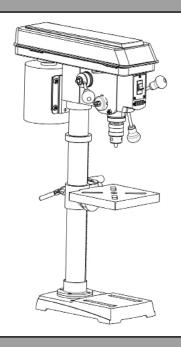


# 10" VARIABLE SPEED **DRILL PRESS**



Model # 4212 bit.ly/wenvideo

## **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 intended purpose, you will enjoy years of safe, reliable service.



## **NEED HELP? CONTACT US!**

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



800 -- 232 -- 1195 (M-F 8AM-5PM CST)



techsupport@wenproducts.com



WENPRODUCTS.COM

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## TECHNICAL DATA

Model Number:	4212
Motor:	120 V, 60 Hz, 5 A
Speed:	530-3100 <b>RPM</b> (no load)
Chuck Capacity:	1/2"
Stroke:	2"
Capacity:	5'' (chuck to column)
	15" (chuck to base)
Table tilt:	0 to $45^{\circ}$ left and right
Laser:	Class III, transformer powered
Weight:	57 lb

### GENERAL SAFETY RULES

Safety is a combination of common sense, staying alert and knowing how your item works. **SAVE THESE SAFE-TY INSTRUCTIONS.** 



**WARNING:** To avoid mistakes and serious injury, do not plug in your tool until the following steps have been read and understood.

- 1. READ and become familiar with this entire instruction manual. LEARN the tool's applications, limitations, and possible hazards.
- 2. AVOID DANGEROUS CONDITIONS. Do not use power tools in wet/damp areas or expose them to rain. Keep work areas well lit.
- 3. DO NOT use power tools in the presence of flammable liquids or gases.
- 4. ALWAYS keep your work area clean, uncluttered, and well lit. DO NOT work on floor surfaces that are slippery with sawdust or wax.
- 5. KEEP BYSTANDERS AT A SAFE DISTANCE from the work area, especially when the tool is operating. NEVER allow children or pets near the tool.
- 6. DO NOT FORCE THE TOOL to do a job for which it was not designed.
- 7. DRESS FOR SAFETY. Do not wear loose clothing, gloves, neckties, or jewelry (rings, watches, etc.) when operating the tool. Inappropriate clothing and items can get caught in moving parts and draw you in. ALWAYS wear non-slip footwear and tie back long hair.
- 8. WEAR A FACE MASK OR DUST MASK to fight the dust produced by sawing operations.



**WARNING:** Dust generated from certain materials can be hazardous to your health. Always operate the tool in a well-ventilated area and provide for proper dust removal. Use dust collection systems whenever possible.

- 9. ALWAYS remove the power cord plug from the electrical outlet when making adjustments, changing parts, cleaning, or working on the tool.
- 10. KEEP GUARDS IN PLACE AND IN WORKING ORDER.
- 11. AVOID ACCIDENTAL START-UPS. Make sure the power switch is in the OFF position before plugging in the power cord.
- 12. REMOVE ADJUSTMENT TOOLS. Always make sure all adjustment tools are removed from the saw before turning it on.
- 13. NEVER LEAVE A RUNNING TOOL UNATTENDED. Turn the power switch to OFF. Do not leave the tool until it has come to a complete stop.

## GENERAL SAFETY RULES

- 14. NEVER STAND ON A TOOL. Serious injury could result if the tool tips or is accidentally hit. DO NOT store anything above or near the tool.
- 15. DO NOT OVERREACH. Keep proper footing and balance at all times. Wear oil-resistant rubber-soled footwear. Keep the floor clear of oil, scrap, and other debris.
- 16. MAINTAIN TOOLS PROPERLY. ALWAYS keep tools clean and in good working order. Follow instructions for lubricating and changing accessories.
- 17. CHECK FOR DAMAGED PARTS. Check for alignment of moving parts, jamming, breakage, improper mounting, or any other conditions that may affect the tool's operation. Any part that is damaged should be properly repaired or replaced before use.
- 18. MAKE THE WORKSHOP CHILDPROOF. Use padlocks and master switches and ALWAYS remove starter keys.
- 19. DO NOT operate the tool if you are under the influence of drugs, alcohol, or medication that may affect your ability to properly use the tool.
- 20. USE SAFETY GOGGLES AT ALL TIMES that comply with ANSI Z87.1. Normal safety glasses only have impact resistant lenses and are not designed for safety. Wear a face or dust mask when working in a dusty environment. Use ear protection such as plugs or muffs during extended periods of operation.

### SPECIFIC RULES FOR DRILL PRESS



WARNING: Do not operate this tool until it is completely assembled and installed according to the instructions.

- 1. Never turn the drill press on until the table is clear of all foreign objects (tools, scraps, etc.).
- 2. Always keep hands and fingers away from the drill bit.
- 3. Do not drill materials without a flat surface unless a suitable support is used (clamp or vice).
- 4. Never start the drill press with the drill bit pressed against the workpiece.
- 5. Make sure the table lock is tightened before starting the drill press.
- 6. Never layout, assemble, or set-up any work on the table while the drill is on.
- 7. Make sure the drill bit is securely locked in the chuck.
- 8. Make sure the chuck key is removed from the chuck before turning power on.
- 9. Adjust the table or depth stop to avoid drilling into the table.

## SPECIFIC RULES FOR DRILL PRESS

- 10. Always stop the drill before removing scrap pieces from the table.
- 11. Use clamps or a vise to secure a workpiece to the table. This will prevent the workpiece from rotating with the drill bit.
- 12. Do not wear gloves when operating a drill press.
- 13. Set the drill press to the speed that is appropriate for the material being drilled.
- 14. If any part of the drill press is missing/damaged or if the electrical components fail to perform properly, shut the power OFF and unplug the drill press. Replace missing, damaged or failed parts before resuming operation.
- 15. Before leaving the machine, shut the power off, remove the drill bit and clean the table.

### **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.

DO NOT MODIFY THE PLUG PROVIDED. If it will not fit the outlet, have the proper outlet installed by a licensed electrician.

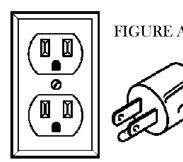
IMPROPER CONNECTION of the equipment grounding conductor can result in electric shock. The conductor with the green insulation (with or without yellow stripes) is the equipment grounding conductor. If repair or replacement of the electric cord or plug is necessary, DO NOT connect the equipment grounding conductor to a live terminal.

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

USE ONLY THREE-WIRE EXTENSION CORDS that have three-pronged plugs and outlets that accept the tool's plug as shown in Fig. A. 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.

WARNING: This tool is for indoor use only. Do not expose to rain or use in damp locations.



## **ELECTRICAL INFORMATION**

#### **GUIDELINES FOR USING EXTENSION CORDS**

Make sure your extension cord is in good condition. 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 nameplate ampere rating. When in doubt, use a heavier cord. The smaller the gauge number, the heavier the cord.

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

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.

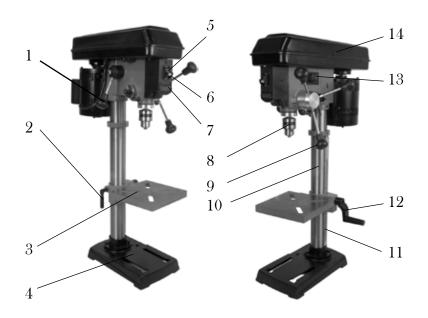
Protect your extension cords from sharp objects, excessive heat and damp/wet areas.



Use a separate electrical circuit for your tools. This circuit must not be less than a #12 wire and should be protected with a 15 A 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.

WARNING: This tool must be grounded while in use to protect the operator from electric shock.

## KNOW YOUR DRILL PRESS



- 1 Speed Control Handle
- 2 Support Lock Handle
- 3 Table
- 4 Base
- 5 ON/OFF Switch
- 6 Safety Key
- 7 Digital Speed Readout
- 8 Chuck
- 9 Feed Handle
- 10 Column
- 11 Rack
- 12 Crank Handle
- 13 Laser ON/OFF Switch
- 14 Housing Cover Screw

Fig. 1

#### **UNPACKING**

Unpack the drill press and all of its parts. Compare against the list below. Do not discard the carton or any packaging until the drill press is completely assembled.

To protect the drill press from moisture, a protective coating has been applied to the machine's surfaces. Remove this coating with a soft cloth moistened with kerosene or penetrating oil. Do not use acetone, gasoline, or lacquer thinner to clean. Apply a coat of good paste wax to the table and column. Wipe all parts with a clean dry cloth.

A	Head/Motor Assembly	Η	Crank Handle
В	Column Assembly	I	Crank Handle Worm
$\mathbf{C}$	Table	J	Hex Head Bolts (4)
D	Base	K	Hex Keys (2)
$\mathbf{E}$	Chuck	L	Feed Handles (3)
F	Chuck Key	M	Speed Handle (1)



WARNING: If any part is missing or damaged, do not plug the drill press in until the missing or damaged part is repaired or replaced.

The column assembly (column, column support, rack, rack collar, and table support bracket) must be attached to the base. The table and table support handles must be attached to the table support bracket. The motor housing must be attached to the column.

Tools needed for assembly

G Table Lock Handles

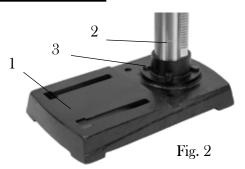
- Adjustable wrench
- Screwdriver
- Hammer and block of wood

#### **COLUMN ASSEMBLY TO BASE** (Fig. 2)

- 1. Place the column tube (2) on the base (1), aligning the column support holes to the base holes.
- 2. Install a hex head bolt (3) in each column support hole and tighten bolts using the adjustable wrench.

#### **TABLE TO COLUMN** (Fig. 3-5)

- 1. Loosen set screw (2) in rack collar (1) and remove the collar.
- 2. Remove the rack (3) from the column (4).
- 3. Insert worm shaft (5) into the hole of the table support crank handle (6) from inside the table support. The worm shaft (5) should extend outside the housing about 1" (25 mm).
- 4. Insert the rack (3) into the geared groove of the table support (6). Make sure the worm shaft (5) on the inside of the table support is engaged with the teeth of the rack. The table support should sit at the center of the rack.
- 5. Slide the table support and rack assembly (3, 5, and 6) down together onto the column. Insert the bottom edge of the rack into the lip (7) of the column support. Hold in this position until step 6 is completed.
- 6. Place the collar (1) bevel side down over the rack. Tighten the set screw (2) with the 3 mm Allen wrench to hold the rack in position. (Fig. 3) Note: Make sure there is enough clearance to allow the table to rotate around the column. The collar must sit loosely over rack and not angled on the column. To avoid column or collar damage, only tighten the set screw enough to keep collar in place (Fig. 3).
- 7. Insert the table support crank handle (9) into the worm gear shaft on the side of the table support (8). Make sure the set screw (10) is aligned on the flat of the shaft and as close to the table support as possible. Tighten the set screw (Fig. 5).
- 8. Position the table in the same direction as the base, and tighten the column lock handle (11).



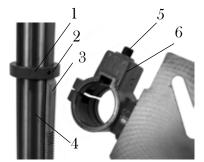


Fig. 3

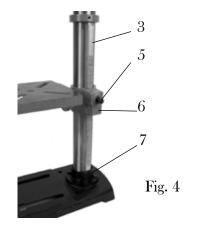


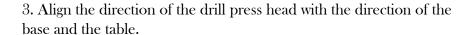


Fig. 5

#### **DRILL PRESS HEAD TO COLUMN** (Fig. 6)

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

- 1. Carefully lift the drill press head assembly (1) and position it over the column (2).
- 2. Place the mounting opening on the drill press head over the top of the column. Make sure the drill press head is seated properly on the column.





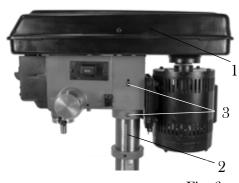


Fig. 6

#### **FEED HANDLES** (Fig. 7)

- 1. Insert the three speed handles (1) into the threaded openings on the feed hub (2).
- 2. Manually tighten the handles into the openings.

Note: When using the drill press, one or two of the feed handles may be removed if an unusually-shaped workpiece interferes with handle rotation.



Fig. 7

### **SPEED HANDLE** (Fig. 8)

- 1. Insert the feed handle (1) into the threaded opening on the speed hub (2).
- 2. Manually tighten handle into opening.

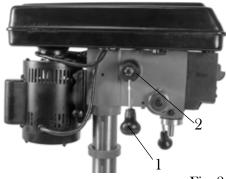


Fig. 8

### **MOUNT THE DRILL PRESS** (Fig. 9)

The drill press must be securely fastened through the mounting holes (1) to a stand or workbench with heavy-duty fasteners. This will prevent the drill press from tipping over, sliding, or walking during operation.

IMPORTANT: If the stand or workbench has a tendency to move during operation, fasten the workbench securely to the floor.

#### **INSTALL THE CHUCK** (Fig. 10)

- 1. Inspect and clean the taper hole in the chuck and the chuck arbor. Remove all grease, coatings, and particles from the chuck and chuck arbor surfaces with a clean cloth.
- 2. Open the chuck jaws by manually turning the chuck barrel clockwise. Make sure the jaws are completely recessed inside the chuck.
- 3. Seat the chuck on the chuck arbor by placing a block of wood (not included) under the chuck and tapping the wood with a hammer (not included). Alternatively, tap the chuck with a rubber mallet (not included).

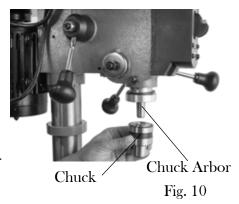
CAUTION: To avoid damaging the chuck, make sure the jaws are completely recessed into the chuck. Do not use a metal hammer to drive the chuck into the spindle.

#### REMOVE THE CHUCK

- 1. Turn the feed handles to lower the chuck to the lowest position.
- 2. Place a ball joint separator above the chuck and tap it lightly with a hammer to cause the chuck to drop from the spindle.

Note: To avoid possible damage to the drill or chuck, be prepared to catch the chuck as it falls.





#### RAISE OR LOWER THE TABLE (Fig. 11)

- 1. Loosen the support lock handle (1) and turn the crank handle (2) until the table is at the desired height.
- 2. Tighten the support lock handle before drilling.

#### **ROTATE THE TABLE** (Fig. 11)

1. Loosen the support lock handle (1) and turn the table around the column to the desired position.

Note: The rack should rotate around the column with the table support bracket. If the rack binds and does not rotate, slightly loosen the set screw in the rack collar.

2. Tighten the support lock before drilling.

#### **TILT THE TABLE** (Fig. 12)

- 1. Loosen the bevel lock bolt (under table) with a suitable socket wrench.
- 2. Tilt the table to the desired angle, using the bevel scale (1) as a basic guide.
- 3. Re-tighten the bevel lock bolt.
- 4. To return the table to its original horizontal position, loosen the bevel lock bolt.
- 5. Realign the table to the  $0^{\circ}$  setting on the bevel scale.
- 6. Tighten the bevel lock bolt with the wrench.



Fig. 11

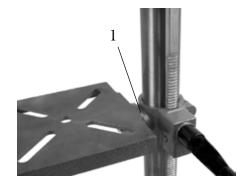


Fig. 12

WARNING: To avoid injury, make sure the chuck key is removed from the chuck before starting any drilling operation.

#### **INSTALLING A DRILL BIT**

- 1. Place the chuck key into the side keyhole of the chuck, meshing the key with the gear teeth.
- 2. Turn the chuck key counterclockwise to open the chuck jaws.
- 3. Insert a drill bit into the chuck far enough to obtain the maximum grip of the chuck jaws.
- 4. Center the drill bit in the chuck jaws before the final tightening of the chuck.
- 5. Tighten the chuck jaws using the chuck key to ensure that the drill bit will not slip while drilling.
- 6. Remove the chuck key.

#### **SQUARING THE TABLE TO THE DRILL BIT** (Fig. 13)

- 1. Insert a 3" drill bit (1) into the chuck (2) and tighten.
- 2. Raise and lock the table (3) about 1" from the end of the drill bit.
- 3. Place a combination square (4) on the table as shown. The drill bit should be parallel to the straight edge of the square.
- 4. If an adjustment is needed, loosen the bevel lock (5) with a wrench.
- 5. Square the table to the bit by tilting the table.
- 6. Tighten the bevel lock bolt (5) when square.

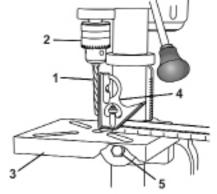
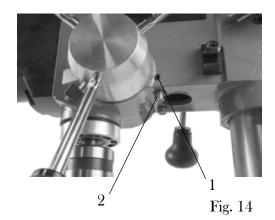


Fig. 13

#### **ADJUSTING THE LASER (Fig. 14)**

WARNING: Do not stare directly at the laser beam. Please observe all safety rules.

- Never aim the beam at a person or an object other than the workpiece.
- Do not project the laser beam into the eyes of others.
- Always make sure the laser beam is aimed at a workpiece that does not possess reflective surfaces, as the laser beam could project into your eyes or the eyes of others.

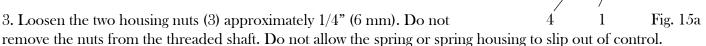


- 1. Place a workpiece on the table.
- 2. Turn the laser switch to the ON position.
- 3. Lower the drill bit to meet the workpiece. The two laser lines should cross where the drill meets the workpiece.
- 4. If the laser needs to be adjusted:
  - a. Using a 3 mm hex key, turn the laser adjustment set screws (1) counterclockwise.
  - b. Rotate the laser light housing (2) until the two laser lines intersect where the drill meets the workpiece. DO NOT stare directly at the laser lines.
- 5. Re-tighten the adjustment set screws (1).

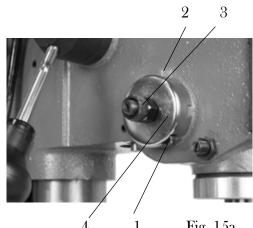
#### SPINDLE RETURN SPRING (Fig. 15a)

The spindle is equipped with an auto-return mechanism. The main components are a spring and a notched housing. The spring was properly adjusted at the factory and should not be readjusted unless absolutely necessary.

- 1. Unplug the drill press.
- 2. Place a screwdriver into the loop (1) to hold the spring in place.



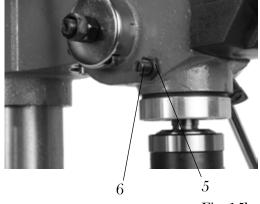
- 4. While firmly holding the spring housing (4), carefully pull the spring housing out until it clears the raised notch (2).
- 5. Turn the housing so that the next notch is engaged with the raised notch (2).
  - To increase the spindle return tension, turn the spring housing counter-clockwise.
  - To decrease the tension, turn the spring housing clockwise.
- 6. Tighten the two housing nuts. Do not overtighten the two nuts. If the nuts are tightened too much, the movement of the spindle and feed handles will become sluggish.



#### ANGULAR "PLAY" OF THE SPINDLE (Fig. 15b)

Move the spindle to the lowest downward position and hold in place. Try to make the spindle revolve around its axis while also moving it with a side motion. If there is too much "play", proceed as follows:

- 1. Loosen the lock nut (5).
- 2. Without obstructing the upward and downward motion of the spindle, turn the screw (6) clockwise to eliminate the "play." Note: A little bit of "play" is normal.
- 3. Tighten the lock nut (5).



#### Fig. 15b

#### REPLACING THE BELT

WARNING: Disconnect the drill press from the power source before replacing the belt.

Belt tension and drill press speed is controlled by automatic adjustments made to the diameter of the front spindle when the drive handle is moved.

Note: See page 19 for information on the variable speed function of this drill press.

- 1. Remove the screw that secures the housing cover. Open the housing cover.
- 2. Remove the belt from the housing cover if it is broken. If it is not broken, but is too stretched to operate correctly, work the belt off the drive (motor) spindle. Then remove the belt from the front spindle.
- 3. Replace the belt by putting a new belt over the front spindle and carefully sliding the belt over the drive (motor) spindle.

WARNING: Do not change the drive speed when the drill press is turned off.

#### DRILL PRESS ON/OFF SWITCH (Fig. 16)

- 1. To turn the drill press ON, insert the yellow safety key (1) into the switch housing (2). As a safety feature, the switch cannot be turned ON without the safety key.
- 2. Turn the switch to the ON position.
- 3. To turn the drill press OFF, flip the switch downward.
- 4. To lock the switch in the OFF position, remove the safety key (1) from the switch. Store the safety key in a safe place.



Fig. 16

## **OPERATION**

#### LASER LINE ON/OFF SWITCHES (Fig. 17)

The laser switch (1) is located on the lefthand side of the drill press.

- 1. Pull the tab located below the laser switch and lift up the laser switch cover (2).
- 2. Install two AAA batteries into the battery slots and close the switch cover.

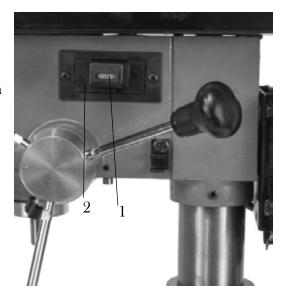


Fig. 17

#### POSITION THE TABLE AND WORKPIECE

Always place a piece of backup material (wood, plywood, etc.) on the table underneath the workpiece. This will prevent splintering on the underside of the workpiece as the drill bit breaks through. To keep the material from spinning out of control, it must contact the left side of the column, or be clamped (not included) to the table.

Note: For small workpieces that cannot be clamped to the table, use a drill press vise (not included). The vise must be clamped or bolted to the table to avoid injury.

#### 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 backup material to the table. Failure to do this could result in personal injury.

- 1. Mark where you want to drill the workpiece by using a center punch or a sharp nail. Turn ON the laser to mark your drilling point also.
- 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 ON the drill press 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.

## **OPERATION**

#### **ADJUST THE DRILLING DEPTH** (FIG. 18)

- 1. Turn the Depth Scale Ring to the desired depth.
- 2. Lock the Scale Ring in Place by tightening the depth knob. This should stop the bit once it reaches a certain depth.

Drilling an unmeasured blind hole (not all the way through the workpiece) to a given depth can be done using either the depth scale method or the workpiece method.



Fig. 18

#### **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 page 19 for recommended speeds for particular materials.

#### **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.

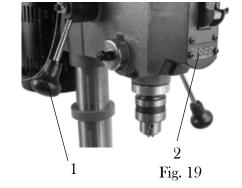
## **OPERATION**

#### 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.

#### MECHANICAL VARIABLE SPEED (Fig. 19)

This is a mechanical variable speed drill press. To increase or decrease the speed when operating, raise or lower the speed handle (1). Use the following table to determine the recommended speed for the drill size you are using and the type of material you are to drill. While drilling, check the speed on the digital speed readout (2) located at the front of the drill press.



Warning: Do not change speeds using the variable speed handle without turning on the machine.

DRILL BIT SIZE RECOMMENDATIONS						
RPM	Wo	ood	Aluminum	/Zinc/Brass	Iron/	'Steel
2000 to 31000	3/8 in.	9.5 mm	7/32 in.	$5.6 \mathrm{\ mm}$	3/32 in.	2.4 mm
1400 to 2000	5/8 in.	16 mm	11/32 in.	8.75 mm	5/32 in.	$4~\mathrm{mm}$
1000 to 1400	7/8 in.	22 mm	15/32 in.	12 mm	1/4 in.	6.4 mm
800 to 1000	1-1/4 in.	31.75 mm	11/16 in.	17.5 mm	3/8 in.	9.5 mm
530 to 800	1-5/8 in.	$41.4 \mathrm{\ mm}$	3/4 in.	19 mm	5/8 in.	16 mm

## **MAINTENANCE**

WARNING: For your safety, turn the switch off and remove the plug from the power supply before maintaining or lubricating the drill press.

Vacuum sawdust or metal shavings that accumulate in and on the motor, pulley housing, table, and work surface.

Apply a light coat of paste wax to the column and table to help keep these surfaces clean and rust-free.

The ball bearings in the spindle and the V-belt pulley assembly are greased and permanently sealed. Pull the spindle down and oil the spindle sleeve moderately every three months.

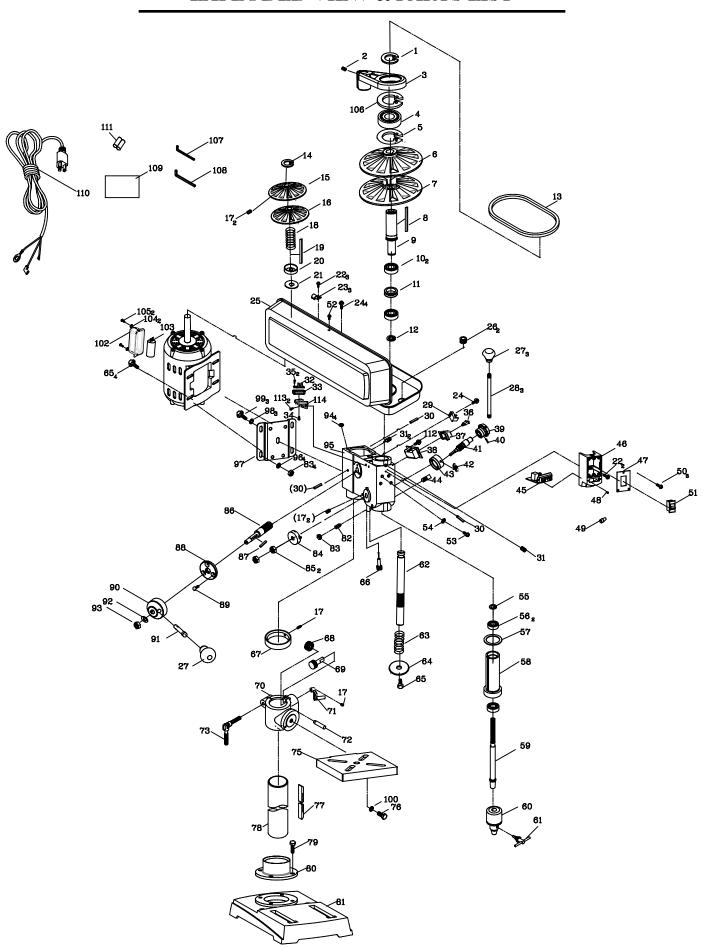
Lubricate the table bracket and locking knobs if they become difficult to use.

CAUTION: All servicing of the drill press should be performed by a qualified service technician.

## TROUBLESHOOTING

PROBLEM	CAUSES	SOLUTIONS
Noisy operation	<ol> <li>Incorrect belt tension</li> <li>Dry spindle</li> <li>Loosed spindle pulley</li> </ol>	<ol> <li>Adjust the belt tension</li> <li>Lubricate the spindle</li> <li>Tighten the retaining nut on the pulley insert</li> </ol>
	4) Loosed motor pulley	4) Tighten the set screw on the side of the motor pulley
The drill bit burns or smokes	<ol> <li>Drilling at the incorrect speed</li> <li>The wood chips are not coming out of the hole</li> <li>Dull drill bit</li> <li>Feeding the workpiece too slowly</li> <li>Not lubricated</li> </ol>	<ol> <li>Change the speed</li> <li>Retract the drill bit frequently to clear the chips</li> <li>Resharpen or replace the drill bit</li> <li>Feed fast enough to cut the workpiece</li> <li>Lubricate the drill bit with cutting oil or motor oil</li> </ol>
Excessive drill run out or wobble; drilled hole is not round	<ol> <li>Bent drill bit</li> <li>Bit improperly installed in the chuck</li> <li>Worn spindle bearings</li> <li>Lengths of cutting flutes or angles not appropriate for the hardness of the wood grain</li> <li>Chuck not properly installed</li> </ol>	<ol> <li>Replace the drill bit</li> <li>Reinstall the bit.</li> <li>Replace the bearing. Take the press to a qualified service technician</li> <li>Resharpen the drill bit correctly or replace with the appropriate type.</li> <li>Reinstall the chuck.</li> </ol>
Drill bit binds in the workpiece	1) The workpiece is pinching the bit 2) Excessive feed pressure	<ol> <li>Support or clamp the workpiece.</li> <li>Feed more slowly.</li> </ol>
Spindle returns too slowly or too quickly	Coil spring has improper tension	Adjust the coil spring tension
Chuck falls off spindle	Dirt, grease, or oil on the tapered surface on the spindle or in the chuck	Clean the tapered surface of both the chuck and spindle with a household detergent.
Motor will not run	<ol> <li>Defective or broken switch</li> <li>Defective or damaged power cord</li> <li>Open circuit, loose connections, or burned out motor</li> <li>Low voltage</li> </ol>	<ol> <li>Take to a qualified service technician</li> <li>Take to a qualified service technician</li> <li>Take to a qualified service technician</li> <li>Check the power line for the proper voltage. Use another circuit or have a qualified electrician upgrade the service.</li> </ol>
Motor stalls	Short circuit in motor     Incorrect fuses or circuit breakers     Overloaded circuit     Low Voltage	<ol> <li>Take to a qualified service technician</li> <li>Replace with correct fuse or circuit breaker for the circuit</li> <li>Turn off other machines and retry</li> <li>Check the power line for the proper voltage.</li> <li>Use another circuit or have a qualified electrician upgrade the service.</li> </ol>

## EXPLODED VIEW & PARTS LIST



## EXPLODED VIEW & PARTS LIST

No.	Part No.	Description
1	4212B-001	Retaining Plate Ø24
2	4212B-002	Hex Screw M8x12
3	4212B-003	Cam
4	4212B-004	Ball Bearing 6907Z
5	4212B-005	Elastic Ring Ø55
6	4212B-006	Spindle Moveable Pulley
7	4212B-007	Spindle Fixed Pullye
8	4212B-008	Key A Type 4x4x64
9	4212B-009	Shaft Sleeve
10	4212B-010	Ball Bearing 6203RZ
11	4212B-011	Retainer
12	4212B-012	Circlip for Shaft Ø17
13	4212B-013	V Belt Z-800
14	4212B-014	Circlip for Shaft Ø14
15	4212B-015	Motor Fixed Pulley
16	4212B-016	Motor Moveable Pulley
17	4212B-017	Hex Screw
18	4212B-017	Motor Compression Spring Ø28*Ø1*52
19	4212B-018 4212B-019	Key A Type 4*4*84
20	4212B-020	Spring Base ABS
21	4212B-021 4212B-022	Spring Washer
22		Screw M5*12
23	4212B-023	Cord Pressure Plate
24	4212B-024	Screw M6*12
25	4212B-025	Pulley Cover Assembly
26	4212B-026	Rubbery Bushing
27	4212B-027	Handle Knob
28	4212B-028	Handle
29	4212B-029	Handle Fixed Piece
30	4212B-030	Spring Pin 6-15
31	4212B-031	Hex Screw M8x8
32	4212B-032	Counter
33	4212B-033	Counter Base
34	4212B-034	Screw M5x6
35	4212B-035	Screw S2.9*6
36	4212B-036	Laser Switch
37	4212B-037	Battery Box Plate
38	4212B-038	Battery Box Plate
39	4212B-039	Handle Seat
40	4212B-040	Spring Pin 5-15
41	4212B-041	Shaft
42	4212B-042	Plastic Knob
43	4212B-043	Scale Collar
44	4212B-044	Screw M6x12
45	4212B-045	Digital Readout
46	4212B-046	Switch Box
47	4212B-047	Switch Plate
48	4212B-048	Screw ST4.9*16
49	4212B-049	Terminal
50	4212B-050	Screw ST4.2*10
51	4212B-051	ON/OFF Switch
52	4212B-052	Screw with Flat Washer M5*12
53	4212B-053	Screw M5*8
54	4212 <b>B</b> -054	Star Washer Ø5
55	4212B-054	Circlip for Shaft
56		Ball Bearing 6201Z
50	4212B-056	Dan Dearing 0201Z

No.	Part No.	Description
57	4212B-057	Rubber Washer Ø40
58	4212B-058	Quill
59	4212B-059	Spindle JT33
60	4212B-060	Chuck
61	4212B-061	Chuck Key
62	4212B-062	Rack Shaft
63	4212B-063	Rack Shaft Spring
64	4212B-064	Washer Ø8
65	4212B-065	Hex Flange Bolt
66	4212B-066	Laser
67	4212B-067	Collar
68	4212B-068	Internal Gear
69	4212B-069	Worm
70	4212B-070	Table Support
71	4212B-071	Crank Handle
72	4212B-072	Inner Gear Shaft
73	4212B-073	Table Lock Handle
75	4212B-075	Work Table
76	4212B-076	Hex Bolt M12*25
77	4212B-077	Rack
78	4212B-078	Column
79	4212B-079	Hex Bolt M8*25
80	4212B-080	Column Base
81	4212B-081	Base
82	4212B-082	Quil Set Screw M8*20
83	4212B-083	Hex Nut M8
84	4212B-084	Spring Cap Assembly
85	4212B-085	Hex Nut 3/8*24UNF
86	4212B-086	Gear Shaft
87	4212B-087	Key A Type 3*3*25
88	4212B-088	Gear Base
89	4212B-089	Philips Screw M5*12
90	4212B-090	Variable Speed Handle Seat
91	4212B-091	Variable Speed Handle
92	4212B-092	Butterfly Spring
93	4212B-093	Hex Nut M10
94	4212B-094	Washer
95	4212B-095	Head
96	4212B-096	Flat Washer Ø8
97	4212B-097	Motor Plate
98	4212B-098	Spring Washer Ø8
99	4212B-099	Hex Bolt M8*10
100	4212B-100	Spring Washer Ø12
102	4212B-102	Capacitor Box
103	4212B-103	Capacitor
104	4212B-104	Flat Washer Ø4
105	4212B-105	Screw M4*6
106	4212B-106	Circlip for Shaft Ø35
107	4212B-107	Hex Wrench S3
108	4212B-108	Hex Wrench S4
109	4212B-109	Manual
110	4212B-110	Power cord
111	4212B-111	Battery AA
112	4212B-112	Screw M4*8
113	4212B-113	Screw M5*8
114	4212B-114	Counter Base

## LIMITED TWO YEAR WARRANTY

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 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 1-800-232-1195 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.

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