KING INDUSTRIAL

15” VARIABLE SPEED INDUSTRIAL DRILL PRESS

09/2017

Line Interruption

MODEL: KC-30HS-VS

INSTRUCTION MANUAL

WARRANTY INFORMATION

2-YEAR LIMITED WARRANTY FOR THIS 15” DRILL PRESS	KING CANADA TOOLS OFFERS A 2-YEAR LIMITED WARRANTY FOR NON-COMMERCIAL USE.

PROOF OF PURCHASE

Please keep your dated proof of purchase for warranty and servicing purposes.

REPLACEMENT PARTS

Replacement parts for this product are available at our authorized King Canada service centers across Canada.

LIMITED TOOL WARRANTY

King Canada makes every effort to ensure that this product meets high quality and durability standards. King Canada warrants to the original retail consumer a 2-year limited warranty as of the date the product was purchased at retail and that each product is free from defects in materials. Warranty does not apply to defects due directly or indirectly to misuse, abuse, normal wear and tear, negligence or accidents, repairs done by an unauthorized service center, alterations and lack of maintenance. King Canada shall in no event be liable for death, injuries to persons or property or for incidental, special or consequential damages arising from the use of our products.

To take advantage of this limited warranty, return the product at your expense together with your dated proof of purshase to an authorized King Canada service center. Contact your retailer or visit our web site at www.kingcanada.com for an updated listing of our authorized service centers. In cooperation with our authorized serviced center, King Canada will either repair or replace the product if any part or parts covered under this warranty which examination proves to be defective in workmanship or material during the warranty period.

NOTE TO USER

This instruction manual is meant to serve as a guide only. Specifications and references are subject to change without prior notice.

PARTS DIAGRAM & PARTS LISTS

Refer to the Parts section of the King Canada web site for the most updated parts diagram and parts list.

KING CANADA INC. DORVAL, QUÉBEC, CANADA H9P 2Y4

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GENERAL SAFETY INSTRUCTIONS FOR POWER TOOLS

1. KNOW YOUR TOOL

Read and understand the owners manual and labels affixed to the tool. Learn its application and limitations as well as its specific potential hazards.

2. GROUND THE TOOL.

This tool is equipped with an approved 3-conductor cord and a 3-prong grounding type plug to fit the proper grounding type receptacle. The green conductor in the cord is the grounding wire. **NEVER** connect the green wire to a live terminal.

3. KEEP GUARDS IN PLACE.

Keep in good working order, properly adjusted and aligned.

4. REMOVE ADJUSTING KEYS AND WRENCHES.

Form habit of checking to see that keys and adjusting wrenches are removed from tool before turning it on.

5. KEEP WORK AREA CLEAN.

Cluttered areas and benches invite accidents. Make sure the floor is clean and not slippery due to wax and sawdust build-up.

6. AVOID DANGEROUS ENVIRONMENT.

Don't use power tools in damp or wet locations or expose them to rain. Keep work area well lit and provide adequate surrounding work space.

7. KEEP CHILDREN AWAY.

All visitors should be kept a safe distance from work area.

8. MAKE WORKSHOP CHILD-PROOF.

-with padlocks, master switches or by removing starter keys.

9. USE PROPER SPEED.

A tool will do a better and safer job when operated at the proper speed.

10. USE RIGHT TOOL.

Don't force the tool or the attachment to do a job for which it was not designed.

11. WEAR PROPER APPAREL.

Do not wear loose clothing, gloves, neckties or jewelry (rings, watch) because they could get caught in moving parts. Non-slip footwear is recommended. Wear protective hair covering to contain long hair. Roll up long sleeves above the elbows.

12. ALWAYS WEAR SAFETY GLASSES.

Always wear safety glasses (ANSI Z87.1). Everyday eye-glasses only have impact resistant lenses, thet are **NOT** safety glasses. Also use a face or dust mask if cutting operation is dusty.

13. DON'T OVERREACH.

Keep proper footing and balance at all times.

14. MAINTAIN TOOL WITH CARE.

Keep tools sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.

15. DISCONNECT TOOLS.

Before servicing, when changing accessories or attachments.

16. AVOID ACCIDENTAL STARTING.

Make sure the swich is in the ''OFF'' position before plugging in.

17. USE RECOMMENDED ACCESSORIES.

Consult the manual for recommended accessories. Follow the instructions that accompany the accessories. The use of improper accessories may cause hazards.

18. NEVER STAND ON TOOL.

Serious injury could occur if the tool tips over. Do not store materials such that it is necessary to stand on the tool to reach them.

19. CHECK DAMAGED PARTS.

Before further use of the tool, a guard or other parts that are damaged should be carefully checked to ensure that they will operate properly and perform their intended function. Check for alignment of moving parts, breakage of parts, mounting, and any other conditions that may affect its operation. A guard or other parts that are da -maged should be properly repaired or replaced.

20. NEVER LEAVE MACHINE RUNNING UNATTENDED.

Turn power ''OFF''. Don't leave any tool running until it comes to a complete stop.

SPECIFIC SAFETY INSTRUCTIONS FOR 15" DRILL PRESS

1. **USING A DRILL PRESS VISE.** When using a drill press vise, always fasten it to the table.
2. **NEVER DO "FREEHAND WORK".** Never do any work "Freehand" (hand holding the workpiece rather than supporting it on the table) except when you have polishing to do.
3. **NEVER** move the head or table while the drill press is running.
4. **USE THE RECOMMENDED SPINDLE SPEED** for the specific operation and workpiece material.
5. **NEVER** climb on the drill press table, it could break or pull the entire drill press down on you.
6. **KEEP HANDS** well away from the drill bit and all movingparts. Use a hold-down or clamp to secure the workpiece, and use a brush, not hands, to clear away chips and dust.
7. **BE SURE THAT THE DRILL BIT IS SECURELY INSTALLED** in the chuck before operation.
8. **BE SURE THE DRILL BIT** has gained full operating speed before beginning to drill.
9. **ALWAYS USE** a clean, properly sharpened bit. Dirty or dull bits are unsafe and can lead to accidents.
10. **USE SUITABLE WORKPIECE SUPPORT** if the workpiece does not have a flat surface.
11. **DO NOT PUSH OR FORCE THE BIT** into the workpiece. The drill will perform better and more safely when working at the rate feed for which it was designed.
12. **AVOID WORKING FROM AWKWARD OR OFF BALANCE POSITIONS**. Do not overreach and keep both feet on floor.
13. **KEEP GUARDS IN PLACE** and in working order. If a guard must be removed for maintenance or cleaning be sure it is properly reinstalled before using the machine again.
14. **NEVER LEAVE THE MACHINE** unattended while it is running or with the power on.

ELECTRICAL INFORMATION

WARNING

ALL ELECTRICAL CONNECTIONS MUST BE DONE BY A QUALIFIED ELECTRICIAN. FAILURE TO COMPLY MAY RESULT IN SERIOUS INJURY! ALL ADJUSTMENTS OR REPAIRS MUST BE DONE WITH THE MACHINE DISCONNECTED FROM THE POWER SOURCE. FAILURE TO COMPLY MAY RESULT IN SERIOUS INJURY!

POWER SUPPLY

WARNING: YOUR DRILL PRESS MUST BE CONNECTED TO A 115V WALL OUTLET, WITH A MINIMUM 15-AMP. BRANCH CIRCUIT AND USE A 15-AMP TIME DELAY FUSE OR CIRCUIT BREAKER. FAILURE TO CONNECT IN THIS WAY CAN RESULT IN INJURY FROM SHOCK OR FIRE.

GROUNDING

Your drill press must be properly grounded. Not all outlets are properly grounded. If you are not sure if your outlet is properly grounded, have it checked by a qualified electrician.

WARNING: IF NOT PROPERLY GROUNDED, THIS DRILL PRESS CAN CAUSE ELECTRICAL SHOCK, PARTICULARLY WHEN USED IN DAMP LOCATIONS. TO AVOID SHOCK OR FIRE, IF THE POWER CORD IS WORN OR DAMAGED IN ANY WAY, HAVE IT REPLACED IMMEDIATELY.

If this drill press should malfunction or breakdown, grounding provides a path of least resistance for electric current, to reduce the risk of electric shock. This drill press is equipped with a cord having an equipment-grounding conductor and grounding plug. The plug must be plugged into an appropriate outlet that is properly installed and grounded in accordance with all local codes and ordinances.

WARNING: TO MAINTAIN PROPER GROUNDING, DO NOT REMOVE OR ALTER THE GROUNDING PRONG IN ANY MANNER.

115V OPERATION

As received from the factory, your drill press is ready to run for 115V operation. This machine is intended for use on a circuit that has an outlet and a plug which looks like the one illustrated in Fig.1.

WARNING: DO NOT USE A TWO-PRONG ADAPTER(S) FOR THEY ARE NOT IN ACCORDANCE WITH LOCAL CODES AND ORDINANCES. NEVER USE IN CANADA.

EXTENSION CORDS

The use of any extension cord will cause some loss of power. If you do not have a choice, use the table in Fig.2 to determine the minimum wire size (A.W.G-American Wire Gauge) extension cord needed. Use only 3-wire extension cords which have 3-prong grounding type plugs and 3-hole receptacles which accept the tool's plug.

For circuits that are further away from the electrical circuit box, the wire size must be increased proportionately in order to deliver ample voltage to the drill press motor. Refer to Fig.2 for wire length and size.

TURNING THE DRILL PRESS ON/OFF

This Drill Press comes with a 2 step activation safety switch, refer to Fig.3, which starts and stops the machine. To turn the Drill Press on:

1. Push up on the emergency stop button (A) Fig.3 and lift the switch cover (B) upwards as shown.
2. Press the green On button (C) to start the Drill Press.
3. To stop the Drill Press, you can either press the red Off button (D) or lower the switch cover and push the large emergency stop button (E).

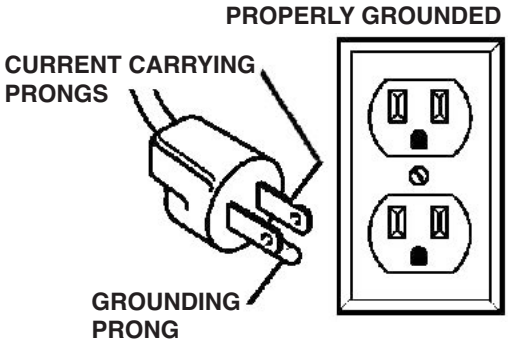


Figure 1

Tool's Amperage Rating	Cord Size in A.W.G.			
	Cord Length in Feet			
	25	50	100	150
3-6	18	16	16	14
6-8	18	16	14	12
8-10	18	16	14	12
10-12	18	16	14	12
12-16	14	12	-	-

Figure 2

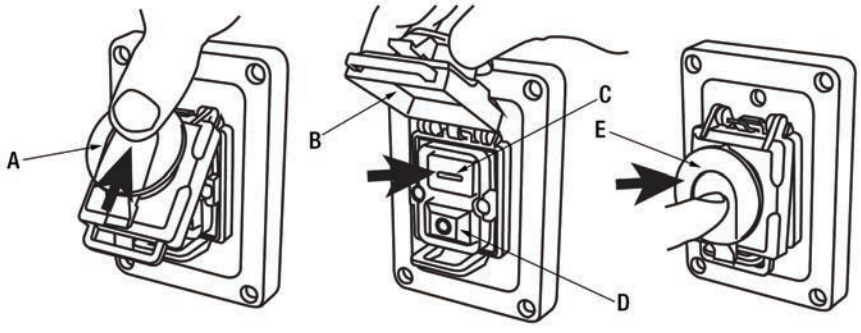
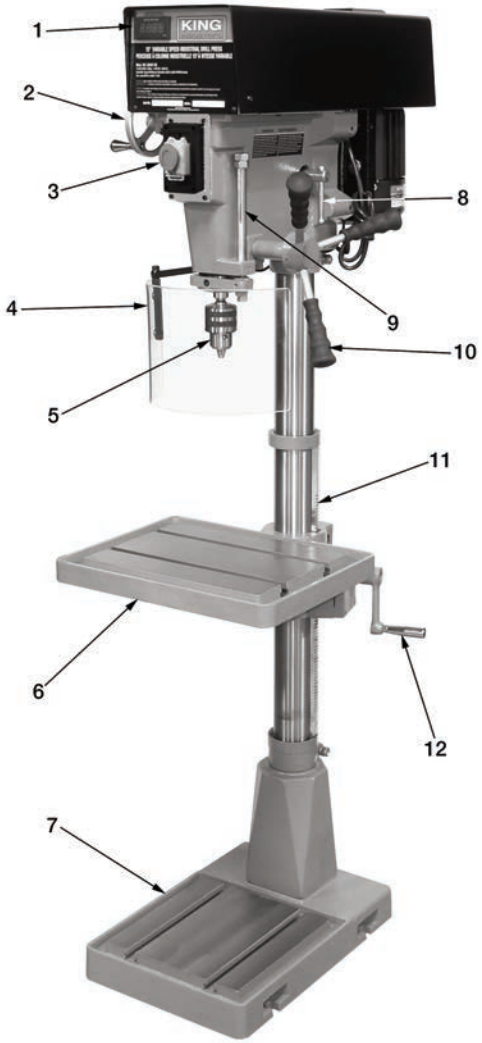


Figure 3

GETTING TO KNOW YOUR DRILL PRESS

1. Variable speed digital readout.
2. Speed adjusting handwheel.
3. 2 step activation safety switch.
4. Safety guard.
5. 5/8” chuck.
6. Table.
7. Base.
8. Head locking handle.
9. Depth stop rod.
10. Feed handle (1 of 3).
11. Column and rack.
12. Table raising/lowering handle.
13. Safety guard lock knob.
14. Limit switch.
15. Safety guard height adjusting lock knob.
16. Spring return.



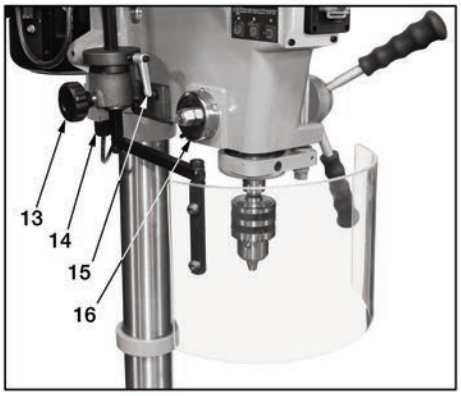


FIGURE 4

SPECIFICATIONS

MODEL	KC-30HS-VS
Capacity	5/8”
Chuck size	5/8”
Swing	15”
Max. distance chuck to column	7-1/2”
Max. distance chuck to table	27-1/2”
Stroke	6”
Table size	18” x 14”
Spindle taper	JT#3
Variable speeds	400 - 5,000 RPM
Table T-slots	9/16”
Quill diameter	2-1/4”
Column diameter	3”
Motor/Voltage	14 Amp. @ 115V, 7 Amp. @ 230V
Pre-wired	115V
Ass. dimensions (LxWxH)/weight	18” x 28” x 71-1/2” / 310 lbs
Pkg dimensions (LxWxH)/weight	22” x 32” x 70” / 375 lbs

FIGURE 5

ASSEMBLY

ASSEMBLY

This drill press comes partially assembled and requires minimal assembly and set up before being put into use.

INSTALLING TABLE HEIGHT ADJUSTMENT HANDLE

1. Align the set screw (A) Fig.6 in the table height adjustment handle (B) with the flat portion of the handle shaft.

2. Slide the table height adjustment handle (B) onto the shaft and tighten the set screw (A) using a 4mm hex. key.

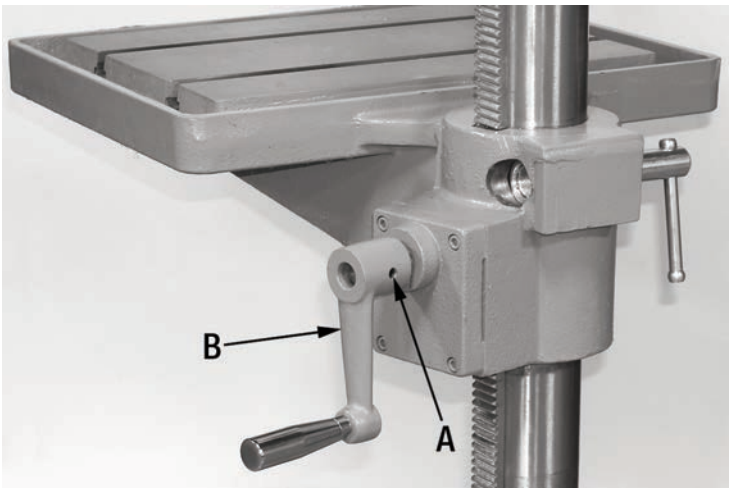


FIGURE 6

RAISING THE HEAD

This drill press is shipped with the head lowered. To operate this drill press correctly, the head must be raised.

1. Loosen the head locking handle (A) Fig.7 and place a block of wood (B) on the table and under the bottom of the head as shown.

2. Loosen table lock handle (C), then turn table height adjustment handle (D) to raise the head.

3. Once the head is positioned at a comfortable height, retighten head locking handle (A) and table lock handle (C).

4. Loosen and move up the column collar (E) until it comes in contact with the bottom of the head, secure the column collar up against the head by tightening the large hex. bolt and hex. nut.

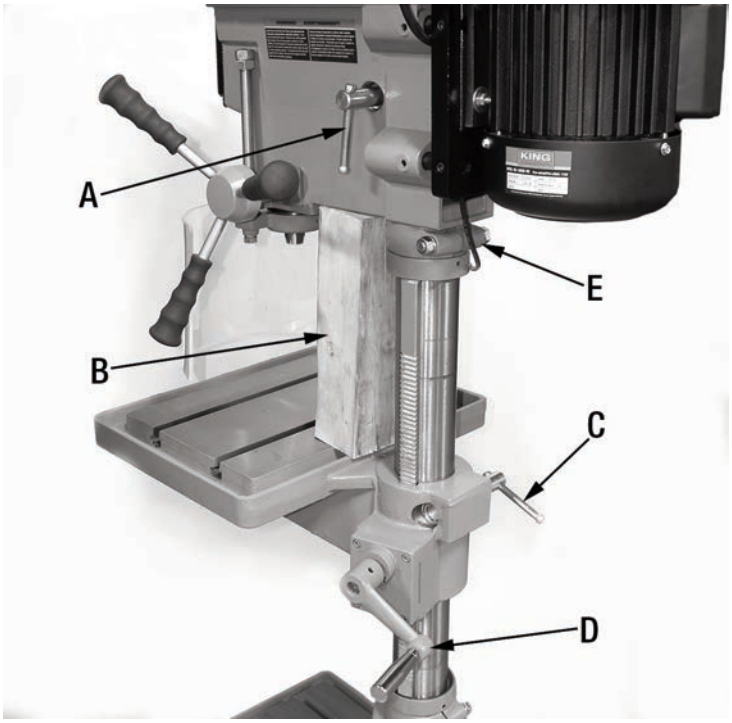


FIGURE 7

INSTALLING THE 5/8" CHUCK

1. Slide the 5/8" chuck (A) Fig.8 onto the tapered end of the spindle (B).

2. Place a piece of wood on the table and using the down-feed handles, lower the quill assembly against the piece of wood on the table to secure the chuck on the spindle.

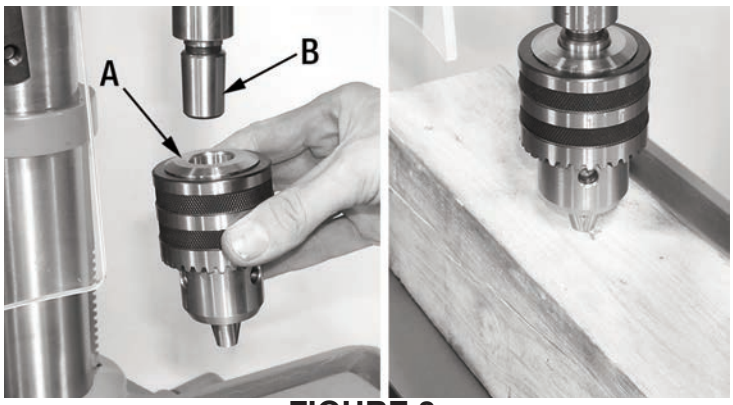


FIGURE 8

RAISING OR LOWERING WORK TABLE

1. Loosen table lock handle (A) Fig.9.
2. Turn the table height adjustment handle (B) until the table is at the desired height.
3. Retighten table lock handle (A).

ADJUSTING ANGLE OF WORK TABLE

1. Loosen table lock handle (A) Fig.9.
2. Swing the table (C) to the desired position.
3. Retighten table lock handle (A).

Note: When working with taller workpieces, swing the table 180° out of the way and use the base as a table.

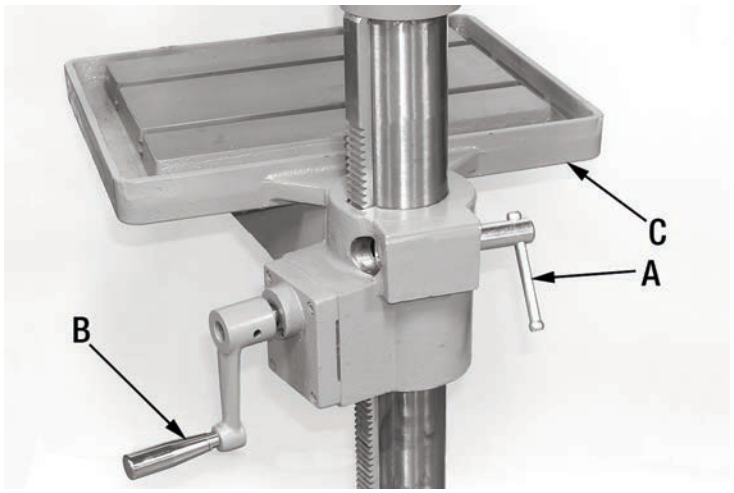


FIGURE 9

USING THE DEPTH STOP

The depth stop mechanism Fig.10 allows repetitive drilling to an equal depth, to adjust the depth stop mechanism:

1. Lower the downfeed handles until your cutting tool reaches the desired drilling depth.
2. At the same time, position the bottom hex. nut (A) Fig.10 against the head casting (B).
3. Release the downfeed handles and check your adjustment.
4. If properly set, tighten hex. nut (C) against hex. nut (A) to secure the adjustment. Depth stop mechanism is now set and you can now do repetitive drilling at equal depth.

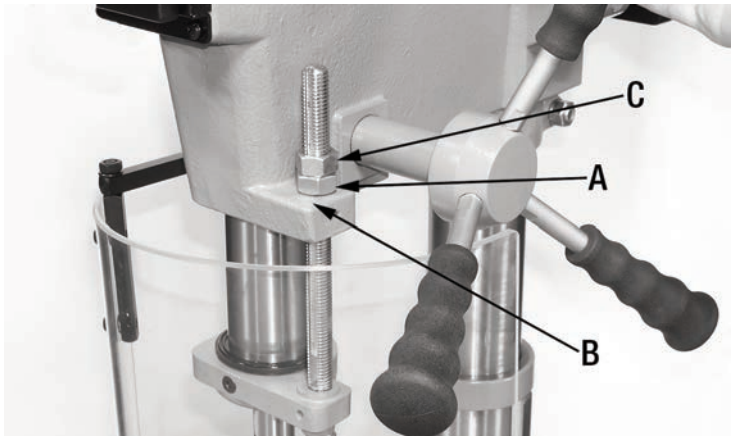


FIGURE 10

CHANGING SPEED

This drill press has a variable spindle speed range of 400 to 5000 RPM, the speed setting is conveniently displayed on the digital readout on the head of the drill press. To set the spindle speed:

WARNING! Always adjust the spindle speed while the drill press is running to avoid damaging the speed adjustment mechanism.

1. Turn the drill press on.
2. The spindle speed is controled by the speed adjusting handwheel (A) Fig.11 located on the left side of the drill press head.
3. Turn the handwheel clockwise to increase the spindle speed.
4. Turn the handwheel counterclockwise to decrease the spindle speed.
5. Refer to the digital readout (B) on the front of the drill press head to set the desired speed.

Refer to the reference chart (Fig.12) for recommended speed selection, based on the drill bit size and workpiece material.

FIGURE 11

REFERENCE CHART FOR SPINDLE SPEED SELECTION - BASED ON BIT SIZE/WORKPIECE MATERIAL					
WORKPIECE MATERIAL	CAST STEEL	TOOL STEEL	CAST IRON	MILD STEEL	ALUM. & COPPER
BIT SIZE (DIAMETER)	REVOLUTIONS PER MINUTE (RPM)				
1-16” (2 mm)	1900 - 2445	2865-3665	3820-4890	4775-6110	9550-12225
1/8" (3 mm)	1220 - 1275	1835-1910	2445-2545	3055-3185	6110-6365
3/16" (5 mm)	765 - 815	1145-1220	1530-1630	1910-2035	3820-4075
1/4" (6 mm)	610	915-955	1220-1275	1530-1590	3055-3180
5/16" (8 mm)	480-490	715-735	955-980	1195-1220	2390-2445
3/8" (10 mm)	380-405	570-610	765-815	955-1020	1910-2035
7/16" (11 mm)	350	520-525	700	870	1740-1745
1/2" (13 mm)	300-305	440-460	560-610	735-765	1470-1530

The information in the above chart is supplied as a general guide only. For best results always follow the speed recommendations supplied with the drill bits being used.

FIGURE 12

INSTALLING A DRILL BIT IN THE 5/8” CHUCK

1. Swing the chuck safety guard out of the way.

2. Insert the chuck key (A) Fig.13 into the chuck (B) as shown, turn chuck key counterclockwise to open the chuck jaws.

3. Insert a drill bit (C).

4. Tighten the chuck key to secure the drill bit in the chuck.

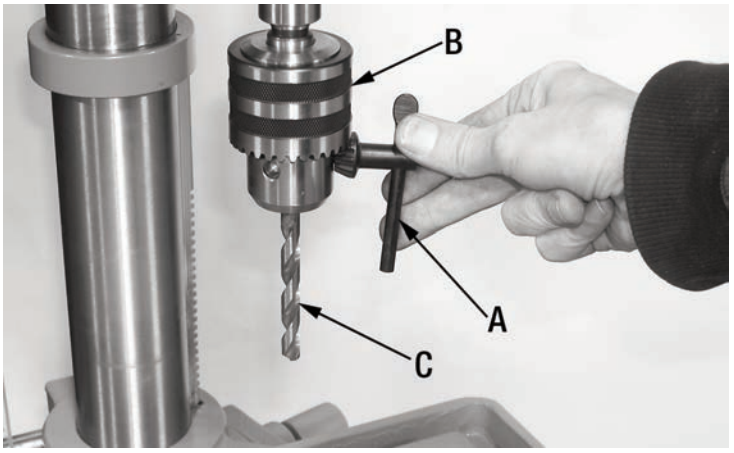


FIGURE 13

USING AND AJUSTING THE LIMIT SWITCH PROTECTED SAFETY GUARD

The limit switch safety guard (A) Fig.14 is intended to protect the operator during drilling operations. If the safety guard is not positioned in its closed position (in front of the drill chuck as shown), the safety guard limit switch will prevent the drill press from starting. Close the safety guard and then press the green On button to start. If the safety guard is opened during a drilling operation the drill press will shut off automatically, the safety guard will need to be closed and the green On button will need to be pressed to restart drill press.

To adjust the safety guard:

1. The height of the safety guard (A) Fig.14 needs to be adjusted so it covers the cutting tool. To adjust the height of the safety guard assembly loosen lock handle (D), move the safety guard bar (B) up or down until the safety guard is positioned correctly. Retighten lock handle (D).

2. To lock and prevent the bar (B) and safety guard (A) from opening during an operation, tighten lock knob (C).

3. Always make sure the hex. nut (E) is tight, to prevent the safety guard from pivoting at this point. The bar (B) and safety guard (A) must move together.

It is recommended to test the limit switch safety guard before any drilling operation. Turn drill press on and open the safety guard, the drill press MUST shut off. If it doesn’t, the safety guard limit switch needs to be replaced or reinstalled correctly.

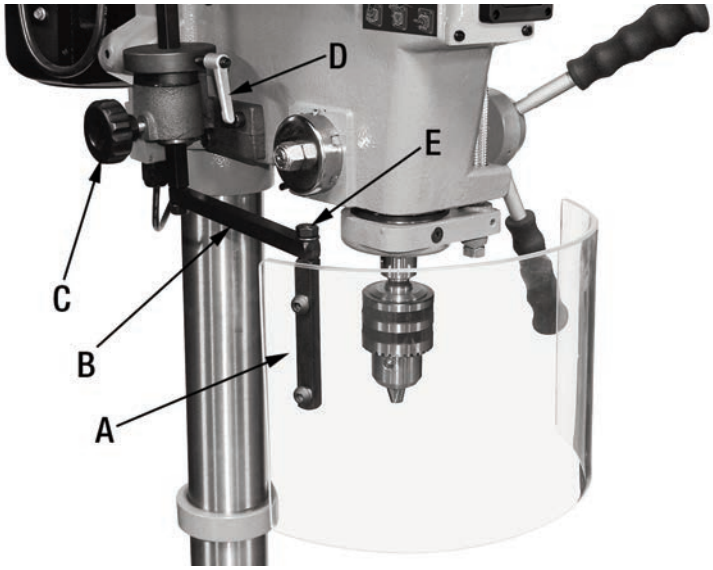


FIGURE 14

MAINTENANCE

WARNING! For your own safety, turn the switch “OFF” and remove the plug from the power source before maintaining or lubricating your drill press.

- Keep the Drill Press clean and free of dust and debris. Painted surfaces can be wiped with a damp rag.
- Periodically lubricate all sliding or moving parts including the column (A) Fig.15, rack (B) and the quill (C) (use any all purpose grease, available at any hardware store).
- Bearings in the quill and the V-belt pulleys are sealed and permanently lubricated – no further lubrication is required.

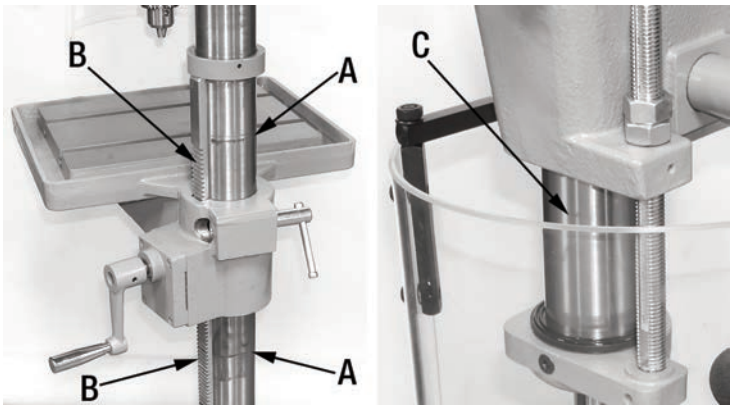


FIGURE 15

- Frequently blow out any dust that may accumulate inside the motor. After operation, remove chips or dirt on the machine and apply a coat of furniture-type paste wax to the table and the column, this will help keep the surfaces clean and free of rust.

PROBLEM	PROBABLE CAUSE	SOLUTION
Drill bit burns.	1. Incorrect speed. 2. Chips not comming out of hole. 3. Dull drill bit. 4. Feeding too slow. 5. Not lubricated.	1. Change the speed. 2. Retract the drill bit frequently to clear the chips. 3. Resharpen the drill bit. 4. Feeding too fast...allow the drill bit to cut. 5. Lubricate the drill bit with cutting or motor oil.
Wood splinters on underside of workpiece.	1. No “Back-up material” under the workpiece.	1. Support the workpiece or clamp it.
Workpiece torn loose from hand.	1. Not supported or clamped properly.	1. Support the workpiece or clamp it.
Drill bit binds in workpiece.	1. Workpiece is pinching the drill bit or there is an excessive feeding pressure.	1. Support the workpiece or clamp it. Reduce feeding pressure.
Excessive drill bit wobbling.	1. Bent drill bit. 2. Worn spindle bearings. 3. Drill bit is not properly installed in the chuck. 4. Chuck not properly installed.	1. Use a straight drill bit. 2. Replace the bearings. 3. Install drill bit properly. 4. Install chuck properly.
Quill returns too fast or too slow.	1. Spring has improper tension.	1. Adjust the spring tension.
Chuck will not stay attached to the spindle. It falls off when trying to install it.	1. Dirt, grease or oil on the tapered inside surface of the chuck or on the spindle tapered surface.	1. Using a household detergent, clean the tapered surfaces of the chuck and the spindle to remove the dirt, grease and oil.