



Operating Instructions and Parts Manual

Hydraulic Shear

Model SH-6014



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2.0 Safety Instructions

⚠ WARNING

Failure to follow these rules may result in serious personal injury

1. FOR YOUR OWN SAFETY, READ INSTRUCTION MANUAL BEFORE OPERATING THE MACHINE. Learn the machine's application and limitations as well as the specific hazards.
2. Only trained and qualified personnel can operate this machine.
3. Make sure guards are in place and in proper working order before operating machinery.
4. Remove any adjusting tools. Before operating the machine, make sure any adjusting tools have been removed.
5. Keep work area clean. Cluttered areas invite injuries.
6. Overloading machine. By overloading the machine, you may cause injury from flying parts. DO NOT exceed the specified machine capacities.
7. Dressing material edges. Always chamfer and deburr all sharp edges.
8. Do not force tool. Your machine will do a better and safer job if used as intended. DO NOT use inappropriate attachments in an attempt to exceed the machine's rated capacity.
9. Use the right tool for the job. DO NOT attempt to force a small tool or attachment to do the work of a large industrial tool. DO NOT use a tool for a purpose for which it was not intended.
10. Dress appropriately. DO NOT wear loose fitting clothing or jewelry as they can be caught in moving machine parts. Protective clothing and steel toe shoes are recommended when using machinery. Wear a restrictive hair covering to contain long hair.
11. Use eye and ear protection. Always wear ISO approved impact safety goggles. Wear a full-face shield if you are producing metal filings.
12. Do not overreach. Maintain proper footing and balance at all times. DO NOT reach over or across a running machine.
13. Stay alert. Watch what you are doing and use common sense. DO NOT operate any tool or machine when you are tired.
14. Check for damaged parts. Before using any tool or machine, carefully check any part that appears damaged. Check for alignment and binding of moving parts that may affect proper machine operation.

15. Observe work area conditions. DO NOT use machines or power tools in damp or wet locations. Do not expose to rain. Keep work area well lighted. DO NOT use electrically powered tools in the presence of flammable gases or liquids.
16. Blade adjustments and maintenance. Always keep blades sharp and properly adjusted for optimum performance.
17. Keep children away. Children must never be allowed in the work area. DO NOT let them handle machines, tools, or extension cords.
18. Store idle equipment. When not in use, tools must be stored in a dry location to inhibit rust. Always lock up tools and keep them out of reach of children.
19. DO NOT operate machine if under the influence of alcohol or drugs. Read warning labels on prescriptions. If there is any doubt, DO NOT operate the machine.
20. Turn off power before checking, cleaning, or replacing any parts.
21. Be sure all equipment is properly installed and grounded according to national, state, and local codes.
22. Keep all cords dry, free from grease and oil, and protected from sparks and hot metal.
23. Inspect power and control cables periodically. Replace if damaged or bare wires are exposed. Bare wiring can kill! DO NOT touch live electrical components or parts.
24. DO NOT bypass or defeat any safety interlock systems.
25. Keep visitors a safe distance from the work area.

2.1 Electrical Enclosure Disconnect Switch

The main disconnect switch (B) turns power on to the machine when in the "ON" position. If the door handle is turned while the switch is "ON", a safety catch will prevent the door from opening.

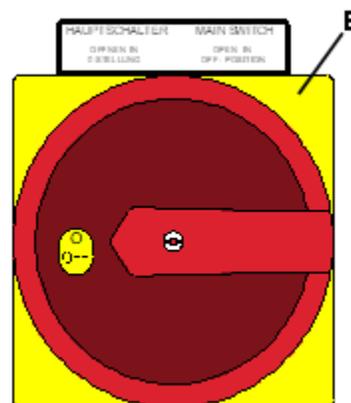


Figure 2-1

⚠️ WARNING

Before opening the door to work on electrical circuits, turn the main disconnect switch "OFF". Also turn off and Lock Out the electrical supply

2.1.1 Hazard Signs

source to this machine. **FAILURE TO FOLLOW THESE INSTRUCTIONS MAY RESULT IN FATAL OR SERIOUS INJURY.**



Figure 2-2

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 machine damage.

⚠️ WARNING

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

⚠️ DANGER

This means that if precautions are not heeded, it will result in serious or fatal, injury.

Save the Instructions

3.0 About This Manual

This manual is provided by Baileigh Industrial, covering the safe operation and maintenance procedures for a Baileigh Model SH-6014 Hydraulic Shear. This manual contains instructions on installation, safety precautions, general operating procedures, maintenance instructions and parts breakdown. Your machine has been designed and constructed to provide consistent, long-term operation if used in accordance with the instructions as set forth in this document.

Technical Support handles questions on setup, operation, schematics, warranty issues, and individual parts needed. Our Technical Support department can be reached at 920-684-4990.

If there are questions or comments, please contact your local supplier or Baileigh Industrial. We can also be reached at our web site: www.baileigh.com.

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

WARNING

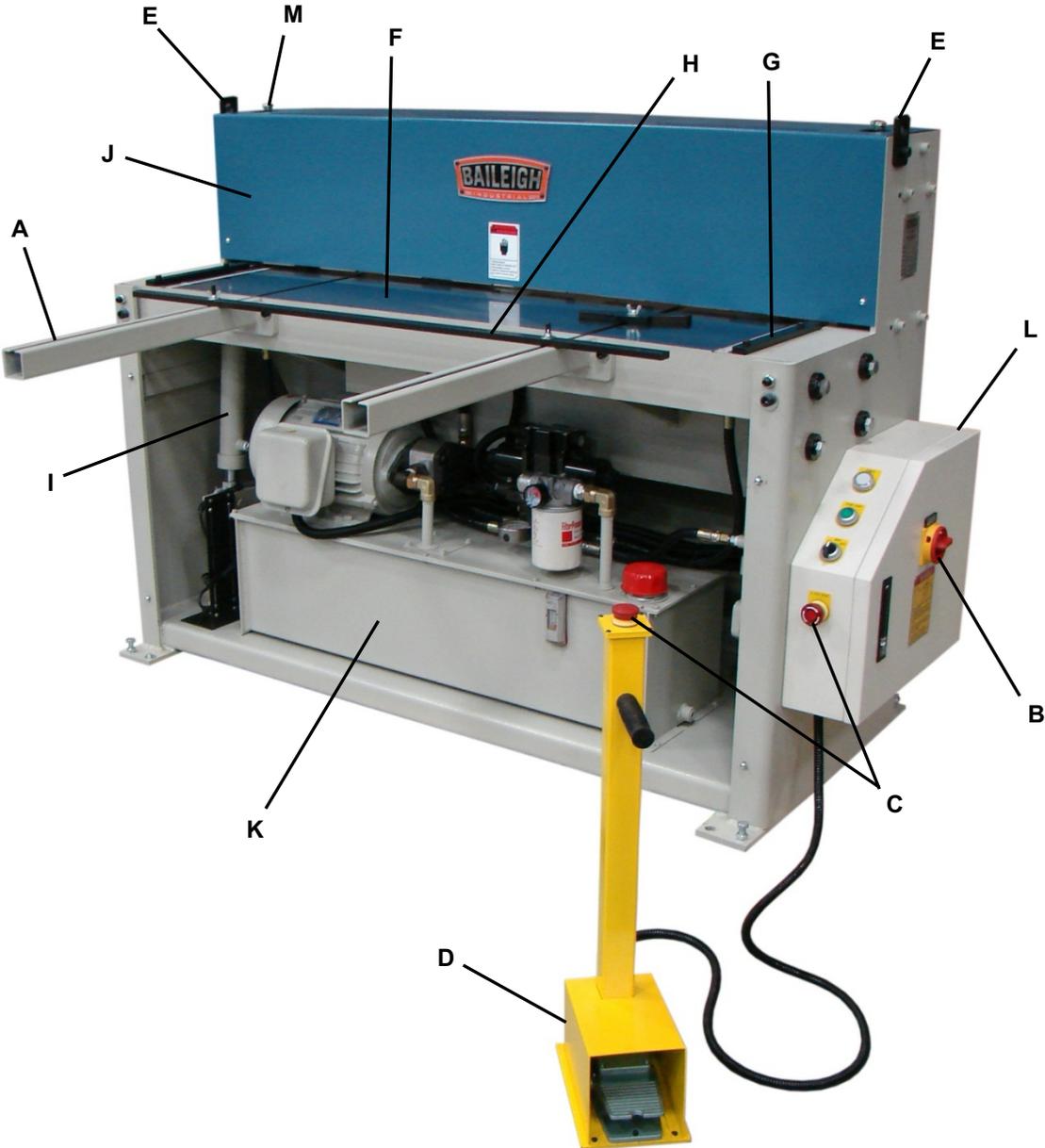
Read and understand the entire contents of this manual before attempting assembly or operation! Failure to comply may cause serious injury!

Register your product online -

<https://baileigh.com/product-registration>

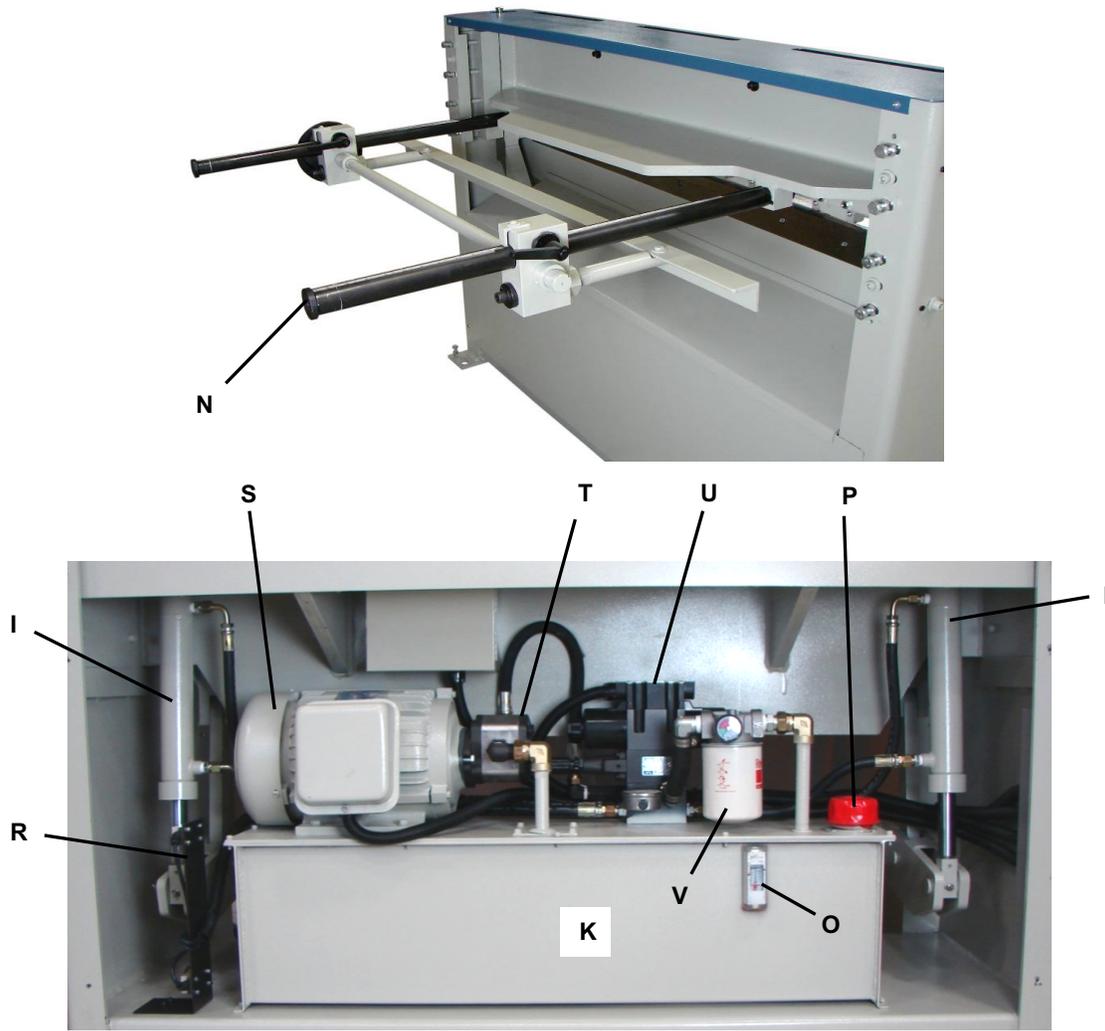


4.0 Product Identification



(shown with front panel removed)

Figure 4-1



(shown with front panel removed)

Figure 4-2

Table 4-1

| Item | Description | Function |
|------|-----------------------|--|
| A | Material support arm | Supports larger sheets of material |
| B | Disconnect switch | Controls main power to the shear |
| C | Emergency stop button | Press to stop all machine functions |
| D | Footswitch pedestal | Houses footswitch and "E"-stop button |
| E | Lifting brackets | Used for lifting machine |
| F | Shear table | For sliding material into shear blades |
| G | Side gauge | Keeps material perpendicular to blade |
| H | Front gauge | Provides a stop for material entering blades |
| I | Hydraulic cylinder | Provides up-down motion for the upper blade |
| J | Hold down cover | Covers hold downs and upper blade travel |
| K | Hydraulic tank | Reservoir for hydraulic oil |
| L | Electrical enclosure | Houses electrical components |
| M | Oiling cap | Access to oiling the top blade slide |
| N | Back gauge | Adjustable angle for stopping material |

| Item | Description | Function |
|------|------------------------|--|
| O | Oil sight gauge | Indicates level of oil in hydraulic tank |
| P | Hydraulic oil fill cap | Remove cap to fill oil tank |
| Q | Transformer enclosure | Houses the transformer |
| R | Limit switches | For adjusting cylinder travel limits |
| S | 3 Hp (2.23Kw) motor | Drives the hydraulic pump |
| T | Hydraulic pump | Used to circulate hydraulic oil to cylinders |
| U | Solenoid valves | Controls the flow of oil to the cylinders |
| V | Oil Filter | Keeps oil in the system clean |

4.1 Electrical Enclosure Switch and Button Functions

POWER INDICATOR LIGHT - When the disconnect switch is turned on, the white light will be lit. (Make sure machine is plugged into correct power source and that both "E"-Stop buttons have been reset.

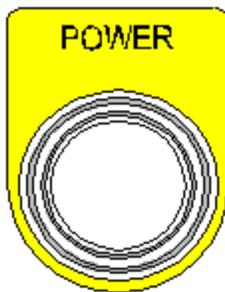


Figure 4-3

PUMP START PUSHBUTTON - When depressed, the green light on the "PUMP START" button will be lit and the pump motor will start. Press the footswitch pedal and the top blade should go down and return to the up position. (when in SIN (singular) mode).

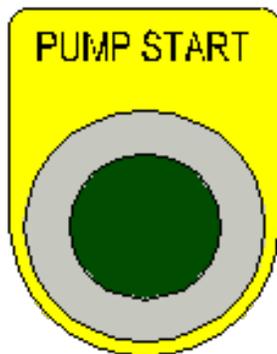


Figure 4-4

CUTTING MODE SELECTOR SWITCH – This is a 3-position selector switch which allows you to pick one of three shearing modes. Pressing (and holding down) the foot pedal in the **SIN** (singular) mode will complete one full shear cycle. In **INCH** mode the top blade can be stepped down gradually. Then hold the pedal down and when it reaches the bottom of the stroke, it will automatically raise up. In **AUTO** mode the upper blade will cycle continuously while holding down the pedal.



Figure 4-5

E-STOP BUTTON – When pressed, either red **E-STOP** button will stop all machine functions. The E-Stop button on the electrical enclosure will light up when pressed. The E-Stop button on the footswitch pedestal does not light up when pressed. Turn either button clockwise (**cw**) to reset.



Figure 4-6

4.2 Manual Back Gauge

The back gauge adjusts the setting of the back gauge dimension to control the size of the pieces dropping behind the blades.

The manual back gauge assembly will need to be attached to the back end of the shear. There are two blocks with holes in them for this purpose. Remove the two bolts and washers (shown) and move the back gauge into position using a suitable lifting device. Slide the shafts into the blocks until they bottom out. If necessary, gently tap them in from side to side. Once in place, secure with the bolts and washers that were removed previously. To use the back gauge, loosen the two adjustable handles which are attached to the guide blocks. By turning the hand wheel you will now be able to move the stop angle into position. The scale and indicator allow you to keep track of that position. Secure with the adjustable handles.

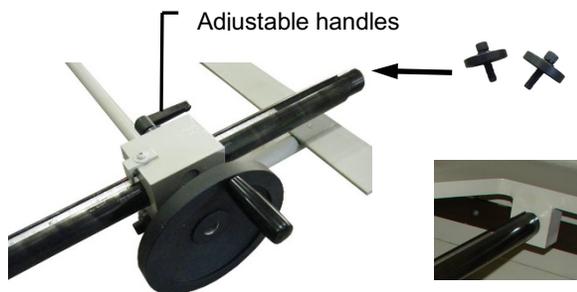


Figure 4-7

4.3 Material Support Arm

CAUTION

When handling large piece parts, you may require assistance in handling the piece as it exits the blades. Failure to adequately support the piece part may result in the piece falling and causing bodily injury.



Figure 4-8

The two material support arms (A) attach to the front of the shear as shown. Remove the capscrews and washers, Position each arm and secure with the washer and capscrew. (Make sure the arms are centered to the table slots and are flush with the top of the table.) The front gauge (H) can now be inserted in the arm slots.

4.4 Connecting Cable to Pedestal

Orientate the fittings and push them together. Turn the threaded ring clockwise (cw) until snug, ensuring a solid electrical connection.



Figure 4-9

4.5 Miter Angle Guide

To use the miter angle guide:

- Loosen the wing nut.
- Lay your piece part against the straight edge.
- Position the miter guide at the angle and distance you required from the shear blades.
- Make the cut.



Figure 4-10

4.6 Overall Dimensions

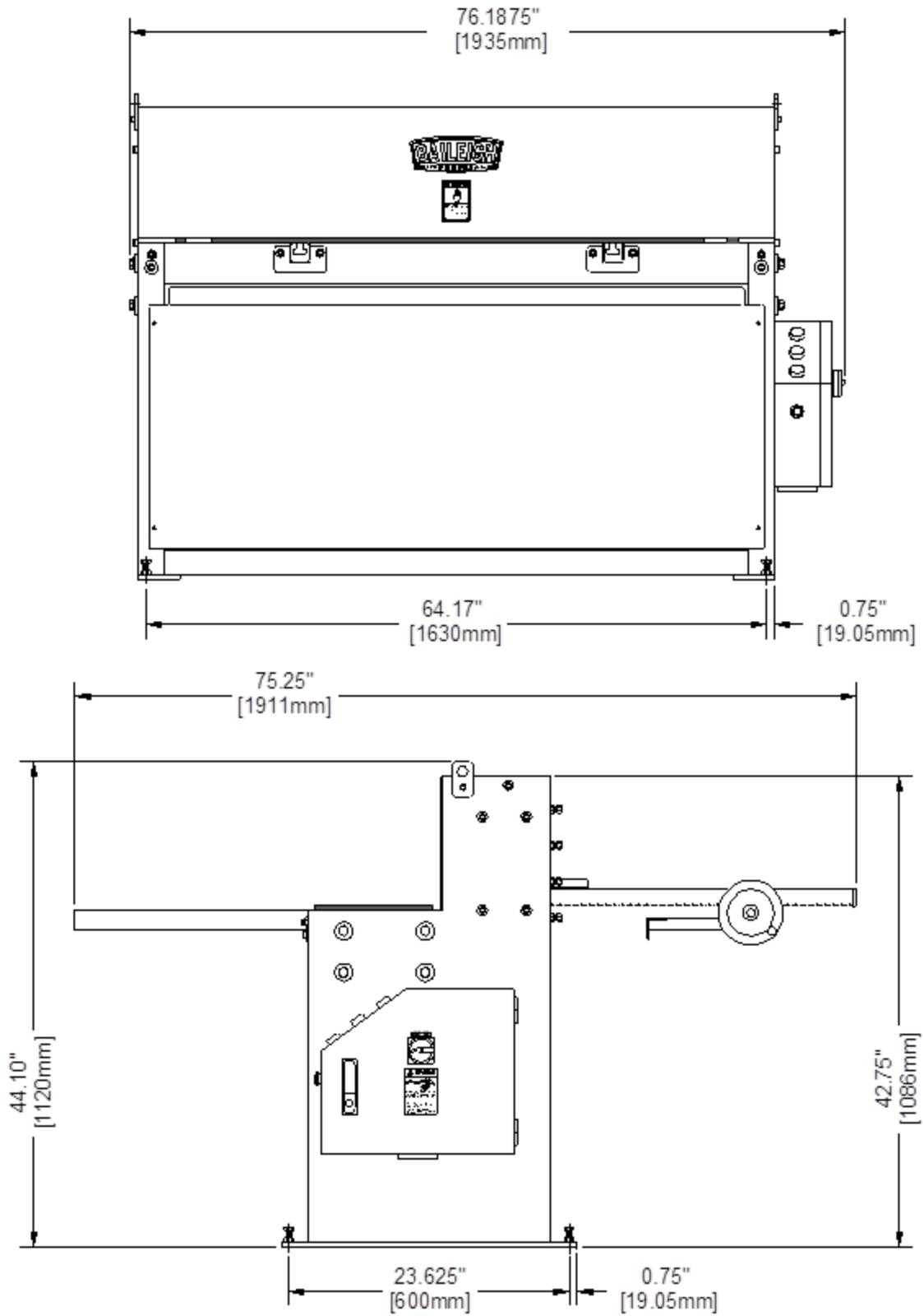


Figure 4-11

5.0 Specifications

Table 5-1

| | |
|---|--|
| Model Number | SH-6014 |
| Stock Number | BA9-1007176 |
| Motor and Electrical | |
| Motor | 3HP (2.23kW) 220V / 3Ph / 60Hz / 12A |
| Power Requirements | 220V / 3Ph / 60Hz |
| General Specifications | |
| Maximum Shear Length | 60" (1524mm) |
| Maximum Material Thickness | 14ga. (1.90mm) mild steel* 18ga. (1.21mm) stainless steel** |
| Minimum Material Thickness | 24ga. (.607mm) |
| Strokes/Minute | 30 |
| Front Gate Length | 24" (610mm) |
| Back Gate Length | 24" (610mm) |
| Blade Angle | 1° |
| Hydraulic Capacity | 17gal (65L) |
| Weights and Dimensions | |
| Shipping Dimensions (L x W x H) | 84" x 36" x 56" (2134 x 914 x 1422mm) |
| Shipping Weight | 3200 lbs. (1452 kg) |
| Based on a material tensile strength of *64000 PSI – mild steel **100000 PSI – stainless steel | |

⚠ WARNING

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

6.0 Setup and Assembly

6.1 Unpacking and Checking Contents

Your Baileigh machine is shipped complete. Separate all parts from the packing material and check each item carefully. Make certain all items are accounted for before discarding any packing material.

⚠ WARNING

SUFFOCATION HAZARD! Immediately discard any plastic bags and packing materials to eliminate choking and suffocation hazards to children and animals.

⚠ WARNING

If any parts are missing, **DO NOT** place the machine into service until the missing parts are obtained and installed correctly.

Contents of Tool Box:

Table 6-1

| Equipment | Qty |
|---|--------|
| Lever Type Grease Gun | 1 pc |
| 300mm Adjustable Wrench | 1 pc |
| 6 x 100mm Phillips Screwdriver | 1 pc |
| Touchup Paint | 3 cans |
| 10 pc Hex Wrenches (1.5 - 2.0 - 2.5 - 3 - 4 - 5 - 5.5 - 6 - 8 - 10mm) | 1 set |



Figure 6-1

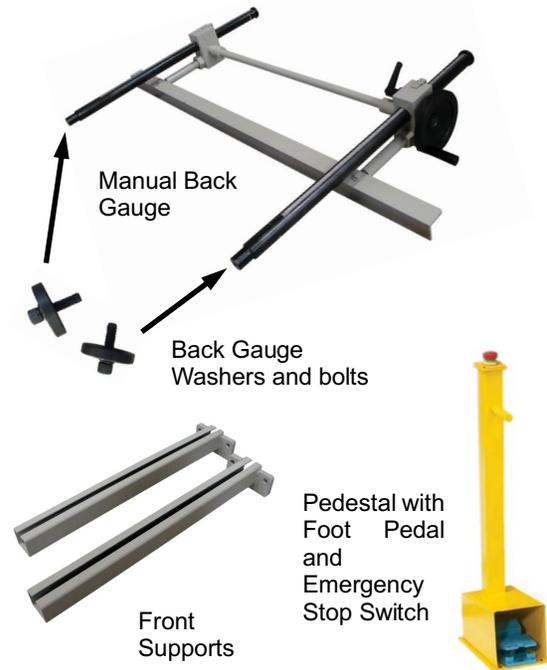


Figure 6-2

6.2 Cleaning

⚠ WARNING

DO NOT USE gasoline or other petroleum products to clean the machine. They have low flash points and can explode or cause fire.

⚠ CAUTION

When using cleaning solvents work in a well-ventilated area. Many cleaning solvents are toxic if inhaled.

Your machine may be shipped with a rustproof waxy coating and/or grease on the exposed unpainted metal surfaces. Fully and completely remove this protective coating using a degreaser or solvent cleaner. Moving items will need to be moved along their travel path to allow for cleaning the entire surface. For a more thorough cleaning, some parts will occasionally have to be removed. **DO NOT USE** acetone or brake cleaner as they may damage painted surfaces.

Follow manufacturer's label instructions when using any type of cleaning product. After cleaning, wipe unpainted metal surfaces with a light coating of quality oil or grease for protection.

IMPORTANT: This waxy coating is NOT a lubricant and will cause the machine to stick and lose performance as the coating continues to dry.

6.3 Transporting and Lifting

NOTICE

Lifting and carrying operations should be carried out by skilled workers, such as a truck operator, crane operator, etc. If a crane is used to lift the machine, attach the lifting chain carefully, making sure the machine is well balanced. Choose a location that will keep the machine free from vibration and dust from other machinery. Keep in mind that having a large clearance area around the machine is important for safe and efficient working conditions.

Follow these guidelines when lifting:

- Always lift and carry the machine with the lifting holes provided at the top of the machine.
- Use lift equipment such as straps, chains, capable of lifting 1.5 to 2 times the weight of the machine.
- Take proper precautions for handling and lifting.
- Check if the load is properly balanced by lifting it an inch or two.
- Lift the machine, avoiding sudden accelerations or quick changes of direction.
- Locate the machine where it is to be installed, then lower slowly until it touches the floor.



Figure 6-3

- The lift truck must be able to lift at least 1.5 – 2 times the machines gross weight.

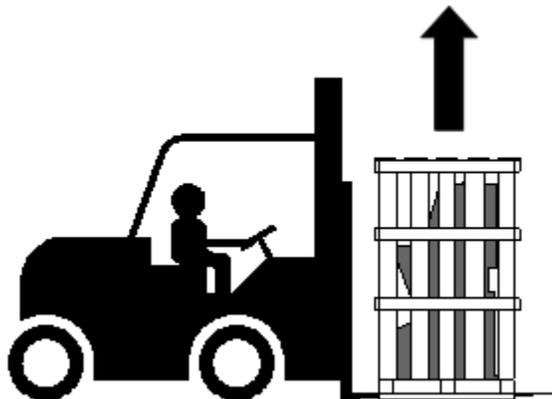


Figure 6-4

- Make sure the machine is balanced. While transporting, avoid rough or jerky motion, and maintain a safe clearance zone around the transport area.
- Use a fork lift with sufficient lifting capacity and forks that are long enough to reach the complete width of the machine.
- Remove the securing bolts that attach the machine to the pallet.
- Approaching the machine from the side, lift the machine on the frame taking care that there are no cables or pipes in the area of the forks.
- Move the machine to the required position and lower gently to the floor.
- Level the machine so that all the supporting feet are taking the weight of the machine and no rocking is taking place.

6.4 Installation

IMPORTANT:

Consider the following when looking for a suitable location to place the machine:

- Overall weight of the machine.
- Weight of material being processed.
- Sizes of material to be processed through the machine.
- Space needed for auxiliary stands, work tables, or other machinery.
- Clearance from walls and other obstacles.
- Maintain an adequate working area around the machine for safety.
- Have the work area well illuminated with proper lighting.
- Keep the floor free of oil and make sure it is not slippery.
- Remove scrap and waste materials regularly, and make sure the work area is free from obstructing objects.
- If long lengths of material are to be fed into the machine, make sure that they will not extend into any aisles.
- **LEVELING:** The machine should be sited on a level, concrete floor. Provisions for securing it should be in position prior to placing the machine. The accuracy of any machine depends on the precise placement of it to the mounting surface.
- **FLOOR:** This machine distributes a large amount of weight over a small area. Make certain that the floor is capable of supporting the weight of the machine, work stock, and the operator. The floor should also be a level surface. If the unit wobbles or rocks once in place, be sure to eliminate by using shims.

- **WORKING CLEARANCES:** Take into consideration the size of the material to be processed. Make sure that you allow enough space for you to operate the machine freely.
- **POWER SUPPLY PLACEMENT:** The power supply should be located close enough to the machine so that the power cord is not in an area where it would cause a tripping hazard. Be sure to observe all electrical codes if installing new circuits and/or outlets.

6.4.1 Anchoring the Machine

- Once positioned, anchor the machine to the floor, as shown in the diagram. Use bolts and expansion plugs or sunken tie rods that connect through and are sized for the holes in the base of the stand.
- This machine requires a solid floor such as concrete at a minimum of 4" (102mm) thick. 6" (153mm) minimum is preferred.

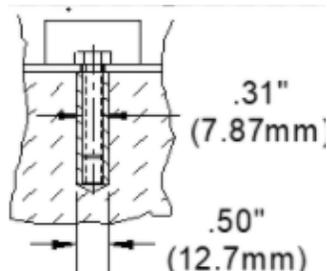


Figure 6-5

6.4.2 Tank Filling

The hydraulic oil is the primary medium for transmitting pressure and also must lubricate the running parts of the pump.

After installation of the machine and before machine startup, bring the oil level up to 90% of capacity. Refer to any labels or marking affixed to the outside of the machine, if none exist, use SHELL BRAND #46 or #68 hydraulic oil or an equivalent with similar specifications. (Based upon location temperature and availability.)

Verify that any cylinder rams are in the retracted position to prevent overfilling of the tank. Recheck the oil level after the first few hours of operation and again after the first full week of operation.

A shortage of hydraulic oil can cause hydraulic system breakdown and damage to major mechanical parts due to overheating.

7.0 Electrical Connections

⚠ WARNING

Baileigh Industrial is not responsible for any damage caused by wiring up to an alternative 3-phase power source other than direct 3-phase. If you are using an alternate power source, consult a certified electrician or contact Baileigh Industrial prior to energizing the machine.

⚠ CAUTION

HAVE ELECTRICAL UTILITIES CONNECTED TO MACHINE BY A CERTIFIED ELECTRICIAN!

Check if the available power supply is the same as listed on the machine nameplate.

⚠ WARNING

Make sure the grounding wire (green) is properly connected to avoid electric shock. **DO NOT** switch the position of the green grounding wire if any electrical plug wires are switched during hookup.

7.1 Power Specifications

Your machine is wired for 220 volts, 60hz alternating current. Before connecting the machine to the power source, make sure the power source is OFF.

Before switching on the power, you must check the voltage and frequency of the power to see if they meet with the requirement, the allowed range for the voltage is $\pm 5\%$, and for the frequency is $\pm 1\%$.

7.2 Considerations

- Observe local electrical codes when connecting the machine.
- The circuit should be protected with a time delay fuse or circuit breaker with an amperage rating slightly higher than the full load current of machine.
- A separate electrical circuit should be used for your machines. Before connecting the motor to the power line, make sure the switch is in the "OFF" position and be sure that the electric current is of the same characteristics as indicated on the machine.
- All line connections should make good contact. Running on low voltage will damage the motor.
- 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 machine is equipped with an electric cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into a matching outlet that is properly installed and grounded in accordance with all local codes and ordinances.

⚠ WARNING

In all cases, make certain the receptacle in question is properly grounded. If you are not sure, have a qualified electrician check the receptacle.

- Improper connection of the equipment-grounding conductor can result in 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.
- Repair or replace damaged or worn cord immediately.

7.3 Power Cord Connection

1. Unlock and open the electrical enclosure door.
2. Insert a cord / cable fitting into an open hole in the electrical enclosure to grip the power cord (supplied by customer).
3. Route the power cord through the newly installed fitting and into the electrical enclosure.
 - a. Route the power cord so that it will NOT become entangled in the machine in any way.
 - b. Route the cord to the power supply in a way that does NOT create a trip hazard.
4. Connect the three power wires to terminals **R**, **S**, & **T**. Connect the ground wire (typically green) to the “**E**” (Safety Ground) terminal.

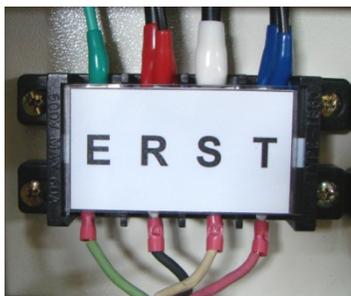


Figure 7-1

5. Check for correct rotation of motor and pump.
6. Check that the power cord has not been damaged during installation.

7.4 Check for Correct Rotation of the Motor

1. Close the electrical enclosure door.
2. With power connected and the main disconnect turned ON, the power light on the control panel will be lit.

3. Verify that both “E”-STOP buttons are in the released / up position.
4. Turn the cutting mode selector switch to (**SIN**).
5. Press the green pump start button and briefly step on the footswitch. The shear blade should come down. If not, disconnect power to the machine, and switch the **R & T** wires. **DO NOT** move the ground wire **E**. **Improper rotation can severely damage the hydraulic pump.**

8.0 Blade Clearance

The blade gap on the shear was set at the factory. At this setting it will shear mild steel up to 14ga. (1.897mm) and stainless steel up to 18ga. (1.214mm). To measure the blade gap, gradually lower the top blade and measure the gap going from left to right while facing the rear of the machine. The gap should be .003” (.076mm) with the blades perfectly parallel all the way across the cutting edges.

Table 8-1

| Gauge | Standard Steel Thickness | Aluminum Thickness | Knife Blade Clearance |
|-------|--------------------------|---------------------|------------------------------|
| 3 | 0.2391 (6.073mm) | 0.2294 (5.827mm) | .010”-.018” (.25-.45mm) |
| 4 | 0.2242 (5.695mm) | 0.2043 (5.189mm) | .009”-.013” (.23-.33mm) |
| 5 | 0.2092 (5.314mm) | 0.1819 (4.620mm) | .009”-.013” (.23-.33mm) |
| 6 | 0.1943 (4.935mm) | 0.162 (4.115mm) | .009”-.013” (.23-.33mm) |
| 7 | 0.1793 (4.554mm) | 0.1443 (3.665mm) | .008”-.011” (.20-.28mm) |
| 8 | 0.1644 (4.176mm) | 0.1285 (3.264mm) | .007”-.010” (.17-.25mm) |
| 9 | 0.1495 (3.797mm) | 0.1144 (2.906mm) | .006”-.009” (.15-.23mm) |
| 10 | 0.1345 (3.416mm) | 0.1019 (2.588mm) | .006”-.009” (.15-.23mm) |
| 11 | 0.1196 (3.038mm) | 0.0907 (2.304mm) | .004”-.008” (.10-.20mm) |
| 12 | 0.1046 (2.657mm) | 0.0808 (2.052mm) | .004”-.008” (.10-.20mm) |
| 13 | 0.0897 (2.278mm) | 0.072 (1.829mm) | .003”-.006” (.076-.152mm) |
| 14 | 0.0747 (1.897mm) | 0.0641 (1.628mm) | .003”-.006” (.076-.152mm) |
| 15 | 0.0673 (1.709mm) | 0.0571 (1.450mm) | .003”-.006” (.076-.152mm) |
| 16 | 0.0598 (1.519mm) | 0.0508 (1.290mm) | .002”-.005” (.05-.127mm) |
| 17 | 0.0538 (1.367mm) | 0.0453 (1.151mm) | .002”-.005” (.05-.127mm) |

| Gauge | Standard Steel Thickness | Aluminum Thickness | Knife Blade Clearance |
|-------|--------------------------|---------------------|------------------------------|
| 18 | 0.0478 (1.214mm) | 0.0403 (1.024mm) | .002"-.004" (.05-.10mm) |
| 19 | 0.0418 (1.062mm) | 0.0359 (0.912mm) | .002"-.004" (.05-.10mm) |
| 20 | 0.0359 (0.912mm) | 0.032 (0.813mm) | .002"-.004" (.05-.10mm) |
| 21 | 0.0329 (0.836mm) | 0.0285 (0.724mm) | .002"-.004" (.05-.10mm) |
| 22 | 0.0299 (0.759mm) | 0.0253 (0.643mm) | .002"-.004" (.05-.10mm) |
| 23 | 0.0269 (0.683mm) | 0.0226 (0.574mm) | .001"-.003" (.025-.076mm) |
| 24 | 0.0239 (0.607mm) | 0.0201 (0.511mm) | .001"-.003" (.025-.076mm) |

Under no circumstances do you want the blades making contact with each other as this can cause blade breakage as well as premature dulling of the cutting edges.

Note: This is a general guide for setting the blade gap. Your specific settings may change based upon several factors regarding specific material and other machine settings and conditions. This is based upon a general guideline of blade gap is equal to 6.5%-7% of material thickness.

9.0 Shearing Strength of Materials

- How to use this table: The shear is rated 14ga. (.0747") in mild steel. What thickness can it cut of other materials? $(.0747) \times (\text{material factor}) = \text{materials thickness}$.

Table 9-1

| Material | TONS/SQ. IN. | Factor |
|---|--------------|--------|
| Mild Steel (.25 Carbon) | 25 | 1.00 |
| Mild Steel (.50 Carbon) | 30 | 0.83 |
| Stainless Steel | 38 | 0.65 |
| Boiler Plate | 30 | 0.83 |
| Spring Steel (1.99 Carbon) | 42 | 0.60 |
| Tool Steel - Not Tempered (1.20 Carbon) | 45 | 0.56 |
| Tool Steel - Tempered (1.20 Carbon) | 95 | 0.26 |
| Nickel Steel (0.5% Nickel) | 41 | 0.61 |
| Aluminum Sheet | 10 | 2.50 |
| Brass | 13 | 1.92 |

| Material | TONS/SQ. IN. | Factor |
|--------------------------|--------------|--------|
| Copper | 12.5 | 2.00 |
| Lead | 1.5 | 16.67 |
| Tin - Coated Sheet Steel | 25 | 1.00 |
| Zinc | 8.5 | 2.94 |
| Galvanized Steel Sheet | 25 | 1.00 |

10.0 Shearing Operation

⚠ WARNING

Always wear proper eye protection with side shields, safety footwear, and leather gloves to protect from burrs and sharp edges.

⚠ WARNING

The shearing blade poses an amputation hazard. Make sure no body part or clothing is near the specific hazard. Failure to follow this warning could result in severed or crushed fingers.

- When planning your cut, either scribes a line on the material or use the side scale which measures the distance to the blade.
- The scale is graduated in both inches and millimeters.
- If you have a scribed line, use the slot indicated in (fig. 10-1) to sight the line to the edge of the blade.

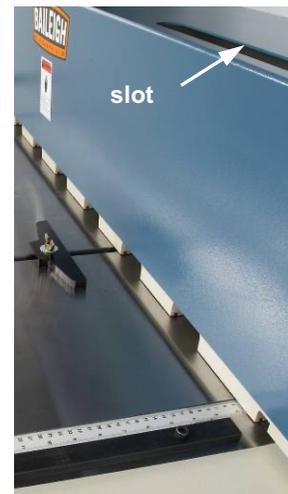


Figure 10-1

- In both instances, use the side guide to square the material to the blade.
- After the material is lined up, step on the foot pedal to make the cut.
- If you are making multiple pieces of the same length, set the rear stop to the length needed.

- If the material exceeds the length of the extension arms, be sure and provide additional support.

10.1 Shearing Tips

- To achieve the best results, never shear a piece narrower than 8 times the thickness of the material. An example would be a 1/2" (12.7mm) strip of 16 ga. (.059") (1.5mm) mild steel.
- Keep the blade gap as narrow as possible. The blade gap is the space between the blades passing each other during a stroke. Tighter blade gaps cut material without rolling it over. Using a blade gap too narrow for thicker material prevents the material from moving between the blades and stalls the cut. On the other hand, a gap too wide will cause the material to fold over. The wide gap for thinner material does not set the blades close enough to cleanly cut the material.

11.0 Shear Operating Procedure

11.1 Start Machine Power

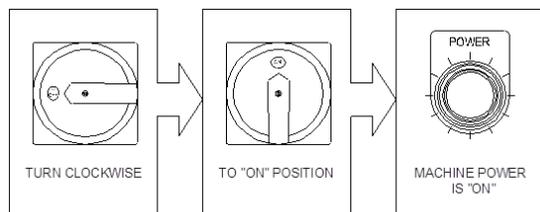


Figure 11-1

11.2 Start Hydraulic Pump Motor

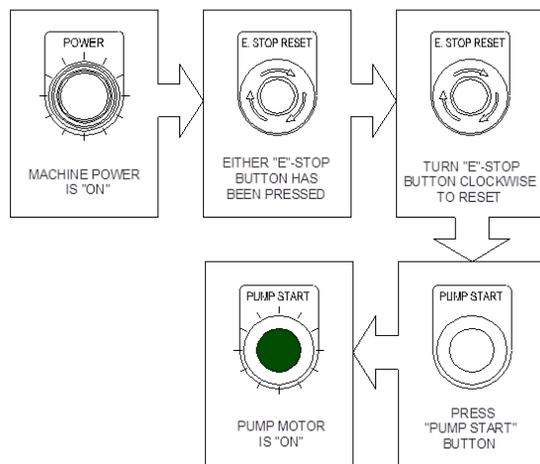


Figure 11-2

11.3 Single Mode

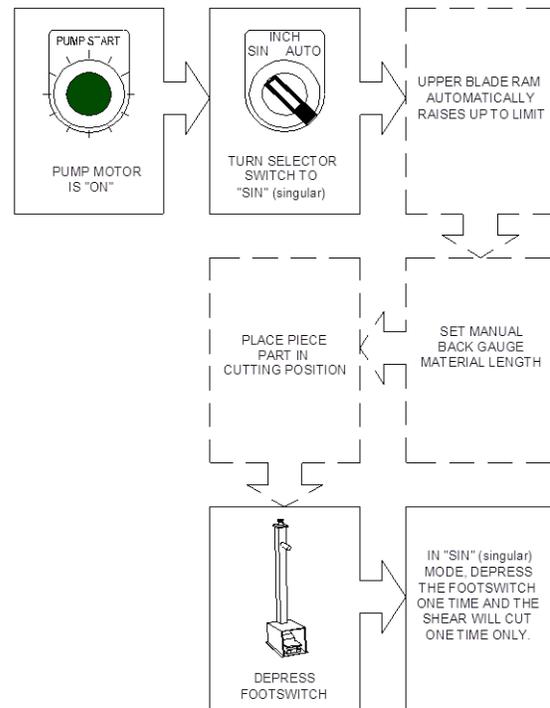


Figure 11-3

11.4 Auto Mode

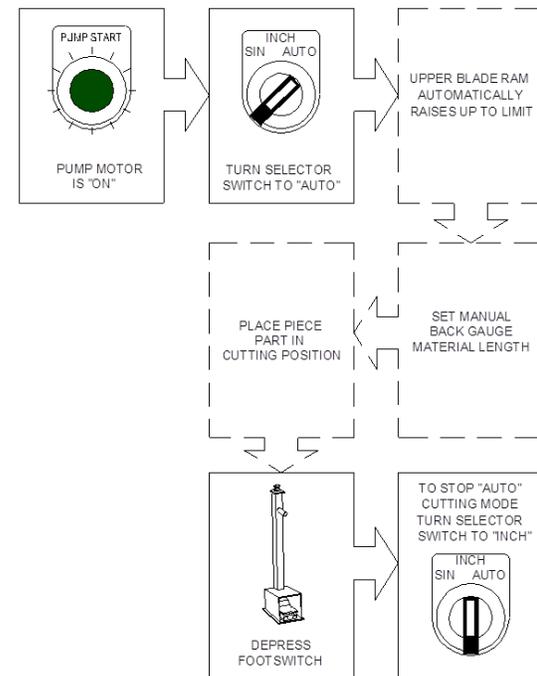


Figure 11-4

11.5 Turning Off Machine Power

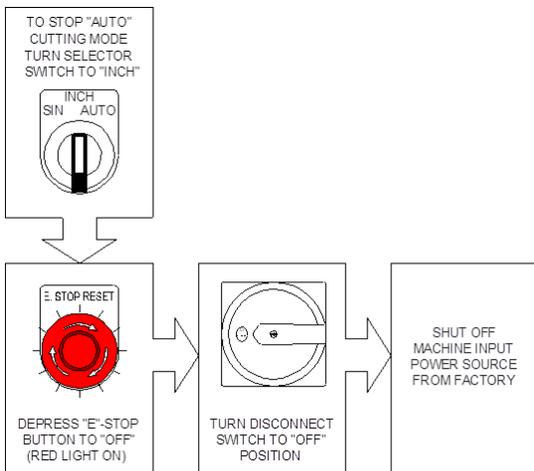


Figure 11-5

12.0 Maintenance

⚠ WARNING

Make sure the electrical disconnect is OFF before working on the machine.

⚠ WARNING

Maintenance should be performed on a regular basis by qualified personnel.

⚠ WARNING

Always follow proper safety precautions when working on or around any machinery.

12.1 Initial Start Up

- Check for any unsafe conditions and fix immediately.
- Check that all nuts and bolts are properly tightened.
- Fill hydraulic tank with oil.
- Test run the shear for proper motor rotation.
- Test that the emergency stop button will stop machine operation.

12.2 Daily Maintenance

- Check daily for any unsafe conditions and fix immediately.
- Check that all nuts and bolts are properly tightened.
- Inspect the power plug and cord.
- Check the foot switch cable for any loosening or damage.
- Keep area around machine clear of debris.

12.3 Weekly Maintenance

- Make sure limit switches are secure and adjusted properly.
- Check hydraulic hoses and fittings for leakage.
- Make sure grease fitting locations are kept lubricated.
- Check back gauge components for lubrication.
- On a weekly basis clean the machine and the area around it.
- Lubricate threaded components and sliding devices.
- Apply rust inhibitive lubricant to all non-painted surfaces.

Note: Proper maintenance can increase the life expectancy of your machine.

12.4 Lubrication Locations

Located at each end on the top of the shear are two oil fill caps. Keep filled with oil such as Mobil Vactra #2 way oil (or equivalent). The wick inside the fitting helps to slowly distribute the oil to the slide ways.



Figure 12-1

A grease fitting as shown in the figure at right, is located at both ends of the shear. They provide grease for lubricating the shaft which rotates as the slide goes up and down.

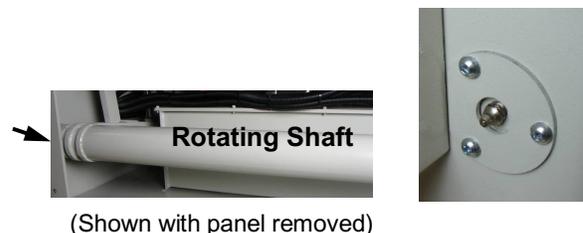


Figure 12-2

Grease the trunnion which is located at the end of the rod on each cylinder.

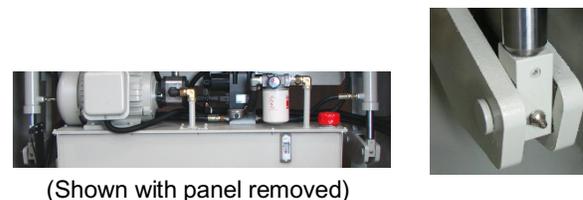


Figure 12-3

12.5 Hydraulic Oil

The hydraulic oil is the primary medium for transmitting pressure and also must lubricate the running parts of the pump.

After installation of the machine and before machine startup, bring the oil level up to 90% of capacity. A shortage of hydraulic oil can cause hydraulic system breakdown and damage to major mechanical parts due to overheating.

1. Use SHELL BRAND #46 or #68 hydraulic oil or an equivalent with similar specifications. (Based upon location temperature and availability.)
2. Keep hydraulic reservoir filled to 90% of capacity.
3. **DO NOT** rely totally on the oil gauge as they can sometimes indicate an incorrect level reading. Do a visual inspection with the oil fill cap removed as well.
4. A shortage of hydraulic oil will cause hydraulic system breakdown to major mechanical components due to overheating.
5. Change the hydraulic oil every 6 months along with the oil filter.

12.6 Oil Change and Disposal

Change the oil in the hydraulic tank after the first 6 months, and every 12 months after that. Clean the filter basket located under the fill cap before refilling the tank. Used oil products must be disposed of in a proper manner following your local regulations.

12.7 Filter and Oil Change

Take off and clean the suction strainer inside the hydraulic tank every time the oil is changed. The first oil change should be performed after approximately 600 operating hours. Further oil changes are needed every 1200 operating hours. An outlet (**W**) is located at the base of the tank for draining the oil. Dispose of dirty oil following local ordinances in your area. Attach the cleaned suction strainer after draining the oil. (If the strainer is damaged or clogged it must be replaced to avoid damage to the pump).



Figure 12-4

Check to make sure the hydraulic oil level is in the range as indicated on the oil level sight gauge (**O**). Keep close to the high mark.



Figure 12-5

Replace the spin-on filter (**V**) at each oil change with the same or equivalent filter.



Figure 12-6

Take off the fill cap (**P**) and remove the plastic strainer basket (**X**). Clean thoroughly before replacing and filling the tank with Shell Tellus 68 or equivalent hydraulic oil.

13.0 Replacing the Shear Blades

The blades on the Baileigh SH-6014 have multiple usable edges. If you have not already used both cutting edges on the top blade you can rotate it end for end to expose a sharp edge. The bottom blade has four usable edges. After all edges have been used, the blade can be reground or replaced.

Contact Baileigh Industrial at (920.684.4990) for replacement blades.

13.1 To Rotate or Replace the Top Blade

1. Raise the top blade to the up position.
2. Shut down and lockout power to the machine.

⚠ CAUTION

Always wear leather gloves when handling the blade.

3. Remove the capscrews and washers that hold the blade in place.
4. Turn the blade end for end if the other side is sharp, or replace the blade.
5. When the blade is in position, secure with the bolts and washers that were removed in step 3.

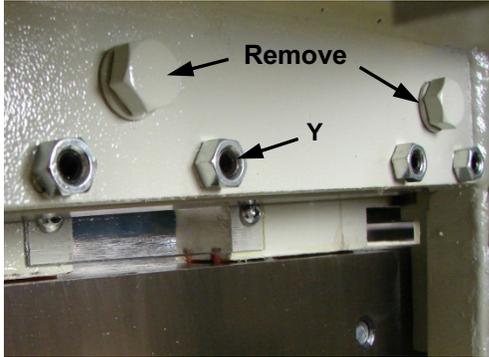


Figure 13-1

6. Set the gap to .005" (.12mm) making sure the blades are parallel along the entire length.
7. The blade gap adjustment screws (Y) were preset at the factory. **ADJUST ONLY IF ABSOLUTELY NECESSARY.** To adjust, loosen the hex nut and turn the setscrew clockwise (cw) to close the blade gap and counterclockwise (ccw) to open the gap. After adjustment re-tighten the hex nut.
8. Blade clearances can also be adjusted by moving the table IN or OUT. To push the table IN (closing the blade gap), loosen the socket bolt (Z). Loosen the nut on socket screw (AA) and turn the setscrew clockwise (cw). To pull the table back (opening the blade gap), back-off setscrew (AA) and turn socket bolt (Z) clockwise (cw).

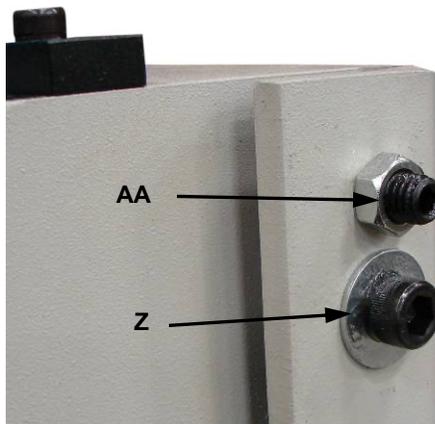


Figure 13-2

9. Check clearances after tightening the table bolts.

13.2 To Rotate or Replace the Bottom Blade

⚠ WARNING

Always wear proper eye protection with side shields, safety footwear, and leather gloves to protect from burrs and sharp edges.

⚠ WARNING

The shearing blade poses an amputation hazard. Make sure no body part or clothing is near the specific hazard. Failure to follow this warning could result in severed or crushed fingers.

1. Raise the top blade to the up position.
2. Shut down and lockout power to the machine.
3. Remove the front panel of the machine.
4. To remove the blade, take out the (nine) hex bolts (AB) and washers as shown below.

⚠ CAUTION

Make sure there is someone on the back side of the machine to handle the blade so it does not fall and get damaged.

5. Turn the blade if you have not already used all four cutting edges, or replace the blade with a new one.
6. When in position, secure the blade with the bolts and washers. The bottom blade has no adjustment.

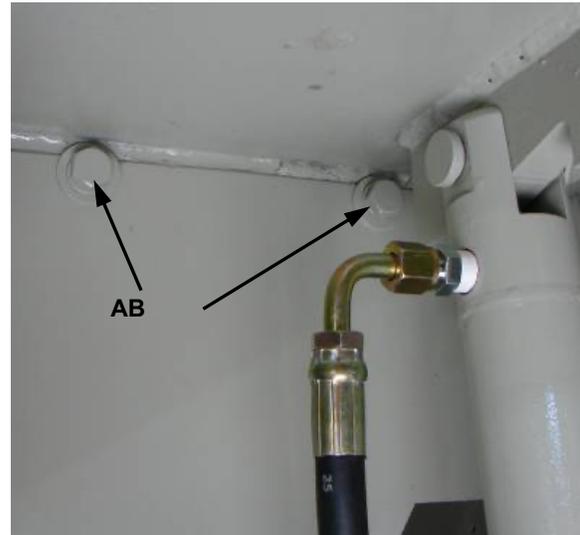


Figure 13-3

7. Check that the clearance between the upper and lower blades is at .005" (.12mm) and that the blades are parallel to each other along the full length.

8. The blade gap adjustment screws (Y) were preset at the factory. **ADJUST ONLY IF ABSOLUTELY NECESSARY.** To adjust, loosen the hex nut and turn the setscrew clockwise (**cw**) to close the blade gap and counterclockwise (**ccw**) to open the gap. After adjustment re-tighten the hex nut.
9. Blade clearances can also be adjusted by moving the table IN or OUT. To push the table IN (closing the blade gap), loosen the socket bolt (Z). Loosen the nut on socket screw (AA) and turn the setscrew clockwise (**cw**). To pull the table back (opening the blade gap), back-off setscrew (AA) and turn socket bolt (Z) clockwise (**cw**).

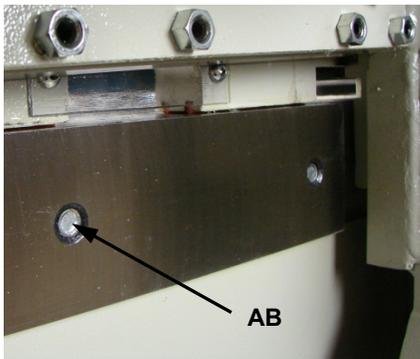


Figure 13-4

10. Check clearances after tightening the table bolts.

14.0 Blade Care

The blades are made from High Carbon / High-Chrome Alloy tool steel. The multiple shearing edges available will prolong blade life considerably. NEVER allow the blades to contact one another. Lubricate the blade with a light oil when shearing stainless steel or galvanized material. Brush oil on the lower blade as the upper blade will pick up oil during the shearing cycle. It is very important to keep the blades sharp. Turn or change the blades when you begin to notice a burr on the sheared piece part. It is a good idea to keep a spare set of blades on hand so as not to hold up your operation.

15.0 Ram Ways Adjustment

The ram ways are adjustable to compensate for wear which can be expected after years of service. Premature wear can occur if the machine is not properly leveled which causes a twisting action.

The proper running clearance should be from 0.001" - 0.002" (0.038 - 0.050mm). This clearance should be checked periodically and maintained to extend blade life and to hold accuracy of the shear.

15.1 Adjustment Procedure

1. Shut down and lockout power to the machine.
2. Loosen the jam nuts on all four hex bolts.
3. Turn in the two center hex bolts clockwise (**cw**) to take up any excess play.



Figure 15-1

4. Turn in the top and bottom hex bolts clockwise (**cw**) until they strike the wear plate, and then back off 1/16 of a turn counterclockwise (**ccw**).
5. Back-off on the two center hex bolts until they come in line with the top and bottom hex bolts.
6. Tighten all four jam nuts.
7. Using a feeler gauge between the wear plate and the ram guide check for a clearance of 0.001" - 0.002" (0.038 - 0.050mm). Adjust if necessary.
8. Repeat this procedure for the opposite side of the shear.

16.0 Finger Guard

⚠ WARNING

DO NOT remove the clear plastic finger guards under any circumstances. They are provided to keep your fingers away from the blades. NEVER put any part of your body under or behind this guard and in the path of the hold downs which can crush.

17.0 Material Selection

CAUTION

It must be determined by the customer that materials being processed through the machine are NOT potentially hazardous to operator or personnel working nearby.

When selecting materials keep these instructions in mind:

- Material must be clean and dry. (without oil)
- Material should have a smooth surface so it processes easily.
- Dimensional properties of material must be consistent and not exceed the machine capacity.
- Chemical structure of material must be consistent.
- Buy certificated steel from the same vendor when possible.

18.0 Troubleshooting



WARNING

Make sure the electrical disconnect is OFF before working on the machine.

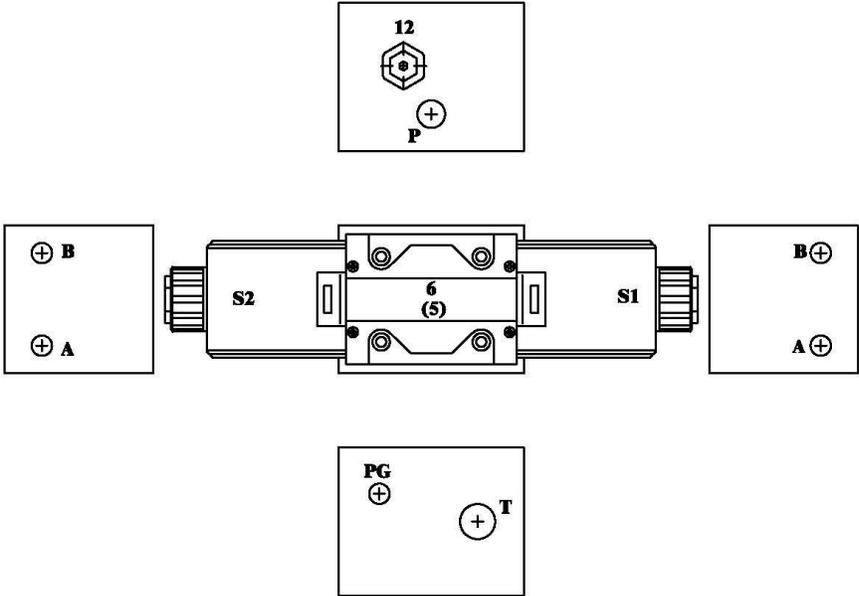
Table 18-1

| Fault | Probable Cause | Remedy |
|---|--|---|
| BURR ON SHEARED EDGE | Dull blades. | Turn or sharpen blades. |
| | Excessive blade clearance. | Adjust blade gap. |
| | Excessive clearance in ram ways. | Make adjustment to reduce clearance. |
| | Poor grade of material. | Select vendor with better quality material that is consistent. |
| BLADE CAMBER, TWIST, and BOW | Bottom blade not level with table. | Adjust blade with shims after grinding. |
| | Not enough hold down pressure. | Check springs and hold down pads. |
| | Dull blade. | Turn or change blade. |
| KICK BACK of PIECE PART | Bottom blade not level with table. | Adjust blade with shims after grinding. |
| | Not enough hold down pressure. | Check springs and hold down pads. |
| | Dull blade. | Turn or change blade. |
| PUMP MOTOR WILL NOT RUN | No electrical power to the pump motor. | Check power at source, disconnect off, fuses blown or missing. Reset E-stop |
| | Motor burned out. | Replace motor. |
| | Motor starter does not close. | Check fuses, start switch, stop switch, motor starter coil, and overloads. |
| PUMP MOTOR RUNS SLOW | One fuse open. | Replace open fuse. |
| PUMP MOTOR RUNS BUT SHEAR DOES NOT OPERATE | Electrical circuit open | Check function of foot switch, control relay contacts, down solenoid coil. |
| | Hydraulic circuit | Check for stuck valve, damaged pump, low pressure, oil bypassing cylinders. |
| BLADE GOES DOWN BUT WILL NOT RETURN TO UP POSITION WHEN FOOT SWITCH IS RELEASED | Defective limit switch. | Replace defective limit switch. |
| BLADE GOES DOWN BUT RETURNS SLOWLY TO THE UP POSITION. | No hydraulic pressure to lower cylinder. | Check for stuck valve. |
| | Defective limit switch. | Replace defective limit switch. |
| | Defective "UP" solenoid. | Replace solenoid coil or complete solenoid switch. |

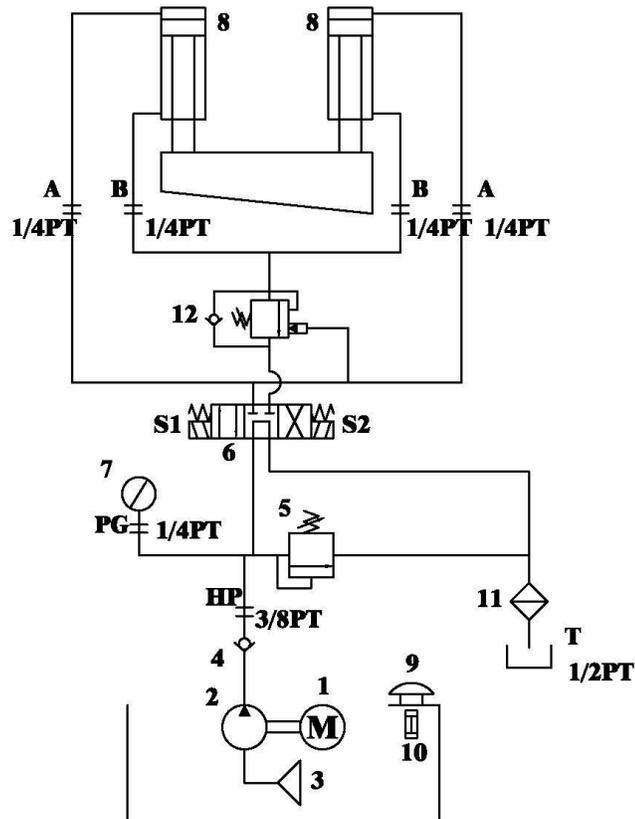
19.0 Hydraulic Diagram

19.1.1 Manifold Block

| | | | |
|-----------------|----------|-----------|-----------|
| M | S | S1 | S2 |
| CUTTING | | ▲ | |
| BLAND UP | | | ▲ |



19.1.2 Hydraulic Schematic



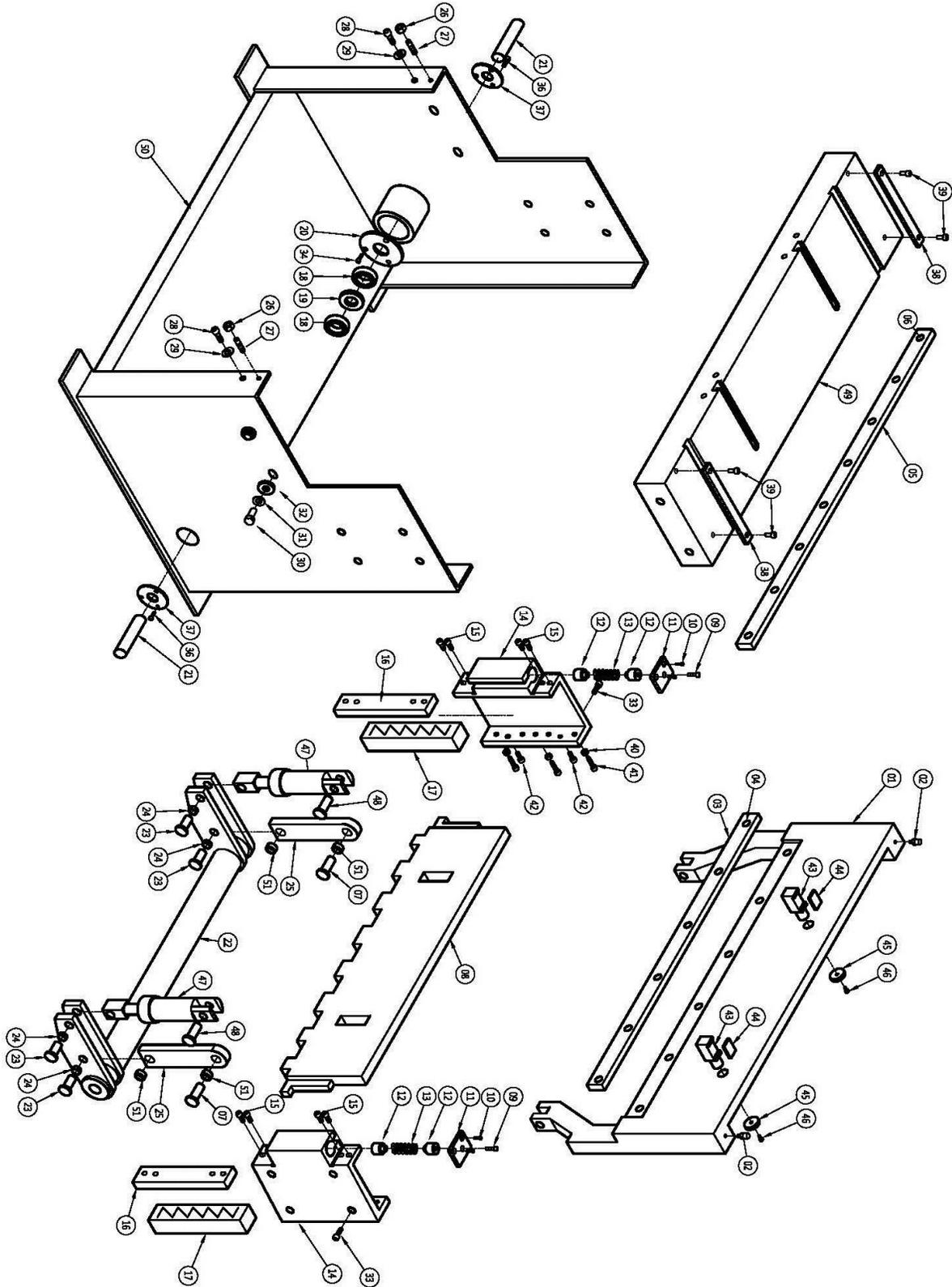
19.1.3 Hydraulic Parts List

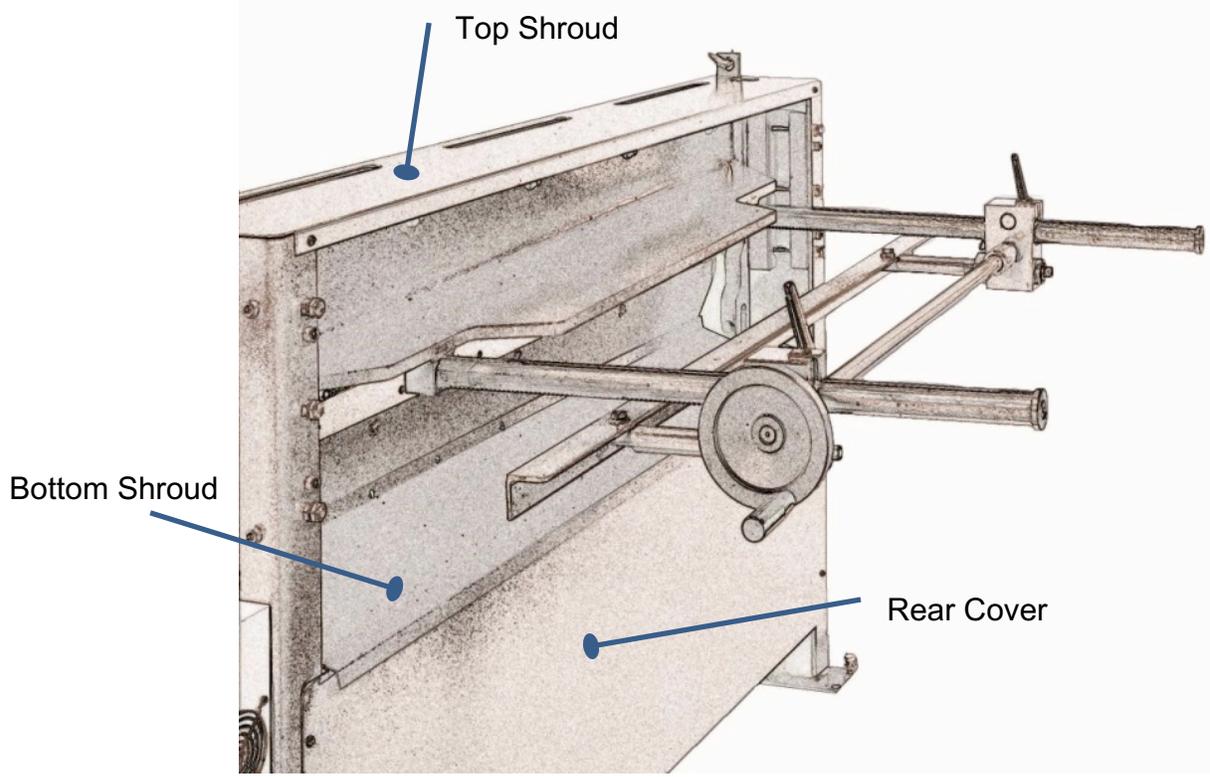
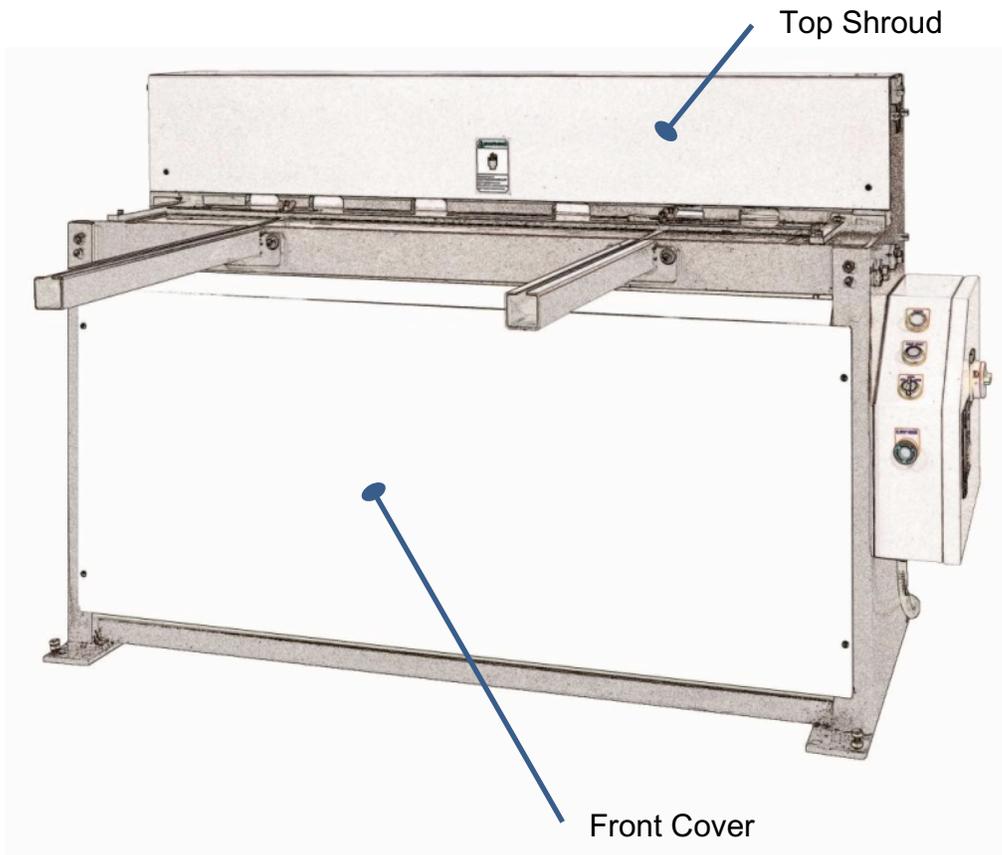
| Index No | Part No | Description | Size | Qty |
|----------|-----------|-------------------------------------|-----------------|-----|
| 1 | BA1-10059 | Motor | 3HP*4P | 1 |
| 2 | ** | Pump | 2GG1P08R | 1 |
| 3 | ** | Strainer | MF-08 | 1 |
| 4 | ** | Check Valve | CV-03 | 1 |
| 5 | ** | Relief Valve | MRV-02P | 1 |
| 6 | ** | Solenoid Operated Directional Valve | SWH-G02-C6-24 | 1 |
| 7 | ** | Pressure Gauge | AT-63 *250Kg | 1 |
| 8 | BA1-10060 | Hydraulic Cylinder | 30 *90St | 2 |
| 9 | ** | Air Breather | HY-08 | 1 |
| 10 | ** | Oil Level w/Thermometer | LG-3A | 1 |
| 11 | ** | Strainer | CG050-P10/70134 | 1 |
| 12 | ** | Counter Balance Valve | CB11A 33IL | 1 |

** These parts are shown for reference only and are not available for order individually. Non-proprietary parts, such as fasteners, can usually be found at local hardware stores.

20.0 Replacement Parts

20.1.1 Basic Unit Assembly – Exploded View



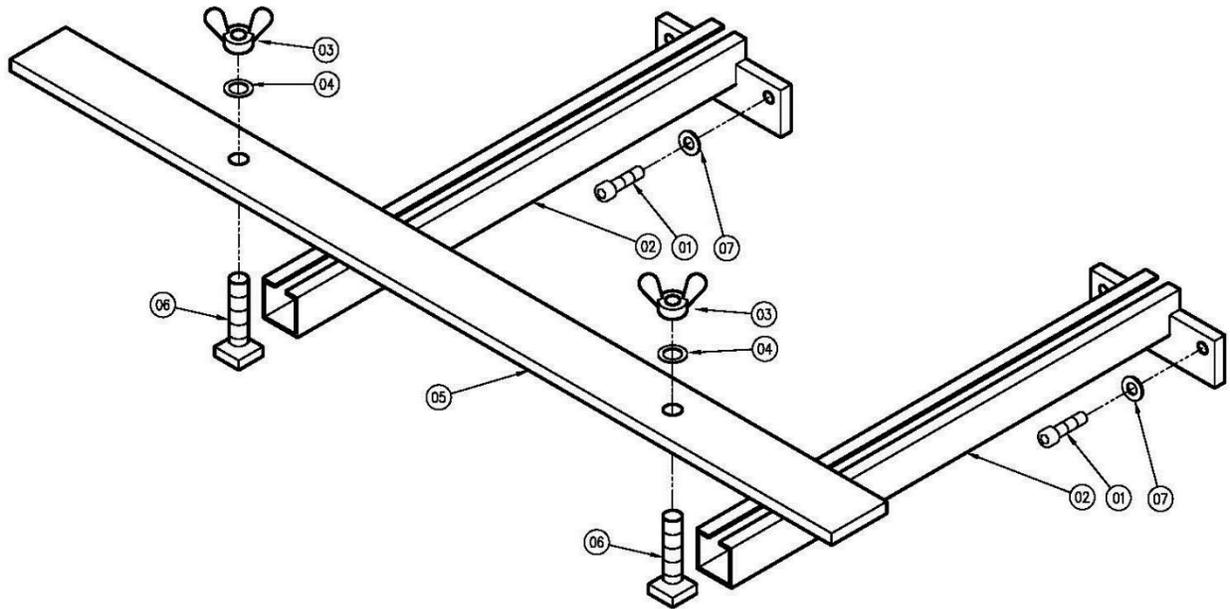


20.1.2 Basic Unit Assembly – Parts List

| Index No | Part No | Description | Size | Qty |
|----------|----------------|-----------------------------|-----------------|-----|
| 1 | ** | Upper Beam Assy. | | 1 |
| 2 | ** | Oil Cup | | 2 |
| 3 | ** | Upper Knife | | 1 |
| 4 | ** | 1/2" Hhcs - Upper Knife | 1/2" | 8 |
| 5 | ** | Lower Knife | | 1 |
| 6 | ** | 1/2" Hhcs - Lower Knife | 1/2" | 8 |
| 7 | BA9-1231772 | Pin | | 2 |
| 8 | ** | Hold Down | | 1 |
| 9 | ** | Spring Adjusting Screw | | 2 |
| 10 | JT9-TS-1503051 | Screw | M6 x 20mm | 4 |
| 11 | ** | Cover | | 2 |
| 12 | BA9-1019576 | Spring Positioning Bushing | | 2 |
| 13 | ** | Spring | | 2 |
| 14 | ** | Slide Housing | | 2 |
| 15 | ** | Screw | | 8 |
| 16 | ** | Slide Block | | 2 |
| 17 | ** | Slide Block | | 2 |
| 18 | BA1-10061 | Bearing | | 4 |
| 19 | BA1-9772 | Spacer | | 2 |
| 20 | BA1-9771 | Cover | | 2 |
| 21 | ** | Pin | | 2 |
| 22 | ** | Bottom Balance Bar | | 1 |
| 23 | ** | Pin | | 4 |
| 24 | ** | Bushing | | 4 |
| 25 | BA9-1231769 | Link Plate | | 1 |
| 26 | JT9-JWS25-202 | Nut | 1/2" | 2 |
| 27 | ** | Stud | 1/2" x 1.5" lg. | 2 |
| 28 | ** | Soc. Head Capscrew | 1/2" | 2 |
| 29 | JT9-TS-0680061 | Washer | 1/2" | 2 |
| 30 | JT9-TS-0071011 | Hex Head Capscrew | 5/8" x 1.5" lg. | 8 |
| 31 | BA9-1232461 | Flat Washer | 5/8" | 8 |
| 32 | BA9-1232462 | Spacer | | 8 |
| 33 | JT9-TS-0209071 | Screw | 3/8" x 1.25" | 8 |
| 34 | ** | Screw | | |
| 36 | CM9-TS-1550041 | Screw | | |
| 37 | ** | Cover-Off Side | | 2 |
| 38 | ** | Plate Shear Guide | | 2 |
| 39 | JT9-TS-0209071 | Screw | 3/8 x 1.25" | 4 |
| 40 | JT9-TS-1540081 | Nut | M12 | 8 |
| 41 | BA9-1007171 | Adjusting Screw | M12 (special) | 8 |
| 42 | ** | Screw | | |
| 43 | BA1-9782 | Hold Down Supporting Pillow | | 2 |
| 44 | ** | Urethane | | 2 |
| 45 | ** | Shaft Filler Washer | | 2 |
| 46 | ** | Screw | | 2 |
| 47 | BA1-10065 | Hydraulic Cylinder, Right | | 1 |
| 47 | BA1-10066 | Hydraulic Cylinder, Left | | 1 |
| 48 | BA9-1231771 | Cylinder Pin | | 2 |
| 49 | ** | Table Platen | | 1 |
| 50 | ** | Bottom Base Assy. | | 1 |
| 51 | ** | Bushing | | 4 |
| # | ** | Top Shroud | | 1 |
| # | ** | Front Cover | | 1 |
| # | ** | Bottom Shroud | | 1 |
| # | ** | Rear Cover | | 1 |
| | ** | Electrical Enclosure (ref.) | | 1 |

** These parts are shown for reference only and are not available for order individually. Non-proprietary parts, such as fasteners, can usually be found at local hardware stores.

20.1.3 Front Gauge Assembly – Exploded View



20.1.4 Front Gauge Assembly – Parts List

| Index No | Part No | Description | Size | Qty |
|----------|---------|--------------------|------|-----|
| 1 | ** | Screw | | 2 |
| 2 | ** | Work Piece Support | | 2 |
| 3 | ** | Wing Nut | | 2 |
| 4 | ** | Washer | | 2 |
| 5 | ** | Position Gage | | 1 |
| 6 | ** | "T" Screw | | 2 |
| 7 | ** | Washer | | 2 |

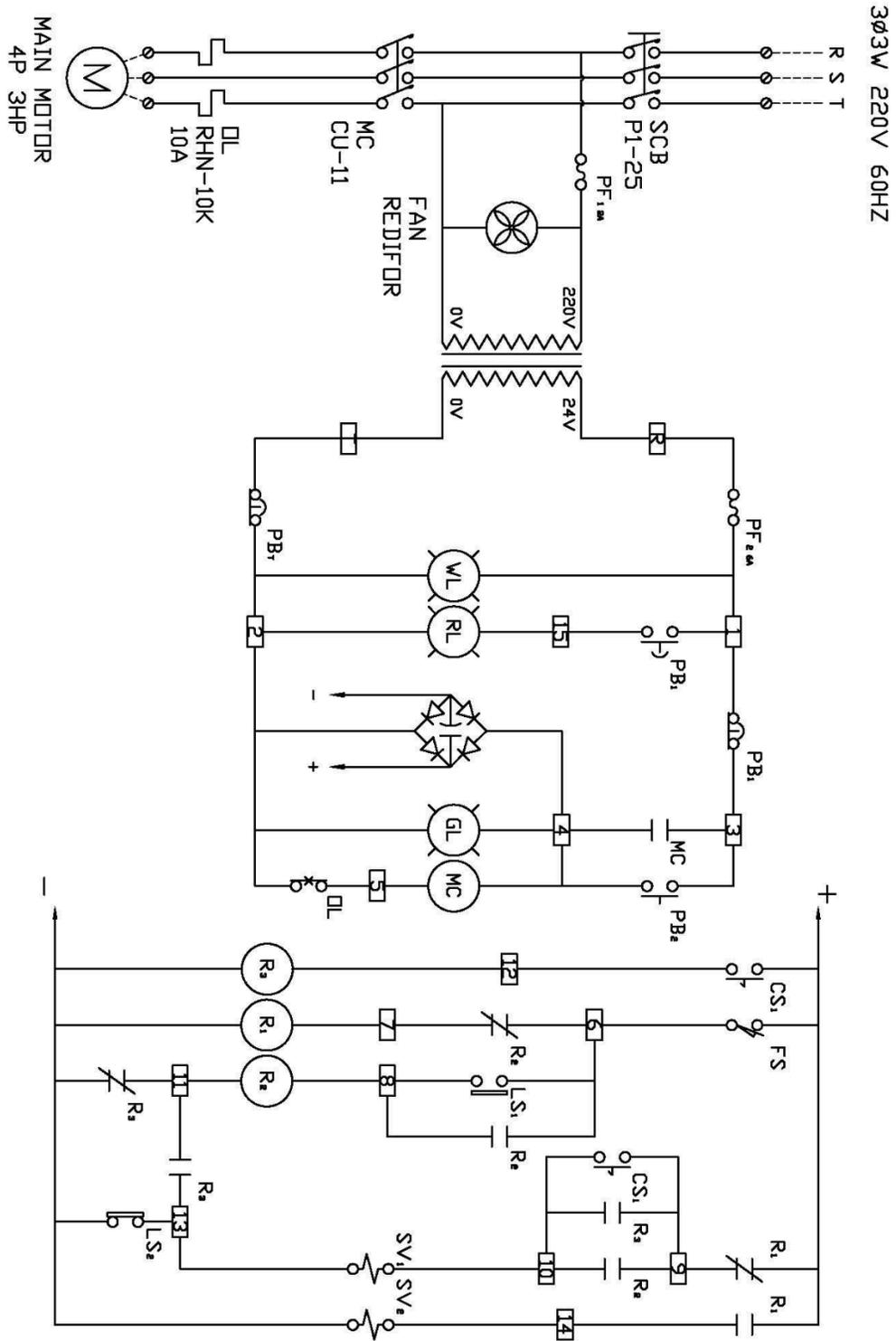
** These parts are shown for reference only and are not available for order individually. Non-proprietary parts, such as fasteners, can usually be found at local hardware stores.

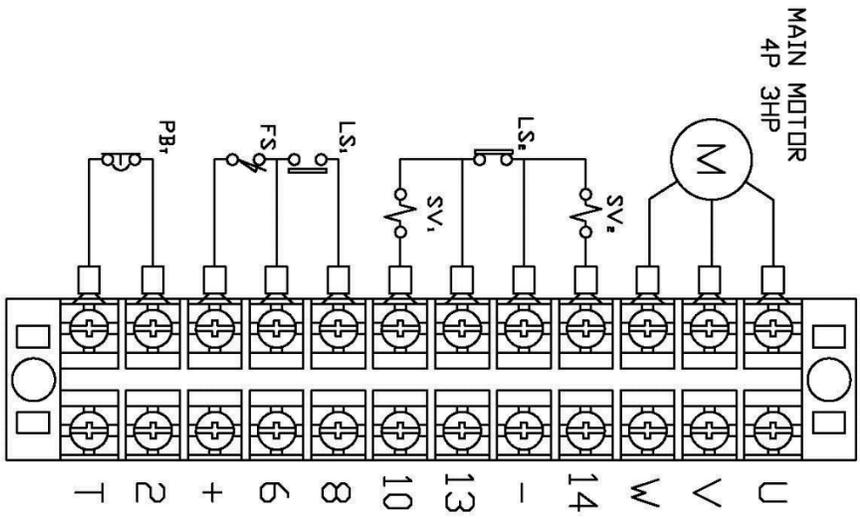
20.1.6 Manual Back Gauge Assembly – Parts List

| Index No | Part No | Description | Size | Qty |
|----------|-------------|------------------------|------|-----|
| 1 | BA9-1008526 | Hand Wheel | | 1 |
| 2 | BA9-1008527 | Bushing | | 2 |
| 3 | BA9-1008529 | Rack Wheel-Right Side | | 1 |
| 4 | BA9-1008530 | Key | | 2 |
| 5 | BA9-1008531 | Rack Block | | 2 |
| 6 | BA9-1008532 | Connecting Sleeve | | 2 |
| 7 | BA9-1008533 | Set Screw | | 2 |
| 8 | ** | Coupling Rod | | 1 |
| 9 | BA9-1008558 | Locking Shaft | | 2 |
| 10 | BA9-1008559 | Washer | | 2 |
| 11 | BA9-1008560 | Plastic Handle | | 2 |
| 12 | BA9-1008561 | Screw | | 2 |
| 13 | BA9-1008562 | Shaft Filler Washer | | 2 |
| 14 | BA9-1008563 | Nut | | 2 |
| 15 | BA9-1008564 | Adjusting Rod | | 2 |
| 16 | BA9-1008565 | Angle Stoppers | | 1 |
| 17 | BA9-1008566 | Screw | | 2 |
| 18 | BA9-1008567 | Screw | | 2 |
| 19 | BA9-1008568 | Shaft Filler Washer | | 2 |
| 20 | BA9-1008569 | Bushing | | 4 |
| 21 | BA9-1008570 | Rack Rod | | 2 |
| 22 | BA9-1008571 | Shaft Filler Washer | | 2 |
| 23 | BA9-1008572 | Screw | | 2 |
| 24 | BA9-1008573 | Dial Indicator | | 2 |
| 25 | BA9-1008574 | Screw | | 2 |
| 26 | BA9-1008575 | Rack Wheel - Left Side | | 1 |
| 27 | BA9-1008576 | Collar | | 1 |
| 28 | BA9-1008577 | Screw | | 1 |
| 30 | ** | Washer | | |

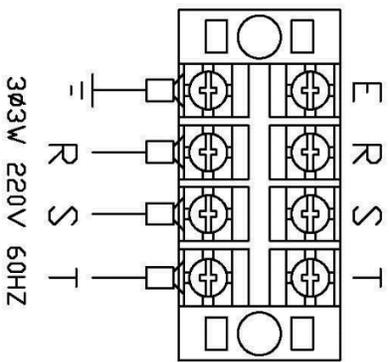
** These parts are shown for reference only and are not available for order individually. Non-proprietary parts, such as fasteners, can usually be found at local hardware stores.

21.0 Wiring Diagrams





TB2



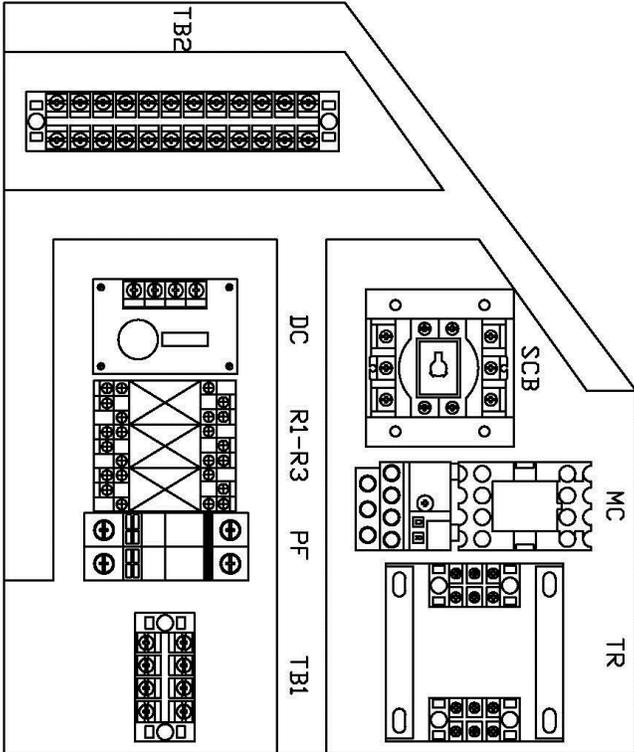
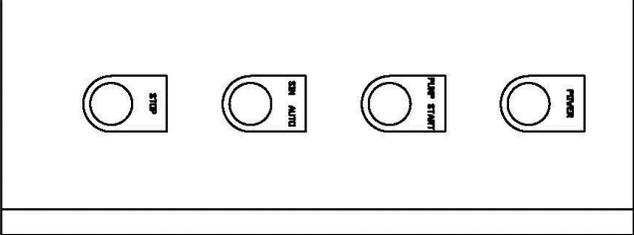
TB1

21.1.1 Electrical Parts List

| Index No | Part No | Description | Size | Qty |
|----------|-------------|--------------------------------|-----------------------------|------|
| 1 | BA9-1010405 | Main Switch | P1-25 | 1 |
| 2 | ** | Magnetic Switch | HUD-11 AC 24V 10A | 1 |
| 3 | BA9-1007161 | Transformers | 1Ø 220-440/24V 50VA 50HZ | 1 |
| 4 | BA9-1015264 | Fuse 10*38mm 2A | FU-2A-38X10 | 1ea. |
| | BA9-1015265 | Fuse 10*38mm 6A | FU-6A-38X10 | 1ea. |
| 5 | BA9-1000359 | Power Supply | MY-2-AC-24V | 3 |
| 6 | BA9-1005763 | Power Relay | MY-2 DC 24V | 3 |
| 7 | ** | Trans Bus | 4P 30A | 1 |
| 8 | ** | Trans Bus | 12P 30A | 1 |
| 9 | BA9-1224625 | Pilot Light | 30Ø 24V WHITE | 1 |
| 10 | BA9-1004443 | Push Button | 30Ø 1A1B RED(LOCK) | 1 |
| 11 | ** | Push Button | 30Ø 1A 24V GREEN | 1 |
| | BA9-1016871 | Exhaust Fan 30Øx60St | | 1 |
| 12 | ** | SELECT SWITCH | 30Ø 2A BLACK | 1 |
| | BA9-1009781 | Foot Switch (not show) | | 1 |
| | BA9-1000379 | Limit Switch (not show) | | 2 |
| | BA9-1007121 | Foot Pedal Complete (not show) | | |
| | BA9-1019576 | Black pin (not show) | | |
| | BA9-1224845 | Motor Fan (not show) | | |
| | BA9-1231769 | Link Plate (not show) | | |
| | BA9-1231770 | Cylinder (not show) | | |
| | BA9-1231771 | Upper Cylinder Pin (not show) | | |
| | BA9-1232794 | Coupling Shaft (not show) | | |

** These parts are shown for reference only and are not available for order individually. Non-proprietary parts, such as fasteners, can usually be found at local hardware stores.

22.0 Electrical Enclosure



23.0 Warranty and Service

Thank you for your purchase of a machine from Baileigh Industrial. We hope that you find it productive and useful to you for a long time to come.

Inspection & Acceptance. Buyer shall inspect all Goods within ten (10) days after receipt thereof. Buyer's payment shall constitute final acceptance of the Goods and shall act as a waiver of the Buyer's rights to inspect or reject the Goods unless otherwise agreed. If Buyer rejects any merchandise, Buyer must first obtain a Returned Goods Authorization ("RGA") number before returning any Goods to Seller. Goods returned without an RGA will be refused. Seller will not be responsible for any freight costs, damages to Goods, or any other costs or liabilities pertaining to Goods returned without an RGA. Seller shall have the right to substitute a conforming tender. Buyer will be responsible for all freight costs to and from Buyer and repackaging costs, if any, if Buyer refuses to accept shipment. If Goods are returned in unsalable condition, Buyer shall be responsible for full value of the Goods. Buyer may not return any special-order Goods. Any Goods returned hereunder shall be subject to a restocking fee equal to 30% of the invoice price.

Specifications. Seller may, at its option, make changes in the designs, **specifications**, or components of the Goods to improve the safety of such Goods, or if in Seller's judgment, such changes will be beneficial to their operation or use. Buyer may not make any changes in the specifications for the Goods unless Seller approves of such changes in writing, in which event Seller may impose additional charges to implement such changes.

Limited Warranty. Seller warrants to the original end-user that the Goods manufactured or provided by Seller under this Agreement shall be free of defects in material or workmanship for a period of twelve (12) months from the date of purchase, provided that the Goods are installed, used, and maintained in accordance with any instruction manual or technical guidelines provided by the Seller or supplied with the Goods, if applicable. The original end-user must give written notice to Seller of any suspected defect in the Goods prior to the expiration of the warranty period. The original end-user must also obtain an RGA from Seller prior to returning any Goods to Seller for warranty service under this paragraph. Seller will not accept any responsibility for Goods returned without an RGA. The original end-user shall be responsible for all costs and expenses associated with returning the Goods to Seller for warranty service. In the event of a defect, Seller, at its sole option, shall repair or replace the defective Goods or refund to the original end-user the purchase price for such defective Goods. Goods are not eligible for replacement or return after a period of 10 days from date of receipt. The foregoing warranty is Seller's sole obligation, and the original end-user's exclusive remedy, with regard to any defective Goods. This limited warranty does not apply to: (a) die sets, tooling, and saw blades; (b) periodic or routine maintenance and setup, (c) repair or replacement of the Goods due to normal wear and tear, (d) defects or damage to the Goods resulting from misuse, abuse, neglect, or accidents, (f) defects or damage to the Goods resulting from improper or unauthorized alterations, modifications, or changes; and (f) any Goods that has not been installed and/or maintained in accordance with the instruction manual or technical guidelines provided by Seller.

EXCLUSION OF OTHER WARRANTIES. THE FOREGOING LIMITED WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED. ANY AND ALL OTHER EXPRESS, STATUTORY, OR IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO, ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE ARE EXPRESSLY DISCLAIMED. NO WARRANTY IS MADE WHICH EXTENDS BEYOND THAT WHICH IS EXPRESSLY CONTAINED HEREIN.

Limitation of Liability. IN NO EVENT SHALL SELLER BE LIABLE TO BUYER OR ANY OTHER PARTY FOR ANY INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES (INCLUDING, WITHOUT LIMITATION, LOST PROFITS OR DOWN TIME) ARISING FROM OR IN MANNER CONNECTED WITH THE GOODS, ANY BREACH BY SELLER OR ITS AGENTS OF THIS AGREEMENT, OR ANY OTHER CAUSE WHATSOEVER, WHETHER BASED ON CONTRACT, TORT OR ANY OTHER THEORY OF LIABILITY. BUYER'S REMEDY WITH RESPECT TO ANY CLAIM ARISING UNDER THIS AGREEMENT IS STRICTLY LIMITED TO NO MORE THAN THE AMOUNT PAID BY THE BUYER FOR THE GOODS.

Force Majeure. Seller shall not be responsible for any delay in the delivery of, or failure to deliver, Goods due to causes beyond Seller's reasonable control including, without limitation, acts of God, acts of war or terrorism, enemy actions, hostilities, strikes, labor difficulties, embargoes, non-delivery or late delivery of materials, parts and equipment or transportation delays not caused by the fault of Seller, delays caused by civil authorities, governmental regulations or orders, fire, lightning, natural disasters or any other cause beyond Seller's reasonable control. In the event of any such delay, performance will be postponed by such length of time as may be reasonably necessary to compensate for the delay.

Installation. If Buyer purchases any Goods that require installation, Buyer shall, at its expense, make all arrangements and connections necessary to install and operate the Goods. Buyer shall install the Goods in accordance with any Seller instructions and shall indemnify Seller against any and all damages, demands, suits, causes of action, claims and expenses (including actual attorneys' fees and costs) arising directly or indirectly out of Buyer's failure to properly install the Goods.

Work By Others; Safety Devices. Unless agreed to in writing by Seller, Seller has no responsibility for labor or work performed by Buyer or others, of any nature, relating to design, manufacture, fabrication, use, installation, or provision of Goods. Buyer is solely responsible for furnishing and requiring its employees and customers to use all safety devices, guards and safe operating procedures required by law and/or as set forth in manuals and instruction sheets furnished by Seller. Buyer is responsible for consulting all operator manuals, ANSI or comparable safety standards, OSHA regulations and other sources of safety standards and regulations applicable to the use and operation of the Goods.

Remedies. Each of the rights and remedies of Seller under this Agreement is cumulative and in addition to any other or further remedies provided under this Agreement or at law or equity.

Attorney's Fees. In the event legal action is necessary to recover monies due from Buyer or to enforce any provision of this Agreement, Buyer shall be liable to Seller for all costs and expenses associated therewith, including Seller's actual attorney fees and costs.

Governing Law/Venue. This Agreement shall be construed and governed under the laws of the State of Wisconsin, without application of conflict of law principles. Each party agrees that all actions or proceedings arising out of or in connection with this Agreement shall be commenced, tried, and litigated only in the state courts sitting in Manitowoc County, Wisconsin or the U.S. Federal Court for the Eastern District of Wisconsin. Each party waives any right it may have to assert the doctrine of "forum non conveniens" or to object to venue to the extent that any proceeding is brought in accordance with this section. Each party consents to and waives any objection to the exercise of personal jurisdiction over it by courts described in this section. Each party waives to the fullest extent permitted by applicable law the right to a trial by jury.

Summary of Return Policy:

- 10 Day acceptance period from date of delivery. Damage claims and order discrepancies will not be accepted after this time.
- You must obtain a Baileigh Industrial issued RGA number PRIOR to returning any materials.
- Returned materials must be received at Baileigh Industrial in new condition and in original packaging.
- Altered items are not eligible for return.
- Buyer is responsible for all shipping charges.
- A 30% re-stocking fee applies to all returns.

Baileigh Industrial makes every effort to ensure that our posted specifications, images, pricing, and product availability are as correct and timely as possible. We apologize for any discrepancies that may occur. Baileigh Industrial reserves the right to make any and all changes deemed necessary in the course of business including but not limited to pricing, product specifications, quantities, and product availability.

For Customer Service & Technical Support:

Please contact one of our knowledgeable Sales and Service team members at:
(920) 684-4990 or e-mail us at Baileigh-Service@jpwindustries.com



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