* (F, G).

#### Adjusting the proper Blade Tension

- 7. When it is seated against the shoulder, turn the *blade tension handle* (J) clockwise to increase the tension until the scale for the 1" blade tension measures 20–28KPSI (K) (green zone) on the tension indicator (L).
- 8. Replace the *wheel cover* (B) and *blade guards* (C, D) and *brush* (M).
- Reconnect the saw to the electrical power source.

## Cleaning

Clean off any preservative on machine surfaces. After cleaning:

- Coat machined surfaces of the cutoff saw with a medium consistency machine oil. Reapply the oil coating at least every six months.
- Clean up accumulated saw cuttings after use. Make sure the lead screw and rapid nut are kept free from saw cuttings and other material that would cause damage.
- 3. Clean the chip sludge from the coolant tank. The frequency should be determined by how often the saw is used.

## Lubrication

Lubricate the following components at the specified frequencies and using the lubricants defined as follows:

**Ball Bearings** – the bearings are lubricated and sealed – periodic lubrication is not required.

**Blade Guide Bearing** – the bearings are lubricated and sealed – periodic lubrication is not required.

Wheel Bushings – six to eight drops of oil each week.

**Pivot Points, Shafts, and Bearing areas** – six to eight drops of oil each week.

## Coolant

Change coolant on a frequency appropriate to the type of coolant being used. Oil based coolants can sour. Refer to the coolant supplier's instructions for change frequency.

The general-purpose coolant is a mixture of water-soluble oil or synthetic based coolant and water. Mix one part of coolant to ten parts of water (one quart of oil to ten quarts water). Twelve quarts of coolant is the amount required for the coolant pump to operate properly. Verify that the coolant level is visible in the indicator (Figure 14).

There are numerous coolants on the market that are formulated for special applications. Consult your local distributor for details in the event you have a long range production task, or are required to cut some of the more exotic materials.

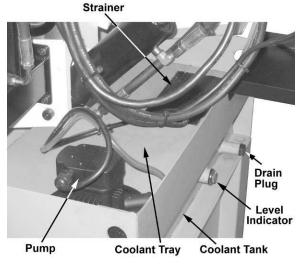


Figure 14

# **Troubleshooting**

Fault	Probable Cause	Suggested remedy		
	<ol> <li>Material loose in vise.</li> <li>Incorrect speed or feed.</li> <li>Teeth too coarse for material.</li> </ol>	Clamp work securely.     Check Machinist's Handbook for speed/feed appropriate for the material being cut.     Check Machinist's Handbook for		
Excessive blade breakage	<ol> <li>Incorrect blade tension.</li> <li>Saw blade is in contact with workpiece before the saw is started.</li> <li>Misaligned guides.</li> <li>Cracking at weld.</li> </ol>	recommended blade type.  4. Adjust blade tension to the point where the blade just does not slip on the wheel.		
Premature blade dulling	<ol> <li>Blade teeth too coarse.</li> <li>Blade speed too high.</li> <li>Inadequate feed pressure.</li> <li>Hard spots in workpiece or scale on/in workpiece.</li> <li>Work hardening of material (especially stainless steel).</li> <li>Insufficient blade tension.</li> <li>Operating saw without pressure on workpiece.</li> </ol>	<ul><li>Reduce speed, increase feed pressure (Scale).</li><li>5. Increase feed pressure by reducing spring tension.</li><li>6. Increase tension to proper level.</li></ul>		
Bad cuts (crooked)	<ol> <li>Workpiece not square with blade.</li> <li>Feed pressure too fast.</li> <li>Guide bearings not adjusted properly.</li> <li>Inadequate blade tension.</li> <li>Span between the two blade guides too wide.</li> <li>Dull blade.</li> <li>Incorrect blade speed.</li> <li>Blade guide assembly is loose.</li> <li>Blade guide bearing assembly loose.</li> <li>Blade track too far away from wheel flanges.</li> <li>Guide bearing worn.</li> </ol>	<ol> <li>Adjust vise so it is square with the blade. (Always clamp the workpiece tightly in the vise.)</li> <li>Decrease pressure.</li> <li>Adjust guide bearing clearance to 0.001 inch (0.002 inch maximum).</li> <li>Gradually increase blade tension.</li> <li>Move blade guide bracket closer to work.</li> <li>Replace blade.</li> <li>Check blade speed.</li> <li>Tighten blade guide assembly.</li> <li>Tighten blade guide bearing assembly.</li> <li>Adjust blade tracking.</li> <li>Replace worn bearing.</li> </ol>		

# Troubleshooting (cont.)

Fault	Probable Cause	Suggested remedy	
Bad cuts (rough)	Blade speed too high for feed pressure.     Blade is too coarse.	Reduce blade speed and feed pressure.     Replace with finer blade.	
Blade is twisting	Blade is binding in the cut.     Blade tension too high	Decrease feed pressure.     Decrease tension on Blade	
Unusual wear on side/back of blade	<ol> <li>Blade guides worn</li> <li>Blade guide bearings not adjusted.</li> <li>Blade guide bearing bracket is loose.</li> </ol>	<ol> <li>Replace blade guides.</li> <li>Adjust blade guide bearings.</li> <li>Tighten blade guide bearing bracket.</li> </ol>	

# **Parts**

## **Replacement Parts**

Replacement parts are listed on the following pages. To order parts or reach our service department, call 800-274-6848 Monday through Friday (see our website for business hours, www.waltermeier.com). Having the Model Number and Serial Number of your machine available when you call will allow us to serve you quickly and accurately.

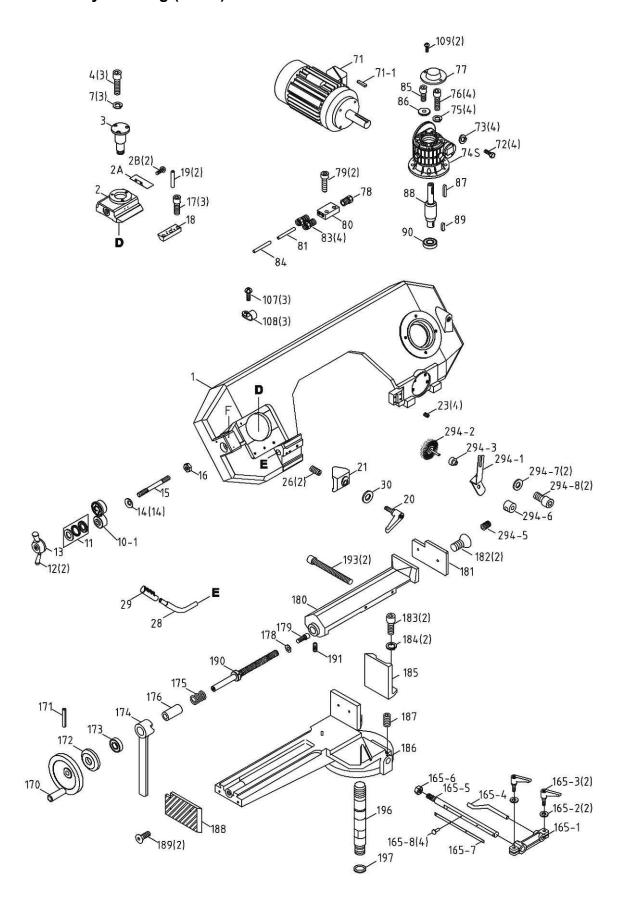
Index No.		Description		Qty
		Body Frame		
		Anchor Block		
		Anchor Plate		
		Button Head Socket Screw		
3	. 9225-03	Shaft		1
		Socket Head Cap Screw		
5	. 9225-05	Bearing Cover		2
6	. 9225-06	Tapered Bearing		2
7	. TS-1551061	Lock Washer	M8	3
10-1	. 9180-10-1	Blade Tension Gauge		1
11	. 9180-11	Bearing		1
12	. 9180-12	Handle		2
13	. 9180-13	Hub		1
		Spring Washer		
		Lead Screw		
		Hex Nut		
		Socket Head Cap Screw		
		Fixed Block		
		.Pin		
		Locking Handle		
		Fixed Block		
		Socket Head Cap Screw		
		Set Screw		
		Blade Adjust Bar		
		Set Screw		
		Socket Head Cap Screw		
		Lift Handle		
		Handle Grip		
		Flat Washer		
		Button Head Socket Screw		
		Socket Head Cap Screw		
		Guide Block (Front)		
		Set Screw		
-		Hex Nut	=	
		Guide		
		Guide		
		Eccentric Guide		
44	. BB-608ZZ	Bearing	608ZZ	4
		C-Retainer Ring		
		Eccentric Guide		
47	. TS-2246162	Button Head Socket Screw	M6x16	2
		Blade Guard		
52	. TS-1523011	Set Screw	M6x6	2
		Guide Block (Rear)		
55	. TS-1523011	Set Screw	M6x6	2
		Button Head Socket Screw		
		Blade Cover		
		Flat Washer		
		Button Head Socket Screw		
		Socket Head Cap Screw		
		Socket Head Cap Screw		
		Frame Pivot Shaft		
		Cover		
		Tapered Bearing		
71	. 0225-07 . 0225-71	Motor	1 5HD 3Dh 230\/	ı
		Key		
		Hex Cap Screw		
1 2	. 10-1402001	Oap Ociew		4

Index No.	Part No.	Description	Size	Qty
73	. TS-2361061	.Lock Washer	M6	4
74S	. 9225-74S	Gear Box		1
75	. TS-1551071	.Lock Washer	M10	4
76	. TS-1505021	Socket Head Cap Screw	M10x20	4
77	. 9225-77	Reducer Cover		1
78	. 9180-78	Hose Fitting	ø8x1/4"PT	1
		Socket Head Cap Screw		
		Coolant Block		
		.Hose		
		.Valve		
		Hose Fitting		
		.Hose		
		.Socket Head Cap Screw		
		.Washer		
		Round Head Key		
		Output Shaft		
		Round Head Key		
		Bearing		
		Spring Support		
		Spring Support		
		Flat Washer		
		Limit Switch Bracket		
		Socket Head Cap Screw		
		Lock Washer		
		.Flat Washer		
		.Hex Nut		
		.Socket Head Cap Screw		
		Socket Head Cap Screw		
		.Cylinder Assembly		
		.Idler Wheel		
		.Lock Washer		
		.Socket Head Cap Screw		
		.Nut		
		.Blade (Standard)		
	. 5674039	Blade (Optional)	1"x.035x96.5"x6/10\	T/
	. 5674040	.Blade (Optional)	1"x.035x96.5"x10/14	·VT
101	. 9225-101	.Drive Wheel		1
102	. 9225-102	Drive Shaft Washer		1
103	. TS-1492021	Hex Cap Screw	M12x30	1
104	. 9225-104	Frame Back Cover		1
		Socket Head Cap Screw		
		Flat Washer		
		.Washer		
		.Button Head Socket Screw		
		.Hose Clip		
		.Button Head Socket Screw		
		Label		
		.Cover		
		Button Head Socket Screw		
		Stock Stop Assembly (#165-1 thru #165-8)		
165_1	. 5225-1655 - 0180-165 1	Stop Block	•••••	1 1
165-7	. ७ 100-100-1 TS_1550061	Stop Block	M8	າ
		Locking Handle		
		Stock Stop Rod		
		Distance Set Rod		
		.Hex Nut		
100-/	. 9220-100-/	.Scale		1

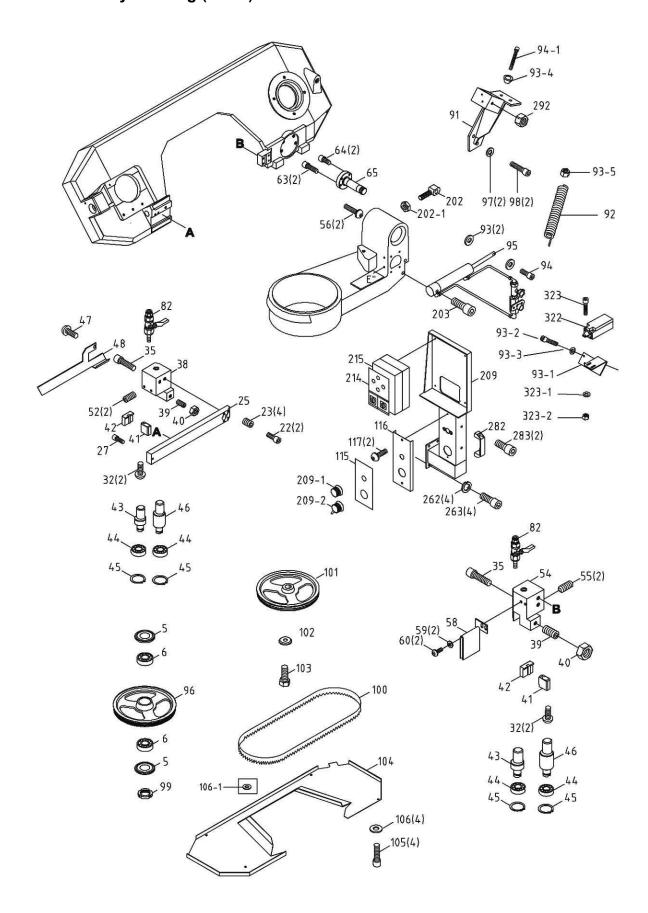
Index No.	Part No.	Description	Size	Qty
165-8	. 9225-165-8	.Rivet	ø2	4
170	. 9225-170	.Hand Wheel		1
		Pin		
		.Bearing Cover		
		.Bearing		
174	. 9180-174	Vise Handle		1
175	. 9180-175	Spring		1
176	. 9180-176	.Bushing		1
		Washer		
179	. TS-1503041	.Socket Head Cap Screw	M6x16	1
180	. J-9225-180	Front Moveable Vise Jaw		1
181	. 9225-181	Vise Jaw Insert		1
182	. TS-1514011	Flat Head Socket Screw	M6x12	2
183	. TS-1505041	Socket Head Cap Screw	M10x30	2
		Lock Washer		
		.Vise Jaw		
		Rear Stationary Vise Jaw		
		Set Screw		
		.Grooved Jaw Insert		
		.Flat Head Socket Screw		
		Lead Screw		
		.Set Screw		
		Socket Head Cap Screw		
		.Swivel Arm		
		.Hex Nut		
		.Vise Swivel Rod		
		.O-Retainer Ring		
		.Hex Cap Screw		
		Bearing		
		Bushing		
		.Nut		
		Spring Eye Bolt		
		.Hex Nut		
		Socket Head Cap Screw		
		Set Screw		
		.Control Box Base		
		Speed Valve		
		Throttle Valve		
		Retaining O-Ring		
		Control Box Label		
214	. 9225-214	Electrical Control Box Assembly (Reference On	 h/\	1 1
		Hex Socket Plug		
		.Washer		
		Sight Glass		
		O-Retainer Ring		
219	. 13-1331071	Lock Washer	IVI I U	0
220	. 15-1505021	Socket Head Cap Screw	IVI I UXZU	0
221	. J-9225-221	Stand Top		T
		Swivel Arm Base		
		.Screen		
		Pan Head Screw		
		Stop Bolt		
		Stop Bolt		
		.Hex Nut		
227	. TS-1491031	.Hex Cap Screw	M10x25	2
		Lock Washer		
229	. 9225-229	.Fixed Plate		1

Index No. Part No.	Description	Size	Qty
230 TS-2246102	Button Head Socket Screw	M6x10	2
231 TS-1505051	Socket Head Cap Screw	M10x35	1
	Nut		
	Swivel Lock Handle		
	Flat Washer		
235 TS-1504051	Socket Head Cap Screw	M8x25	4
	Pump		
	Pan Head Screw		
	Lock Washer		
	Elbow		
	Hose		
	Tray		
	Feed Support		
	Stand Panel Set (Index #250-1, 250-2)		
	Stand Panel (Front/Back)		
250-2 J-9225-250-2	Stand Panel (Side)		2
	Hex Cap Screw		
	Flat Washer		
	Hex Nut		
	Lock Washer		
	Socket Head Cap Screw		
282 9180-282	Handle		1
	Socket Head Cap Screw		
	Hex Nut		
	Brush Assembly (#294-1 thru 294-8)		
	Brush Support		
	Brush		
	Bushing		
	Set Screw		
	Bushing		
	Flat Washer		
	Socket Head Cap Screw		
	Socket Head Cap Screw		
	Lock Washer		
	Flat Washer		
	Hex Nut		
	Limit Switch		
	Socket Head Cap Screw		
	Lock Washer		
	Hex Nut		
J_J			

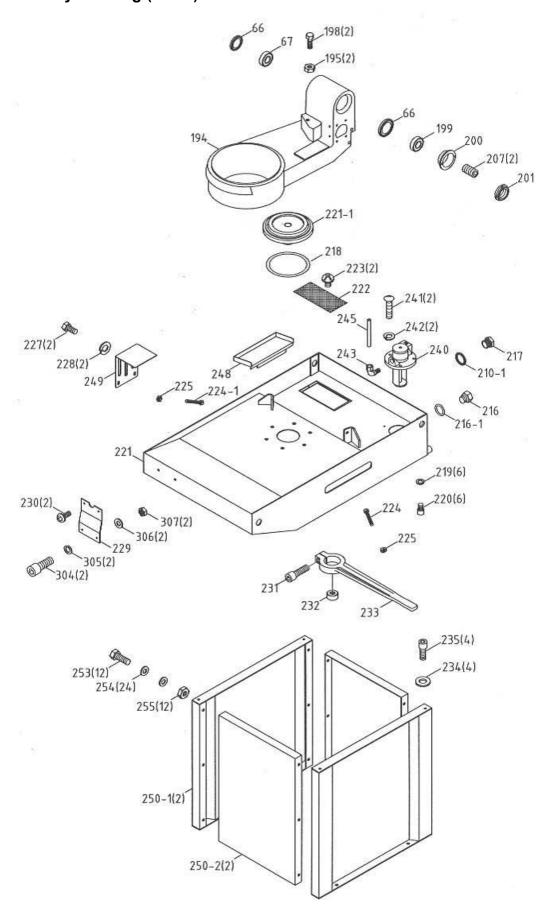
# Saw Assembly Drawing (1 of 3)



# Saw Assembly Drawing (2 of 3)



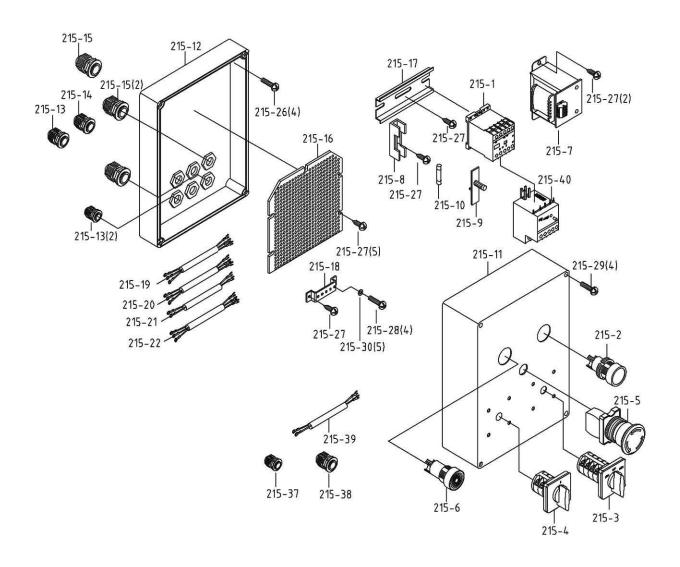
# Saw Assembly Drawing (3 of 3)



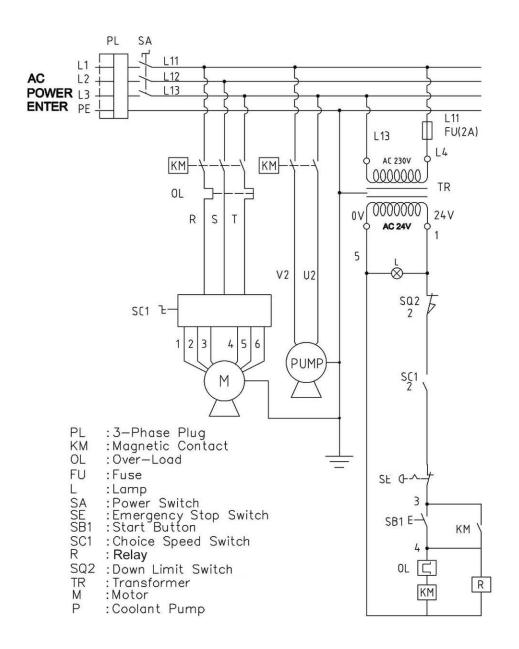
# Electrical Box Assembly – Parts

Index No. Part No.	Description	Size	Qty
215	Electrical Control Box Assembly: 3Ph (Referen	nce Only)	1
	Magnetic Contactor		
	Push Button Start Switch		
215-3 9180-215-3	Speed Switch		1
	On/Off Switch		
215-5 9180-215-5	Emergency Stop Switch		1
	Power Lamp		
215-7 9180-215-7	Transformer		1
	Fuse Base		
	Fuse Lid		
	Fuse		
	Electrical Box Cover		
	Electrical Box		
	Cable Relief		
215-14 9180-215-14	Cable Relief		1
	Cable Relief		
	Net Plate		
	Rail		
	Bracket		
	Power Cable (for 3Ph)		
	Motor Cable (for 3Ph)		
	Limit Cable		
	Pump Cable		
	Pan Head Screw		
	Tapping Screw		
	Screw		
	Pan Head Screw	-	
	Washer		
	Cable Relief		
	Cable Relief		
	Wire		
215-40 9225-OL-3	Overload	5.5-8A	1

# **Electrical Box Assembly**



# **Wiring Diagram**





## **WALTER MEIER (Manufacturing) Inc.**

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