OPERATOR'S MANUAL

Metal Working

VARIABLE SPEED DRILL PRESS

MODEL: DP-1250VS

Baileigh Industrial Holdings LLC
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Rev. 08/2020

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THANK YOU & WARRANTY

Thank you for your purchase of a machine from Baileigh Industrial Holdings LLC. 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 a 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 a 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 a 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 INCIDENTIAL, 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, lightening, 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 issued RGA number PRIOR to returning any materials.
- Returned materials must be received at Baileigh 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 Holdings LLC 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 Holdings LLC 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 sales@baileigh.com

INTRODUCTION

The quality and reliability of the components assembled on a Baileigh Industrial Holdings LLC machine guarantee near perfect functioning, free from problems, even under the most demanding working conditions. However, if a situation arises, refer to the manual first. If a solution cannot be found, contact the distributor where you purchased our product. Make sure you have the serial number and production year of the machine (stamped on the nameplate). For replacement parts refer to the assembly numbers on the parts list drawings.

Our technical staff will do their best to help you get your machine back in working order.

In this manual you will find: (when applicable)

- Safety procedures
- Correct installation guidelines
- Description of the functional parts of the machine
- Capacity charts
- Setup and start-up instructions
- Machine operation
- Scheduled maintenance
- Parts lists

GENERAL NOTES

After receiving your equipment remove the protective container. Do a complete visual inspection, and if damage is noted, **photograph it for insurance claims** and contact your carrier at once, requesting inspection. Also contact Baileigh Industrial Holdings LLC and inform them of the unexpected occurrence. Temporarily suspend installation.

Take necessary precautions while loading / unloading or moving the machine to avoid any injuries.

Your machine is designed and manufactured to work smoothly and efficiently. Following proper maintenance instructions will help ensure this. Try and use original spare parts, whenever possible, and most importantly; **DO NOT** overload the machine or make any modifications.

Note: *This symbol refers to useful information throughout the manual.*

IMPORTANT

PLEASE READ THIS OPERATORS MANUAL CAREFULLY

It contains important safety information, instructions, and necessary operating procedures. The continual observance of these procedures will help increase your production and extend the life of the equipment.

SAFETY INSTRUCTIONS

LEARN TO RECOGNIZE SAFETY INFORMATION

This is the safety alert symbol. When you see this symbol on your machine or in this manual, **BE ALERT TO THE POTENTIAL FOR PERSONAL INJURY!**

Follow recommended precautions and safe operating practices.

UNDERSTAND SIGNAL WORDS

A signal word – **DANGER**, **WARNING**, or **CAUTION** – is used with the safety alert symbol. **NOTICE**, which is not related to personal injury, is used without a symbol.

DANGER: Indicates a hazardous situation which, if not avoided, will result in death or serious injury.

WARNING: Indicates a hazardous situation which, if not avoided, could result in death or serious injury.

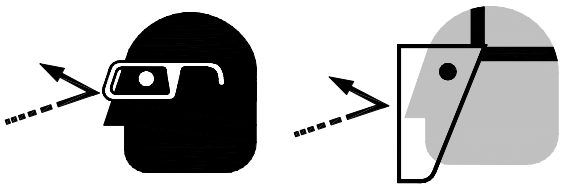
CAUTION: Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

NOTICE: Indicates a situation which, if not avoided, could result in property damage.

SAVE THESE INSTRUCTIONS.
Refer to them often and use them to instruct others.

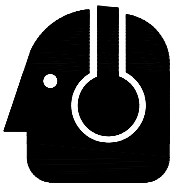
PROTECT EYES

Wear safety glasses or suitable eye protection when working on or around machinery.



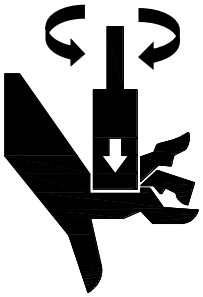
PROTECT AGAINST NOISE

Prolonged exposure to loud noise can cause impairment or loss of hearing. Wear suitable hearing protective devices such as ear muffs or earplugs to protect against objectionable or uncomfortable loud noises.



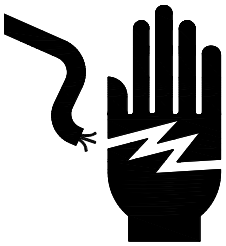
BEWARE OF PIERCING POINTS AND CUTTING HAZARD

NEVER place hands, fingers, or any part of your body on or near rotating tooling. This tooling can be extremely dangerous if you do not follow proper safety procedures. **Keep hand at least 6 inches (150mm) from the tooling while operating.**

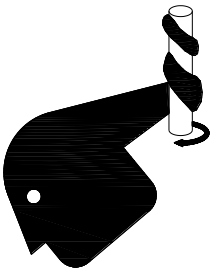


HIGH VOLTAGE

USE CAUTION IN HIGH VOLTAGE AREAS. DO NOT assume the power to be off.
FOLLOW PROPER LOCKOUT PROCEDURES.



ENTANGLEMENT HAZARD – ROTATING SPINDLE



Contain long hair, **DO NOT** wear jewelry or loose fitting clothing.

EMERGENCY STOP BUTTON

In the event of incorrect operation or dangerous conditions, the machine can be stopped immediately by pressing the **E-STOP** button. Twist the emergency stop button clockwise (cw) to reset. Note: Resetting the E-Stop will not start the machine.

CALIFORNIA PROPOSITION 65

WARNING: Cancer and Reproductive Harm.
www.P65Warnings.ca.gov

SAFETY PRECAUTIONS

Metal working can be dangerous if safe and proper operating procedures are not followed. As with all machinery, there are certain hazards involved with the operation of the product. Using the machine with respect and caution will considerably lessen the possibility of personal injury. However, if normal safety precautions are overlooked or ignored, personal injury to the operator may result.

Safety equipment such as guards, hold-downs, safety glasses, dust masks and hearing protection can reduce your potential for injury. But even the best guard will not make up for poor judgment, carelessness or inattention. **Always use common sense** and exercise **caution** in the workshop. If a procedure feels dangerous, don't try it.

REMEMBER: Your personal safety is your responsibility.

WARNING: FAILURE TO FOLLOW THESE RULES MAY RESULT IN SERIOUS PERSONAL INJURY

Dear Valued Customer:

- All Baileigh machines should be used only for their intended use.
- Baileigh does not recommend or endorse making any modifications or alterations to a Baileigh machine. Modifications or alterations to a machine may pose a substantial risk of injury to the operator or others and may do substantial damage to the machine.
- Any modifications or alterations to a Baileigh machine will invalidate the machine's warranty.

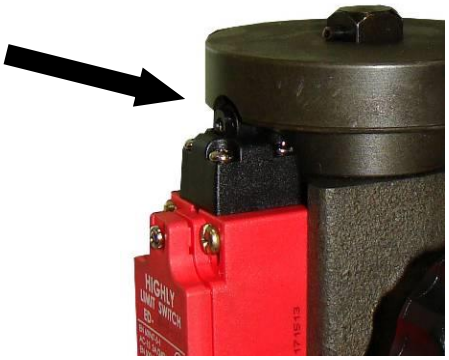
PLEASE ENJOY YOUR BAILEIGH MACHINE! ....PLEASE ENJOY IT SAFELY!

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. 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.
23. **DO NOT** bypass or defeat any safety interlock systems.

Additional Safety Precautions

- Turn off main power to the machine and wait for the drill bit, or cutting tool to stop turning before removing debris, removing or securing the piece part, or changing the position of the work table.
- Never expose your hands or limbs to the cutting area while the machine is operating.
- When the machine is NOT in use, the drill bit or tool should NOT be rotating.
- Never leave the machine running while unattended. Turn the power OFF. Do not leave the machine until the spindle comes to a complete stop.
- Hold the piece part firmly against the table. DO NOT attempt to drill a piece part that does not have a flat surface against the table, or that is not secured by a vise. Prevent the piece part from rotating by clamping it to the table or by securing it against the drill press column.
- Never start the machine before clearing the table of all objects (tools, scrap pieces, etc.)
- Properly lock the drill bit, cutting tool, or sanding drum in the chuck before operating the machine.
- Do not remove any warning signs.
- Check safety equipment, such as safety covers, emergency stop buttons, safety mats, railings, light booms, ramps, and warning signs.
- Make sure electrical cables are well protected from damage. Check insulation periodically for wear.
- Never use the drill press without the swing-away safety guard.
- Make sure the actuator of the limit switch is seated in the detent of the round pad or the machine will not run.



TECHNICAL SPECIFICATIONS

Motor and Electricals:	
Power Input Requirements	220V, 1Ph, 60hz
Motor Type	TEFC Induction
Motor Power	2HP (1.5kw), 220V, 3ph, 60hz, 6.6A, 1720rpm
Starting Amps	9.2A
Running Amps (No Load)	1.7A
Inverter	M-Type
Power Cable	14awg, 6 Ft
Power Plug	Not included
Recommended Circuit and Fuse/Breaker Size	20A
Sound Emission Without Load	70db
Coolant Pump	1/8HP, 220V 1ph, 60hz, 0.4A
Capacities:	
Drilling Capacity, Cast Iron	1.25” (31.75mm)
Drilling Capacity, Mild Steel	1” (25.4mm)
Tapping Capacity, Cast Iron	.75” (19.05mm)
Tapping Capacity, Mild Steel	.625” (15.875mm)
Spindle to Table Maximum Distance	36.41" (925mm)
Spindle to Base Maximum Distance	48.22" (1225mm)
Spindle to Column Maximum Distance	10.4375” (265.1mm)
Coolant Capacity	2 Gal. (7.5L)
Spindle:	
Spindle Taper	MT-4
Spindle Speed, Low Range	Variable, 85 – 540 rpm
Spindle Speed, High Range	Variable, 245 – 2000 rpm
Spindle Travel	5.9" (150mm)
Rotation	Fwd/Rev (Rev = Tapping Only)
Table and Column:	
Table Size	22” x 18.75” (559 x 476mm)
Table Working Surface	18.125” x 14.25” (460 x 375mm)
Table Travel:	
Without Rack Adjustment	15” (381mm)
Maximum Travel with Rack Adjustment	20” (508mm)

T-Slot Number	2
T-Slot Size	.625” [5/8”] (15.857mm)
T-Slot Centers	7.4375” (188.1mm)
Table Weight Capacity	154lbs (70kg)
Column Diameter	4.52" (115mm)
Base:	
Base Size	27" x 19" (686 x 483mm)
Base Working Surface	14-3/4 X 11-13/16 In. (375 X 300mm)
T-Slot Number	2
T-Slot Size	.625” [5/8”] (15.857mm)
Main Materials:	
Head	Cast Iron, Steel Cover
Table and Base	Cast Iron
Spindle and Quill	Steel
Column	Steel
Dimensions:	
Assembled Machine Dimensions (L x W x H)	30.3” x 26.5” x 71.4” (973 x 673 x 1814mm)
Shipping Crate Dimensions (L x W x H)	60" x 44" x 82" (1524 x 1118 x 2083mm)
Weights:	
Net Weight	686lbs (311kg)
Shipping Weight	847lbs (385kg)

TECHNICAL SUPPORT

Our technical support department can be reached at 920.684.4990 and asking for the support desk for purchased machines. Tech Support handles questions on machine setup, schematics, warranty issues, and individual parts needs: (other than die sets and blades).

For specific application needs or future machine purchases contact the Sales Department at: sales@baileigh.com, Phone: 920.684.4990, or Fax: 920.684.3944.

***Note**: The photos and illustrations used in this manual are representative only and may not depict the actual color, labeling or accessories and may be intended to illustrate technique only.*

***Note:** The specifications and dimensions presented here are subject to change without prior notice due to improvements of our products.*

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

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.

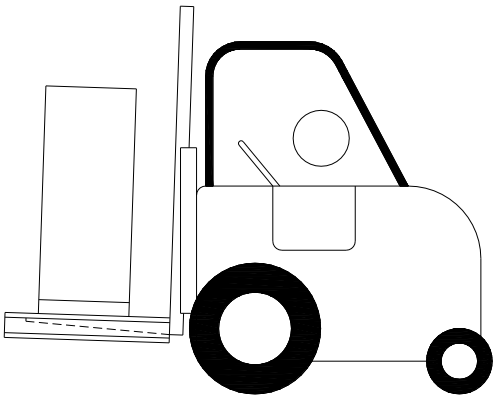
Your machine may be shipped with a rustproof waxy coating and/or grease on the exposed unpainted metal surfaces. Fully and completely remove this protective coating using a degreaser or solvent cleaner. Moving items will need to be moved along their travel path to allow for cleaning the entire surface. 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.*

TRANSPORTING AND LIFTING

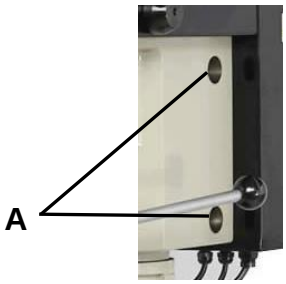
NOTICE: *Lifting and carrying operations should be carried out by skilled workers, such as a truck operator, crane operator, etc. If a crane is used to lift the machine, attach the lifting chain carefully, making sure the machine is well balanced.*

Follow these guidelines when lifting with truck or trolley:



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

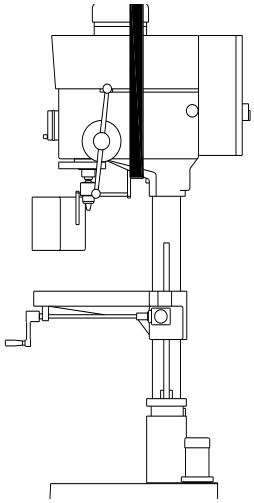
Follow these guidelines when lifting crane or hoist:



- Always lift and carry the machine with the lifting straps around the head of the machine.
- Take proper precautions for handling and lifting. Remove the coolant valve bracket from the head to avoid damaging it. **DO NOT** let the lift strap damage the guard limit switch or guard support bracket.
- Check to see that the machine head is secured to the column using a 10mm hex wrench on bolts (A).

IMPORTANT: Failure to lock the machine head to the column may result in personal injury or machine damage.

- 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, and lower slowly until it touches the floor.



INSTALLATION

IMPORTANT:

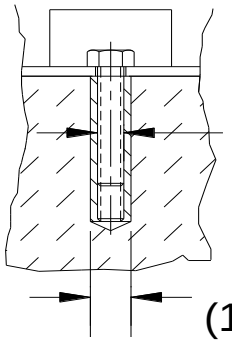
Consider the following when looking for a suitable location to place the machine:

- 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 tool 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.

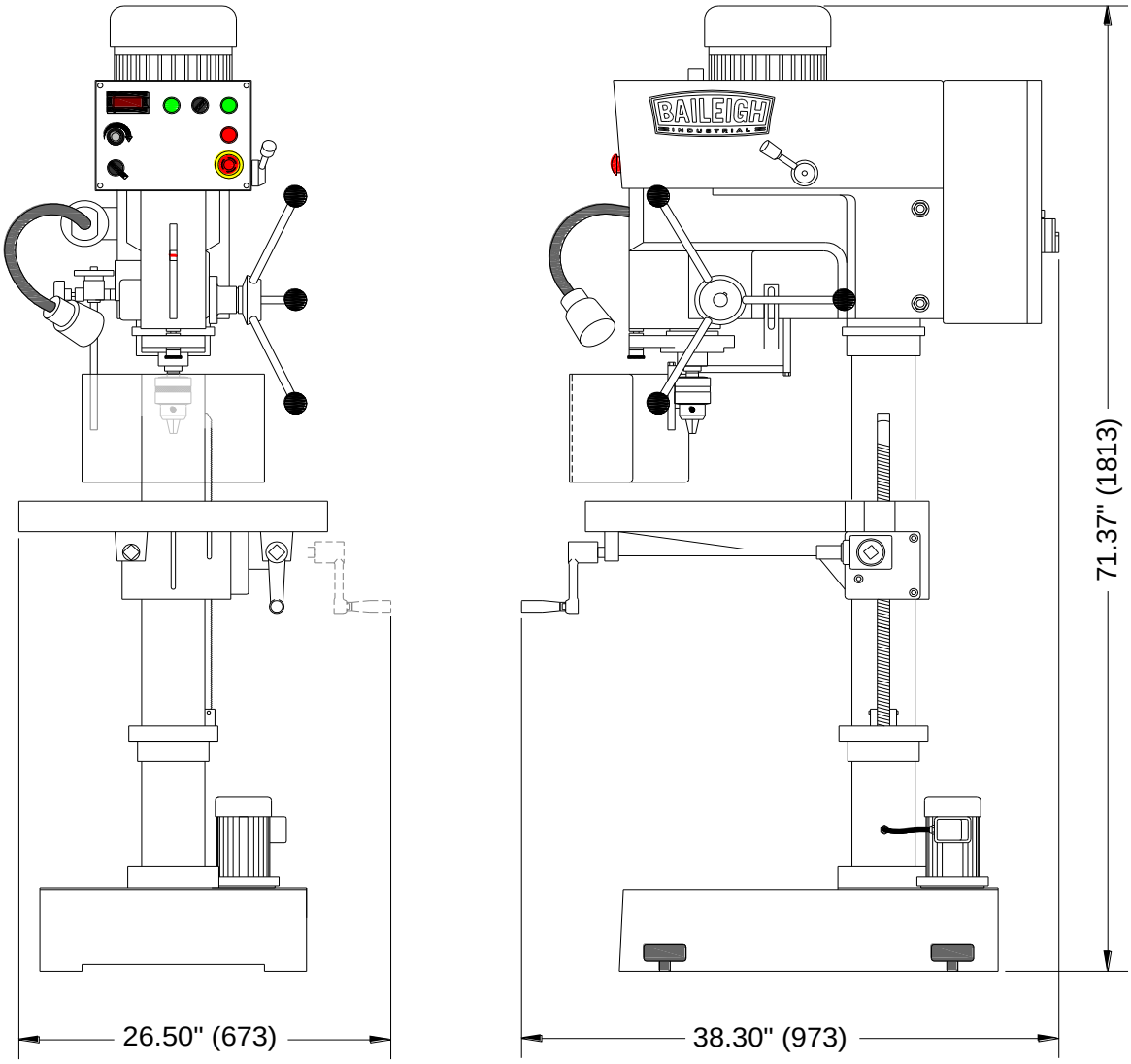
- **POWER SUPPLY PLACEMENT:** The power supply should be located close enough to the machine so that the power cord is not in an area where it would cause a tripping hazard. Be sure to observe all electrical codes if installing new circuits and/or outlets.

Anchoring the Machine

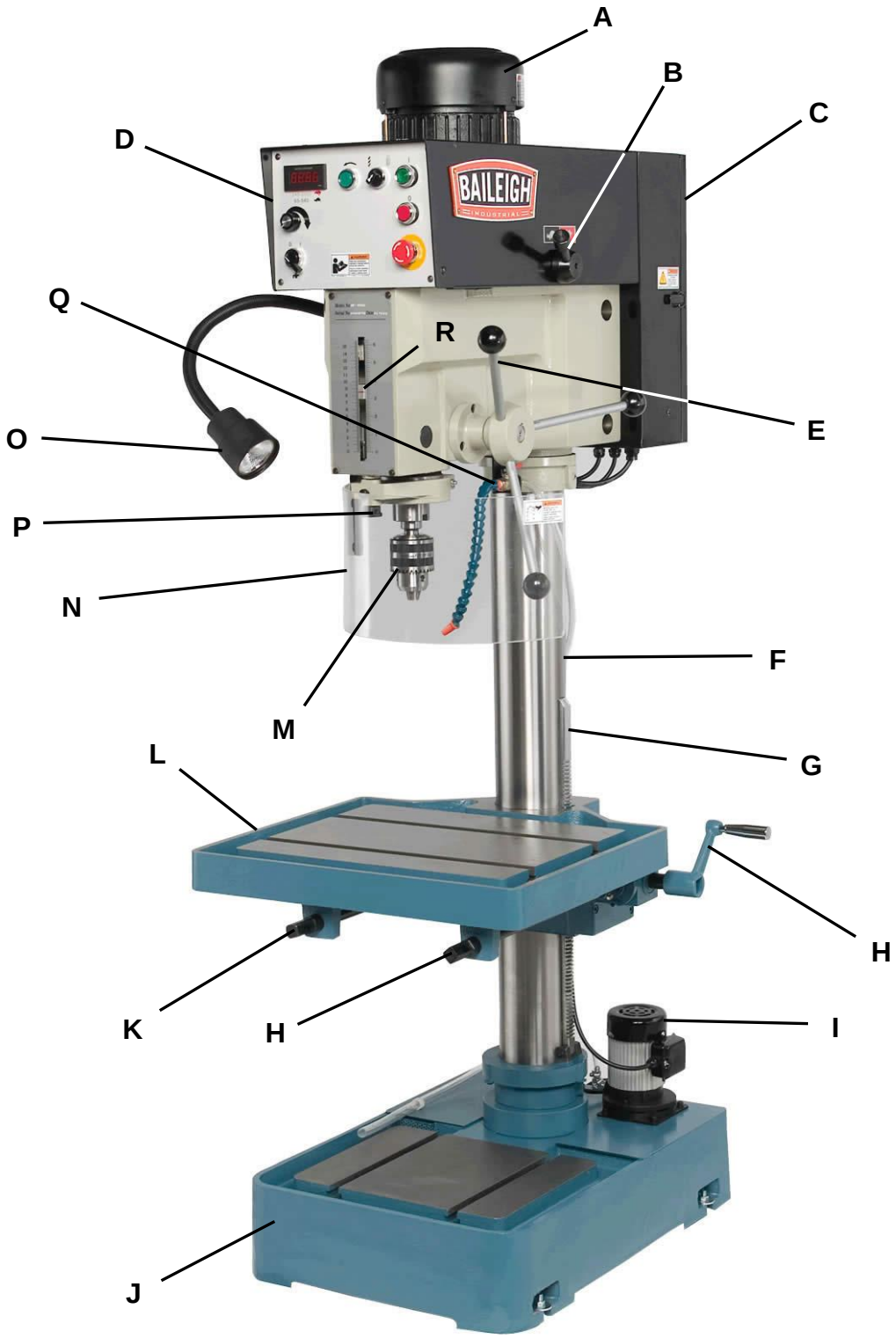
- Once positioned, anchor the machine to the floor, as shown in the diagram, using bolts and expansion plugs or sunken tie rods that connect through holes in the base of the stand.

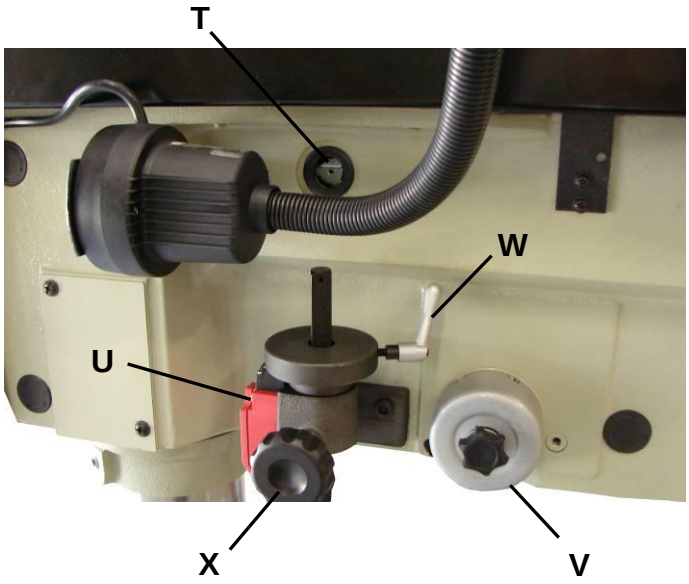


OVERALL DIMENSIONS



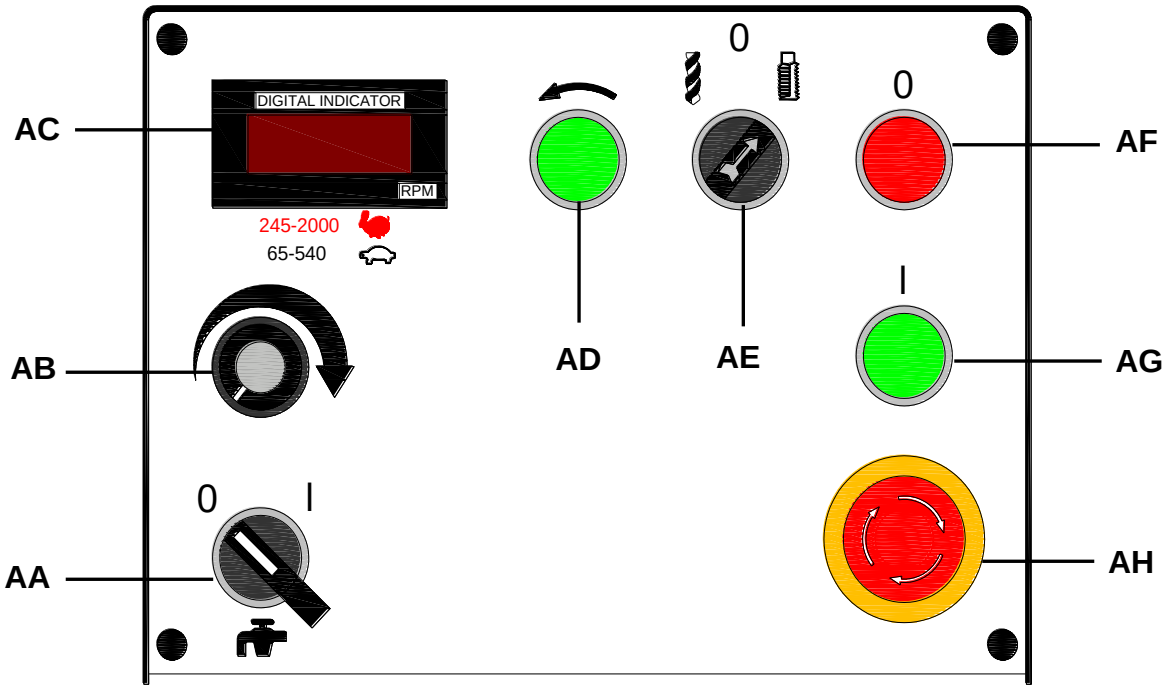
GETTING TO KNOW YOUR MACHINE





A	Motor	Provides power to the chuck
B	2-Speed Hi-Lo	Changes spindle speed RPM. **DO NOT** change spindle RPM until the spindle has stopped completely
C	Electrical Enclosure	Houses the electrical components
D	Control Panel	Houses the operator's controls
E	Down-Feed Handle	Used by the operator to move the quill down and up.
F	Column	Supports the table and head
G	Gear Rack	Engages the table for height adjustment
H	Handle	Table height adjustment at two locations
I	Coolant Pump	Pumps coolant up to the chuck
J	Base	Support for drill press and coolant reservoir
K	Worktable Lock	Secures table when pivoting on column
L	Worktable	Adjustable table with T-slots
M	Chuck	Holds various tooling for drilling and tapping
N	Safety Guard	Adjustable guard with limit switch shut-off
O	Work Light	Provides adequate lighting for work area
P	Depth Scale Lock	Locks the position of the depth scale
Q	Coolant Shut-Off Valve	Controls volume of coolant
R	Depth Scale	Use for setting the depth in manual mode
S	Main Power Disconnect	Turns main power ON-OFF to the drill press
T	Oil Level Gauge	Shows current level of gear oil

U	Limit Switch	Stops machine when guard is swung away
V	Spring Cover	Tensions down-feed handles (DO NOT REMOVE)
W	Guard Knob	Use to hold guard after pivoting sideways
X	Guard Adjustment Knob	Change guard height and lock with knob



AA	Coolant Pump On/Off Switch	Starts the coolant flow for cutting.
AB	Spindle Speed Knob	Changes the speed of spindle rotation.
AC	Digital Indicator	Displays the rate of spindle rotation in RPM.
AD	Reverse Button	Reverses the spindle rotation for tapping only.
AE	Drilling / Tapping Selector Switch	Selects the mode of operation: drilling or tapping.
AF	Stop Button	Stops the spindle motor.
AG	Start Button	Starts the spindle motor. A 10 second wait is required before a machine restart or the machine will not start.
AH	Emergency Stop Button	Stops all machine functions. Turn the switch clockwise (cw) to reset the switch.

High / Low Gear Selector

A gear transmission lever that selects Hi or Low speeds.

IMPORTANT: *Use only while the machine is stopped. Failure to do so will cause damage to the gear system.*

Drill Head

The Drill Head attaches to the top of the column. It houses the motor, spindle, controls, and transfer mechanisms. Attached to it is the electrical enclosure, the protective guard, the work light, and the coolant valve with nozzle.

Worktable

The sturdy worktable 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 worktable are three crankshafts. The two crankshafts (H) control the up /down motion of the table. Always unlock the table with crankshaft (K) before changing the height or rotating it. Then lock the worktable to secure in position. The one handle works for all three crankshafts.

Machine Base

The machine base houses the coolant reservoir and supports the coolant pump (I). The coolant is pumped up to a nozzle where a valve controls the flow onto the tool. The coolant / lubricant enters the table drain and flows back to the reservoir.

ELECTRICAL

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.

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 ±5%, and for the frequency is ±1%.

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.

Extension Cord Safety

Extension cord should be in good condition and meet the minimum wire gauge requirements listed below:

	LENGTH		
AMP RATING	25ft	50ft	100ft
1-12	16	16	14
13-16	14	12	12
17-20	12	12	10
21-30	10	10	No
	WIRE GAUGE		

An undersized cord decreases line voltage, causing loss of power and overheating. All cords should use a ground wire and plug pin. Replace any damaged cords immediately.

Power cord connection:

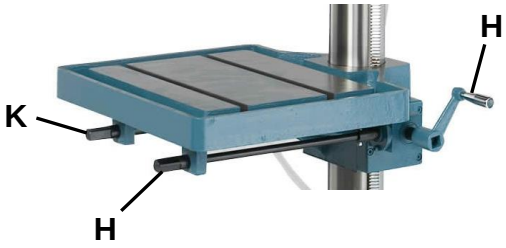
1. Turn the main disconnect switch on the control panel to the OFF position.
2. Unwrap the power cord and route the cord away from the machine toward the power supply.
    a. Route the power cord so that it will NOT become entangled in the machine in any way.
    b. Route the cord to the power supply 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.
5. Turn the switch OFF when the machine is not in operation.

SET UP AND ADJUSTMENTS

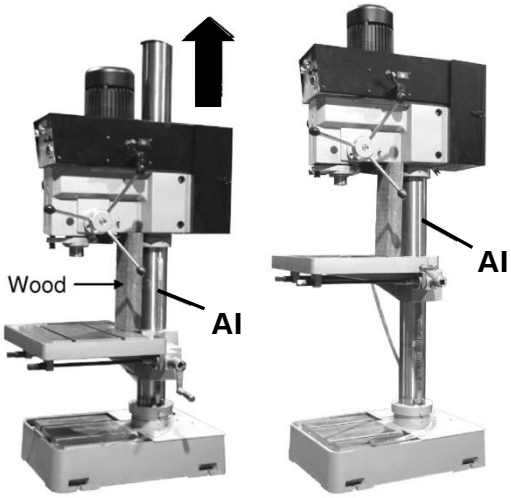
Adjusting the Machine Head Height

⚠ WARNING: Failure to lock the collar can result in personal injury or damage to the machine.

The machine head is lowered for shipping and must be raised before operating.



1. Unlock the table by turning crankshaft (K) counterclockwise (ccw).
2. Place a piece of wood between the table and the machine head. (DO NOT place the wood under the collar (AJ).
3. Raise the table just enough to hold the block of wood in place.
4. Loosen the two bolts (Z) on the machine head counterclockwise (ccw) with a socket wrench.
5. Turning either crankshaft (H) clockwise (cw) will raise the head.
6. STOP when the top of the machine head is flush with the top of the column. DO NOT allow the column to be below the top of the head.
7. Using the wrench, securely lock the two bolts (Z).
8. Now loosen the two setscrews on collar (AJ), slide it up to the machine head, and tighten the setscrews.
9. Once the machine head is safely secured, remove the block of wood.
10. To lower the head, reverse the above steps.

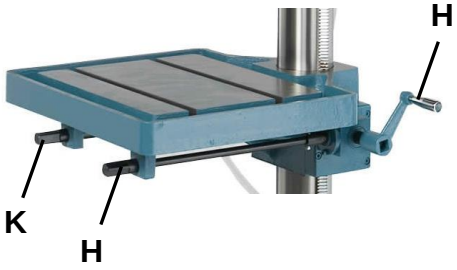


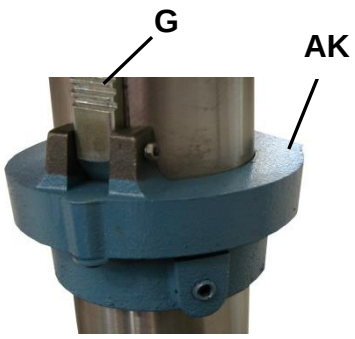
Adjusting the Gear Rack Height

⚠ WARNING: Failure to lock the collar can result in personal injury or damage to the machine.

To raise the table to an adequate working height requires raising of the column gear rack.

1. Lock the table by turning crankshaft (K) clockwise (cw).
2. Unlock column bearing (AK) by loosening the two setscrews.
3. Raise the gear rack (G) by turning crankshaft (H) counterclockwise (ccw).
4. Lock column bearing (AK) by tightening the two setscrews.
5. After unlocking, the table can now be raised or lowered for normal operation.



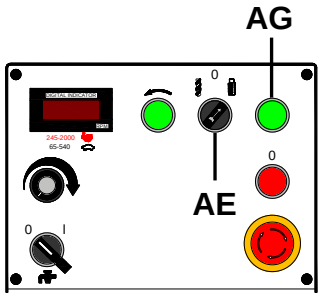


OPERATION

⚠ CAUTION: Always wear proper eye protection with side shields, safety footwear, and leather gloves to protect from burrs and sharp edges. When handling large heavy materials make sure they are properly supported.

Drilling

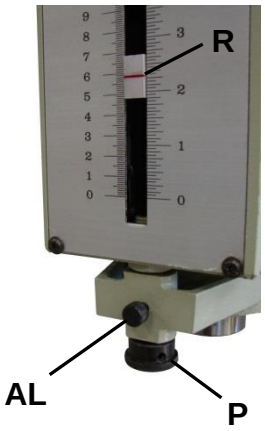
1. Load and secure the piece part to the table.
2. Secure drill bit in the chuck.
3. Unlock the table, adjust to the desired height, and relock the table.
4. Adjust the safety guard up or down as needed.
5. Select the transmission mode with handle (B)



***Important: DO NOT** change transmission spindle selection until the spindle has stopped completely. Switching transmission with the motor on and spindle turn can damage gears.*

6. Select drilling mode with selector switch (AE). Selector switch (AE) shown in drill position.
7. Set the drill bit depth to zero position by lowering it to the top surface of the piece part, using the down-feed handles.

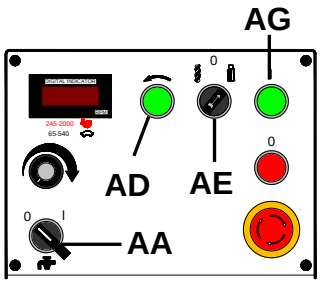
8. While holding the zero position, turn the depth scale lock knob (AL) counterclockwise (ccw) to release depth stop knob (P).
9. Rotate Knob (P) to set the drill depth on the scale with indicator (R).
10. Re-tighten lock knob (AL).
11. Start machine by pressing start button (AE).
12. Turn on the coolant selector switch (AA).
13. Begin drilling using the down-feed handles to lower the chuck.



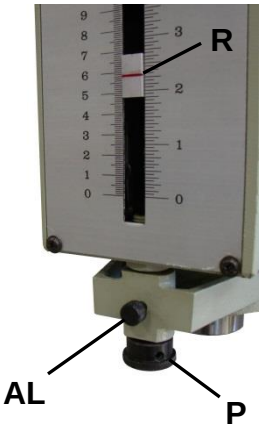
Tapping

1. Load and secure the piece part to the table.
2. Secure tapping tool in the chuck.
3. Unlock the table, adjust to the desired height, and relock the table.
4. Adjust the safety guard up or down as needed.
5. Select the transmission mode with handle. In general, speeds for tapping will require low transmission (turtle) mode.

***Important: DO NOT** change transmission spindle selection until the spindle has stopped completely. Switching transmission with the motor on and spindle turn can damage gears.*

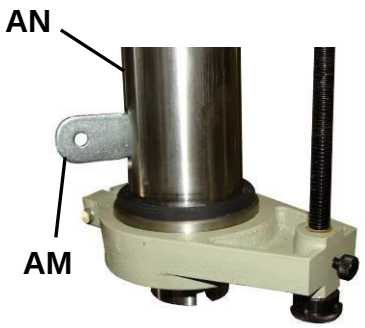


6. Selector switch (AE) shown in tapping position.
7. Set the tap tool depth to zero position by lowering it to the top surface of the piece part, using the down-feed handles.
8. While holding the zero position, turn the depth scale lock knob (AL) counterclockwise (ccw) to release depth stop knob (P).
9. Rotate knob (P) to set the drill depth on the scale with indicator (R).
10. Re-tighten lock knob (AL).
11. Start machine by pressing start button (AE)
12. Turn on the coolant selector switch (AA).
13. Begin tapping using the down-feed handles (E) to lower the chuck. When the tap reaches the bottom of the preset depth, the spindle will automatically reverse direction. You can also reverse the tapping operation at anytime by pressing the green reverse button (AD).



Removing Tooling From Spindle

1. Disconnect machine from the power source.
2. Place a piece of wood on the table for protection.
3. Position the worktable approximately 10” under the bit and lower the spindle about 6”.
4. Place the drift key (AM) into the slot (AN) of the quill and tap the end of the drift key with a hammer until the bit or chuck arbor falls out.



DRILLING RECOMMENDATIONS

Drilling Speeds

The speed of a drill is usually measured in terms of the rate at which the outer periphery of the tool moves in relation to the work being drilled. The common term for this is Surface Feet per Minute (SFM).
The relationship of SFM is expressed in the following formulas:

- SFM = 0.26 X rpm X Drill Diameter (in inches)
- RPM = 3.8 x SFM ÷ Drill diameter (in inches)

In general, the higher the speed the shorter the drill life. Operating at the low end of the speed range for a particular material will result in longer life.
The most efficient speed for drill operation depends upon many variables:

- Composition and hardness of material.
- Depth of hole.
- Efficiency of cutting fluid.
- Type and condition of drilling machine.
- Desired quality of hole.
- Difficulty of set-up.

Drilling Feed

The feed of a drill is governed by size of tool and the material drilled. Because feed rate partially determines rate of production and also is a factor in tool life, it should be chosen carefully for each job. In general, the most effective feeds will be found in the following ranges:

Diameter of Drill (inches)	Feed per Revolution (inches)
Under 1/8	0.001 to 0.002
1/8 to 1/4	0.002 to 0.004
1/4 to 1/2	0.004 to 0.007
1/2 to 5/8	0.007 to 0.015

Excessive Speed/Feed Indicators

- A drill that splits up the web is evidence of too much feed or insufficient tip clearance at the center because of improper grinding.
- The rapid wearing away of the extreme outer corners of cutting edges indicates that speed is too high.
- A drill chipping or breaking out at the cutting edges indicates that either feed is too heavy, or drill has been ground with too much tip clearance.

Speeds for High Speed Steel Drills

Material	Speed (SFPM)
Alloy Steel — 300 to 400 Brinell	20-30
Stainless Steel	30-40
Automotive Steel Forgings	40-50
Tool Steel, 1.2C	50-60
Steel, .4C to .5C	70-80
Mild Machinery Steel, .2C to .3C	80-110
Hard Chilled Cast Iron	30-40
Medium Hard Cast Iron	70-100
Soft Cast Iron	100-150
Malleable Iron	80-90
High Nickel Steel or Monel	40-50
High Tensile Bronze	70-150
Ordinary Brass and Bronze	200-300
Aluminum and its Alloys	200-300
Magnesium and its Alloys	250-400
Slate, Marble, and Stone	15-25
Plastics and similar materials (Bakelite)	100-150
Wood	300-400
Titanium Alloys	10-25
Titanium Alloy Sheet	50–60
***Note**: In cases where carbon steel drills are applicable, the drill should be run at speeds of 40 to 50 percent of those given above.*	

LUBRICATION AND MAINTENANCE

WARNING: Make sure the electrical disconnect is OFF before working on the machine.
Maintenance should be performed on a regular basis by qualified personnel.
Always follow proper safety precautions when working on or around any machinery.

Daily Maintenance

- Check daily for any unsafe conditions and fix immediately.
- Check that all nuts and bolts are properly tightened.
- Do a general cleaning by removing dust and metal chips from the machine.
- Top off the coolant reservoir. (80% of full tank capacity)
- Clean filter screen located on the machine base as often as necessary.
- Check that the guard and emergency stop are in good working order.

Weekly Maintenance

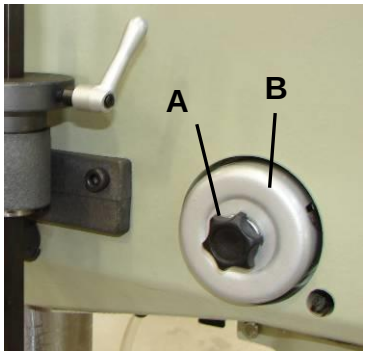
- Check the oil fill window. It is located on the side of the drill head and should be at least half full at all times.
- Thoroughly clean the machine including the coolant tank. See accessing and cleaning the cooling system.
- On a weekly basis clean the machine and the area around it.
- Lubricate threaded components and sliding devices.
- Apply rust inhibitive lubricant to all non-painted surfaces.
- Clean and grease the sliding surfaces.

Monthly Maintenance

- Check that all screws on the motor, the pump, and the guard are tight and secure.
- Check that the guard is operating properly.
- There is a grease fitting (V) on the side of the drill head pivot for lubricating the gear shaft. Using a grease gun, inject grease through this fitting.

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

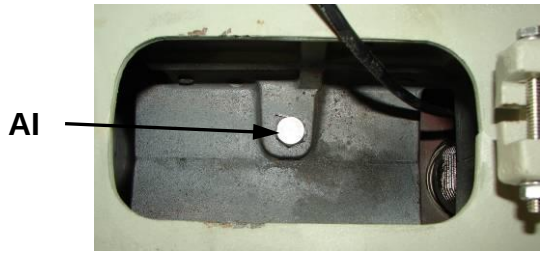
Return Spring



The spindle return is preset by the manufacturer and should not need adjustment.
If future attention is ever required, proceed as follows:

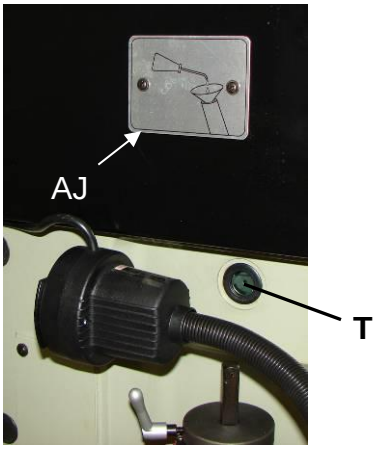
1. Do NOT remove spring cap.
2. Loosen screw (A) just enough to rotate spring cap (B) past pin (Inside case. Not normally visible.) and engage pin into next notch.
3. Rotate spring cap clockwise to decrease spring tension. Rotate spring cap counterclockwise to increase spring tension.
4. Tighten both screws (A).

Replacing Gearbox Oil



- 1st Time: After initial operation of 30 hours.
- 2nd Time: After 1 month of operation
- 3rd Time: Every 12 months of operation

1. To change the oil you need to remove the cover plate on the underside of the head.
2. Remove the oil drain plug (AI) visible through the access hole. (Have a drain pan or container handy to collect the used oil). Be sure the gearbox is completely empty before putting the oil drain plug back in.
3. Remove the oil add cover plate (AJ) covering the oil fill tube and fill the gearbox with fresh SAE 80W-90 gear oil until it reaches the center of the oil sight window (T).



Oil Disposal

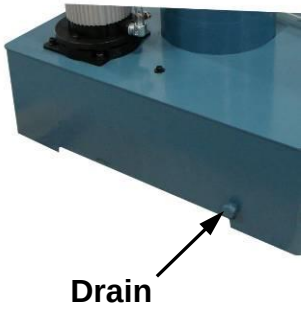
Used oil products must be disposed of in a proper manner following your local regulations.

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 quill with a #2 grease.

Accessing and Cleaning the Coolant System

1. Clean the drain screen.
2. Drain and wash out the dirt and debris from the reservoir
3. Replace coolant drain plug.
4. Thoroughly clean the pump and pump inlet
5. Re-fill tank with coolant solution.



Accessing and Cleaning the Coolant System

- Clean the drain screens on the machine base and the drains on the ends of the table.
- Drain and wash out the dirt and debris from the reservoir
- Thoroughly clean the pump and pump inlet
- Re-fill tank with coolant solution.

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.

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:

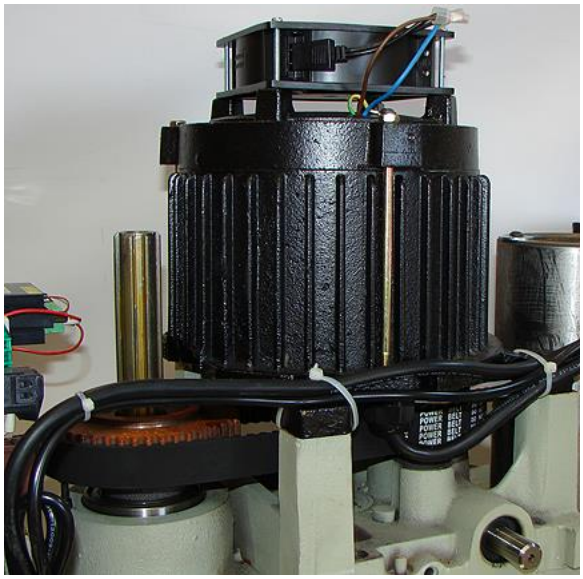
- Disconnect the electrical supply from the power panel.
- Empty and clean the coolant reservoir.
- Clean and grease the machine.
- Cover the machine.

Motor / Drive Belt Replacement

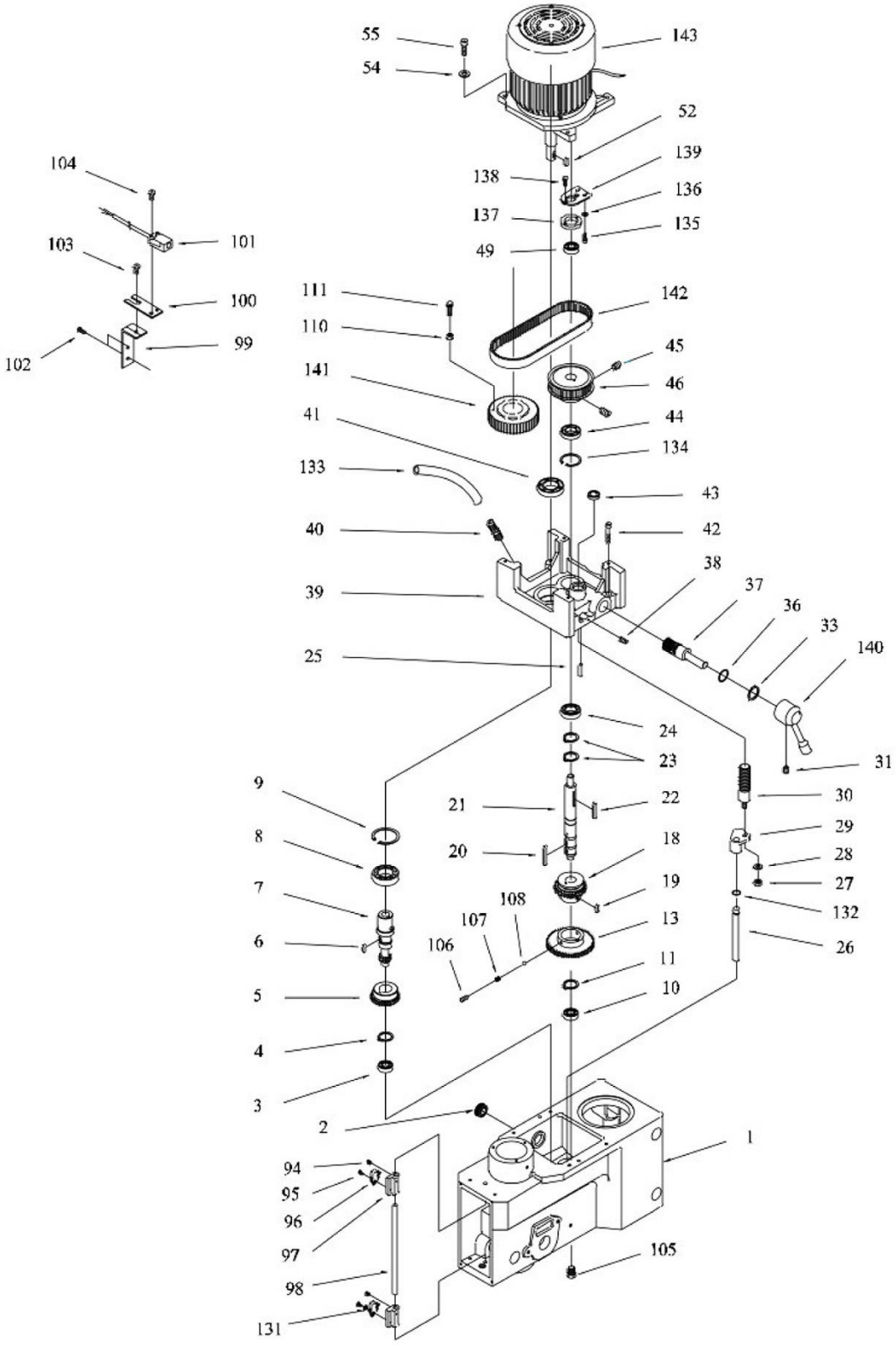
1. Disconnect machine from power source. Disconnect electrical power to drill press to avoid possibility of inadvertent operation and exposure to potentially lethal voltage levels.

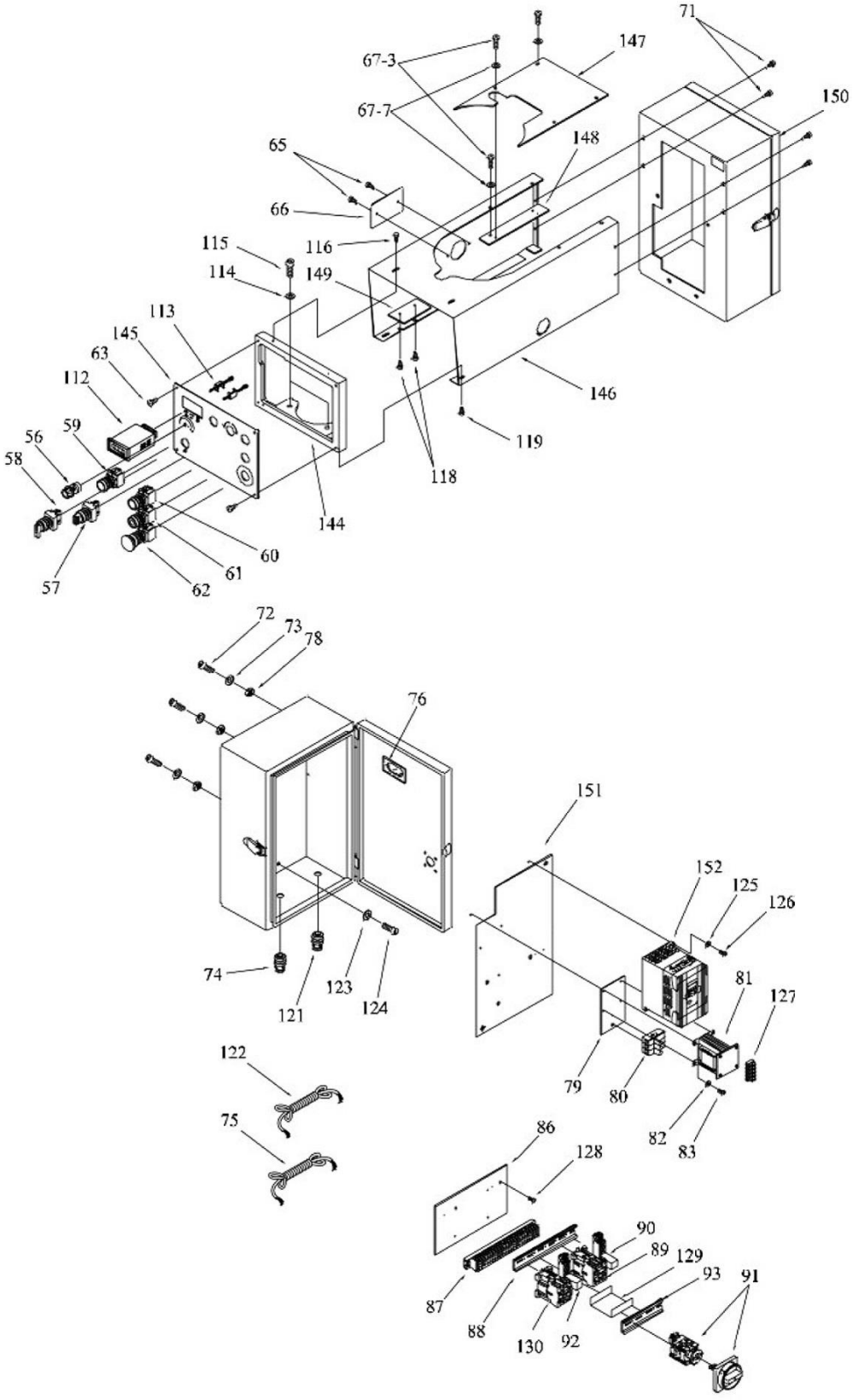
***Note**: Prefer to the parts diagram as needed to aid in disassembly and assembly.*

2. Loosen set screw and remove high/low shift lever.
3. Remove screws and take off pulley cover.
4. Open the motor junction box cover and document / photograph the wiring connections.
5. Disconnect electrical wiring from motor junction box and remove motor.
6. Remove used belt.
7. Install replacement belt.
8. Install motor and connect electrical wiring (refer to removal notes and photos for wiring details).
9. Install pulley cover and secure with screws.
10. Set the drill press circuit breaker ON.
11. Operate drill press to verify correct operation.



HEAD, MOTOR, AND ELECTRICAL PARTS DIAGRAM

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Head, Motor, and Electrical Parts List

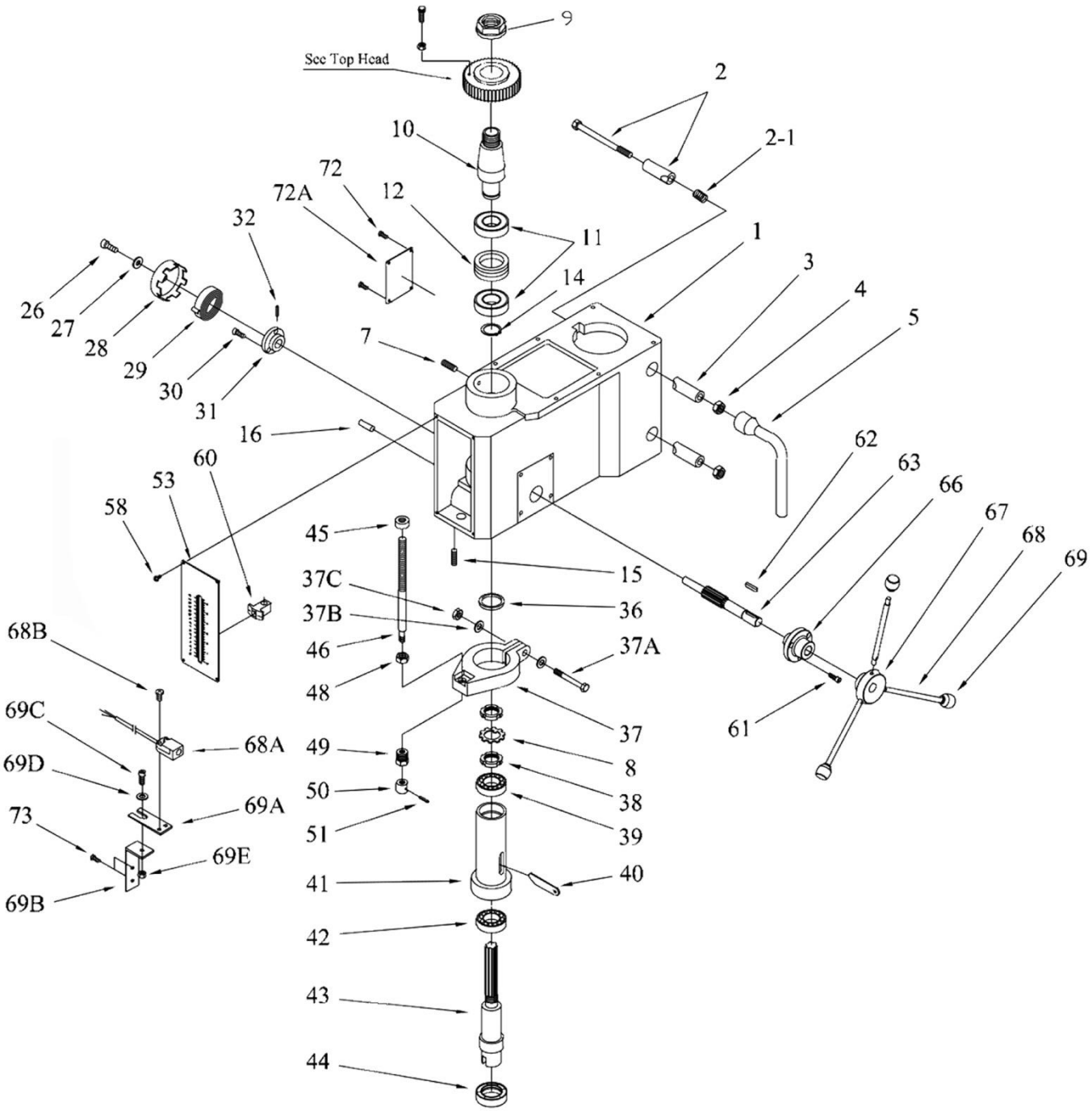
No.	No.	Description	Qty.
1	DP1250VS-A1	Head Body	1
2	DP1250VS-A2	Oil Window S-30	1
3	DP1250VS-A3	Ball Bearing 6202z	1
4	DP1250VS-A4	C-Clip S-31	1
5	DP1250VS-A5	Gear M=2, T=32	1
6	DP1250VS-A6	Key 6x20	1
7	DP1250VS-A7	Drive Shaft M=2, T=13	1
8	DP1250VS-A8	Ball Bearing 6007z	1
9	DP1250VS-A9	C-Clip R-62	1
10	DP1250VS-A10	Ball Bearing 6002z	1
11	DP1250VS-A11	C-Clip S-25	1
13	DP1250VS-A13	Gear M=2, T=56	1
18	DP1250VS-A18	Gear M=2, T=36	1
19	DP1250VS-A19	Key 6x20	1
20	DP1250VS-A20	Key 7x55	1
21	DP1250VS-A21	Shaft	1
22	DP1250VS-A22	Key 7x40	1
23	DP1250VS-A23	C-Clip S-25	2
24	DP1250VS-A24	Ball Bearing 6005z	1
25	DP1250VS-A25	Taper Pin 5x38	2
26	DP1250VS-A26	Rod	1
27	DP1250VS-A27	Hex Nut M10	1
28	DP1250VS-A28	Lock Washer M10	1
29	DP1250VS-A29	Speed Change Block	1
30	DP1250VS-A30	Screw Bar	1
31	DP1250VS-A31	Set Screw 3/8”x3/8”	1
33	DP1250VS-A33	Oil Ring 30x17x7	1
36	DP1250VS-A36	C-Clip R-30	1
37	DP1250VS-A37	Gear Shift T-18	1
38	DP1250VS-A38	Set Screw M6x8	1
39	DP1250VS-A39	Gear Box	1
40	DP1250VS-A40	Oil Filter 3/8”x3/8”	1
41	DP1250VS-A41	Oil Seal 62x35x10	1

No.	No.	Description	Qty.
42	DP1250VS-A42	Hex Socket Capscrew M8x35	4
43	DP1250VS-A43	Oil Seal 25x5	1
44	DP1250VS-A44	Oil Seal 47x25x8	1
45	DP1250VS-A45	Set Screw M8x8	2
46	DP1250VS-A46	Drive Pulley	1
49	DP1250VS-A49	Ball Bearing 6202z	1
52	DP1250VS-A52	Key 6x20	1
54	DP1250VS-A54	Washer M8	4
55	DP1250VS-A55	Hex Socket Cap Screw M8x25	4
56	DP1250VS-A56	SB1, Emergency Stop Switch	1
57	DP1250VS-A57	SB2, Stop Switch	1
58	DP1250VS-A58	SB3, Start Switch	1
59	DP1250VS-A59	SB4, Selection Switch D/T	1
60	DP1250VS-A60	SB6, Pump Switch	1
61	DP1250VS-A61	VR, Speed Control Knob	1
62	DP1250VS-A62	SB5, Reversal Switch	1
63	DP1250VS-A63	Screw	4
65	DP1250VS-A65	Cross Head Screw 3/16”x3/8”	2
66	DP1250VS-A66	Oil Filter Cover	1
67-3	DP1250VS-A67-3	Cross Head Screw 3/16”x3/16”	8
67-7	DP1250VS-A67-7	Washer 3/16”	8
71	DP1250VS-A71	Cross Head Screw M6x16	4
72	DP1250VS-A72	Hex Socket Cap Screw 5/16”x1”	3
73	DP1250VS-A73	Washer 5/16”	3
74	DP1250VS-A74	Relief for Power Cable	1
75	DP1250VS-A75	Power Cable	1
76	DP1250VS-A76	Plastic Plate	1
78	DP1250VS-A78	Nut 5/16”	3
79	DP1250VS-A79	Insulation Board	1
80	DP1250VS-A80	Fuse (0.5A)	2
80	DP1250VS-A80	Fuse (3A)	1
81	DP1250VS-A81	TR, Transformer	1
82	DP1250VS-A82	Washer M4	4
83	DP1250VS-A83	Screw M4x20	4
86	DP1250VS-A86	Connecting Board	1

No.	No.	Description	Qty.
87	DP1250VS-A87	Terminal Plate	1
88	DP1250VS-A88	Aluminum Rail Plate	1
89	DP1250VS-A89	KM2, Contactor	1
90	DP1250VS-A90	KR, Relay	1
91	DP1250VS-A91	Q1, Main Disconnect Switch Assembly	1
93	DP1250VS-A93	Aluminum Rail Plate-Small	1
94	DP1250VS-A94	Set Screw 1/4”x1/4”	4
95	DP1250VS-A95	Cross Head Screw M3x16	4
96	DP1250VS-A96	QS2, QS3, Micro Switch	2
97	DP1250VS-A97	Micro Switch Bracket	2
98	DP1250VS-A98	Micro Switch Support Rod	1
99	DP1250VS-A99	Sensor Bracket	1
100	DP1250VS-A100	Sensor Support	1
101	DP1250VS-A101	Sensor, Spindle Speed Pickup	1
102	DP1250VS-A102	Hex Socket Cap Screw M5x10	2
103	DP1250VS-A103	Screw M4x6	1
104	DP1250VS-A104	Screw M4x20	2
105	DP1250VS-A105	Hex Head Plugs 3/8”	1
106	DP1250VS-A106	Set Screw M10x10	2
107	DP1250VS-A107	Spring	2
108	DP1250VS-A108	Steel Ball M8	2
110	DP1250VS-A110	Hex Nut 3/16	1
111	DP1250VS-A111	Hex Socket Cap Screw 3/16”x3/4”	1
112	DP1250VS-A112	Digital Display, Spindle Speed	1
113	DP1250VS-A113	Holder Screw	2
114	DP1250VS-A114	Washer M8	2
115	DP1250VS-A115	Hex Socket Cap Screw M8x20	2
116	DP1250VS-A116	Screw M5x8	2
118	DP1250VS-A118	Screw M5x8	4
119	DP1250VS-A119	Screw M5x8	4
121	DP1250VS-A121	Cable Relief for Pump Cable	1
122	DP1250VS-A122	Pump Cable	1
123	DP1250VS-A123	Washer M8	4
124	DP1250VS-A124	Hex Socket Cap Screw M8x12	4
125	DP1250VS-A125	Washer M4	2

No.	No.	Description	Qty.
126	DP1250VS-A126	Screw M4x20	2
127	DP1250VS-A127	Terminal Plate	1
128	DP1250VS-A128	Screw M4x8	5
129	DP1250VS-A129	Safety Switch Bracket	1
130	DP1250VS-A130	KM1, Contactor	1
131	DP1250VS-A131	Washer 1/8”	4
132	DP1250VS-A132	Oil Ring P-11	1
133	DP1250VS-A133	Tube	1
134	DP1250VS-A134	C-Clip R-47	1
135	DP1250VS-A135	Hex Socket Cap Screw M8x12	2
136	DP1250VS-A136	Washer M5	2
137	DP1250VS-A137	Bearing Support	1
138	DP1250VS-A138	Flat Head Screw 5x12	2
139	DP1250VS-A139	Ball Bracket	1
140	DP1250VS-A140	Speed Lever	1
141	DP1250VS-A141	Drive Spindle Pulley M=8, T=64	1
142	DP1250VS-A142	Belt 680x8m	1
143	DP1250VS-A143	M1, Motor	1
144	DP1250VS-A144	Plate Bracket	1
145	DP1250VS-A145	Control Panel LD	1
146	DP1250VS-A146	Pulley Cover	1
147	DP1250VS-A147	Top Cover	1
148	DP1250VS-A148	Fixed Plate	2
149	DP1250VS-A149	Dust Plate	2
150	DP1250VS-A150	Electric Control Box	1
151	DP1250VS-A151	Electric Base Plate	1
152	DP1250VS-A152	Delta Inverter VFD-M	1

HEAD AND SPINDLE PARTS DIAGRAM

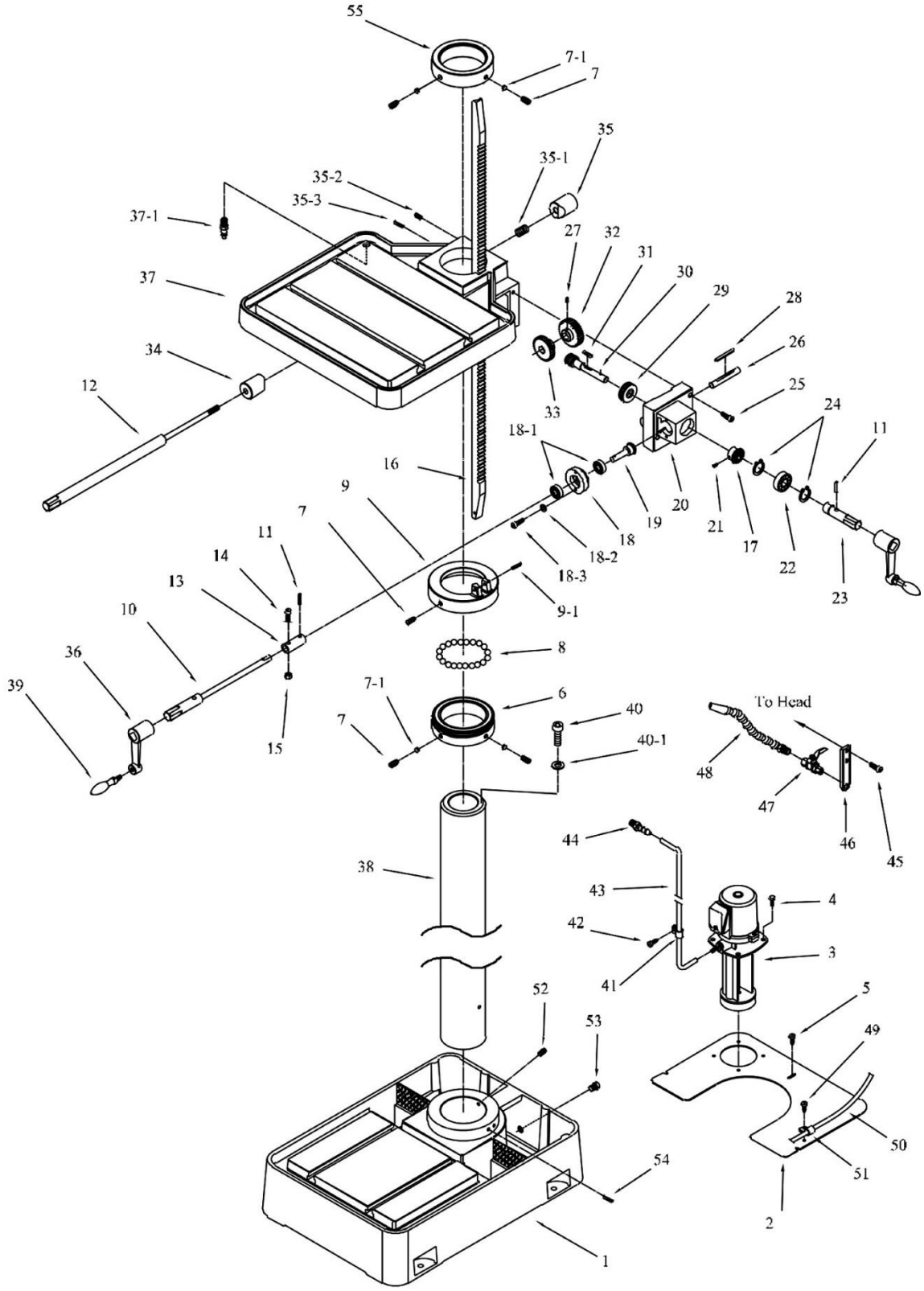


Head and Spindle Parts List

Item	Part No.	Description	Qty.
1	DP1250VS-B1	Head Body	1
2	DP1250VS-B2	Head Body Hex Bolt	2
2-1	DP1250VS-B2-1	Spring	2
3	DP1250VS-B3	Bushing	2
4	DP1250VS-B4	Nut	2
5	DP1250VS-B5	Handle	2
7	DP1250VS-B7	Set Screw 5/16”X3/4”	1
8	DP1250VS-B8	Star Washer	1
9	DP1250VS-B9	Spindle Nut	1
10	DP1250VS-B10	Spindle Taper Sleeve	1
11	DP1250VS-B11	Ball Bearing 6009zz	2
12	DP1250VS-B12	Bearing Spacer	1
14	DP1250VS-B14	C-Clip S-45	1
15	DP1250VS-B15	Screw Bushing	1
16	DP1250VS-B16	Quill Support Pin	1
26	DP1250VS-B26	Set Knob	1
27	DP1250VS-B27	Washer 25x2x1/4”	1
28	DP1250VS-B28	Spring Cover	1
29	DP1250VS-B29	Spring	1
30	DP1250VS-B30	Screw 3/16”X3/8”	3
31	DP1250VS-B31	Spring Bracket	1
32	DP1250VS-B32	Pin 3X20	1
36	DP1250VS-B36	Rubber Washer	1
37	DP1250VS-B37	Feed Base	1
37A	DP1250VS-B37A	Hex. Head Screw 1/4”X2”	1
37B	DP1250VS-B37B	Spring Washer 1/4”	2
37C	DP1250VS-B37C	Nut 1/4”	1
38	DP1250VS-B38	Lock Nut	2
39	DP1250VS-B39	Taper Roller Bearing 30206	1
40	DP1250VS-B40	Drift Key	1
41	DP1250VS-B41	Quill	1
42	DP1250VS-B42	Taper Roller Bearing 30207	1
43	DP1250VS-B43	Spindle Shaft MT4	1

Item	Part No.	Description	Qty.
44	DP1250VS-B44	Bearing Cap 72.45.10	1
45	DP1250VS-B45	Hex Nut	1
46	DP1250VS-B46	Scale Rod	1
48	DP1250VS-B48	Lock Nut	1
49	DP1250VS-B49	Support Base	1
50	DP1250VS-B50	Set Knob	1
51	DP1250VS-B51	Pin 3x15	1
53	DP1250VS-B53	Face Plate	1
58	DP1250VS-B58	Screw 3/16”X5/16”	4
60	DP1250VS-B60	Depth Scale Bracket	1
61	DP1250VS-B61	Set Screw 3/16”X1/2”	1
62	DP1250VS-B62	Key 7x20	1
63	DP1250VS-B63	Pinion Shaft	1
66	DP1250VS-B66	Flange	1
67	DP1250VS-B67	Body Handle	1
68	DP1250VS-B68	Handle Rod	3
68A	DP1250VS-B68A	Sensor	1
68B	DP1250VS-B68B	Screw M4x20	2
69	DP1250VS-B69	Knob	3
69A	DP1250VS-B69A	Sensor Support	1
69B	DP1250VS-B69B	Sensor Bracket	1
69C	DP1250VS-B69C	Screw M4x6	1
69D	DP1250VS-B69D	Washer M4	1
69E	DP1250VS-B69E	Hex Nut M4	1
72	DP1250VS-B72	Cover	1
72A	DP1250VS-B72A	Cover Cap Screw	2
73	DP1250VS-B73	Hex Socket Cap Screw M5x10	2

COLUMN, TABLE, AND BASE PARTS DIAGRAM

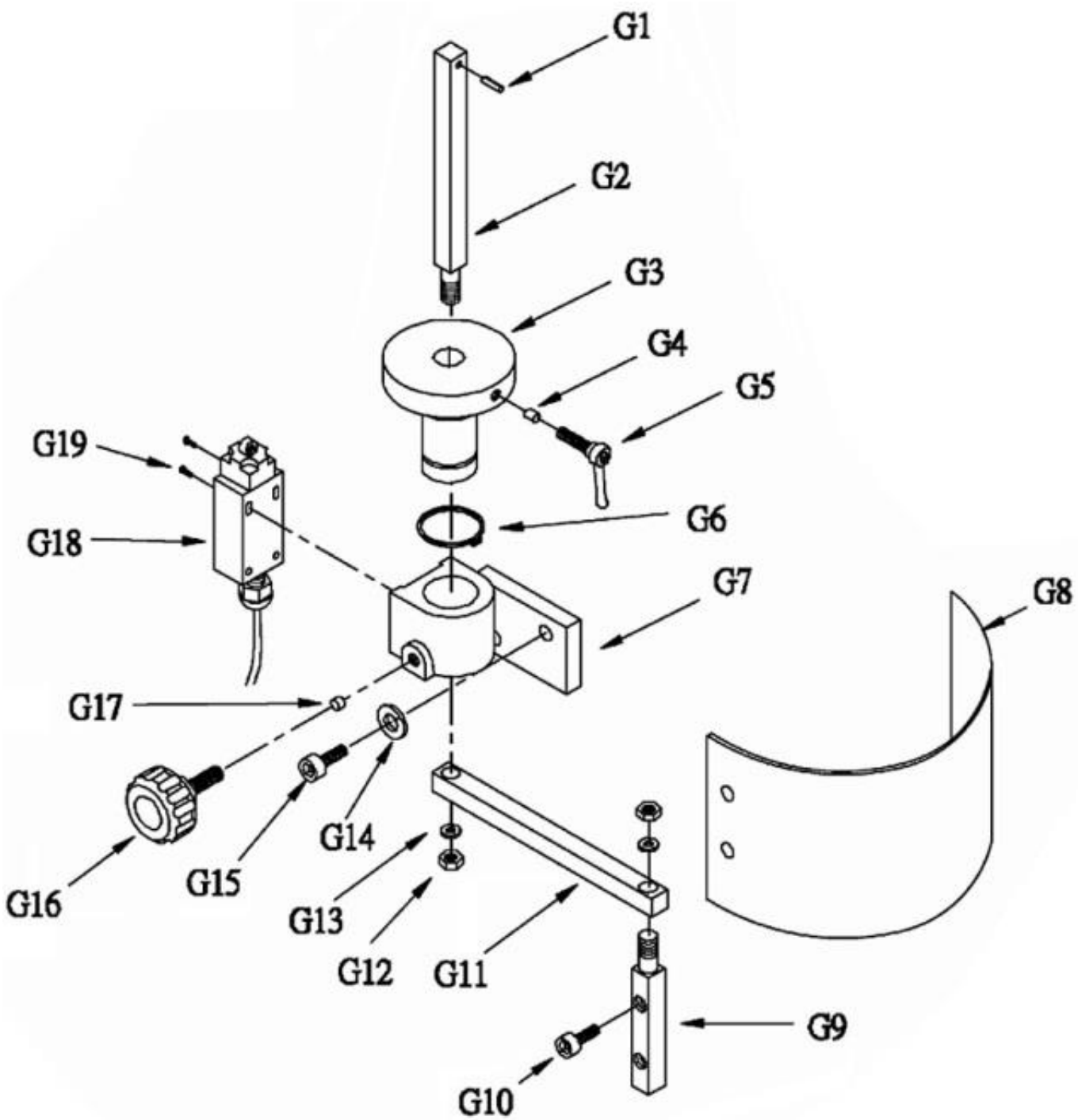


Column, Table, and Base Parts List

Item	Part No.	Description	Qty.
1	DP1250VS-C1	Coolant Base	1
2	DP1250VS-C2	Cover	1
3	DP1250VS-C3	M2, Coolant Pump 1/8HP, 230V	1
4	DP1250VS-C4	Screw W/Washer 1/4”	2
5	DP1250VS-C5	Cross Screw 1/4”X1/2”	1
6	DP1250VS-C6	Support Bearing Collar	1
7	DP1250VS-C7	Set Screw 3/8”X5/16”	4
7-1	DP1250VS-C7-1	Brass Block 3/8”	4
8	DP1250VS-C8	Steel Ball M10	40
9	DP1250VS-C9	Column Bearing Collar	1
9-1	DP1250VS-C9-1	Spring Pin 4x50	1
10	DP1250VS-C10	Crank Shaft	1
11	DP1250VS-C11	Spring Pin 4x25	1
12	DP1250VS-C12	Connection Rod	1
13	DP1250VS-C13	Sleeve	1
14	DP1250VS-C14	Hex. Socket Cap Screw 1/4”X1-1/2”	1
15	DP1250VS-C15	Hex Nut 1/4”	1
16	DP1250VS-C16	Rack	1
17	DP1250VS-C17	Bevel Gear	1
18	DP1250VS-C18	Flange	1
18-1	DP1250VS-C18-1	Ball Bearing 6202zz	2
19	DP1250VS-C19	Small Bevel Gear	1
20	DP1250VS-C20	Gear Bracket	1
21	DP1250VS-C21	Set Screw 1/4”X3/8”	1
22	DP1250VS-C22	Ball Bearing 6005zz	1
23	DP1250VS-C23	Crank Shaft	1
24	DP1250VS-C24	C-Clip S-25	2
25	DP1250VS-C25	Hex Socket Cap Screw M8x35	3
26	DP1250VS-C26	Shaft	1
27	DP1250VS-C27	Set Screw M6x6	2
28	DP1250VS-C28	Key 5x5x50	1
29	DP1250VS-C29	Thrust Bearing 51102	1
30	DP1250VS-C30	Worm Shaft	1

31	DP1250VS-C31	Key 4x4x20	1
32	DP1250VS-C32	Gear	1
33	DP1250VS-C33	Worm Gear	1
34	DP1250VS-C34	Lock Sleeve	1
35	DP1250VS-C35	Lock Sleeve (Thread)	1
35-1	DP1250VS-C35-1	Spring	1
35-2	DP1250VS-C35-2	Hex Socket Cap Screw M6x25	1
35-3	DP1250VS-C35-3	Spring Pin 5x20	2
36	DP1250VS-C36	Lift Handle Crank	1
37	DP1250VS-C37	Table	1
37-1	DP1250VS-C37-1	Connector 3/8”	1
38	DP1250VS-C38	Column	1
39	DP1250VS-C39	Handle	1
40	DP1250VS-C40	Screw	1
40-1	DP1250VS-C40-1	Washer	1
41	DP1250VS-C41	Clamping	1
42	DP1250VS-C42	Cross Cap Screw 3/16”X3/8”	1
43	DP1250VS-C43	Tube	1
44	DP1250VS-C44	Connector	1
45	DP1250VS-C45	Hex Socket Cap Screw M8x20	1
46	DP1250VS-C46	Support Plate	1
47	DP1250VS-C47	ON/OFF Valve	1
48	DP1250VS-C48	Nozzle	1
49	DP1250VS-C49	Cross Cap Screw 3/16”X3/8”	1
50	DP1250VS-C50	Tube	1
51	DP1250VS-C51	Clamping	1
52	DP1250VS-C52	Set Screw 1/2”X1”	2
53	DP1250VS-C53	Hex. Head Plugs 3/8”NPT	1
54	DP1250VS-C54	Spring Pin 4x50	1
55	DP1250VS-C55	Rock Collar	1

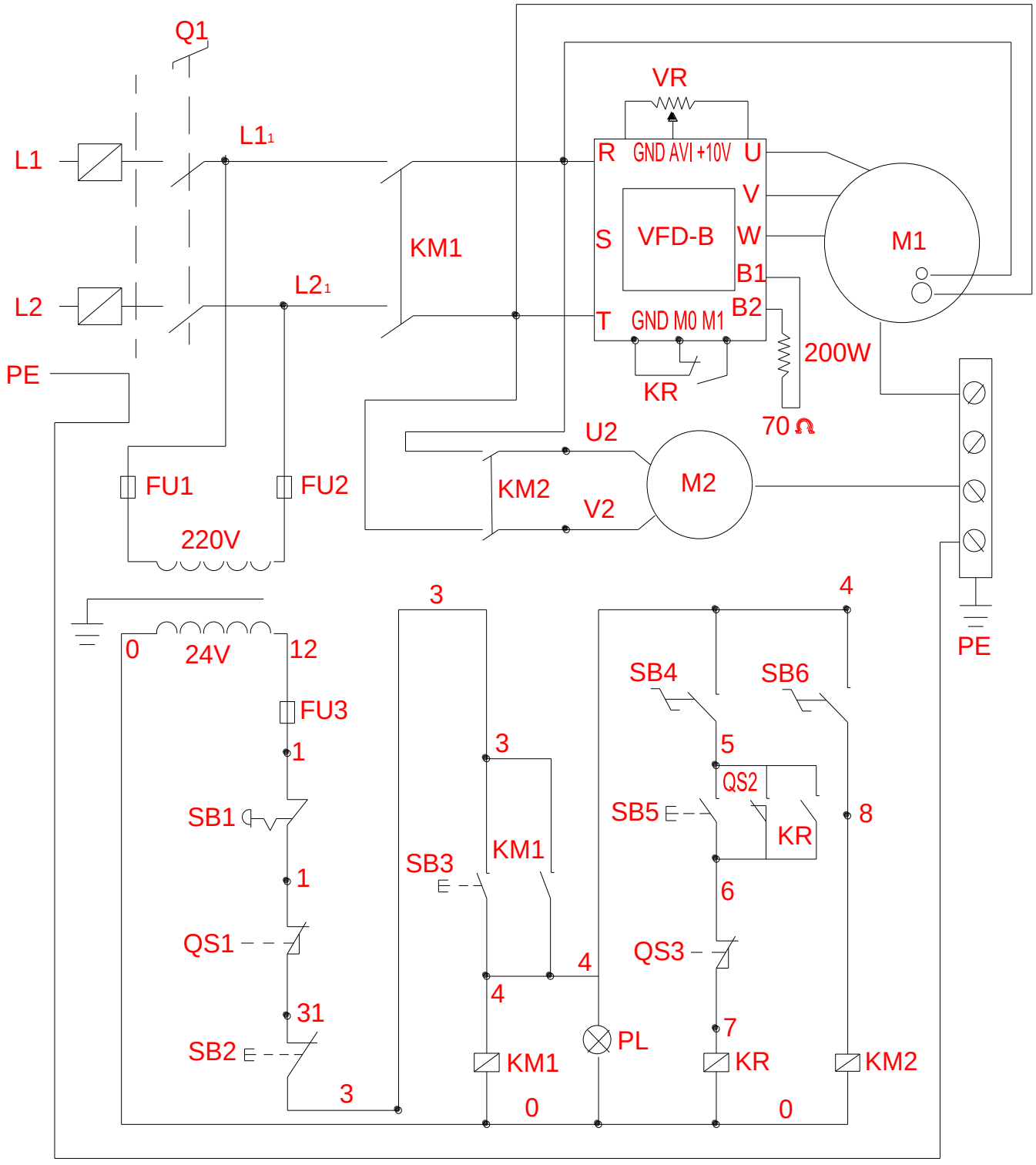
CHUCK GUARD PART DIAGRAM



Chuck Guard Parts List

Item	Part No.	Description	Qty.
G1	DP15VSF-G1	Spring Pin, 3x16mm	1
G2	DP15VSF-G2	Support Bracket Bar	1
G3	DP15VSF-G3	Bushing	1
G4	DP15VSF-G4	Spacer	1
G5	DP15VSF-G5	Rachet Lock Handle M6x20	1
G6	DP15VSF-G6	C-Clip S30	1
G7	DP15VSF-G7	Bracket	1
G8	DP15VSF-G8	Safety Shield, Lexan 410x210mm	1
G9	DP15VSF-G9	Lower Bracket Bar	1
G10	DP15VSF-G10	Hex Socket Head Cap Screw M8x12	1
G11	DP15VSF-G11	Support Arm	1
G12	DP15VSF-G12	Hex Nut 3/8”	1
G13	DP15VSF-G13	Spring Washer 3/8	1
G14	DP15VSF-G14	Spacer	1
G15	DP15VSF-G15	Socket Head Cap Screw M8x20	1
G16	DP15VSF-G16	Lock Bolt with Knob M8x18	1
G17	DP15VSF-G17	Spacer	1
G18	DP15VSF-G18	QS1, Micro Switch (Highly, ED-4-3-32)	1
G19	DP15VSF-G19	Screw M4x20	1

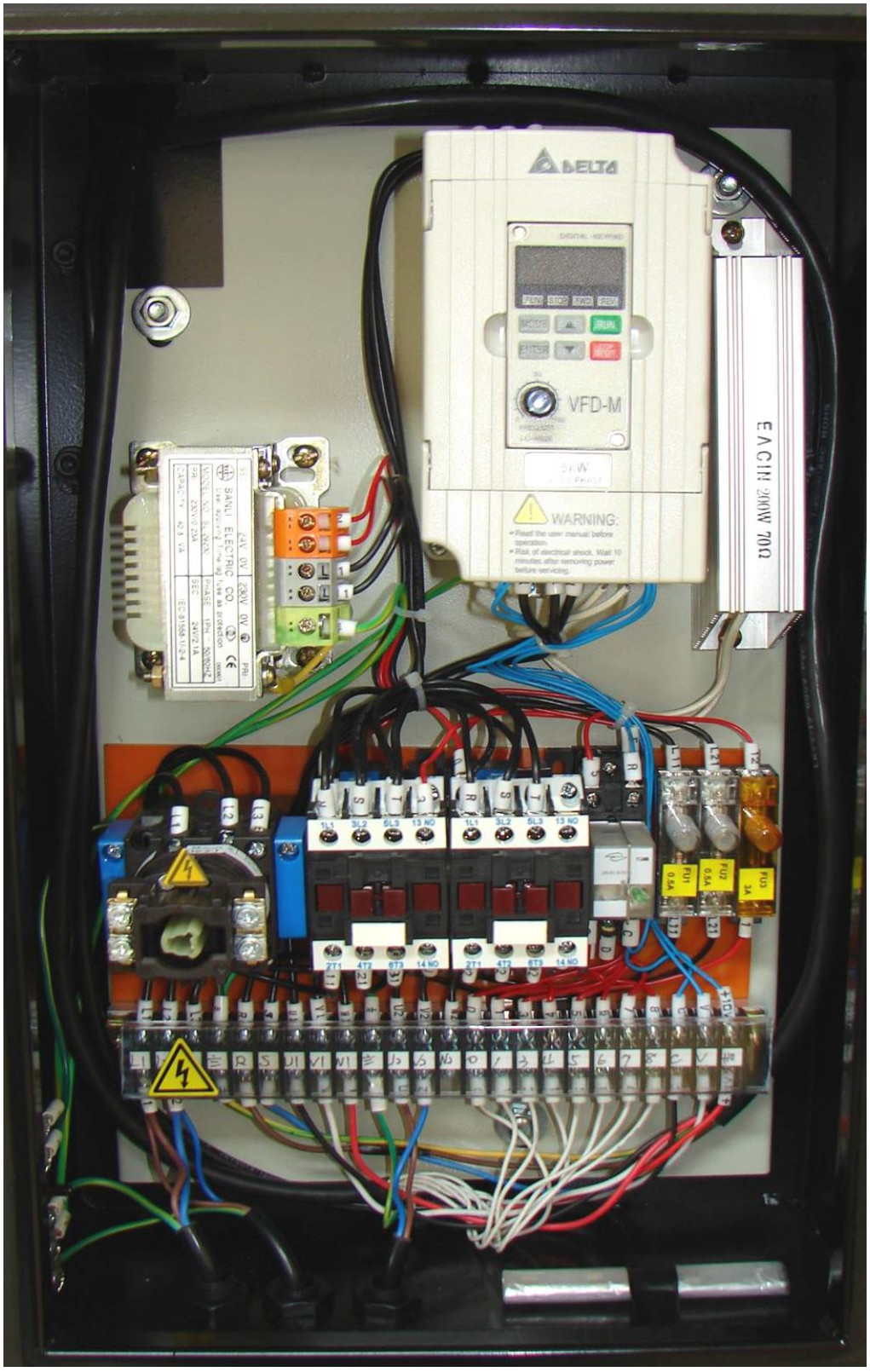
ELECTRICAL SCHEMATIC



Electrical Component Parts List

Item	Description	Data
Q1	Main Disconnect Switch	500VAC,16A,60Hz
FU1	Fuses	500V~10 x 38, 1A
FU2	Fuses	500V~10 x 38, 1A
FU3	Fuses	500V~10 x 38, 4A
KM1	Contactor	Coil 24V, 50/60 Hz, Ui=660V, AC1=25A, AC# 220V, 2.2KW, 380V, 4.0KW, 4<<a>>
KM2	Contactor	Coil 24V, 50/60 Hz, Ui=660V, AC1=25A, AC# 220V, 2.2KW, 380V, 4.0KW, 4<<a>>
FR	Over Relay	0.3~0.45A
KR	Relay, Reversing	2P, ZMY-2
TR	Transformer	AC, 400V, 24V, 52VA (1.2A)
VFD-M	Variable Speed AC Motor Driver	460V, 4A, 230V, 7A, 1.5KW
BR	Braking Resistors	200W,400Ω 200W, 70Ω
VR	Adjust-Speed Switch	0.05Ω Max.
SB2	Push Button, Stop	600V, PL 24V 1a, 250V, 10A, 1b
SB3	Push Button, Start	600V, PL 24V 1a, 250V, 10A, 1b
SB1	Emergency Stop	250V, 10A
SB4	Drilling / Tapping Switch	250V, 3A
SB5	Push Button, Reverse	600V, 250V, 10A, 1a
SB6	Pump Switch, Coolant	600V, 250V, 10A, 1a
XB	Terminal Block	AC 600V, 20V, 1P, 2X, 10A
QS1	Limit Switch, Chuck Guard	AC-15, 3A / 240V
QS2	Micro Switch, Reverse	AC, 125V, 12A
QS3	Micro Switch, Forward	AC, 250V, 6A
M1	Motor, Drilling/Tapping	220V, 2HP
M2	Motor, Coolant	220V, 1/8HP

Electrical Enclosure Components



TROUBLESHOOTING

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

FAULT	PROBABLE CAUSE	REMEDY
Drill Press Does Not Run	1. Wrong voltage	1. Make sure the machine voltage matches the nameplate.
	2. Emergency switch has been pressed.	2. Turn E-Stop switch clockwise (cw) to reset. Wait 10 sec. for the Delta motor controller to reset. Push the start button.
	3. Electrical enclosure door malfunction.	3. Make sure door is closed properly and switched to ON (locked) position.
	4. Safety guard malfunction because of the limit switch.	4. Make sure limit switch actuator is in the center detent position.
	5. Limit switch faulty	Replace limit switch.
	Stop button was pressed.	6. Wait 10 sec. for the Delta motor controller to reset. Push the start button.
Excessive Vibration	1. Improper belt tension. 2. Uneven belt wear. (hard spots) 3. Motor or spindle pulley out of balance. 4. Bad motor.	1. Adjust belt tension. 2. Replace belt. 3. Balance or replace problem pulley. 4. Replace motor.
Motor Stalls	1. Over feeding. 2. Dull drill or tap. 3. Motor not building up to running speed. 4. Bad motor	1. Reduce feed rate. 2. Sharpen drill & keep sharp. 3. Replace or repair motor. 4. Replace motor.
Noisy Operation	1. Noisy spline. 2. Noisy motor	1. Lubricate spline. 2. Check motor bearings or loose fan motor.
Drill or Tool Heats up or Burns Work	1. Excessive speed. 2. Chips not clearing. 3. Dull tool.	1. Reduce speed. 2. Use pecking operation to clear chips.

	4. Feed rate too slow. 5. Failure to use cutting oil or coolant. (on steel.)	3. Sharpen tool or replace. 4. Increase feed enough to clear chips. 5. Use cutting oil or coolant on steel.
Drill Leads Off	1. No drill spot. 2. Cutting lips on drill off center. 3. Quill loose in head. 4. Bearing play.	1. Center punch or center drill work piece. 2. Regrind drill. 3. Tighten quill. 4. Check bearings and reseat or replace if necessary.
Excessive Drill Runout or Wobble.	1. Bent drill bit or tool. 2. Bearing play. 3. Drill not seated properly in chuck.	1. Replace drill bit or tool. (Do Not attempt to straighten.) 2. Replace or reseat bearings. 3. Loosen, reseat, and tighten chuck.
Work or Fixture Comes Loose or Spins	1. Failure to clamp piece part or work holding device to table.	1. Clamp piece part or work holding device to table surface.

Troubleshooting the Inverter

Prior to operating or adjusting any electronic component, Qualified personnel must take the following aspects into consideration:

- Disconnect machine from the power supply.
- DO NOT use bare hands or metal tools to remove or install sensitive electronic parts.
- As residual voltage still exists in the capacitor after the voltage has been turned off, wait until the light disappears from the lighted display before proceeding with any work.
- Visually inspect the electronic circuit board for any defects.
- NEVER connect the alternating current directly to the output connector (U/V/W) of the speed controller.
- The electronic self-diagnosis program can notify you of situations like motor overloading, voltage fluctuations, etc. When the program detects an error, the machine will stop immediately, and the error will be displayed on the inverters digital display. Follow the solutions to correct any errors.

Code	Error Description	Solution
O.C.	* The voltage inverter detects that the output current exceeds the normal value.	* Check if motor voltage matches that of the voltage inverter. * Check connection between the motor and the voltage inverter. * Check if the motor is overloaded.
O.U.	* The voltage inverter of the motor is detected with a D.C. high voltage lateral pressure value that exceeds the acceptable range.	* Check if the circuit input voltage matches that of the voltage inverter. * Frequent on/off and forward/reverse directions result in high voltage self-protection.
O.H.	* The touch pole cooling device of the motor voltage inverter indicates an overheat condition.	* Check if the circuit input voltage matches that of the voltage inverter. * Make sure the cooling device is free from dirt and foreign objects.
O.L.	* The frequency converter detected an output exceeding 150% above normal for 1 minute.	* Check if the motor is overloaded. Tooling may be dull. Check for proper sized tooling, gear speed, and feed rate.
o.c.A o.c.d o.c.n	* Electric current is too large during acceleration. * Electric current is too large during deceleration. * Electric current is too large during normal operation.	* Check if the output connection of the motor adjuster is insulated improperly.
G.F.F	* Grounding or safety wire issues.	* Check if grounding is adequate. * Replace safety fuses. * When the display continues to show the same code, contact Baileigh Industrial at (920)684-4990
C.F1~3 or others	* Internal EEPROM can not be read or programmed. * Current sensor error. * U-phase error. * W-phase error	* Return to Baileigh Industrial.

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