

# **OPERATOR'S MANUAL**



# GEAR DRIVE DRILL PRESS MODEL: DP-1500G

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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 <u>sales@baileigh.com</u>



## 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, <u>BE ALERT TO THE</u> 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 earmuffs or earplugs to protect against objectionable or uncomfortable loud noises.

## **BEWARE OF PIERCING POINTS AND CUTTING HAZARD**

<u>NEVER</u> 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. <u>Keep hand at least 6 inches</u> (150mm) from the tooling while operating.

## 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 <u>E-STOP</u> 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. <u>www.P65Warnings.ca.gov</u>









## 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. <u>Always use common sense</u> and exercise <u>caution</u> 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. 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. <u>Bare wiring can kill!</u> DO NOT touch live electrical components or parts.
- 24. DO NOT bypass or defeat any safety interlock systems.



## **TECHNICAL SPECIFICATIONS**

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)	
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)	
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	
Shipping Dimensions (L/W/H)	86" x 23" x 37" (2185 x 584 x 940mm)	
Shipping Weight	963lbs (437kg)	

## **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: <u>sales@baileigh.com</u>, 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.

#### <u>Cleaning</u>

**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.







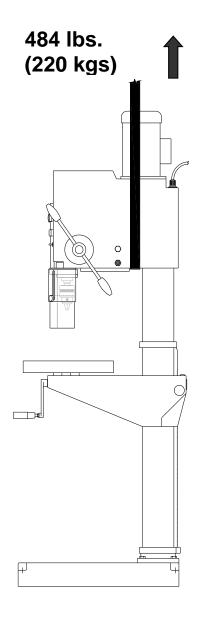


## TRANSPORTING AND LIFTING

**CAUTION:** 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.





## INSTALLATION

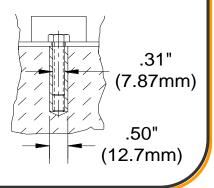
## **IMPORTANT:**

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 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.

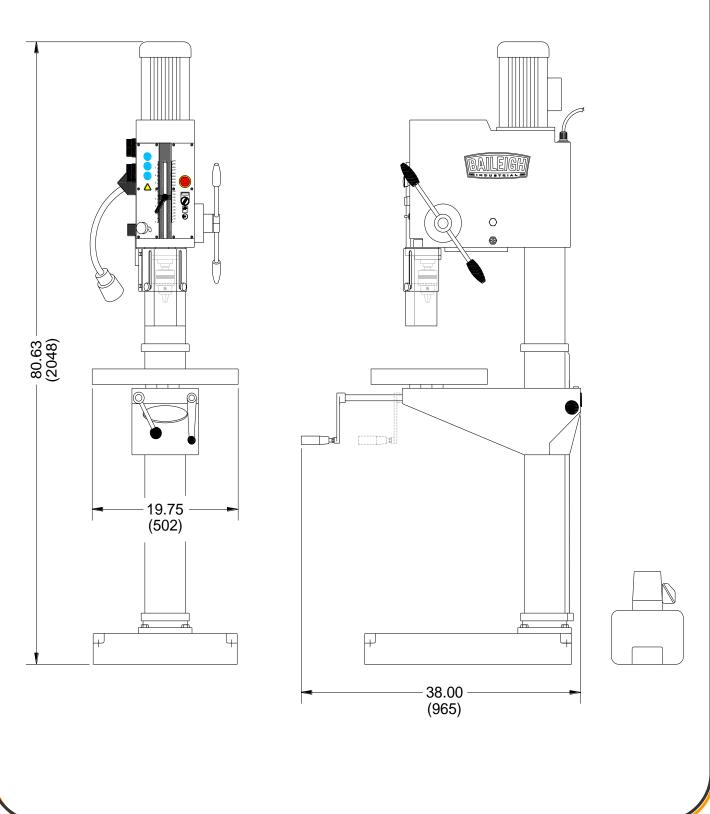
#### Anchoring the Machine

- Once positioned, anchor the machine to the floor, as shown in the diagram. 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.



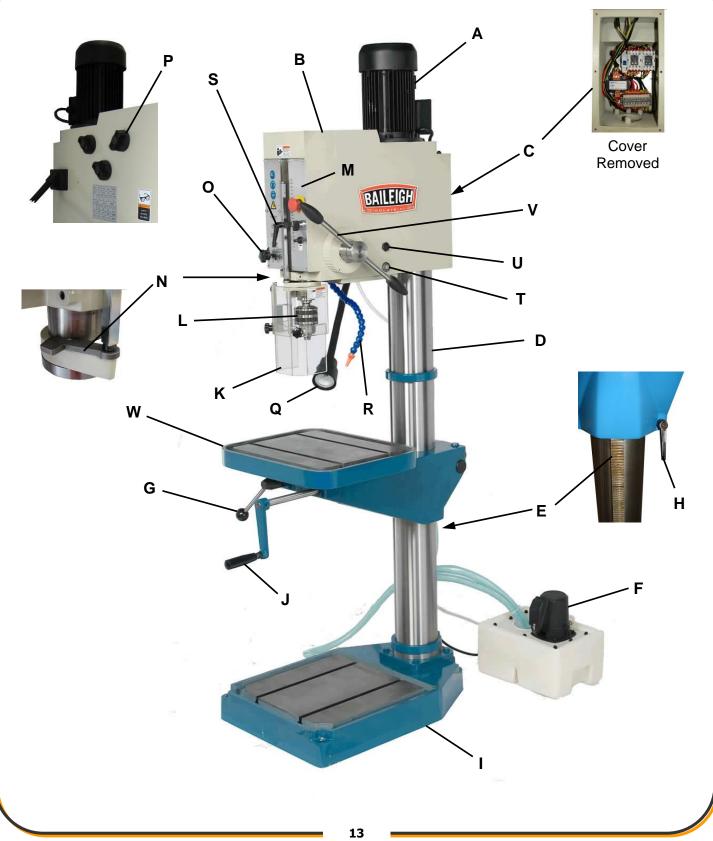


## **OVERALL DIMENSIONS**





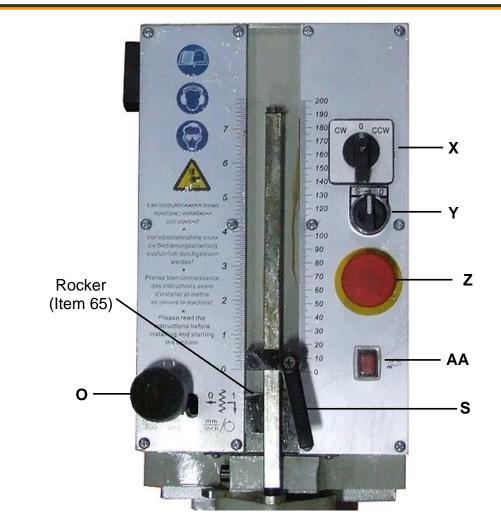
## **GETTING TO KNOW YOUR MACHINE**





Item	Description	n Function		
А	Drill Motor	Provides power to the chuck		
В	Head Assembly	Houses the drive gears and supports the motor		
С	Electrical Enclosure	Houses the electrical components and connections.		
D	Column	Supports the table and head.		
Е	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. <b>NEVER</b> OPERATE THE MACHINE WHEN UNLOCKED.		
Н	Lower Column Lock	Additional clamping to secure the table to the column. <b>NEVER OPERATE THE MACHINE WHEN UNLOCKED</b> .		
I	Base	Supports the drill press and anchors to the floor.		
J	Table Height Handle	Raises and lower the table on the column.		
Κ	Drill Guard	Adjustable guard to cover the chuck and restrict access during operation.		
L	Chuck	Holds various tools for drilling and tapping.		
М	Control Panel	Houses the operating controls.		
Ν	Automatic Drill Ejector.	Allows raising the spindle to release the tooling.		
0	Power Feed Rate Selector	Selects various feed rates. USE IN CLOCKWISE SPINDLE ROTATION ONLY.		
Ρ	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.		
Т	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.		
Х	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.)		





#### 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.



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

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



## 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.

#### 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.

#### 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.









## ASSEMBLY AND SET UP

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 photo 1)
- 5. Attach the two-piece swing away guard with (2) bolts. (See photo 2)
- 6. Locate the coolant tank on the floor. Screw the threaded coupling into the drain of the base (See photo 3) Fill the tank with coolant.
- 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 photo 4)









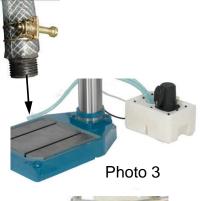




Photo 4



## ELECTRICAL

WARNING: Baileigh Industrial Holdings LLC 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 Holdings LLC 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.

#### 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  $\pm 1\%$ .

#### **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.

#### 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!



## **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.

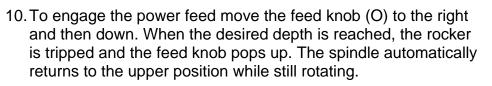
*IMPORTANT:* DO NOT change spindle RPM and or rotation direction until the spindle has stopped completely. This will damage the gears, voiding warranty.

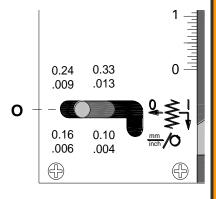
- 1. Secure the tooling in the chuck and close the swivel guard. Make sure the E-Stop button has been reset by turning clockwise (cw).
- 2. Load and secure the piece part to the table.
- 3. Unlock the table, set to desired position, and re-lock. Adjust the lower half of the guard up or down, as necessary.
- 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.

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

#### To use the power feed function:

- 8. Verify that the machine is running in the CW direction.
- 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.





11. Repeat with above settings or make spindle speed and power feed changes as necessary.



#### 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.

## **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.



## LUBRICATION AND MAINTENANCE

**WARNING:** Make sure the electrical disconnect is <u>OFF</u> 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**

- 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.

#### 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.

#### 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.

## LUBRICATION RECOMMENDATIONS

#### Parts Identification Drawing 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 mm2/s (40°C) lube oil

#### Parts Identification Drawing B

Gears – SAE 80W- 90 gear oil

#### Parts Identification Drawing C

Items #9, #10, #11, #12, and #13 (ISO VG 680 mm2/s (40°C) lube oil Item #10 and long tooth bar (ISO VG 68 mm2/s (40°C) lube oil



### 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.)





#### 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.
- 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.







## Oil Disposal

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

#### 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.

#### **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.

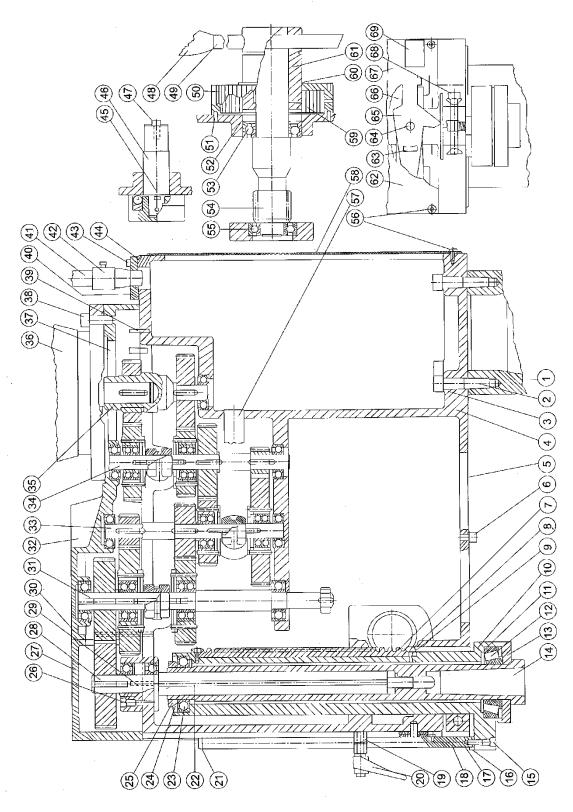
### Storing Machine for Extended Period of Time

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

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



## **DRILL HEAD PARTS IDENTIFICATION DRAWING - A**





## Drill Head Parts List - A

Item	Part No.	Ref. No.	Description
1	DP1500G-A1	2Z02550	Pillar
2	DP1500G-A2	3514542	Screw MC6S-12X50
3	DP1500G-A3	3B01178	Washer BRB-13x24
4	DP1500G-A4	2V02505	Spindle housing
5	DP1500G-A5	4L02510	Covering plate
6	DP1500G-A06	3S13447	Screw MC6S-8X20
7	DP1500G-A07	2104353	Rack FBB-5.1
8	DP1500G-A08	3S03327	Screw MC6S-5X12
9	DP1500G-A09	3B05146	Washer 5
10	DP1500G-A10	2G02515	Spindle sleeve
11	DP1500G-11DH	4B03770	Grommet
12	DP1500G-12DH	3L51008	Taper roll bearing 30208
13	DP1500G-13DH	2N00535	Сар
14	DP1500G-A14	2A04354-1	Spindle
15	DP1500G-A15	3S00013	Screw MC6S-6X25 Eslok
16	DP1500G-A16	4T07583	Stop dog
17	DP1500G-A17	4C05893	Spring
18	DP1500G-A18	2A02518	Deep gauge rod
19	DP1500G-19	2T02257	Stop
20	DP1500G-20DH	3R00010	Locking bar M8 x 25
21	DP1500G-A21	3C01114	Circlip SgA-12
22	DP1500G-A22	2T04355-1	Key
23	DP1500G-A23	3L06007	Ball bearing 6007
24	DP1500G-A24	3B07007	Lock washer MB-7
25	DP1500G-A25	3M06007	Nut KM-7
26	DP1500G-A26	3S14374	Screw MC6S-6X30
27	DP1500G-A27	2N02507	Front cap
28	DP1500G-28	2X02650	5th Shaft complete
28-1	DP1500G-A28-1	2A02651	Spindle shaft extension
28-2	DP1500G-28-2	3C01122	Circlip SgA-20
28-3	DP1500G-A28-3	3C02140	Circlip SgA-47
28-4	DP1500G-28-4	2H02652	Gear wheel 45-2
28-5	DP1500G-28-5	3K00231	Key 6 x 6 x 22



Item	Part No.	Ref. No.	Description
28-6	DP1500G-28-6	2D20002	Spacing sleeve 20.5 x 25 x 2mm
28-7	DP1500G-A28-7	3L11004	Ball bearing 6204
28-8	DP1500G-A28-8	2N02508	Bearing housing
29	DP1500G-A29	3P12314	Pin FRP-5X32
30	DP1500G-A30	3S03386	Screw MC6S-6X80
31	DP1500G-31	2X02640	4th shaft complete
31-1	DP1500G-31-1	2A02641	Shaft
31-2	DP1500G-31-2	2D20003	Spacing sleeve 20.5 x 25 x 2mm
31-3	DP1500G-31-3	3L11004	Ball bearing 6204RS
31-4	DP1500G-31-4	2H02646	Gear wheel 45-2
31-5	DP1500G-31-5	3K00231	Key 6 x 6 x 20
31-6	DP1500G-31-6	2X02643	Gear wheel complete 58-2
31-7	DP1500G-31-7	2T02605	Clutch
31-8	DP1500G-31-8	2T02606	Key, Special Machine
31-9	DP1500G-31-9	2X02645	Gear wheel complete 45-2
31-10	DP1500G-A31-10	2H02647	Gear wheel 18-1.5
31-11	DP1500G-A31-11	3K00182	Key 5X10
31-12	DP1500G-A31-12	3C01117	Circlip SgA-15
32	DP1500G-A32	2N02506	2N02506
33	DP1500G-33	2X02730	3rd Shaft complete
33-1	DP1500G-33-1	2A02631	Shaft
33-2	DP1500G-A33-2	3L15003	Ball bearing 6203
33-3	DP1500G-33-3	2D17003	Spacing Sleeve 17 x 25 x 3mm
33-4	DP1500G-33-4	2H02632	Gear wheel 18-2
33-5	DP1500G-33-5	2H02633	Gear wheel 31-2
33-6	DP1500G-33-6	2T02607	Key, Special Machine
33-7	DP1500G-33-7	2T04264	Clutch jaw
33-8	DP1500G-33-8	2X02625	Gear wheel complete 34-2
33-9	DP1500G-33-9	2X02635	Gear wheel complete 61-2
33-10	DP1500G-A33-10	3K00188	Key 5 x 22
34	DP1500G-A34	2X02620	2nd Shaft complete
34-1	DP1500G-A34-1	2A02631	Shaft
34-2	DP1500G-A34-2	2D17003	Spacing sleeve 17X3
34-3	DP1500G-34-3	2X02623	Gear wheel complete 42-2
34-4	DP1500G-34-4	2X02625	Gear wheel complete 34-2



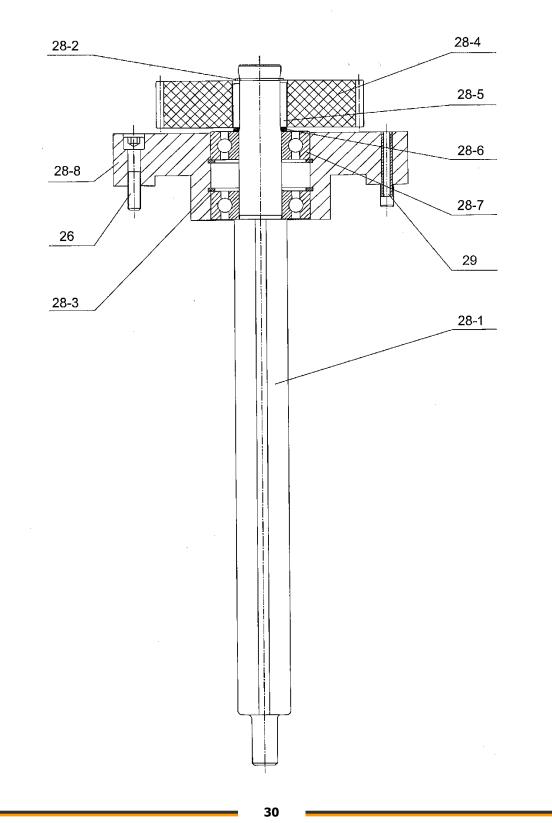
Item	Part No.	Ref. No.	Description
34-5	DP1500G-34-5	2T02607	Key, Special Machine
34-6	DP1500G-34-6	2T04254	Clutch jaw
34-7	DP1500G-34-7	2H02613	Gear wheel 42-2
34-8	DP1500G-A34-8	2H02626	Gear wheel 15-2
34-9	DP1500G-A34-9	3K00187	Key 5X20
34-10	DP1500G-A34-10	3L15003	Ball bearing 6203
35	DP1500G-A35	2X02610	1st Shaft complete
35-1	DP1500G-A35-1	2A02611	Motor shaft extension
35-2	DP1500G-A35-2	2D17003	Spacing sleeve 17x3
35-3	DP1500G-A35-3	2H02612	Gear wheel 34-2
35-4	DP1500G-A35-4	2H02613	Gear wheel 42-2
35-5	DP1500G-A35-5	3C01137	Circlip SgA-40
35-6	DP1500G-A35-6	3K00187	Key 5X20
35-7	DP1500G-A35-7	3K00295	Key 8X7X20
35-8	DP1500G-A35-8	3L15003	Ball bearing 6203-2 RS
36	DP1500G-A36	3E03123	Motor
37	DP1500G-A37	3S03378	Screw MC6S-6X40
38	DP1500G-A38	3S03491	Screw MC6S-10X20
39	DP1500G-A39	3P12343	Pin FRP-6X28
40	DP1500G-A40	3E16029	Flange RF13/222
41	DP1500G-A41	3E19313	Protective tubing PAST-17B
42	DP1500G-A42	3E19333	Fitting AL21M20A
43	DP1500G-A43	3S13366	Screw MCS-6X12
44	DP1500G-A44	3E16030	Packing FLP-13
45	DP1500G-A45	3S03287	Screw MC6S-4X8
46	DP1500G-A46	2X02665	Gear lever complete
47	DP1500G-47	4T04168	Shift pin
48	DP1500G-A48	3R01004	Handle M16
49	DP1500G-A49	2E04899	Feed lever
50	DP1500G-50	2X02556	Spring housing complete
51	DP1500G-51	3P12252	Pin FRP-4X12
52	DP1500G-A52	3C02148	Circlip 62
53	DP1500G-A53	3L06007	Ball bearing 6007
54	DP1500G-A54	2102520	Feed shaft
55	DP1500G-A55	3L11005	Ball bearing 6205



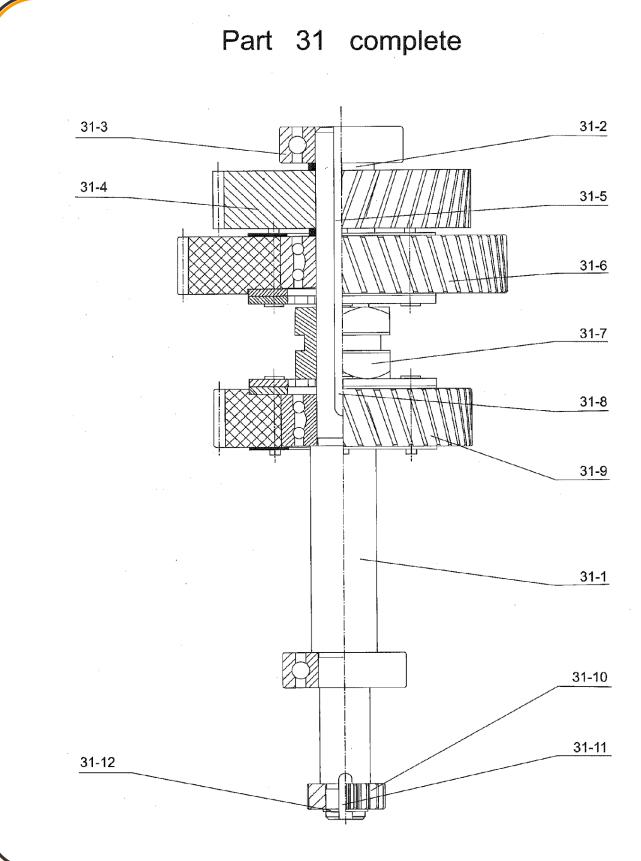
Item	Part No.	Ref. No.	Description
56	DP1500G-A56	3S22325	Screw MRX-5X10
57	DP1500G-A57	2T02514	Cable duct
58	DP1500G-A58	4L02509	Covering plate
59	DP1500G-A59	3S11287	Screw FS-4X8
60	DP1500G-A60	3C01147	Circlip SgA-62
61	DP1500G-A61	2T02521	Hub
62	DP1500G-Face Plate	4L02511-5	Front plate left
63	DP1500G-A63	4C02523	Compression Spring
64	DP1500G-A64	3P12373	Pin FRP-8x16
65	DP1500G-A65	4L02547	Rocker
66	DP1500G-A66	4L02548	Plate
67	DP1500G-67	4L02512-5	Front plate right
68	DP1500G-A68	3S03461	Screw MC6S 8X50
69	DP1500G-A69	4L02513 2	Front plate S40



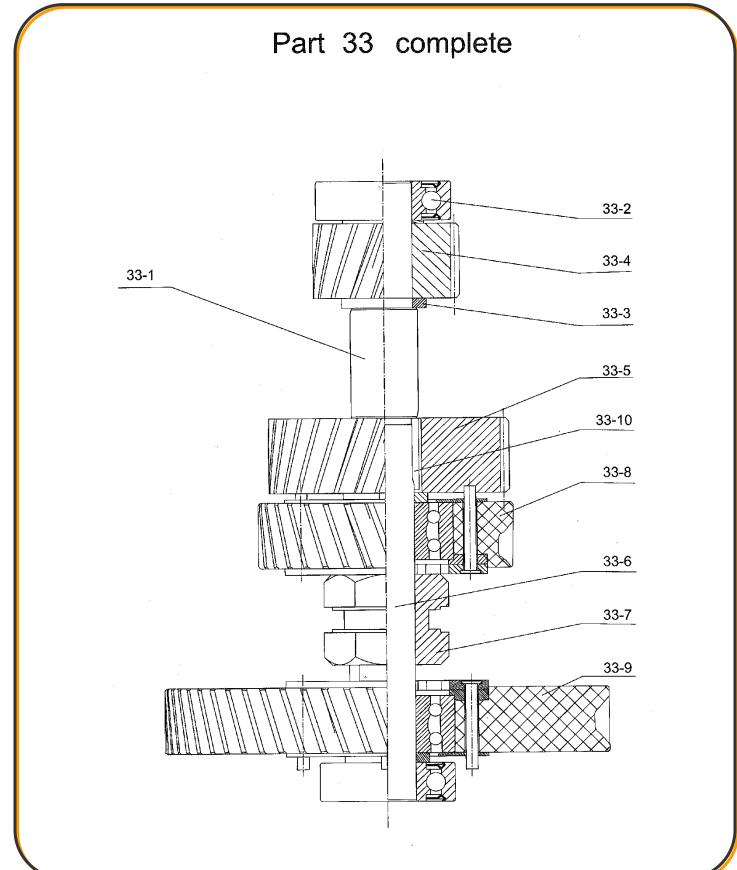
Part 28 complete



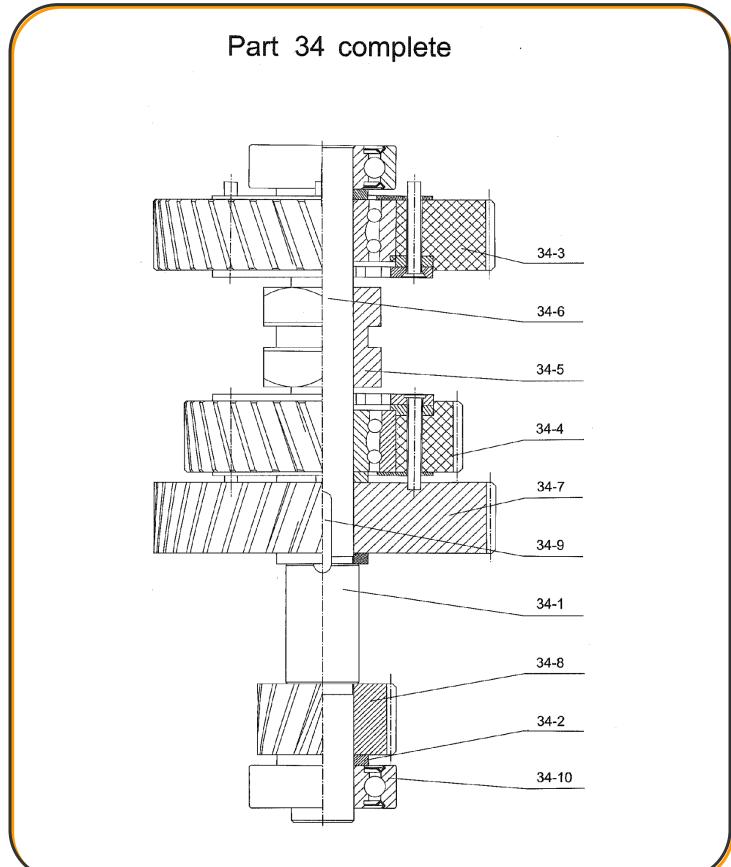




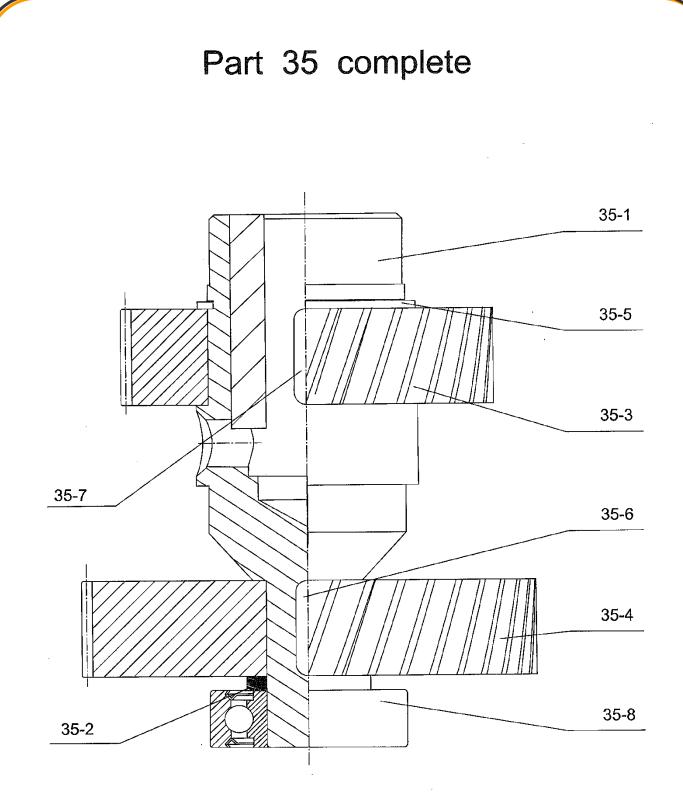






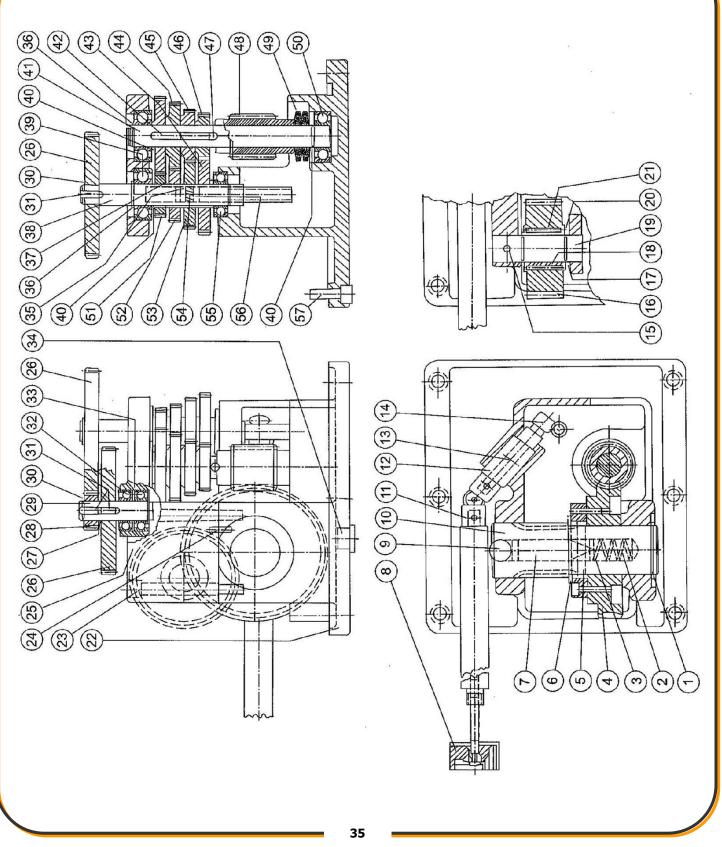








### FEED GEAR BOX PARTS IDENTIFICATION DRAWING - B





#### Feed Gear Box Parts List - B

Item	Part No.	Ref. No.	Description
1	DP1500G-B1	3C01134	Circlip SgA 36
2	DP1500G-2	4C00150	Compression Spring
3	DP1500G-B3	2B05235	Washer
4	DP1500G-4	2X02657	Worm gear, complete
5	DP1500G-5	2T02659	Pin
6	DP1500G-B6	2B02539	Washer
7	DP1500G-B-07	2A02540	Piston
8	DP1500G-B8	3R00023	Knob
9	DP1500G-B9	3T04044	S1eelball
10	DP1500G-B10	2102538	Gear shaft
11	DP1500G-B11	2X02571	Arm with ball joint
12	DP1500G-B12	2T02541	Bushing
13	DP1500G-B13	3S07453	Bottom part S6SS-8X25
14	DP1500G-B14	2102544	Gear shaft
15	DP1500G-B15	3S05447	Screw T6SS-8X12
16	DP1500G-B16	2H02546	Gear wheel 28-2.5
17	DP1500G-B17	3C03126	Locking washer 19
18	DP1500G-B18	3L70005	Ring LR 20X25X26.5
19	DP1500G-B19	2A02545	Shaft
20	DP1500G-B20	3L70006	Washer AS 2035
21	DP1500G-B21	3L70004	Bushing HK 2526
22	DP1500G-B22	2N02531	Bottom part
23	DP1500G-B23	3S03465	Screw MC6S-8X70
24	DP1500G-B24	3P07252	Pin RPD-4X12
25	DP1500G-B25	2N02532	Top part
26	DP1500G-B26	2H02534	Gear wheel 62-1.5
27	DP1500G-B27	2D15002	Spacing sleeve 15X2
28	DP1500G-B28	2H02647	Gear wheel 18-1.5
29	DP1500G-B29	2A02533	Shaft
30	DP1500G-B30	3C01117	Circlip SgA-15
31	DP1500G-B31	3K00182	Key 5X10
32	DP1500G-B32	3L06002	Ball bearing 6002
33	DP1500G-B33	3C02131	Circlip SgA 32



34	DP1500G-B34	3S50003	Screw R1/2" D908	
35	DP1500G-35	3N03201	Rivet KDS-4X5	
36	DP1500G-B36	3C01119	Circlip SgA-17	
37	DP1500G-B37	2T05245	Spacing sleeve	
38	DP1500G-B38	2T05235	Shaft	
39	DP1500G-B39	3L11003	Bearing 6203	
40	DP1500G-B40	2D17002	Spacing sleeve 17x2	
41	DP1500G-B41	2A02536	Shaft	
42	DP1500G-B42	3K00187	Key 5 x 5 x 20mm	
43	DP1500G-B43	2H03230	Gear Wheel 38-1.5	
44	DP1500G-B44	2H05246	Gear Wheel 33-1.5	
45	DP1500G-B45	2H05247	Gear Wheel 27-1.5	
46	DP1500G-B46	2H05248	Gear Wheel 22-1.5	
47	DP1500G-B47	3P03314	Pin CPK-5x30	
48	DP1500G-B48	2102537	Worm Screw	
49	DP1500G-B49	3B00018	Spring 40x18.3x2	
50	DP1500G-B50	3L41003	Ball Bearing 6203	
51	DP1500G-B51	2H03233	Gear Wheel 22-1.5	
52	DP1500G-B52	2H03232	Gear Wheel 27-1.5	
53	DP1500G-B53	2H03231	Gear Wheel 33-1.5	
54	DP1500G-54	4C05359	Spring	
55	DP1500G-B55	3L06003	Ball Bearing 6003	
56	DP1500G-B56	2X07975	Key 5 x 5 x 20mm	
57	DP1500G-B57	3S03452	Screw MC6S-8x22	



# **TABLE ARM PARTS IDENTIFICATION DRAWING - C** e ۲ 13 Ξ 8 0 ~ ø 5 (17)(16)(15)(14) (18) (18) 8 22 21 4 ¢ 3 N 11/ <u>ଛ</u> 2 3

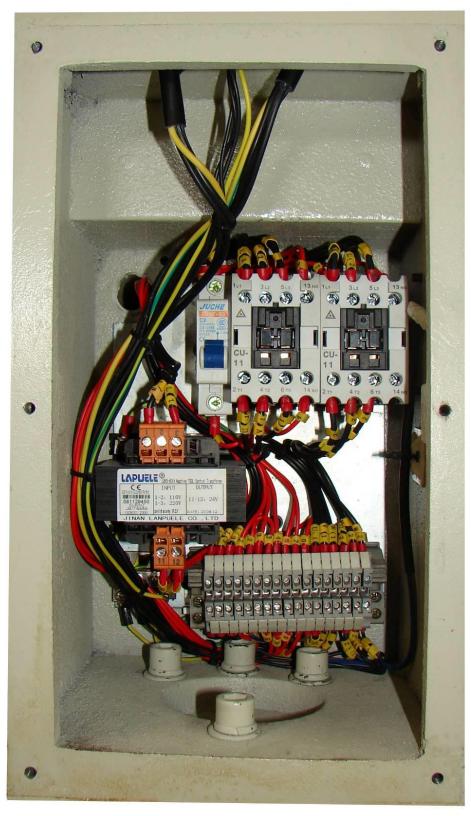


#### Table Arm Parts List - C

Item	Part No.	Ref. No.	Description
1	DP1500G-C1	3R02003	Ball D-35 M-10
2	DP1500G-C2	2E05035	Bar
3	DP1500G-C3	2T05034	Locking Head
4	DP1500G-C4	2Y02561	Table Arm
5	DP1500G-C5	3S03497	Screw MC6S-10X35
6	DP1500G-C6	2X02565	Locking Shaft, Complete
7	DP1500G-C7	3S00018	Screw T6SS-10X16
8	DP1500G-C8	3T08103	Plug D-47
9	DP1500G-9	2X02573	Gear Shaft, Complete
10	DP1500G-10	2102562	Gear Shaft
11	DP1500G-11	2104408	Worm Wheel
12	DP1500G-12	3K00227	Key 6X14
13	DP1500G-13	3C01122	Circlip SGA-47, M47 Internal Retaining Ring
14	DP1500G-14	3T08102	Plastic Plug
15	DP1500G-C15	3C02140	Circlip 20
16	DP1500G-16	2X02572	Table Adjustment Screw, Complete
17	DP1500G-C17	3L40004	Ball Bearing
18	DP1500G-C18	2100183	Screw
19	DP1500G-C19	2T02563	Tube
20	DP1500G-C20	3P12312	Pin FRP-5X28
21	DP1500G-C21	2A02564	Shaft
22	DP1500G-C22	3K01235	Key 6X32
23	DP1500G-C23	3P12314	Pin FRP-5X32
24	DP1500G-C24	2R01742	Crank
25	DP1500G-C25	2X01106	Handle



# ELECTRICAL ENCLOSURE COMPONENTS

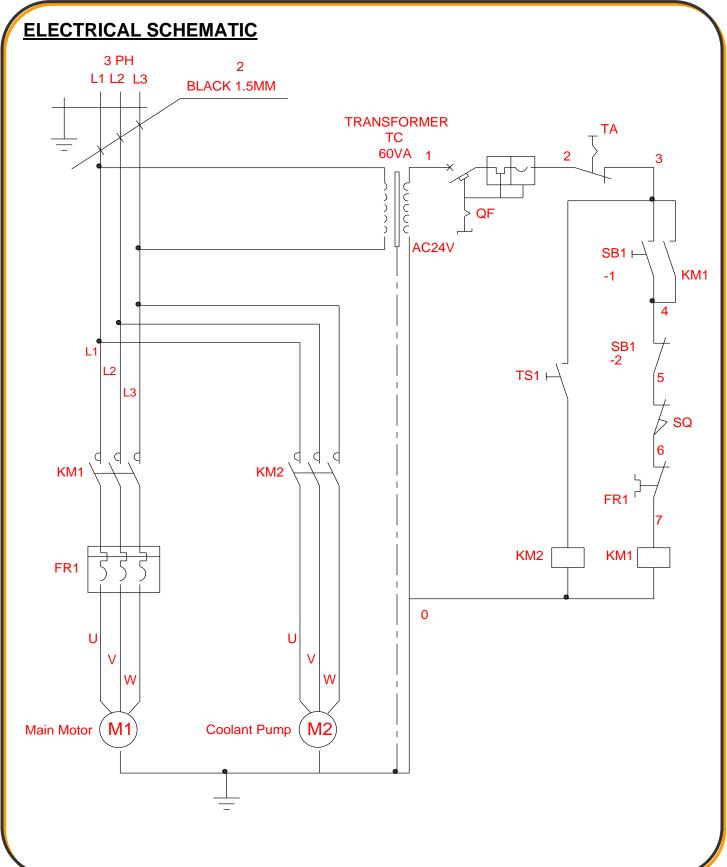




### Electrical Enclosure Components Parts List

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
тс	DP1000G-XFRMR	Transformer	LBK5-60VA, PRI=110/220V, SEC=24V	1
KM1, KM2	DP1500G-KM1	Contactor	CU-11 Contactor, 220V 3ph 5hp 24Vcoil 3P+1NC	2
ТА	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







# TROUBLESHOOTING

# **WARNING:** Make sure the electrical disconnect is <u>OFF</u> before working on the machine.

FAULT	PROBABLE CAUSE	REMEDY	
	1. Wrong voltage	1. Make sure the machine voltage matches the nameplate.	
Drill Press Does Not Run	2. Emergency switch has been pressed.	2. Turn E-Stop switch clockwise (cw) to reset. Turn the start button ON.	
	3. Power to machine has been disconnected.	3. Reconnect power to machine.	
	4. Motor burned out.	4. Replace motor	
Excessive	1. Motor out of balance.	1. Balance or replace.	
Vibration	2. Bad motor.	2. Replace motor.	
	1. Over feeding.	1. Reduce feed rate.	
	2. Dull drill or tap.	2. Sharpen drill & keep sharp.	
Motor Stalls	3. Motor not building up to running speed.	3. Replace or repair motor.	
	4. Bad motor	4. Replace motor.	
Naiov Operation	1. Noisy spline.	1. Lubricate spline.	
Noisy Operation	2. Noisy motor	2. Check motor bearings	
	1. Excessive speed.	1. Reduce speed.	
	2. Chips not clearing.	2. Use pecking operation to clear	
		chips.	
Drill or Tool Heats	3. Dull tool.	3. Sharpen tool or replace.	
up or Burns Work	4. Feed rate too slow.	4. Increase feed enough to clear	
		chips.	
	5. Failure to use cutting oil or	5. Use cutting oil or coolant on	
	coolant. (On steel.)	steel.	



FAULT	PROBABLE CAUSE	REMEDY
	1. No drill spot.	1. Center punch or center drill work
		piece.
Drill Leads Off	2. Cutting lips on drill off center.	2. Regrind drill.
Dilli Leaus Oli	3. Quill loose in head.	3. Tighten quill.
	4. Bearing play.	4. Check bearings and reseat or
		replace if necessary.
	1. Bent drill bit or tool.	1. Replace drill bit or tool. (Do Not
Excessive Drill		attempt to straighten.)
Runout or Wobble.	2. Bearing play.	2. Replace or reseat bearings.
Runoul of Wobble.	3. Drill not seated properly in	3. Loosen, reseat, and tighten
	chuck.	chuck.
Work or Fixture	1. Failure to clamp piece part or	1. Clamp piece part or work
Comes Loose or	work holding device to table.	holding device to table surface.
Spins		



# <u>NOTES</u>



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