



# Operating Instructions and Parts Manual

## Gear Drive Drill Press

Model DP-1500G



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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 protection. Always wear ISO approved protective eye wear when operating machinery. Wear a full-face shield if you are producing metal filings. Eye wear shall be impact resistant, protective safety glasses with side shields which comply with ANSI Z87.1 specification. Use of eye wear which does not comply with ANSI Z87.1 specification could result in severe injury from breakage of eye protection.
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. Keep children away. Children must never be allowed in the work area. DO NOT let them handle machines, tools, or extension cords.
17. Keep visitors a safe distance from the work area.
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.

**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 DP-1500G Gear Drive Drill Press. 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](http://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

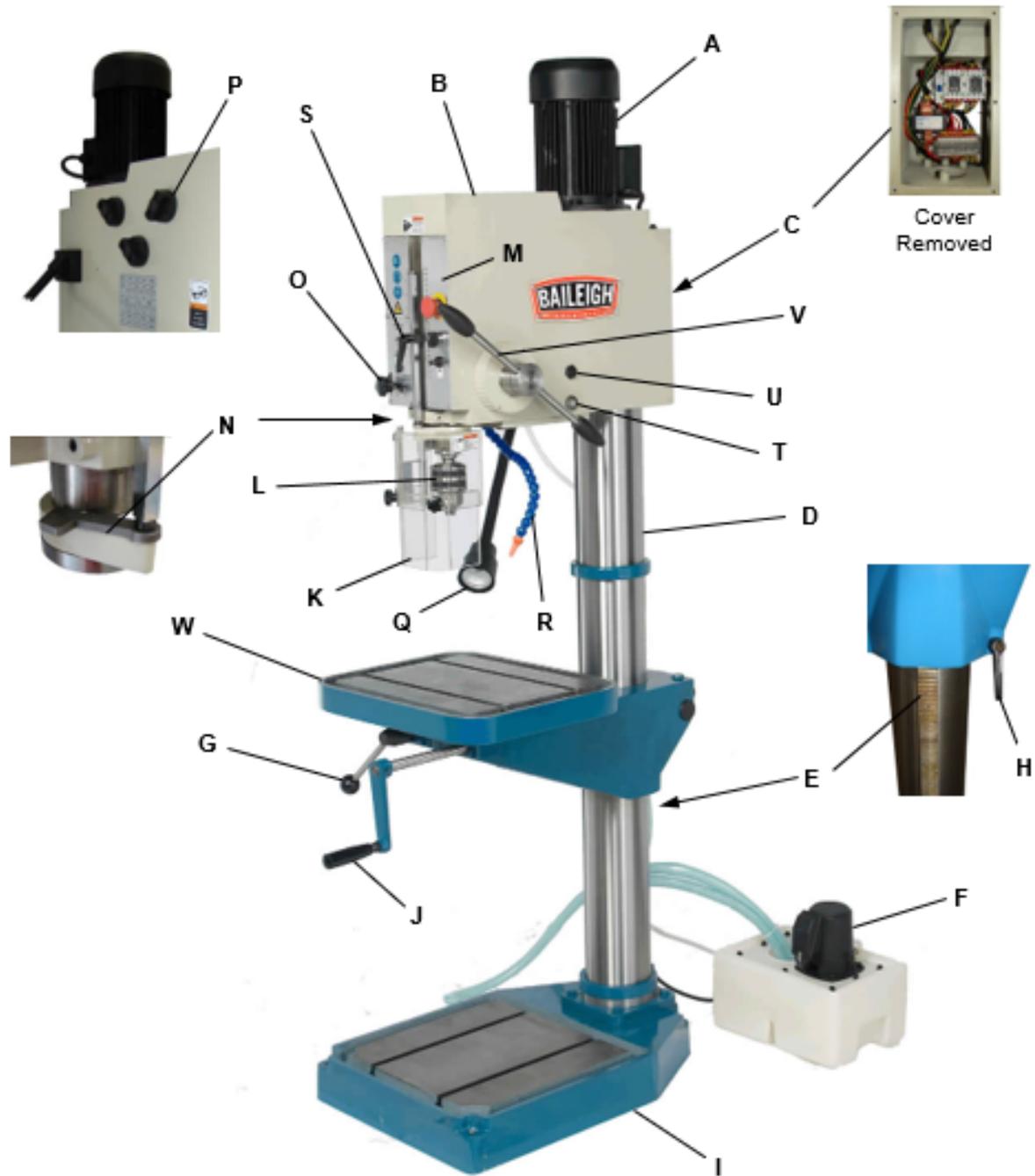


Figure 4-1

Table 4-1

Item	Description	Function
A	Drill Motor	Provides power to the chuck.
B	Head Assembly	Houses the drive gears and supports the motor.
C	Electrical Enclosure	Houses the electrical components and connections.
D	Column	Supports the table and head.
E	Gear Rack	Engages the table support arm for height adjustment.
F	Coolant Pump	Pumps cooling fluid up to the chuck and drilling area.
G	Work Table Lock	Loosen to allow the table to move on the column. NEVER OPERATE THE MACHINE WHEN UNLOCKED.
H	Lower Column Lock	Additional clamping to secure the table to the column. NEVER OPERATE THE MACHINE WHEN UNLOCKED.
I	Base	Supports the drill press and anchors to the floor.
J	Table Height Handle	Raises and lower the table on the column.
K	Drill Guard	Adjustable guard to cover the chuck and restrict access during operation.
L	Chuck	Holds various tools for drilling and tapping.
M	Control Panel	Houses the operating controls.
N	Automatic Drill Ejector.	Allows raising the spindle to release the tooling.
O	Power Feed Rate Selector	Selects various feed rates. USE IN CLOCKWISE SPINDLE ROTATION ONLY.
P	Speed (RPM) Selection Handles	Position the handles to match the chart diagram to run the chuck at the RPM setting. <b>DO NOT</b> change spindle RPM until the spindle has stopped completely.
Q	Work Lamp	Provides additional lighting to the work area.
R	Coolant Nozzle/Valve	Controls the location and flow of the coolant.
S	Depth Adjustment	Moves the depth stop up and down.
T	Oil Sight Gauge	Indicates the level of oil in the gear case.
U	Oil Fill	Port to add oil to the gear case.
V	Feed Handle	Operator control to lower and raise the drill spindle.
W	Work Table	Work surface with T-slots.
X	Rotational Switch	Switches the spindle between CW, Off and CCW rotation.
Y	Power On/Off Switch	Turn switch (ccw) to "START". The spring loaded knob automatically returns to the center RUN position.
Z	Emergency Stop Button	Press to stop machine in the event of incorrect operation or dangerous condition. Twist the emergency stop button clockwise (cw) to reset.
AA	Coolant Toggle Switch	"0" = OFF, "1" = ON (Machine power must be on before the coolant pump will run.)

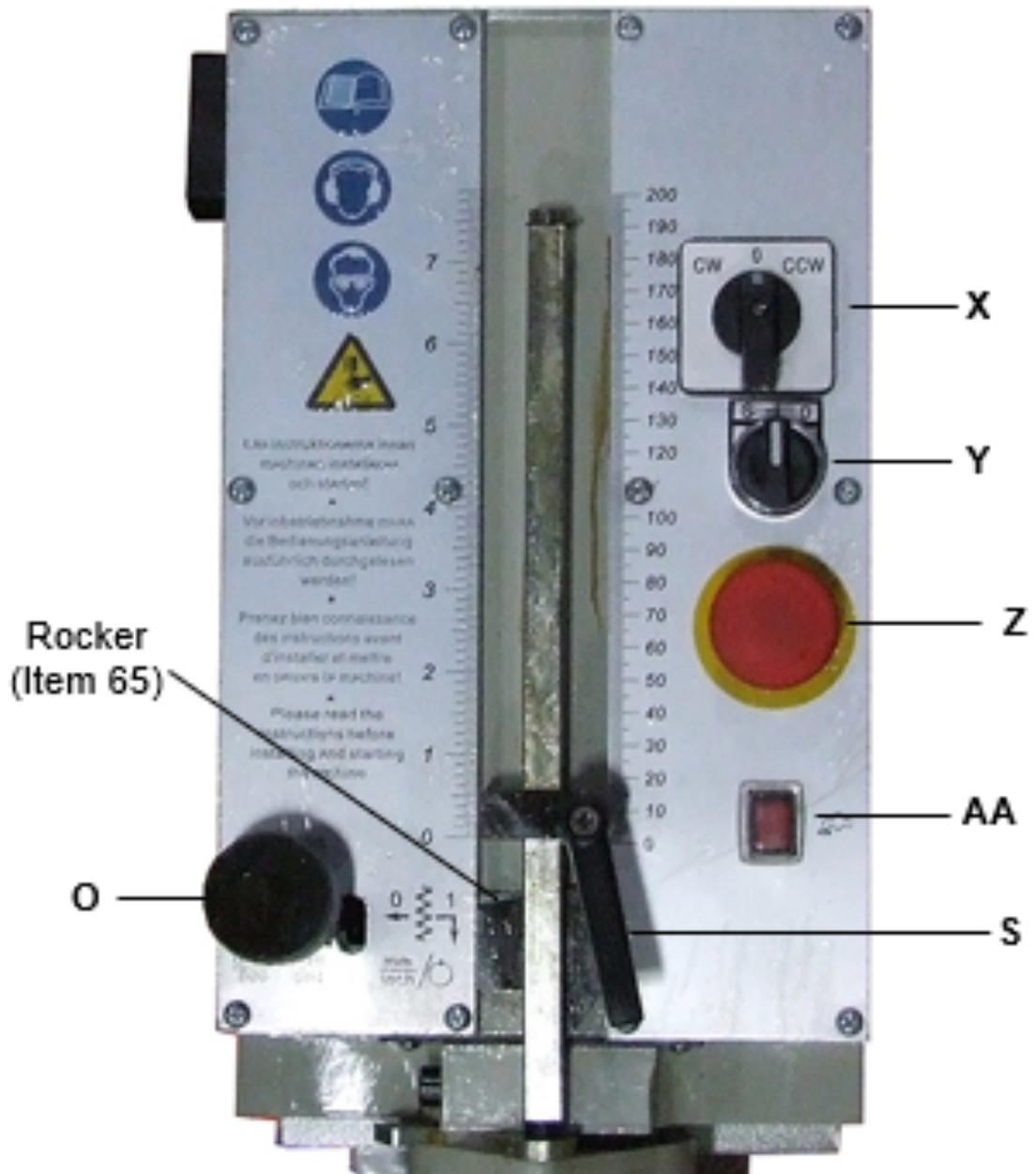


Figure 4-2

### 4.1 Spindle Speed Knobs

At 60Hz, the spindle speeds range from 108-1800 rpm. Speeds are changed by turning the knobs (P) to the positions as shown in the chart.

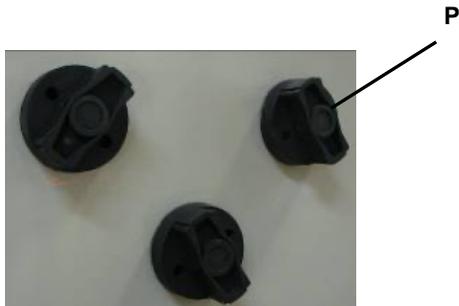


Figure 4-3

60~	108	162	240	360
50~	90	135	200	300
	V/min	U/min	RPM	
50~	440	670	980	1500
60~	528	805	1175	1800

(Note: V/min and U/min mean RPM in other languages.)

Figure 4-4

### 4.2 The Drill Head

The drill head attaches to the top of the column. It supports the motor and spindle while housing the controls, gear transmission, and electrical components. Attached to it is the protective guard, the work light, and the coolant valve with nozzle.



Figure 4-5

### 4.3 The Work Table

The sturdy work table can be positioned at varying heights and rotated 180° in either direction. It has T-slots to allow the use of 1/2" or M14 bolts. Below the work table is a crankshaft (J) which controls the up/down motion of the table. Always unlock the table with handle (G) and lower column lock (H) before changing the height or rotating it. Then lock the work table to secure in position.

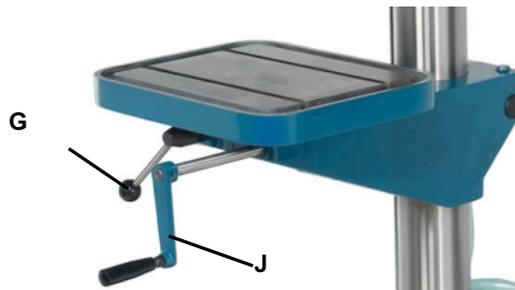


Figure 4-6

### 4.4 The Machine Base

The rigid machine base supports the entire drill press.

Once in position it can be secured to the floor with (4) fasteners. Any coolant / lubricant that drips onto the base will enter the drain and flow back to the reservoir.



Figure 4-7

### 4.5 Overall Dimension

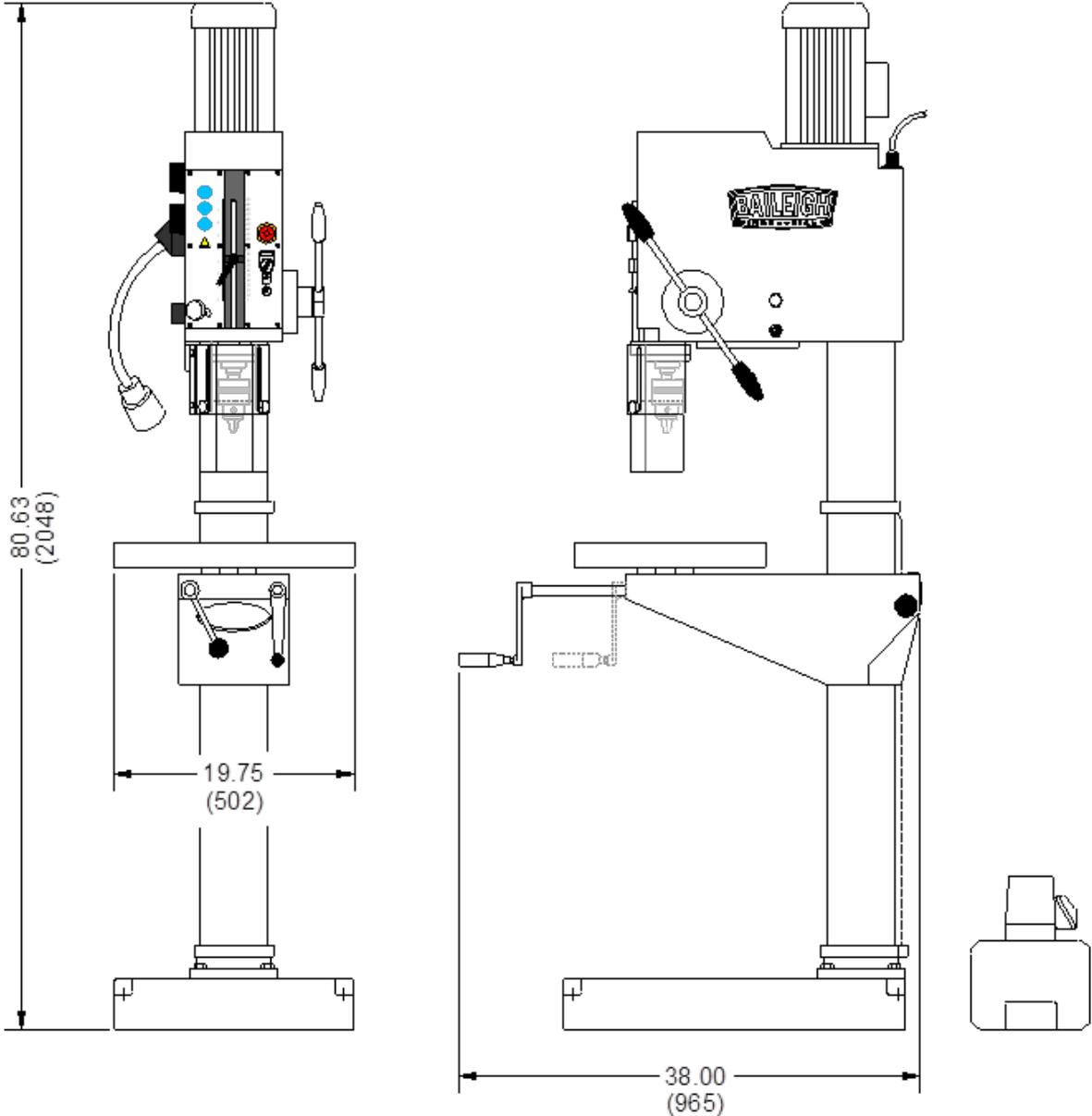


Figure 4-8

## 5.0 Specifications

Table 5-1

Model number	DP-1500G
Stock number	BA9-1002872
<b>Power</b>	
Drill Motor	3hp (2.2kw) 220V, 3ph, 60hz, 8.9A
Coolant Pump	0.1hp (75w) 220V, 3ph, 60hz, 0.33A
Power Supply Voltage	220V, 3ph, 60hz, 10A
<b>General Specifications</b>	
Drill Capacity	1.5" (38.1mm)
Tapping Capacity	1.3" (33mm)
Spindle Speed (rpm)	108, 162, 240, 360, 528, 805, 1175, 1800
Spindle Taper	MT 4
Spindle Travel	7.5" (190mm)
<b>Weights and Dimensions</b>	
Shipping Dimensions (L/W/H)	86" x 23" x 37" (2185 x 584 x 940mm)
Shipping Weight	963lbs (437kg)
Tables Dimensions (L x W)	20" x 16" (508 x 406mm)
Table T-Slots	.575" (14.6mm)
Base Dimensions (L x W)	19.5" x 28" (495 x 711mm)

## ⚠ 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.

### 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:

- The machine is top and front heavy. Always lift and carry the machine with the lifting holes provided at the top of the machine. **DO NOT** use a Forklift.
- Use a strap capable of lifting a minimum of two 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, and lower slowly until it touches the floor.

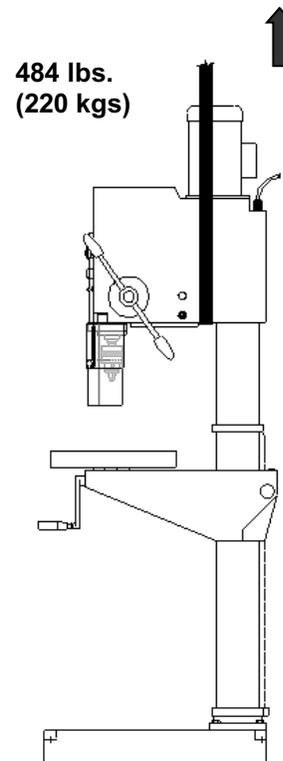


Figure 6-1

## 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, worktables, 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 can support 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.

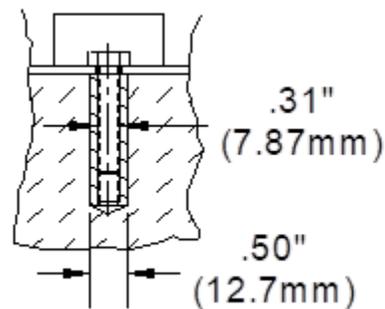


Figure 6-2

## 6.5 Assembly

### ⚠ WARNING

For your own safety, **DO NOT** connect the machine to the power source until the machine is completely assembled and you read and understand the entire instruction manual.

1. Carefully remove the crate.
2. Stand the machine upright.
3. Unwrap the coolant tank and miscellaneous parts.
4. Attach the handle to the table height crank and secure with the jamnuts. (see Figure 6-3).



Figure 6-3

5. Attach the two-piece swing away guard with (2) bolts. (See Figure 6-4).



Figure 6-4

6. Locate the coolant tank on the floor. Screw the threaded coupling into the drain of the base (See Figure 6-5) Fill the tank with coolant.

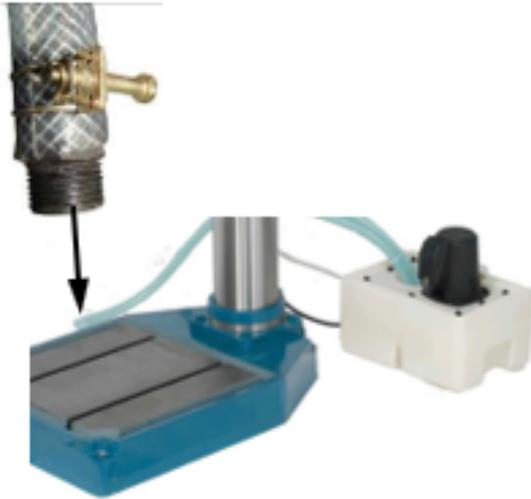


Figure 6-5

7. Fill the gear case with gear oil.

**IMPORTANT:** This machine is shipped WITHOUT oil in the power-feed gearbox. See instructions below for filling the gearbox.

8. Have certified electrician attach 220V, 3 Ø plug. (Must be properly grounded)
9. Secure the tang of the chuck into the spindle. (See Figure 6-6).



Figure 6-6

## 7.0 Electrical Connection

### **⚠ 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 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. Turn the main disconnect switch on the control panel to the OFF position.
2. Unwrap the power cord and route the cord away from the machine toward the power supply.
  - 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.
3. Connect the power cord to the power supply and check that the power cord has not been damaged during installation.
4. When the machine is clear of any obstruction. The main power switch may be turn ON to test the operation. Turn the switch OFF when the machine is not in operation.
5. This is a three phase application; check that the motor is running in the correct direction.
6. If not, cut the power to the machine. Swap the position of any two of the three power wires; but DO NOT change the position of the green grounding wire!

## 8.0 Operation

### CAUTION

Always wear proper eye protection with side shields. Restrain and contain long hair, loose or baggy clothing and remove jewelry to prevent entanglement.

### CAUTION

DO NOT change spindle RPM and or rotation direction until the spindle has stopped completely. This will damage the gears, voiding warranty.

1. Secure the tooling in the chuck and close the swivel guard. Make sure the E-Stop button has been reset by turning clockwise (cw).

2. Load and secure the piece part to the table.
3. Unlock the table, set to desired position, and re-lock. Adjust the lower half of the guard up or down, as necessary.
4. Select and set the desired spindle speed. DO NOT change spindle RPM until the spindle has stopped completely.
5. Set the Rotational Selector Switch to either CW or CCW as needed for the operation.
6. Turn the power ON-OFF switch counterclockwise (ccw) to "START". The spring loaded knob automatically returns to center-run position. The spindle will now be running at the pre-selected speed.
7. At this point, using the down-feed handle (V), you can drill manually.

### CAUTION

DO NOT engage the power feed function when selecting CCW spindle rotation. This will damage the gears, voiding warranty.

### 8.1 To Use the Power Feed Function

1. Verify that the machine is running in the CW direction.
2. Point the arrow on the feed knob (O) to the desired feed rate. Selection of feed rates can be made when the drill is running, but not under load. The desired drilling depth is set by the inch/mm scales on the front of the spindle housing.
3. To engage the power feed move the feed knob (O) to the right and then down. When the desired depth is reached, the rocker is tripped and the feed knob pops up. The spindle automatically returns to the upper position while still rotating.
4. Repeat with above settings or make spindle speed and power feed changes as necessary.

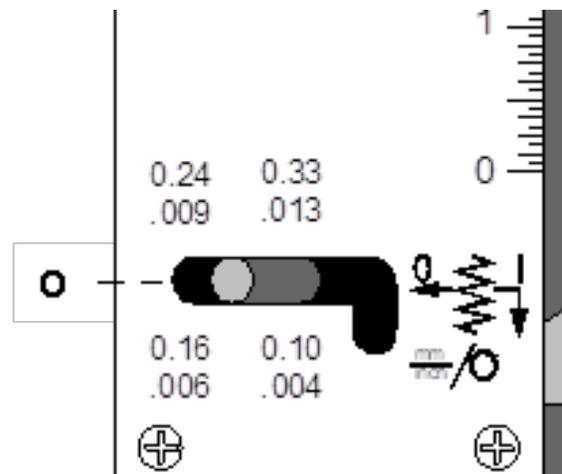


Figure 8-1

## 8.2 Automatic Drill Ejector

This machine is equipped with an automatic drill ejector. Between the nose of the quill and the spindle housing there is a pivoting finger stop (N), which prevents the spindle from reaching its top position. By swinging the finger stop out, the spindle reaches the upper position and pushes the drill or tool out automatically. If the tool will not eject automatically due to excessive pressure or heat, use the supplied manual tool ejector.

### CAUTION

Disconnect machine from the power source.

## 9.0 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 values.
- Chemical structure of material must be consistent.
- Buy certificated steel from the same vendor when possible.

## 10.0 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.

### 10.1 Daily Maintenance

- Inspect the power plug and cord.
- Keep area around machine clear of debris.
- Check daily for any unsafe conditions and fix immediately.

- Check that all nuts and bolts are properly tightened.

### 10.2 Weekly Maintenance

- Lubricate threaded components and sliding devices.
- Apply rust inhibitive lubricant to all non-painted surfaces.
- On a weekly basis clean the machine and the area around it.

### 10.3 Monthly Maintenance

- Check that all screws on the motor and the guard are tight and secure.
- Check that the guard is operating properly.
- Grease the gear rack on the column so the table moves up and down smoothly.

## 11.0 Lubrication Recommendations

### 11.1 Exploded View A

Items #28, #31, #33, #34, and #35 (lithium base grease, Cone penetration 265~295 (25°C))

Items #7, #9, and #54 (ISO VG 68 mm<sup>2</sup>/s (40°C) lube oil)

### 11.2 Exploded View B

Gears – SAE 80W- 90 gear oil

### 11.3 Exploded View C

Items #9, #10, #11, #12, and #13 (ISO VG 680 mm<sup>2</sup>/s (40°C) lube oil)

Item #10 and long tooth bar (ISO VG 68 mm<sup>2</sup>/s (40°C) lube oil)

### 11.4 Greasing the Machine

- Grease the gear rack on the column to keep the table moving smoothly.
- Lubricate the spline of the spindle and the teeth of the rack with a #2 grease.
- Fully extend the spindle and lightly grease the spindle shaft.

Before removing the left plate of the spindle housing to access the spindle gears, you must first remove the power feed knob. Mark the location of the pointer arrow so orientation is not lost when putting knob back on. Lubricate gears with a #2 grease. (There is no access to the gears by removing the right side control panel.)

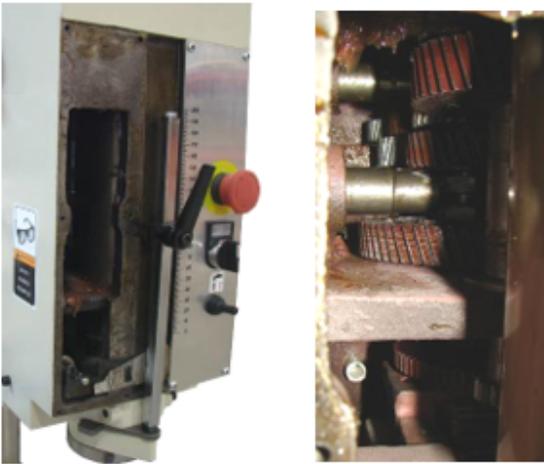


Figure 11-1

### 11.5 Oil Fill/Change

This machine is shipped WITHOUT oil in the power-feed gearbox. Use an SAE 80W- 90 gear oil.

1. Before filling power-feed gearbox with gear oil, make sure the oil drain plug is tight.
2. Loosen and remove the oil fill hex plug.



Figure 11-2

3. Fill gearbox until oil level shows full in the sight glass. DO NOT overfill.
4. Replace oil fill plug.
5. Check monthly and add oil if needed.
6. To drain, remove the oil drain plug.
7. Loosen or remove the oil fill plug to allow the oil to drain properly.



Figure 11-3

### 11.6 Oil Disposal

Used oil products must be disposed of in a proper manner following your local regulations.

### 11.7 Accessing and Cleaning the Coolant System

- Clean the drain screen basket.
- Drain and wash out the dirt and debris from the tank.
- Thoroughly clean the pump and pump inlet.
- Re-fill tank with coolant solution.

### 11.8 Oils for Lubricating Coolant

Any 10:1 (water to coolant) solution will work, however we recommend Baileigh B-Cool 20:1 (water to coolant) biodegradable metal cutting fluid. It has excellent cooling and heat transfer characteristics, is non-flammable, and extends tool and machine life. Each gallon of concentrate makes 21 gallons of coolant.

### 11.9 Storing Machine for Extended Period of Time

If the Drill Press is to be inactive for a long period of time, prepare the machine as follows:

- Detach the plug from the electrical supply panel.
- Clean and grease the machine.
- Cover the machine.

## 12.0 Troubleshooting

### WARNING

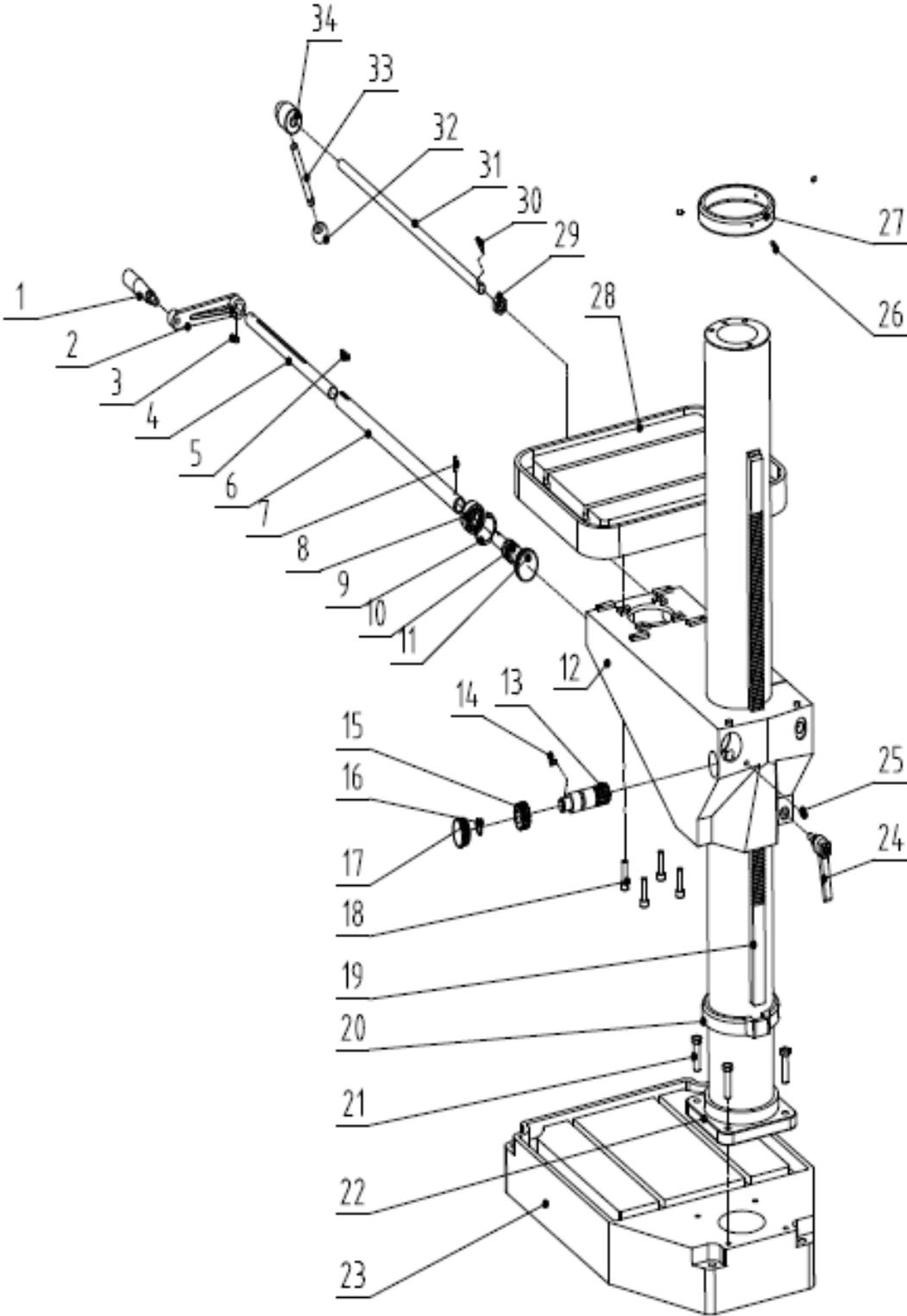
Make sure the electrical disconnect is OFF before working on the machine.

Table 12-1

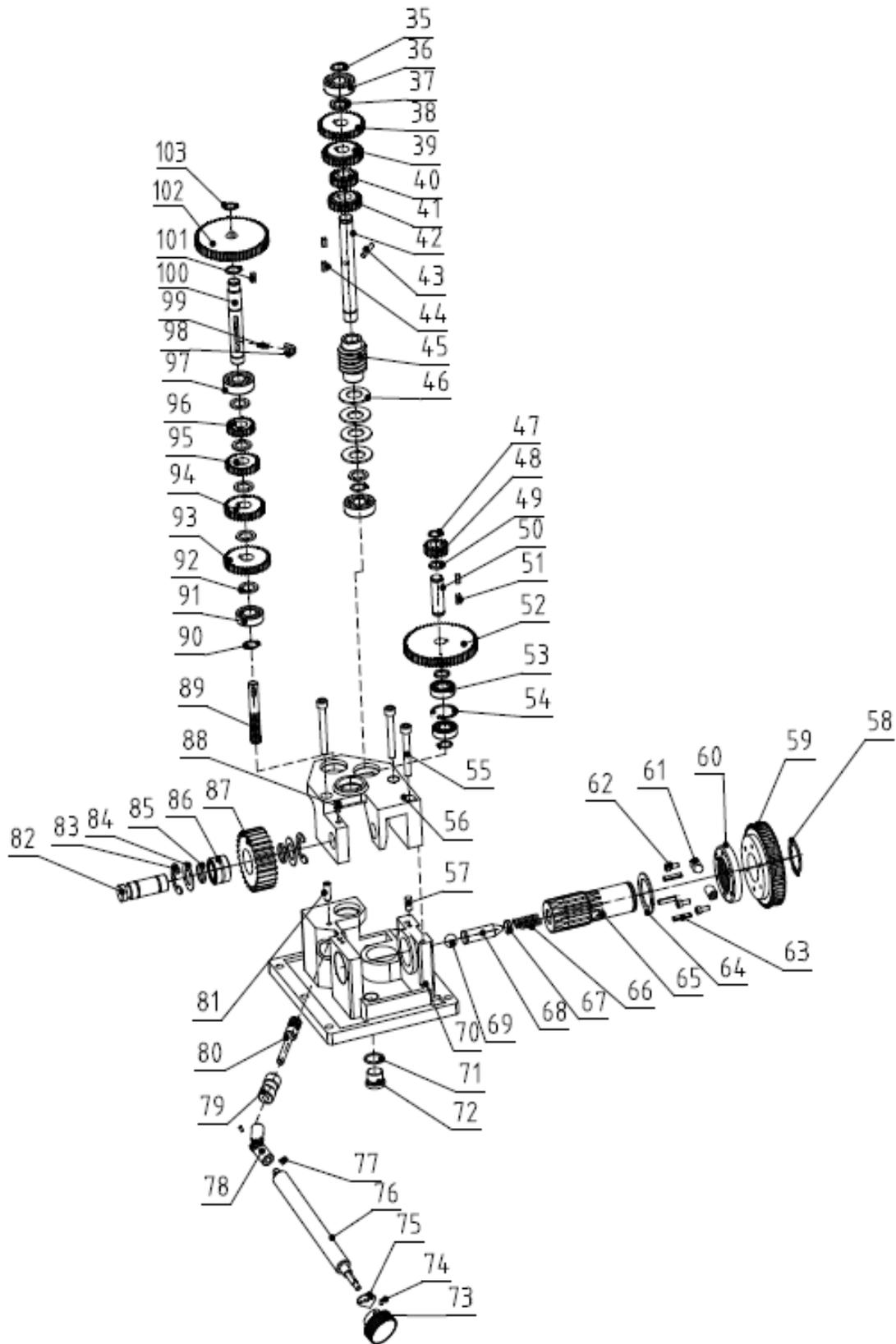
Fault	Probable Cause	Remedy
Drill Press Does Not Run	Wrong voltage.	Make sure the machine voltage matches the nameplate.
	Emergency switch has been pressed.	Turn E-Stop switch clockwise (cw) to reset. Turn the start button ON.
	Power to machine has been disconnected.	Reconnect power to machine.
	Motor burned out.	Replace motor.
Excessive Vibration	Motor out of balance.	Balance or replace.
	Bad motor.	Replace motor.
Motor Stalls	Over feeding.	Reduce feed rate.
	Dull drill or tap.	Sharpen drill & keep sharp.
	Motor not building up to running speed.	Replace or repair motor.
	Bad motor.	Replace motor.
Noisy Operation	Noisy spline.	Lubricate spline.
	Noisy motor.	Check motor bearings.
Drill or Tool Heats up or Burns Work	Excessive speed.	Reduce speed.
	Chips not clearing.	Use pecking operation to clear chips.
	Dull tool.	Sharpen tool or replace.
	Feed rate too slow.	Increase feed enough to clear chips.
	Failure to use cutting oil or coolant. (On steel.)	Use cutting oil or coolant on steel.
Drill Leads Off	No drill spot.	Center punch or center drill work piece.
	Cutting lips on drill off center.	Regrind drill.
	Quill loose in head.	Tighten quill.
	Bearing play.	Check bearings and reseal or replace if necessary.
Excessive Drill Runout or Wobble.	Bent drill bit or tool.	Replace drill bit or tool. (Do Not attempt to straighten.)
	Bearing play.	Replace or reseal bearings.
	Drill not seated properly in chuck.	Loosen, reseal, and tighten chuck.
Work or Fixture Comes Loose or Spins	Failure to clamp piece part or work holding device to table.	Clamp piece part or work holding device to table surface.

# 13.0 Replacement Parts

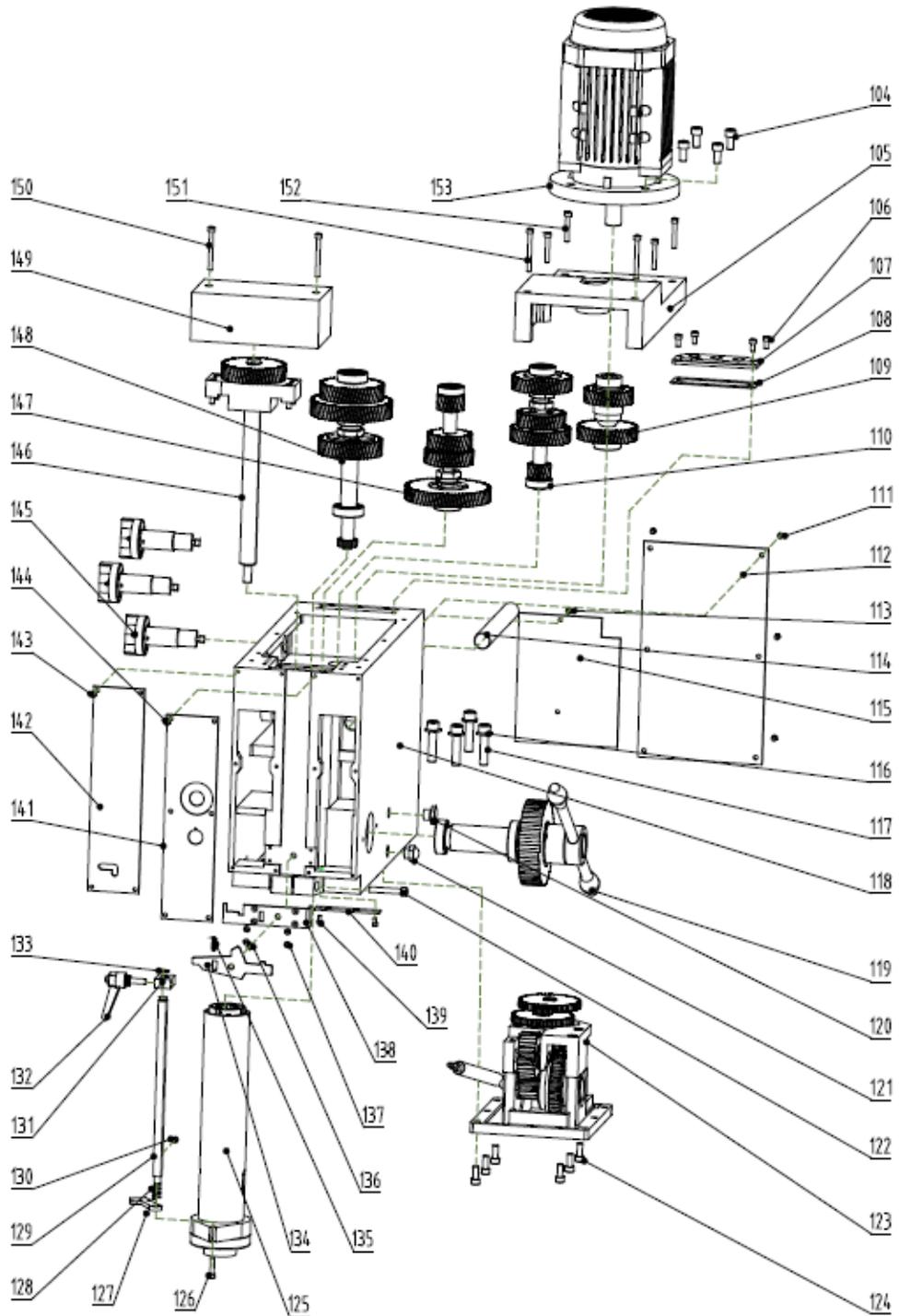
## 13.1.1 Column Assembly – Exploded View



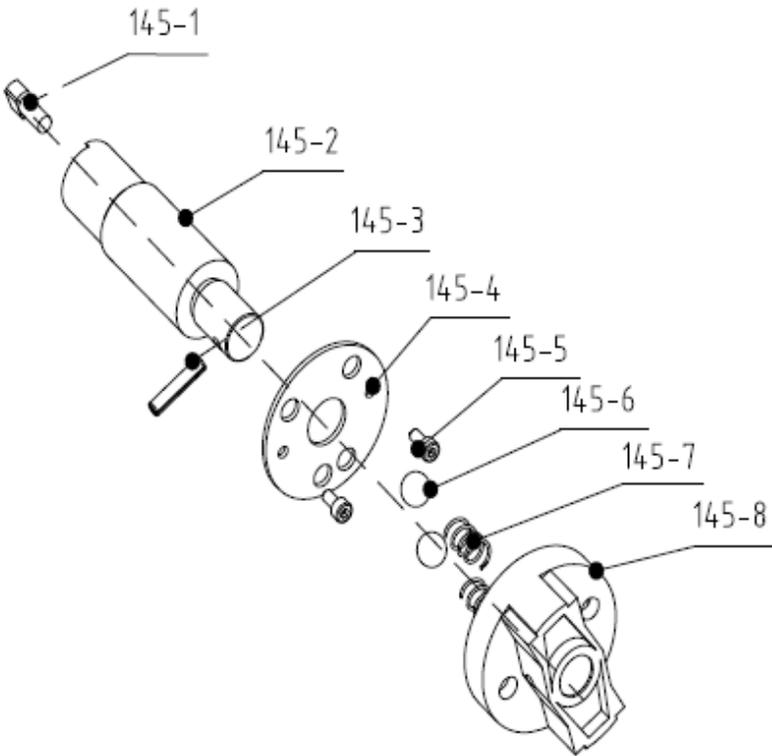
### 13.1.2 Automatic Feed Component Assembly – Exploded View



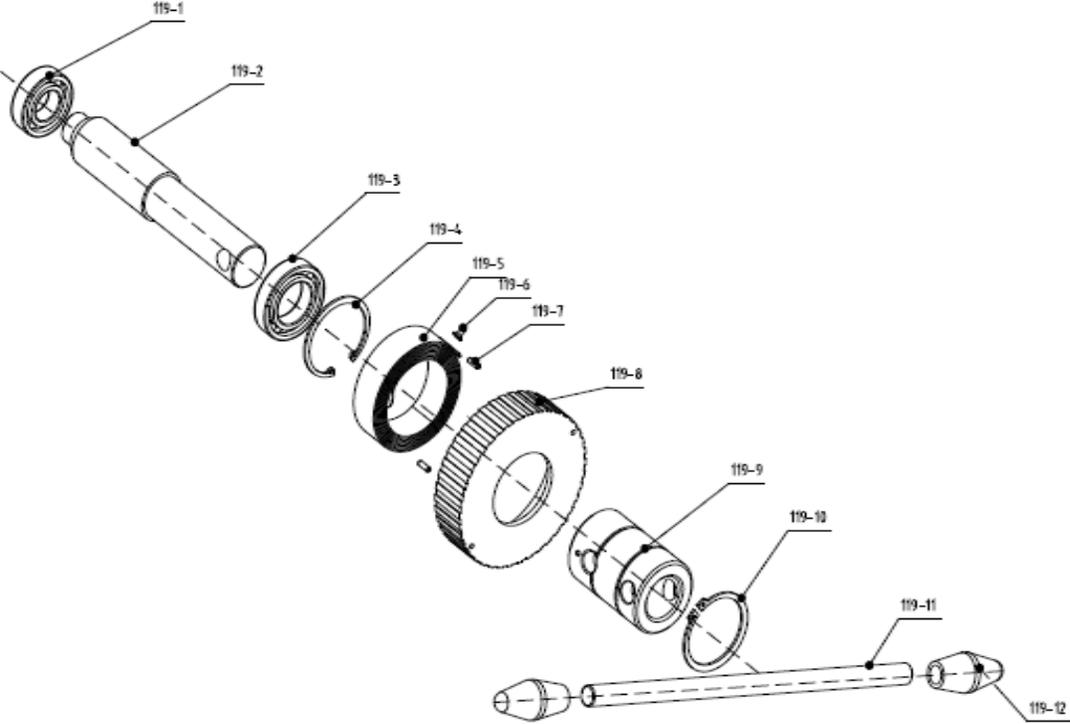
### 13.1.3 Spindle Box Assembly – Exploded View



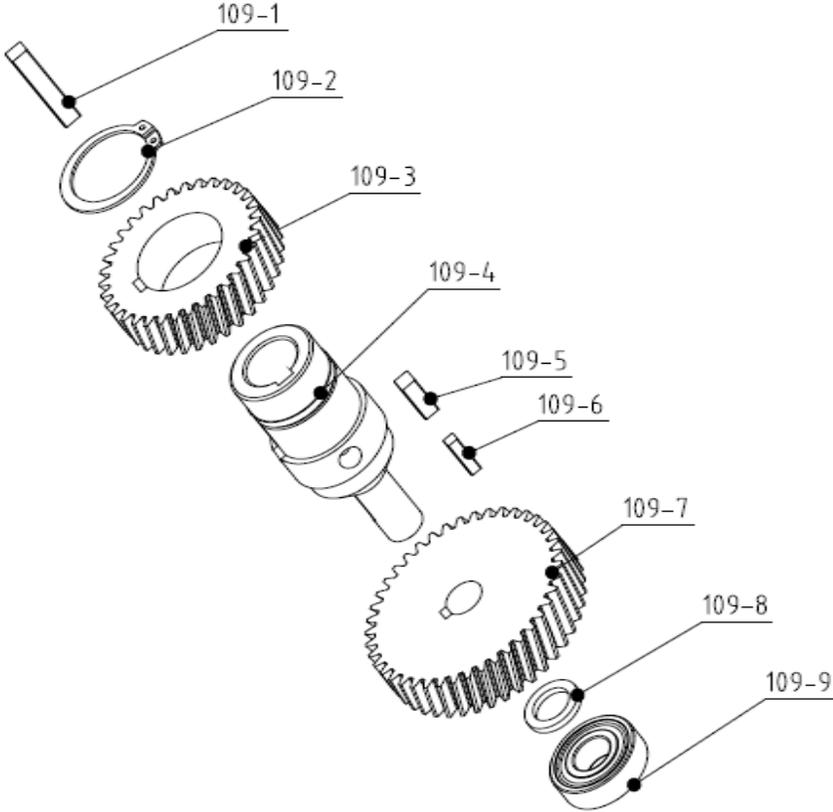
**13.1.4 Speed Control Component Assembly – Exploded View**



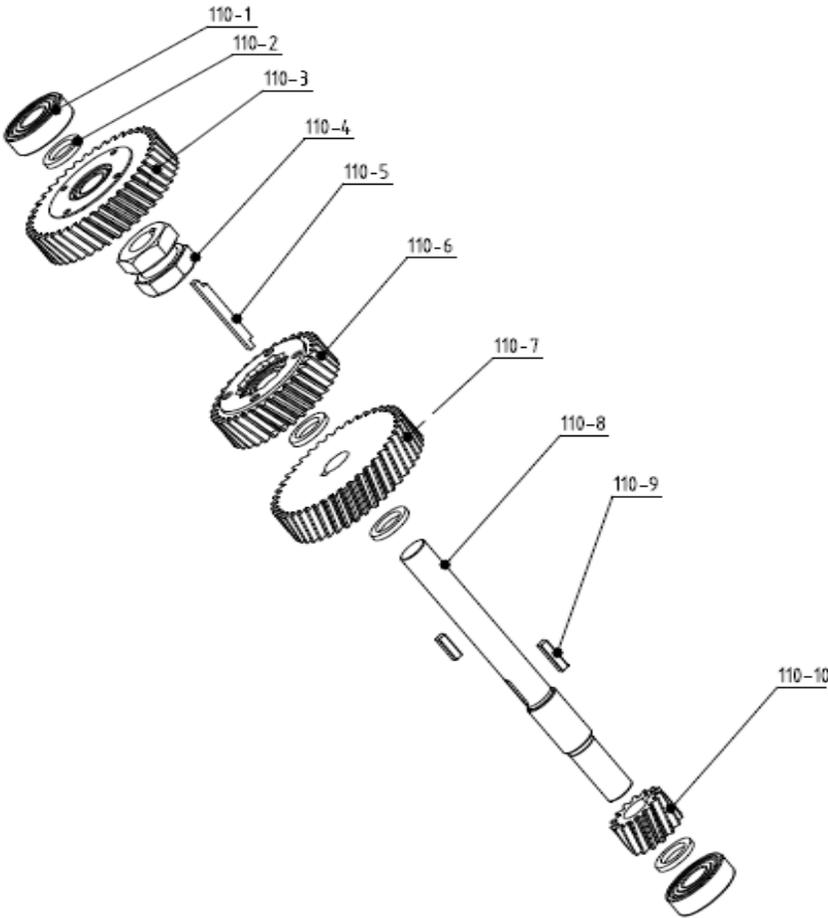
13.1.5 Lifting Component Assembly – Exploded View



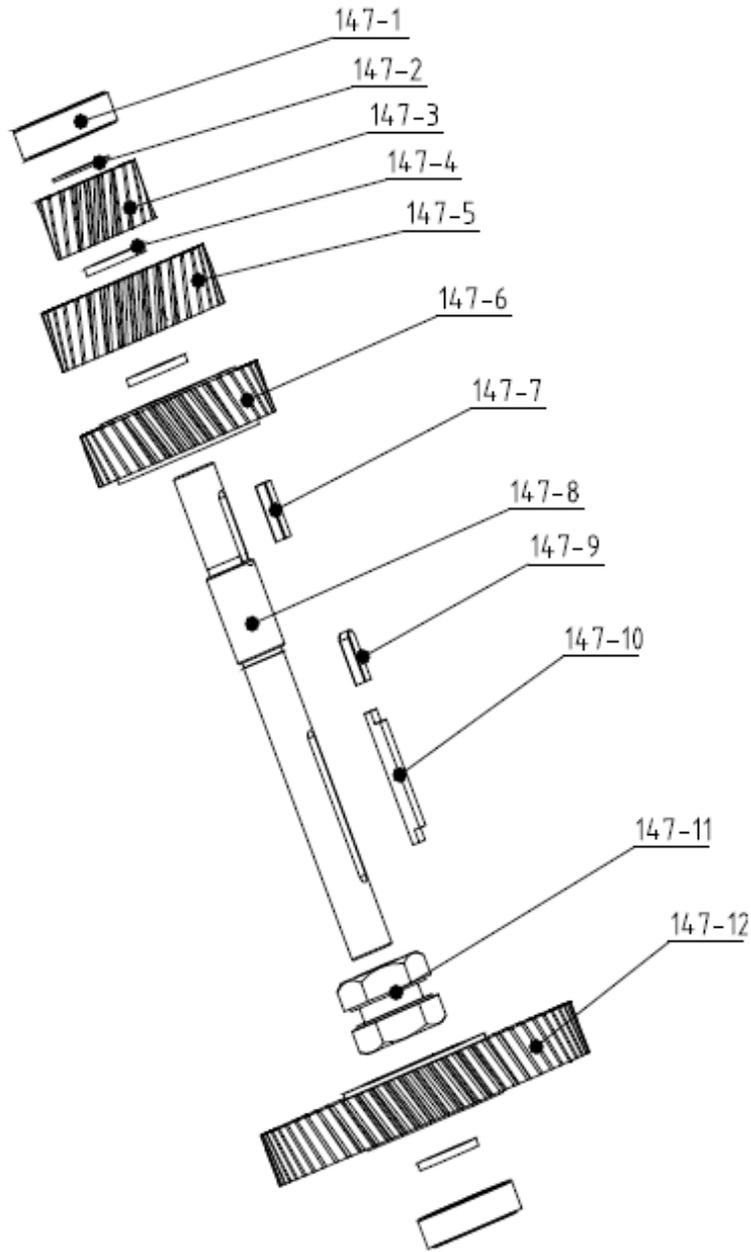
13.1.6 Shaft Assembly 1 – Exploded View



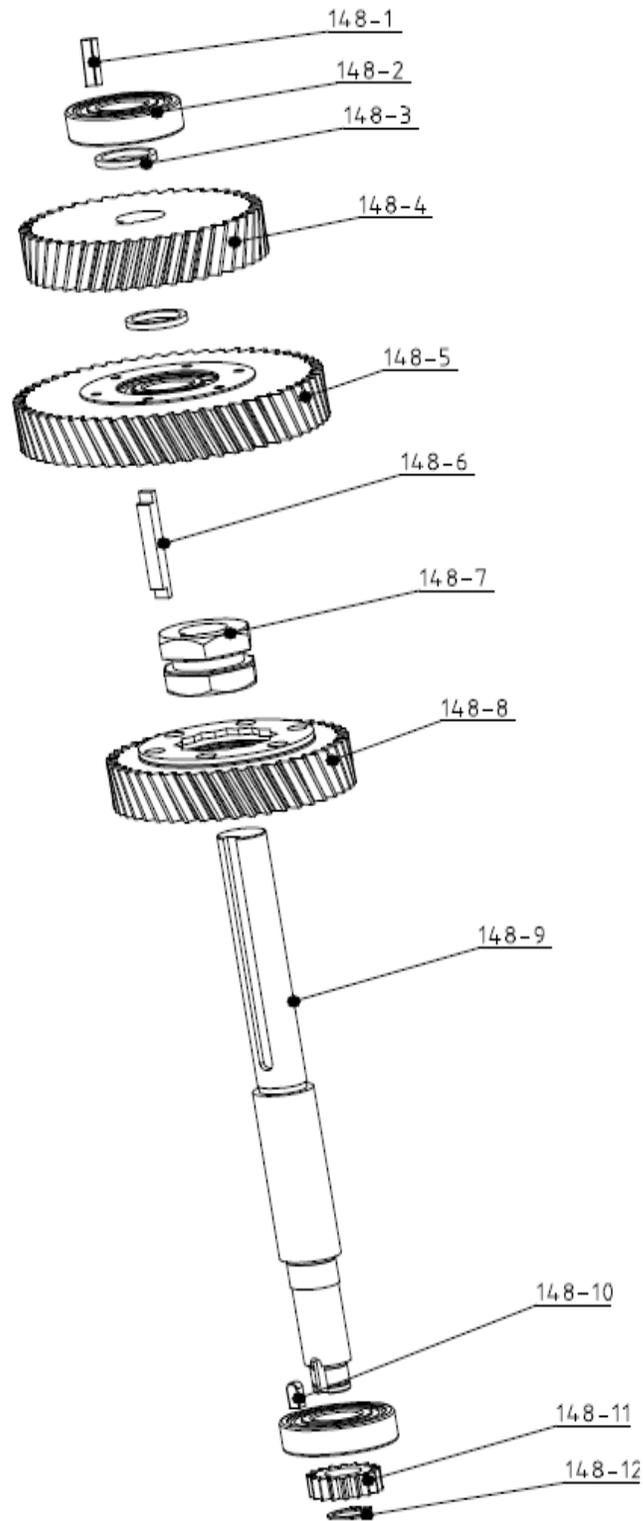
13.1.7 Shaft Assembly 2 – Exploded View



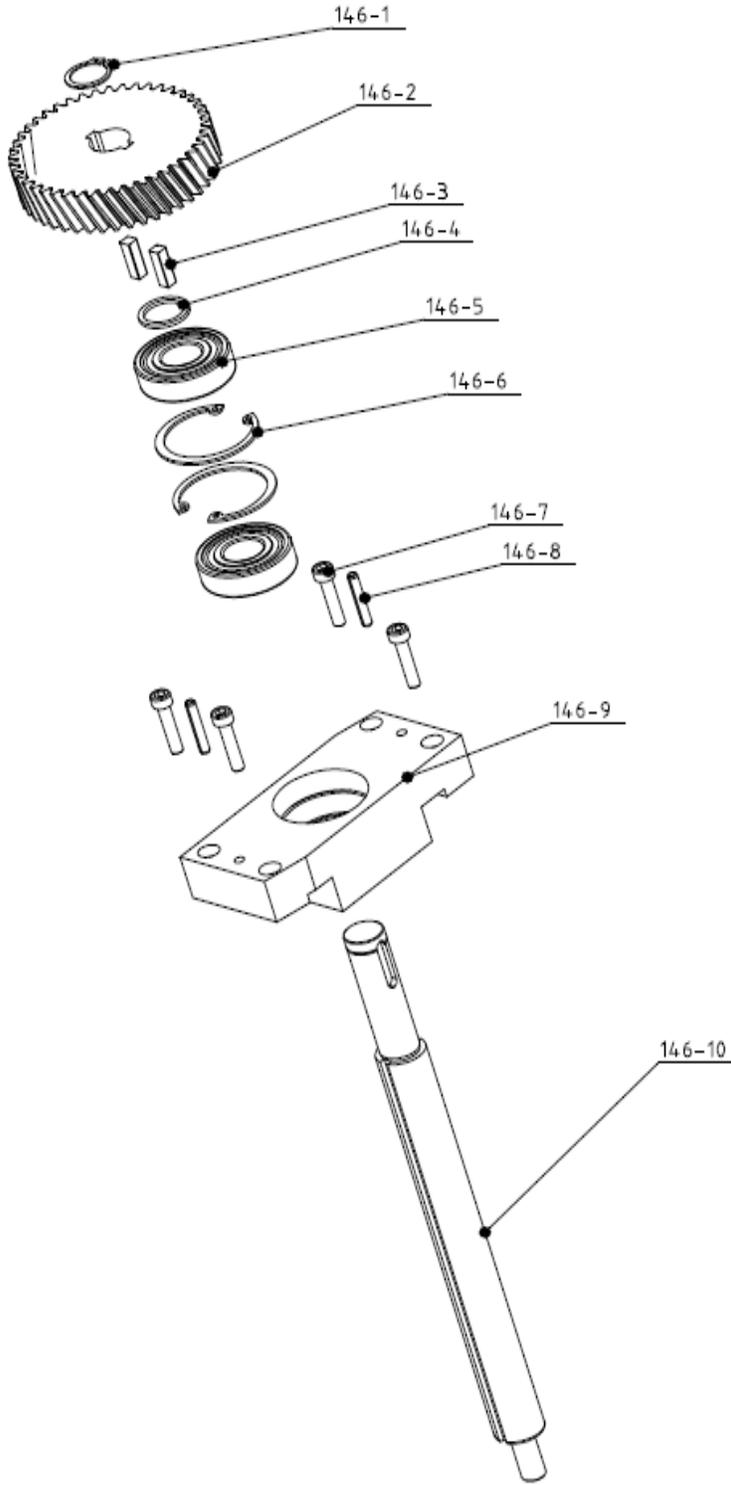
### 13.1.8 Shaft Assembly 3 – Exploded View



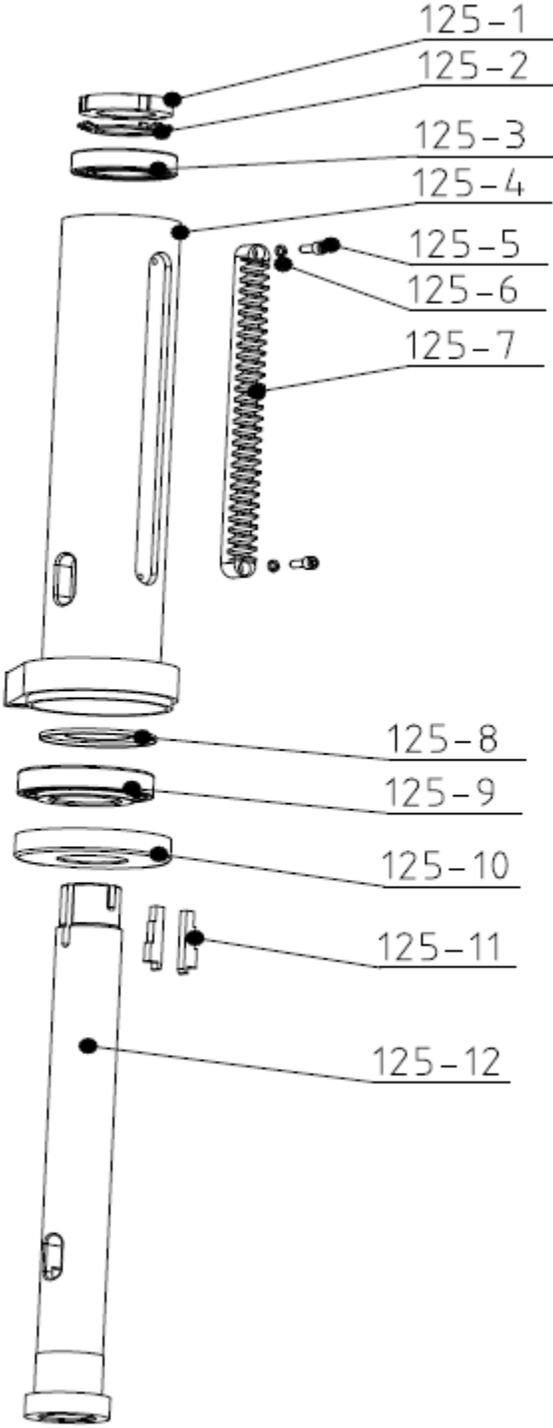
### 13.1.9 Shaft Assembly 4 – Exploded View



13.1.10 Shaft Assembly 5 – Exploded View



13.1.11 Sleeve Assembly – Exploded View



### 13.1.12 Gear Drive Drill Press Assembly – Parts List

Index No	Part No	Description	Size	Qty
1	BA9-1002908	Handle		1
2	BA9-1002920	Crank		1
3	**	Socket Set Screw, Dog Point	M5×12	1
4	**	Shaft		1
5	**	Flat key	6×32	1
6	**	Tube		1
7	**	Spring Pin	5×25	1
8	**	Bearing	3204-2RZ	1
9	**	Retaining Ring, INT	M47	1
10	**	Worm shaft		1
11	BA9-1019445	Plug		1
12	**	Table arm		1
13	BA9-1002874	Gear		1
14	**	Flat key	6×14	1
15	BA9-1002876	Worm wheel		1
16	**	Retaining Rings, EXT	M20	1
17	BA9-1002879	Plug		1
18	**	Socket Head Cap Screw	M10×35	4
19	**	Rack		1
20	**	Bushing		1
21	**	Hex Cap Screw	M12×45	4
22	**	Pillar		1
23	**	Base		1
24	**	Handle		1
25	**	Socket Set Screw, Dog Point	M10×16	1
26	**	Socket Set Screw, Cone Point	M6×12	3
27	**	Sleeve		1
28	**	Table		1
29	**	Screw		1
30	**	Spring Pin	5×25	1
31	**	Locking shaft		1
32	**	Ball		1
33	**	Handle		1
34	**	Locking head		1
35	**	Retaining Rings, EXT	M17	2
36	**	Bearing	6203-2RZ	2
37	BA9-1231813	Spacing sleeve		2
38	BA9-1226390	Gear		1
39	**	Gear		1
40	**	Gear		1
41	**	Gear		1
42	BA9-1231814	Shaft		1
43	**	Roll Pin	5×30	1
44	**	Flat key	5×20	2
45	BA9-1231816	Gear		1
46	**	Disc Spring	18	4
47	**	Retaining Rings, EXT	M15	2
48	**	Gear		1
49	**	Sleeve		2
50	**	Shaft		1
51	**	Flat key	5×10	2
52	BA9-1009643	Gear		1
53	**	Bearing	6002-2RZ	2
54	**	Retaining Ring, INT	M32	1
55	**	Socket Head Cap Screw	M8×70	3
56	BA9-1224707	Top part		1
57	**	Roll Pin	5×16	2
58	**	Retaining Rings, EXT	M36	1
59	**	Worm wheel		1

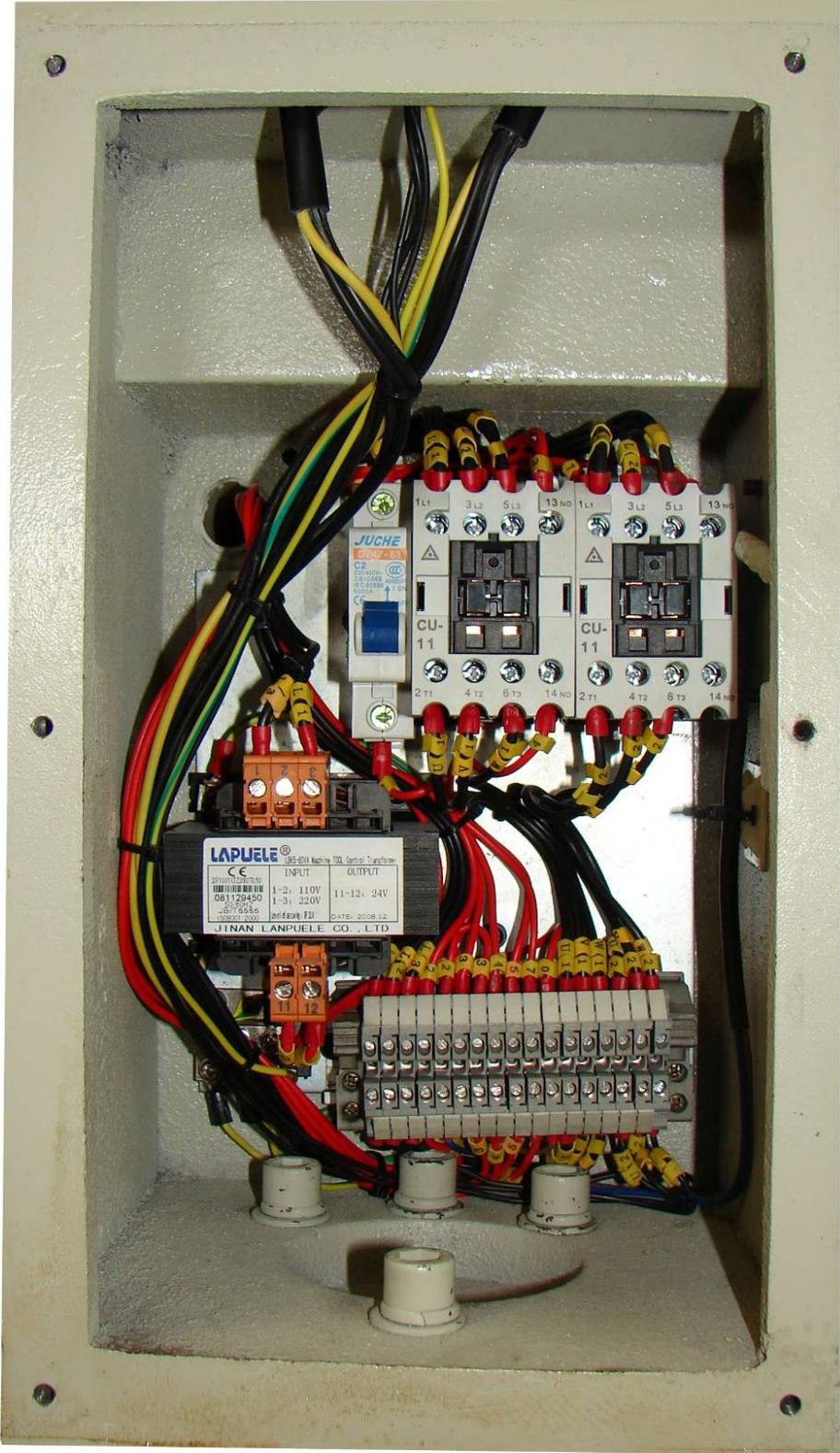
Index No	Part No	Description	Size	Qty
60	**	Clutch ring		1
61	BA9-1002901	Pin		2
62	**	Socket Head Cap Screw	M5×12	3
63	**	Spring Pin	5×25	3
64	**	Washer		1
65	BA9-1015802	Gear shaft		1
66	BA9-1002882	Spring		1
67	BA9-1224608	Spring washer		1
68	BA9-1015732	Shaft		1
69	**	Steel ball	∅16	1
70	BA9-1002907	Covering plate		1
71	**	Seal pad		1
72	**	Hexagon socket head plug	M20×1.5	1
73	**	Handle		1
74	**	Socket Set Screw, Cone Point	M5×8	1
75	**	Pointer		1
76	**	Shaft		1
77	**	Spring Pin	3×16	2
78	**	Universal jointor	8×16×40	1
79	BA9-1224609	Bushing		1
80	**	Gear shaft		1
81	**	Socket Set Screw, Cone Point	M8×25	1
82	**	Shaft		1
83	**	"E" Rings	M20	2
84	**	Pad		2
85	**	Spacer		2
86	**	Bearing NKI20/20		1
87	**	Gear		1
88	**	Socket Set Screw, Dog Point	M8×12	1
89	BA9-1226391	Shaft		1
90	**	Retaining Rings, EXT	M17	2
91	**	Bearing	6003-2RZ	1
92	BA9-1231813	Spacer		5
93	BA9-1226390	Gear		1
94	**	Gear		1
95	**	Gear		1
96	**	Gear		1
97	**	Bearing	6203-2RZ	1
98	**	Slider		1
99	**	Spring		1
100	**	Shaft		1
101	**	Flat key	5×10	1
102	BA9-1009643	Gear		1
103	**	Retaining Rings, EXT	M15	1
104	**	Socket Head Cap Screw	M10×20	4
105	**	Upper cover		1
106	**	Socket Head Cap Screw	M6×12	4
107	**	Flange		1
108	**	Pad		1
109	BA9-1014460	Gear assembly		1
109-1	**	Flat key	8×45	1
109-2	**	Retaining Rings, EXT	M40	1
109-3	BA9-1230983	Gear		1
109-4	BA9-1231607	Shaft I		1
109-5	**	Flat key	8×20	1
109-6	**	Flat key	5×20	1
109-7	BA9-1002897	Gear		1
109-8	BA9-1011725	Spacer		1
109-9	**	Bearing	6203	1
110	BA9-1224571	Shaft II		1
110-1	**	Bearing	6203	2

Index No	Part No	Description	Size	Qty
110-2	BA9-1011725	Spacer		4
110-3	BA9-1002894	Gear		1
110-4	**	Screw		1
110-5	BA9-1002891	Key		1
110-6	**	Gear		1
110-7	BA9-1002897	Gear		1
110-8	BA9-1011724	Shaft		1
110-9	**	Flat key	5×20	2
110-10	**	Gear		1
111	**	Cheese Head MACH Screw	M5×10	6
112	**	Flange		1
113	**	Socket Head Cap Screw	M5×8	2
114	**	Cable duct		1
115	**	Plate		1
116	**	Flat washer	M12	4
117	**	Socket Head Cap Screw	M12×50	4
118	BA9-1231444	Box body		1
119	**	Lifting assembly		1
119-1	**	Bearing	6205	1
119-2	**	Gear shaft		1
119-3	**	Bearing	6007	1
119-4	**	Retaining Ring, INT	M62	1
119-5	**	Winder		1
119-6	**	Slotted Countersunk Flat Head Screws	M4×8	1
119-7	**	Spring Pin	4×12	2
119-8	**	Box		1
119-9	BA9-1012417	Sleeve		1
119-10	**	Retaining Rings, EXT	M60	1
119-11	BA9-1226414	Shaft		1
119-12	BA9-1226413	Handle cover		2
120	**	Oil cover		1
121	**	Oil gauge		1
122	**	Socket Head Cap Screw	M8×50	1
123	**	Automatic feed part		1
124	**	Socket Head Cap Screw	M8×20	6
125	**	Spindle sleeve assembly		1
125-1	**	Nut		1
125-2	**	Lock washer		1
125-3	**	Bearing	6007	1
125-4	**	Spindle sleeve		1
125-5	**	Socket Head Cap Screw	M5×12	2
125-6	**	Spring washer	M5	2
125-7	BA9-1016965	Rack		1
125-8	BA9-1008772	Washer		1
125-9	**	Bearing	30208	1
125-10	BA9-1008774	Cap		1
125-11	BA1-10118	Key		1
125-12	**	Main spindle		1
126	**	Socket Head Cap Screw	M6×25	1
127	**	Stop dog		1
128	BA9-1020022	Spring		1
129	**	Deep gauge rod		1
130	**	Socket Head Cap Screw	M5×8	1
131	**	Stop		1
132	**	Locking bar		1
133	**	Retaining Rings, EXT	M12	1
134	**	Rocker		1
135	BA9-1013624	Spring		1
136	**	Spring Pin	8×16	1
137	**	Slotted Countersunk Flat Head Screws	M4×8	4
138	**	Plate		1

Index No	Part No	Description	Size	Qty
139	**	Socket Head Cap Screw	M4×8	2
140	**	Plate		1
141	**	Panel plate		1
142	**	Panel plate		1
143	**	Cheese Head MACH Screw	M5×10	4
144	**	Cheese Head MACH Screw	M5×10	6
145	**	Speed control components		3
145-1	BA9-1002900	Shift pin		1
145-2	BA9-1008781	Gear lever		1
145-3	**	Spring Pin	5×25	1
145-4	**	Positioning disc		1
145-5	**	Socket Head Cap Screw	M4×8	2
145-6	**	Steel ball	φ11	2
145-7	**	Spring		2
145-8	**	Speed handle		1
146	BA9-1230651	Shaft assembly		1
146-1	**	Retaining Rings, EXT	M20	1
146-2	BA9-1002884	Gear		1
146-3	**	Flat key	6×22	2
146-4	BA9-1008771	Pad		1
146-5	**	Bearing	6204	2
146-6	**	Retaining Ring, INT	M47	2
146-7	**	Socket Head Cap Screw	M6×30	4
146-8	**	Spring pin	5×32	2
146-9	**	Seat		1
146-10	**	Shaft		1
147	BA9-1014131	Shaft assembly		1
147-1	**	Bearing	6203	2
147-2	**	Pad		1
147-3	BA9-1022828	Gear		1
147-4	BA9-1011725	Spacer		3
147-5	BA9-1011049	Gear		1
147-6	**	Gear		1
147-7	**	Flat key	5×22	1
147-8	BA9-1011724	Shaft		1
147-9	**	Flat key	5×20	1
147-10	BA9-1002891	Key		1
147-11	**	Clutch		1
147-12	BA9-1011050A	Gear		1
148	**	Shaft assembly		1
148-1	**	Flat key	6×22	1
148-2	**	Bearing	6204	2
148-3	BA9-1002885	Spacer		2
148-4	BA9-1002886	Gear		1
148-5	BA9-1002888	Gear		1
148-6	**	Clutch		1
148-7	BA9-1008768	Key		1
148-8	BA9-1002890	Gear		1
148-9	**	Shaft		1
148-10	**	Flat key	5×10	1
148-11	**	Gear		1
148-12	**	Retaining Rings, EXT	M15	1
149	**	Top cover		1
150	**	Socket Head Cap Screw	M6×80	2
151	**	Socket Head Cap Screw	M6×80	2
152	**	Socket Head Cap Screw	M6×40	4
153	**	Motor		1



14.2 Electrical Enclosure Components



### 14.3 Electrical Enclosure Components – Parts List

Table 14-1

Item	Part No.	Name	Specification	Qty.
M1	DP1500G-Motor	Main Motor	220V, 3ph, 60hz	1
M2	DP1500G-Cool Pump	Coolant Pump	1/8hp, 220V, 3ph, 50/60hz, L130, 4bolt, 3-9/16"	1
QF	DP1500G-QF1	Current Breaker	DZ47-63, C2	1
TC	DP1000G-XFRMR	Transformer	LBK5-60VA, PRI=110/220V, SEC=24V	1
KM1, KM2	DP1500G-KM1	Contactora	CU-11 Contactora, 220V 3ph 5hp 24Vcoil 3P+1NC	2
TA	DP1500G-E Stop	E-Stop Button		1
FR1	DP1500G-FR1	Thermal Overload		1
SB1	DP1500G-On/Off	Drill Start/Stop	ZB2-BE102C / ZB2-BE101C	1
TS2	DP1500VS-D-05	Coolant Start/Stop	600V, 250V, 10A, 1a	1
SQ	DP15VSF-G18	Micro Switch	Highly, ED-4-3-32	1

## 15.0 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](mailto:Baileigh-Service@jpwindustries.com)





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**[www.baileigh.com](http://www.baileigh.com)**