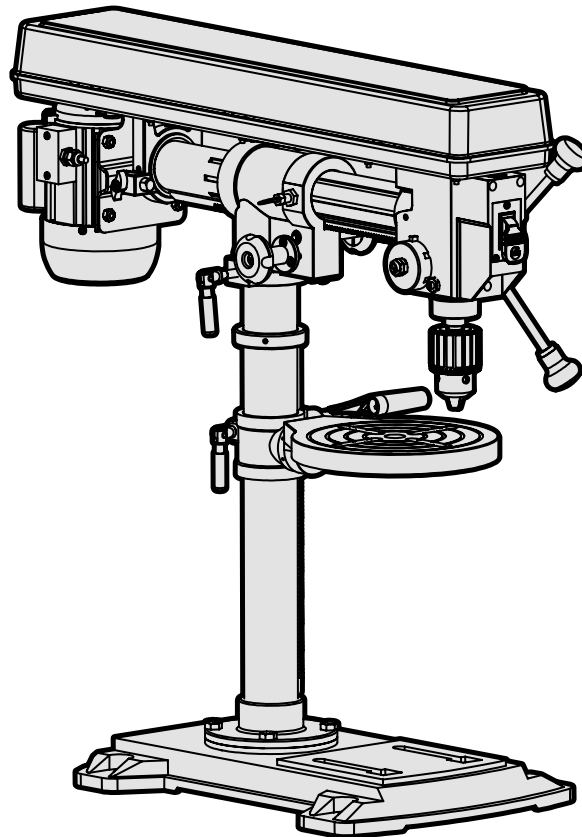




MODEL 4233

5 SPEED BENCHTOP RADIAL DRILL PRESS

Instruction Manual



NEED HELP? CONTACT US!

Have product questions? Need technical support? Please feel free to contact us:



1-847-429-9263 (M-F 8AM-5PM CST)



TECHSUPPORT@WENPRODUCTS.COM

IMPORTANT: Your new tool has been engineered and manufactured to WEN's highest standards for dependability, ease of operation, and operator safety. When properly cared for, this product will supply you years of rugged, trouble-free performance. Pay close attention to the rules for safe operation, warnings, and cautions. If you use your tool properly and for its intended purpose, you will enjoy years of safe, reliable service.

For replacement parts and the most up-to-date instruction manuals, visit ***WENPRODUCTS.COM***

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To purchase replacement parts and accessories for your tool, visit **WENPRODUCTS.COM**

5/8-Inch Keyless Drill Press Chuck with MT2 Tanged Arbor (Model DPA158L)
3-Piece Impact-Duty Titanium Step Drill Bit Set (Models DB124X, DB149X, & DB238X)
29-Piece Fully Ground Black Gold HSS Jobber Drill Bit Set (Model DB292G)
Drill Press Vises
Tilting Vises
Cross Vises
Drill Press Clamp

INTRODUCTION

Thanks for purchasing the WEN Drill Press. We know you are excited to put your tool to work, but first, please take a moment to read through the manual. Safe operation of this tool requires that you read and understand this operator's manual and all the labels affixed to the tool. This manual provides information regarding potential safety concerns, as well as helpful assembly and operating instructions for your tool.

 Indicates danger, warning, or caution. The safety symbols and the explanations with them deserve your careful attention and understanding. Always follow the safety precautions to reduce the risk of fire, electric shock or personal injury. However, please note that these instructions and warnings are not substitutes for proper accident prevention measures.

NOTE: The following safety information is not meant to cover all possible conditions and situations that may occur. WEN reserves the right to change this product and specifications at any time without prior notice.

At WEN, we are continuously improving our products. If you find that your tool does not exactly match this manual, please visit **wenproducts.com** for the most up-to-date manual or contact our customer service at **1-847-429-9263**.

Keep this manual available to all users during the entire life of the tool and review it frequently to maximize safety for both yourself and others.

SPECIFICATIONS

Model Number	4233
Motor	120V, 60 Hz, 6.2A
Speeds	600, 1100, 1700, 2300, 3100 RPM
Chuck Capacity	1/8 in. - 5/8 in. (3mm - 16mm)
Stroke	3 in.
Swing	11 in. - 33 in.
Chuck Taper	JT3
Spindle Taper	MT2
Capacity (Spindle to Base)	21-7/8 in.
Table Bevel	-45° to 0° to 45°
Table Dimensions	10 in. Diameter
Base Dimensions	21 in. x 15 in.
Product Weight	105 lbs
Product Dimensions	16 in. x 38 in. x 33 in.

GENERAL SAFETY RULES

 **WARNING!** Read all safety warnings and all instructions. Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.

Safety is a combination of common sense, staying alert and knowing how your item works. The term “power tool” in the warnings refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.

SAVE THESE SAFETY INSTRUCTIONS.

WORK AREA SAFETY

1. Keep work area clean and well lit. Cluttered or dark areas invite accidents.

2. Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust. Power tools create sparks which may ignite the dust or fumes.

3. Keep children and bystanders away while operating a power tool. Distractions can cause you to lose control.

ELECTRICAL SAFETY

1. Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools. Unmodified plugs and matching outlets will reduce risk of electric shock.

2. Avoid body contact with earthed or grounded surfaces such as pipes, radiators, ranges and refrigerators. There is an increased risk of electric shock if your body is earthed or grounded.

3. Do not expose power tools to rain or wet conditions. Water entering a power tool will increase the risk of electric shock.

4. Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts. Damaged or entangled cords increase the risk of electric shock.

5. When operating a power tool outdoors, use an extension cord suitable for outdoor use. Use of a cord suitable for outdoor use reduces the risk of electric shock.

6. If operating a power tool in a damp location is un-

avoidable, use a ground fault circuit interrupter (GFCI) protected supply. Use of a GFCI reduces the risk of electric shock.

PERSONAL SAFETY

1. Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication. A moment of inattention while operating power tools may result in serious personal injury.

2. Use personal protective equipment. Always wear eye protection. Protective equipment such as a respiratory mask, non-skid safety shoes and hearing protection used for appropriate conditions will reduce the risk of personal injury.

3. Prevent unintentional starting. Ensure the switch is in the off-position before connecting to power source and/or battery pack, picking up or carrying the tool. Carrying power tools with your finger on the switch or energizing power tools that have the switch on invites accidents.

4. Remove any adjusting key or wrench before turning the power tool on. A wrench or a key left attached to a rotating part of the power tool may result in personal injury.

5. Do not overreach. Keep proper footing and balance at all times. This enables better control of the power tool in unexpected situations.

6. Dress properly. Do not wear loose clothing or jewelry. Keep your hair and clothing away from moving parts. Loose clothes, jewelry or long hair can be caught in moving parts.

GENERAL SAFETY RULES

 **WARNING!** Read all safety warnings and all instructions. Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.

Safety is a combination of common sense, staying alert and knowing how your item works. The term “power tool” in the warnings refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.

SAVE THESE SAFETY INSTRUCTIONS.

7. If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used. Use of dust collection can reduce dust-related hazards.

POWER TOOL USE AND CARE

1. Do not force the power tool. Use the correct power tool for your application. The correct power tool will do the job better and safer at the rate for which it was designed.

2. Do not use the power tool if the switch does not turn it on and off. Any power tool that cannot be controlled with the switch is dangerous and must be repaired.

3. Disconnect the plug from the power source and/or the battery pack from the power tool before making any adjustments, changing accessories, or storing power tools. Such preventive safety measures reduce the risk of starting the power tool accidentally.

4. Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool. Power tools are dangerous in the hands of untrained users.

5. Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation. If damaged, have the power tool repaired before use. Many accidents are caused by poorly maintained power tools.

6. Keep cutting tools sharp and clean. Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.

7. Use the power tool, accessories and tool bits, etc. in accordance with these instructions, taking into account the working conditions and the work to be performed. Use of the power tool for operations different from those intended could result in a hazardous situation.

8. Use clamps to secure your workpiece to a stable surface. Holding a workpiece by hand or using your body to support it may lead to loss of control.

9. KEEP GUARDS IN PLACE and in working order.

SERVICE

1. Have your power tool serviced by a qualified repair person using only identical replacement parts. This will ensure that the safety of the power tool is maintained.

CALIFORNIA PROPOSITION 65 WARNING

Some dust created by power sanding, sawing, grinding, drilling, and other construction activities may contain chemicals, including lead, known to the State of California to cause cancer, birth defects, or other reproductive harm. Wash hands after handling. Some examples of these chemicals are:

- Lead from lead-based paints.
- Crystalline silica from bricks, cement, and other masonry products.
- Arsenic and chromium from chemically treated lumber.

Your risk from these exposures varies depending on how often you do this type of work. To reduce your exposure to these chemicals, work in a well-ventilated area with approved safety equipment such as dust masks specially designed to filter out microscopic particles.

DRILL PRESS SAFETY WARNINGS

 **WARNING!** Do not let comfort or familiarity with the product replace strict adherence to product safety rules. Failure to follow the safety instructions may result in serious personal injury.

1. **TOOL PURPOSE.** This drill press is designed to drill through metal wood, plastic, and tiles. Drilling through other materials could result in fire, injury, or damage to the workpiece. Using the machine for any other purpose for which it is not designed may result in serious injuries, machine damage and voiding of the warranty.
2. **MACHINE MOUNTING.** For operation safety, the drill press must be securely mounted onto a flat and stable surface.
3. **PERSONAL SAFETY.**
 - Always wear ANSI Z87.1-approved glasses with side shields, hearing protection and a dust mask.
 - Do not wear loose clothing or jewelry, as they might get drawn in by the tool. Tie back long hair.
 - DO NOT wear gloves while operating this machine.
4. **Electric Cords.** Keep cords away from heat, oil, sharp edges, and moving parts of the tool. Have an electrician replace or repair damaged or worn cords immediately.
5. **TOOL & ACCESSORIES INSPECTION.** Before operation, check the tool and accessories for any damage or missing parts. Do not use the tool if any part is missing or damaged. Make sure all adjustments are correct and all connections are tight. Keep all guards in place.
6. **DRILLING ACCESSORIES.**
 - Make sure the drill bit is not damaged before use; only use undamaged drill bits
 - Make sure the drill bit is securely locked in the chuck before turning ON.
 - Make sure the chuck key is removed from the chuck before turning ON.
 - Use clamps or a vise (sold separately to secure a workpiece to the table. This will prevent the workpiece from rotating with the drill bit.
7. Make sure the table lock is tightened before starting the drill press.
8. **WORKPIECE REQUIREMENTS.**
 - Only stand workpieces sturdy enough to withstand the force of the drill bit.
 - Inspect the workpiece for imperfections, nails, staples, etc. before drilling. Never drill stock that has questionable imperfections or embedded foreign objects.
 - Do not drill materials without a flat surface unless a suitable support is used (clamp or vise).
9. **PREVENTING ACCIDENTAL STARTING.** Make sure the power switch is in the OFF position prior to plugging in the machine. Always make sure the power switch is in the OFF position and the machine is unplugged when doing any cleaning, assembly, setup operations, or when not in use.
10. Do not operate this tool until it is completely assembled and installed according to the instructions.
11. Remove scrap pieces and other objects from the table before turning ON the drill press.

DRILL PRESS SAFETY WARNINGS

 **WARNING!** Do not let comfort or familiarity with the product replace strict adherence to product safety rules. Failure to follow the safety instructions may result in serious personal injury.

12. DRILLING THE WORKPIECE.

- Allow spindle to reach full speed before drilling the workpiece.
- Never start the machine with the drill bit pressed against the workpiece.
- Adjust the table or depth stop to avoid drilling into the table.
- Set the drill press to the speed that is appropriate for the material being drilled.

13. Do not touch moving pieces. Keep hands away from the drill bit during operation. If cleaning is necessary, turn off the machine and use a brush to remove sawdust and chips instead of your hands.

14. Never perform layout, assembly or set-up work on the table while the machine is ON.

15. After turning off the drill press, wait until the spindle comes to a complete stop before touching the workpiece. Always turn the drill OFF before removing scrap from the table.

16. Before leaving the machine, always turn OFF and unplug the machine, remove the drill bit, and clean the table. Turn Off and unplug the machine before cleaning, making adjustments or changing drill bits. Accidental start-ups may occur if the tool is plugged in during an accessory change or adjustment.

17. CLEANING. Never use solvents to clean plastic parts. Solvents could dissolve or otherwise damage the material. Use only a soft damp cloth to clean plastic parts.

18. REPLACEMENTS. Should any component of your drill press be missing/damaged or fail in any way, shut OFF the switch and remove the plug from power supply outlet. Replace the missing, damaged, or failed parts using only identical replacement parts before resuming operation.

CALIFORNIA PROPOSITION 65 WARNING

Some dust created by power sanding, sawing, grinding, drilling, and other construction activities may contain chemicals, including lead, known to the State of California to cause cancer, birth defects, or other reproductive harm. Wash hands after handling. Some examples of these chemicals are:

- Lead from lead-based paints.
- Crystalline silica from bricks, cement, and other masonry products.
- Arsenic and chromium from chemically treated lumber.

Your risk from these exposures varies depending on how often you do this type of work. To reduce your exposure to these chemicals, work in a well-ventilated area with approved safety equipment such as dust masks specially designed to filter out microscopic particles.

These safety instructions can't possibly warn of every scenario that may arise with this tool, so always make sure to stay alert and use common sense during operation.

ELECTRICAL INFORMATION

GROUNDING INSTRUCTIONS

In the event of a malfunction or breakdown, grounding provides the path of least resistance for an electric current and reduces the risk of electric shock. This tool is equipped with an electric cord that has 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.

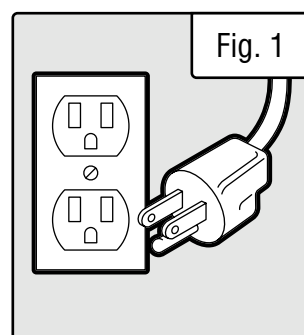
1. Do not modify the plug provided. If it will not fit the outlet, have the proper outlet installed by a licensed electrician.

2. Improper connection of the equipment grounding conductor can result in electric shock. The conductor with the green insulation (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.

3. Check with a licensed electrician or service personnel if you do not completely understand the grounding instructions or whether the tool is properly grounded.

4. Use only three-wire extension cords that have three-pronged plugs and outlets that accept the tool's plug. Repair or replace a damaged or worn cord immediately.

CAUTION! In all cases, make certain the outlet in question is properly grounded. If you are not sure, have a licensed electrician check the outlet.



GUIDELINES AND RECOMMENDATIONS FOR EXTENSION CORDS

When using an extension cord, be sure to use one heavy enough to carry the current your product will draw. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating. The table below shows the correct size to be used according to cord length and ampere rating. When in doubt, use a heavier cord. The smaller the gauge number, the heavier the cord.

AMPERAGE	REQUIRED GAUGE FOR EXTENSION CORDS			
	25 ft.	50 ft.	100 ft.	150 ft.
6.2A	18 gauge	16 gauge	14 gauge	12 gauge

1. Examine extension cord before use. Make sure your extension cord is properly wired and in good condition. Always replace a damaged extension cord or have it repaired by a qualified person before using it.

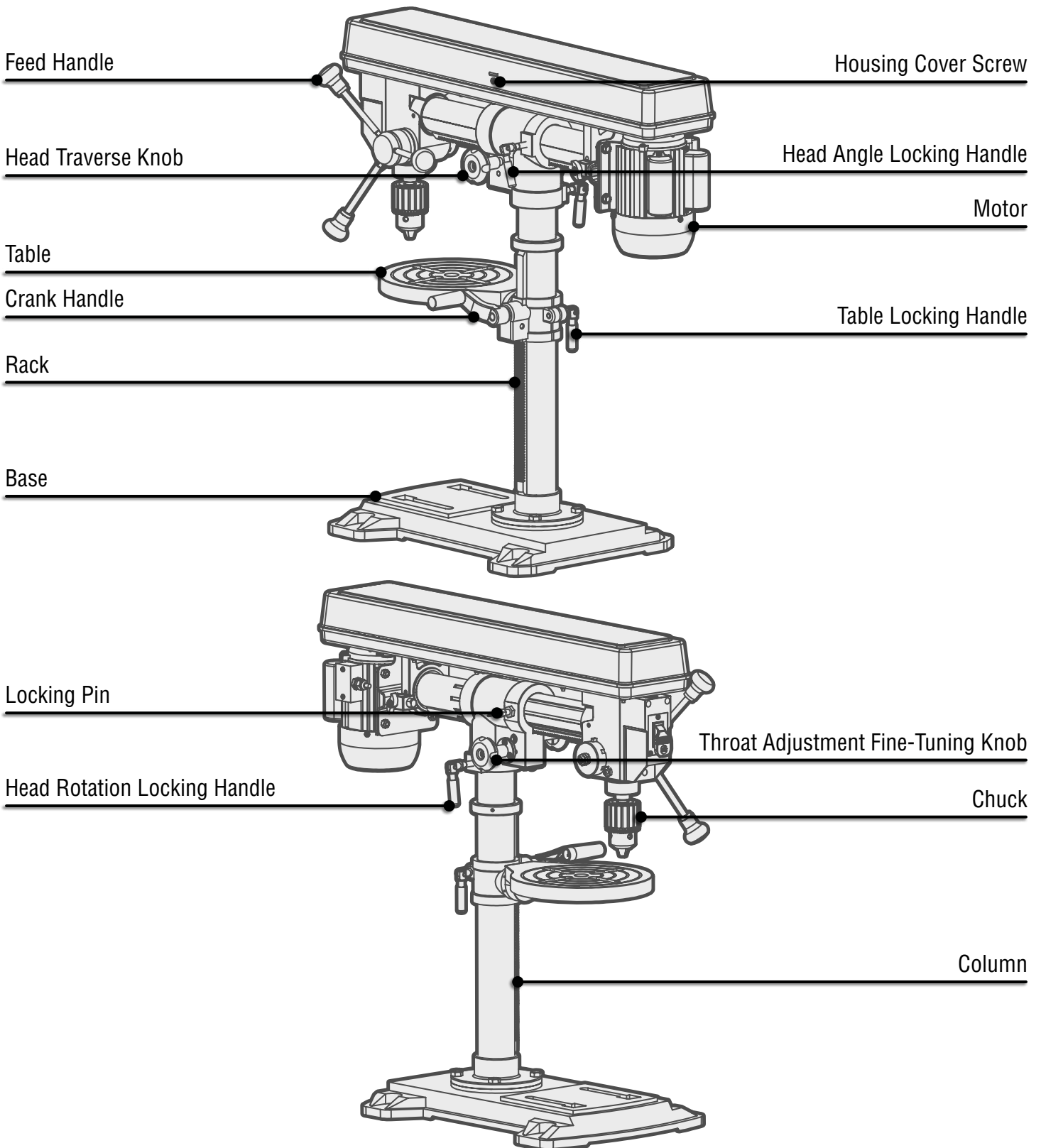
2. Do not abuse extension cord. Do not pull on cord to disconnect from receptacle; always disconnect by pulling on plug. Disconnect the extension cord from the receptacle before disconnecting the product from the extension cord. Protect your extension cords from sharp objects, excessive heat and damp/wet areas.

3. Use a separate electrical circuit for your tool. This circuit must not be less than a 12-gauge wire and should be protected with a 15A time-delayed fuse. Before connecting the motor to the power line, make sure the switch is in the OFF position and the electric current is rated the same as the current stamped on the motor nameplate. Running at a lower voltage will damage the motor.

KNOW YOUR DRILL PRESS

TOOL PURPOSE

Drill presses are mainly used to drill clean, precise cylindrical holes into workpieces or enlarge existing holes. You may also find other uses for your drill press such as reaming, countersinking, counterboring, tapping, etc. Refer to the diagram below to become familiarized with the parts and controls of your drill press.



ASSEMBLY & ADJUSTMENTS

UNPACKING

With the help of a friend or trustworthy foe, carefully remove the drill press from the packaging. Make sure to take out all contents and accessories. Do not discard the packaging until the drill press is completely assembled.

Before using the drill press, you must assemble the unit using the instructions in this section. Check your packing list against the diagram below. If any part is damaged or missing, please contact our customer service at **1-847-429-9263**, M-F 8-5 CST or email us at **techsupport@wenproducts.com**.

CLEANING THE WORK TABLE SURFACE

Your drill press comes protected with a layer of anti-rust coating on its exposed (non-painted) metal surfaces. Clean the rust-protected surfaces using a soft cloth, moistened with kerosene, acetone, or isopropyl alcohol. Do not use gasoline, or cellulose-based solvents such as paint thinner or lacquer thinner, as these will damage the painted surfaces. After cleaning, apply a light coat of good-quality paste wax to the table and column to prevent rust. Wipe all parts thoroughly with a clean, dry cloth.

PACKING LIST

1. Head Assembly	1	8. Drill Chuck with Key	1
2. Column Assembly	1	9. Chuck Arbor	1
3. Base	1	10. Lock Handle	1
4. Table & Bracket Assembly with Worm Gear	1	11. Shoe.....	1
5. Feed Handle	3	12. M12x24 Hex Bolts.....	4
6. Table Crank Handle	1	13. 3mm & 4mm Hex Wrenches.....	2
7. Retaining Ring	1	14. Drift Key	1

Tools needed for assembly (not included):

- Adjustable wrench
- Hammer and block of wood, rubber mallet, or dead-blow hammer

ASSEMBLY & ADJUSTMENTS

⚠ WARNING! Do not plug in or turn on the tool until it is fully assembled according to the instructions. Failure to follow the safety instructions may result in serious personal injury.

ATTACHING COLUMN TO BASE

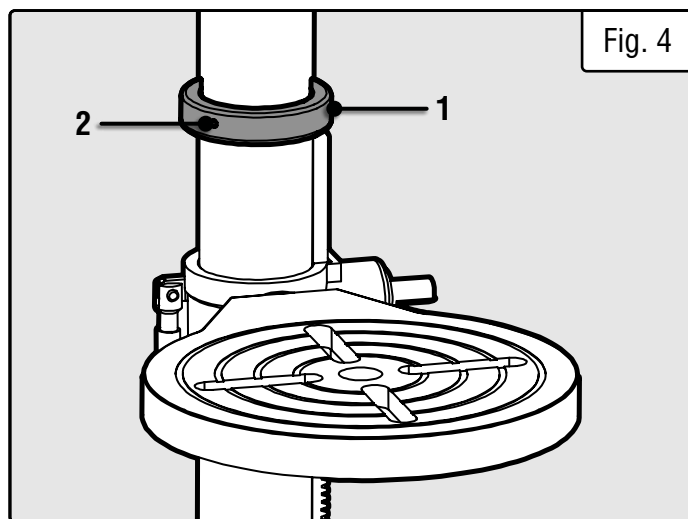
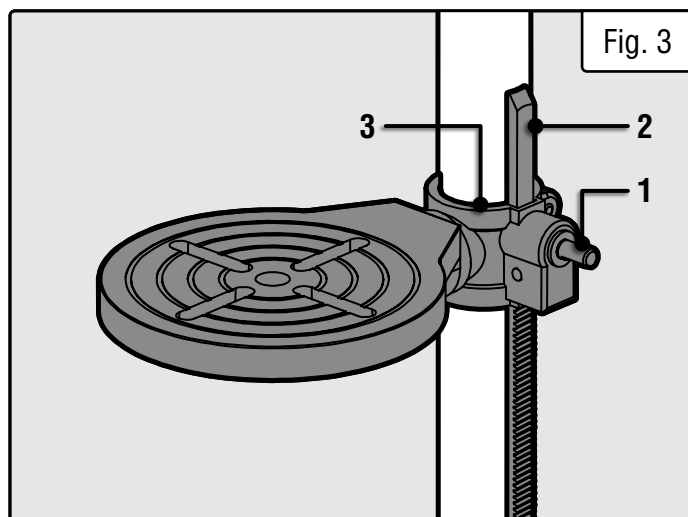
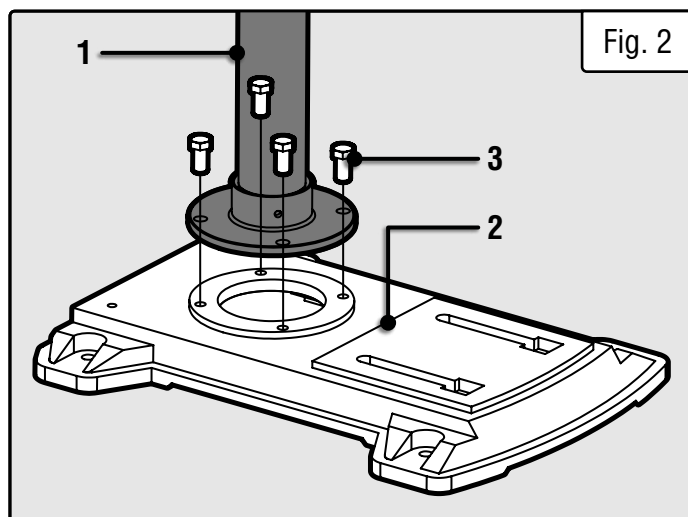
1. Place the column assembly (Fig. 2 - 1) onto the base (Fig. 2 - 2), aligning the column support holes with the base holes.
2. Secure the column assembly to the base using four M12x25 hex bolts (Fig. 2 - 3).

ATTACHING TABLE TO COLUMN

1. Make sure that the worm gear (Fig. 3 - 1) is in the table bracket and engages with the pinion teeth.
2. Slide the rack (Fig. 3 - 2) into the slot on the table bracket (Fig. 3 - 3). Make sure that the rack teeth engage with the worm gear in the bracket. The large section of the rack with no teeth should be at the top. The table bracket should sit in the center of the rack.
3. Slide the table bracket and rack assembly down together onto the column. Insert the bottom tapered edge of the rack into the lip of the column assembly. Hold it in this position until the next step is complete.
6. Place the collar (Fig. 4 - 1), bevel side down, over the rack. Tighten the set screw (Fig. 4 - 2) with the included 3mm hex wrench to secure the rack into position.

NOTE: Make sure there is enough clearance to allow the table to rotate around the column. To avoid column or collar damage, only tighten the set screw enough to keep collar in place.

Assembly instructions continue on the next page.



ASSEMBLY & ADJUSTMENTS

⚠ WARNING! Do not plug in or turn on the tool until it is fully assembled according to the instructions. Failure to follow the safety instructions may result in serious personal injury.

ATTACHING TABLE TO COLUMN (CONT.)

7. Place the crank handle (Fig. 5 - 1) onto the worm gear shaft on the side of the table bracket. Make sure that the set screw is aligned on the flat of the shaft and as close to the table bracket as possible. Tighten the set screw (Fig. 5 - 2).

8. Position the table in the same direction as the base, and tighten the column lock handle.

MOUNTING THE HEAD ASSEMBLY

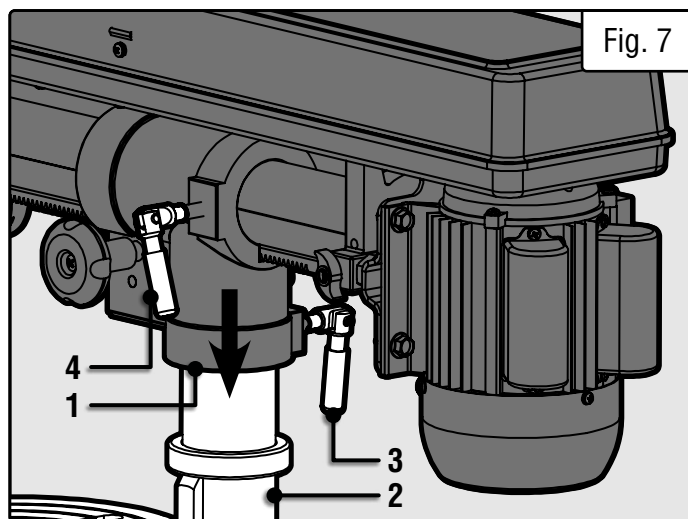
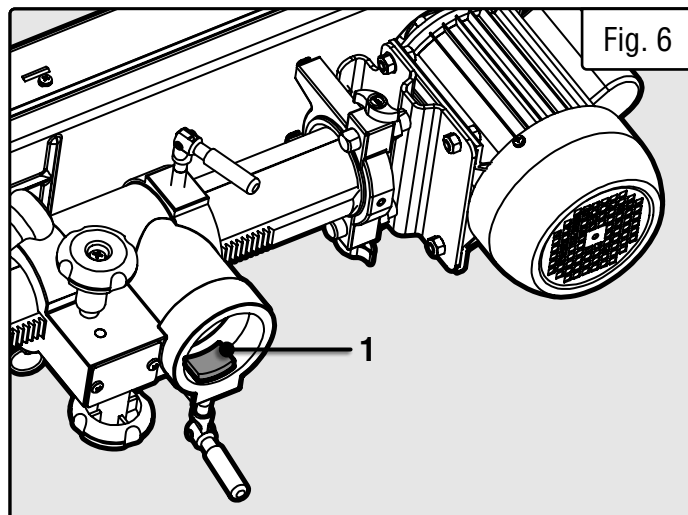
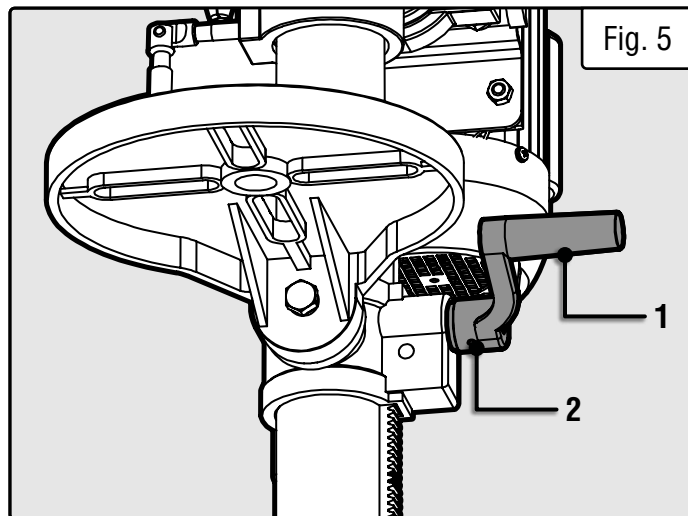
⚠ CAUTION! The drill press head is heavy. To avoid injury, two people should lift it into position.

1. Place the locking shoe (Fig. 6 - 1) into the recessed pocket on the inside of the column bracket casting as shown in Fig. 6.

2. Carefully lift the drill press head assembly (Fig. 7 - 1) and position it over the column (Fig. 7 - 2). Align the direction of the drill press head with the direction of the base and the table. Make sure the drill press head is seated properly on the column.

3. Lock the head in position using the head rotation locking handle (Fig. 7 - 3) and the head angle locking handle (Fig. 7 - 4).

⚠ WARNING! DO NOT install the head assembly onto the column until the locking shoe is properly installed. The head assembly cannot be properly secured to the column without the locking shoe.



ASSEMBLY & ADJUSTMENTS

⚠ WARNING! Do not plug in or turn on the tool until it is fully assembled according to the instructions. Failure to follow the safety instructions may result in serious personal injury.

INSTALLING THE FEED HANDLE

1. Insert the feed handles (Fig. 8 - 1) into the threaded opening on the feed hub as shown in Fig. 8 and tighten by hand.

INSTALLING THE CHUCK

⚠ CAUTION! Before installing the chuck, clean all of the mating surfaces with a non-petroleum based product; such as acetone or lacquer thinner. Any oil or grease used in the packing of these parts must be removed; otherwise the chuck may come loose during operation.

1. Lower the drill press table and place a cloth over it to protect the chuck in case it's dropped.

2. Wipe the chuck and spindle with a clean rag. Do not use any solvents yet.

3. Completely remove any burrs found on the inner mating surfaces of the chuck with a diamond coated tool or a fine file. Use a grade 000 steel wool pad to lightly go over the chuck and spindle. This will remove any oxidation or dirt that you cannot see.

NOTE: Do steps 1-3 even if your chuck is new. New chucks can still have burrs, oxidation, and dirt that you cannot see.

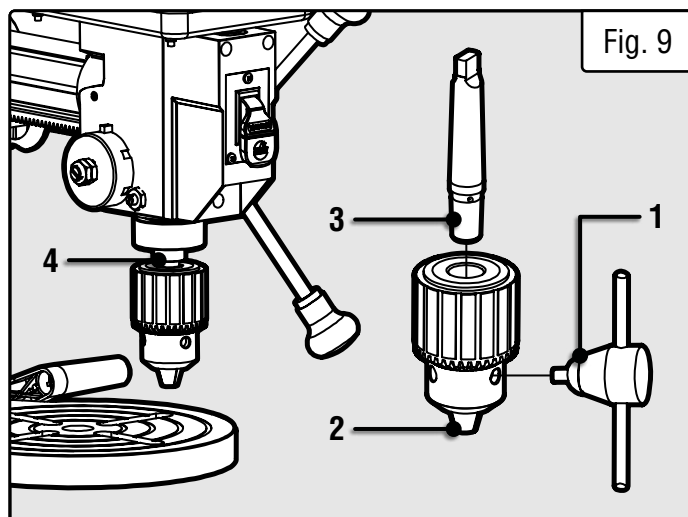
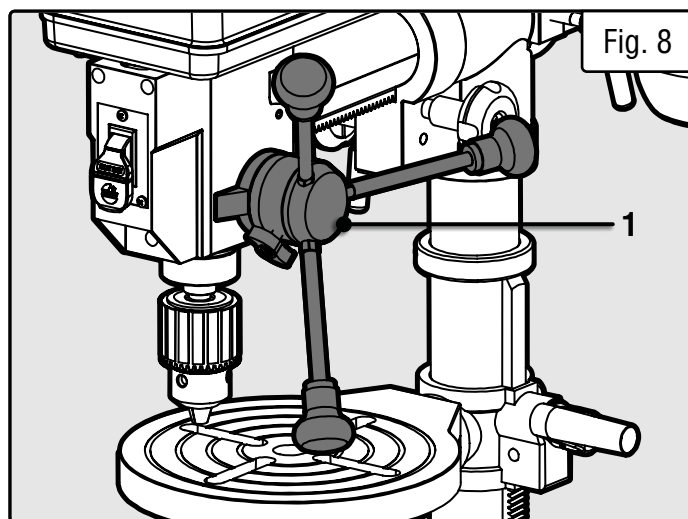
4. Use lacquer thinner or acetone on a lint-free rag to clean the chuck. Do not touch these surfaces with your hands after cleaning. Rubbing alcohol does not work well, as it contains oil. Let the chuck dry fully before continuing on to step 5.

5. Use the included chuck key (Fig. 9 - 1) to retract the jaws of the chuck (Fig. 9 - 2) all the way into the body.

6. Place the drill chuck face down, and insert the short tapered end of the arbor (Fig. 9 - 3) into the top of the drill chuck as shown in Fig. 9. Tap the arbor using a rubber mallet or dead blow hammer to secure the chuck and arbor together.

7. Slide the arbor onto the spindle (Fig. 9 - 4) while slowly rotating the chuck until it locks onto the spindle. If installed correctly, the drill chuck should not rotate without turning the spindle.

8. Tap the end of the drill chuck with a rubber mallet or dead blow hammer to fully seat it on the spindle.



ASSEMBLY & ADJUSTMENTS

⚠ WARNING! Do not plug in or turn on the tool until it is fully assembled according to the instructions. Failure to follow the safety instructions may result in serious personal injury.

MOUNTING THE DRILL PRESS TO A WORKBENCH

The base of the drill press has four mounting holes that allow it to be mounted to a workbench. This prevents the drill press from moving during operation.

Use the mounting method shown in Fig. 10 to securely mount the drill press to your workbench. Mounting hardware is not included with your drill press. The mounting holes are 13mm in diameter; we recommend M12 or 1/2" bolts for mounting.

ADJUSTING THE BELT TENSION

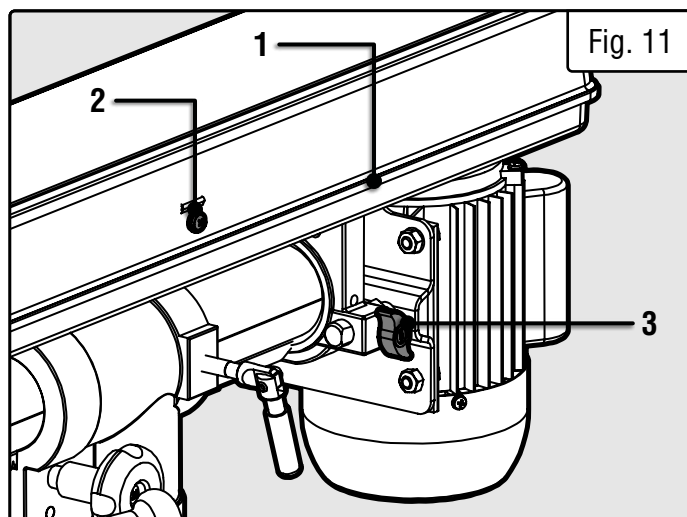
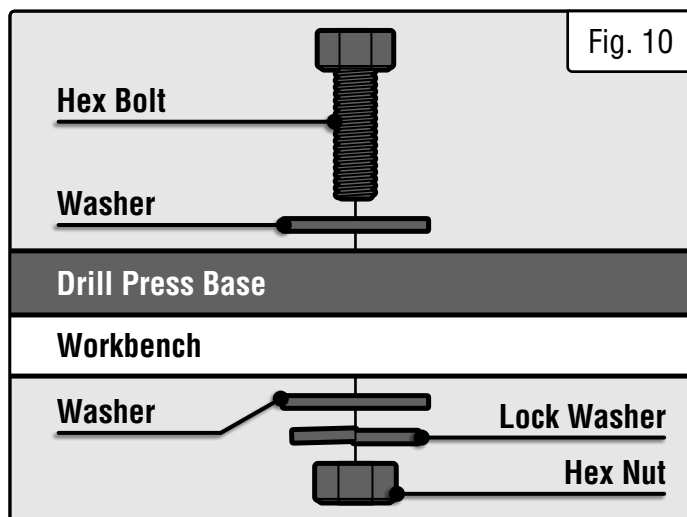
1. Open the belt housing cover by removing the belt housing screw (Fig. 11 - 1).
2. Loosen the motor lock knob (Fig. 11 - 2).
3. Push the motor away from the front of the drill press to apply tension to belt.
4. Tighten the motor lock knob to lock the motor in place and close the belt housing cover using the belt housing screw.

NOTE: The belt is correctly tensioned when you can flex the belt approximately 3/8" in either direction with your finger.

SPEED ADJUSTMENT

Your drill press has five different speed options: 600, 1100, 1700, 2300, and 3100 RPM. Use the chart on the following page to determine the proper speed for your operation.

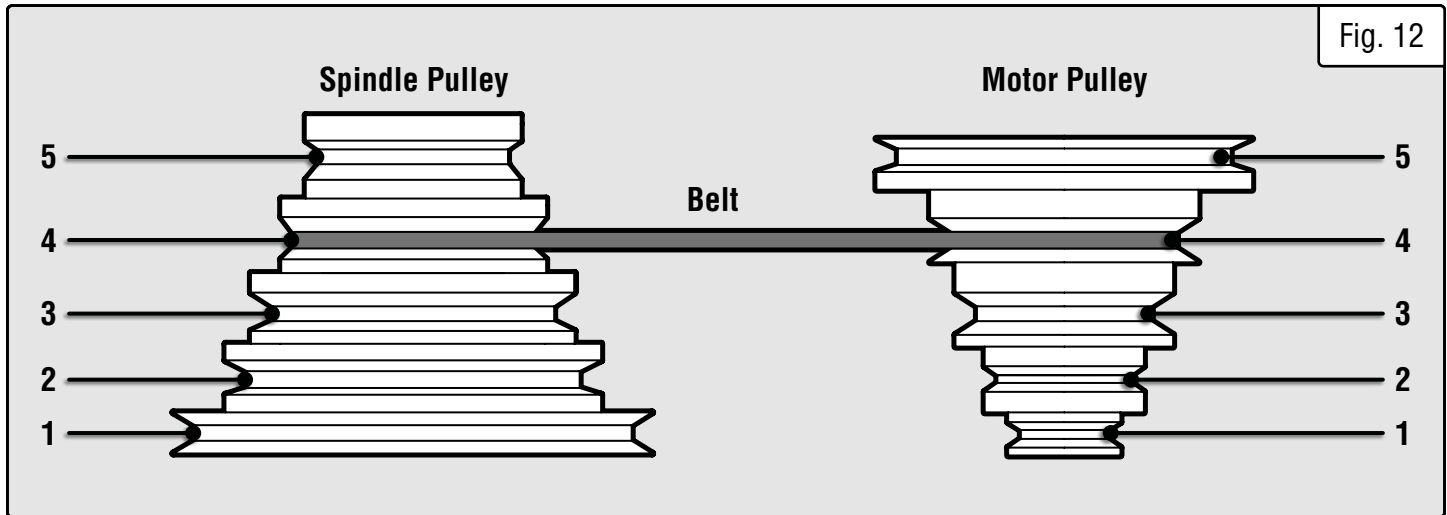
1. Open the belt housing cover (Fig. 11 - 1) by removing the belt housing screw (Fig. 11 - 2).
2. Loosen the motor lock knob (Fig. 11 - 3).
3. Pull the motor towards the front of the drill press to loosen the tension on the belt and tighten the motor lock knob.
4. Adjust the position of the belt on the spindle and motor pulleys (Fig. 12). **NOTE:** Make sure that the belt runs on the same setting of each pulley. For example, if the belt is on the third setting of the motor pulley, then it should also be on the third setting of the spindle pulley.



5. Push the motor away from the front of the drill press to apply tension to belt.
6. Tighten the motor lock knob to lock the motor in place and close the belt housing cover using the belt housing screw.

NOTE: The belt is correctly tensioned when you can flex the belt approximately 3/8" in either direction with your finger.

ASSEMBLY & ADJUSTMENTS



RECOMMENDED SPEED FOR DRILL SIZE & MATERIAL

Belt Location	Speed Range RPM	Wood		Zinc		Alum. Brass		Plastic		Cast Iron Bronze		Steel (Malleable)		Steel (Med. Carbon)		Steel (Stainless)	
		in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
5-5	3100	5/16	7.9	3/16	4.8	11/64	4.4	5/32	4.0	7/64	2.8	3/32	2.4	1/16	1.6	1/32	0.8
4-4	2300	3/8	9.5	1/4	6.4	7/32	5.6	3/16	4.8	1/8	3.2	3/32	2.4	1/16	1.6	3/64	1.2
3-3	1700	5/8	15.9	3/8	9.5	11/32	8.7	5/16	7.9	1/4	6.4	5/32	4.0	1/8	3.2	1/16	1.6
2-2	1100	7/8	22.2	1/2	12.7	15/32	11.9	7/16	11.1	11/32	8.7	1/4	6.4	3/16	4.8	1/8	3.2
1-1	600	1	31.8	3/4	19.0	11/16	17.5	5/8	15.9	1/2	12.7	3/8	9.5	5/16	7.9	1/4	6.4

ASSEMBLY & ADJUSTMENTS

⚠ WARNING! Do not plug in or turn on the tool until it is fully assembled according to the instructions. Failure to follow the safety instructions may result in serious personal injury.

INSTALLING THE DRILL BIT

1. Make sure that the drill press is turned OFF and removed from the power source.

2. Using the chuck key (Fig. 13 - 1), open the drill chuck jaws (Fig. 13 - 2) wide enough to accept the shank of the drill bit (Fig. 13).

3. Insert the drill bit into the chuck so that the chuck jaws grip as much of the shank as possible. Center the bit and hand tighten the chuck.

NOTE: Make sure that small bits do not get trapped between the chuck jaws.

4. Tighten the chuck jaws using the chuck key to ensure that the drill bit will not slip while drilling.

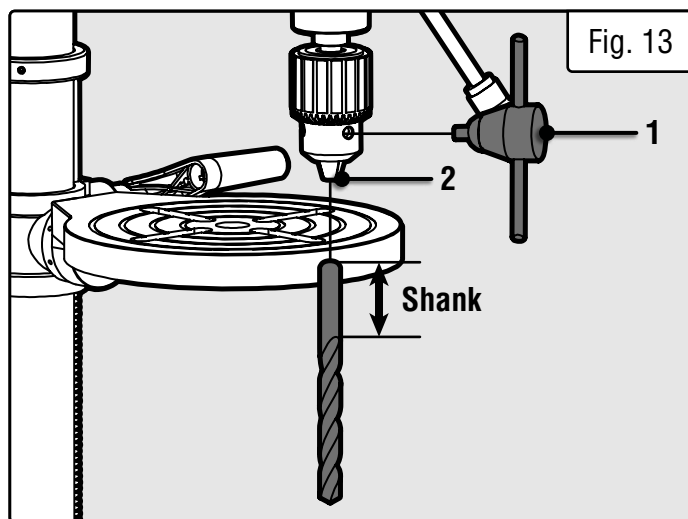


Fig. 13

MOVING THE HEAD FORWARD & BACKWARD

1. To move the head forward and backward, loosen the head angle locking handle (Fig. 14 - 1).

2. Turn head traverse knob (Fig. 14 - 2) clockwise or counterclockwise until the head is in the desired position.

3. Secure the head in position by tightening the head angle locking handle.

4. Turn the throat adjustment fine-tuning knob (Fig. 15 - 1) to slightly adjust the forward and backward position of the head for a more precise drilling position on your workpiece.

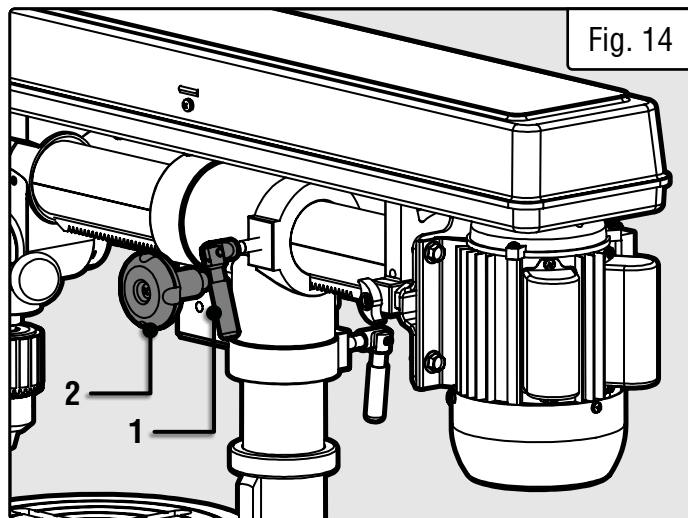


Fig. 14

TILTING THE HEAD LEFT & RIGHT

1. To tilt the head left and right, loosen the head angle locking handle (Fig. 14 - 1).

2. Pull out the locking pin (Fig. 15 - 2) located on the left side of the headstock and rotate the pin 90°.

3. Tilt the headstock to the desired angle specified on the scale and tighten the head angle locking handle.

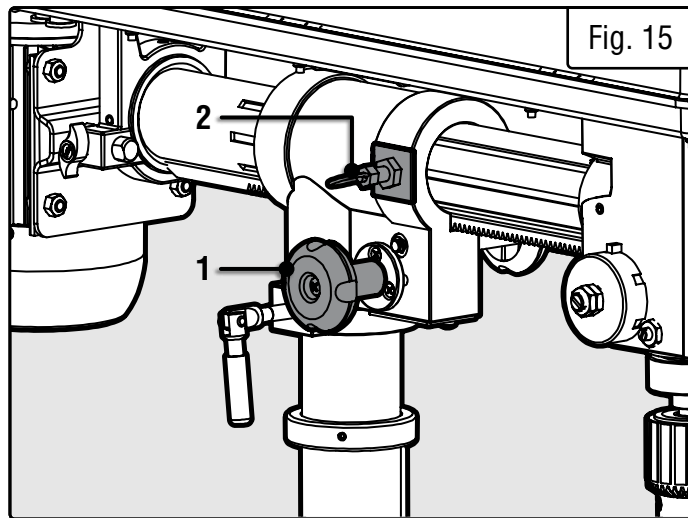


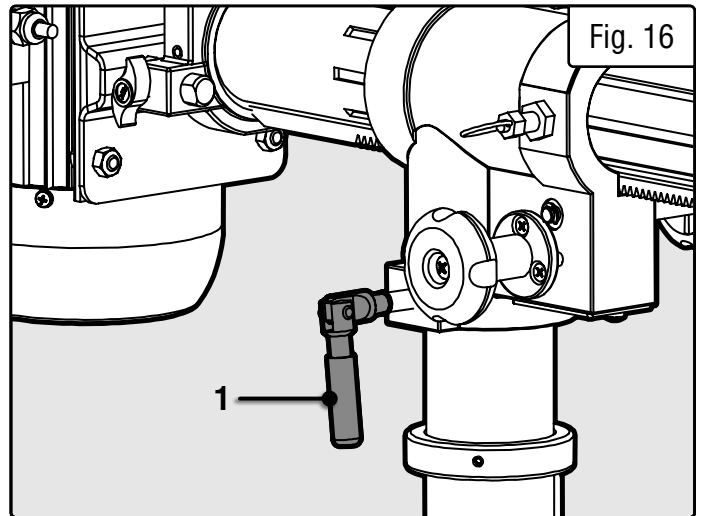
Fig. 15

ASSEMBLY & ADJUSTMENTS

⚠ WARNING! Do not plug in or turn on the tool until it is fully assembled according to the instructions. Failure to follow the safety instructions may result in serious personal injury.

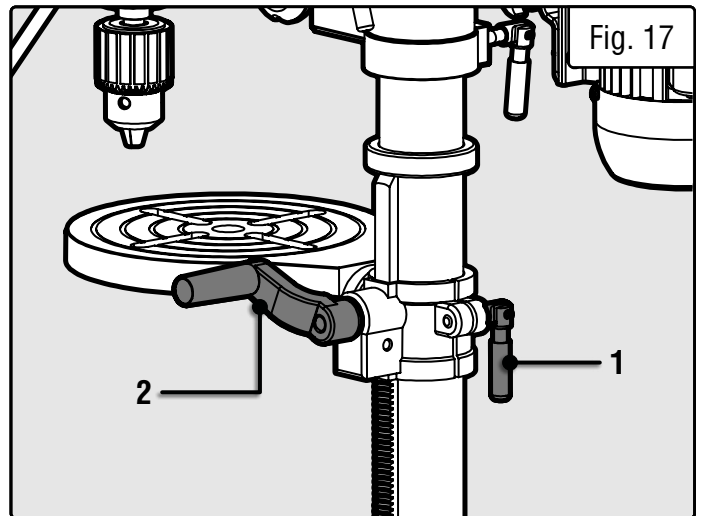
ROTATING THE HEAD LEFT & RIGHT

1. To rotate the head left and right around the column, loosen the head rotation locking handle (Fig. 16 - 1).
2. Secure the head in position by tightening the head rotation locking handle.



RAISING & LOWERING THE TABLE

1. Loosen the table locking handle (Fig. 17 - 1).
2. Use the crank handle (Fig. 17 - 2) to raise and lower the table.
3. Once the table is in the desired position, tighten the table locking handle to secure the table in place.

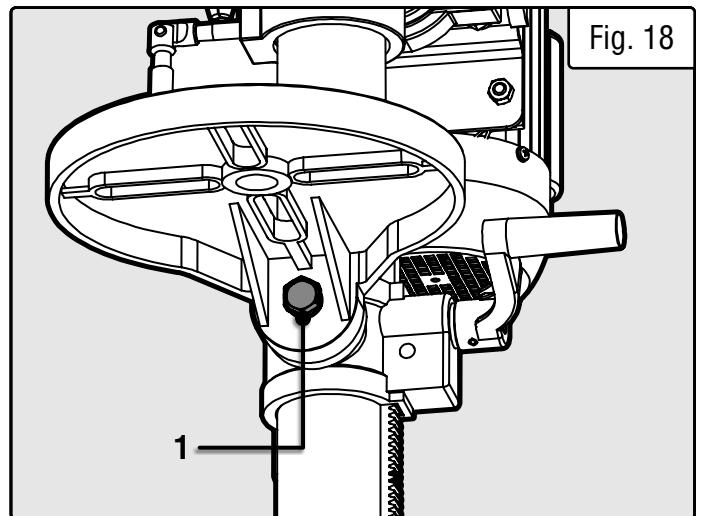


TILTING THE TABLE LEFT & RIGHT

1. To tilt the table left and right, loosen the hex bolt (Fig. 18 - 1) under the table.
2. Once you have the table in the desired position, tighten the hex bolt.

ROTATING THE TABLE LEFT & RIGHT

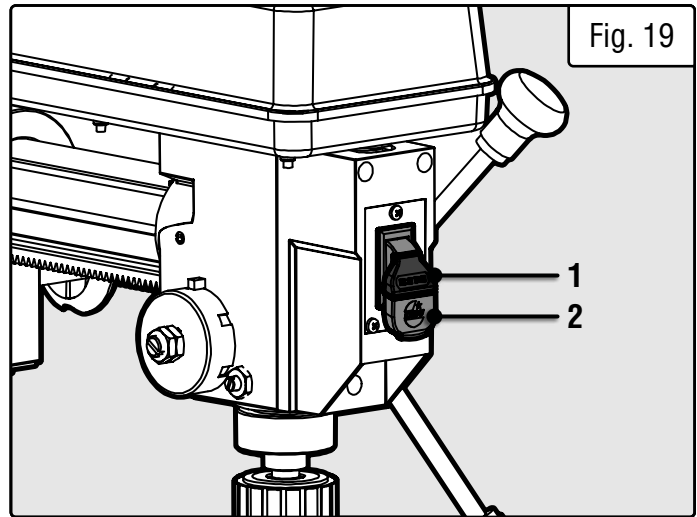
1. To rotate the table left and right around the column, loosen the table locking handle (Fig. 17 - 1).
2. Once you have the table in the desired position, tighten the table locking handle.



OPERATION

TURNING THE DRILL PRESS ON / OFF

1. Make sure that the drill press is fully assembled according to the assembly instructions.
2. Plug the drill press into the power source.
3. To turn the drill press ON, insert the safety key (Fig. 19 - 1) into the ON / OFF switch (Fig. 19 - 2) and move the power switch to the up position.
4. To turn the drill press OFF, move the power switch to the down position.
5. To lock the drill press in the OFF position, remove the safety key from the power switch.



GENERAL DRILLING GUIDELINES - DRILLING A HOLE

⚠ WARNING! To prevent the workpiece and the backup material from slipping from your hand while drilling, position the workpiece and backup material to the left side of the column. If the workpiece and the backup material are not long enough to reach the column, clamp the workpiece and back material to the table. Failure to do this could result in personal injury.

1. Mark where you want to drill on the workpiece by using a center punch or a sharp nail.
2. Before turning the drill press ON, turn the feed handles to bring the drill bit down. Line the drill bit tip up with the mark. Clamp the workpiece in place.
3. Turn the drill press ON and pull down on the feed handles with the appropriate force needed to allow the drill bit to drill the material.

NOTE: Feeding too slowly might cause the drill bit to turn in the chuck. Feeding too rapidly might stop the motor, cause the belt to slip, force the workpiece loose, or break the drill bit. Practice with scrap material to get the feel of the machine before attempting to do any drilling operation.

DRILLING SPEEDS

There are a few important factors to keep in mind when determining the best drilling speed:

- Material type
- Hole size
- Drill bit or cutter type
- Quality desired

Smaller drill bits require greater speed than larger drill bits. Softer materials require greater speed than harder materials. See the chart on page 15 for recommended speeds for particular materials.

OPERATION

DRILLING METAL

- Use metal-piercing twist drill bits.
- It is always necessary to lubricate the tip of the drill with oil to prevent overheating of the drill bit.
- All metal workpieces should be clamped down securely. Any tilting, twisting, or shifting causes a rough drill hole, and increases the potential of drill bit breakage.
- Never hold a metal workpiece with your bare hands. The cutting edge of the drill bit may seize the workpiece and throw it, causing serious injury. The drill bit will break if the metal piece suddenly hits the column.
- If the metal is flat, clamp a piece of wood under it to prevent turning. If it cannot be laid flat on the table, then it should be blocked and clamped.

DRILLING WOOD

- Brad point bits are preferred. Metal piercing twist bits may be used on wood.
- Do not use auger bits. Auger bits turn so rapidly that they can lift the workpiece off of the table and whirl it around.
- Always protect the drill bit by positioning the table so that the drill bit will enter the center hole when drilling through the workpiece.
- To prevent splintering, feed the drill bit slowly right as the bit is about to cut through to the backside of the workpiece.
- To reduce splintering and protect the point of the bit, use scrap wood as a backing or a base block under the workpiece.

FEEDING THE DRILL BIT

- Pull down on the feed handles with only enough force to allow the drill bit to cut.
- Feeding too rapidly might stall the motor, cause the belt to slip, damage the workpiece, or break the drill bit.
- Feeding too slowly will cause the drill bit to heat up and burn the workpiece.

MAINTENANCE

 **WARNING!** To avoid accidents, turn OFF and unplug the tool from the electrical outlet before cleaning, adjusting, or performing any maintenance or lubrication work.

 **WARNING!** Any attempt to repair or replace electrical parts on this tool may be hazardous. Servicing of the tool must be performed by a qualified technician. When servicing, use only identical WEN replacement parts. Use of other parts may be hazardous or induce product failure.

ROUTINE INSPECTION

Before each use, inspect the general condition of the tool. If any of these following conditions exist, do not use until parts are replaced.

CHECK FOR:

- Loose hardware or improper mounting,
- Misalignment
- Damaged cord/electrical wiring,
- Cracked or broken parts, and
- Any other condition that may affect its safe operation

CAUTION: Most plastics are susceptible to damage from various types of commercial solvents. Do not use any solvents or cleaning products that could damage the plastic parts. Some of these include but are not limited to: gasoline, carbon tetrachloride, chlorinated cleaning solvents, and household detergents that contain ammonia.

CLEANING & STORAGE

1. After every operation, use a vacuum to remove sawdust or metal shavings from the tool surfaces, motor housing and work area. Keep the ventilation openings free from dust and debris to prevent the motor from overheating.
2. Wipe the tool surfaces clean with a soft cloth or brush. Make sure water does not get into the tool.
3. Apply a light coat of paste wax to the column and table to help keep these surfaces clean and rust free.
4. Store the tool in a clean and dry place away from the reach of children.

LUBRICATION

The ball bearings in the spindle and the V-belt pulley assembly are greased and permanently sealed, and require no lubrication. Pull the spindle down and oil the quill moderately every three months.

Lubricate the table bracket and locking knobs if they become difficult to use.

PRODUCT DISPOSAL

Used power tools should not be disposed of together with household waste. This product contains electronic components that should be recycled. Please take this product to your local recycling facility for responsible disposal and to minimize its environmental impact.

TROUBLESHOOTING GUIDE

⚠ WARNING! Stop using the tool immediately if any of the following problems occur. Repairs and replacements should only be performed by an authorized technician. For any questions, please contact our customer service at **1-847-429-9263**, M-F 8-5 CST or email us at **techsupport@wenproducts.com**.

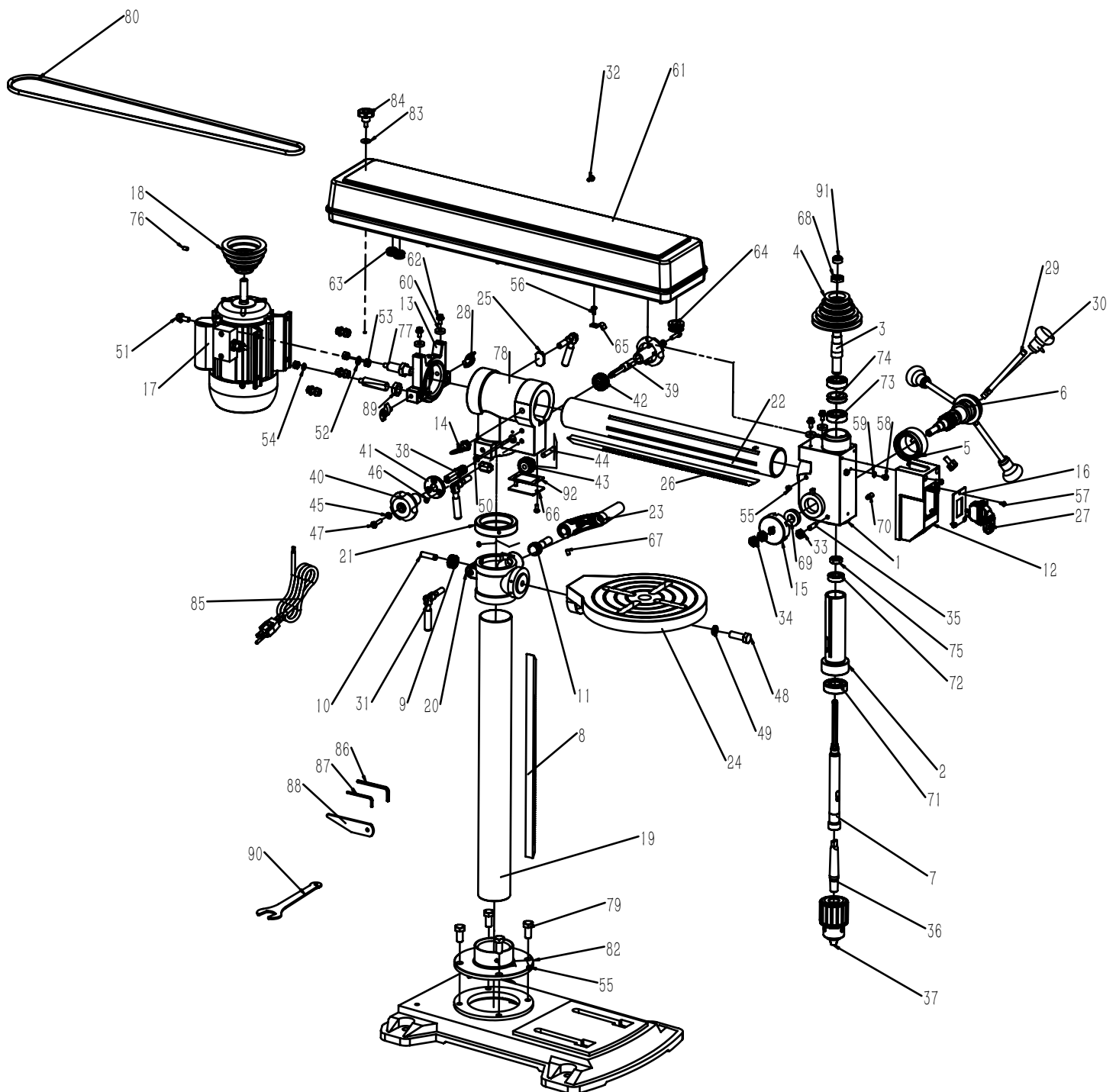
PROBLEM	CAUSE	SOLUTION
Noisy Operation or Excessive Vibration	1. Incorrect belt tension.	1. Adjust the belt tension.
	2. Dry spindle.	2. Lubricate the spindle.
	3. Loose spindle pulley.	3. Tighten the set screws on the side of the spindle pulley.
	4. Loose motor pulley.	4. Tighten the set screws on the side of the motor pulley.
	5. Seized motor pulley.	5. Lubricate the motor pulley and motor shaft; ensure that the pulley opens and closes when the machine is ON and the speed is adjusted.
The drill bit burns or smokes	1. Drilling at the incorrect speed.	1. Change the speed.
	2. The wood chips are not coming out of the hole.	2. Retract the drill bit frequently to clear the chips.
	3. Dull drill bit.	3. Resharpen or replace the drill bit.
	4. Feeding the workpiece too slowly.	4. Feed fast enough to cut the workpiece.
	5. Not lubricated.	5. Lubricate the drill bit with cutting oil or motor oil.
Excessive drill run out or wobble; drilled hole is not round	1. Bent drill bit.	1. Replace the drill bit.
	2. Bit improperly installed in the chuck.	2. Reinstall the bit.
	3. Worn spindle bearings.	3. Bearings may need replacement. Contact customer service at 1-847-429-9263 .
	4. Lengths of the cutting flutes or angles are not appropriate for the hardness of the wood grain.	4. Resharpen the drill bit correctly or replace with the appropriate type.
	5. Chuck not properly installed.	5. Reinstall the chuck.

TROUBLESHOOTING GUIDE

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PROBLEM	CAUSE	SOLUTION
Drill bit binds in the workpiece	1. The workpiece is pinching the bit.	1. Support or clamp the workpiece.
	2. Excessive feed pressure.	2. Feed more slowly.
Chuck falls off spindle	1. Dirt, grease, or oil on the tapered surface on the spindle or in the chuck.	1. Clean the tapered surface of both the chuck and spindle with a household detergent.
Motor will not run	1. Defective or broken switch.	1. Contact customer service at 1-847-429-9263 .
	2. Defective or damaged power cord.	2. Contact customer service at 1-847-429-9263 .
	3. Open circuit, loose connections, or burned out motor.	3. Contact customer service at 1-847-429-9263 .
	4. Low voltage.	4. Check the power line for the proper voltage. Use another circuit or have a qualified electrician upgrade the service.
	5. Bad starting capacitor.	5. Contact customer service at 1-847-429-9263 .
Motor stalls	1. Short circuit in motor.	1. Contact customer service at 1-847-429-9263 .
	2. Incorrect fuses or circuit breakers.	2. Replace with correct fuse or circuit breaker for the circuit.
	3. Overloaded circuit.	3. Turn off other machines and retry.
	4. Low voltage.	4. Check the power line for the proper voltage. Use another circuit or have a qualified electrician upgrade the service.

EXPLODED VIEW & PARTS LIST



NOTE: Not all parts may be available for purchase. Parts and accessories that wear down over the course of normal use are not covered under the warranty.

EXPLODED VIEW & PARTS LIST

No.	Part No.	Description	Qty.
1	4233-001	Head	1
2	4214B-057	Quill	1
3	4233-003	Spindle Sleeve	1
4	4233-004	Spindle Pulley	1
5	4233-005	Dial Body	1
6	4233-006	Quill Feed Assembly	1
7	4233-007	Spindle	1
8	4214B-103	Rack	1
9	4214B-105	Inner Gear	1
10	4214B-106	Inner Gear Shaft	1
11	4233-011	Worm Gear	1
12	4233-012	Switch Box	1
13	4233-013	Motor Mount	1
14	4233-014	Location Pin	1
15	4214B-026	Coil Spring Assembly	1
16	4233-016	Switch Box Cover	1
17	4233-017	Motor	1
18	4233-018	Motor Pulley	1
19	4233-019	Column	1
20	4214B-100	Table Support	1
21	4233-021	Rack Collar	1
22	4233-022	Variable Diameter Collar	1
23	4212B-071	Crank handle	1
24	4233-024	Work Table	1
25	4233-025	Lock Block	2
26	4233-026	Variable Diameter Rack	1
27	4233-027	Switch	1
28	4212B-042	Depth locking knob	3
29	4214B-122	Handle	3
30	4214B-017	Handle Knob	3
31	4233-031	Table Lock Handle	3
32	4233-032	Screw, M5x12	1
33	4225-147	Hex Nut, M10	1
34	4214B-025	Hex Nut, M12	2
35	4214B-085	Quill Set Screw	1
36	4233-036	Arbor MT2/JT3	1
37	4233-037	Chuck & Key JT3	1

No.	Part No.	Description	Qty.
38	4233-038	Gear Shaft	1
39	4233-039	Variable Diameter Handle Shaft	1
40	4233-040	Variable Diameter Handle	2
41	4233-041	Gear Seat	1
42	4233-042	Internal Gear	1
43	4233-043	Reduction Gear	1
44	4233-044	Reduction Gear Shaft	1
45	4233-045	Flat Washer, M6	2
46	4233-046	Philips Screw, M5x8	3
47	4233-047	Philips Screw, M6x25	2
48	4214B-051	Hex Bolt, M12x35	1
49	4214B-1128	Spring Washer, M12	1
50	4233-050	Split Washer, M6	1
51	4233-051	Hex Bolt, M8x18	4
52	4214B-041	Flat Washer, M8	4
53	4214B-061	Hex Nut, M8	6
54	4214B-120	Spring Washer M8	2
55	4233-055	Hex Socket Screw, M8x8	6
56	4233-056	Philips Screw, M5x12	9
57	4233-057	Philips Tapping Screw, M4.2x10	3
58	4233-058	Philips Screw Assembly, M5x8	2
59	4233-059	Star Washer, M5	2
60	4233-060	Sponge Pad	4
61	4233-061	Pulley Cover	1
62	4233-062	Philips Flange Head Screw, M6x12	4
63	4233-063	Cord Bushing	2
64	4233-064	Rubber Bushing	1
65	4233-065	Wire Clamp	4
66	4233-066	Cover	1
67	4233-067	Hex Socket Screw, M6x10	2
68	4233-068	Pulley Set Screw	1
69	4233-069	Bushing	1

EXPLODED VIEW & PARTS LIST

No.	Part No.	Description	Qty.
70	4233-070	Slotted Shoulder Screw, M6×12	1
71	4233-071	Ball Bearing, 6204-2RZ	1
72	4233-072	Ball Bearing, 6002-2RZ	1
73	4233-073	Ball Bearing, 6203-2RZ	2
74	4233-074	Retainer	1
75	4214B-1109	Hex Nut, M14×1.5	1
76	4233-076	Hex Socket Set Screw	1
77	4233-077	Motor Screw Rod	2
78	4233-078	Horizontal Column Bracket	1
79	4233-079	Hexagonal Head Bolt M12x25	4

No.	Part No.	Description	Qty.
80	4233-080	Belt, K-59	1
81	4233-081	Base	1
82	4233-082	Column Base	1
83	4233-083	Motor Plate	1
84	4233-084	Big washer φ6	1
85	4233-085	Pressing Rod Locking Handle	1
86	4233-086	Power Cord	1
87	4233-087	Wrench 4	1
88	4233-088	Wrench 3	1
89	4233-089	wedge	1
90	4233-090	Hexagonal thin nut-M16	2
91	4233-091	Long wrench	1
92	4233-092	Oil cover	1
93	4233-093	anti-oil pad	1

NOTE: Not all parts may be available for purchase. Parts and accessories that wear down over the course of normal use are not covered under the warranty.

WARRANTY STATEMENT

WEN Products is committed to building tools that are dependable for years. Our warranties are consistent with this commitment and our dedication to quality.

LIMITED WARRANTY OF WEN CONSUMER POWER TOOLS PRODUCTS FOR HOME USE

GREAT LAKES TECHNOLOGIES, LLC ("Seller") warrants to the original purchaser only, that all WEN consumer power tools will be free from defects in material or workmanship for a period of two (2) years from date of purchase. Ninety days for all WEN products if the tool is used for professional or commercial use.

SELLER'S SOLE OBLIGATION AND YOUR EXCLUSIVE REMEDY under this Limited Warranty and, to the extent permitted by law, any warranty or condition implied by law, shall be the repair or replacement of parts, without charge, which are defective in material or workmanship and which have not been misused, carelessly handled, or misrepaired by persons other than Seller or Authorized Service Center. To make a claim under this Limited Warranty, you must make sure to keep a copy of your proof of purchase that clearly defines the Date of Purchase (month and year) and the Place of Purchase. Place of purchase must be a direct vendor of Great Lakes Technologies, LLC. Third party vendors such as garage sales, pawn shops, resale shops, or any other secondhand merchant void the warranty included with this product. Contact techsupport@wenproducts.com or 1-847-429-9263 to make arrangements for repairs and transportation.

When returning a product for warranty service, the shipping charges must be prepaid by the purchaser. The product must be shipped in its original container (or an equivalent), properly packed to withstand the hazards of shipment. The product must be fully insured with a copy of the warranty card and/or the proof of purchase enclosed. There must also be a description of the problem in order to help our repairs department diagnose and fix the issue. Repairs will be made and the product will be returned and shipped back to the purchaser at no charge.

THIS LIMITED WARRANTY DOES NOT APPLY TO ACCESSORY ITEMS THAT WEAR OUT FROM REGULAR USAGE OVER TIME INCLUDING BELTS, BRUSHES, BLADES, ETC. ANY IMPLIED WARRANTIES SHALL BE LIMITED IN DURATION TO TWO (2) YEARS FROM DATE OF PURCHASE. SOME STATES IN THE U.S., SOME CANADIAN PROVINCES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU.

IN NO EVENT SHALL SELLER BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES (INCLUDING BUT NOT LIMITED TO LIABILITY FOR LOSS OF PROFITS) ARISING FROM THE SALE OR USE OF THIS PRODUCT. SOME STATES IN THE U.S. AND SOME CANADIAN PROVINCES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.

THIS LIMITED WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE IN THE U.S., PROVINCE TO PROVINCE IN CANADA AND FROM COUNTRY TO COUNTRY.

THIS LIMITED WARRANTY APPLIES ONLY TO PORTABLE ELECTRIC TOOLS, BENCH POWER TOOLS, OUTDOOR POWER EQUIPMENT AND PNEUMATIC TOOLS SOLD WITHIN THE UNITED STATES OF AMERICA, CANADA AND THE COMMONWEALTH OF PUERTO RICO. FOR WARRANTY COVERAGE WITHIN OTHER COUNTRIES, CONTACT THE WEN CUSTOMER SUPPORT LINE.

**THANKS FOR
REMEMBERING**

