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Operating Instructions and Parts Manual
Geared Head Horizontal Band Saw
Model HBS-814GH

JET
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Warranty and Service

JET 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 JET branded website.

- JET 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. JET 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. JET 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 JET website.

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

How State Law Applies
This warranty gives you specific legal rights, subject to applicable state law.

Limitations on This Warranty
JET 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.
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Product Listing with Warranty Period

90 Days – Parts; Consumable items
1 Year – Motors; Machine Accessories
2 Year – Metalworking Machinery; Electric Hoists, Electric Hoist Accessories; Woodworking Machinery used for industrial or commercial purposes
5 Year – Woodworking Machinery
Limited Lifetime – JET Parallel clamps; VOLT Series Electric Hoists; Manual Hoists; Manual Hoist Accessories; Shop Tools; Warehouse & Dock products; Hand Tools; Air Tools

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IMPORTANT SAFETY INSTRUCTIONS

WARNING – To reduce risk of injury:

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 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, JET 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 band saw. Everyday eyeglasses only have impact resistant lenses; they are not safety glasses.
7. Before operating this 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. Wear ear protectors (plugs or muffs) during extended periods of operation.
9. Do not operate this machine while tired or under the influence of drugs, alcohol or any medication.
10. Make certain the switch is in the **OFF** position before connecting the machine to the power supply.
11. Make certain the machine is properly grounded.
12. Make all machine adjustments or maintenance with the machine unplugged from the power source.
13. 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.
14. 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.
15. 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.
16. Provide for adequate space surrounding work area and non-glare, overhead lighting.
17. Keep the floor around the machine clean and free of scrap material, oil and grease.
18. Keep visitors a safe distance from the work area. **Keep children away.**
19. Make your workshop child proof with padlocks, master switches or by removing starter keys.
20. Give your work undivided attention. Looking around, carrying on a conversation and "horse-play" are careless acts that can result in serious injury.
21. 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.
22. 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.
23. Use recommended accessories; improper accessories may be hazardous.
24. Maintain tools with care. Keep blades sharp and clean for the best and safest performance. Follow instructions for lubricating and changing accessories.

25. Make sure the work piece is securely clamped in the vise. Never use your hand to hold the work piece.
26. Turn off the machine before cleaning. Use a brush or compressed air to remove chips or debris — do not use your hands.
27. Check coolant level daily. Replace dirty or weak coolant.
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 it comes to a complete stop.
30. Remove loose items and unnecessary work pieces from the area before starting the machine.

⚠ **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, and ethylbenzene which is known to the State of California to cause cancer. For more information go to http://www.p65warnings.ca.gov.

⚠ **WARNING:** Some dust, fumes and gases created by power sanding, sawing, grinding, drilling, welding and other construction activities contain chemicals known to the State of California to cause cancer and 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 dust masks that are specifically designed to filter out microscopic particles. For more information go to http://www.p65warnings.ca.gov/ and 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.

- - SAVE THESE INSTRUCTIONS - -

Introduction

This manual is provided by JET covering the safe operation and maintenance procedures for a JET Model HBS-814GH Horizontal Band Saw. 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 consistent, long-term 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 JET. JET can also be reached at our web site: www.jettools.com.

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

http://www.jettools.com/us/en/service-and-support/product-registration/

Specifications

Model Number	HBS-814GH
Stock Number	414466
Round Capacity at 90° (in.)	8
Round Capacity at 45° (in.)	6-1/2
Rectangle Capacity at 90° (W x H) (in.)	14 x 8; 2 x 14
Rectangle Capacity at 45° (W x H) (in.)	6-1/2 x 6; 2 x 7
Throat Depth (in.)	8
Vise Swivel (deg.)	45
Blade Wheel Diameter (in.)	12
Blade Speeds (SFPM)	135, 197, 256
Bed Height (in.)	26
Motor	1HP, 1Ph, 110/220V (pre-wired 110V)
Overall Dimensions (L x W x H)(in.)	51-1/2 x 18-1/8 x 44-7/8
Net Weight (lbs.)	287
Shipping Weight (lbs.)	342

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

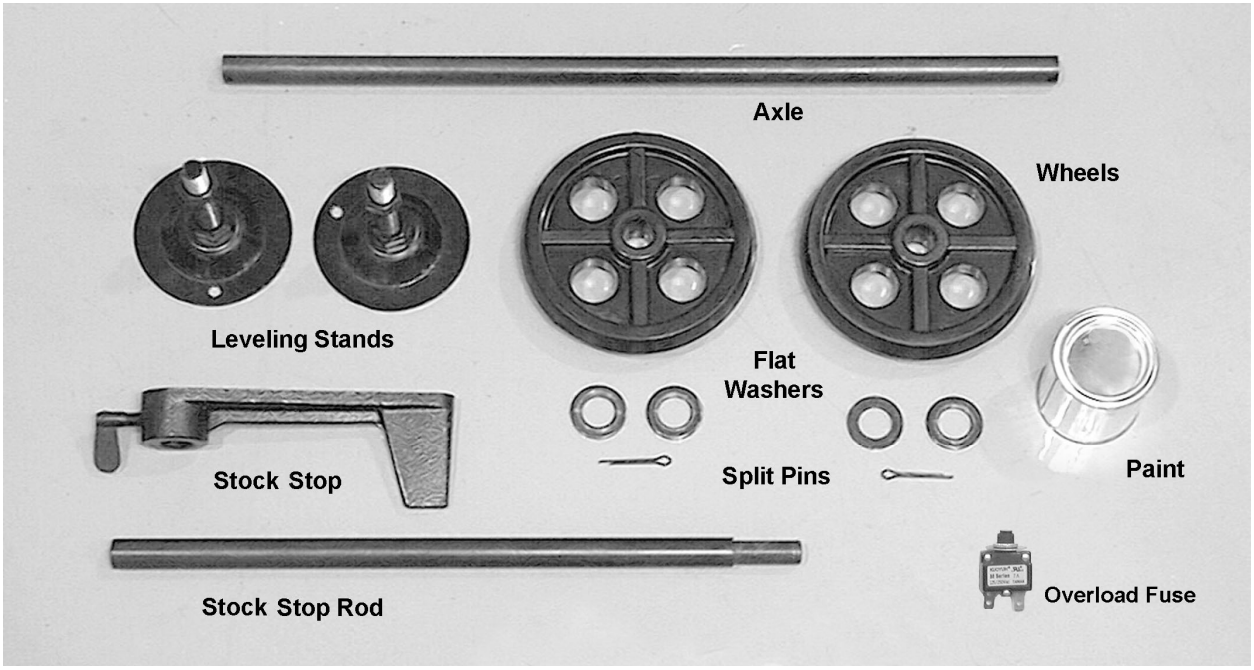
Unpacking

Open shipping container and accessory boxes, and check for shipping damage. Report any damage immediately to your distributor and shipping agent. Do not discard any shipping material until the Band Saw is assembled and running properly.

Compare the contents of your container with the following parts list to make sure all parts are intact. Missing parts, if any, should be reported to your distributor. Read the instruction manual thoroughly for assembly, maintenance and safety instructions.

Contents of the Shipping Container

1 Band Saw
2 Leveling Stands (with hex nuts)
2 Wheels
1 Axle
4 Flat Washers
2 Split Pins
1 Stock Stop
1 Stock Stop Rod
1 Can White Touch-Up Paint
1 Overload Fuse 10A
1 Owner's Manual
1 Warranty Card



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

Installation and Assembly

Remove all crating and plastic from around the band saw. Remove any lag screws or holding straps which secure the band saw to the wood pallet.

Unpainted areas of the machine have been treated with a rust preventative. This should be removed with a soft cloth and a mild solvent. Do not use paint thinner, lacquer thinner, gasoline or mineral spirits; these will damage painted and plastic surfaces. Do not use an abrasive pad.

Installing Motor

Mount the motor to the gearbox using the four M10 x 30 socket head cap screws and four M10 lock washers, through the holes in the motor's flange. See Figure 1. The key in the motor shaft must line up with the keyway in the gearbox opening.

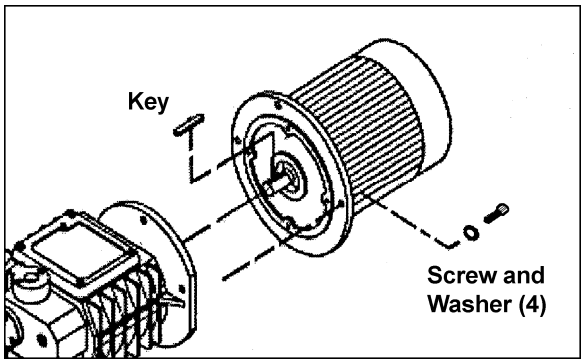


Figure 1

Wheels and Leveling Stands

1. Slide the band saw at an angle so that the edges hang over the sides of the pallet.
2. Insert the axle through the holes at the right end of the band saw cabinet (*opposite* the end where the lifting handle is mounted). See Figure 2.
3. Install a wheel and two flat washers on each end of the axle. Insert a split pin through the hole in the axle and bend the ends of the split pin to secure the wheel on the axle.
4. Install the two leveling stands at the left end of the band saw (the end where the lifting handle is mounted). See Figure 2. Screw the leveling stand into the hole beneath the band saw cabinet, and tighten the top hex nut against the bottom of the cabinet.
5. The leveling stands can be later adjusted for level by rotating the stand and re-tightening the hex nut against the cabinet.
6. Roll the band saw off the pallet.

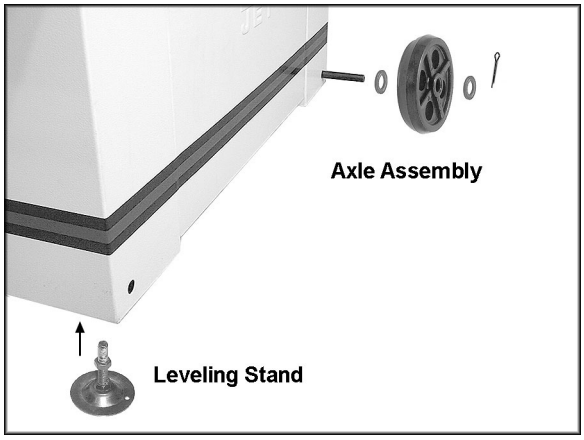


Figure 2

Stock Stop

1. Insert the stock stop rod into the hole at the front of the base (Figure 3).
2. Secure the rod by tightening the hex cap screw below the casting.
3. Slide the stock stop onto the rod, and tighten the thumb screw. The stock stop can be mounted so it faces either direction.

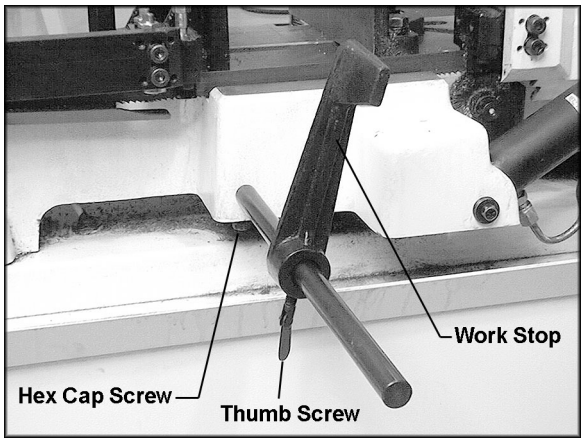


Figure 3

Shut-Off Switch

Remove the screw and hex nuts which held the bow to the base during shipment. These should be retained in case of future transportation of the Band Saw.

The screw below the limit switch, shown in Figure 4, has been pre-set at the factory so that the switch will contact the screw and stop the blade after each cutting operation.

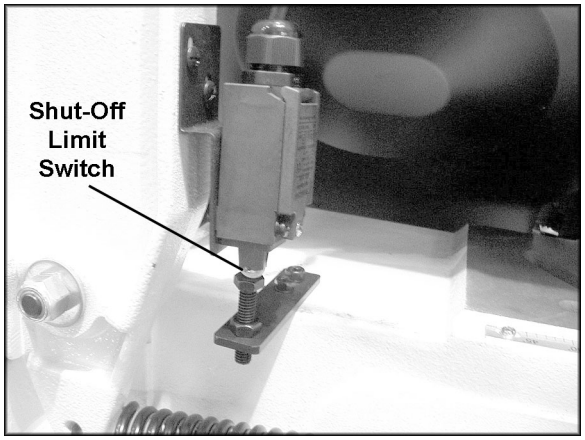


Figure 4

Coolant Hose

Before operating, the coolant drain hose (Figure 5) must be connected to the coolant pan and the other end of the hose placed into the filter cup in the tank as shown.

The hose from the coolant pump is attached to a valve which should be inserted into the hole on the guide assembly (see Figure 17).

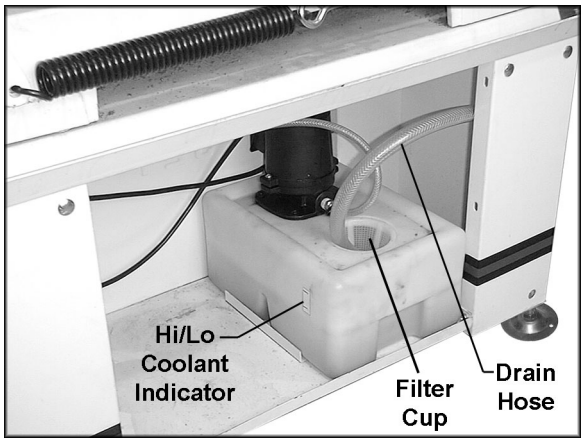


Figure 5

Grounding Instructions

⚠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.

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.

This band saw is pre-wired for 115 volt and is equipped with an electric cord having an equipment-grounding conductor and a grounding plug similar to that shown in Figure 6. The plug must be inserted into a matching outlet that is properly installed and grounded in accordance with all local codes and ordinances.

Do not modify the plug provided. If it will not fit the outlet, have the proper outlet installed by a qualified electrician.

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 machine is properly grounded.

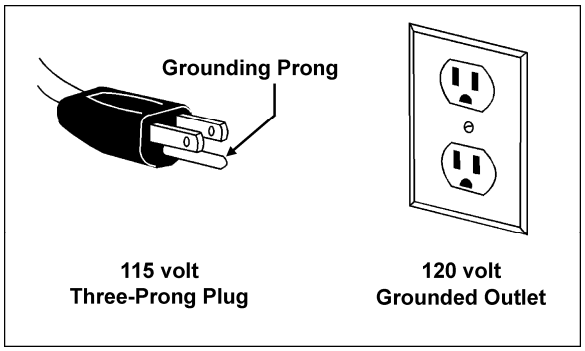


Figure 6

115 Volt Operation

As received from the factory, your band saw is ready to operate at 115 volt power, using an outlet and a plug that look similar to those illustrated in Figure 6.

A temporary adapter, which looks like the adapter illustrated in Figure 7, may be used to connect this plug to a two-pole receptacle as shown, if a properly grounded outlet is not immediately available. The temporary adapter should **only be used until a properly grounded outlet can be installed by a qualified electrician.**

The green colored rigid ear, lug or tab, extending from the adapter must be connected to a permanent ground such as a properly grounded outlet box, as shown in Figure 7.

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

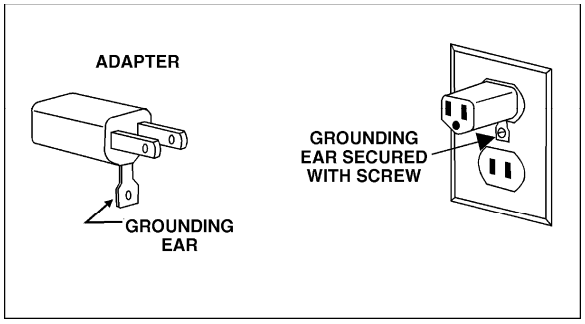


Figure 7

Conversion to 220 Volt

If 220 volt, single phase operation is desired, the following instructions must be followed:

1. Disconnect machine from power source.
2. Open the electrical box and change the position of the fuse from the 115V slot to the 220V slot. An electrical drawing is included inside the electrical box, and is also shown on page 31 of this manual.
3. The 115V attachment plug supplied with the band saw must be replaced with a UL-listed plug suitable for 220 volt operation. The band saw must comply with all local and national codes after the 220 volt plug is installed. The band saw with a 220 volt plug should only be connected to an outlet having the same configuration (Figure 8). No adapter is available or should be used with the 220 volt plug.

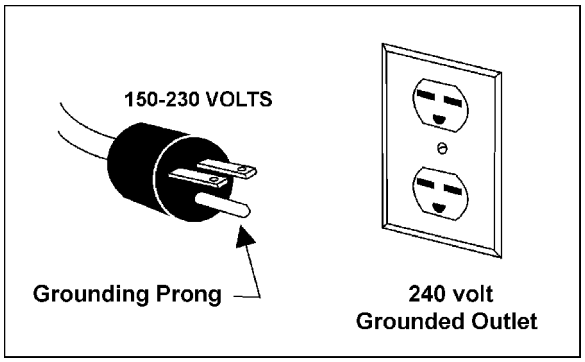


Figure 8

Extension cords

If an extension cord is necessary, make sure the cord rating is suitable for the amperage listed on the machine's motor plate. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating. Use only three wire extension cords that have three-prong grounding plugs and three-pole receptacles that accept the machine's plug.

Use the chart in Figure 9 as a general guide in choosing the correct size cord. If in doubt, use the next heavier gauge. The smaller the gauge number, the heavier the cord.

Recommended Gauges (AWG) of Extension Cords

Amps	Extension Cord Length *					
	25 feet	50 feet	75 feet	100 feet	150 feet	200 feet
< 5	16	16	16	14	12	12
5 to 8	16	16	14	12	10	NR
8 to 12	14	14	12	10	NR	NR
12 to 15	12	12	10	10	NR	NR
15 to 20	10	10	10	NR	NR	NR
21 to 30	10	NR	NR	NR	NR	NR

*based on limiting the line voltage drop to 5V at 150% of the rated amperes.
NR: Not Recommended.

Figure 9

Adjustments

Vise

There are two sets of holes in the bed to mount the right jaw. The inner hole and slot (A, Figure 10) are used for miter cuts. The outer hole and slot (B, Figure 10) are used for square, or 90° cuts. Figure 10 shows the vise located in the “A” position for miter cuts.

Use only position “A” for miter cuts. If the “A” position is used for square cuts, it leaves more blade exposed to the right of the jaw.

Squaring Vise to Blade

1. To set up for square cutting, move the right jaw to “B” position (Figure 10). Place a machinist’s square on the bed against the blade and the right vise jaw. The square should lie along the entire length of the jaw and blade without a gap.
2. If adjustment is necessary, slightly loosen the front screw on the right jaw. Loosen the hex nut at the center of the right jaw and adjust jaw so the square lines up properly.
3. Re-tighten the hex nut and the front screw.
4. Loosen the handle (C, Figure 10) on the left jaw. Move the left jaw until it contacts flush with the right jaw.
5. Tighten the handle (C, Figure 10). The vise is now set for square cuts.

Positioning the Vise

⚠WARNING Keep hands away from blade while adjusting the vise.

1. The workpiece is placed against the fixed jaw, which has already been squared (see “Squaring Vise to Blade”), or has been locked at the appropriate angle (see “Miter Cuts”).
2. The vise has a quick-release feature which allows fast positioning of the movable jaw against the workpiece and then a final tightening with the handle. Lift up on the quick release lever (D, Figure 11), then push the movable jaw by hand until it contacts the workpiece.
3. Push down the quick release lever (D, Figure 11).
4. Turn the lead screw handle (E, Figure 11) clockwise to continue the tightening process of the movable jaw until the workpiece is securely clamped.

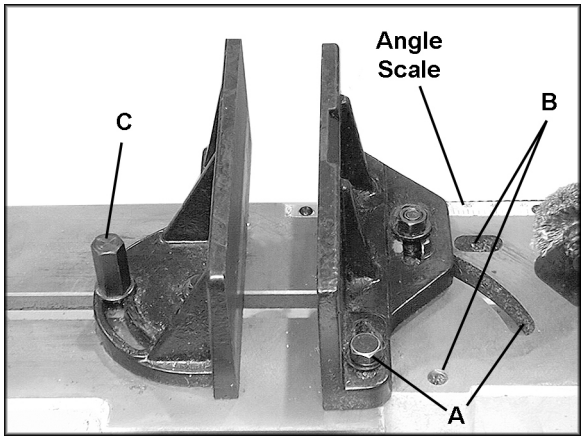


Figure 10
(fixed jaw shown in “A” position for mitering)

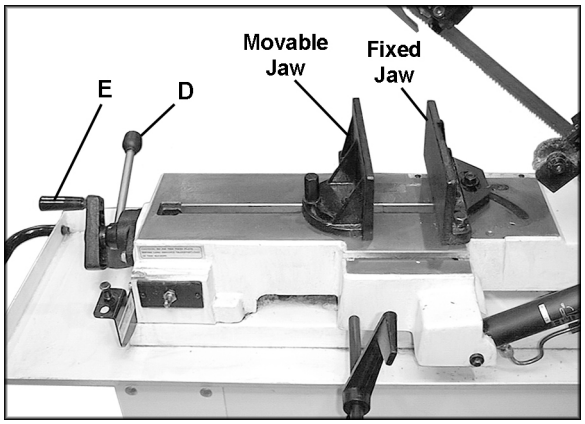


Figure 11

5. The quick release function can also be used to back off the movable jaw when the cut is finished.

Miter Cuts

1. For miter cuts, move the fixed jaw to the inner holes, or “A” position, as shown in Figure 10.
2. Rotate the fixed jaw to the desired angle, and tighten the center hex nut.

   NOTE: There is an angle scale on the back side of the bed. This is for reference only. Check angles with a protractor if greater precision is needed.
3. Adjust the movable jaw in the manner described above, and tighten the handle (C, Figure 10).

Setting Downfeed Rate

The downfeed rate of the blade is important to band saw performance. Excessive pressure of blade against the workpiece may break the blade or stall the saw. In contrast, insufficient pressure rapidly dulls the blade.

Turn the valve lever (Figure 12) counterclockwise to lower the bow. The rate of downfeed is controlled by the dial setting (Figure 12).

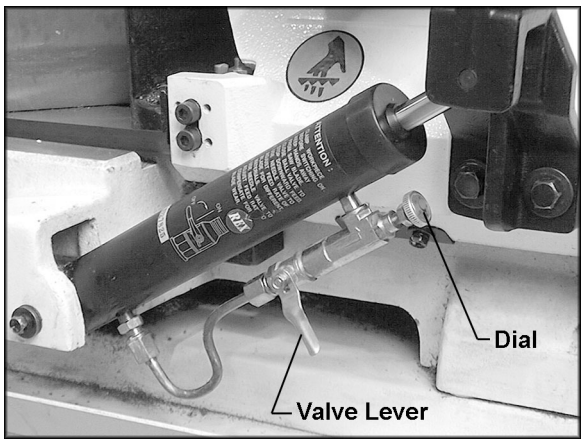


Figure 12

Blade Tension

Blade tension has been set at the factory. When installing a new blade, use the tension handle (Figure 13) to adjust blade tension (clockwise to tighten). Tension is set properly when the indicator moves into the “green” area on the scale.

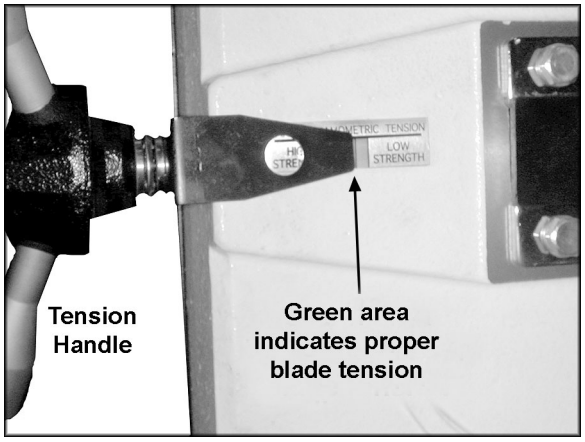


Figure 13

Blade Tracking

⚠WARNING Tracking the blade requires that the band saw be operating while the back cover is removed. Use extreme caution.

Blade tracking has been tested at the factory. Adjustment is rarely required when the blade is used properly and if the blade is correctly welded. If a tracking problem should occur, adjust the machine as follows:

1. Raise the bow to its highest position. Make sure the hydraulic cylinder valve is closed so the bow remains in place.
2. The blade should be properly tensioned. NOTE: Keep proper tension on the blade at all times using the blade tension adjustment.
3. Open the back wheel cover.

⚠CAUTION **While performing the following steps, keep the blade from rubbing excessively on the shoulder of the wheel. Excessive rubbing will damage the wheel and/or the blade.**

4. Start the saw. Turn the set screw (Figure 14) to tilt the idler wheel until the blade is touching the shoulder of the idler wheel.
5. Turn the set screw (Figure 14) so the blade starts to move away from the shoulder of the wheel; then immediately turn the set screw in the other direction so the blade stops; then moves slowly towards the shoulder. NOTE: This adjustment is sensitive; do it gradually and in small increments allowing the wheel to respond to the changes.

⚠WARNING **Keep your fingers clear of the blade and wheel to avoid injury.**

6. Turn the set screw to stop the shifting of the blade on the wheel as it gets closer to the wheel shoulder. Put a six-inch length of paper between the blade and the wheel. See Figure 15. The paper should not be cut as it passes between the wheel shoulder and the blade.
7. Turn the set screw a small amount. Repeat the insertion of the paper between the wheel shoulder and the blade until the paper is cut into two pieces.

   NOTE: You may have to repeat the check with the paper several times before the blade and the shoulder cut the paper into two pieces. Do not hurry the adjustment. Patience and accuracy here will pay off with better, more accurate, quieter cutting and longer machine and blade life.
8. When the paper is cut, back off the set screw slightly. This assures that the blade is not touching the shoulder of the wheel.

   IMPORTANT: If the blade is allowed to run against the shoulder of the wheel, it will wear off the shoulder.

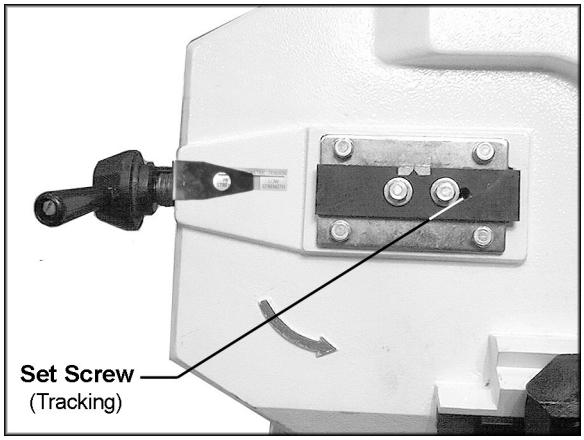


Figure 14

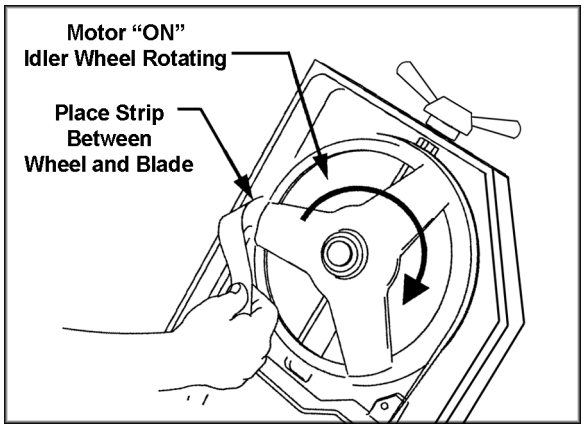


Figure 15

Setting Blade Speed

Rotate the dial (see Figure 16) to the desired setting – 135, 197 or 256 feet per minute.

⚠CAUTION **Do not change blade speed during a cutting operation.**

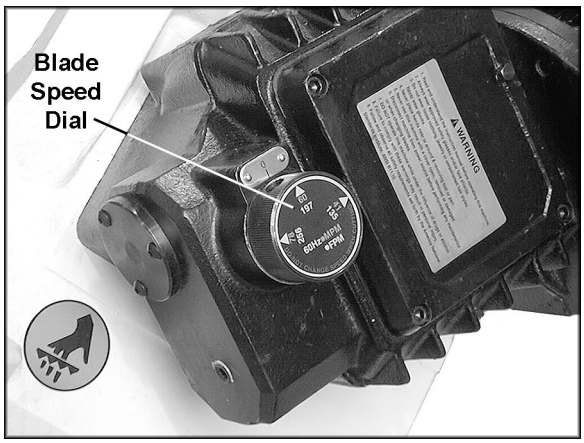


Figure 16

Material chips or shavings are the best indicator of proper blade speed and downfeed rate. The ideal chip is thin, tightly curled and warm to the touch. Chips that range from golden brown to black indicate excessive force. Blue chips indicate extreme heat from too high a blade speed, which will shorten blade life. Thin or powdered chips indicate insufficient downfeed rate.

Blade Guides

Loosen the handle (Figure 17) and slide the guide assembly as close to the workpiece as possible. This will prevent excessive exposure of the blade during operation.

[NOTE: The handle (Figure 17) can be adjusted out of the way. Lift up on the handle and rotate it on the pin. Release the handle, making sure it seats itself properly on the pin.]

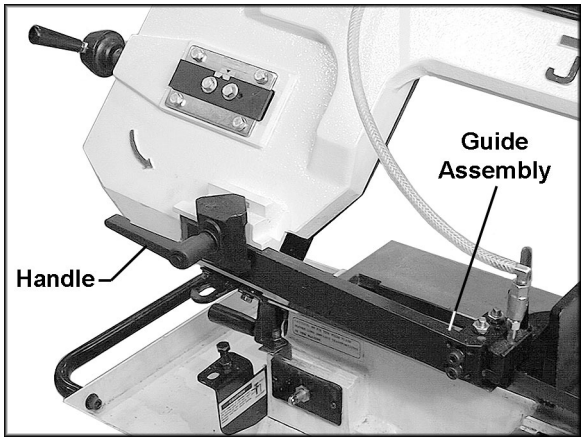


Figure 17

The guide bearings and carbide guide blocks come pre-adjusted from the factory, but should be inspected frequently and adjustments made as needed. For most efficient operation and maximum accuracy, provide 0.001” clearance between the blade and the guide bearings. The bearings will still turn freely with this clearance. If the clearance is incorrect, the blade may track off the drive wheel.

1. Disconnect machine from power source.
2. Loosen the two socket head cap screws (A, Figure 18) and move the guide seat (B, Figure 18) up or down until the guide blocks (D, Figure 18) are positioned adequately across the width of the blade.
3. Loosen the socket head cap screws (C, Figure 18) on the carbide guide blocks (D, Figure 18) and shift both guide blocks until they place a light pressure on the blade. Re-tighten the socket head cap screws (C, Figure 18).
4. The outer guide bearing (E, Figure 18) is mounted to an eccentric bushing and is adjustable. Loosen the hex nut (F, Figure 18) and rotate the bearing shaft (G, Figure 18) with a wrench until the bearing (E, Figure 18) clears the blade by approximately .001”. Do not pinch the blade.
5. Re-tighten hex nut (F, Figure 18).
6. Repeat these steps for the other blade guide assembly.

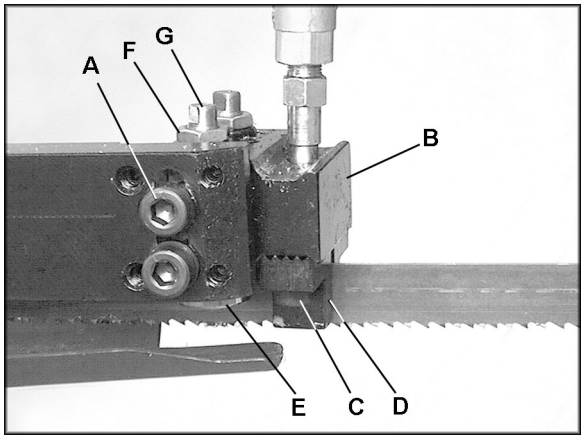


Figure 18

Blade Replacement

A general-use variable-tooth blade is provided with this metal cutting band saw. Additional blades can be used and are available from your JET distributor.

The choice of blade pitch is governed by the thickness of the work to be cut: the thinner the workpiece, the more teeth advised. A minimum of 3 teeth should engage the workpiece at all times. If the teeth of the blade are so far apart that they straddle the work, severe damage to the workpiece and to the blade can result.

1. Disconnect machine from power source.
2. Loosen the handle (Figure 17) and move the blade guides away from the wheel, as shown in Figure 19.
3. Raise the bow, making sure the hydraulic cylinder is closed so the bow will remain stationary.
4. Open the back cover, by loosening the two knobs and the four screws on the brackets.
5. Loosen tension on the blade.
6. Remove the blade from between the guides and from around the wheels. (Use gloves when handling sharp blades!).
7. Install new blade on wheels, making sure the teeth point downward in the proper cutting direction. See Figure 20; also notice the blade direction arrow on the front of the bow.
8. Increase blade tension just enough to hold the blade on the wheels. Make sure back of blade rests lightly against the shoulder of both wheels.
9. Twist blade slightly to allow it to slip into the guides.
10. The blade should be tensioned and tracked properly before use. See “Blade Tension” and “Blade Tracking” above.

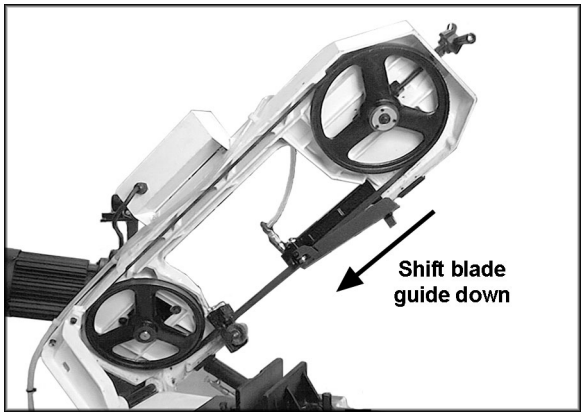


Figure 19

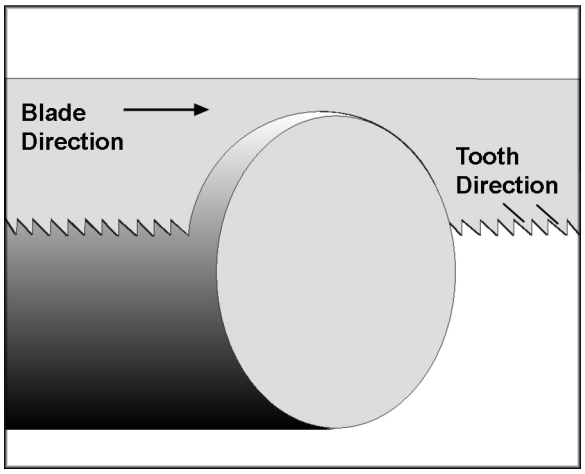


Figure 20

Bow Stop

The stop screw (Figure 21) controls the depth of fall of the bow to prevent the blade from hitting the bed casting. The stop screw has been set at the factory. If future adjustment is needed, loosen the hex nut and rotate the screw, then re-tighten the hex nut.

Figure 21

Operation

Figure 22 shows the control panel functions.

The **Emergency Stop** shuts down all functions on the band saw. The machine will not start if the emergency stop is still engaged. To start the machine, twist the emergency stop button until it pops back out.

IMPORTANT: When cutting magnesium, never use soluble oils or emulsions (oil-water mix) as water will greatly intensify any accidental magnesium chip fire. See your industrial coolant supplier for specific coolant recommendations when cutting magnesium.

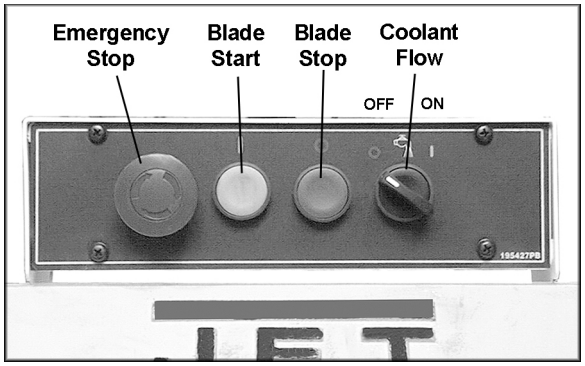


Figure 22

General Operating Procedure:

1. Give machine an overall inspection. Verify that all guards, covers, etc. are in place and in working order, the blade is tensioned properly and the tooth direction matches the arrow on the bow. Check that the blade guides are set correctly, and also the wire brush.
2. Place workpiece in vise and tighten vise. The workpiece should be fitted directly between the jaws without adding other objects.

   When the workpiece to be cut is a profiled section, flat piece or special shape, refer to the examples shown in Figure 23 for proper clamping positions. The top row shows acceptable clamping positions, the bottom row shows ***un***acceptable positions.

   If the thickness of the profiled section is very thin, a piece which duplicates the profile should be fitted inside the workpiece itself, to prevent the workpiece being crushed between the jaws.

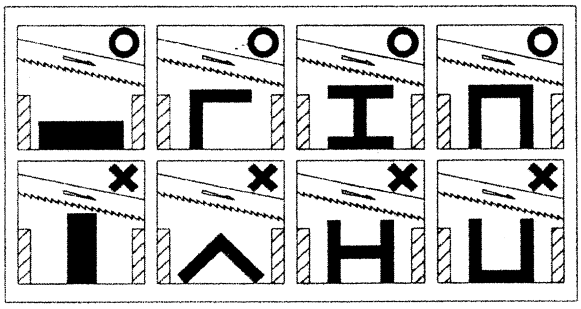


Figure 23

⚠WARNING Never hold a workpiece by hand when cutting it – the workpiece should be firmly secured in the vise. Do not reach into the cutting area during cutting operations.

3. Rotate the speed dial to the desired setting. **Do not rotate the speed dial during a cutting operation.**
4. Set a suitable downfeed rate for that operation on the cylinder dial.
5. Push the start button to start the blade circulating.
6. Turn on the coolant flow.

7. Open the valve on the hydraulic cylinder to allow the bow to descend in a gradual and controlled manner.
8. The machine will shut off at the completion of the cut. Turn off the coolant flow, and remove the workpiece.
9. Return the bow to vertical position for the next cut.

User-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 after each day's work. Clear metal shavings with the provided brush, do not use your hands. Do not use compressed air.

To prevent corrosion of machined surfaces when a soluble oil is used as coolant, pay particular attention to wiping dry the surfaces where fluid accumulates and does not evaporate quickly, such as between the machine bed and vise.

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

All ball bearings are permanently lubricated and sealed. They require no further lubrication.

Grease the vise lead screw as needed.

Place a thin coat of oil on the bed surface on which the vise jaw slides.

Maintain coolant level. Low coolant level can cause foaming and high blade temperatures. Replace dirty coolant; dirty or weak coolant can clog the pump, cause crooked cuts, a low cutting rate and/or permanent blade damage. To fill the tank, remove the filter cup and pour coolant into the hole. A "Hi/Lo" mark on the tank indicates proper level (see Figure 5).

Maintain oil level in the gear box, using SAE No. 10. To check level of the gear box oil, place bow in down position so that oil drains down. Check level in sight glass on side of gear casing. Correct level is the dot in the middle of the sight glass. Figure 24 shows the locations of the fill hole, sight glass and drain plug for the gear box.

Completely drain and refill the gear box oil once a year.

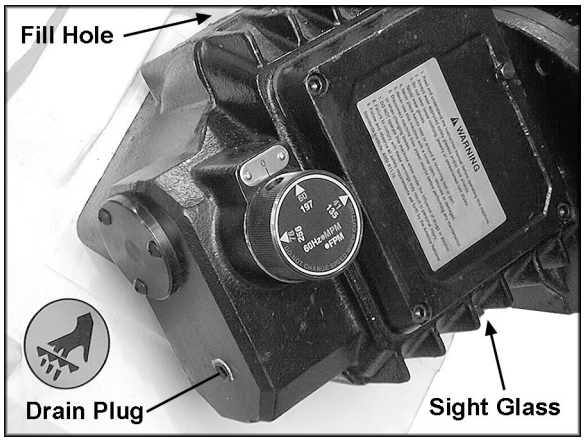


Figure 24

Troubleshooting HBS-814GH Band Saw

Trouble	Probable Cause	Remedy
Motor will not start.	No incoming power.	Check plug connection.
	Blown electrical panel fuses.	Replace fuses.
	Thermal overload has tripped.	Wait several minutes for overload to reset itself.
	Defective motor, switch, power cable, or plug.	Qualified electrician/service personnel should inspect these items.
Overload trips frequently.	Motor is overheating.	Check that motor air intakes are clear.
	Downfeed rate too fast.	Reduce downfeed rate.
	Motor is faulty.	Motor should be inspected by qualified electrician/service personnel.
Band Saw vibrates excessively.	Base on uneven surface.	Adjust base for even support.
	Saw blade has cracks.	Replace blade immediately.
	Too heavy a cut.	Reduce downfeed rate and blade speed.
Miter cuts not accurate.	Setting of the miter stops is not correct.	Loosen the screws and adjust the stops to correct positions. Use an adjustable square or protractor to check angle settings.
	Blade is worn, cutting crooked.	Replace blade.
Cuts not square.	Feed pressure too great.	Decrease feed pressure.
	90° angle stop is not set correctly.	Adjust stop until blade is square with vise.
	Incorrect blade toothing in relation to workpiece.	Check *Machinist's Handbook* for recommended blade type.
	Blade is worn, cutting crooked.	Replace blade.
	Incorrect adjustment of bearing guides and guide assembly.	Re-adjust these. See page 14.
	Workpiece incorrectly positioned in vise.	Check positioning and clamping in the vise.
	Poor blade tension.	Check and correct if needed.
Finished surface of workpiece is rough, unsatisfactory.	Blade is dull.	Replace blade.
	Improper blade for cutting operation.	Check *Machinist's Handbook* for blade recommendations.
	Downfeed rate too fast.	Reduce downfeed rate.
	Blade tension too low.	Increase blade tension.

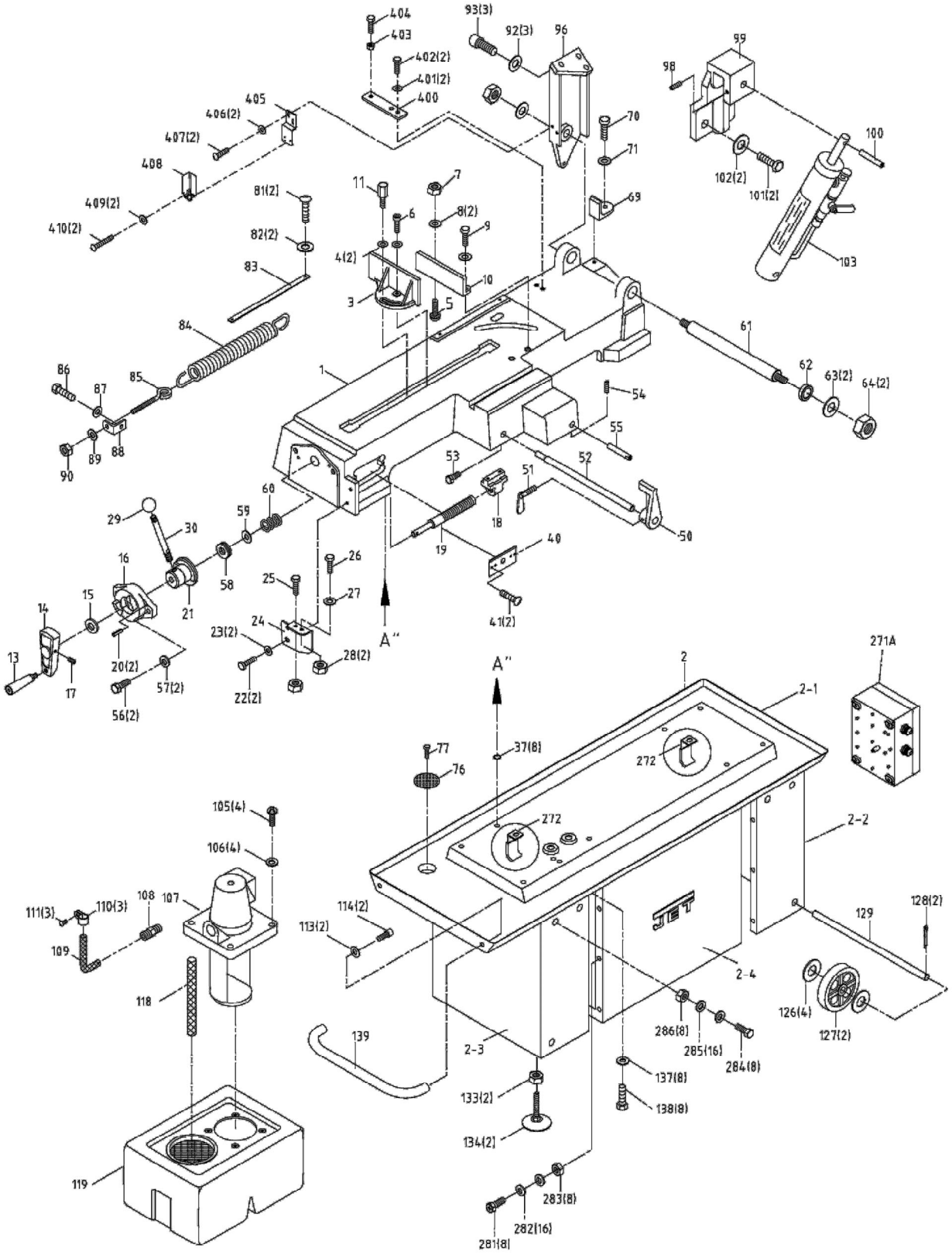
Trouble	Probable Cause	Remedy
Excessive blade breakage.	Incorrect blade tension.	Adjust accordingly (see page 12).
	Incorrect blade speed or downfeed rate.	Adjust acccordingly.
	Workpiece loose in vise.	Clamp workpiece securely.
	Blade rubs on wheel shoulder.	Adjust blade tracking.
	Teeth too coarse for material.	Use appropriate blade for material being cut.
	Teeth in contact with workpiece before saw is started.	Start motor before blade contacts workpiece.
	Blade guides are misaligned.	Adjust as needed. See page 14.
	Blade too thick for wheel diameter.	Use thinner blade.
	Cracking at weld; poor annealing of blade.	Replace blade.
Premature Blade Dulling.	Teeth too coarse.	Use finer tooth blade.
	Blade speed too fast.	Reduce speed.
	Inadequate downfeed rate.	Adjust cylinder dial setting as needed.
	Hard spots or scale on material.	Scale: Reduce speed and increase downfeed rate. Hard Spots: Increase downfeed rate.
	Work hardening of material (especially stainless steel)	Increase downfeed rate.
	Blade installed backwards.	Remove blade, twist inside-out and re-install.
	Insufficient blade tension.	Adjust as needed.

Replacement Parts

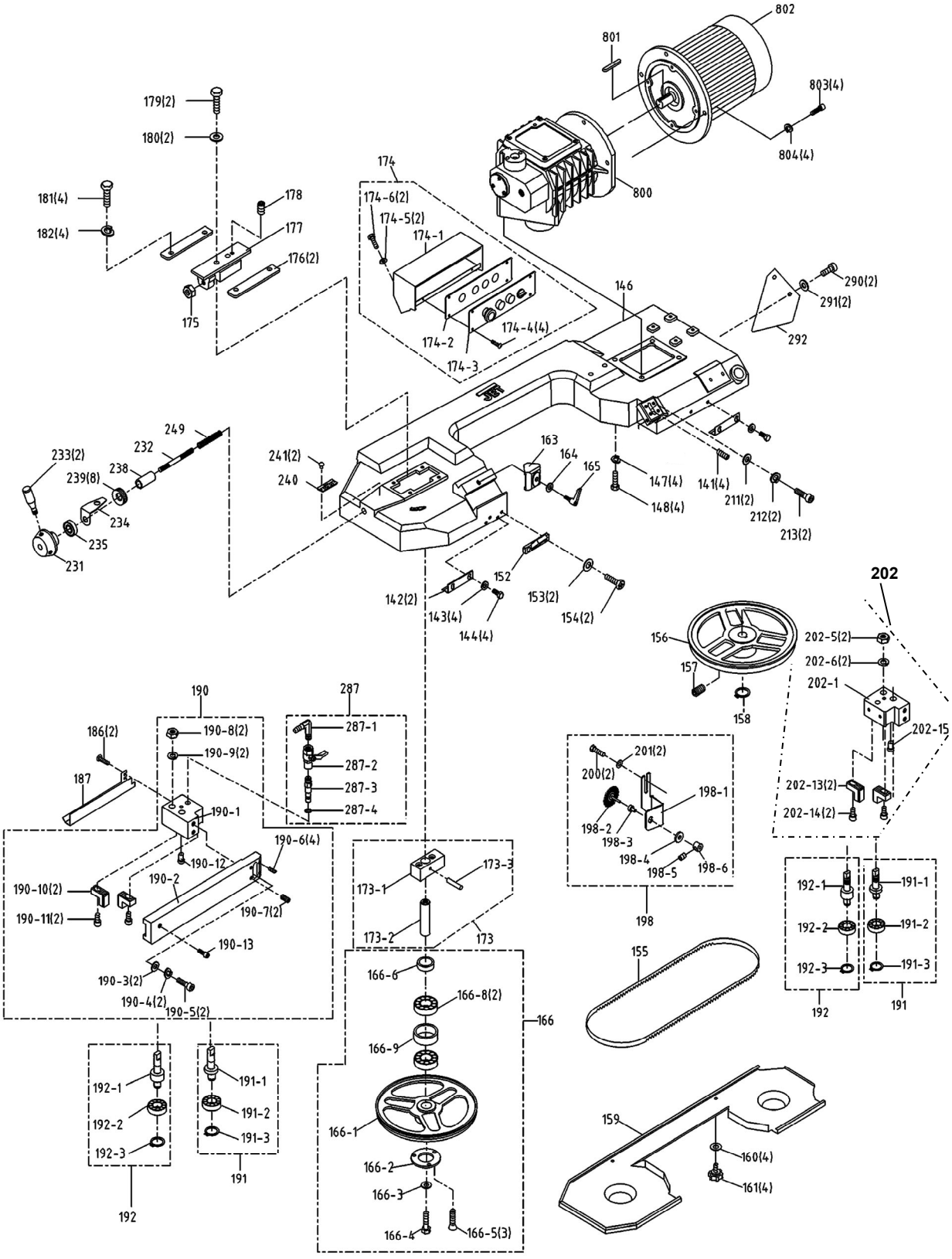
Replacement parts are listed on the following pages. To order parts or reach our service department, call 1-800-274-6848 Monday through Friday, 8:00 a.m. to 5:00 p.m. CST. Having the Model Number and Serial Number of your machine available when you call will allow us to serve you quickly and accurately.

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

Base Assembly



Bow Assembly



Parts List: HBS-814GH Band Saw

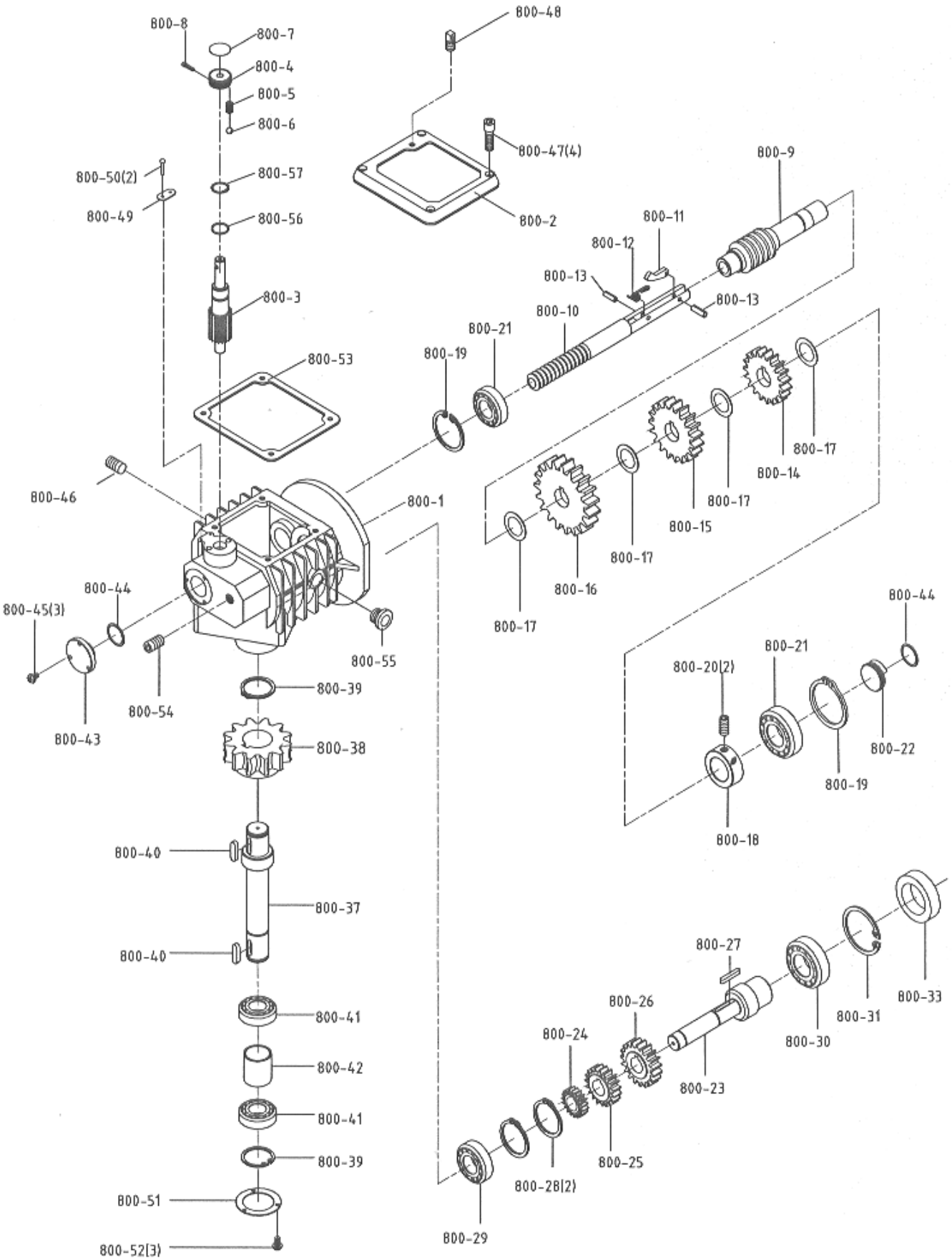
Index No.	Part No.	Description	Size	Qty
1	HBS814GH-001G	Base		1
2	HBS814GH-002G	Stand Complete Assembly		1
2-1	HBS814GH-002-1G	Coolant Pan		1
2-2	HBS814GH-002-2G	Leg (Right)		1
2-3	HBS814GH-002-3G	Leg (Left)		1
2-4	HBS814GH-002-4G	Panel		1
3	HBS814GH-003	Vise Jaw Bracket (Front)		1
4	HBS814GH-4	Washer	10 x 25 x 2	2
5	HBS814GH-005	Carriage Bolt	1/2"-12 x 2”	1
6	TS-0209071	Socket Head Cap Screw	3/8"-16 x 1-1/2"L	1
7	6290483	Hex Nut	1/2”-12	1
8	HBS814GH-063	Washer	12 x 28 x 2	2
9	HBS814GH-009	Hex Cap Screw	1/2"-12 x 2"L	1
10	HBS814GH-010	Vise Jaw Bracket (Rear)		1
11	HBS814GH-011	Miter Clamp Bolt		1
13	HBS814GH-013	Handle		1
14	HBS814GH-014	Crank		1
15	HBS814GH-015	Washer	12 x 23 x 2	1
16	HBS814GH-016	Thrust Flange		1
17	TS-0267051	Socket Set Screw	1/4"-20 x 1/2"L	1
18	HBS814GH-018	Acme Nut		1
19	HBS814GH-019	Acme Screw		1
20	HBS814GH-020	Pin	5 x 34L	2
21	HBS814GH-021	Vise Cam		1
22	TS-0051021	Hex Cap Screw	5/16"-18 x 5/8"L	2
23	HBS814GH-023	Washer	8 x 25 x 3	2
24	HBS814GH-024	Shipping Bracket		1
25	TS-0060081	Hex Cap Screw	3/8"-16 x 1-3/4"	1
26	TS-0060091	Hex Cap Screw	3/8"-16 x 2"	1
27	HBS814GH-285	Washer	10 x 20 x 2	1
28	TS-0561031	Hex Nut	3/8”-16	2
29	HBS814GH-029	Knob		1
30	HBS814GH-030	Shaft		1
37	HBS814GH-037	Fiber washer		8
40	HBS814GH-040	Cover		1
41	TS-081C022	Phillips Pan Head Machine Screw	#10-24 x 3/8"L	2
50	HBS814GH-050	Stop Block		1
51	HBS814GH-051	Thumb Screw		1
52	HBS814GH-052	Stock Stop Rod		1
53	TS-0051031	Hex Cap Screw	5/16"-18 x 3/4"L	1
54	TS-0267061	Socket Set Screw	1/4"-20 x 5/8"L	1
55	HBS814GH-055	Cylinder Lower Support		1
56	TS-0060061	Hex Cap Screw	3/8"-16 x 1-1/4"L	2
57	HBS814GH-285	Washer	10 x 20 x 2	2
58	HBS814GH-058	Bearing		1
59	HBS814GH-059	Washer		1
60	HBS814GH-060	Spring		1
61	HBS814GH-061	Pivot Shaft		1
62	HBS814GH-062	Bushing		1
63	HBS814GH-063	Washer	12 x 28 x 2	2
64	6290483	Hex Nut	1/2"-12	2
69	HBS814GH-069	Bracket		1
70	TS-0060031	Hex Cap Screw	3/8"-16 x 3/4"L	1
71	HBS814GH-071	Washer	10 x 25 x 3	1
76	HBS814GH-076	Screen		1
77	TS-0050011	Hex Cap Screw	1/4"-20 x 1/2"L	1
81	TS-081C022	Phillips Pan Head Machine Screw	#10-24 x 3/8"L	2

Index No.	Part No.	Description	Size	Qty
82	TS-069204	Flat Washer	#10	2
83	HBS814GH-083	Scale		1
84	HBS814GH-084	Spring		1
85	HBS814GH-085	Spring Adjusting Screw		1
86	TS-0051031	Hex Cap Screw	5/16"-18 x 3/4"L	1
87	HBS814GH-087	Washer	8 x 23 x 2	1
88	HBS814GH-088	Spring Handle Bracket		1
89	HBS814GH-092	Washer	10 x 23 x 2	1
90	TS-0561031	Hex Nut	3/8-16	1
92	HBS814GH-092	Washer	10 x 23 x 2	3
93	TS-0209061	Socket Head Cap Screw	3/8"-16 x 1-1/4"L	3
96	HBS814GH-096G	Rear Pivot Bracket		1
98	TS-0267051	Socket Set Screw	1/4"-20 x 1/2"L	1
99	HBS814GH-099	Cylinder Upper Support		1
100	HBS814GH-100	Shaft		1
101	TS-0060051	Hex Cap Screw	3/8"-16 x 1"L	2
102	HBS814GH-4	Washer	10 x 25 x 2	2
103	HBS814GH-103	Cylinder Complete Set		1
105	HBS814GH-105	Cross Round Head Screw	1/4"-20 x 5/8"L	4
106	HBS814GH-106	Washer	6.3 x 19 x 1.5	4
107	HBS814GH-107	Pump	1/8HP,110/220V,1PH	1
108	HBS814GH-108	Close Nipple	3/8"PT	1
109	HBS814GH-109	Hose	OD12 x ID8 x 2000	1
110	HBS814GH-110	Hose Clip	5/8"	3
111	TS-081C022	Phillips Pan Head Machine Screw	#10-24 x 3/8"L	3
113	HBS814GH-092	Washer	10 x 23 x 2	2
114	TS-0209031	Socket Head Cap Screw	3/8"-16 x 3/4"L	2
118	HBS814GH-118	Hose	OD16 x ID13 x 260	1
	HBS814GH-118N	Hose	OD24 x ID18.5 x 650	1
119	HBS814GH-119	Coolant Tank		1
126	HBS814GH-126	Washer	5/8" x 40 x 3"	4
127	HBS814GH-127	Wheel		2
128	5519932	Cotter Pin	3 x 25L	2
129	HBS814GH-129	Wheel Rod		1
133	6290483	Hex Nut	1/"2-12	2
134	HBS814GH-134	Coaster of Stand	1/2"	2
137	TS-0680041	Washer	3/8"	8
138	TS-0060051	Hex Cap Screw	3/8"-16 x 1"L	8
139	HBS814GH-139	Handle		1
141	TS-1523051	Socket Set Screw	M6-1 x 15L	4
142	HBS814GH-142	Door Clip Lower		2
143	HBS814GH-143	Washer	6.3 x 16 x 1.5	4
144	TS-0050011	Hex Cap Screw	1/4"-20 x 1/2"L	4
146	HBS814GH-146G	Body Frame		1
147	TS-0720091	Lock Washer	3/8"	4
148	TS-0060061	Hex Cap Screw	3/8"-16 x 1-1/4"L	4
152	HBS814GH-152	Upper Bracket hold down		1
153	HBS814GH-285	Washer	10 x 20 x 2	2
154	TS-0060051	Hex Cap Screw	3/8"-16 x 1"	2
155	HBS814GH-155	Blade	0.032" x 3/4" x 2464L x 5-8T"	1
156	HBS814GH-156	Drive Wheel		1
157	TS-0267051	Socket Set Screw	1/4"-20 x 1/2"L	1
158	5519933	C-Retainer Ring	S25	1
159	HBS814GH-159	Blade Back Cover		1
160	HBS814GH-143	Washer	6.3 x 16 x 1.5	4
161	HBS814GH-161	Knob		4
163	HBS814GH-163G	Clamp Block Guide Arm		1
164	TS-1550071	Flat Washer	M10	1

Index No.	Part No.	Description	Size	Qty
165	HBS814GH-165	Grip	M10-1.5 x 52L	1
166	HBS814GH-166	Idler Wheel Assembly		1
166-1	HBS814GH-166-1	Idler Wheel		1
166-2	HBS814GH-166-2	Bearing Cover		1
166-3	HBS814GH-211	Washer	8 x 18 x 1.5	1
166-4	TS-0051031	Hex Cap Screw	5/16"-18 x 3/4"L	1
166-5	HBS814GH-166-5	Cross Round Head Screw	#10-24 x 3/8"L	3
166-6	HBS814GH-166-6	Bushing		1
166-8	BB-6202ZZ	Bearing	6202ZZ	2
166-9	HBS814GH-166-9	Bushing		1
173	HBS814GH-173	Shaft Assembly		1
173-1	HBS814GH-173-1	Sliding Plate Draw Block		1
173-2	HBS814GH-173-2	Blade Wheel Shaft		1
173-3	HBS814GH-173-3	Pin	4 x 22L	1
174	HBS814GH-174	Control Box Assembly		1
174-1	HBS814GH-174-1G	Control Box		1
174-2	HBS814GH-174-2	Control Plate		1
174-3	HBS814GH-174-3	Label for Name Plate		1
174-4	TS-1533042	Phillips Pan Head Machine Screw	M5-0.8P*12L	4
174-5	TS-1550041	Flat Washer	M6	2
174-6	TS-1482031	Hex Cap Screw	M6-1.0 x 15L	2
175	TS-0561031	Hex Nut	3/8-16	1
176	HBS814GH-176	Sliding Plate		2
177	HBS814GH-177	Blade Tension Slide Block		1
178	TS-0270071	Socket Set Screw	5/16"-18 x 3/4"L	1
179	TS-0051071	Hex Cap Screw	5/16"-18 x 1-1/2"L	2
180	HBS814GH-180	Washer	8 x 12 x 2	2
181	TS-0051031	Hex Cap Screw	5/16"-18 × 3/4"L	4
182	TS-0720081	Lock Washer	5/16"	4
186	HBS814GH-200	Phillips Pan Head Machine Screw	1/4"-20 x 3/8"L	1
187	HBS814GH-187	Blade Guard		1
190	HBS814GH-190	Blade Guide Assembly		1
190-1	HBS814GH-190-1	Blade Guide		1
190-2	HBS814GH-190-2	Adjustable Bracket (Front)		1
190-3	HBS814GH-211	Washer	8 x 18 x 1.5	2
190-4	TS-0720081	Lock Washer	5/16"	2
190-5	TS-0208071	Socket Head Cap Screw	5/16"-18 x 1-1/4”L	2
190-6	TS-1523031	Socket Set Screw	M6-1P*10L	2
190-7	TS-1503041	Socket Head Cap Screw	M6-1 x 15L	2
190-8	TS-1540071	Hex Nut	M10-1.5 x P1	2
190-9	TS-2361101	Lock Washer	M10	2
190-10	HBS814GH-190-10	Carbide Guide		2
190-11	TS-0207041	Socket Head Cap Screw	1/4"-20 x 3/4"L	2
190-12	HBS814GH-190-12	Top Guide Left		1
190-13	TS-1503021	Socket Head Cap Screw	M6-1 x 10	1
191	HBS814GH-191	Eccentric shaft Assembly		2
191-1	HBS814GH-191-1	Eccentric shaft		2
191-2	BB-608ZZ	Bearing	608ZZ	2
191-3	5515607	C-Retaining Ring	S10	2
192	HBS814GH-192	Bearing Shaft Assembly		2
192-1	HBS814GH-192-1	Bearing Shaft		2
192-2	BB-608ZZ	Bearing	608ZZ	2
192-3	5515607	C-Retaining Ring	S10	2
198	HBS814GH-198	Brush Assembly		1
198-1	HBS814GH-198-1	Brush Support		1
198-2	HBS814GH-198-2	Brush		1
198-3	HBS814GH-198-3	Bushing		1
198-4	HBS814GH-285	Washer	10 x 20 x 2	1
198-5	TS-1523031	Socket Set Screw	M6-1 x 10L	1

Index No.	Part No.	Description	Size	Qty
198-6	HBS814GH-198-6	Bushing		1
200	HBS814GH-200	Phillips Pan Head Machine Screw	1/4"-20 x 3/8"L	2
201	TS-0680021	Flat Washer	1/4"	2
202	HBS814GH-202	Blade Guide Assembly		1
202-1	HBS814GH-202-1	Blade Adjustable		1
202-5	TS-1540071	Hex Nut	M10-1.5 x P1	2
202-6	TS-2361101	Lock Washer	M10	2
202-13	HBS814GH-202-13	Carbide Guide		2
202-14	TS-0207041	Socket Head Cap Screw	1/4"-20 x 3/4"L	2
202-15	HBS814GH-202-15	Top Guide Right		1
211	HBS814GH-211	Washer	8 x 18 x 1.5	2
212	TS-0720081	Lock Washer	5/16"	2
213	TS-0208121	Socket Head Cap Screw	5/16"-18 x 2-1/2"L	2
231	HBS814GH-231	Handle Body		1
232	HBS814GH-232	Blade Tension Bar		1
233	HBS814GH-233	Knob		2
234	HBS814GH-234	Indicator plate		1
235	HBS814GH-235	Thrust Rearing	10 x 25 x 2	2
238	HBS814GH-238	Sleeve		1
239	HBS814GH-239	Spring	23 x 12.2 x 1.5t	8
240	HBS814GH-240	Scale		1
241	HBS814GH-241	Rivet	Ø2 x 6	2
249	HBS814GH-249	Spring		1
271A	HBS814GH-271A	Electrical Control Box		1
272	HBS814GH-272	Cable Clamp		2
281	TS-081F052	Pan Head Phillips Screw	1/4"-20 x 3/4"L	8
282	HBS814GH-143	Washer	6.3 x 16 x 1.5	16
283	TS-0570011	Hex Nut	1/4-20	8
284	TS-0060051	Hex Cap Screw	3/8"-16 x 1"L	8
285	HBS814GH-285	Washer	10 x 20 x 2	16
286	TS-0561031	Hex Nut	3/8-16	8
287	HBS814GH-287	Valve Assembly		1
287-1	HBS814GH-287-1	Micro Control Block	PT1/8" x 1/4"	1
287-2	HBS814GH-287-2	Valve	PT1/8" x 1/8"	1
287-3	HBS814GH-287-3	Jet Pipe		1
287-4	HBS814GH-287-4	O-Ring	8 x 4.5 x 1.9	1
290	HBS814GH-105	Cross Socket Head Screw	1/4"-20 x 5/8"L	2
291	HBS814GH-143	Washer	6.3 x 16 x 1.5	2
292	HBS814GH-292	Support Plate		1
400	HBS814GH-400	Limit Plate		1
401	HBS814GH-143	Washer	6 x 16 x 1.5mm	2
402	TS-0207031	Socket Head Cap Screw	1/4”-20 x 5/8”	2
403	TS-0570011	Nut	1/4”	1
404	TS-0208071	Socket Head Cap Screw	5/16”-18 x 1-1/4”	1
405	HBS814GH-405	Bracket		1
406	TS-1550041	Washer	M6	2
407	TS-133032	Pan Head Phillips Screw	M5-0.8 x 10	2
408	HBS814GH-408	Limit Switch		1
409	TS-1550021	Washer	M4	2
410	HBS814GH-410	Pan Head Phillips Screw	M4-0.4 x 30L	2
800	HBS814GH-800	Gear Box Assembly		1
801	HBS814GH-801	Key	6 x 6 x 40L	1
802	HBS814GH-802	Motor	1HP, 110/220V, 60HZ,1PH	1
	HBS814GH-MF	Motor Fan (not show)		1
	HBS814GH-MFC	Motor Fan Cover (not show)		1
803	TS-1505041	Socket Head Cap Screw	M10-1.5 x 30L	4
804	TS-2361101	Lock Washer	M10	4

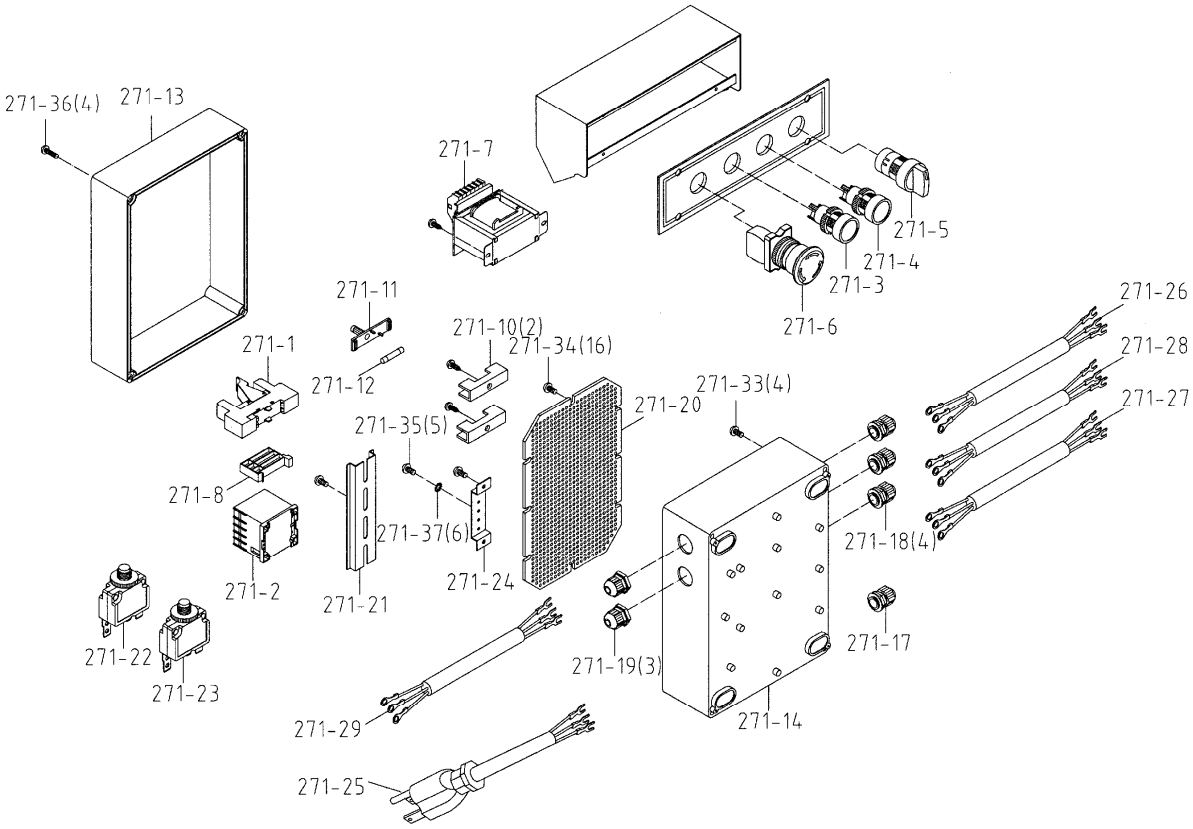
Gear Box Assembly



Parts List: Gear Box Assembly

Index No.	Part No.	Description	Size	Qty
.....	HBS814GH-800	Gear Box Assembly	.....	1
800-1	HBS814GH-800-1	Gear Box Enclosure	.....	1
800-2	HBS814GH-800-2	Gear Box Cover	.....	1
800-3	HBS814GH-800-3	Speed-Changing Gear Shaft	.....	1
800-4	HBS814GH-800-4	Speed Lever	.....	1
800-5	HBS814GH-800-5	Spring	.....	1
800-6	SB-8MM	Steel Ball	8	1
800-7	HBS814GH-800-7	Speed Indicator Dial	.....	1
800-8	TS-1502071	Socket Head Cap Screw	M5-0.8 x 28L	1
800-9	HBS814GH-800-9	Worm Shaft	.....	1
800-10	HBS814GH-800-10	Speed-Changing Rod	.....	1
800-11	HBS814GH-800-11	Speed-Changing Key	.....	1
800-12	HBS814GH-800-12	Torsion Spring	.....	1
800-13	HBS814GH-800-13	Pin	3 x 10L	2
800-14	HBS814GH-800-14	Gear	.....	1
800-15	HBS814GH-800-15	Gear	.....	1
800-16	HBS814GH-800-16	Gear	.....	1
800-17	HBS814GH-800-17	Washer	.....	4
800-18	HBS814GH-800-18	Bushing Bracket	.....	1
800-19	PWBS14-123	C-Retainer Ring	R35	2
800-20	TS-1523011	Socket Set Screw	M6-1 x 6L	2
800-21	HBS814GH-800-29	Bearing	6003LLB	2
800-22	HBS814GH-800-22	Cover	.....	1
800-23	HBS814GH-800-23	Gear Shaft	.....	1
800-24	HBS814GH-800-24	Gear	.....	1
800-25	HBS814GH-800-25	Gear	.....	1
800-26	HBS814GH-800-26	Gear	.....	1
800-27	6291479	Key	5 x 5 x 32L	1
800-28	5513018	C-Retainer Ring	S17	2
800-29	HBS814GH-800-29	Bearing	6003LLB	1
800-30	HBS814GH-800-30	Bearing	6007LLB	1
800-31	HBS814GH-800-31	C-Retainer Ring	R62	1
800-33	HBS814GH-800-33	Oil Seal	62 x 35 x 8	1
800-37	HBS814GH-800-37	Drive Gear Shaft	.....	1
800-38	HBS814GH-800-38	Worm Gear	.....	1
800-39	5519933	C-Retainer Ring	S25	2
800-40	1020A-292	Key	6 x 6 x 20L	2
800-41	HBS814GH-800-41	Bearing	60205LLB	2
800-42	HBS814GH-800-42	Bearing Spacer	.....	1
800-43	HBS814GH-800-43	Cover	.....	1
800-44	HBS814GH-800-44	O-Ring	35 x 29 x 3	2
800-45	TS-1533042	Cross Round Head Screw	M5-0.8 x 13L	3
800-46	HBS814GH-800-46	Plug	PT3/8"	1
800-47	TS-1503051	Socket Head Cap Screw	M6-1 x 20L	4
800-48	HBS814GH-800-48	Vent Plug	.....	1
800-49	HBS814GH-800-49	Scale	.....	1
800-50	HBS814GH-800-50	Rivet	2 x 4	2
800-51	HBS814GH-800-51	Bearing Cover	.....	1
800-52	TS-1533032	Cross Round Head Screw	M5-0.8 x 10L	3
800-53	HBS814GH-800-53	Gear Box Gasket	.....	1
800-54	HBS814GH-800-54	Plug	PT1/4"	1
800-55	HBS814GH-800-55	Oil level gauge	19	1
800-56	HBS814GH-800-56	O- Ring	15.8 x 2.4b	1
800-57	HBS814GH-800-57	C-Retainer Ring	R20	1

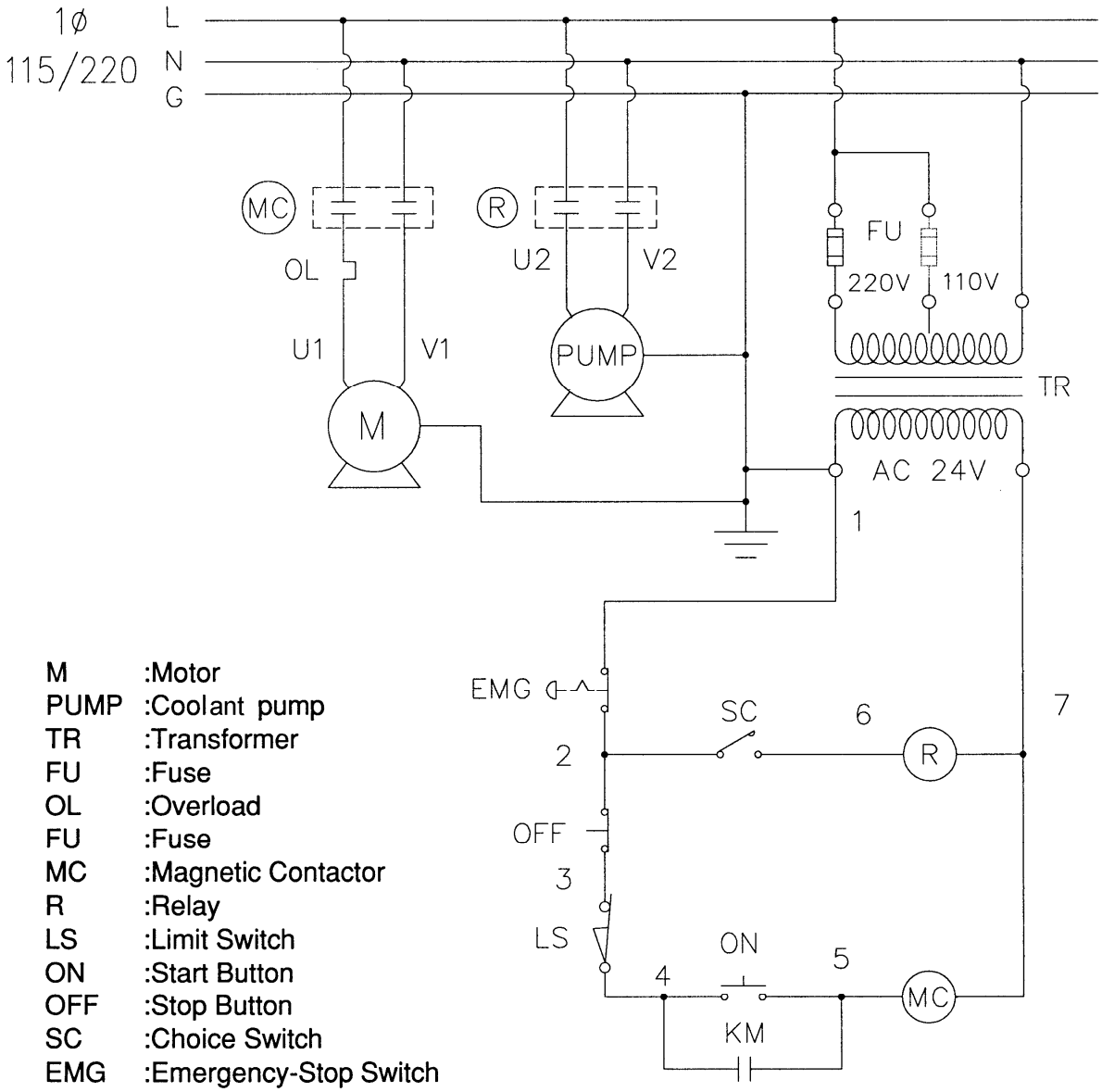
Electrical Control Box Assembly



Parts List: Electrical Control Box Assembly

Index No.	Part No.	Description	Size	Qty
	HBS814GH-271A	Electrical Control Box Assembly		1
271-1	HBS814GH-271-1	Relay		1
271-2	HBS814GH-271-2	Magnetic Contactor		1
271-3	HBS814GH-271-3	Push-Button Start (Green)		1
271-4	HBS814GH-271-4	Push-Button Stop (Red)		1
271-5	HBS814GH-271-5	Selector Switch		1
271-6	HBS814GH-271-6	Emergency-Stop Switch		1
271-7	HBS814GH-271-7	Transformer		1
271-8	HBS814GH-271-8	End Clip Dinn		1
271-10	HBS814GH-271-10	Fuse-Base		2
271-11	HBS814GH-271-11	Fuse-Lid		1
271-12	HBS814GH-271-12	Fuse		1
271-13	HBS814GH-271-13	Cover Electrical Enclosure		1
271-14	HBS814GH-271-14	Electrical Enclosure		1
271-17	HBS814GH-271-17	Cord Grip (18/2 SJT)		1
271-18	HBS814GH-271-18	Cord Grip (14/3 SJT)		4
271-19	HBS814GH-271-18	Cord Grip (14/4 SJT)		3
271-20	HBS814GH-271-20	Mount Grill		1
271-21	HBS814GH-271-21	Din-Rails		1
271-22	HBS814GH-271-22	Auto-Reset		1
271-23	HBS814GH-271-23	Auto-Reset		1
271-24	HBS814GH-271-24	Ground strip		1
271-25	HBS814GH-271-25	Power Cable		1
271-26	HBS814GH-271-26	Motor Cable		1
271-27	HBS814GH-271-27	Limit Cable		1
271-28	HBS814GH-271-28	Pump Cable		1
271-29	HBS814GH-271-29	Control Cable		1
271-33	TS-133032	Phillips Pan Head Machine Screw	M5 × 8	4
271-34	HBS814GH-271-34	Tap Screw	M4 × 8	16
271-35	TS-2284082	Phillips Pan Head Machine Screw	M4 × 8	5
271-36	TS-1532052	Phillips Pan Head Machine Screw	M4 × 15	4
271-37	TS-1550031	Washer	M5	6
271-38	HBS814GH-271-38	Spark Eliminator (not shown)	1μF/120Ω2E/1G30	1

Electrical Connections



M	:Motor
PUMP	:Coolant pump
TR	:Transformer
FU	:Fuse
OL	:Overload
FU	:Fuse
MC	:Magnetic Contactor
R	:Relay
LS	:Limit Switch
ON	:Start Button
OFF	:Stop Button
SC	:Choice Switch
EMG	:Emergency-Stop Switch

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