

Save This Manual
For Future Reference

SEARS

**owner's
manual**

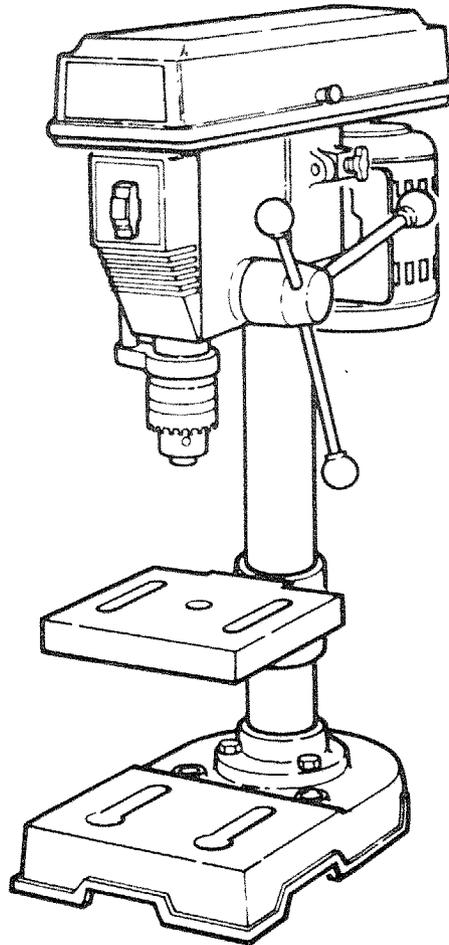
**MODEL NO.
113.213100**

**DRILL PRESS WITH
MAXIMUM DEVELOPED
1/3 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
8-INCH
BENCH MODEL DRILL PRESS**

- assembly
- operating
- repair parts

SEARS, ROEBUCK AND CO., Hoffman Estates, IL 60179 U.S.A.

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 **might** 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 15
3. Basic Drill Press Operation 19
4. Adjustments 21
5. Maintenance 22
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 work bench.

If the workpiece is too large to easily support with one hand, provide an auxiliary support.

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 **WISE**, always fasten it to a 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.

- f. Never climb on the drill press **Table**, it could break or pull the entire drill press down on you.
- g. Turn the motor **Switch Off** and put away the **Switch Key** when leaving the drill press.
- h. 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 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 this drill press.

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

The operation 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 comply with ANSI Z87.1 (shown on Package) before commencing power tool operation. Safety Goggles are available at Sears retail 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.

MOTOR: 1725 RPM 1 PHASE 120 VOLT AC ONLY
60 HZ 2.5 AMPS

E23417

12. This Drill Press has 3 speeds as listed below:

- 620 RPM
- 1300 RPM
- 3100 RPM

See inside of 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.

glossary of terms

- 1. Workpiece**
The item on which the cutting operations is being performed.
- 2. 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 back-side of the workpiece also prevents drilling into the table top.
- 4. Revolutions 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.

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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 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.

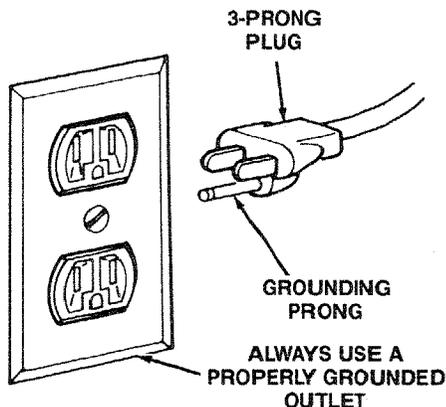
Plug power cord into a 120V properly grounded type outlet protected by a 15-amp. dual element time delay or Circuit breaker.

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 electricution 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. 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.

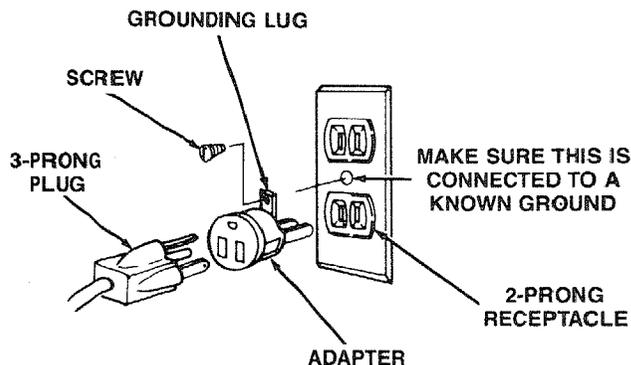
This plug requires a mating 3-conductor grounded type outlet as shown.

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.

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
51-100 Feet	12

unpacking and checking contents

WARNING: To avoid injury from unexpected starting or electrical shock, never connect plug to outlet until all assembly is complete and you read all instructions.

Model 113.213100 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.

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.

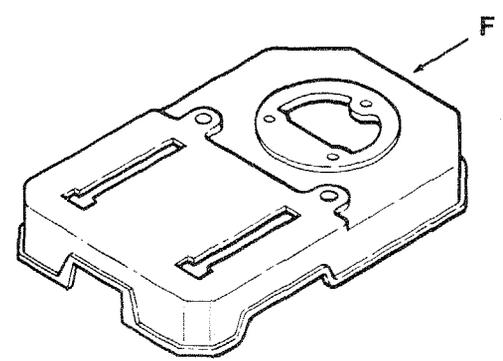
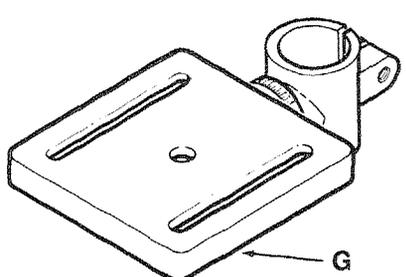
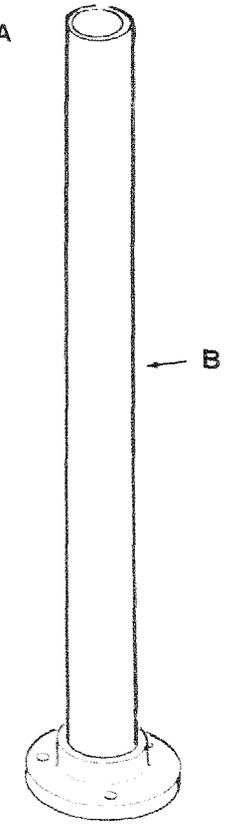
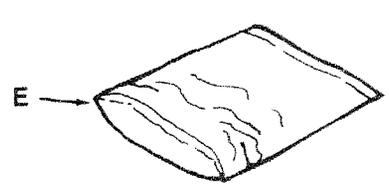
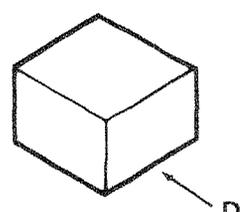
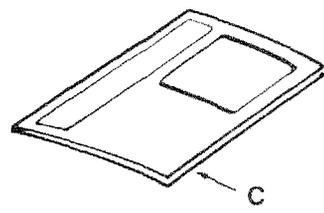
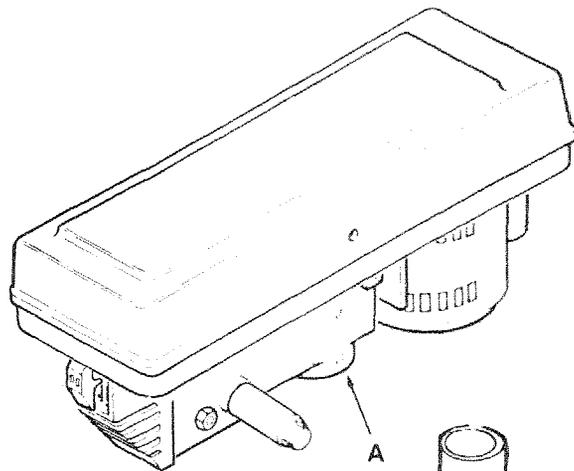
2. Remove the protective oil that is applied to the table and column. Use any ordinary household type grease and spot remover.

WARNING: To avoid fire or toxic reaction, never use gasoline, naphtha or similar highly volatile solvents.

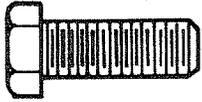
3. Apply a coat of paste wax to the table and column to prevent rust. Wipe all parts thoroughly with a clean dry cloth.

TABLE OF LOOSE PARTS

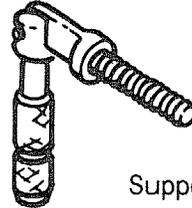
Item	Description	Qty.
A	Head Asm.	1
B	Column Support Asm.	1
C	Owner's Manual	1
D	Box of Loose Parts	1
E	Bag of Loose Parts	1
F	Base	1
G	Table/Support Asm.	1



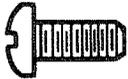
List of loose parts in the box and bags



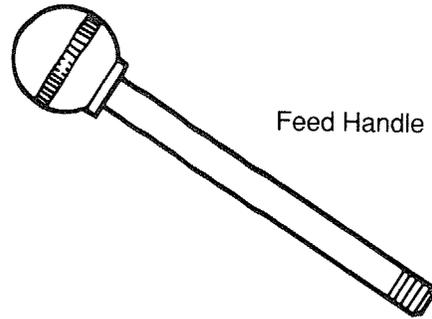
M8x1.25-20
Hex Head Screw (3)



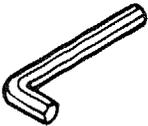
Support Lock Handle (1)



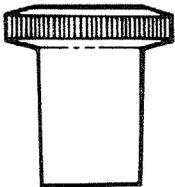
M5x0.8-12
Pan Head Screw (1)



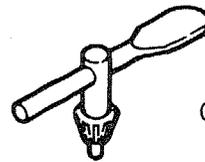
Feed Handle (3)



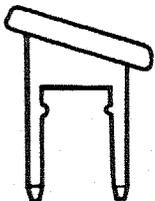
M4 Hex "L" Wrench (1)



Belt Guard Knob (1)



Chuck Key (1)



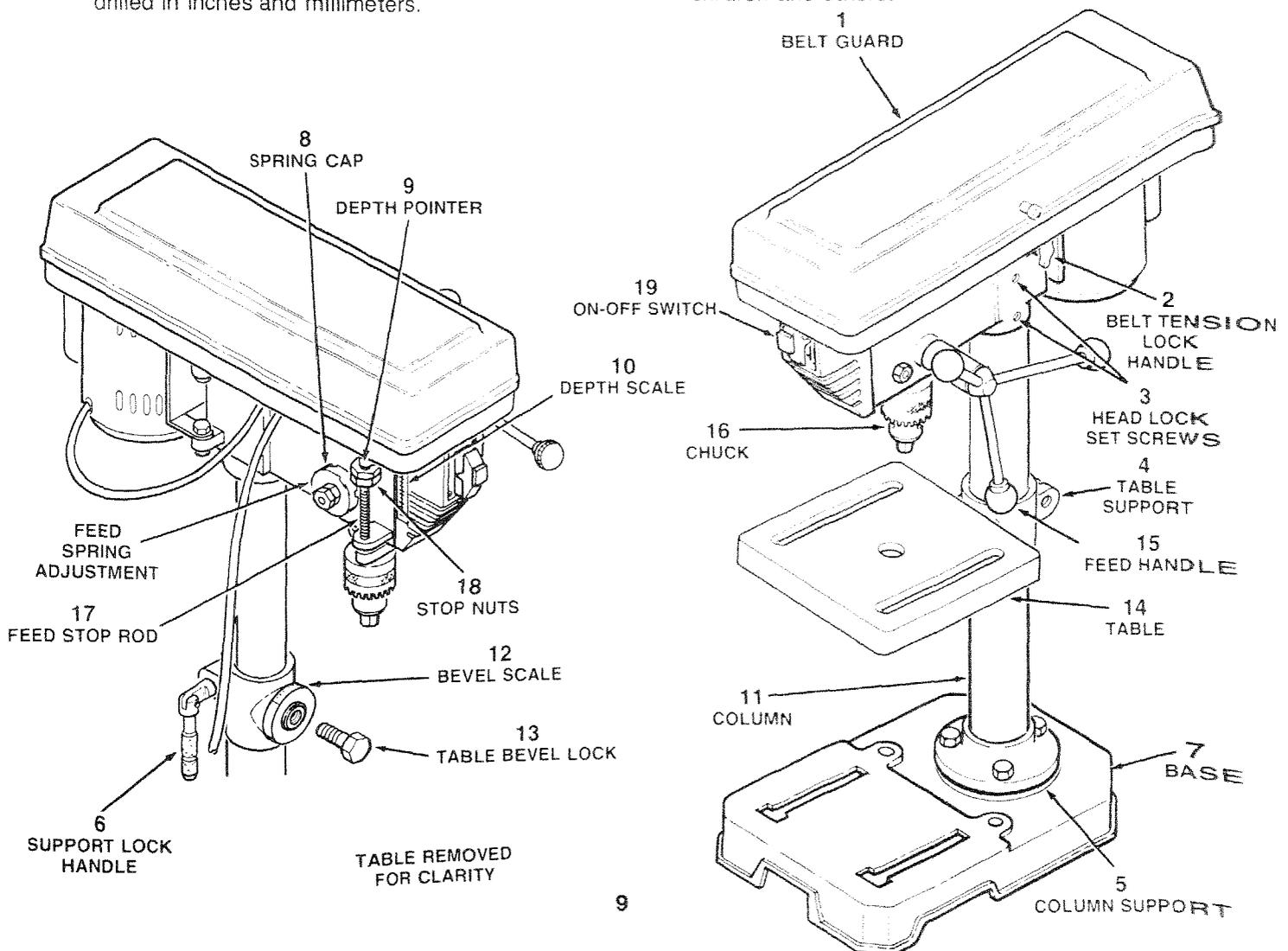
Key-Switch (1)



Chuck (1)

location and function of controls

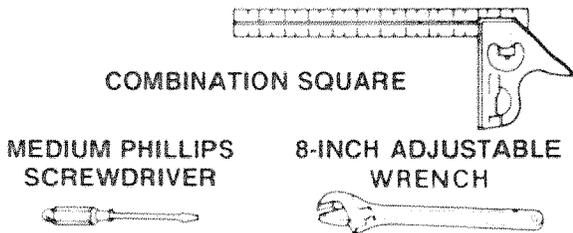
1. **BELT GUARD** . . . Covers pulleys and belt during operation of drill press.
2. **BELT TENSION LOCK HANDLE** . . . Tightening handles locks motor bracket support to maintain correct belt distance and tension.
3. **HEAD LOCK SET SCREWS** . . . Locks the head to the column. ALWAYS have them locked in place while operating the drill press.
4. **TABLE SUPPORT** . . . Rides on column to support table.
5. **COLUMN SUPPORT** . . . Supports column and provides mounting holes for column to base.
6. **SUPPORT LOCK HANDLE** . . . Tightening locks table support to column. Always have it locked in place while operating the Drill Press.
7. **BASE** . . . Supports Drill Press. For additional stability, holes are provided in base to bolt Drill Press to bench. (See "Additional Safety Instructions for Drill Presses").
8. **SPRING CAP** . . . Provides means to adjust quill spring tension.
9. **DEPTH POINTER** . . . Indicates drilling depth and is located above stop nuts.
10. **DEPTH SCALE** . . . Shows depth of hole being drilled in inches and millimeters.
11. **COLUMN** . . . Connects head, table, and base on a one-piece tube for easy alignment and movement.
12. **BEVEL SCALE** . . . Shows degree table is tilted for bevel operations. Scale is mounted on table support.
13. **TABLE BEVEL LOCK** . . . Locks the table in any position from 0°-45°.
14. **TABLE** . . . Provides working surface to support workpiece.
15. **FEED HANDLE** . . . Moves 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.
16. **CHUCK** . . . Holds drill bit or other recommended accessory to perform desired operations.
17. **FEED STOP ROD** . . . Holds stop nuts for drilling to specific depths.
18. **STOP NUTS** . . . Limits the downward movement of the quill at any desired point within its travel, and prevents the pointer from moving upward.
19. **ON-OFF SWITCH** . . . Has locking feature to prevent unauthorized and possible hazardous use by children and others.



assembly

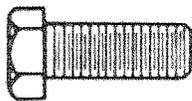
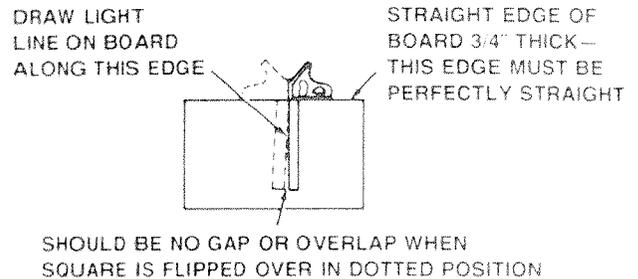
WARNING: To avoid injury from unexpected starting or electrical shock, never connect plug to outlet until all assembly steps are completed and you read all instructions.

TOOLS NEEDED



COMBINATION SQUARE MUST BE TRUE.

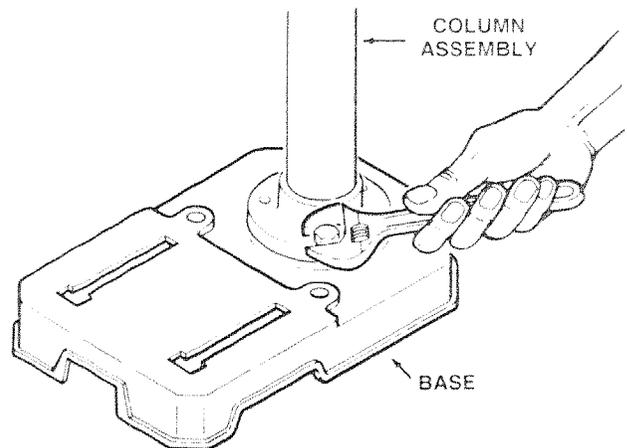
Check its accuracy as illustrated below.



8mm DIA. x 20mm LONG BOLT

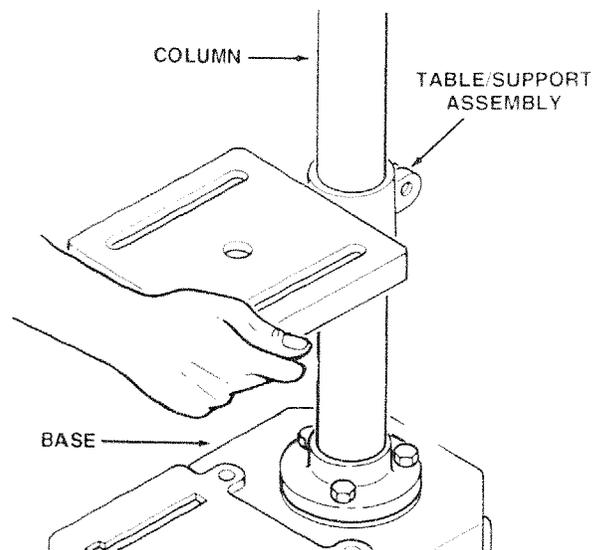
ASSEMBLY OF BASE/COLUMN

1. Position base on floor. Remove protective covering and discard.
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 three (3) 8mm Dia. x 20mm long bolts among loose parts bag.
4. Install a bolt in each hole through column support and base and tighten with adjustable wrench.

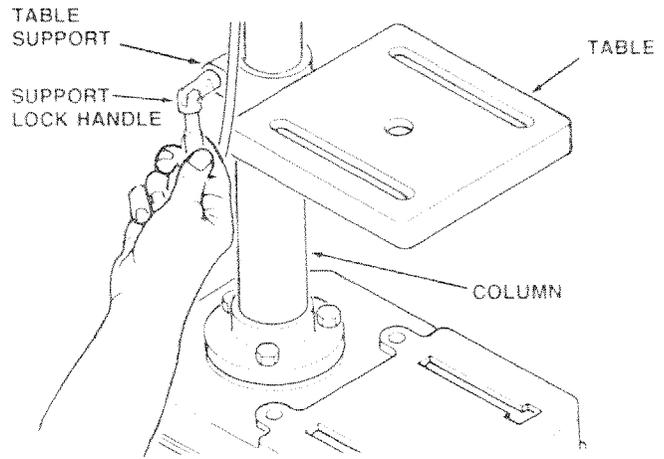


INSTALLATION OF TABLE/SUPPORT ASSEMBLY AND HARDWARE

1. Locate table/support assembly
2. Slide table/support assembly onto column. Position directly above base.



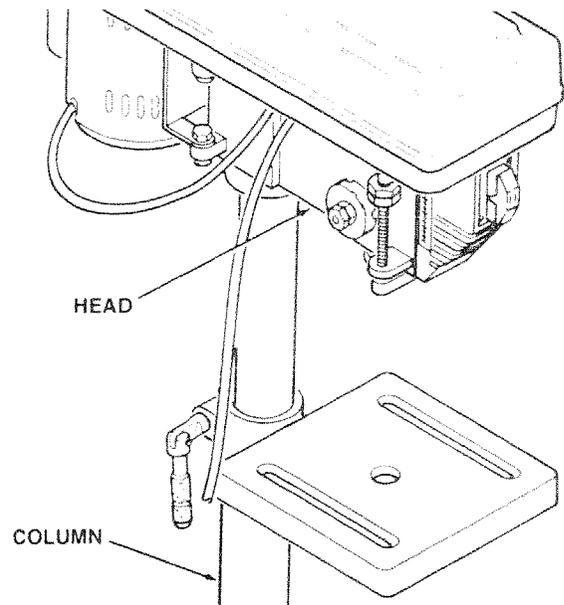
3. Locate support lock handle among loose parts.
4. Install support lock handle from left side into table support. Raise table to working height by sliding it on the column and then tighten lock handle by hand.



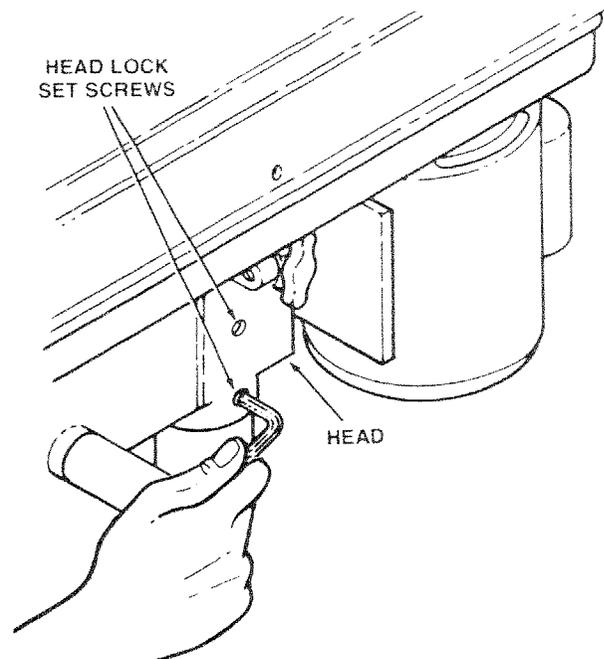
INSTALLING THE HEAD

CAUTION: The head assembly weighs about 25 pounds. Carefully lift head.

1. Remove protective covering from head.
2. Carefully lift head above column tube and slide it down on the column as far as it will go. Align head with table and base.

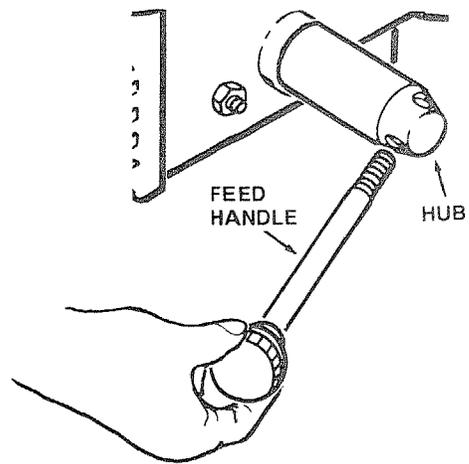


3. Using a 4mm Hex "L" wrench tighten the head lock set screws on the right side of the head.



INSTALLING FEED HANDLES

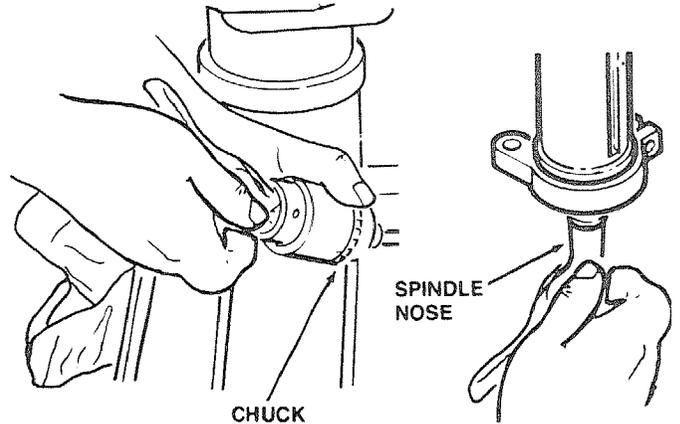
1. Locate three (3) feed handles among loose parts.
2. Screw the feed handles tightly into the threaded holes in the hub.



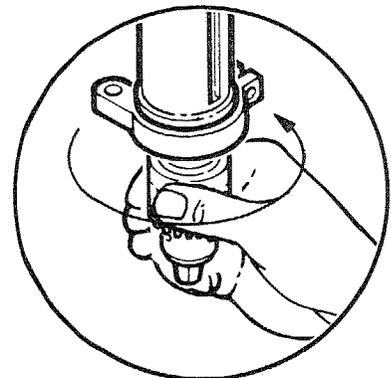
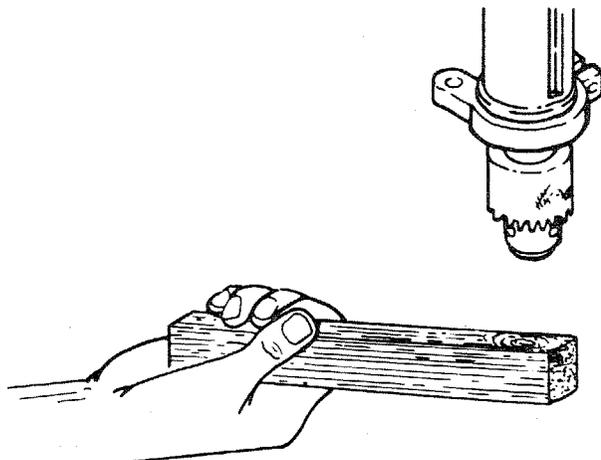
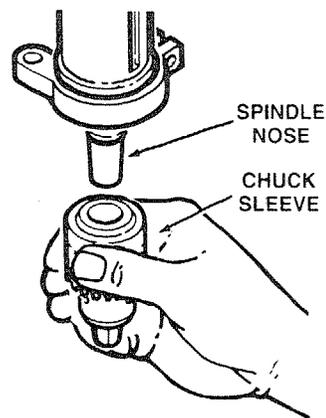
INSTALLING THE CHUCK

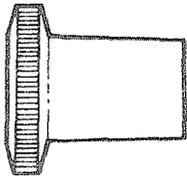
1. Locate the chuck among loose parts.
2. Clean out the TAPERED HOLE in the chuck; clean the spindle nose with a clean cloth. Make sure there are no foreign particles sticking to the surfaces. The slightest piece of dirt on the spindle nose or in the chuck will prevent the chuck from seating properly. This will cause the drill to "wobble."

NOTE: If TAPERED HOLE in the chuck is extremely dirty, use a cleaning solvent on the clean cloth.

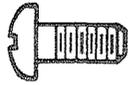


3. Push the chuck up on the spindle nose as far as it will go.
4. Turn chuck sleeve clockwise and open jaws in chuck completely.
5. Lightly tap the nose of the chuck with a piece of wood to insure proper seating of the chuck on the spindle.





BELT GUARD KNOB



5mm DIA. x 12mm LONG
CROSS RECESS SCREW

INSTALLING BELT GUARD KNOB

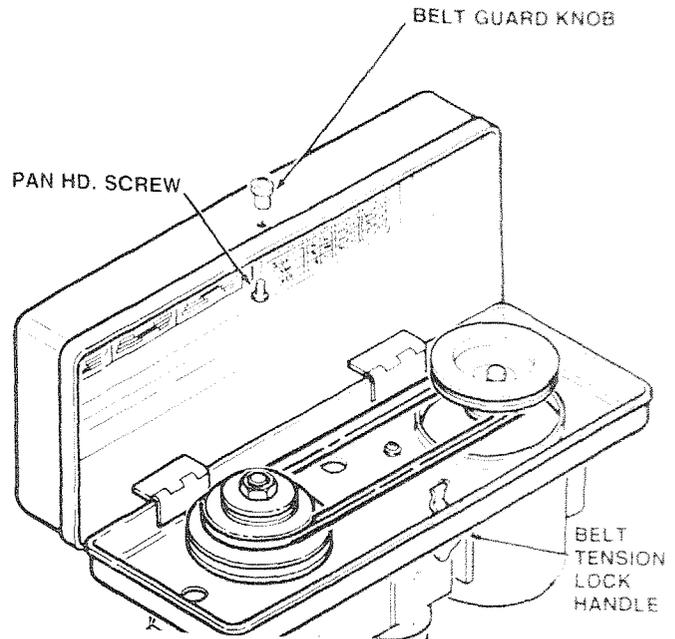
1. To attach belt guard knob, use knob and 5mm Dia. x 12mm long pan hd. screw in loose parts bag. Install screw in hole located in guard and attach knob, turning until tight.

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

TENSIONING BELT

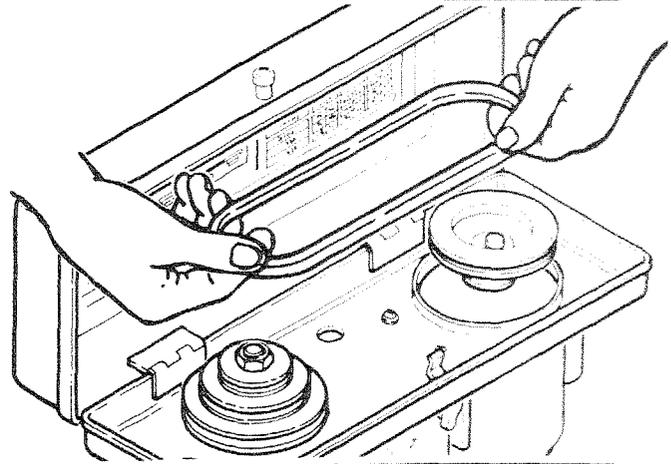
NOTE: The Drill Press is shipped with the belt installed, but it should be properly tensioned before use.

1. Lift guard from right side and leave opened on hinge.
2. Release Belt Tension Lock Handle located on right side of Drill Press head. Pull right side of motor toward front of drill press to relieve spring tension on belt. Tighten the belt tension lock handle.



3. Choose speed for drilling operation, and move belt to correct position for desired speed.

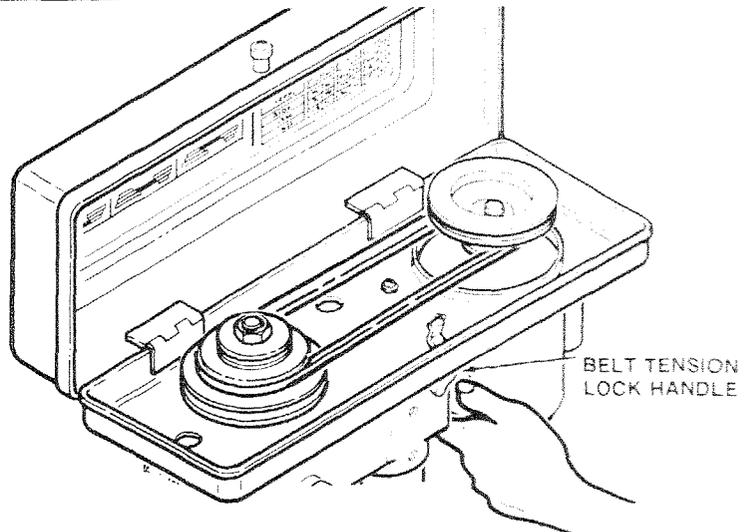
NOTE: Refer to chart inside belt guard for Recommended Drilling Speeds.



4. Loosen belt tension lock handle and move right side of motor rearward to apply tension to the belt.
5. Tighten Belt Tension Lock Handle.

NOTE: Belt SHOULD deflect approximately 1/2" by thumb pressure at mid-point of belt between pulleys.

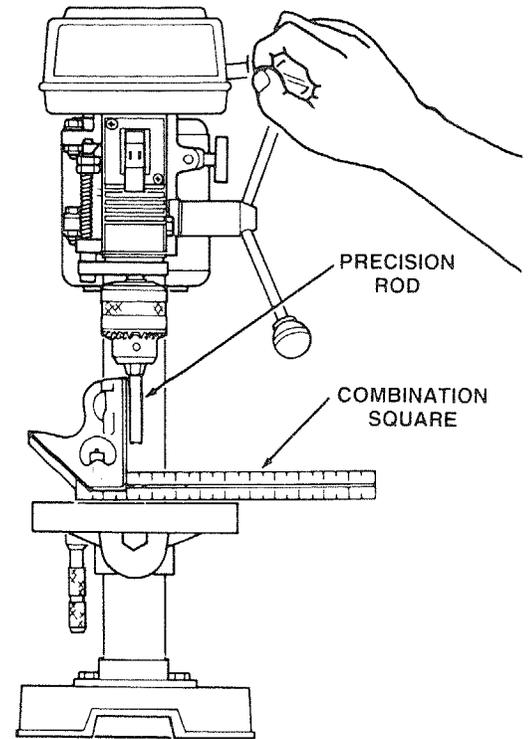
6. Close belt guard.
7. If belt slips while drilling, readjust belt tension.



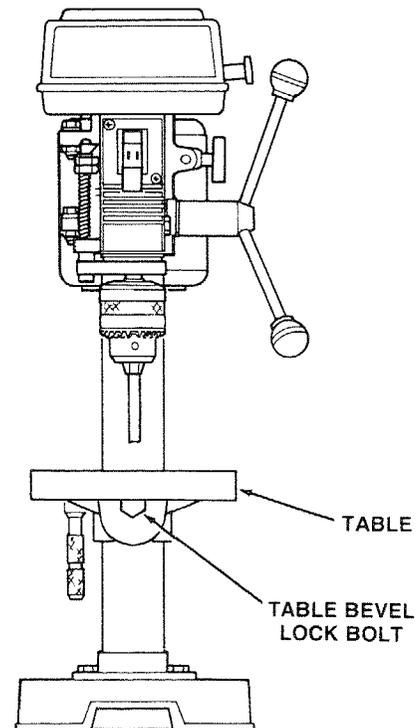
ADJUSTING THE TABLE SQUARE TO HEAD

NOTE: The combination square must be “true.” See the beginning of the “Assembly” section for a method to check four square.

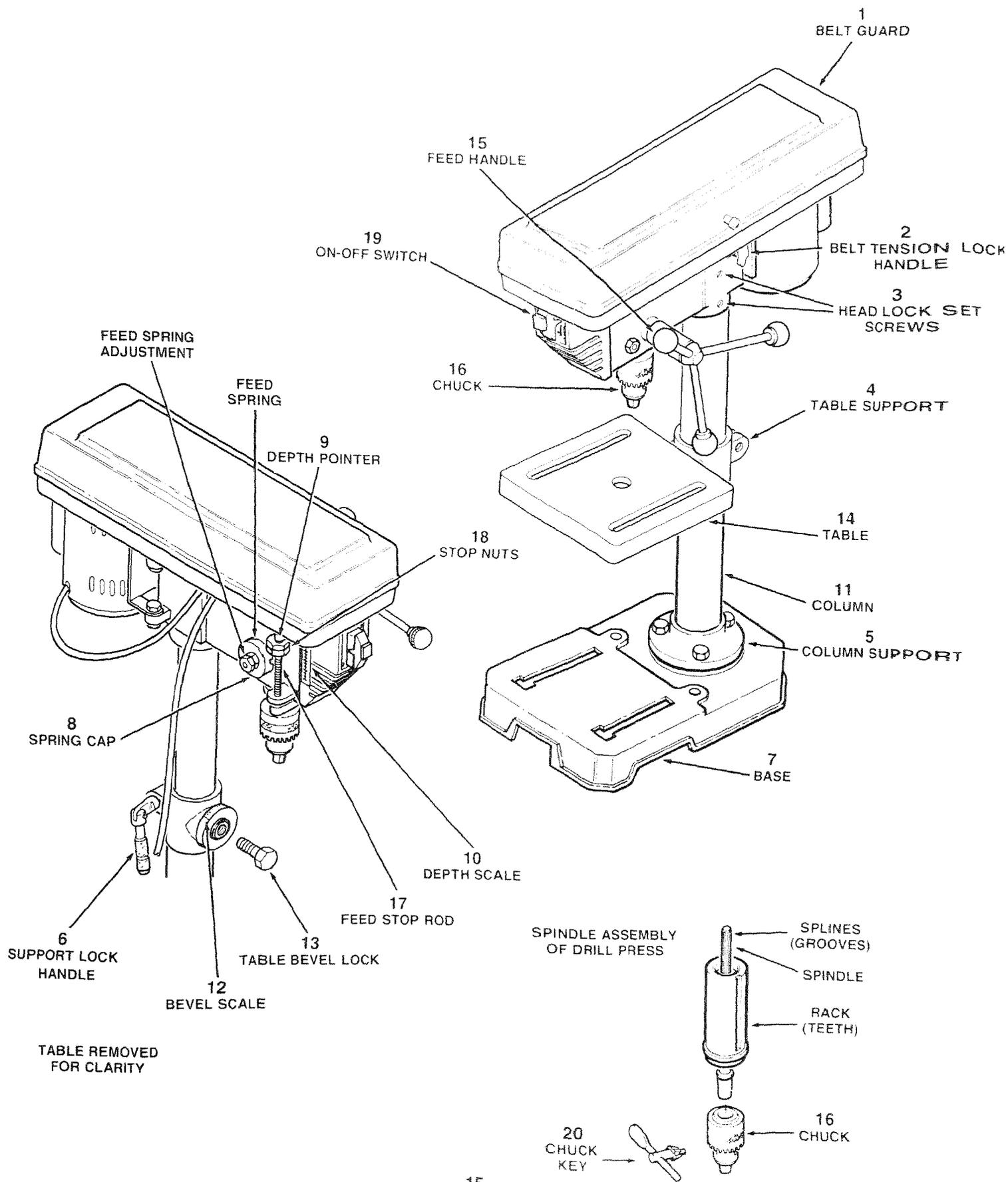
1. Insert precision round steel rod or straight drill bit approximately 3" long into chuck and tighten.
2. With table raised to working height and locked on column, place combination square flat on table beside rod.



3. If an adjustment is necessary, loosen the table bevel lock bolt with adjustable wrench. (This adjustment is located under the table).
4. Align the table square to the rod by tilting table.
5. Retighten table bevel lock bolt.



getting to know your drill press

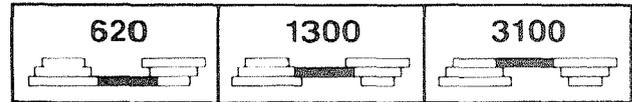


This Drill Press has 3 speeds as listed below:

620 RPM
1300 RPM
3100 RPM

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

SPINDLE SPEEDS IN R.P.M.



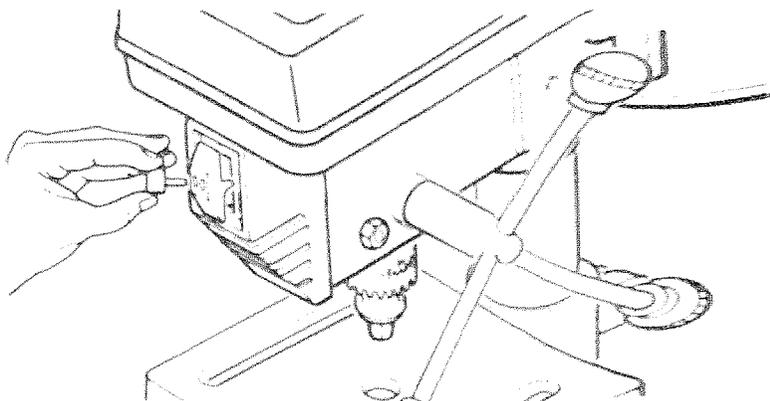
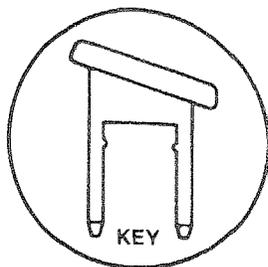
Feature Descriptions

1. **BELT GUARD** . . . Covers pulleys and belt during operation of drill press.
 2. **BELT TENSION LOCK HANDLE** . . . Tightening handle locks motor bracket support to maintain correct belt distance and tension.
 3. **HEAD LOCK SET SCREWS** . . . Locks the head to the column. ALWAYS have them locked in place while operating the drill press.
 4. **TABLE SUPPORT** . . . Rides on column to support table.
 5. **COLUMN SUPPORT** . . . Supports column and provides mounting holes for column to base.
 6. **SUPPORT LOCK HANDLE** . . . Tightening locks table support to column. Always have it locked in place while operating the Drill Press.
 7. **BASE** . . . Supports Drill Press. For additional stability, holes are provided in base to bolt Drill Press to bench (See "Additional Safety Instructions for Drill Presses.")
 8. **SPRING CAP** . . . Provides means to adjust quill spring tension.
 9. **DEPTH POINTER** . . . Indicates drilling depth.
 10. **DEPTH SCALE** . . . Shows depth of hole being drilled in inches and millimeters.
 11. **COLUMN** . . . Connects head, table, and base on a one-piece tube for easy alignment and movement.
 12. **BEVEL SCALE** . . . Shows degree table is tilted for bevel operations. Scale is mounted on table support, if it is to be used for quick reference where accuracy is not critical.
 13. **TABLE BEVEL LOCK** . . . Locks the table in any position from 0°–45°.
 14. **TABLE** . . . Provides working surface to support workpiece.
 15. **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.
 16. **CHUCK** . . . Holds drill bit or other recommended accessory to perform desired operations.
 17. **FEED STOP ROD** . . . Holds stop nuts for drilling to specific depths.
 18. **STOP NUTS** . . . Limits the downward movement of the quill at any desired point within its travel.
 19. **ON-OFF SWITCH** . . . Has locking feature. THIS FEATURE IS INTENDED TO PREVENT UNAUTHORIZED AND POSSIBLE HAZARDOUS USE BY CHILDREN AND OTHERS.
 20. **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.
 21. **BELT TENSION** . . . Refer to section "Tensioning Belt" (Page 13).
 22. **DRILLING SPEED** . . . Can be changed by placing the belt in any of the STEPS (grooves) in the pulleys. See Spindle Speed chart inside belt guard.
- To determine the approximate drilling speed, refer to the table inside the belt guard.

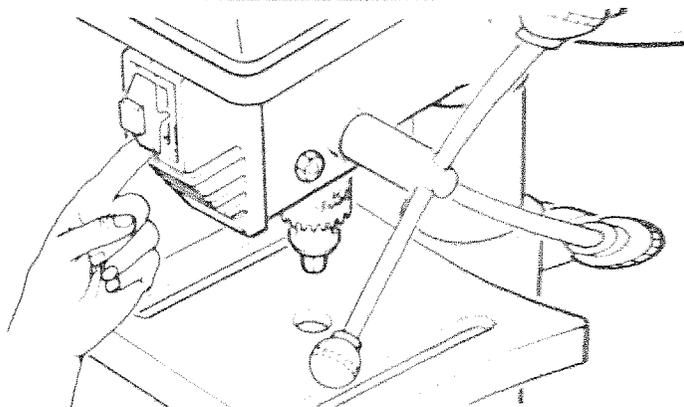
ON-OFF SWITCH

Insert KEY into switch.

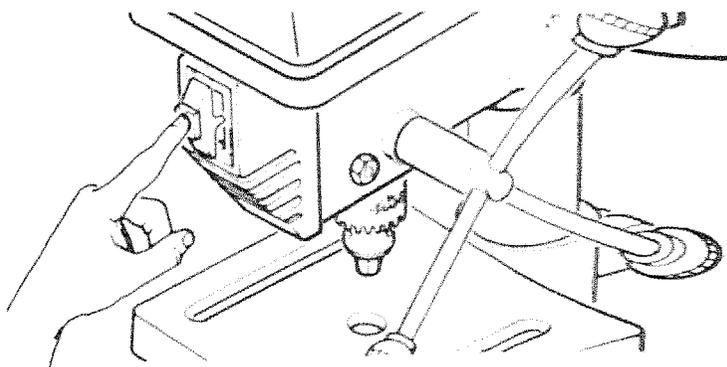
NOTE: Key is made of yellow plastic.



To turn drill ON . . .
Insert finger under switch lever and pull.

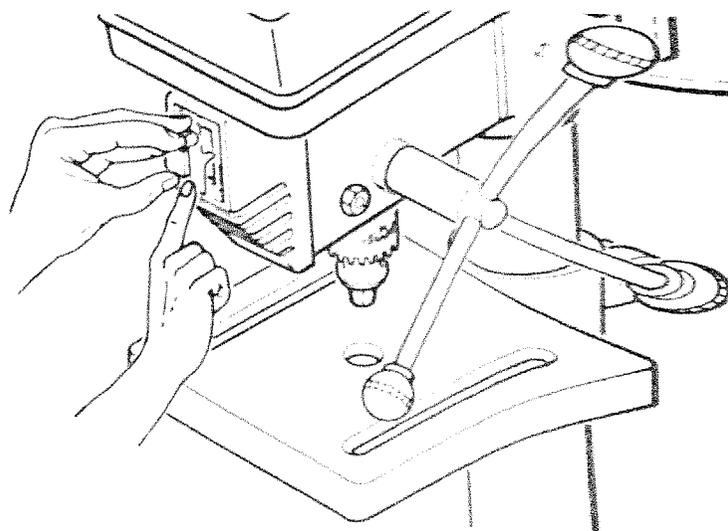


To turn drill OFF . . . Push lever in.
In an emergency: If the drill bit BINDS... STALLS... STOPS...or tends to tear the workpiece loose...you can QUICKLY turn the drill OFF by hitting the switch with the palm of your hand.



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

WARNING: For your own safety, always lock 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.



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 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 **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.

- 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 panel inside the guard cover for drilling information; for accessories, refer to the instructions provided with the accessories.

- f. Never climb on the drill press Table, it could break or pull the entire drill press down on you.
- g. Turn the motor Switch Off and remove the Switch Key when leaving the drill press.
- h. 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.

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.

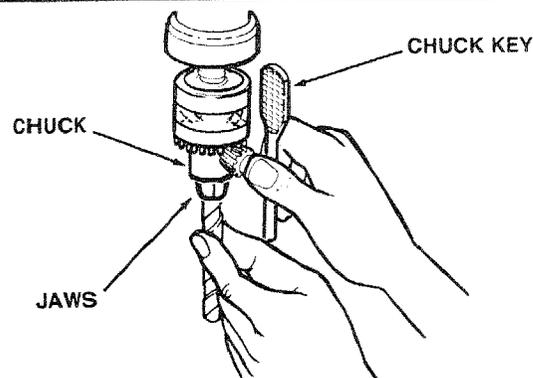
INSTALLING DRILLS

Insert drill into chuck far enough to obtain maximum **GRIPPING** of the **CHUCK JAWS** . . . the jaws are approx. 1" long. When using a small drill do not insert it so far that the jaws touch the flutes (spiral grooves) of the drill.

Make sure that the drill is **CENTERED** in the chuck before tightening the chuck with the key.

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

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

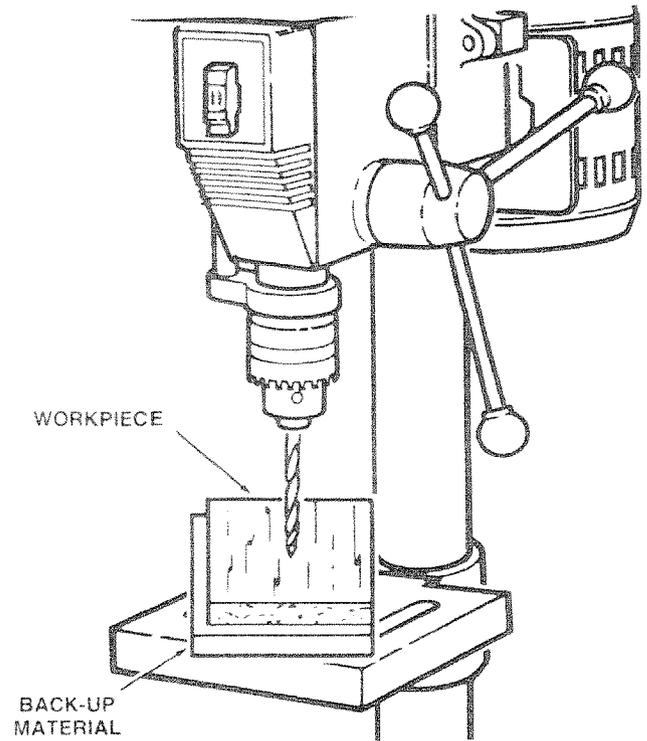


POSITIONING TABLE AND WORKPIECE

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.

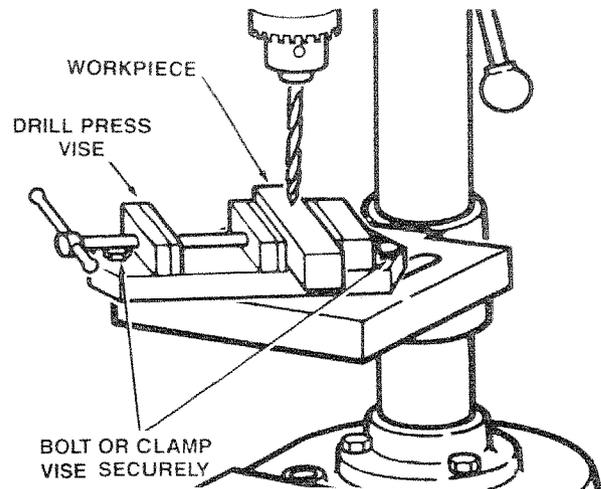
Always place a piece of BACK-UP MATERIAL (wood, plywood . . .) on the table underneath the workpiece. This will prevent "splintering" or making a heavy burr on the underside on the workpiece as the drill breaks through. To keep the backup material from spinning out of control, it must contact the left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

WARNING: To prevent 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 or 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).

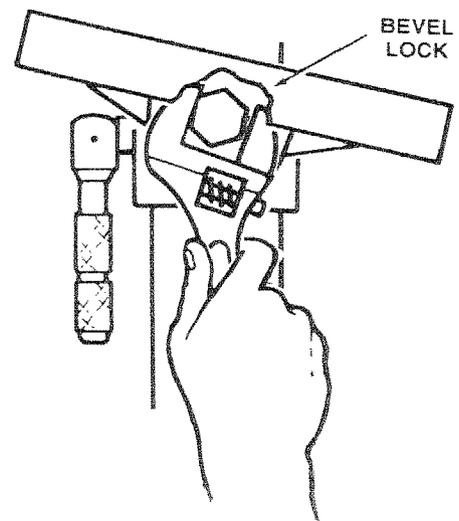
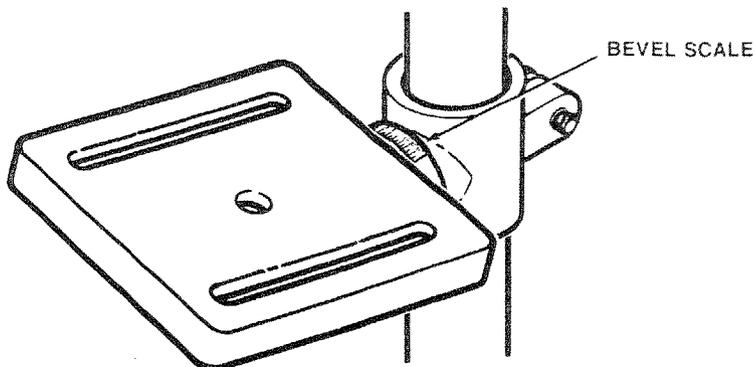
WARNING: The vise must be clamped or bolted to the table to avoid injury from spinning work and vise or tool breakage.



TILTING TABLE

To use the table in a bevel (tilted) position, loosen the bevel lock with adjustable wrench.

Tilt table to desired angle by reading bevel scale. Retighten 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.

To return table to original position: loosen the bevel lock, tilt table back to 0° on bevel scale, and retighten bevel lock.

HOLE LOCATION

Make an indentation 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.

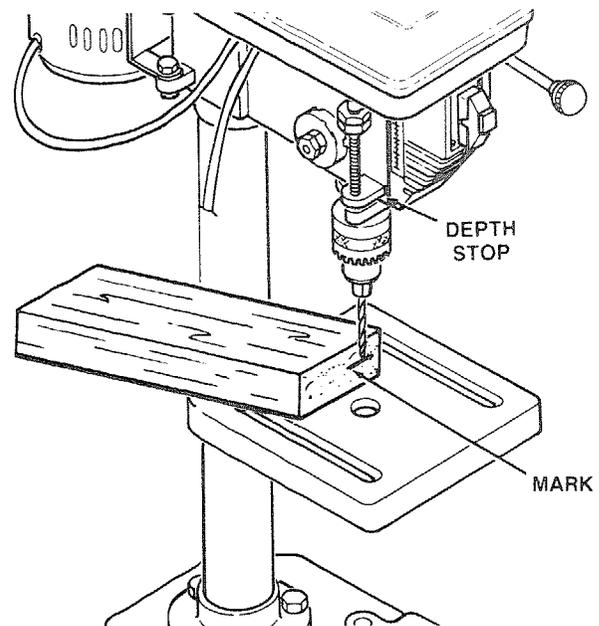
Feeding TOO SLOWLY might cause the drill to burn . . . Feeding TOO RAPIDLY might stop the motor . . . cause the belt or drill to SLIP . . . tear the workpiece LOOSE or BREAK the drill bit.

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.

DRILLING TO DEPTH

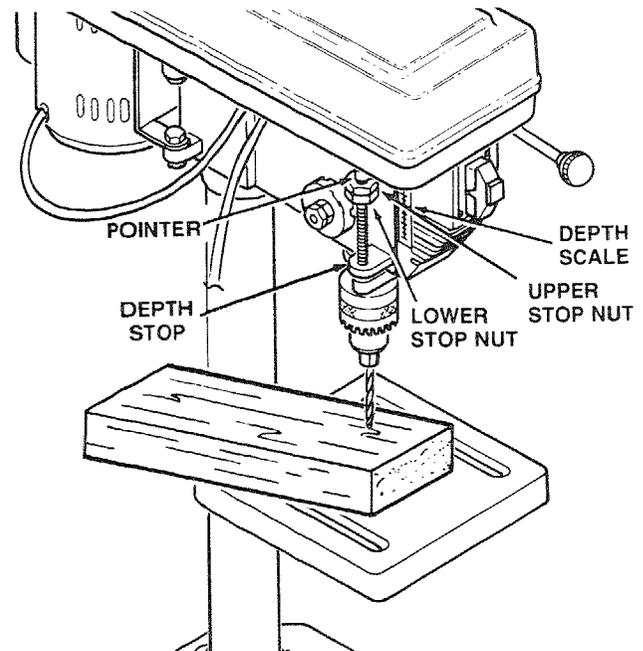
To drill a BLIND hole (not all the way through) to a given depth, can be done two ways.

1. Mark the depth of the hole on the side of the workpiece.
2. With the switch OFF bring the drill bit down until the TIP or lips are even with the Mark.
3. Spin the lower nut down to contact the depth stop lug on the Head.
4. Spin the upper nut down and tighten against the lower nut.



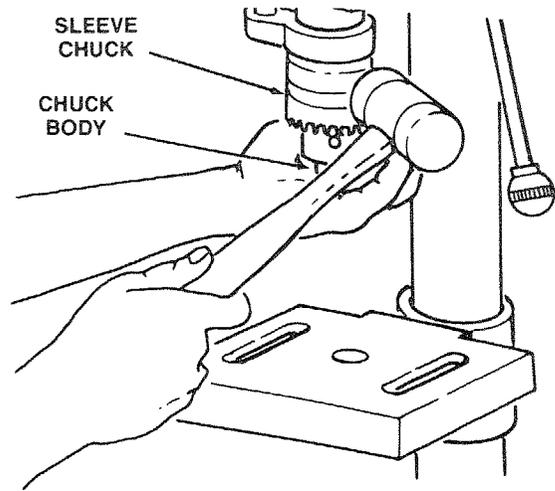
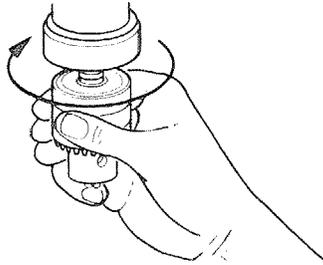
ANOTHER WAY — DEPTH SCALE

1. Turn the switch off.
2. Place workpiece on table. Raise table until tip of drill touches top of workpiece. Remove workpiece from table.
3. Turn the feedhandle until the pointer points to the desired depth on the depth scale.
4. Hold the feed handle at this position.
5. Spin the lower stop nut down until it touches the depth stop.
6. Spin the upper stop nut down against the lower stop nut and tighten.
7. The chuck or drill will now be stopped after traveling downward the distance selected on the depth scale.



REMOVING THE CHUCK

1. Open jaws of chuck as wide as they will go by turning chuck sleeve.
2. Carefully tap chuck with mallet in one hand while holding chuck in other hand to prevent dropping it when released from spindle nose.

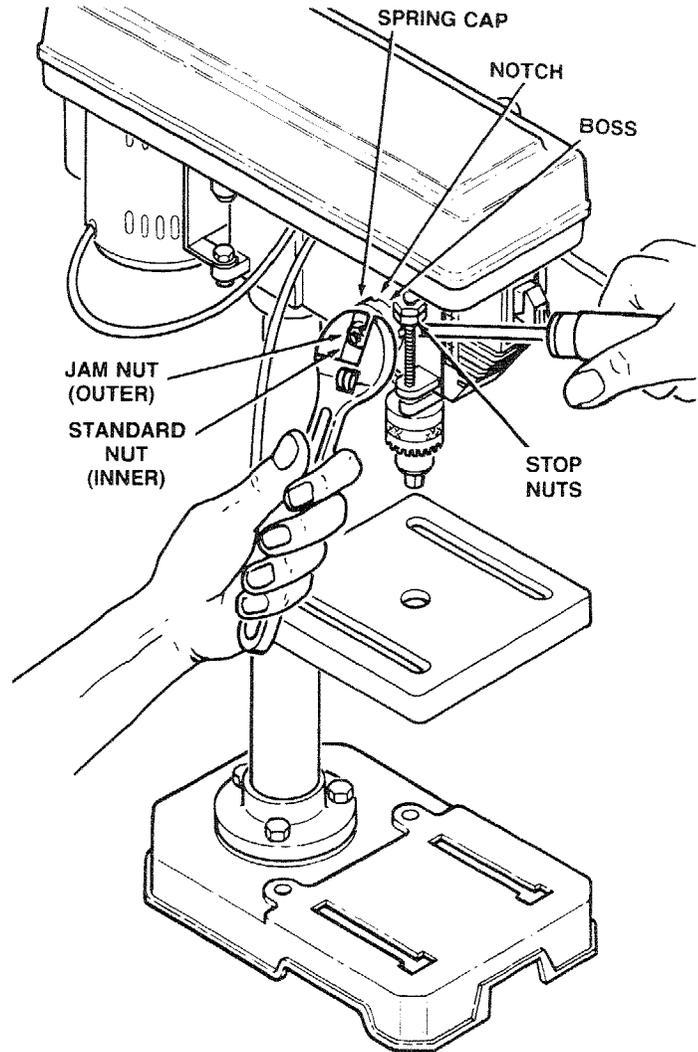


adjustments

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. Move the stop nuts down to their lowest position and lock in place with wrench to prevent quill dropping while tensioning 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 jam [outer] nut only.
5. With screwdriver remaining in notch, loosen large standard [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 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 jam nut and tighten to standard nut, **BUT** do not overtighten against standard nut.



12. Check quill while feeding to have smooth and unrestricted movement. If movement is too tight, loosen jam nut and **SLIGHTLY** loosen standard nut until unrestricted. Retighten jam nut.

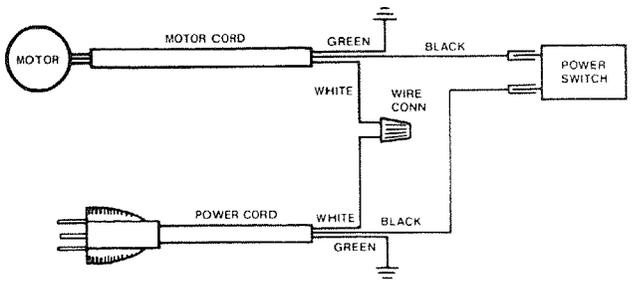
maintenance

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.

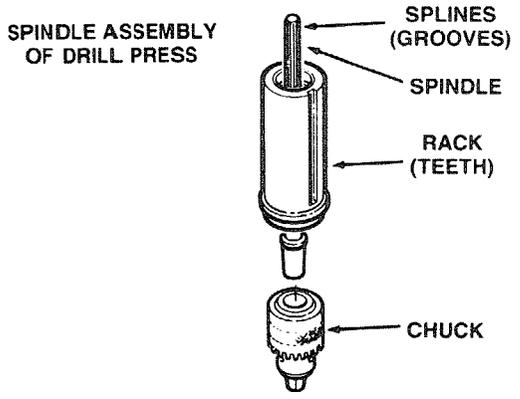


Wiring Diagram

Lubrication

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

Periodically lubricate the SPLINES (grooves) in the spindle, and the RACK (teeth of the quill).



Sears Recommends the Following Accessories

- Drill Bits See Catalog
- Drill Press Vises See Catalog
- 5 pc. Stop Collar Set See Catalog
- Sanding Drums 9-2497 — 9-2498
- 15 Piece Drum Sanding Kit See Catalog

- Buffing Wheels up to 4" dia. max. See Catalog
- Power Tool Know-How Handbook 9-29117

Sears may recommend other accessories not listed in the manual.

See your nearest Sears store for other accessories.

Do not use any accessory unless you have received and read complete instructions for its use.

trouble shooting

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

● CONSULT YOUR LOCAL SEARS SERVICE CENTER IF FOR ANY REASON MOTOR WILL NOT RUN.

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

repair parts

PARTS LIST FOR CRAFTSMAN 8" DRILL PRESS
MODEL NO. 113.213100

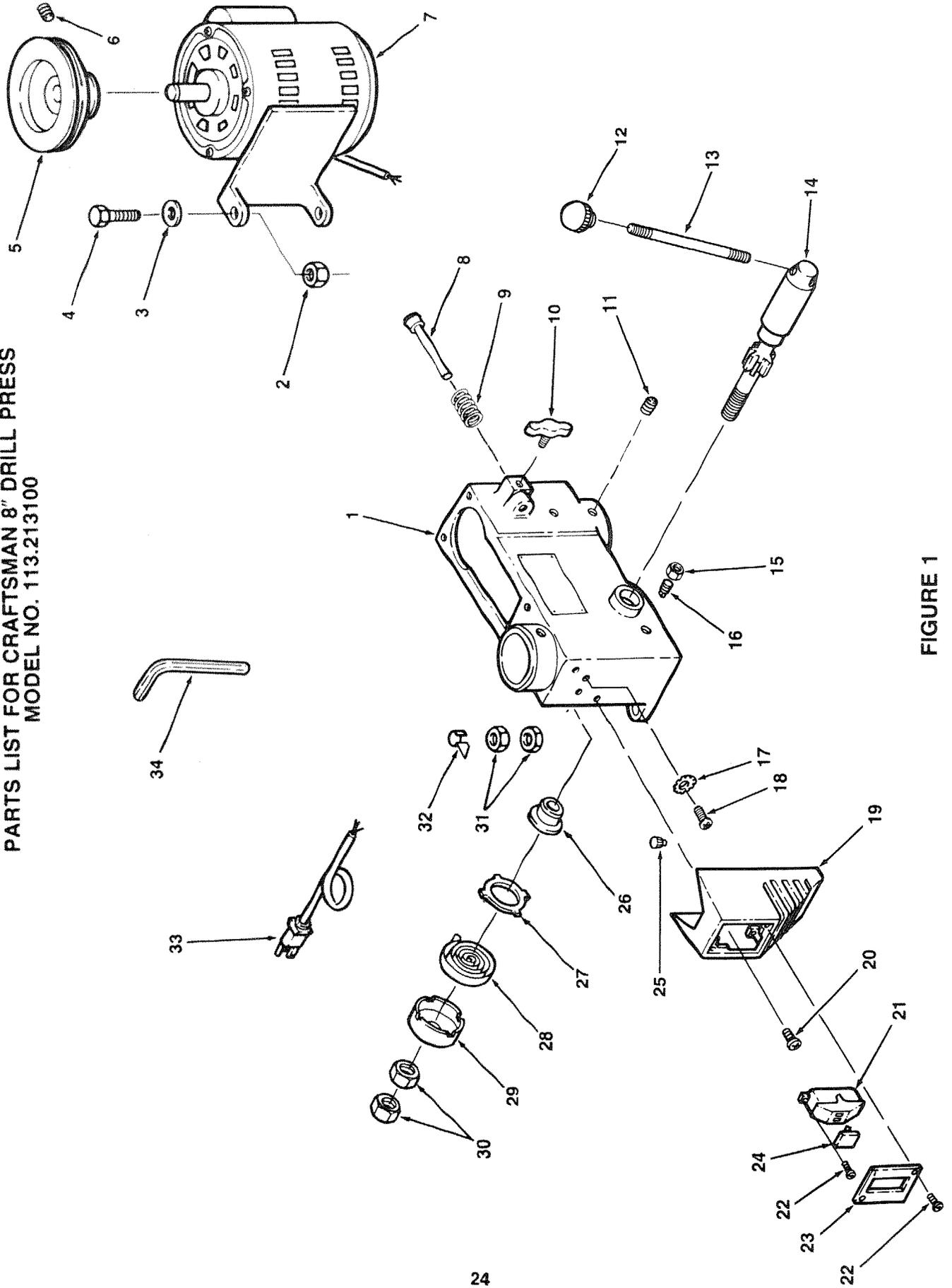


FIGURE 1

repair parts

PARTS LIST FOR CRAFTSMAN 8" DRILL PRESS MODEL NO. 113.213100

Always order by Part Number — Not by Key Number

FIGURE 1

Key No.	Part No.	Description	Key No.	Part No.	Description
1	817771	Head w/Roll Pin & Trim	19	817770	Box-Switch w/Depth Scale
2	817449	Nut-Lock M8 x 1.25-8	20	816755-3	Screw-Pan Cr. M5 x 0.8-12
3	STD551031	*Washer-5/16 x 11/16 x 1/16	21	816113	Switch-Locking
4	STD835025	*Screw-Hex M8 x 1.25-25	22	817357	Screw-Self Tapping Pan Hd. M4 x 16-8
5	817427	Pulley-Motor	23	817422	Cover-Switch Plate
6	817391-1	Screw-Hex Soc. Set M6 x 1.0-10	24	9-22256	+Key-Switch
7	817420	●Motor	25	STD375008	*Connector-Wire
8	817445	Stop-Motor	26	817406	Seat-Spring
9	817444	Spring-Motor Stop	27	817443	Retainer-Spring
10	817421	Knob-Motor Adjusting	28	817415	Spring-Tension
11	817391-2	Screw-Hex Soc. Set M8 x 1.25-8	29	817416	Cap-Spring
12	817439	Knob	30	STD541137	*Nut-Hex 3/8-24
13	817438	Rod	31	STD841015	*Nut Hex M10 x 1.5
14	817409	Shaft-Pinion	32	817419	Pointer
15	STD840812	*Nut-Hex M8 x 1.25	33	817329-1	Cord-Power
16	817442	Screw-Fit. Slit. Set M8 x 1.25	34	813317-7	Wrench Hex "L" 4mm
17	STD852005	*Lockwasher-Ext. 5mm	—	SP5493	Owners Manual (Not Illustrated)
18	816755-4	Screw-Pan Hd. M5 x 0.8-8			

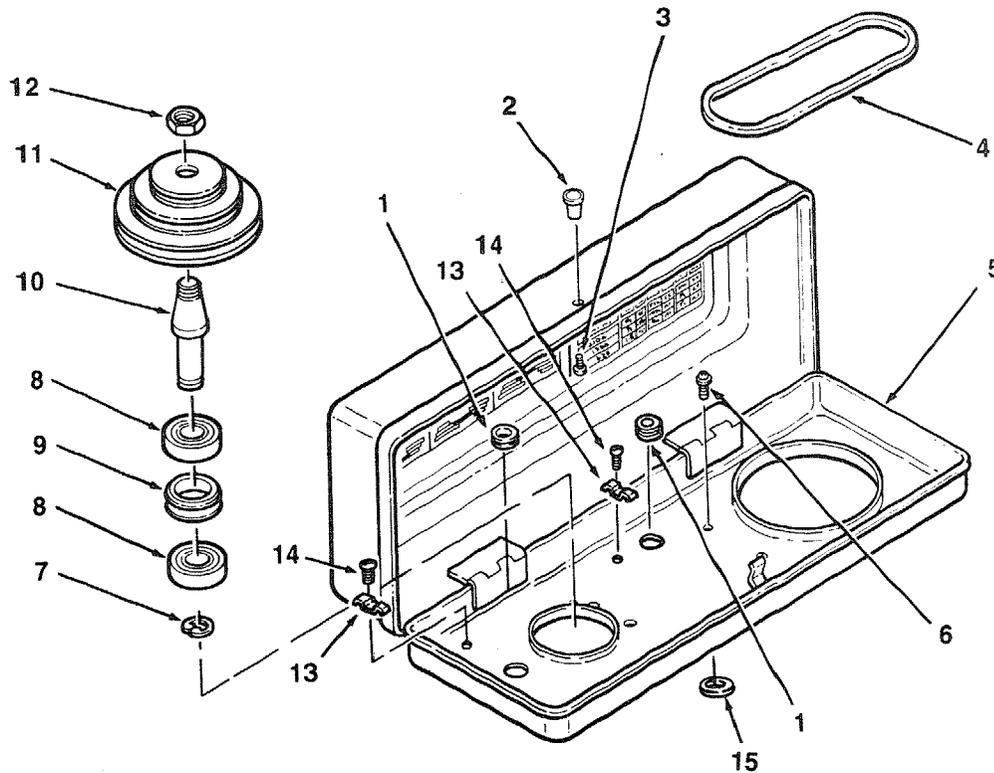
* Standard Hardware Item — May Be Purchased Locally.

● 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.

+ Stock Item — May Be Secured Through The Hardware Department Of Most Sears Retail Or Catalog Order Houses.

repair parts

PARTS LIST FOR CRAFTSMAN 8" DRILL PRESS MODEL NO. 113.213100



Always order by Part Number—Not by Key Number

FIGURE 2

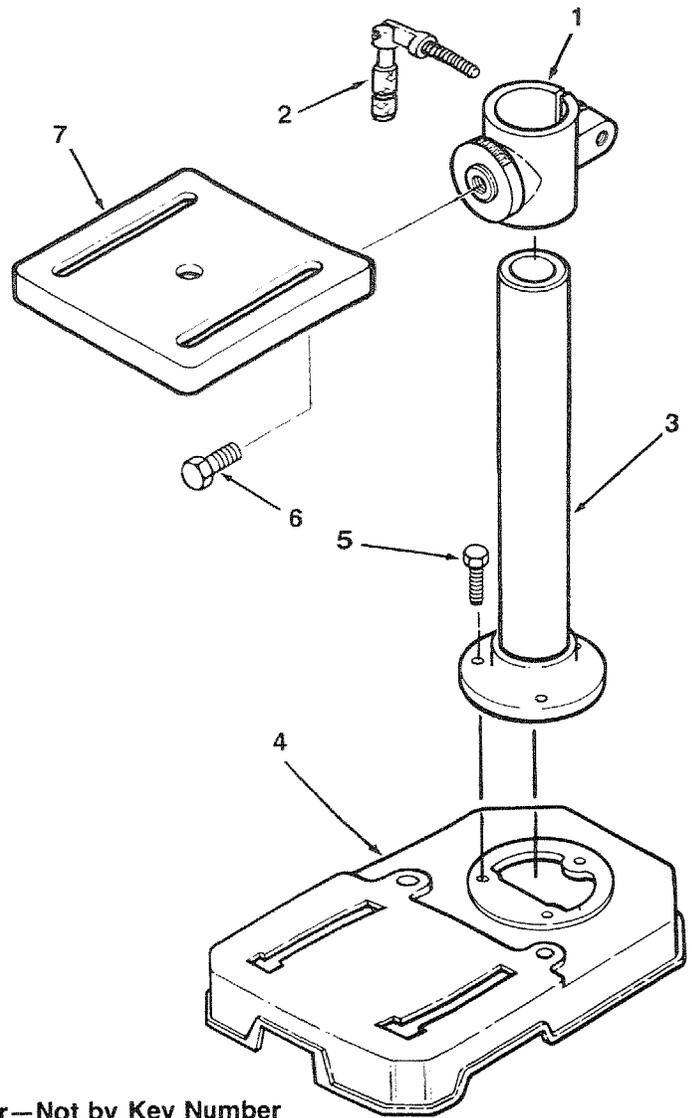
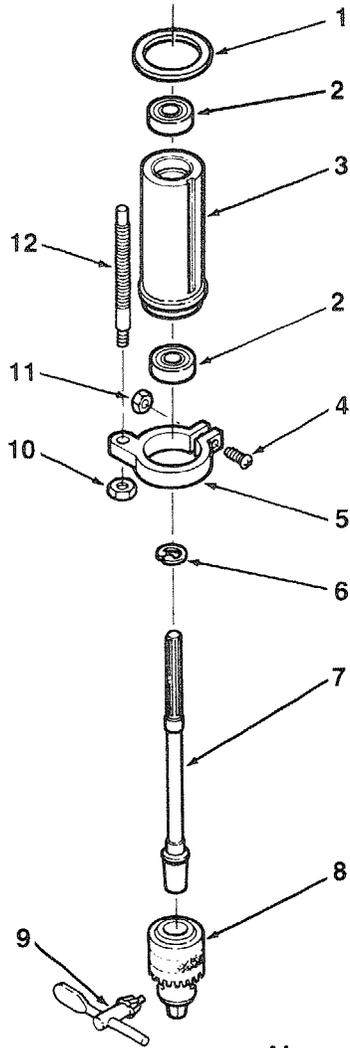
Key No.	Part No.	Description
1	817451-1	Bushing-Rubber
2	817325	Knob
3	816755-4	Screw-Pan Hd. M5 x 0.8-12
4	817428	Belt-"V" 5/16 x 26
5	817779	Guard w/Labels
6	817358	Screw-Washer Hd. M6 x 1.0-16
7	817453-1	Ring Retaining

Key No.	Part No.	Description
8	STD315235	*Bearing-Ball 17mm
9	817408	Spacer
10	817407	Insert-Pulley
11	817426	Pulley-Spindle
12	817440	Nut-Pulley
13	63418	Clamp Cord
14	816755-6	Screw Pan Hd. M5 x 0.8-16
15	820294	Washer, Foam

* Standard Hardware Item — May Be Purchased Locally.

repair parts

PARTS LIST FOR CRAFTSMAN 8" DRILL PRESS MODEL NO. 113.213100



Always order by Part Number—Not by Key Number

FIGURE 3 QUILL ASSEMBLY

FIGURE 4

Key No.	Part No.	Description
1	817413	Gasket-Quill
2	STD315215	*Bearing-Ball 12mm
3	817411	Tube-Quill
4	816755	Screw-Pan M5 x 0.8-20
5	817414	Collar-Stop
6	817453	Ring-Retaining
7	817410	Shaft-Spindle
8	817340-1	Chuck
9	817339-1	Key-Chuck
10	STD840610	*Nut-Hex M6 x 1.0
11	STD840508	*Nut-Hex M5 x 0.8
12	817418	Rod-Stop

Key No.	Part No.	Description
1	817773	Support-Table w/Scale
2	817290	Support-Lock Handle
3	817432	Tube/Support
4	817431	Base
5	STD835020	*Screw-Hex Hd. M8 x 1.25-20
6	817447	Screw-Hex Hd. 1/2-12 x 7/8
7	817437	Table

* Standard Hardware Item — May Be Purchased Locally.

SEARS

owner's manual

MODEL NO. 113.213100

DRILL PRESS WITH
MAXIMUM DEVELOPED
1/3 HP MOTOR

The model number of your Drill Press will be found on a plate attached to the left side of the head.

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

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

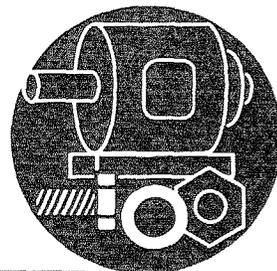
MOTORIZED 8-INCH BENCH MODEL DRILL PRESS

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

America's Repair Specialists

SEARS, ROEBUCK AND CO., Hoffman Estates, IL 60179 U.S.A.