

Save This Manual  
For Future Reference

**SEARS**

**owner's  
manual**

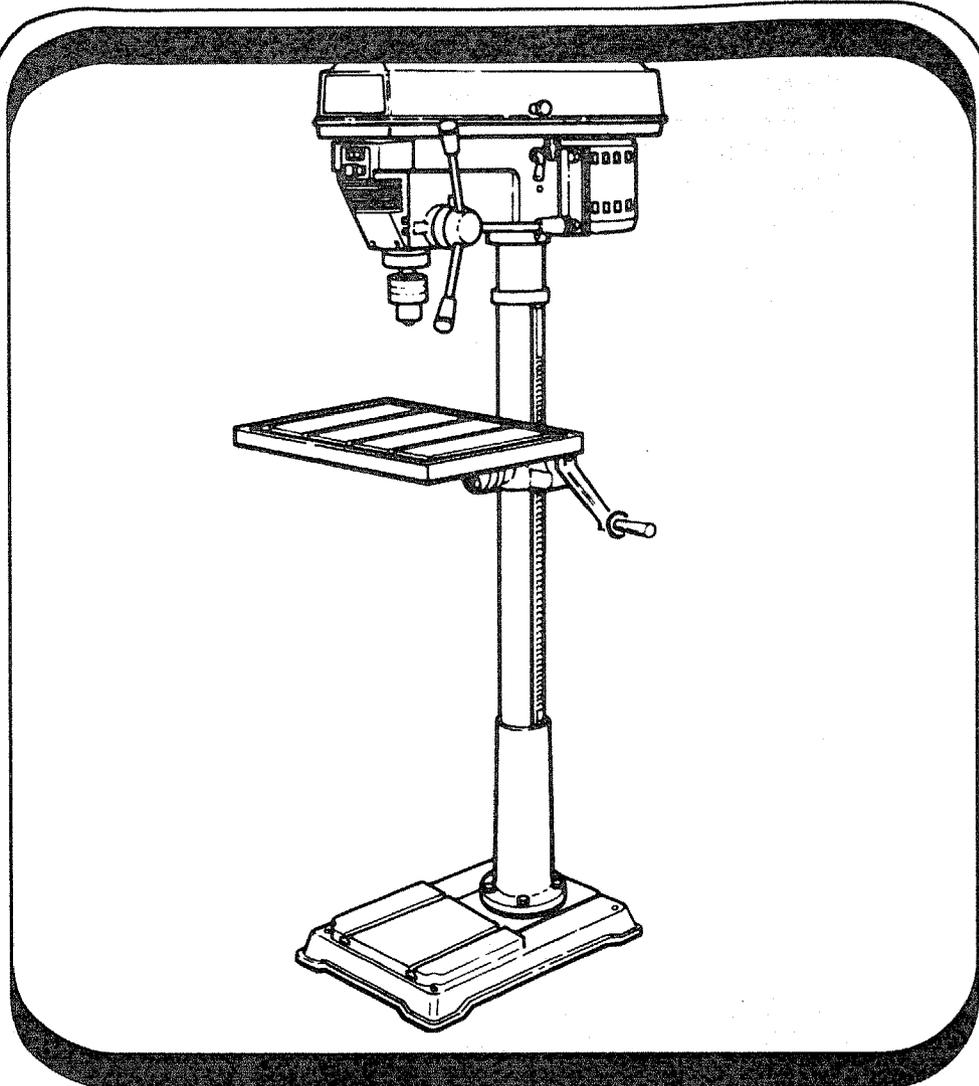
**MODEL NO.  
113.213213**

**DRILL PRESS WITH  
MAXIMUM DEVELOPED  
2 HP MOTOR**

Serial  
Number \_\_\_\_\_  
Model and serial number  
may be found at the left  
side of the head.  
You should record both  
model and serial number in  
a safe place for future use.

**FOR YOUR  
SAFETY:**

**READ ALL  
INSTRUCTIONS  
CAREFULLY**



**SEARS / CRAFTSMAN®**

**MOTORIZED  
20-INCH  
INDUSTRIAL RATED DRILL PRESS**

- assembly
- operating
- repair parts

**Sold by SEARS, ROEBUCK AND CO., Hoffman Estates, IL 60195 U.S.A.**

Part No. SP5868

Printed in China

## FULL ONE YEAR WARRANTY ON CRAFTSMAN DRILL PRESS

If within one year from the date of purchase, this Craftsman Drill Press fails due to a defect in material or workmanship, Sears will repair it, free of charge.

WARRANTY SERVICE IS AVAILABLE BY SIMPLY CONTACTING THE NEAREST SEARS SERVICE CENTER/DEPARTMENT THROUGHOUT THE UNITED STATES.

This warranty applies only while this product is used in the United States.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

SEARS, ROEBUCK AND CO., D/817 WA Hoffman Estates, IL 60195

## GENERAL SAFETY INSTRUCTIONS FOR POWER TOOLS

- 1. KNOW YOUR POWER TOOL**  
Read and understand the owner's manual and labels affixed to the tool. Learn its application and limitations as well as the specific potential hazards peculiar to this tool.
- 2. GROUND ALL TOOLS**  
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**  
In working order, and in proper adjustment and alignment.
- 4. REMOVE ADJUSTING KEYS AND WRENCHES**  
Form a 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. Floor must not be slippery due to wax or sawdust.
- 6. AVOID DANGEROUS ENVIRONMENT**  
Don't use power tools in damp or wet locations or expose them to rain. Keep work area well lighted. 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, by removing starter keys, or storing tools where children can't get them.
- 9. DON'T FORCE TOOL**  
It will do the job better and safer at the rate for which it was designed.
- 10. USE RIGHT TOOL**  
Don't force tools or attachment to do a job it was not designed for.
- 11. WEAR PROPER APPAREL**  
Do not wear loose clothing, gloves, neckties, or jewelry (rings, wrist watches) to get caught in moving parts. NONSLIP footwear is recommended. Wear protective hair covering to contain long hair. Roll long sleeves above the elbow.
- 12. USE SAFETY GOGGLES (HEAD PROTECTION)**  
Wear safety goggles (must comply with ANSI Z87.1) at all times. Everyday eyeglasses are not safety glasses. They only have impact resistant lenses. Also, use face or dust mask if cutting operation is dusty, and ear protectors (plugs or muffs) during extended periods of operation.
- 13. SECURE WORK**  
Use clamps or a vise to hold work when practical. It frees both hands to operate tool.
- 14. DON'T OVERREACH**  
Keep proper footing and balance at all times.
- 15. MAINTAIN TOOLS WITH CARE**  
Keep tools sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.
- 16. DISCONNECT TOOLS**  
Before servicing; when changing accessories such as blades, bits, cutters, etc.
- 17. AVOID ACCIDENTAL STARTING**  
Make sure switch is in "OFF" position before plugging in.
- 18. USE RECOMMENDED ACCESSORIES**  
Consult the owner's manual for recommended accessories. Follow the instructions that accompany the accessories. The use of improper accessories may cause hazards.
- 19. NEVER STAND ON TOOL OR ITS STAND**  
Serious injury could occur if the tool is tipped or if the cutting tool is accidentally contacted. Do not store materials above or near the tool such that it is necessary to stand on the tool or its stand to reach them.
- 20. CHECK DAMAGED PARTS**  
Before further use of the tool, a guard or other part that is damaged should be carefully checked to ensure that it will operate properly and perform its intended function. Check for alignment of moving parts, binding or moving parts, breakage of parts, mounting, and any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced.
- 21. DIRECTION OF FEED**  
Feed work into a blade or cutter against the direction of rotation of the blade or cutter only.
- 22. NEVER LEAVE TOOL RUNNING UNATTENDED**  
Turn power off. Don't leave tool until it comes to a complete stop.

# additional safety instructions for drill presses

## SAFETY SIGNAL WORDS

**⚠ DANGER:** means if the safety information is not followed, someone **Will** be seriously injured or killed.

**⚠ WARNING:** means if the safety information is not followed, someone **Could** be seriously injured or killed.

**⚠ CAUTION:** means if the safety information is not followed, someone **May** be injured.

**WARNING:** For your own safety, do not attempt to operate your drill press until it is completely assembled and installed according to the instructions...and until you have read and understand the following:

1. General Safety Instructions for Power Tools.....	2
2. Getting to Know Your Drill Press .....	19
3. Basic Drill Press Operation .....	25
4. Adjustments .....	28
5. Maintenance .....	30

### 6. Stability of Drill Press

If there is any tendency of the drill press to tilt or move during any use, bolt it to the floor or a flat piece of 1/2" exterior plywood large enough to stabilize the drill press. Bolt the plywood to the under side of the base, so it extends at least 2" beyond all sides. Make sure the plywood won't trip the operator. **Do not use pressed wood panels**—they can break unexpectedly.

### 7. Location

Use the drill press in a well lit area and on a level surface clean and smooth enough to reduce the risk of trips, slips, or falls. Use it where neither the operator nor a casual observer is forced to stand in line with a potential kickback.

### 8. Kickback

Kickback is the grabbing of the workpiece by the rotating tool. The workpiece can be thrown at very high speed in the direction of rotation. **THIS CAN CAUSE SERIOUS INJURY.** To reduce the possibility of injury from kickback:

- Clamp the workpiece firmly to the table whenever possible.
- Buffing or sanding wheels or drums should be contacted on the side moving away from you, not the side moving toward you.
- Use only recommended accessories and follow the instructions supplied with the accessory.

### 9. Protection: Eyes, Hands, Face, Ears and Body.

**WARNING:** To avoid being pulled into the spinning tool:

#### 1. Do NOT wear:

- gloves
- necktie
- loose clothing
- jewelry

#### 2. Do tie back long hair

- a. If any part of your drill press is missing, malfunctioning, has been damaged or broken...such as the motor switch, or other operating control, a safety device or the power cord, turn the drill press off and unplug it until the particular part is properly repaired or replaced.
- b. Never place your fingers in a position where they could contact the drill or other cutting tool if the workpiece should unexpectedly shift or your hand should slip.
- c. To avoid injury from parts thrown by the spring, follow instructions exactly as given and shown in adjusting spring tension of quill.
- d. To prevent the workpiece from being torn from your hands, spinning of the tool, shattering the tool or being thrown, always properly support your work so it won't shift or bind on the tool:
  - Always position **BACKUP MATERIAL** (use beneath the workpiece) to contact the left side of the column.
  - Whenever possible, position the **WORKPIECE** to contact the left side of the column—if it is too short or the table is tilted, clamp solidly to the table. Use table slots or clamping ledge around the outside edge of the table.
  - When using a drill press **VISE**, always fasten it to the table.
  - Never do any work "**FREEHAND**" (hand-holding workpiece rather than supporting it on the table), except when polishing.
  - Securely lock **Head to Column**, **table Support to Column**, and **Table to Table Support** before operating drill press.
  - Never move the **Head** or **Table** while the tool is running.
  - Before starting the operation, jog the motor switch to make sure the drill or other cutting tool does not wobble or cause vibration.
  - If a workpiece overhangs the table such that it will fall or tip if not held, clamp it to the table or provide auxiliary support.
  - Use fixtures for unusual operations to adequately hold, guide and position workpiece.
  - Use the **SPINDLE SPEED** recommended for the specific operation and workpiece material—check the inside of the **Belt Guard** for drilling information; for accessories, refer to the instructions provided with the accessories.
- e. Never climb on the drill press Table, it could break or pull the entire drill press down on you.
- f. Turn the motor Switch Off and put away the Switch Key when leaving the drill press.
- g. To avoid injury from thrown work or tool contact, do NOT perform layout, assembly, or setup work on the table while the cutting tool is rotating.

**10. Use only accessories designed for this drill press to avoid serious injury from thrown broken parts or work pieces.**

**a. When cutting large diameter holes:**

Clamp the workpiece firmly to the table. Otherwise the cutter may grab and spin it at high speed.

Use only one piece, cup-type, hole cutters.

DO NOT use fly cutters or multi-part hole cutters as they can come apart or become unbalanced in use.

Keep speed below 1,500 RPM.

**b. Drum sanders must NEVER be operated on this drill press at a speed greater than 1800 RPM.**

**c. Do not install or use any drill bit that exceeds 7" in length or extends 6" below the check jaws. They can suddenly bend outward or break.**

**d. Do not use wire wheels, router bits, shaper cutters, circle (fly) cutters or rotary planers on this drill press.**

**11. Note the Follow the Safety Warnings and Instructions that Appear on the Panel on the Right Side of the Head:**

**12. This Drill Press has 12 speeds as listed below:**

150 RPM	1150 RPM
260 RPM	1550 RPM
300 RPM	1840 RPM
440 RPM	2220 RPM
490 RPM	2950 RPM
540 RPM	4200 RPM

See inside of belt guard for specific placement of belt on pulleys.

**13. Think Safety.** Safety is a combination of operator common sense and alertness at all times when the drill press is being used.

**WARNING: Do not allow familiarity (gained from frequent use of your drill press) to become commonplace. Always remember that a careless fraction of a second is sufficient to inflict severe injury.**

The operations of any power tool can result in foreign objects being thrown into the eyes, which can result in severe eye damage. Always wear safety goggles that comply with ANSI Z87.1 (shown on Package) before commencing power tool operation. Safety Goggles are available at area stores.



## **▲ WARNING**

1. Read manual before using drill press.
2. Wear safety goggles that meet ANSI Z87.1 standards.
3. Do not wear gloves, neckties or loose fitting clothing. Tie back long hair.
4. To prevent work piece rotation, clamp it to the table or brace it against the column.
5. Use recommended accessories only.
6. Use the recommended speed for the drill accessory.
7. Remove chuck key before turning power ON.
8. Tighten all locks before operating drill press.
9. Turn power OFF and wait for drill to stop before adjusting or servicing.

SPINDLE  
ROTATION

# glossary of terms

**1. Workpiece**

The item on which the cutting operations is being performed.

**2. Drill Bit or Drill**

The cutting tool used in the drill press to make holes in a workpiece.

**3. Backup Material**

A piece of wood placed between the workpiece and table...it prevents wood in the workpiece from splintering when the drill passes through the backside of the workpiece...also prevents drilling into the table top.

**4. Revolution Per Minute (R.P.M.)**

The number of turns completed by a spinning object in one minute.

**5. Spindle Speed**

The RPM of the spindle.

**6. Backlash** - The amount of handle movement or play between adjacent moving parts.

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# motor specifications and electrical requirements

## MOTOR SPECIFICATIONS

This drill press is designed to use a 1725 RPM motor only. Do not use any motor that runs faster than 1725 RPM. It is wired for operation on 110-120 volts, 60 Hz. alternating current.

**WARNING: To avoid injury from unexpected startup, do not use blower or washing machine motors or any motor with an automatic reset overload protector.**

## CONNECTING TO POWER SOURCE OUTLET

This machine must be grounded while in use to protect the operator from electric shock.

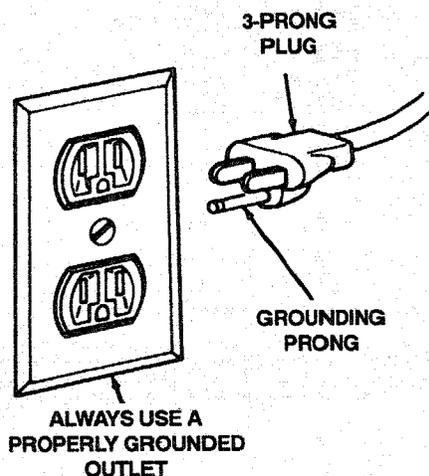
Plug power cord into a 110-120V properly grounded type outlet protected by a 15-amp, dual element time delay fuse or circuit breaker.

**NOT ALL OUTLETS ARE PROPERLY GROUNDED. IF YOU ARE NOT SURE THAT YOUR OUTLET, AS PICTURED BELOW, IS PROPERLY GROUNDED, HAVE IT CHECKED BY A QUALIFIED ELECTRICIAN.**

**WARNING: To avoid electric shock, do not touch the metal prongs on the plug, when installing or removing the plug to or from the outlet.**

**WARNING: Failure to properly ground this power tool can cause electrocution or serious shock, particularly when used in damp locations, or near metal plumbing. If shocked, your reaction could cause your hands to hit the cutting tool.**

**If power cord is worn or cut, or damaged in any way, have it replaced immediately to avoid shock or fire hazard.**



Your unit is for use on 120 volts, it has a plug that looks like the one above.

This power tool is equipped with a 3-conductor cord and grounding type plug, approved by Underwriters' Laboratories and the Canadian Standards Association. The ground conductor has a green jacket and is attached to the tool housing at one end and to the ground prong in the attachment plug at the other end.

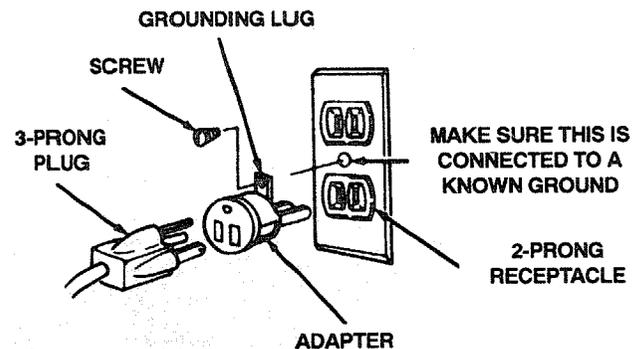
This plug requires a mating 3-conductor grounded type outlet as shown.

If the outlet you are planning to use for this power tool is of the two prong type, **DO NOT REMOVE OR ALTER THE GROUNDING PRONG IN ANY MANNER.** Use an adapter as shown and always connect the grounding lug to known ground.

It is recommended that you have a qualified electrician replace the TWO prong outlet with a properly grounded THREE prong outlet.

An adapter as shown below is available for connecting plugs to 2-prong receptacles

**WARNING: The green grounding lug extending from the adapter must be connected to a permanent ground such as to a properly grounded outlet box.**



**NOTE: The adapter illustrated is for use only if you already have a properly grounded 2-prong receptacle.**

**NOTE: Make sure the proper extension cord is used and is in good condition.**

The use of any extension cord will cause some loss of power. To keep this to a minimum and to prevent overheating and motor burn-out, use the table below to determine the minimum wire size (A.W.G.) extension cord. Use only 3 wire extension cords which have 3-prong grounding type plugs and 3-pole receptacles which accept the tools plug.

Extension Cord Length	Wire Size A.W.G.
0-25 Feet	16
26-50 Feet	14

# unpacking and checking contents

**WARNING:** To avoid injury from unexpected starting or electrical shock, do not plug the power cord into a source of power. This cord must remain unplugged whenever you are working on the drill press.

**WARNING:** To avoid fire or toxic reaction, never use gasoline, naphtha or similar highly volatile solvents to remove protective oil.

Model 113.213213 Drill Press is shipped complete in one box.

## 1. Unpacking and Checking Contents

- a. Separate all "loose parts" from packaging materials and check each item with "Table of Loose Parts" to make sure all items are accounted for, before discarding any packing material. Some loose parts are contained inside the belt guard. Open the belt guard cover to find them.

**WARNING:** If any parts are missing, do not attempt to assemble drill press, plug in the power cord, or turn the switch on until the missing parts are obtained and are installed correctly.

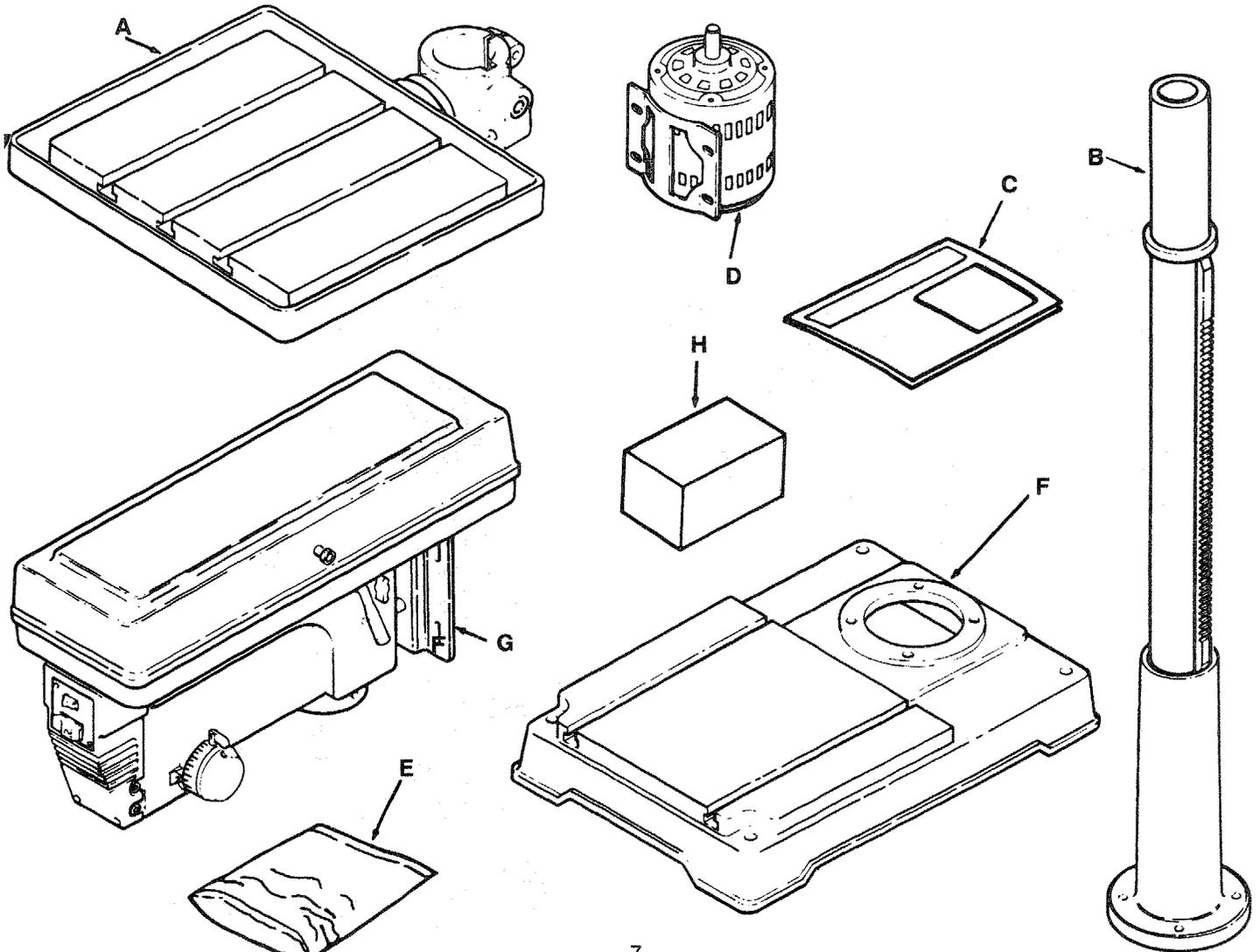
2. Remove the protective oil that is applied to the table and column. Use any ordinary household type grease and spot remover.

3. Apply a coat of paste wax to the table and column to prevent rust. Wipe all parts thoroughly with a clean dry cloth.

## TABLE OF LOOSE PARTS

Item	Part Name	Qty.
A	Table/Support Asm. ....	1
B	Column Support Asm. ....	1
C	Owner's Manual.....	1
D	Motor.....	1
E	Box of Loose Parts.....*	
F	Base.....	1
G	Head Asm. ....	1
H	Bag of Loose Parts.....	1

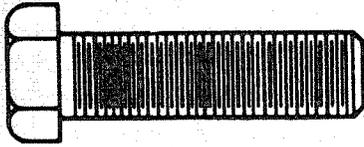
\* Number varies; bags can contain other smaller bags.  
**Note:** To make assembly easier keep contents of each bag together and separate from contents of other bags.



# List of loose parts in the box and bags



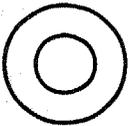
M8 x 1.25-20 Long  
Hex head bolt (4)



M12 x 1.75 - 40 Long  
Hex head bolt (4)



M5 x 0.8 - 12 Long  
Pan head screw (1)



M8 x 16 x 1.6  
Flat washer (8)



M8 x 1.25 hex nut (4)



M3 Hex "L" wrench (1)



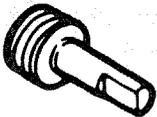
M4 Hex "L" wrench (1)



M5 Hex "L" Wrench (1)



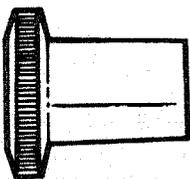
M6 Hex "L" Wrench (1)



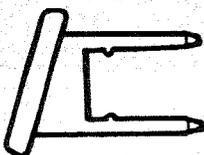
Elevation Worm  
Gear Shaft (1)



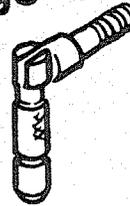
Key-Drift (1)



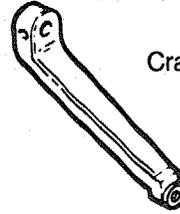
Knob (1)



Key-switch (1)



Clamp-column Lock (1)



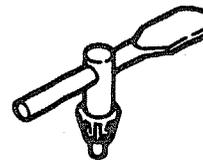
Crank (With Set Screw) (1)



Handle crank (1)



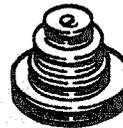
Feed handle (3)



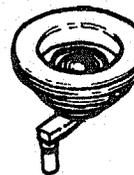
Key chuck (1)



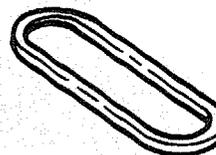
Chuck (1)



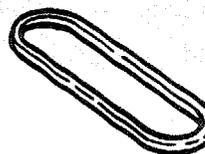
Pulley-motor (With Set Screw) (1)



Idler Pulley Assembly (1)



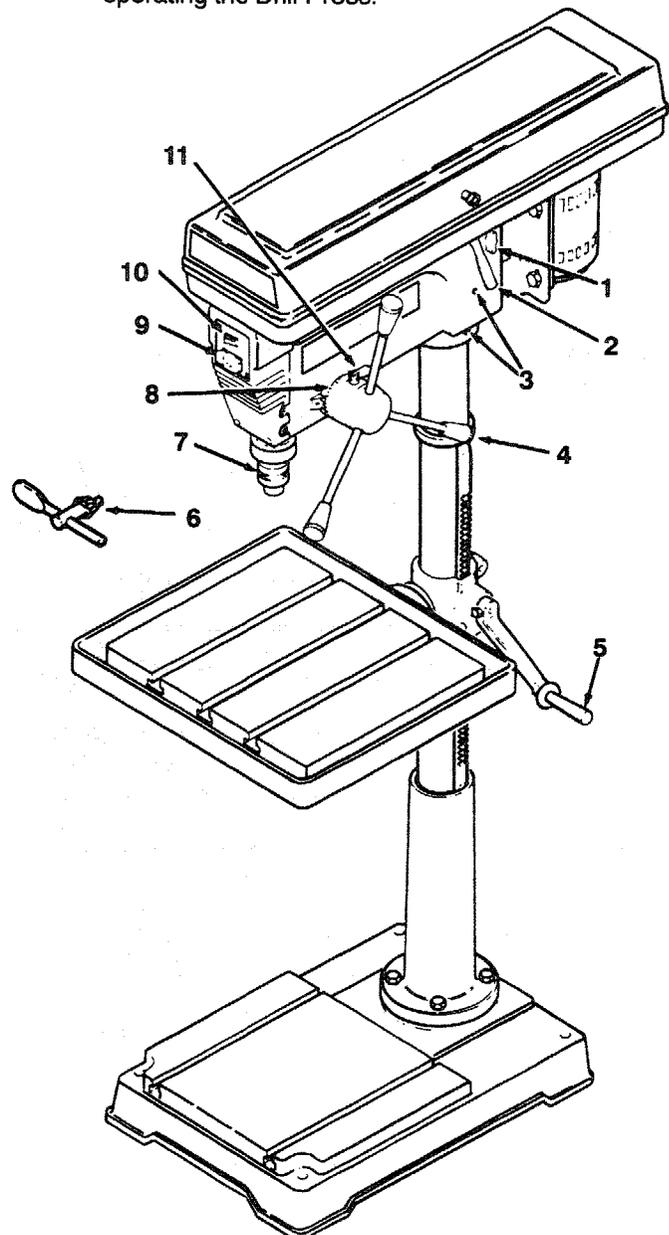
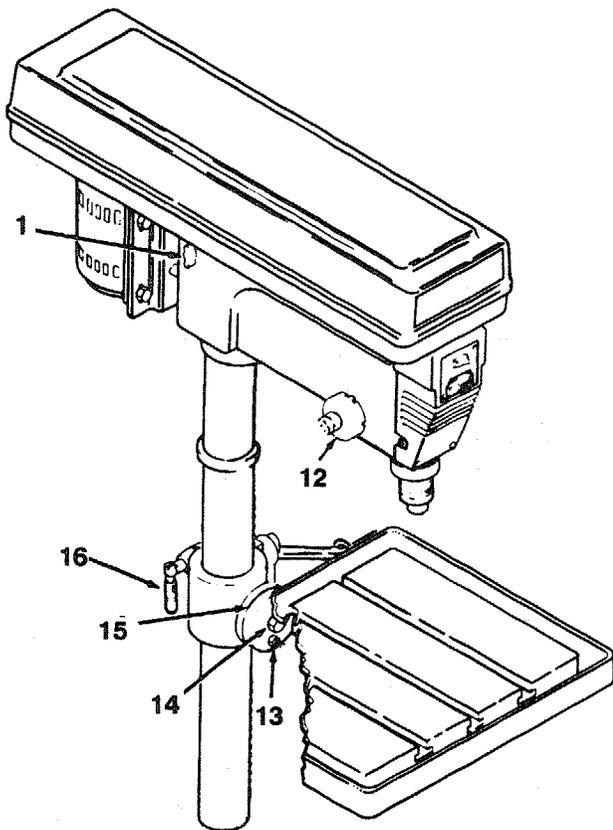
Belt "V" A29 (1)



Belt "V" A33 (1)

## location and function of controls

- 1. BELT TENSION LOCK HANDLES...**Tightening handles locks motor bracket support and **BELT TENSION HANDLE** to maintain correct belt distance and tension.
- 2. BELT TENSION HANDLE...**Turn handle counter clockwise to apply tension to belt, turn handle clockwise to release belt tension.
- 3. HEAD LOCK SET SCREWS...**Lock the head to the column. **ALWAYS** have them locked in place while operating the drill press.
- 4. FEED HANDLE...**For moving the chuck up or down. One or two of the handles may be removed if necessary whenever the workpiece is of such unusual shape that it interferes with the handles.
- 5. TABLE CRANK...**Turn clockwise to elevate table. Support lock must be released before operating crank.
- 6. CHUCK KEY...**Used to tighten drill in the chuck and also to loosen the chuck for drill removal.
- 7. CHUCK...**Holds drill bit or other recommended accessory to perform desired operations.
- 8. DEPTH SCALE...**Allows operator to adjust drill press to drill to a desired depth.
- 9. DRILL "ON-OFF" SWITCH...**Turns drill press on and off...also used to lock drill press in off position.
- 10. LIGHT "ON-OFF" SWITCH...**Turns the light on and off.
- 11. DEPTH SCALE LOCK...**Locks the depth scale at selected depth.
- 12. SPRING CAP...**Provides means to adjust quill spring tension.
- 13. TABLE LOCK PIN...**Acts as an indexing pin to locate the table at a 90° angle to the drill and chuck.
- 14. TABLE BEVEL LOCK...**Locks the table in any position from 0°-45°.
- 15. BEVEL SCALE...**Shows degree table is tilted for bevel operations. Scale is mounted on side of arm.
- 16. SUPPORT LOCK...**Tightening locks table support to column. Always have it locked in place while operating the Drill Press.



# assembly

**WARNING:** For your own safety, never connect plug to power source outlet until all assembly steps are completed.

## TOOLS NEEDED

MEDIUM SCREWDRIVER



COMBINATION SQUARE



8-INCH ADJUSTABLE WRENCH

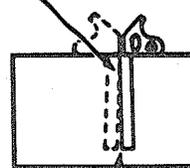


**COMBINATION SQUARE MUST BE TRUE.**

Check its accuracy as illustrated below.

DRAW LIGHT LINE ON BOARD ALONG THE EDGE

STRAIGHT EDGE OF BOARD 3/4" THICK—THIS EDGE MUST BE PERFECTLY STRAIGHT

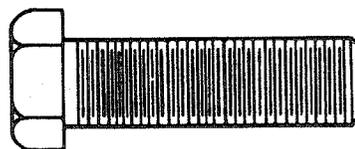


SHOULD BE NO GAP OR OVERLAP WHEN SQUARE IS FLIPPED OVER IN DOTTED POSITION

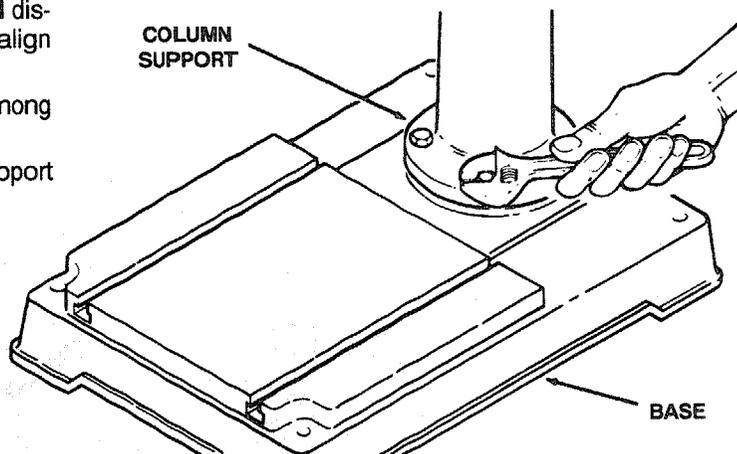
**WARNING:** To avoid back injury, get help to lift the base, table, or drill press head from the carton.

## ASSEMBLY OF BASE/COLUMN

1. Position base on floor.
2. Remove protective sleeve from column tube and discard. Place column assembly on base, and align holes in column support with holes in base.
3. Locate four (4) 12mm Dia. x 40mm long bolts among loose parts bag.
4. Install a bolt in each hole through column support and base and tighten with adjustable wrench.

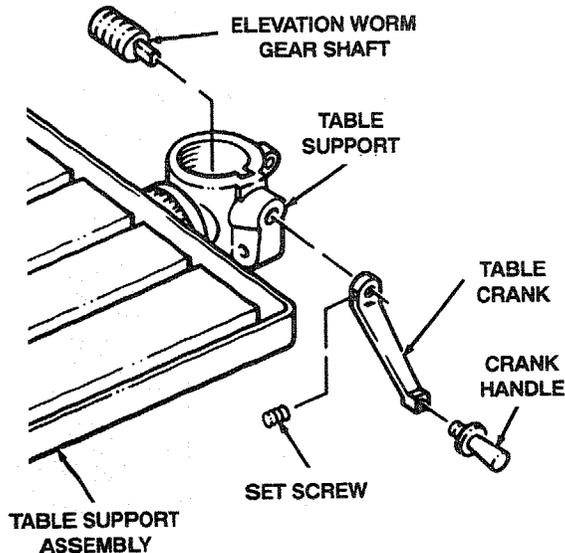


12mm DIA. X 40mm LONG BOLT



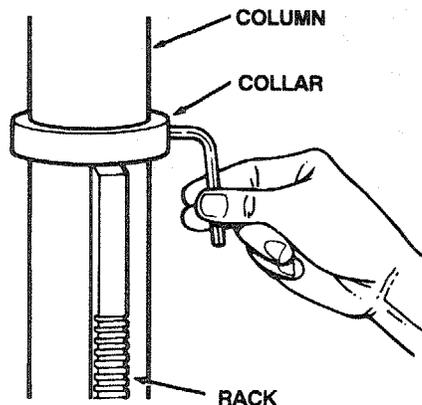
## ASSEMBLY OF ELEVATION WORM GEAR AND TABLE CRANK

1. Find elevation worm gear shaft, the crank handle and table crank in the loose parts bag. Insert the elevation shaft into the table support and extend the shaft through the opening as far as possible. The crank is to be installed on the elevation worm gear shaft, the set screw is to be aligned with the flat portion of the shaft. The crank is to be positioned as close to the arm support as possible, then tighten set screw with a 3mm HEX "L" wrench. See illustration.
2. Screw the crank handle into the table crank as illustrated. Use an adjustable wrench to tighten the crank handle securely.



## INSTALLATION OF TABLE/SUPPORT ASSEMBLY AND HARDWARE

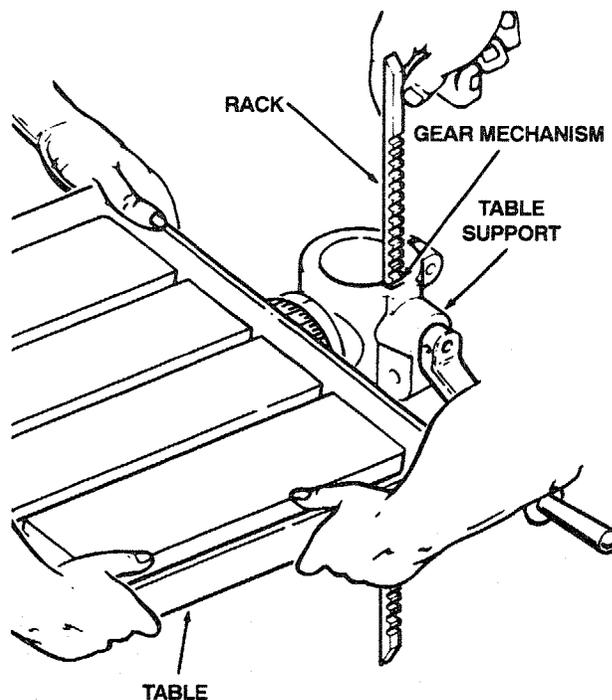
- Loosen set screw in column collar with 3mm HEX "L" wrench and remove collar and rack from column.



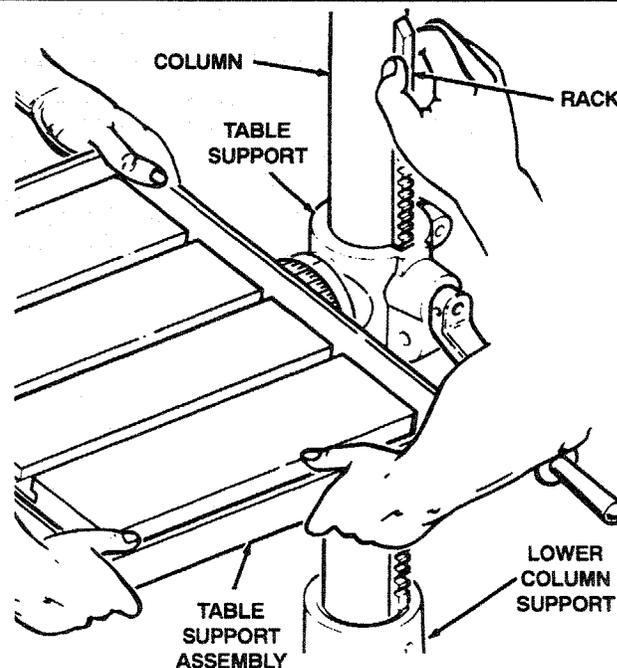
**WARNING:** To avoid back injury, get help to lift the table.

- With long smooth end of rack pointing upward, slide rack down through large round opening in table support. Engage rack in gear mechanism found inside opening of table support.

**SPECIAL NOTE:** This step can be made easier to complete if you remove the table from the table support. To do so, following the instructions listed under the heading "bevel scale" in this section of the manual and remove the table lock pin and table bevel lock.

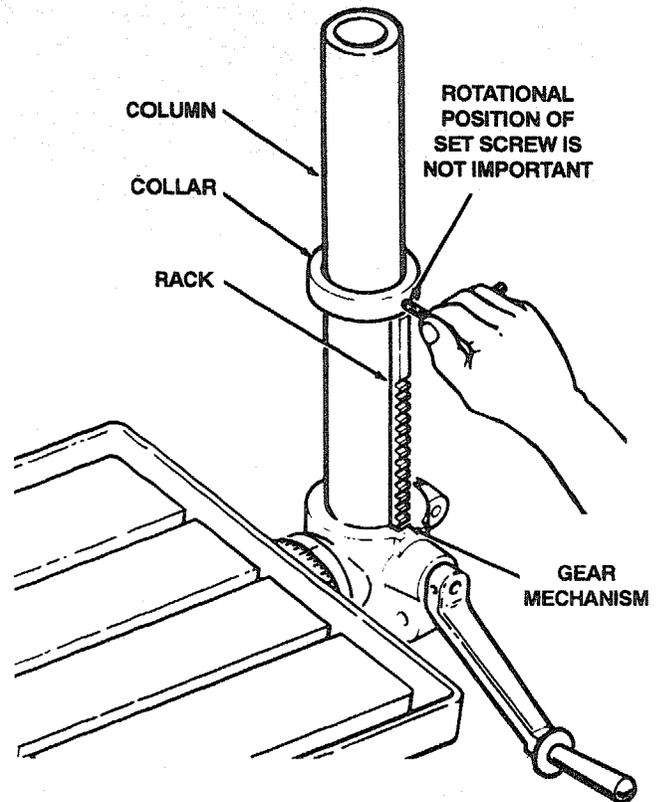


- While holding rack and table support in an engaged position slide both down over column. Slide rack down column until rack is positioned against lower column support.

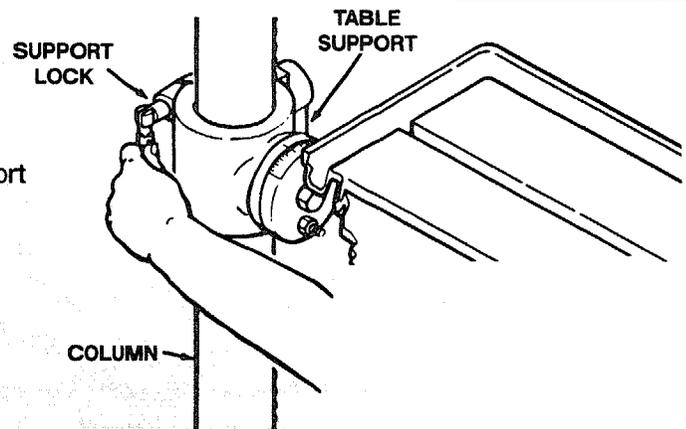


- Replace column collar (bevel side down) and position it over rack. Tighten set screw in collar with 3mm HEX "L" wrench. Rotational position of set screw is not important. Collar must sit loosely over rack and must not be angled on the column. Only tighten set screw enough to keep collar in place; rack should still slide freely in collar when the table is swung to the left or right around the column.

**NOTE:** To avoid column tube or collar damage, do not over tighten setscrew.

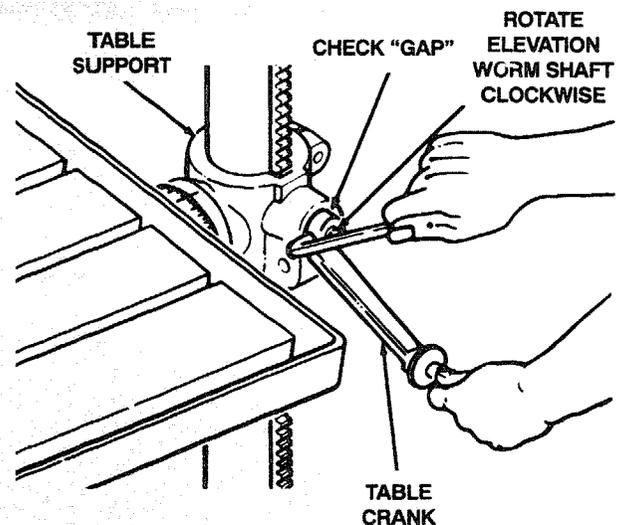


- Locate the support lock in loose parts bag.
- Install support lock from left side into table support and tighten by hand.



- Check "Gap" or clearance between table crank and table support. If the "Gap" is larger than 1/32 of an inch, crank backlash can be minimized.

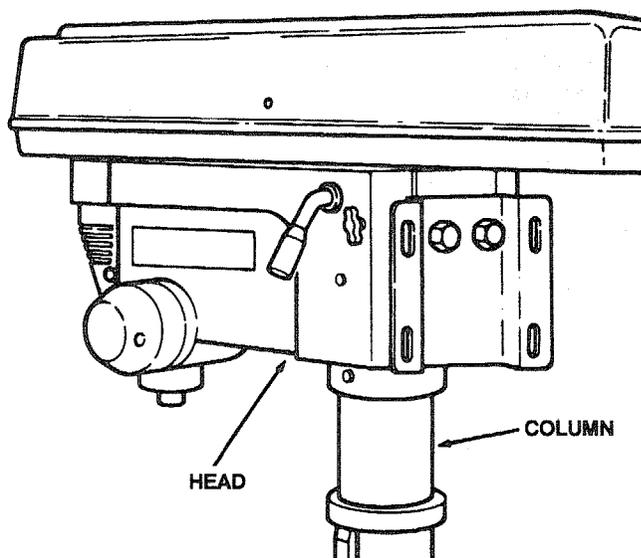
To minimize crank backlash, tighten support lock (shown above), rotate elevation worm shaft clockwise, then assemble table crank tight against table support and tighten set screw.



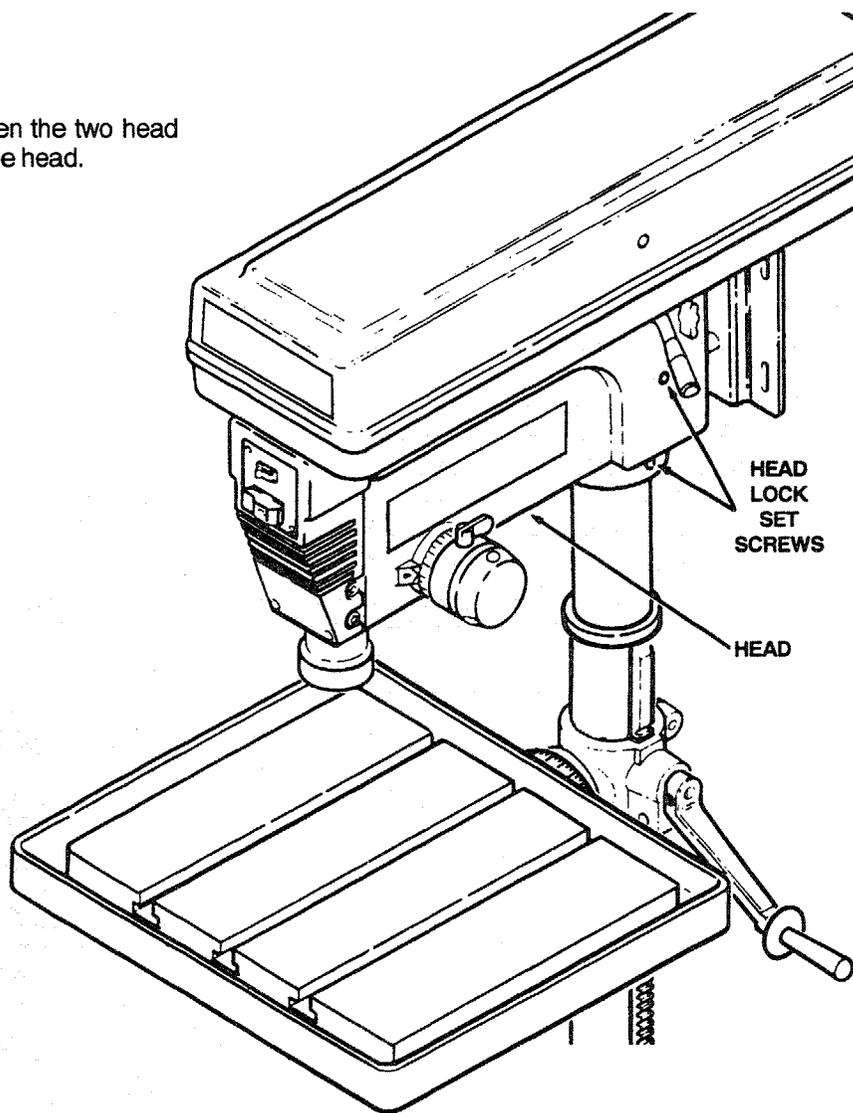
## INSTALLING THE HEAD

**CAUTION:** To avoid back injury, get help in lifting the head.

1. Remove protective bag from head assembly and discard. Carefully lift head above column tube and slide it onto column making sure head slides down over column as far as possible. Align head with table and base.

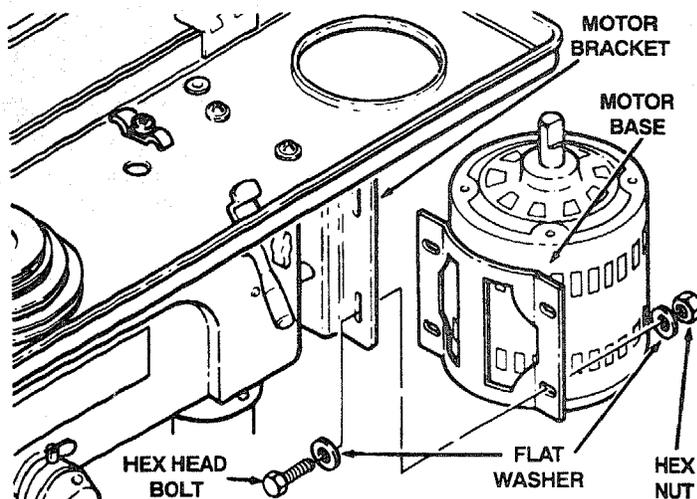
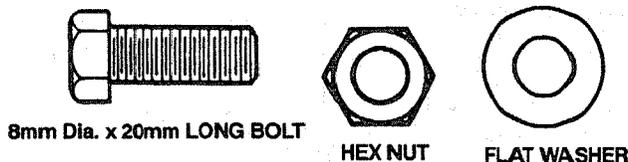


2. Using a 5mm HEX "L" wrench, tighten the two head lock set screws on the right side of the head.



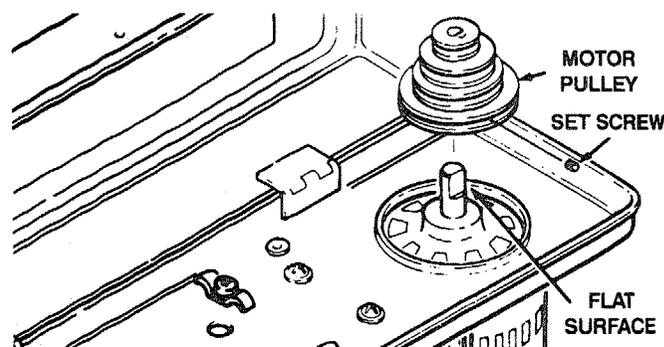
## MOUNTING MOTOR

1. Locate four (4) 8mm Dia. x 20mm long hex head bolts, eight (8) flat washers, and four (4) hex nuts among loose parts.
2. Put a flat washer on each bolt.
3. Install hex head bolts through motor bracket on head.
4. Place motor in position so motor base slots line up with motor bracket slots. Install flat washers and hex nuts as illustrated. (Do not tighten)
5. Motor shaft should be as close as possible to center of round opening in belt guard.



## INSTALLING MOTOR PULLEY

1. Find the motor pulley in loose parts bag.
2. Slide pulley onto motor shaft. Line up the flat surface on the motor shaft with the set screw in pulley.
3. Make sure the pulley does not rest on the lower guard.
4. Tighten the set screw using a "4" mm Hex "L" wrench.



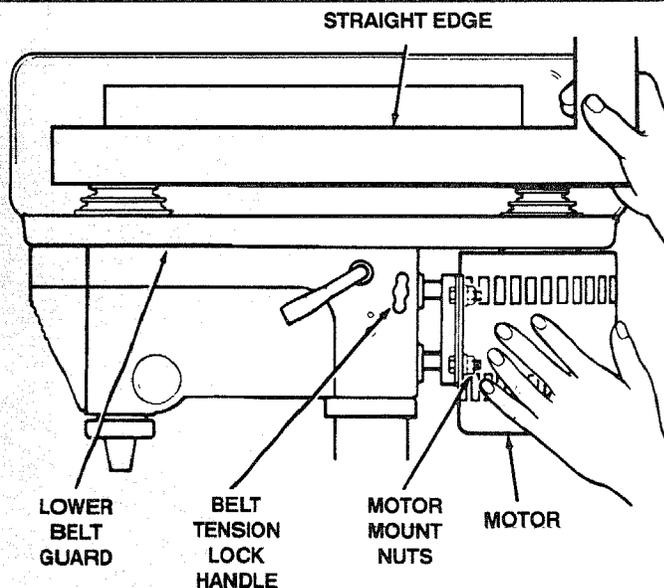
## INSTALLING AND TENSIONING BELT

**WARNING:** To avoid injury due to accidental starting always turn drill press off and remove switch key before making belt adjustments.

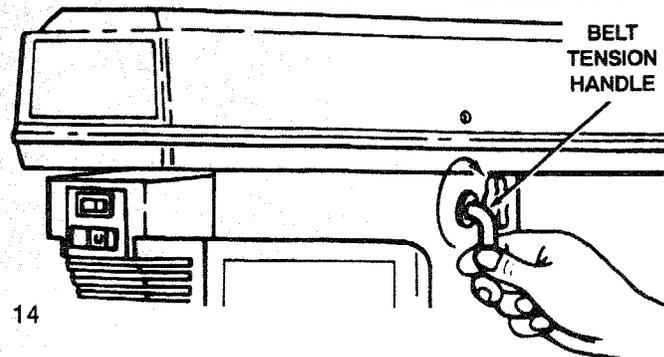
1. Place a straight edge such as a piece of wood, metal, or framing square across the top of pulleys.
2. Move the motor upward until the pulleys are in line. Tighten the motor mount nuts using an adjustable wrench.

**NOTE:** To avoid rattles or other noise, motor frame must not touch lower belt guard.

3. Release Belt Tension Lock handles located on each side of Drill Press head by turning them counter-clockwise.

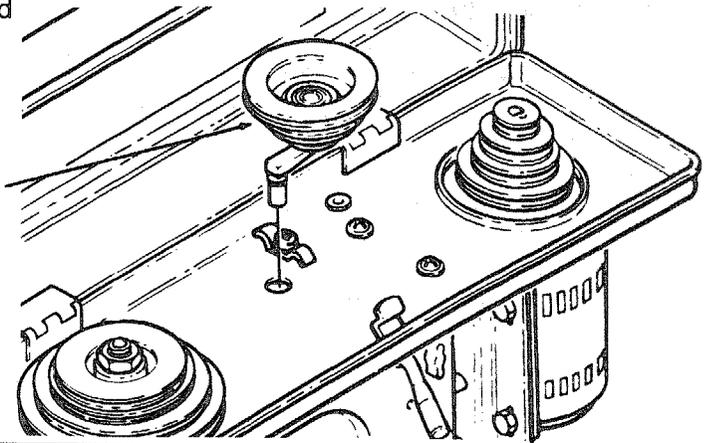


4. Loosen Belt Tension handle by turning clockwise.



5. Locate idler pulley assembly in loose parts bag and place in proper hole.

IDLER PULLEY ASSEMBLY



6. Locate two (2) V-belts in the loose parts bag.
7. Use speed chart inside belt guard to choose speed for drilling operation. Install belts in correct position for desired speed. The longer of the two belts is always positioned between the spindle pulley and idler pulley.

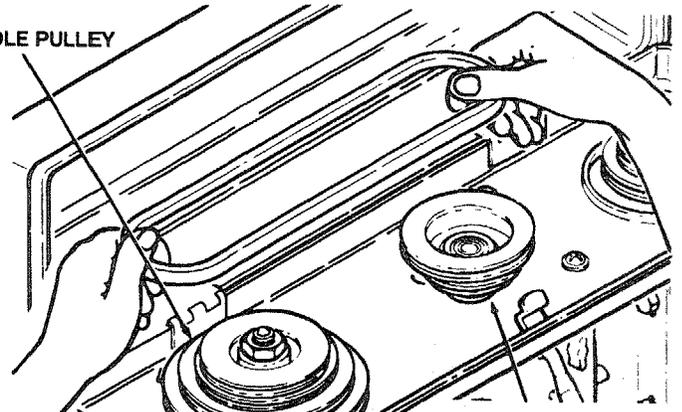
**NOTE:** Refer to chart inside belt guard for Recommended Drilling Speeds.

8. Apply tension to belt by turning Belt Tension Handle counter clockwise until belt deflects approximately 1/2 inch by thumb pressure at its center.
9. Tighten Belt Tension Lock Handles.

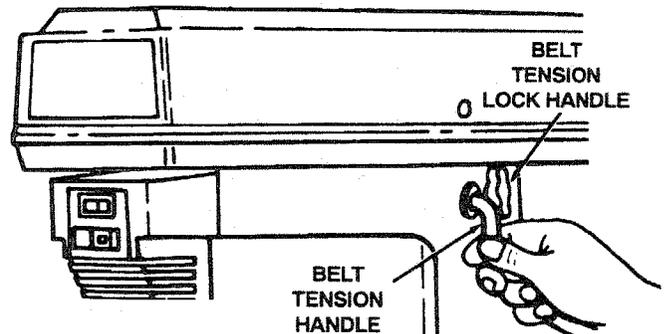
**NOTE:** Over tensioning belt may cause motor not to start or damage bearings.

10. If belt slips while drilling, readjust belt tension.

SPINDLE PULLEY

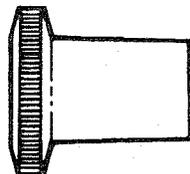


IDLER PULLEY



BELT TENSION LOCK HANDLE

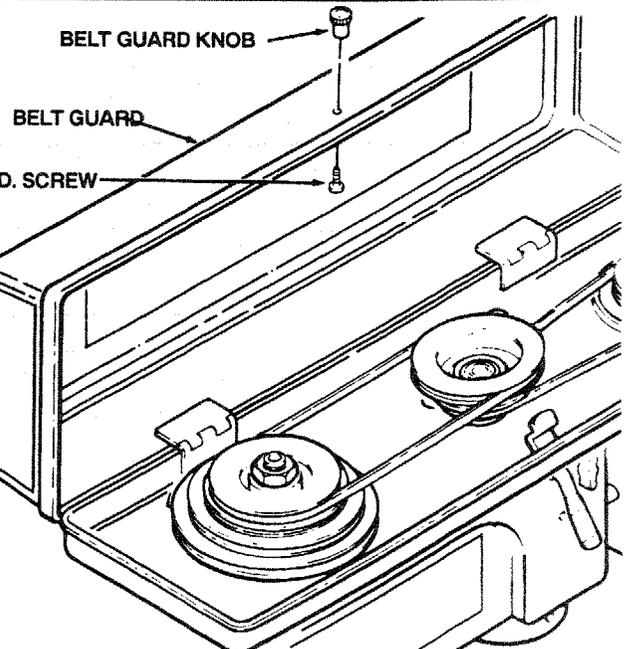
BELT TENSION HANDLE



BELT GUARD KNOB



5mm DIA x 12mm LONG PAN HD. SCREW



BELT GUARD KNOB

BELT GUARD

PAN HD. SCREW

### INSTALLING BELT GUARD KNOB

1. To attach belt guard knob, locate knob and 5mm Dia. x 12mm long pan hd. screw in loose parts bag. Install screw in hole located in guard and attach knob turning until tight.

**WARNING:** To avoid possible injury keep guard in place and in proper working order while operating.

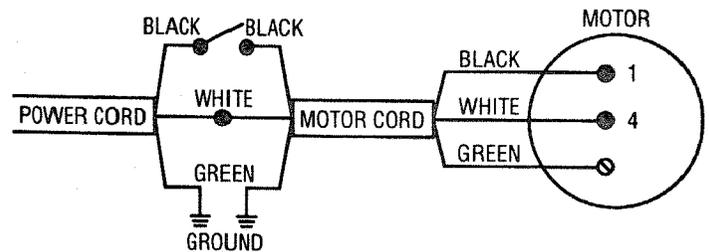
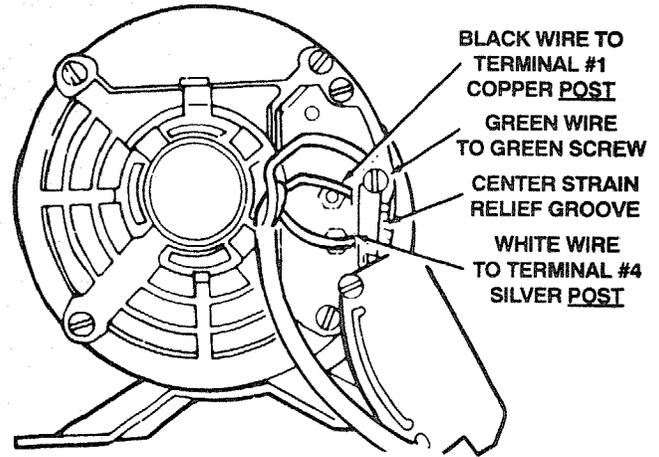
## MOTOR CONNECTIONS

**WARNING:** For your own safety, never connect plug to power source outlet until all assembly steps are completed.

1. Open motor connector box cover located on underside of motor using flat blade screwdriver.

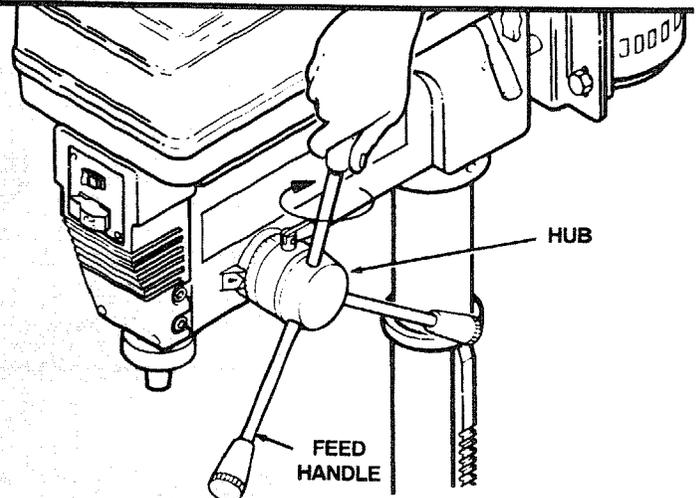
**WARNING:** To avoid electrocution, never connect anything but the ground wire (colored green) to the green screw.

2. Remove GREEN SCREW and insert through round metal terminal on the end of the GREEN wire of power cord.
3. Reinsert GREEN SCREW in threaded hole that it was removed from and tighten securely.
4. Insert terminal end of WHITE wire on spade terminal (next to silver post) marked #4 on the motor. Push terminal firmly until seated.
5. Insert terminal end of BLACK wire on spade terminal (next to copper post) marked #1 on the motor. Push terminal firmly until seated.
6. Close motor connector box being sure that power cord is seated in the "center" strain relief groove and tighten box cover screws.
7. Do not plug in power cable.



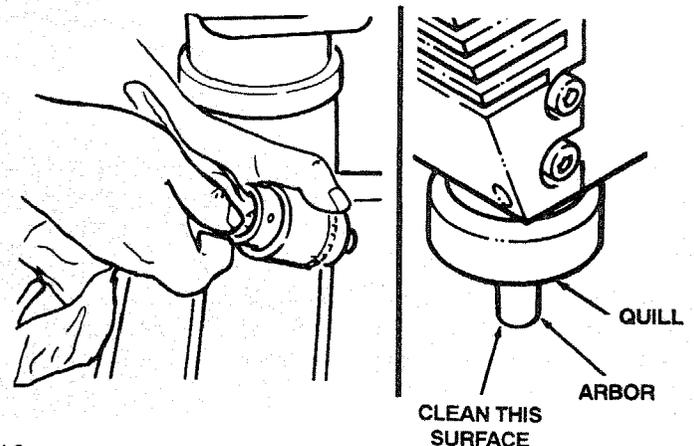
## INSTALLING FEED HANDLES

1. Locate three (3) feed handles among loose parts.
2. Screw the feed handles into the threaded holes in the hub and tighten.

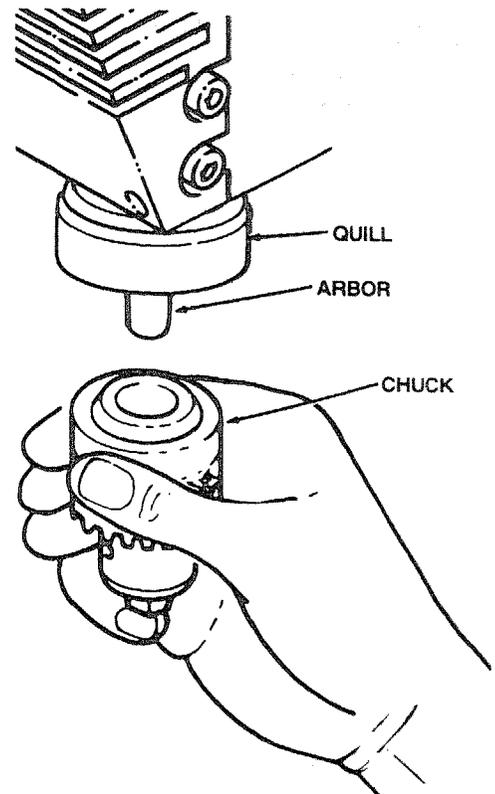


## INSTALLING THE CHUCK

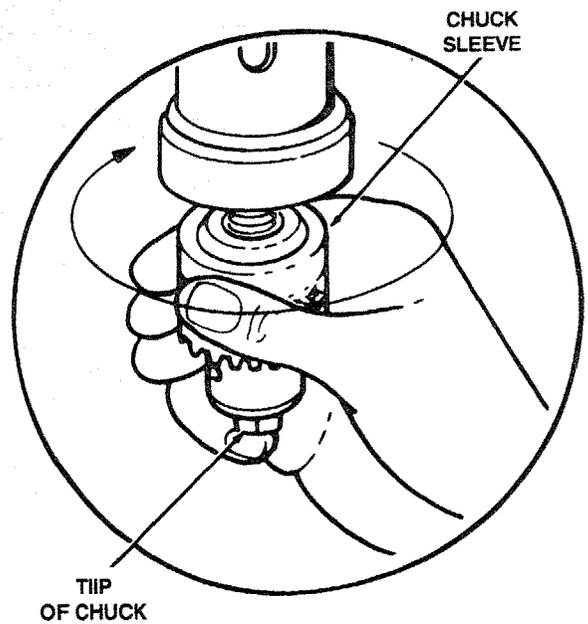
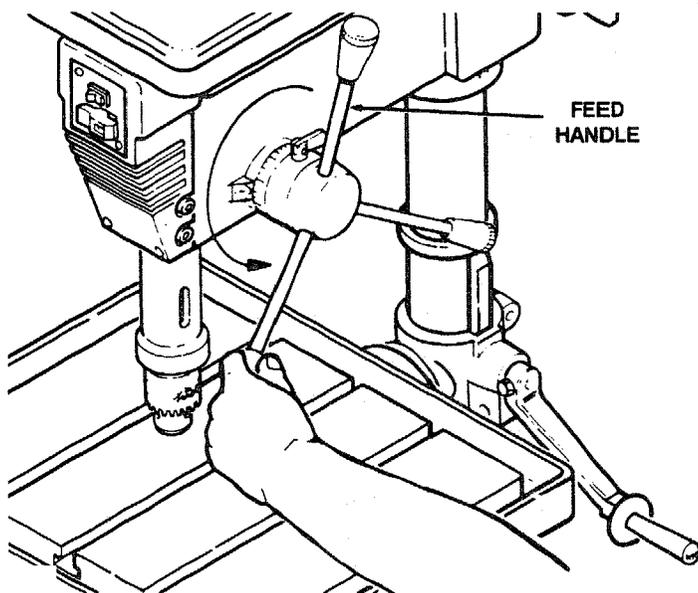
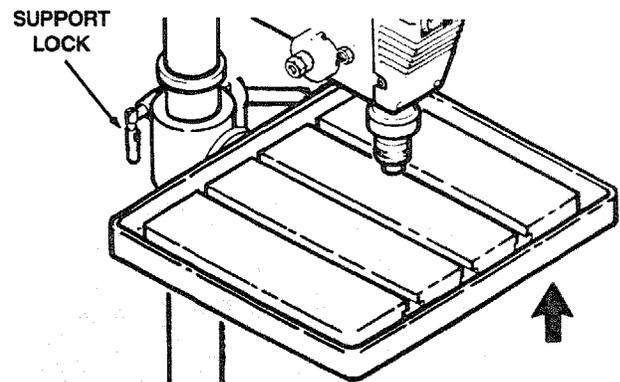
1. Clean out the TAPERED HOLE in the chuck. Clean the tapered surface on the arbor with a clean cloth. Make sure there are no foreign particles sticking to these surfaces. The slightest piece of dirt on these surfaces will prevent the chuck from seating properly. This will cause the drill to "wobble" or possibly fall off when drilling.



2. Slide the chuck up over the arbor as illustrated.

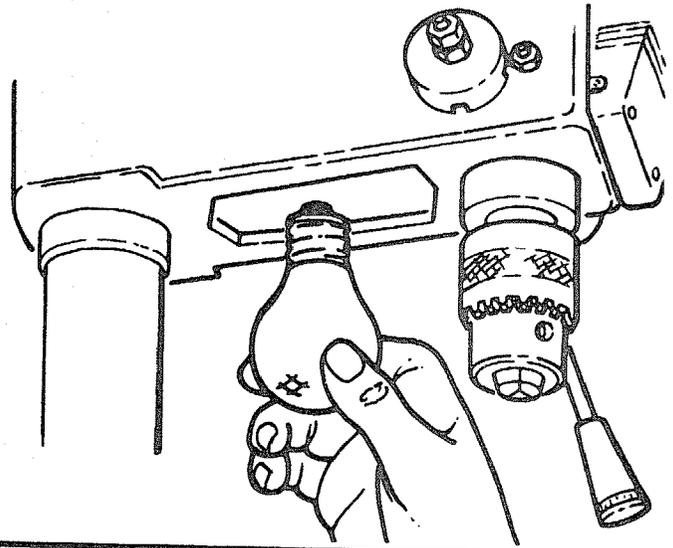


3. Unlock support lock and raise table so its about two (2) inches below tip of chuck.
4. Turn chuck sleeve clockwise and open jaws in chuck completely.
5. Turn feed handles counterclockwise and force chuck against table until chuck is secure.



## INSTALLING LIGHT BULB

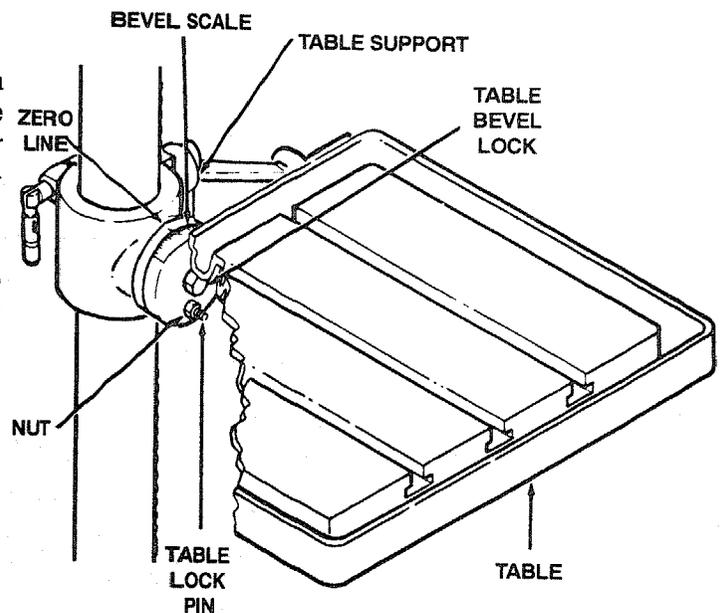
1. Install a light bulb (not larger than 60 watt) into the socket inside the head.



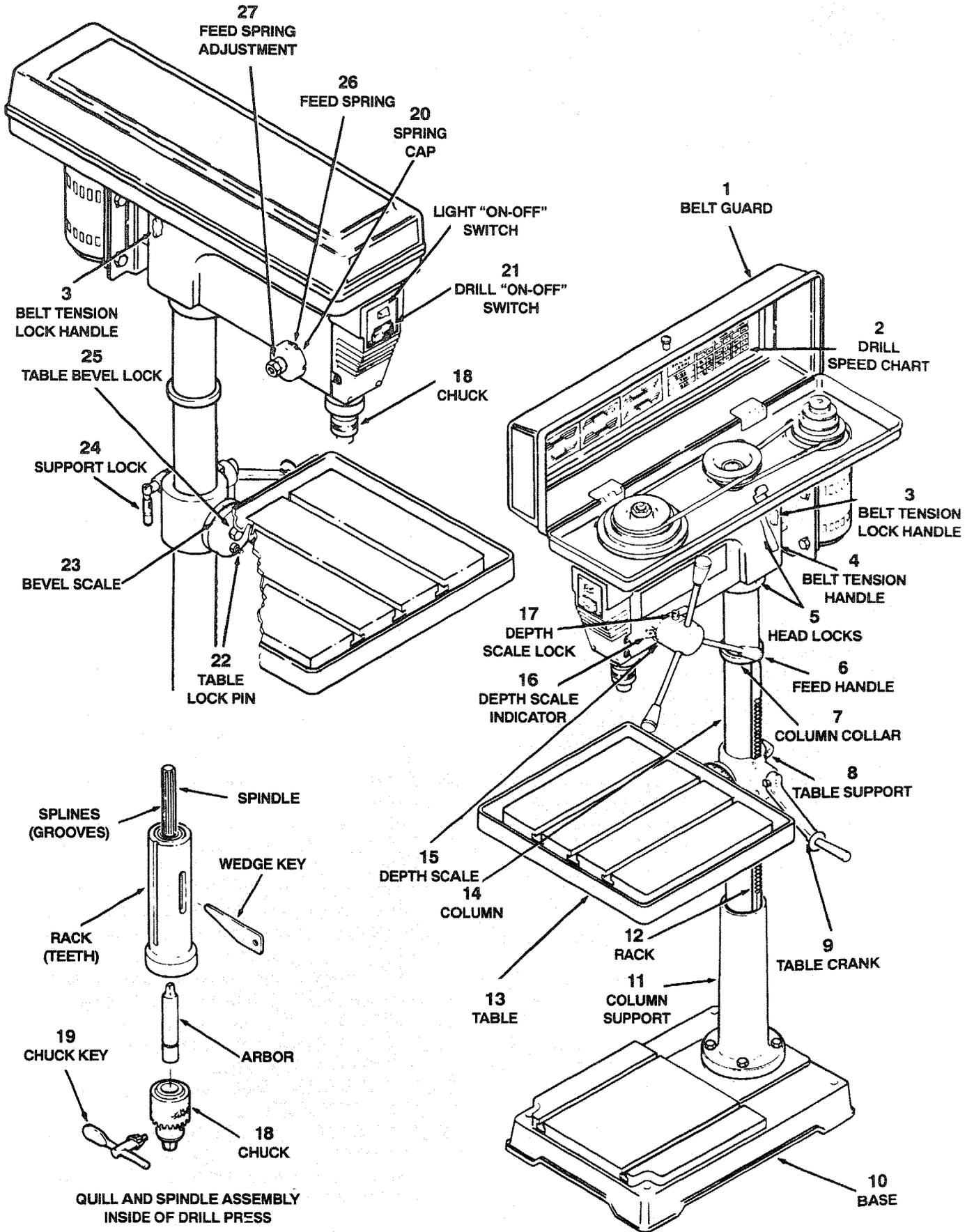
## BEVEL SCALE

**NOTE:** The bevel scale has been included to provide a quick method for beveling the table to approximate angles. If precise accuracy is necessary, a square, or other precision measuring tool should be used to position the table.

1. To use the bevel scale do the following.
  - a. Using an adjustable wrench, turn the nut (on the table lock pin) clockwise. This will pull the table lock pin out of its indexing hole in the table support.
  - b. Loosen the table bevel lock by turning it counter-clockwise using an adjustable wrench.
  - c. Move table so desired angle on bevel scale is straight across from zero line on table support.
  - d. Retighten the table bevel lock.
2. To return the table to the 90° position do the following:
  - a. Loosen the table bevel lock.
  - b. Move the table and reinstall the table lock pin into the indexing hole in the table support. Tap in gently into place.
  - c. Tighten the table bevel lock.
  - d. Tighten the nut (on the table lock pin) finger tight so it won't vibrate loose.



# getting to know your drill press

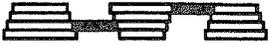
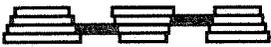
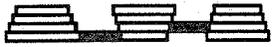
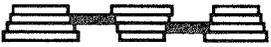
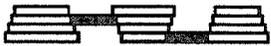


This Drill Press has 12 speeds as listed below:

150 RPM	490 RPM	1840 RPM
260 RPM	540 RPM	2220 RPM
300 RPM	1150 RPM	2950 RPM
440 RPM	1550 RPM	4200 RPM

See inside of belt guard for specific placement of belts on pulleys

## SPINDLE SPEEDS IN R.P.M.

150 	260 	300 	440 
490 	540 	1150 	1550 
1840 	2220 	2950 	4200 

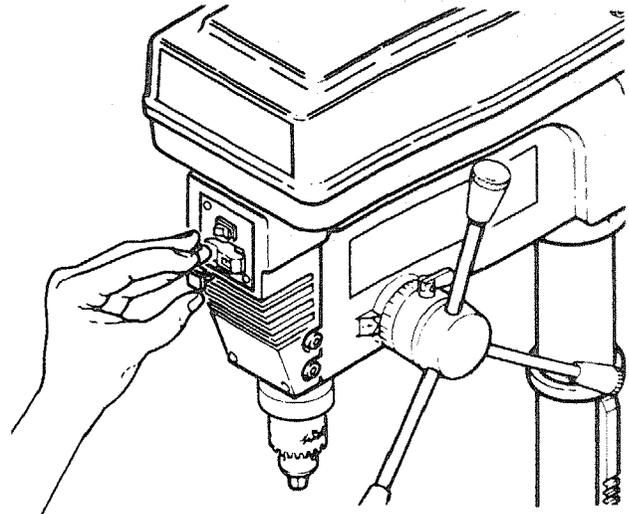
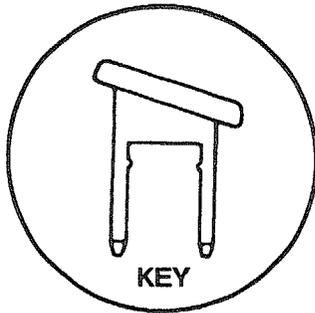
## Feature Description

1. **BELT GUARD ASSEMBLY**...Covers pulleys and belt during operation of drill press.
2. **DRILLING SPEED CHART**...Speeds can be changed by placing the belt in any of the STEPS (grooves) in the pulleys. See Spindle Speed label inside belt guard. To determine the approximate drilling speed, for specific materials, refer to the table inside the belt guard.
3. **BELT TENSION LOCK HANDLES**...Tightening handles locks motor bracket support and BELT TENSION HANDLE to maintain correct belt distance and tension.
4. **BELT TENSION HANDLE**...Turn handle counter clockwise to apply tension to belt, turn handle clockwise to release belt tension. Refer to section "Assembly-Installing and Tensioning Belt".
5. **HEAD LOCK**...Lock the head to the column. ALWAYS have them locked in place while operating the drill press.
6. **FEED HANDLE**...For moving the chuck up or down. One or two of the handles may be removed if necessary whenever the workpiece is of such unusual shape that it interferes with the handles.
7. **COLUMN COLLAR**...Holds the rack to the column. Rack remains movable in collar to permit table support movements.
8. **TABLE SUPPORT**...Rides on column to support arm and table.
9. **TABLE CRANK**...Turn clockwise to elevate table. Support lock must be released before operating crank.
10. **BASE**...Supports Drill Press. For additional stability, holes are provided in base to bolt Drill Press to floor. (See "Additional Safety Instructions for Drill Presses.")
11. **COLUMN SUPPORT**...Supports column, guides rack, and provides mounting holes for column to base.
12. **RACK**...Combines with gear mechanism to provide easy elevation of table by hand operated table crank.
13. **TABLE**...Provides working surface to support workpiece.
14. **COLUMN**...Connects head, table, and base on a one-piece tube for easy alignment and movement.
15. **DEPTH SCALE**...Shows depth of hole being drilled.
16. **DEPTH SCALE INDICATOR**...Indicates drilling depth selected on depth scale.
17. **DEPTH SCALE LOCK**...Locks the depth scale to selected depth.
18. **CHUCK**...Holds drill bit or other recommended accessory to perform desired operations.
19. **CHUCK KEY**...It is a self-ejecting chuck key which will "pop" out of the chuck when you let go of it. This action is designed to help prevent throwing of the chuck key from the chuck when power is turned "ON". Do not use any other key as a substitute, order a new one if damaged or lost.
20. **SPRING CAP**...Provides means to adjust quill spring tension.
21. **DRILL "ON-OFF" SWITCH**...Has locking feature. THIS FEATURE IS INTENDED TO HELP PREVENT UNAUTHORIZED AND POSSIBLE HAZARDOUS USE BY CHILDREN AND OTHERS.
22. **TABLE LOCK PIN**...Acts as an indexing pin to locate the table at a 90° angle to the drill and chuck.
23. **BEVEL SCALE**...Shows degree table is tilted for bevel operations. Scale is mounted on top of arm.
24. **SUPPORT LOCK**...Tightening locks table support to column. Always have it locked in place while operating the Drill Press.
25. **TABLE BEVEL LOCK**...Locks the table in any position from 0°-45°.
26. **FEED SPRING**...Provides tension to feed handle mechanism.
27. **FEED SPRING ADJUSTMENT**...Allows adjustment of tension to feed handle mechanism.

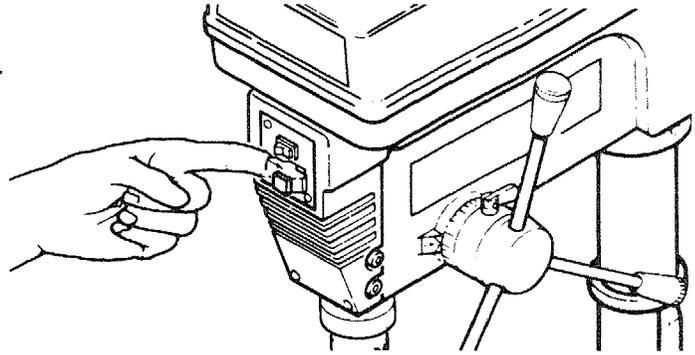
## ON-OFF SWITCH

The On-Off switch has a locking feature. This feature is intended to help prevent unauthorized and possible hazardous use by children and others. Insert KEY into switch.

**NOTE:** Key is made of yellow plastic.

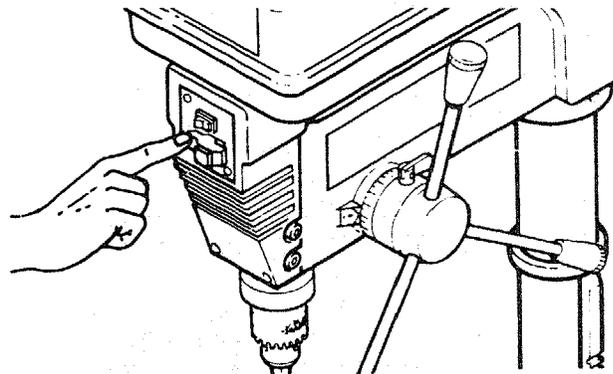


To turn drill ON, insert finger under switch lever and pull end of the lever out.



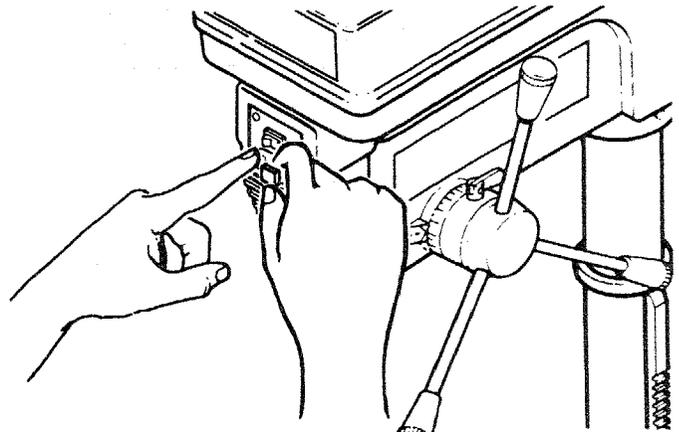
To turn drill OFF, push lever in.

In an emergency: If the drill bit BINDS...STALLS...STOPS...or tends to tear the workpiece loose...you can QUICKLY turn the drill OFF by hitting the switch with the palm of your hand.



To lock switch in OFF position, hold switch IN with one hand and REMOVE key with other hand.

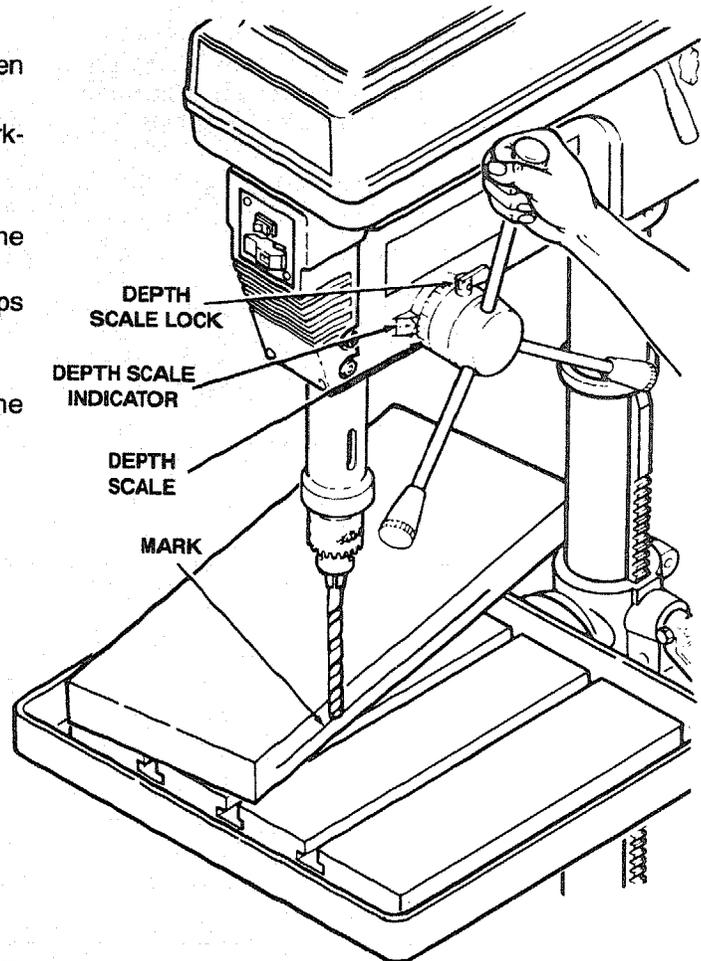
**WARNING:** For your own safety, always push the switch "OFF" when drill press is not in use...remove key and keep it in a safe place...also...in the event of a power failure (all of your lights go out) or blown fuse or tripped circuit breaker, turn switch off...lock it and remove the key. This will prevent the drill press from starting up again when the power comes back on.



## DRILLING TO A SPECIFIC DEPTH

To drill a BLIND hole (not all the way through) to a given depth, proceed as follows.

1. Mark the depth of the hole on the side of the workpiece.
2. Loosen the depth scale lock.
3. With the switch OFF, bring the drill bit down until the tip or lips of the bit are even with the mark.
4. Turn the depth scale counterclockwise until it stops moving.
5. Tighten the depth scale lock.
6. The bit will now be stopped at this depth until the depth scale is readjusted.

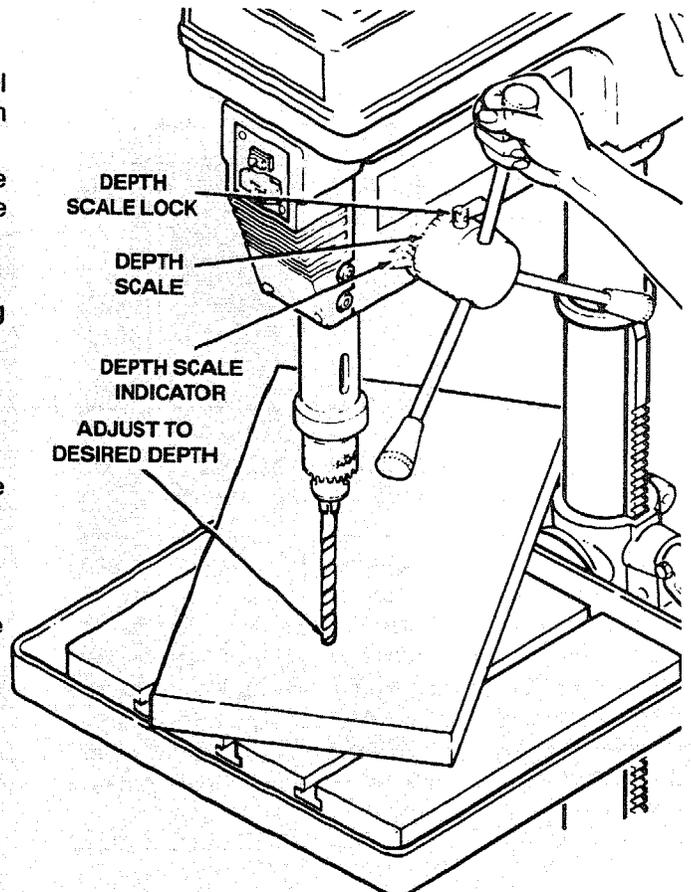


## ANOTHER WAY – DEPTH SCALE

1. With the switch OFF, loosen the depth scale lock.
2. Place workpiece on table. Adjust table until tip of drill bit is just a little above the top of the workpiece. Turn the depth scale clockwise to zero.
3. Turn the depth scale clockwise until the depth scale indicator points to the desired drilling depth on the depth scale.
4. Tighten the depth scale lock.
5. The chuck or drill will now be stopped after traveling downward the distance selected on the depth scale.

## LOCKING CHUCK AT DESIRED DEPTH

1. With the switch off—loosen the depth scale lock.
2. Turn the feed handles until the chuck is at the desired depth. Hold feed handles at this position.
3. Turn the depth scale clockwise until it stops.
4. Tighten the depth scale lock.
5. The chuck will now be held at this depth when the feed handles are released.



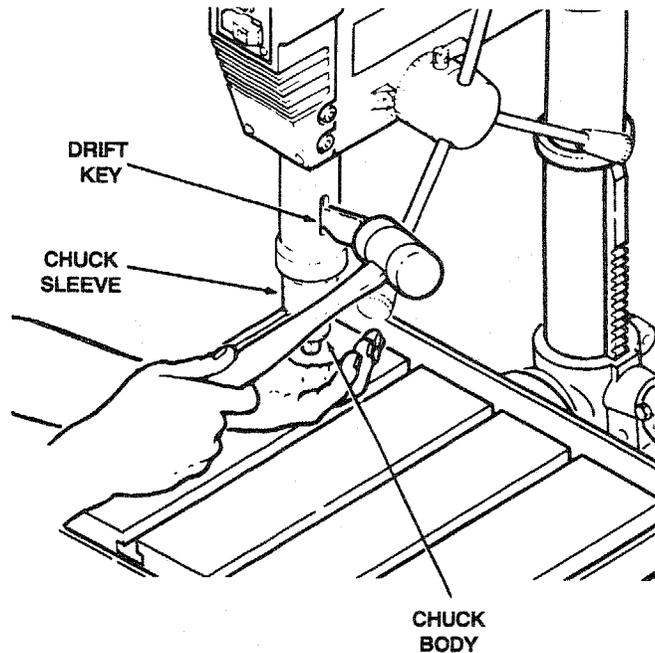
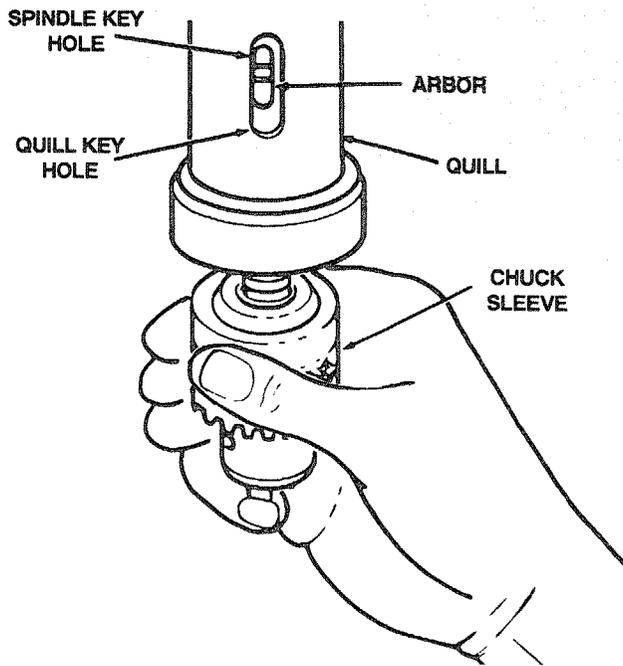
## REMOVING CHUCK AND ARBOR

1. With the switch OFF, adjust depth scale to hold drill at a depth of (3) three inches. (See instructions for "Locking chuck at desired depth").
2. Align key holes in spindle and quill by rotating the chuck by hand. (See illustration)
3. Insert key drift into key holes.
4. Tap key drift lightly until the chuck and arbor fall out of spindle.

**NOTE:** Place one hand below chuck to catch it when it falls out.

**SPECIAL NOTE:** With the chuck and arbor removed, morse taper number 3 drills may be used by installing one directly into the spindle in the same position normally occupied by the arbor.

The same procedures and cautions used when "reinstalling the arbor and chuck" (see following page) should be used when installing a morse taper number 3 drill. The only exception to this procedure is that you may place a piece of wood on the table top to prevent damage to the table and drill, when they are forced against each other.

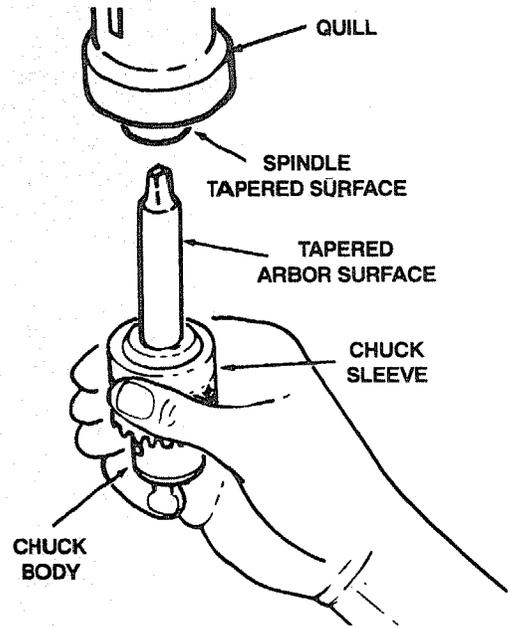


## RE-INSTALLING THE CHUCK AND ARBOR

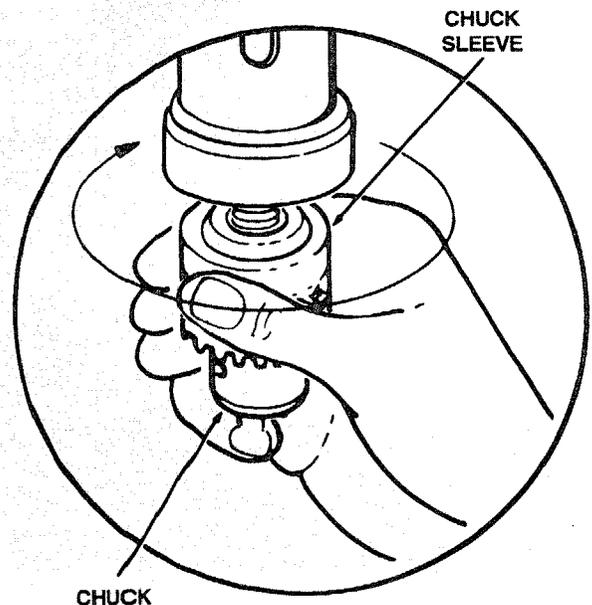
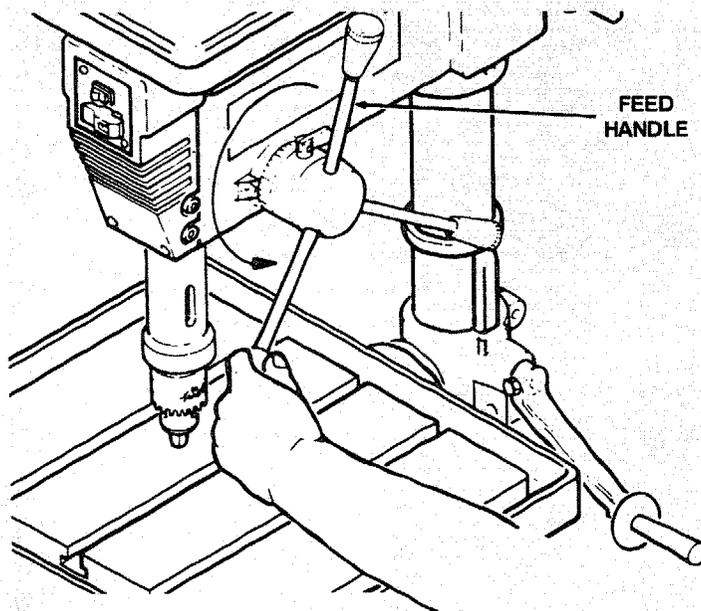
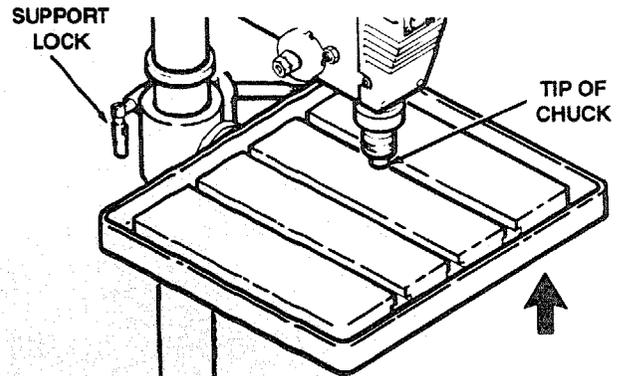
**NOTE:** The chuck received with this drill press will not permit the use of smaller diameter drill bits. For an alternate accessory chuck and key with 1/32" - 5/8" capacity the following part number should be ordered. - Part No. #817340 (chuck & key).

1. Clean the tapered surfaces on the arbor and spindle with a clean cloth. Make sure there are no foreign particles sticking to these surfaces. The slightest piece of dirt on these surfaces will prevent the arbor from seating properly. This will cause the drill to "wobble".
2. Slide arbor into spindle on drill press.
3. Push up on chuck/arbor assembly as you rotate them. You will feel rectangular end of arbor slip into a notch in the spindle.

**WARNING:** Make sure the rectangular end of the arbor has slipped into the notch in the spindle before going on to step 4. Failure to follow this direction may allow the chuck to come loose during operation, fly out, and hit the operator.



4. Unlock support lock and raise table so its about two (2) inches below tip of chuck.
5. Turn chuck sleeve clockwise and open jaws in chuck completely.
6. Turn feed handles counterclockwise and force chuck against table until arbor is secure.



# basic drill press operation

Follow the following instructions for operating your drill press to get the best results and to minimize the likelihood of personal injury.

**WARNING: For your own safety, always observe the safety precautions here and on pages 2, 3, and 4.**

## 1. Protection: Eyes, Hands Face, Ears & Body

**WARNING: To avoid being pulled into the spinning tool—**

### 1. Do NOT wear:

- gloves
- necktie
- loose clothing
- jewelry

### 2. Do tie back long hair

- a. If any part of your drill press is missing, malfunctioning, has been damaged or broken...such as the motor switch, or other operating control, a safety device or the power cord...cease operating immediately until the particular part is properly repaired or replaced.
  - b. Never place your fingers in a position where they could contact the drill or other cutting tool if the workpiece should unexpectedly shift or your hand should slip.
  - c. To avoid injury from parts thrown by the spring, follow instructions exactly as given and shown in adjusting spring tension of quill.
  - d. To prevent the workpiece from being torn from your hands, spinning of the tool, shattering the tool or being thrown, always properly support your work so it won't shift or bind on the tool:
    - Always position **BACKUP MATERIAL** (use beneath the workpiece) to contact the left side of the column.
    - Whenever possible, position the **WORKPIECE** to contact the left side of the column—if it is too short or the table is tilted, clamp solidly to the table. Use table slots or clamping ledge around the outside edge of the table.
    - When using a drill press **VICE**, always fasten it to a table.
    - Never do any work "**FREE HAND**" (hand-holding workpiece rather than supporting it on the table), except when polishing.
  - e. Securely lock Head and Support to Column, and table to support before operating drill press.
  - f. Never move the Head or Table while the tool is running.
  - g. Before starting the operation, jog the motor switch to make sure the drill or other cutting tool does not wobble or cause vibration.
  - h. If a workpiece overhangs the table such that it will fall or tip if not held, clamp it to the table or provide auxiliary support.
  - i. Use fixtures for unusual operations to adequately hold, guide and position workpiece.
  - j. Use the **SPINDLE SPEED** recommended for the specific operation and workpiece material—check the panel inside the guard cover for drilling information; for accessories, refer to the instructions provided with the accessories.
- ## 2. Use only accessories designed for this drill press to avoid serious injury from thrown broken parts or work pieces.
- a. When cutting large diameter holes:
    - Clamp the workpiece firmly to the table. Otherwise the cutter may grab and spin it at high speed.
    - Use only one piece, cup-type, hole cutters.
    - DO NOT** use fly cutters or multi-part hole cutters as they can come apart or become unbalanced in use.
    - Keep speed below 1,500 RPM.
  - b. Drum sanders must **NEVER** be operated on this drill press at a speed greater than 1800 RPM.
  - c. Do not install or use any drill that exceeds 7" in length or extends 6" below the chuck jaws. They can suddenly bend outward or break.
  - d. Do not use wire wheels, router bits, shaper cutters, circle (fly) cutters or rotary planers on the drill press.

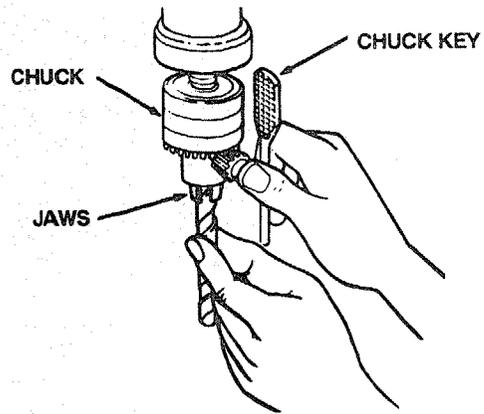
## INSTALLING DRILL BITS IN CHUCK

With the switch off and the key removed, insert drill bit into chuck far enough to obtain maximum GRIPPING of the CHUCK JAWS...the jaws are approx. 1" long. When using a small drill bit do not insert it so far that the jaws touch the flutes (spiral grooves) of the drill bit.

Make sure that the drill bit is CENTERED In the chuck before tightening the chuck with the key.

Tighten the drill bit sufficiently, so that it does not SLIP while drilling.

Turn the chuck key clockwise to tighten—counterclockwise to loosen.

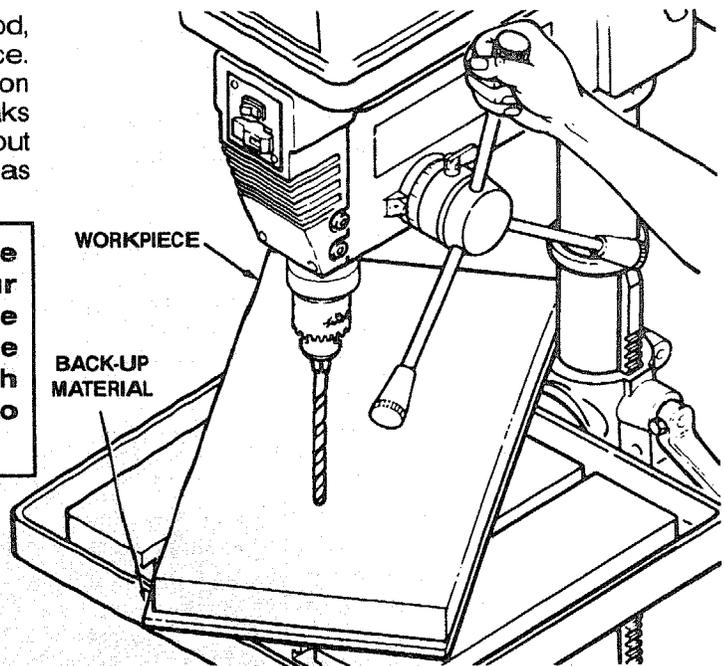


## POSITIONING TABLE AND WORKPIECE

Lock the table to the column in a position so that the tip of the drill is just a little above the top of the workpiece.

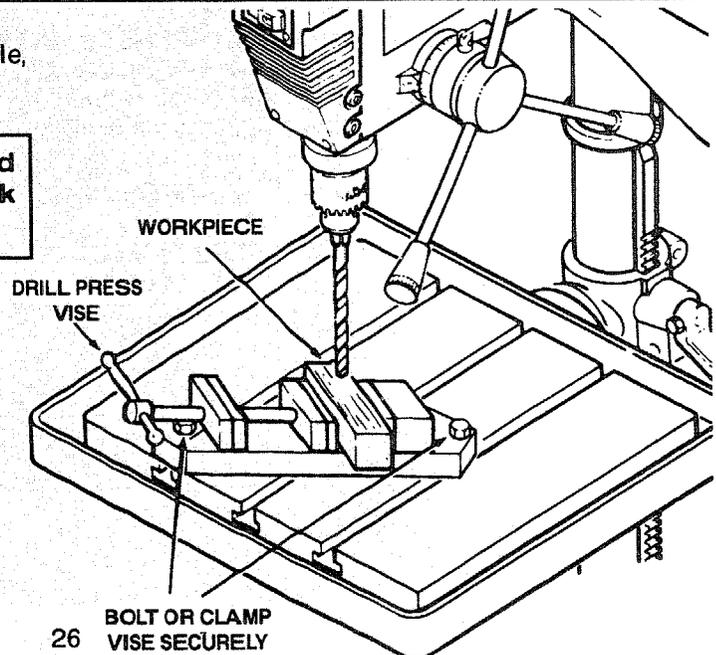
Always place a piece of BACK-UP MATERIAL (wood, plywood...) on the table underneath the workpiece. This will prevent "splintering" or making a heavy burr on the underside on the workpiece as the drill bit breaks through. To keep the backup material from spinning out of control, it must contact the left side of the column, as illustrated.

**WARNING: To prevent the workpiece or the backup material from being torn from your hand while drilling, position them against the left side of the column. If the workpiece and the backup material are not long enough to reach the column, clamp them to the table. Failure to do this could result in personal injury.**



For small pieces that cannot be clamped to the table, use a drill press vise (Optional accessory).

**WARNING: The vise must be clamped or bolted to the table to avoid injury from spinning work and vise or tool breakage.**

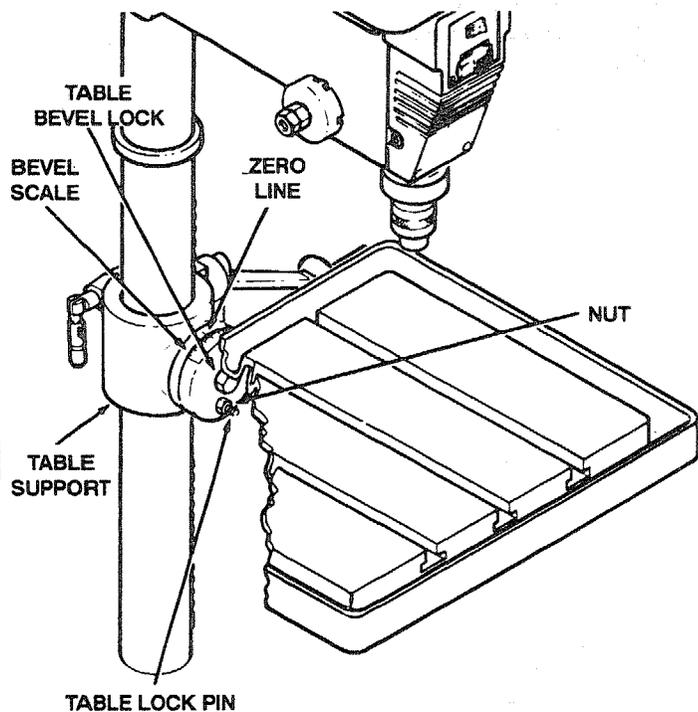


## TILTING TABLE

1. To use the table in a bevel (tilted) position, do the following:
  - a. Using an adjustable wrench, turn the nut (on the table lock pin) clockwise. This will pull the table lock pin out of its indexing hole in the table support.
  - b. Loosen the table bevel lock by turning it counter-clockwise using an adjustable wrench.
  - c. Move the table so desired angle on the bevel scale is straight across from the zero line on the table support.
  - d. Retighten the table bevel lock.

**WARNING: To avoid injury from spinning work or tool breakage, always clamp workpiece and backup material securely to table before operating drill press with the table tilted.**

2. To return the table to the 90° position do the following:
  - a. Loosen the table bevel lock.
  - b. Move the table and reinstall the table lock pin into the indexing hole in the table support. Tap in gently into place.
  - c. Tighten the table bevel lock.
  - d. Tighten the nut (on the table lock pin) finger tight so it won't vibrate loose.



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## HOLE LOCATION

Make a DENT in the workpiece where you want the hole...using a CENTER PUNCH or a SHARP NAIL.

Before turning the switch ON, bring the drill down to the workpiece lining it up with the hole location.

## FEEDING

Pull down on the feed handles with only enough effort to allow the drill to cut.

Feeding TOO SLOWLY might cause the drill to burn...Feeding TOO RAPIDLY might stop the motor...cause the belt or drill to SLIP...tear the workpiece LOOSE or BREAK the drill bit.

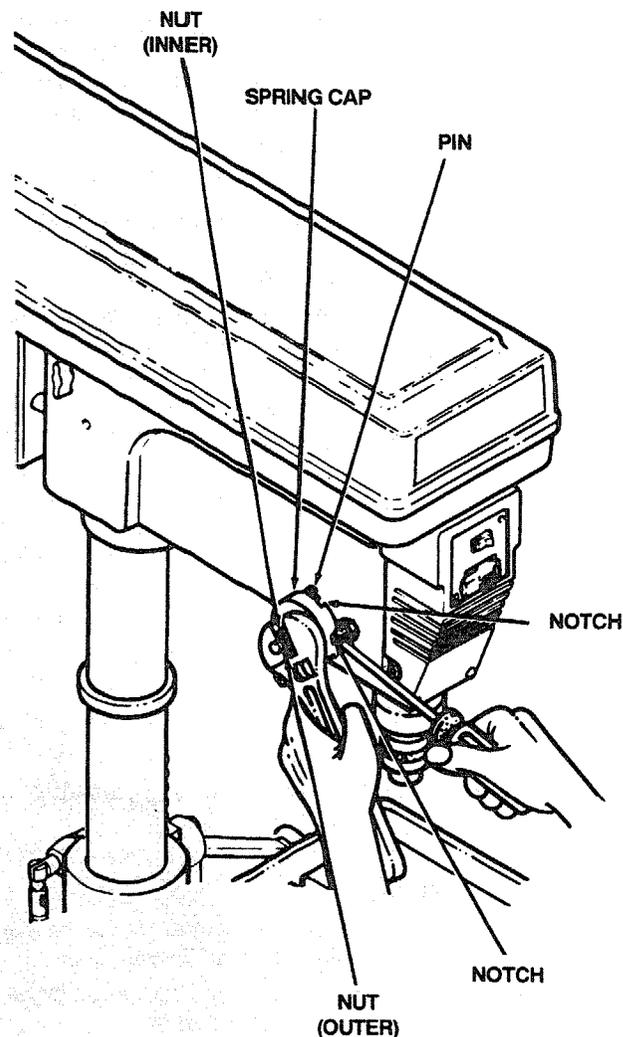
When drilling metal, it may be necessary to lubricate the tip of the drill with cutting oil or motor oil to prevent burning of the drill tip.

# adjustments

**WARNING: For your own safety turn switch "OFF" and remove plug from power source outlet before making any adjustments. To avoid injury from thrown parts due to spring release, follow instructions carefully, and wear eye goggles.**

## QUILL RETURN SPRING

1. With the chuck at its highest possible position, turn the depth scale clockwise until it stops and tighten the depth scale lock. This will prevent the quill dropping while tensioning the spring.
2. Lower table for additional clearance.
3. Work from left side of Drill Press.
4. Place screwdriver in lower front notch of spring cap, and hold it in place while loosening and removing [outer] nut only.
5. With screwdriver remaining in notch, loosen [inner] nut (approximately 1/8") until notch disengages from boss on head. DO NOT REMOVE THIS NUT.
6. Carefully turn screwdriver counter clockwise and engage next notch in boss. DO NOT REMOVE SCREWDRIVER.
7. Tighten standard nut with wrench only enough to engage boss. Do not overtighten as this will restrict quill movement.
8. Move stop nuts and depth pointer to upper most position and check tension while turning feed handles.
9. If there is not enough tension on spring, repeat steps 4-8 moving only ONE notch each time and checking tension after EACH repetition.
10. Proper tension is achieved when quill returns gently to full up position when released from 3/4" depth.
11. When there is enough tension after checking, replace outer nut and tighten to inner nut. BUT do not overtighten against inner nut.
12. Check quill while feeding to have smooth and unrestricted movement. If movement is too tight, loosen outer nut and SLIGHTLY loosen inner nut until unrestricted. Retighten outer nut.



## QUILL BEARING ADJUSTMENT

The front of the head is "Split" which permits an adjustment to be made as the quill and the quill bearing surfaces inside of the head become worn after an extended period of use. The front of the head can be SQUEEZED together or SPREAD apart by adjusting three screws.

1. LOOSEN all three screws "A", "B", and "C" four turns using a 6mm HEX "L" wrench.

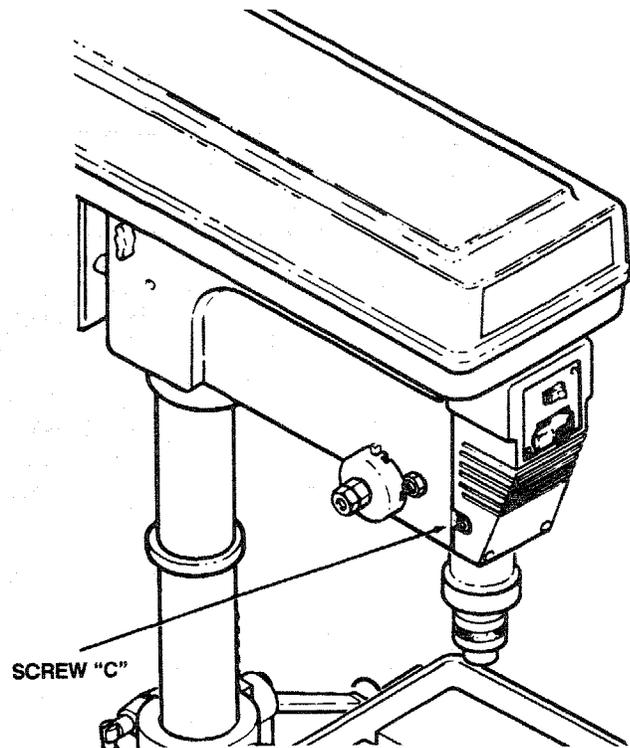
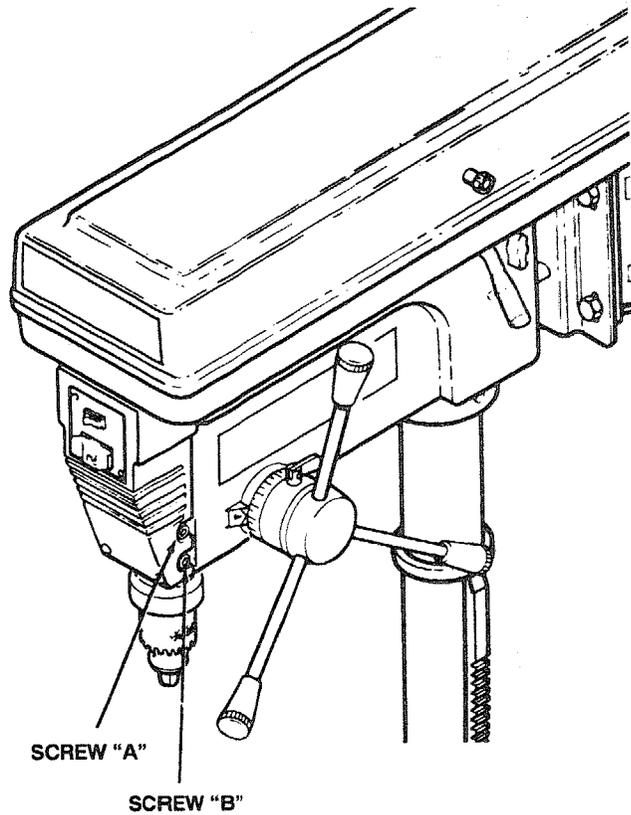
NOTE: TIGHTENING BOTH SCREWS "A" AND "B" SQUEEZES HEAD TOGETHER...TIGHTENING SCREW "C" SPREADS IT APART.

a. IF QUILL IS TOO TIGHT

- (1) TIGHTEN screw "C" until quill is free to move up and down.
- (2) Extend quill halfway down...TIGHTEN screw "B" until quill is LOCKED.
- (3) Carefully LOOSEN screw "B" until quill is free.
- (4) TIGHTEN screw "A" only enough so that it does not lock the quill...quill must move up and down freely.

b. IF QUILL IS TOO LOOSE

- (1) Extend quill halfway down...TIGHTEN screw "B" until quill is locked.
- (2) Carefully LOOSEN screw "B" until quill is free.
- (3) TIGHTEN screw "A" only enough so that it does not lock the quill...quill must move up and down freely.
- (4) Screw in remaining screw "C" all the way...tighten it lightly.



## maintenance

**WARNING: For your own safety, turn switch "OFF" and remove plug from power source outlet before maintaining or lubricating your drill press.**

Frequently blow out any dust that may accumulate inside the motor.

A coat of automotive type paste wax applied to the table and column will help to keep the surfaces clean.

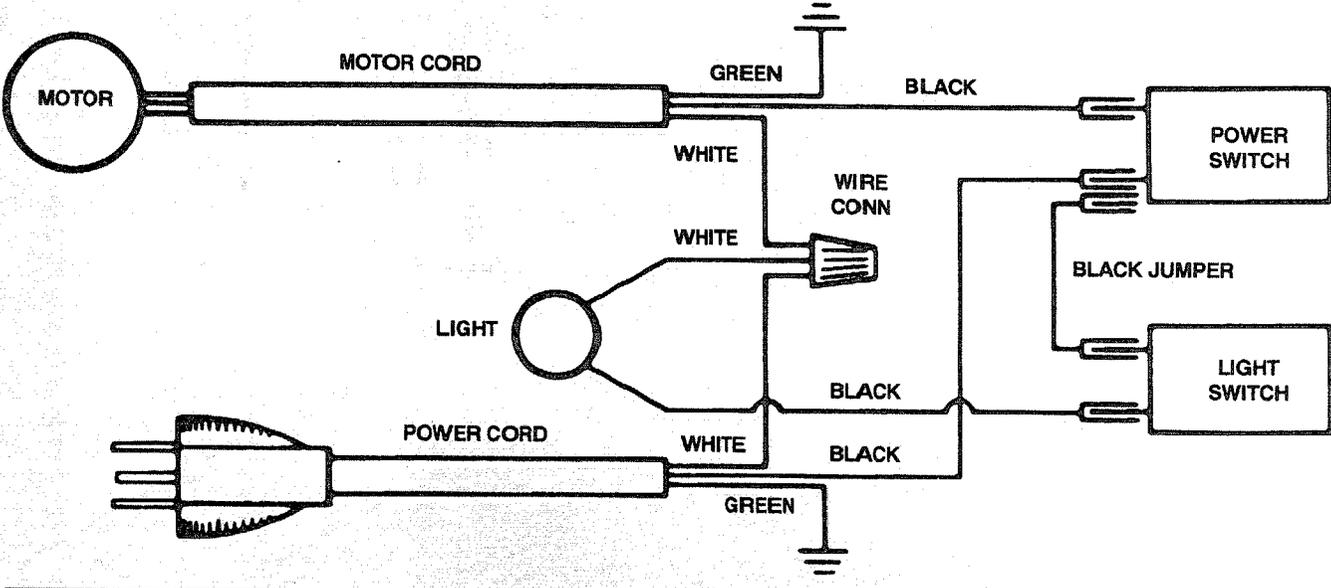
**WARNING: To avoid shock or fire hazard, if the power cord is worn or cut, or damaged in any way, have it replaced immediately.**

## lubrication

All of the BALL BEARINGS are packed with grease at the factory. They require no further lubrication.

Periodically lubricate the table elevation mechanism, the SPLINES (grooves) in the spindle, and the RACK (teeth of the quill), See "Getting to know your drill press."

## wiring diagram



## Sears Recommends the Following Accessories

- |                                      |             |                                       |                 |
|--------------------------------------|-------------|---------------------------------------|-----------------|
| Drill Bits.....                      | See Catalog | Clamping Kit.....                     | See Catalog     |
| Drill Press Mortising Kit.....       | See Catalog | 15 Piece Drum Sanding Kit.....        | See Catalog     |
| Drill Press Vises.....               | See Catalog | Sanding Drums.....                    | 9-2497 — 9-2498 |
| Hole Saw up to 2-1/2" dia. max.....  | See Catalog | Buffing Wheels up to 8" dia. max..... | See Catalog     |
| 5 pc. Stop Collar Set.....           | See Catalog | Power Tool Know-How Handbook.....     | 9-29117         |
| Mortising Chisel and Bits.....       | See Catalog |                                       |                 |
| 1/32" - 5/8" Dia. Chuck and Key..... | See Page 36 |                                       |                 |

Sears may recommend other accessories not listed in the manual.  
 See your nearest Sears store or Power and Hand Tool Catalog for other accessories.  
 Do not use any accessory unless you have received and read complete instructions for its use.

**WARNING: Use only accessories recommended for this drill press. Using other accessories may be dangerous.**

# trouble shooting

**WARNING:** For your own safety, turn switch "OFF" and always remove plug from power source outlet before trouble shooting.

• CONSULT YOUR LOCAL EMERSON SERVICE CENTER IF FOR ANY REASON MOTOR WILL NOT RUN.

TROUBLE	PROBABLE CAUSE	REMEDY
Noisy operation	<ol style="list-style-type: none"> <li>1. Incorrect belt tension.</li> <li>2. Dry Spindle.</li> <li>3. Loose spindle pulley.</li> <li>4. Loose motor pulley.</li> </ol>	<ol style="list-style-type: none"> <li>1. Adjust tension, See section "Installing and Tensioning Belt."</li> <li>2. Lubricate spindle. See "lubrication" section.</li> <li>3. Checking tightness of retaining nut on pulley, and tighten if necessary.</li> <li>4. Tighten setscrews in pulleys.</li> </ol>
Drill bit burns	<ol style="list-style-type: none"> <li>1. Incorrect speed.</li> <li>2. Chips not coming out of hole.</li> <li>3. Dull Drill bit.</li> <li>4. Feeding too slow.</li> <li>5. Not lubricated.</li> </ol>	<ol style="list-style-type: none"> <li>1. Change speed. See section "Getting to Know Your Drill Press"... spindle speed.</li> <li>2. Retract drill bit frequently to clear chips.</li> <li>3. Resharpen drill bit.</li> <li>4. Feed fast enough to allow drill bit to cut.</li> <li>5. Lubricate drill bit. See "Basic Drill Press Operation" section.</li> </ol>
Drill bit leads off... hole not round.	<ol style="list-style-type: none"> <li>1. Hard grain in wood or lengths of cutting lips and/or angles not equal.</li> <li>2. Bent drill bit.</li> </ol>	<ol style="list-style-type: none"> <li>1. Resharpen drill bit correctly.</li> <li>2. Replace drill bit.</li> </ol>
Wood splinters on underside.	<ol style="list-style-type: none"> <li>1. No "back-up material" under workpiece.</li> </ol>	<ol style="list-style-type: none"> <li>1. Use "back-up material"...See basic drill press operation" section.</li> </ol>
Workpiece torn loose from hand.	<ol style="list-style-type: none"> <li>1. Not supported or clamped properly.</li> </ol>	<ol style="list-style-type: none"> <li>1. Support workpiece or clamp it...See "Basic Drill Press Operation" section.</li> </ol>
Drill bit binds in workpiece.	<ol style="list-style-type: none"> <li>1. Workpiece pinching drill bit or excessive feed pressure.</li> <li>2. Improper belt tension.</li> </ol>	<ol style="list-style-type: none"> <li>1. Support workpiece or clamp it...See "Basic Drill Press Operation" section.</li> <li>2. Adjust tension...See section "Installing and Tensioning Belt."</li> </ol>
Excessive drill bit runout or wobble.	<ol style="list-style-type: none"> <li>1. Bent drill bit.</li> <li>2. Worn spindle bearings.</li> <li>3. Drill bit not properly installed in chuck.</li> <li>4. Chuck not properly installed.</li> </ol>	<ol style="list-style-type: none"> <li>1. Use a straight drill bit.</li> <li>2. Replace bearings.</li> <li>3. Install drill bit properly...See "Basic Drill Press Operation" section.</li> <li>4. Install chuck properly...refer to section on "Installing the Chuck."</li> </ol>
Quill returns too slow or too fast.	<ol style="list-style-type: none"> <li>1. Spring has improper tension.</li> </ol>	<ol style="list-style-type: none"> <li>1. Adjust spring tension...See section "Adjustments—Quill Return Spring."</li> </ol>
Chuck will not stay attached to spindle it falls off when trying to install it.	<ol style="list-style-type: none"> <li>1. Dirt, grease, or oil on the tapered inside surface of chuck or on the spindles tapered surface.</li> </ol>	<ol style="list-style-type: none"> <li>1. Using a household detergent-clean the tapered surface of the chuck and spindle to remove all dirt, grease and oil.</li> </ol>

PARTS LIST FOR CRAFTSMAN 20" DRILL PRESS  
 MODEL NO. 113.213213

repair parts

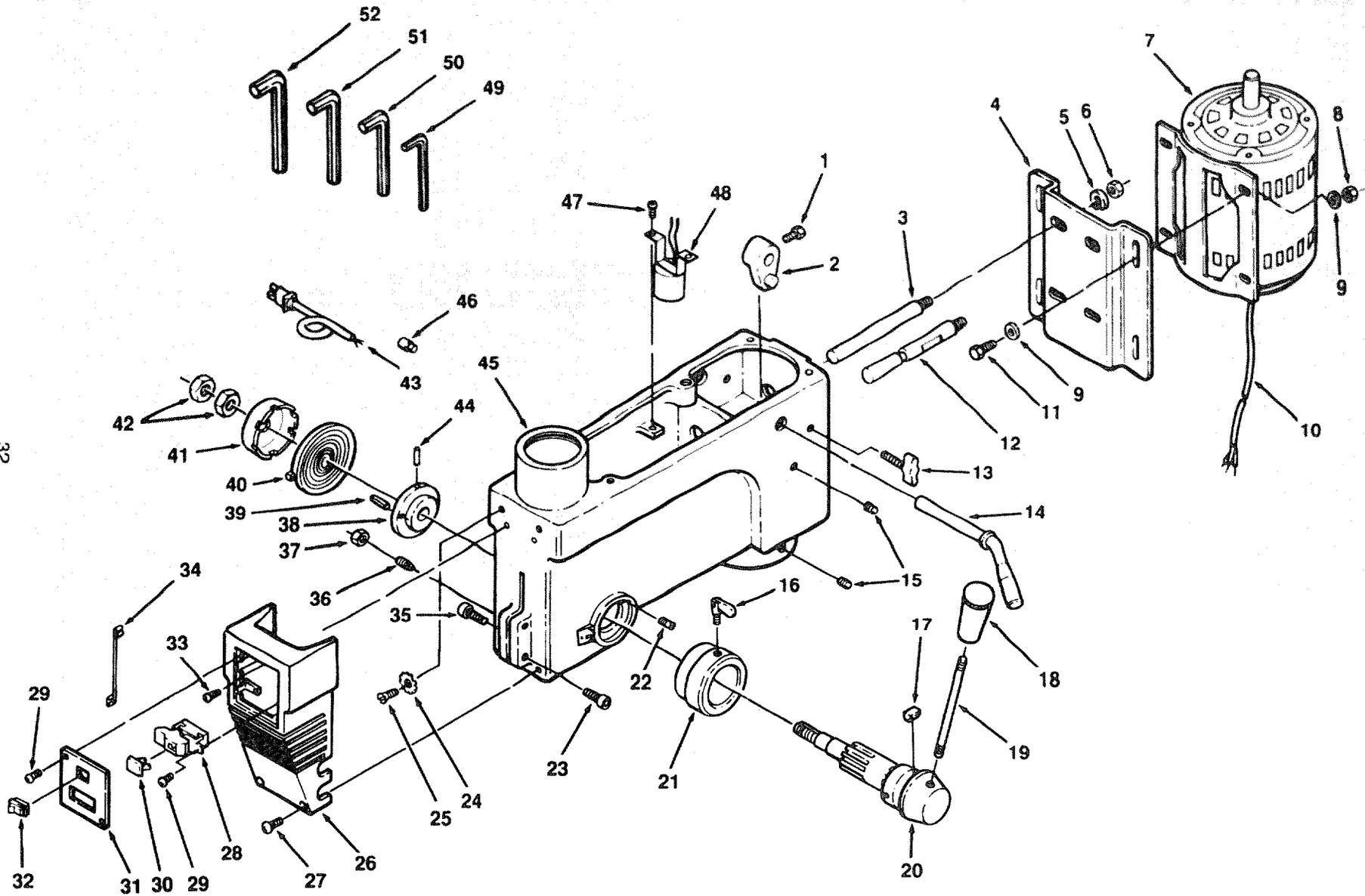


FIGURE 1 PARTS LIST

**PARTS LIST FOR CRAFTSMAN 20" DRILL PRESS  
MODEL NO. 113.213213**

Always order by Part Number — Not by Key Number

**FIGURE 1 - PARTS LIST**

Key No	Part No.	Description	Key No	Part No.	Description
1	STD835016	* Screw-Hex Hd M8 x 1.25-16	29	820248-2	Screw-Self Tap Pan Hd M4.2 x 1.4-8
2	817317	Lever-Adjusting	30	9-22256	†Key-Switch
3	817688	Support-Motor Bracket	31	817699	Cover-Switch Plate
4	817336	Mount-Motor	32	817354	Switch-Rocker
5	STD852012	* Lockwasher 12mm	33	817698-1	Screw-Pan Cr M6 x 1.0-15
6	STD841217	* Nut-Hex M12 x 1.75	34	818511	Lead-3"
7	817719	• Motor	35	820239	Screw-Soc Hd Cap M8 x 1.25-25
8	STD840812	* Nut-Hex M8 x 1.25	36	817308	Screw-Special Set M10 x 1.5-27
9	STD851008	* Washer M8 x 16 x 1.6	37	STD841015	* Nut-Hex M10 x 1.5
10	822004	Cord-Motor	38	817667	Seat-Spring
11	STD835020	* Screw-Hex Hd M8 x 1.25-20	39	813249-152	Pin-Roll 6 x 16
12	817689	Support-Motor Bracket	40	817685	Spring-Torsion
13	817320	Knob-Motor Adjusting	41	817686	Cap-Spring
14	817687	Handle-Belt Tension	42	821738-3	Nut-Hex M12 x 1.5-8
15	821750	Screw-Soc Set M10 x 1.5-12	43	822003-1	Cord-Power
16	817343	Lock-Depth Screw	44	813249-53	Pin-Roll 2.5-10
17	817300	Guide-Scale	45	822216-5	Head w/Pointer & Trim
18	817711	Knob	46	STD375008	* Connector-Wire
19	817710	Rod	47	820244	Screw-Pan Cr M6 x 1.0-12
20	822084	Hub	48	817321	Socket-Bulb
21	817774-2	Ring-Depth Stop w/Scale	49	813317-6	Wrench-Hex "L" M3
22	817303	Pin-Stop	50	813317-7	Wrench-Hex "L" M4
23	820239-2	Screw-Soc Hd Cap M8 x 1.25-30	51	813317-8	Wrench-Hex "L" M5
24	STD852005	* Lockwasher-Ext. 5	52	813317-9	Wrench-Hex "L" M6
25	820240-3	Screw-Pan Cr M5 x 0.8-6	—	SP5868	Owners Manual (Not Illustrated)
26	817697	Box-Switch			
27	817698	Screw-Pan Cr M6 x 1.0-35			
28	816113	Switch-Locking			

\*Any Attempt to Repair This Motor May Create a Hazard Unless Repair is Done by a Qualified Service Technician. Repair Service is Available at your nearest Sears Store.

\* Standard Hardware Item—May Be Purchased Locally.

† Stock Item—May Be Secured Through The Hardware Department Of Most Sears Retail Stores.

# repair parts

## PARTS LIST FOR CRAFTSMAN 20" DRILL PRESS MODEL NO. 113.213213

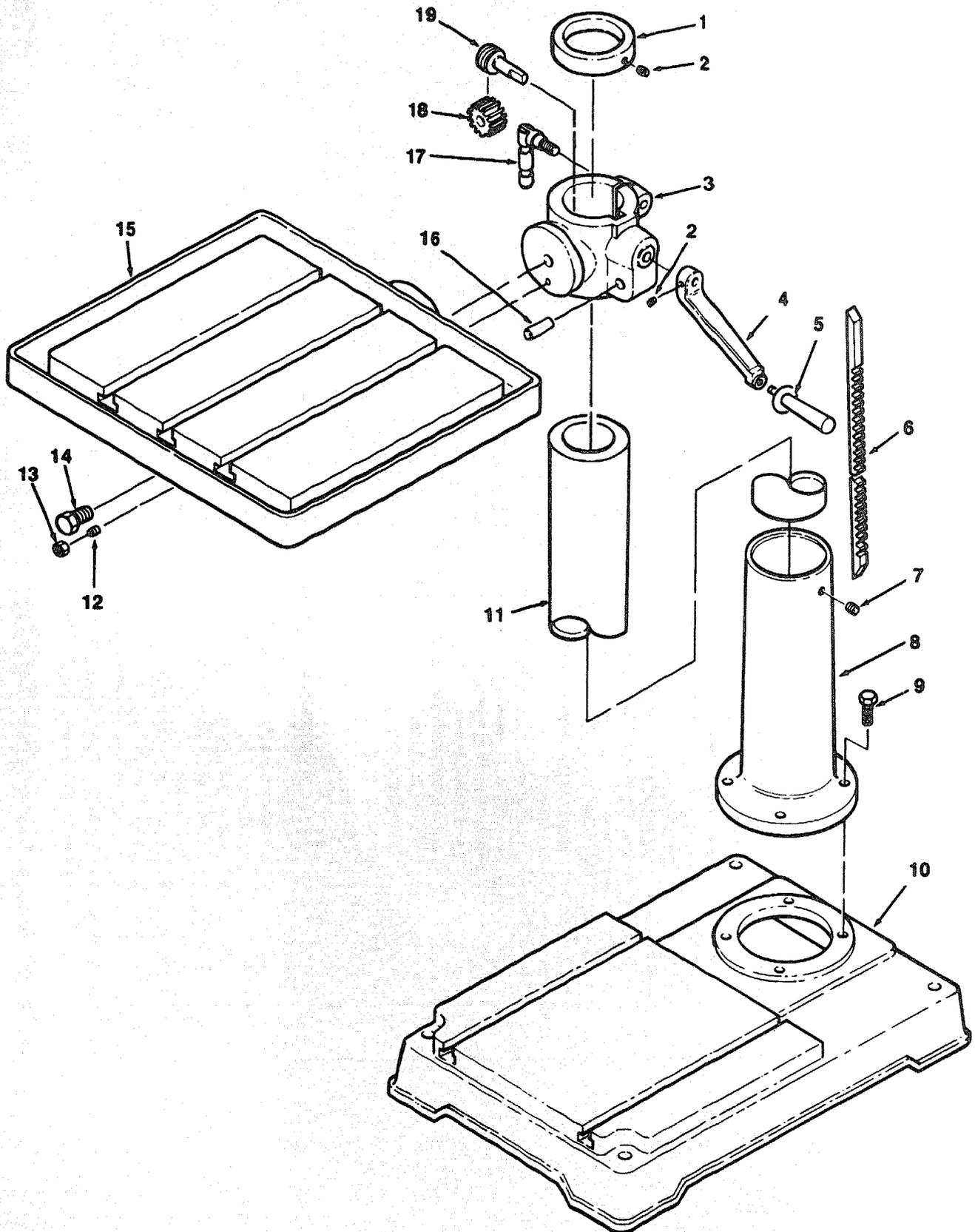


FIGURE 2 - PARTS LIST

# repair parts

## PARTS LIST FOR CRAFTSMAN 20" DRILL PRESS MODEL NO. 113.213213

Always order by Part Number—Not by Key Number

FIGURE 2 - PARTS LIST

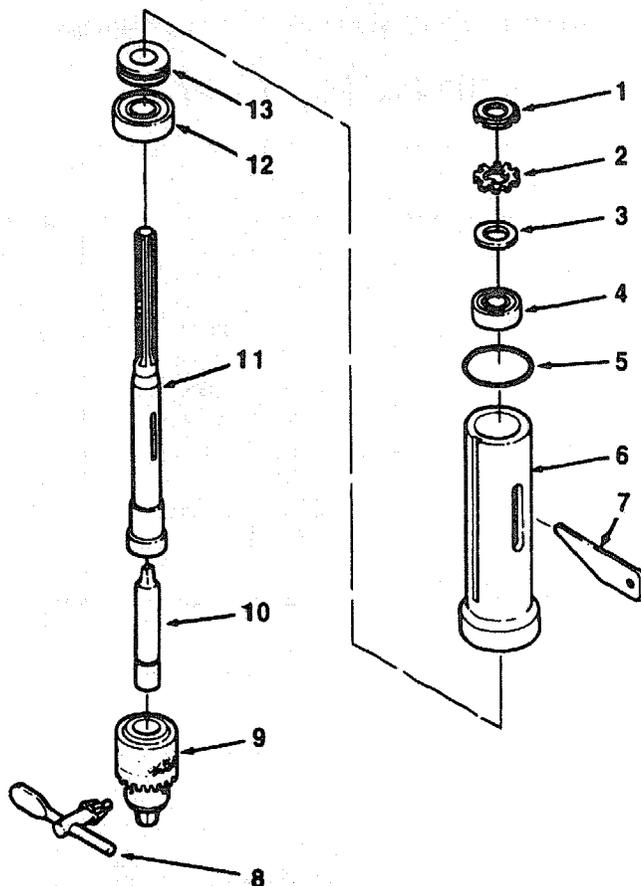
Key No.	Part No.	Description
1	817663	Collar-Rack
2	817391-1	Screw-Hex Soc Set M6 x 1.0-10
3	822334	Support-Table w/Indicator
4	817712	Crank
5	817713	Handle-Crank
6	817662	Rack
7	817391	Screw-Hex Soc Set M10 x 1.5-12
8	817661	Support-Column
9	STD837040	* Screw-Hex Hd M12 x 1.75-40

Key No.	Part No.	Description
10	817709	Base
11	819042	Tube-Column
12	817720	Pin-Table Lock
13	STD840812	* Nut-Hex M8 x 1.25
14	822069	Screw-Hex Hd M20 x 2.5-50
15	817789	Table-Drill Press w/Scale
16	817288	Pin-Gear
17	817294	Clamp-Column
18	817350	Gear-Helical
19	817349	Worm-Elevation

\* Standard Hardware Item - May be purchased locally

# repair parts

## PARTS LIST FOR CRAFTSMAN 20" DRILL PRESS MODEL NO. 113.213213



Always order by Part Number—Not by Key Number

FIGURE 3 - PARTS LIST

Key No.	Part No.	Description
1	822057	Lock-Nut M20 x 1.5
2	817682	Ring-Locking
3	817681	Washer
4	STD315245	* Bearing-Ball 20mm
5	817684	Washer-Rubber
6	817675	Tube-Quill
7	817326	Key-Drift

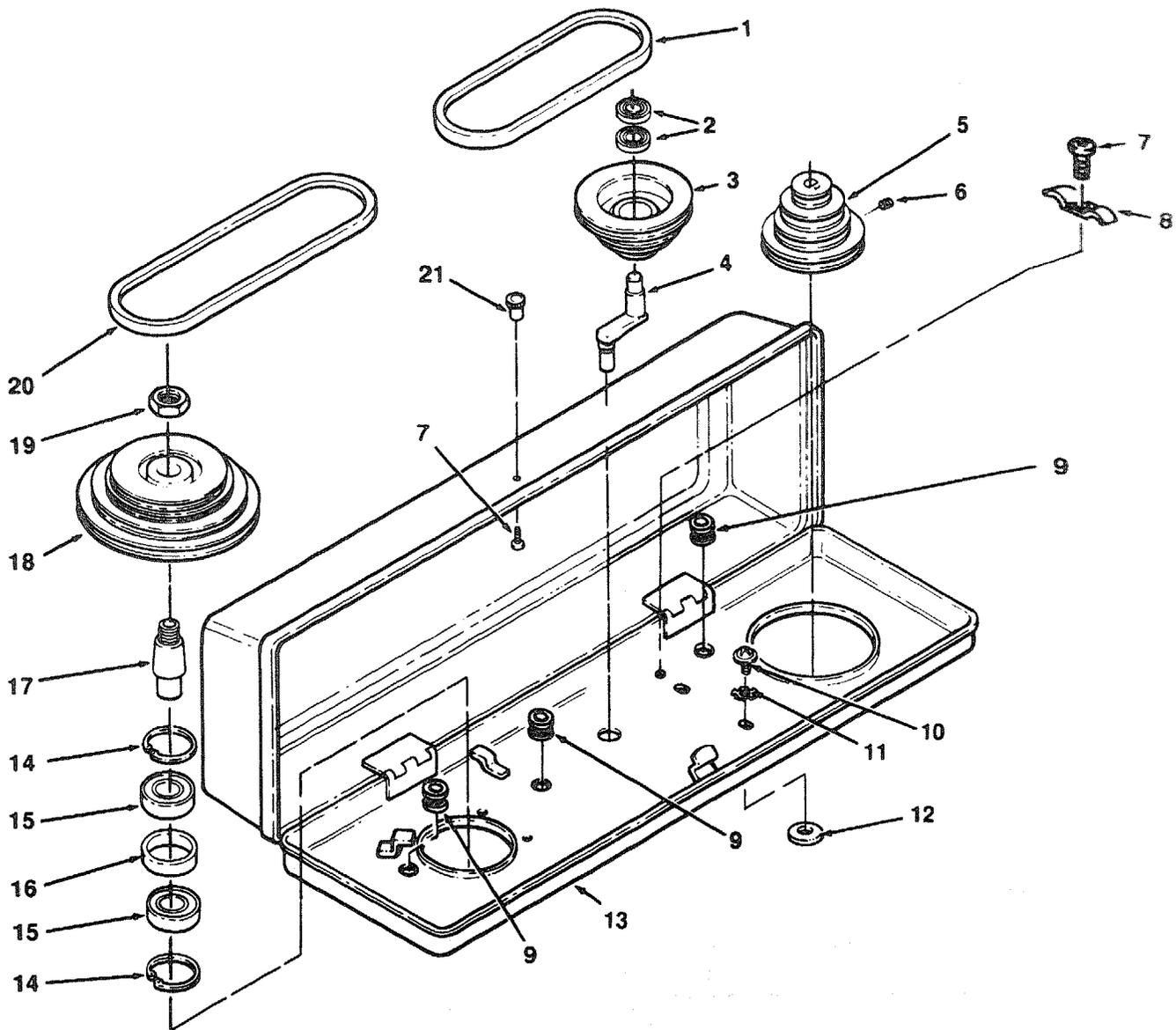
\* Standard Hardware Item - May be purchased locally

Key No.	Part No.	Description
8	823253	Key-Chuck
9	817340-5	†† Chuck (Includes Key No. 8)
10	824014	Arbor
11	817676	Spindle
12	STD315265	* Bearing-Ball 30mm
13	817679	Bearing-Thrust

†† - For alternate chuck and key with 1/32" - 5/8" capacity order part no. 817340 (chuck & key)

# repair parts

## PARTS LIST FOR CRAFTSMAN 20" DRILL PRESS MODEL NO. 113.213213



Always order by Part Number—Not by Key Number

FIGURE 4 - PARTS LIST

Key No.	Part No.	Description
1	STD304290	* Belt-"V" 1/2 x 29
2	STD315225	* Bearing-Ball 15mm
3	817715	Pulley-Center
4	817716	Pivot Idler
5	817717	Pulley-Motor
6	817391-5	Screw-Soc Set M8 x 1.25-12
7	816755-3	Screw-Pan Hd M5 x 0.8-12
8	63418	Clamp-Cord
9	817451-1	Bushing-Rubber
10	817358-1	Screw-Rd Wash Hd M6 x 1.0-16

Key No.	Part No.	Description
11	STD852006	* Lockwasher Ext. M6
12	820294	Washer Foam
13	822059	Guard-Pulley w/Labels
14	817668	Ring-Retaining
15	STD315265	* Bearing-Ball 30mm
16	817670	Spacer-Bearing
17	817671	Insert-Pulley
18	817705	Pulley-Spindle
19	822060	Nut-Pulley
20	STD304330	* Belt-"V" 1/2 x 33
21	817325	Knob

\* Standard Hardware Item - May be purchased locally





# SEARS

## owner's manual

### MODEL NO. 113.213213

DRILL PRESS WITH  
MAXIMUM DEVELOPED  
2 HP MOTOR

The model number of your drill press is found at the rear of the head.

When requesting service or ordering parts, always provide the following information:

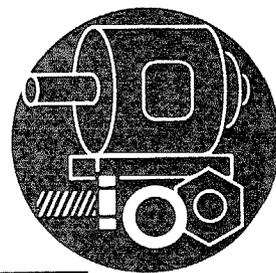
- Product Type
- Model Number
- Part Number
- Part Description

## MOTORIZED 20-INCH INDUSTRIAL RATED DRILL PRESS

For the repair or replacement parts you need

Call 7 am - 7 pm, 7 days a week

**1-800-366-PART**  
(1-800-366-7278)



For in-home major brand repair service

Call 24 hours a day, 7 days a week

**1-800-4-REPAIR**  
(1-800-473-7247)



For the location of a  
Sears Repair Service Center in your area

Call 24 hours a day, 7 days a week

**1-800-488-1222**



For information on purchasing a Sears  
Maintenance Agreement or to inquire  
about an existing Agreement

Call 9 am - 5 pm, Monday-Saturday

**1-800-827-6655**



**SEARS**  
**REPAIR SERVICES**

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Sold by SEARS, ROEBUCK AND CO., Hoffman Estates, IL 60195 U.S.A.