

SAVE THIS MANUAL
FOR FUTURE REFERENCE

SEARS

*owners
manual*

**MODEL NO.
113.213843**

**DRILL PRESS WITH
1/3 HP MOTOR**

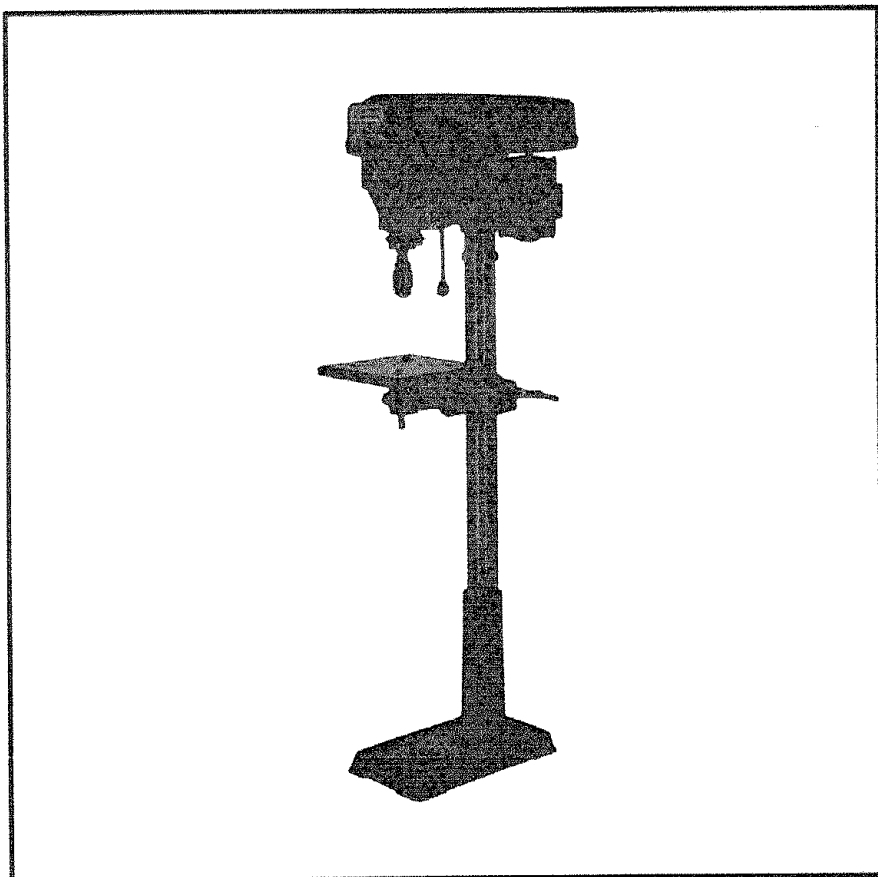
Serial
Number _____

Model and serial number
may be found at the rear of
the head.

You should record both
model and serial number in
a safe place for future use.

CAUTION:

Read **GENERAL**
and **ADDITIONAL**
SAFETY
INSTRUCTIONS
carefully



CRAFTSMAN®

**MOTORIZED
13 INCH
FLOOR MODEL DRILL PRESS**

- *assembly*
- *operating*
- *repair parts*

Sold by SEARS, ROEBUCK AND CO., Chicago, IL. 60684 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 IN USE 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., Dept. 698/731A, Sears Tower, Chicago, IL 60684

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 KID-PROOF**
—with padlocks, master switches, or by removing starter keys.
- 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 tool 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 only have impact resistant lenses, they are NOT safety glasses. 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's safer than using your hand, 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**
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 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 of 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

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:

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1. General Safety Instructions for Power Tools	2
2. Getting to Know Your Drill Press	12
3. Basic Drill Press Operation	15
4. Adjustments	17
5. Maintenance	18

6. Stability of Drill Press

If there is any tendency of the drill press to tilt or move during certain operations, the drill press should be bolted to the floor. An alternate is to securely bolt a flat piece of 1/2" exterior plywood large enough to stabilize the drill press to the underside of the Base, extending to both sides, and to rear if desired. Make sure the plywood won't trip the operator. Do not use pressed wood panels - they can break unexpectedly.

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

7. Location

The drill press should be positioned so neither the operator nor a casual observer is forced to stand in line with a potential Kickback, in a poorly lit area or where the surface could cause trips, slips or falls.

8. Kickback

A kickback occurs when the workpiece is suddenly thrown in the OPPOSITE direction to the DIRECTION OF FEED; THIS CAN CAUSE SERIOUS INJURY. Kickbacks are most commonly caused by use of accessories NOT listed on page 21.

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. 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.
 - A drill press VICE must always be fastened to the table.
 - Never perform any operation "FREE-HAND" (hand-holding workpiece rather than supporting it on the table), except when polishing.
 - Securely lock Head and Support to Column, Table Arm to support, and Table to Table Arm 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 have excessive runout (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 on the left side of the head 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. Holesaws must NEVER be operated on this drill press at a speed greater than 400 RPM.
- b. Drum sanders must NEVER be operated on this drill press at a speed greater than 1800 RPM.

additional safety instructions for drill presses

- 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 Left Side of the Head:**

DANGER

FOR YOUR OWN SAFETY:

1. **READ AND UNDERSTAND OWNERS MANUAL BEFORE OPERATING MACHINE.**
 2. **WEAR SAFETY GOGGLES.**
 3. **DO NOT WEAR GLOVES, NECKTIE, OR LOOSE CLOTHING. TIE BACK LONG HAIR.**
 4. **SECURELY CLAMP WORK TO TABLE IF IT IS TOO SHORT TO CONTACT THE COLUMN WHEN IN OPERATING POSITION**
 5. **USE RECOMMENDED SPEED FOR DRILL, ACCESSORY, AND WORKPIECE MATERIAL.**
 6. **SECURELY LOCK HEAD AND SUPPORT TO COLUMN, ARM TO SUPPORT, AND TABLE TO ARM BEFORE OPERATING DRILL PRESS.**
 7. **USE ONLY RECOMMENDED ACCESSORIES.**
12. This Drill Press has 5 speeds as listed below:
- 400 RPM
 - 800 RPM
 - 1200 RPM
 - 1800 RPM
 - 2800 RPM

See right side of Head 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 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 complying with ANSI Z87.1 (shown on Package) before commencing power tool operation. Safety Goggles are available at Sears retail or catalog stores.



unpacking and checking contents

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UNPACKING AND CHECKING CONTENTS

Model No. 113.213843 is shipped complete in one carton and includes a 1/3 HP 1725 RPM motor.

Separate all parts from packing materials and check each one with the "Table of Loose Parts" to make certain all items are accounted for, before discarding any packing material.

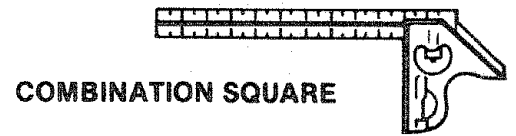
WARNING: For your own safety: If any parts are missing, do not attempt to assemble the drill press, plug in the power cord or turn the switch on until the missing parts are obtained and installed correctly.

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.

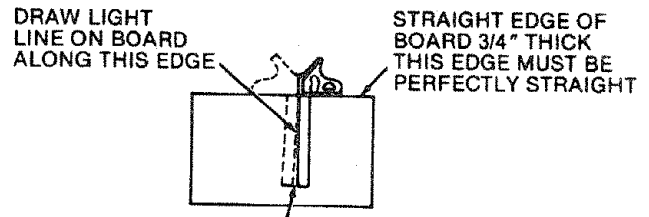
Apply a coat of paste wax to the table to prevent rust. Wipe all parts thoroughly with a clean dry cloth.

TOOLS NEEDED



COMBINATION SQUARE

COMBINATION SQUARE MUST BE TRUE



DRAW LIGHT LINE ON BOARD ALONG THIS EDGE

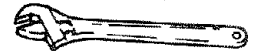
STRAIGHT EDGE OF BOARD 3/4" THICK THIS EDGE MUST BE PERFECTLY STRAIGHT

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

MEDIUM
SCREWDRIVER



8-INCH ADJUSTABLE
WRENCH



1/2 WRENCH

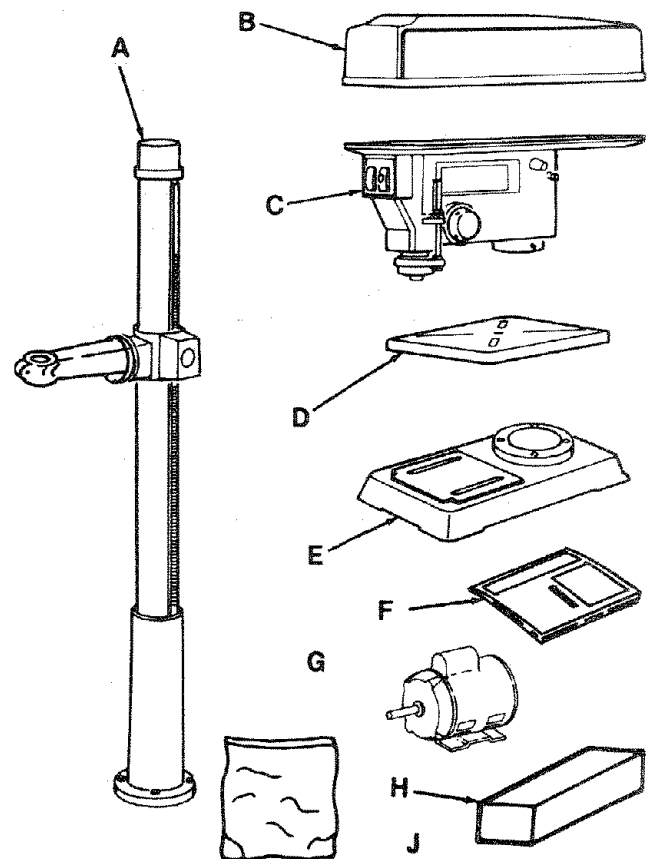


1/8" - 3/16"
HEX "L" WRENCH



TABLES OF LOOSE PARTS

Item	Description	Qty.
A	Column Assembly	1
B	Upper Guard	1
C	Head Assembly	1
D	Table	1
E	Base	1
F	Owners manual	1
G	Motor	1
H	Box Of Small Parts	1
	Part #507376	
	(Containing the Following Items)	
	Handle, Feed	3
	Crank, Table	1
	Handle, Belt Tension	1
	Clamp, Bolt	1
	Key, Chuck	1
	Chuck	1
	Bag of Loose Parts No. 507375	1
	Bag of Loose Parts No. 507375	1
	(Containing the Following Items)	
	Indicator Table Support	1
	Screw Pan Hd. 10-32x1/4	1
	Screw Hex Hd. 3/8-16x1 1/2	4
	Lockwasher 3/8	4
	Key, Switch	1
	Screw Soc. Set 3/8-16x1/2	2
	Knob	1
	Screw Pan Hd. 1/4-20x1/2	1
	Screw Pan Hd. 8-32x1/2	3
	Lockwasher #8	3
	Nut Hex 8-32	3
J	Bag of Loose Parts No.507438	
	(Containing the Following Items)	
	Pulley, Motor	1



Screw Soc. Set 1/4-20x3/8	1
Belt "V" 3/8x42	1
Screw Hex Hd. 5/16-18x3/4	4
Washer 21/64x1/2x1/32	8
Nut Hex 5/16-18	4

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 start-up, 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.

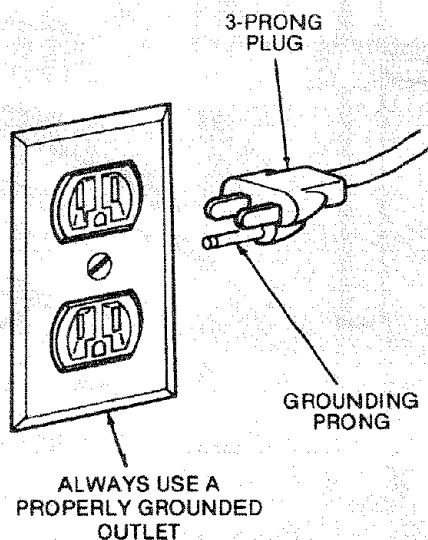
Plug power cord into a 110-120V properly grounded type outlet protected by a 15-amp. dual element time delay or Circuit-Saver fuse or circuit breaker.

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: Do not permit fingers to touch the terminals of plugs when installing or removing the plug to or from the outlet.

WARNING: If not properly grounded this power tool can incur the potential hazard of electrical shock, particularly when used in damp locations, in proximity to plumbing. If an electrical shock occurs there is the potential of a secondary hazard such as your hands contacting 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.



If your unit is for use on less than 150 volts, it has a plug that looks like the above.

This power tool is equipped with a 3-conductor cord and grounding type plug which has a grounding prong, 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.

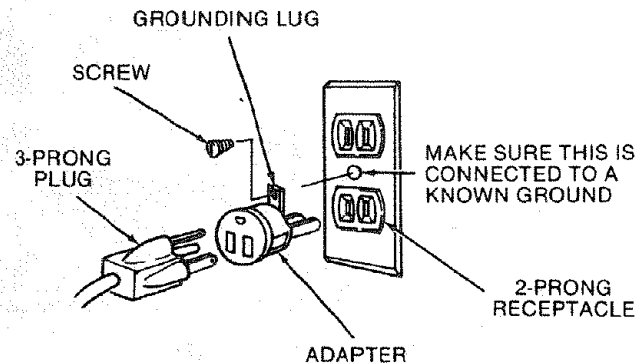
This plug requires a mating 3-conductor grounded type outlet as shown.

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. Adapter is not allowed in Canada by the Canadian Electrical Code.

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 and 3-pole receptacles which accept the tools plug.

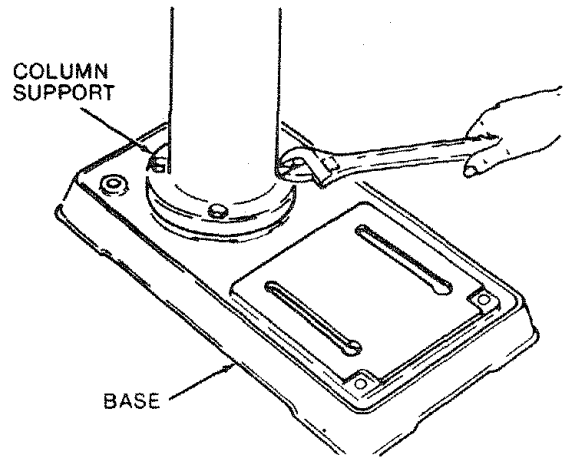
Extension Cord Length	Wire Size A.W.G.
Up to - 100 Ft.	16
100 - 200 Ft.	14
200 - 400 Ft.	10

assembly

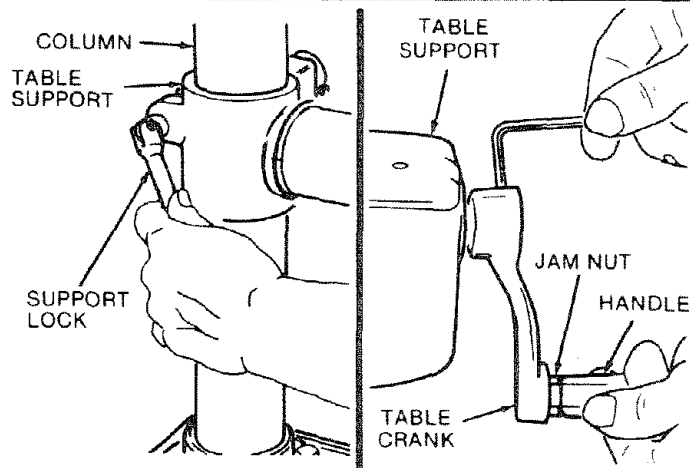
WARNING: For your own safety, never connect plug to power source outlet until all assembly steps are completed.

ASSEMBLY OF COLUMN AND TABLE HARDWARE

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 four (4) 3/8-16x1 1/2 bolts and four (4) 3/8 lockwashers among loose parts bag.
4. Install a lockwasher and bolt in each hole through column support and base, and tighten with adjustable wrench.

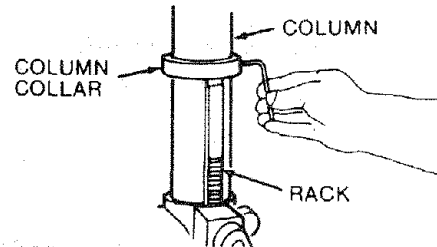


5. Locate table crank assembly, support lock, and wrench among loose parts.
6. Install table crank assembly and tighten set screw with 1/8" HEX "L" wrench.
7. Install support lock from left side into table support and tighten by hand.
8. Handle should turn freely when raising or lowering table. If adjustment is needed, loosen jam nut, with a screwdriver loosen bolt handle until there is play between jam nut and handle. Tighten jam nut securely while holding bolt handle with screwdriver.



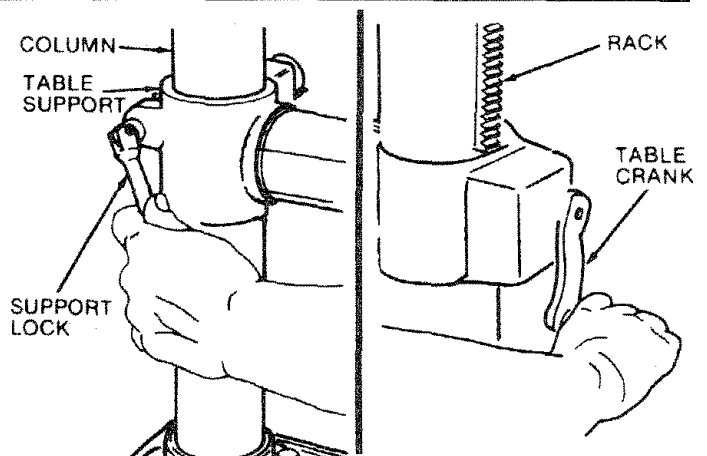
9. Position column collar over rack and tighten set screw in collar, with 1/8" HEX "L" wrench provided. Collar should not be angled on the column. Only tighten set screw enough to keep collar in place; rack should still slide freely in collar.

CAUTION: To avoid column or collar damage, do not overtighten set screw.



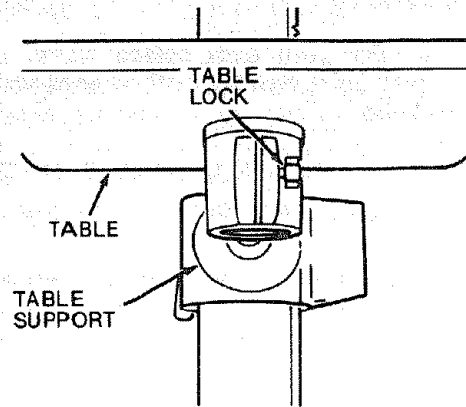
INSTALLING THE TABLE

1. Loosen support lock and raise table support by turning table crank clockwise until support is at a working height level. Tighten support lock.



assembly

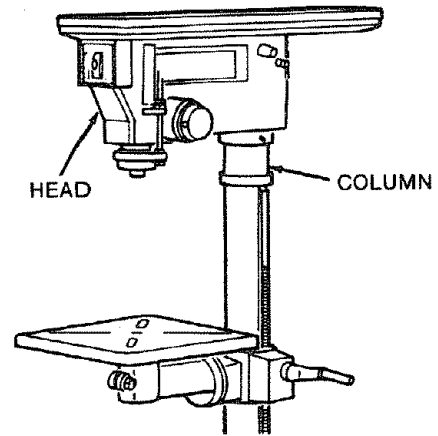
2. Remove protective covering from table and discard. Place table in table support. Locate one (1) 3/8-16x1 1/2 hex head bolt and assemble in table support. Tighten with adjustable wrench.



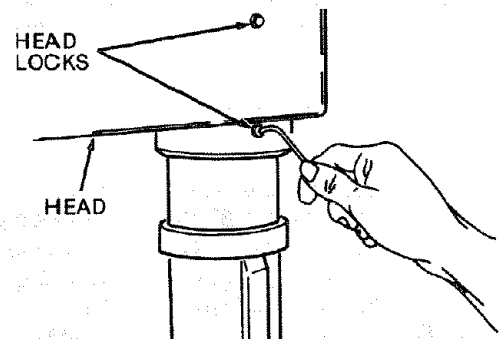
INSTALLING THE HEAD

CAUTION: The head assembly weighs about 55 pounds. Carefully lift head.

1. Remove protective bag from head assembly and discard. Carefully lift head above column tube and slide it onto column into position. Align head with table and base.

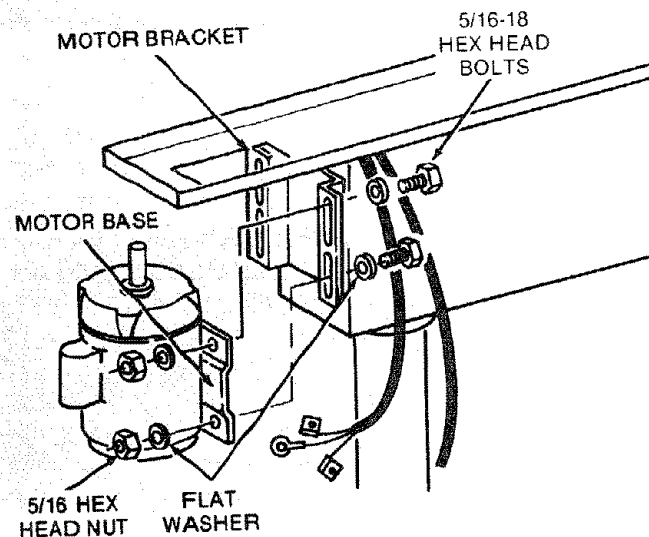


2. Locate two (2) 3/8-16x1/2 set screws among loose parts bag.
3. Install set screws in right side of head to lock head into position, and tighten with 3/16" HEX "L" wrench.



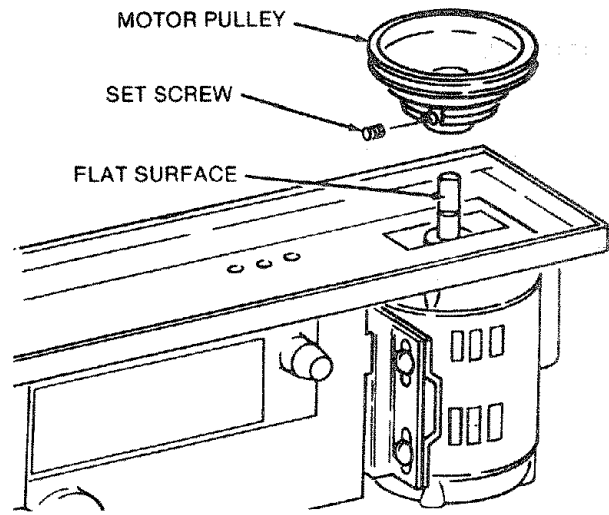
MOUNTING MOTOR

1. Locate four (4) 5/16-18x3/4 hex head bolts, eight (8) flat washers, and four (4) hex nuts among loose parts.
2. Install hex head bolts through motor bracket on head.
3. Place motor in position so motor base slots line up with motor brackets slots. Install flat washers and hex nuts as illustrated.
4. Motor shaft should be in center of slot in lower guard.



INSTALLING MOTOR PULLEY

1. Loosen set screw in motor pulley using 1/8" HEX "L" wrench.
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.



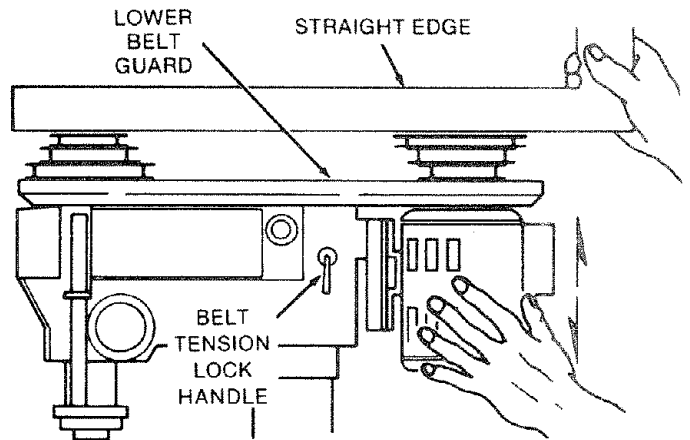
INSTALLING AND TENSIONING BELT

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

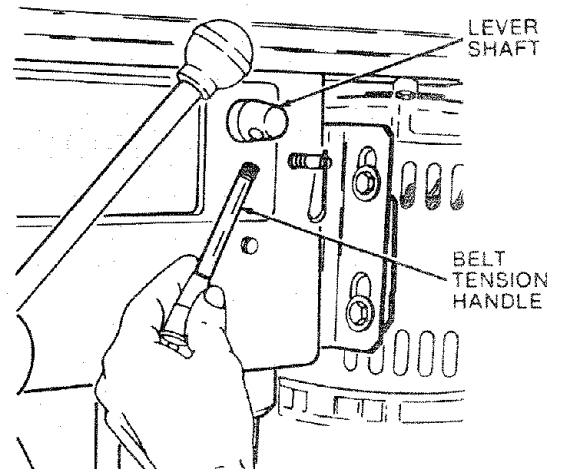
1. Place a straight edge such as a piece of wood, metal, or framing square across the top of pulleys.
2. Move the motor upwards until the pulleys are in line. Tighten the motor mount nuts using 1/2 inch wrench.

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

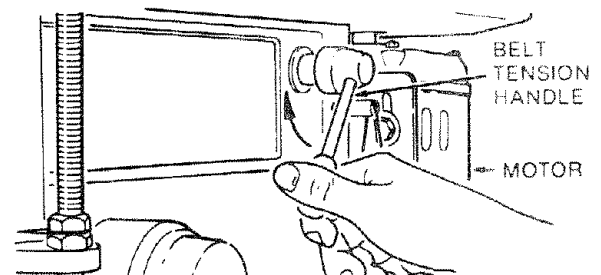
3. Release Belt Tension Lock handles located on each side of Drill Press head.



4. Locate one (1) tension rod and one (1) knob among base parts.
5. Screw the knob on the rod, then screw the rod into the shaft.



6. Loosen Belt Tension handle by turning clockwise.



assembly

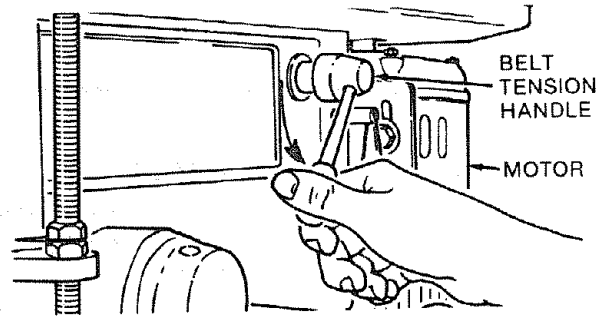
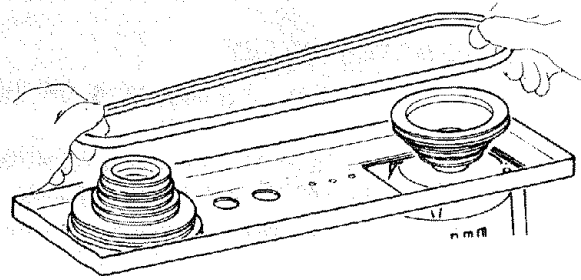
7. Locate one (1) V-belt and choose speed for drilling operation. Install belt in correct position for desired speed.

NOTE: Refer to chart on side on Drill Press 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.

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

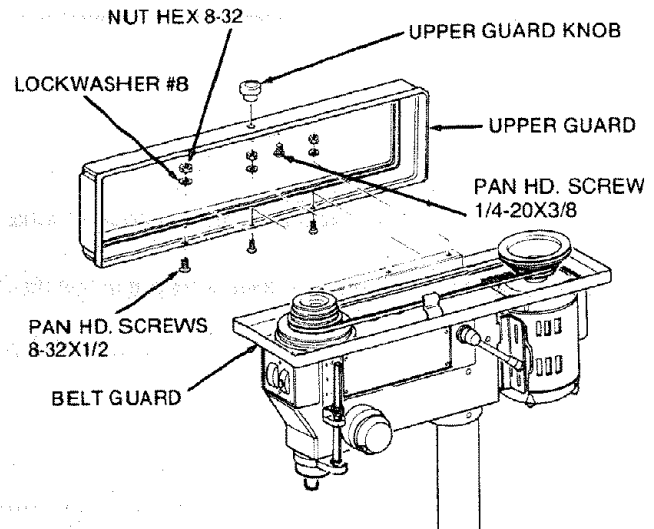
10. If belt slips while drilling, readjust belt tension.



INSTALLING UPPER GUARD

1. To attach upper guard, locate three (3) 8-32x1/2 pan hd. screws, three (3) lockwashers - ext. #8, and three (3) 8-32 hex nuts among loose parts bag.
2. Install the three pan hd. screws through the three holes in the upper guard and into the hinge located on the belt guard. Install lockwasher and nut on each screw and tighten with screwdriver or adjustable wrench.
3. To attach upper guard knob, locate knob and 1/4-20x3/8 pan hd. screw among loose parts bag. Install screw in hole located in upper 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 a 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.

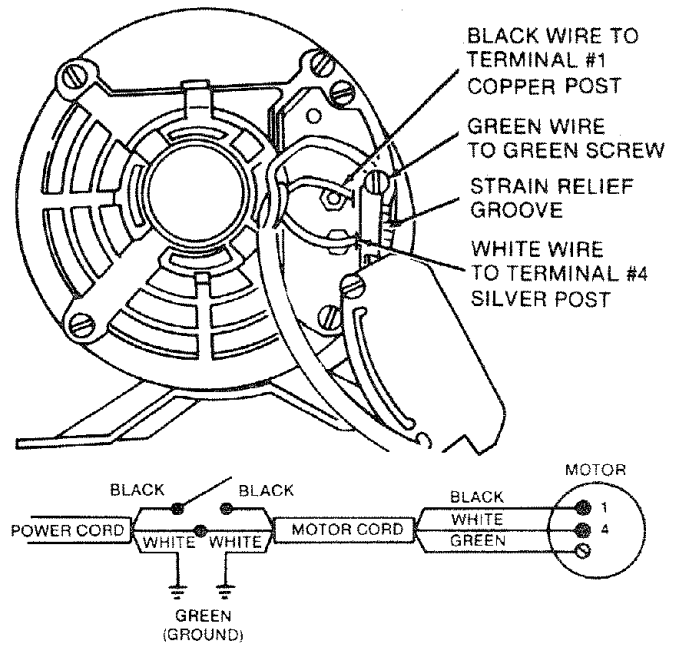
3. Reinsert GREEN SCREW in threaded hole that it was removed from and tighten securely.

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. Inset 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 strain relief groove and tighten box cover screws.

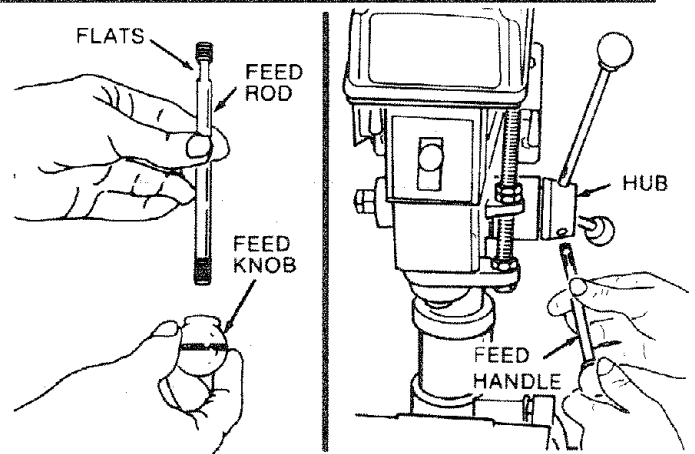
7. Do not plug in power cable.



INSTALLING FEED HANDLES

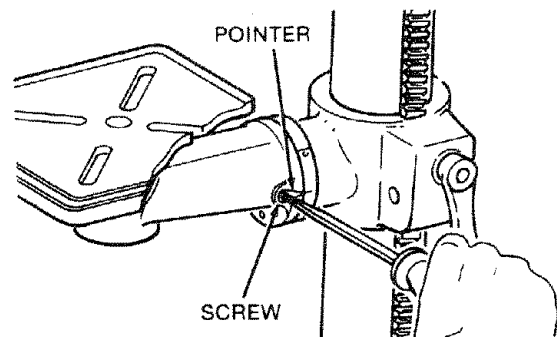
1. Locate three (3) rods and three (3) knobs among loose parts.

2. Screw a knob on each rod, then screw the other rod end into the threaded holes in the hub and tighten. Use an adjustable wrench on the flats provided to tighten the feed rods securely.



3. Locate one (1) 10-32x3/8 pan hd. screw and one (1) pointer among loose parts bag.

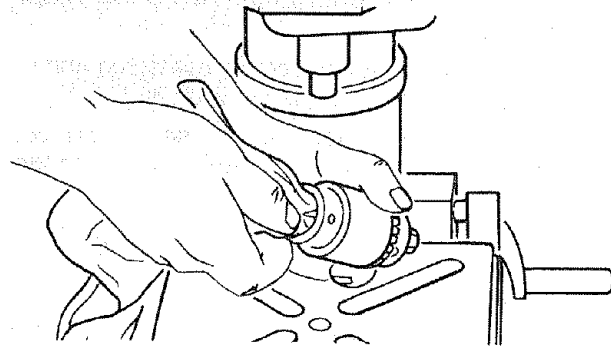
4. Install screw through pointer into table support, and tighten with screwdriver.



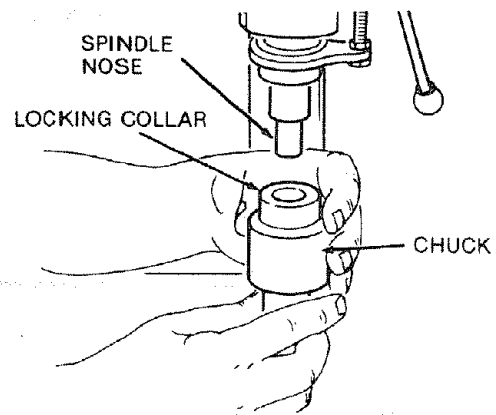
assembly

INSTALLING THE CHUCK

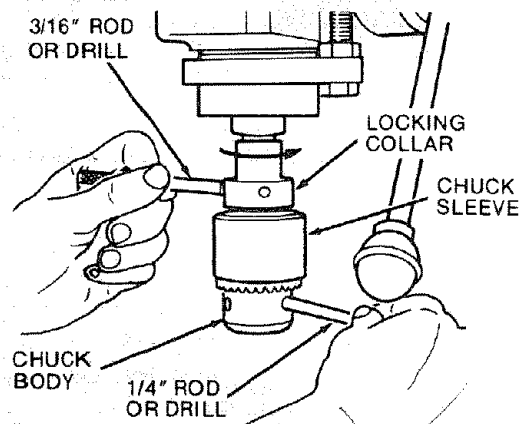
1. Clean out the TAPERED HOLE in the chuck; clean the spindle nose with a clean cloth. Make sure there are no foreign particles sticking to the surfaces. The slightest piece of dirt on the spindle nose or in the chuck will prevent the chuck from seating properly. This will cause the drill to "wobble."



2. Apply a light film of oil such as Sears household oil to the spindle nose.
3. Place the chuck on the spindle nose and screw the locking collar up as far as it will go.



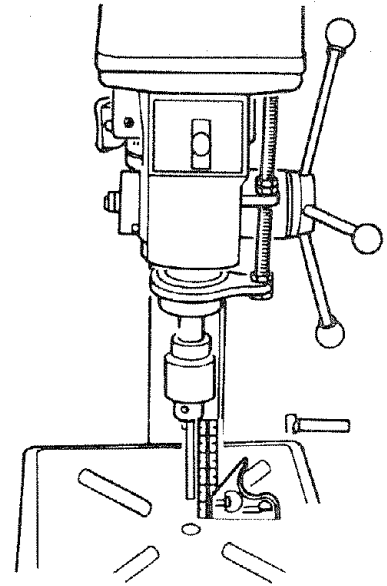
4. Insert a piece of 1/4" dia. STEEL ROD in to one of the holes in the chuck body.
5. Insert 3/16" dia. rod or drill into one of the holes in the collar . . . TURN IT IN THE DIRECTION OF ARROW UNTIL IT IS TIGHT.
6. To remove chuck, turn the collar in the opposite direction until the chuck is ejected from the spindle.



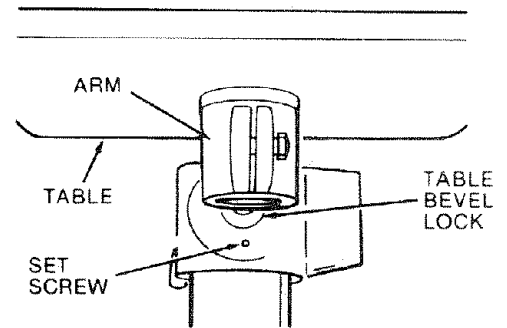
ADJUSTING THE TABLE SQUARE TO HEAD

NOTE: The combination square must be "true". See "Unpacking and Checking Contents" section for method.

1. Insert a precision ground steel rod 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.

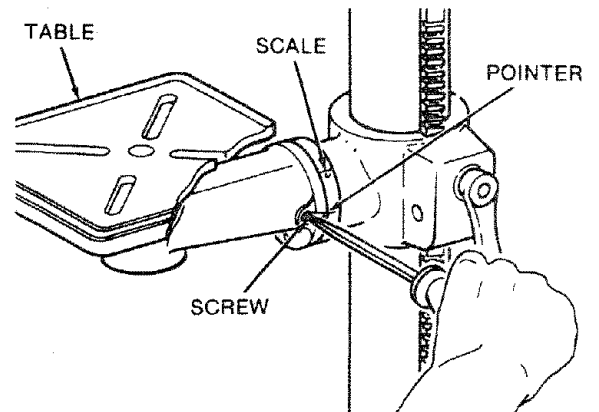


3. If an adjustment is necessary, loosen the set screw under bevel lock with 1/8" HEX "L" wrench, then loosen the table bevel lock with adjustable wrench. (These adjustments are located under the table).
4. Align the table square to the rod by tilting arm until square and rod are in line.
5. Retighten table bevel lock.
6. Retighten set screw.

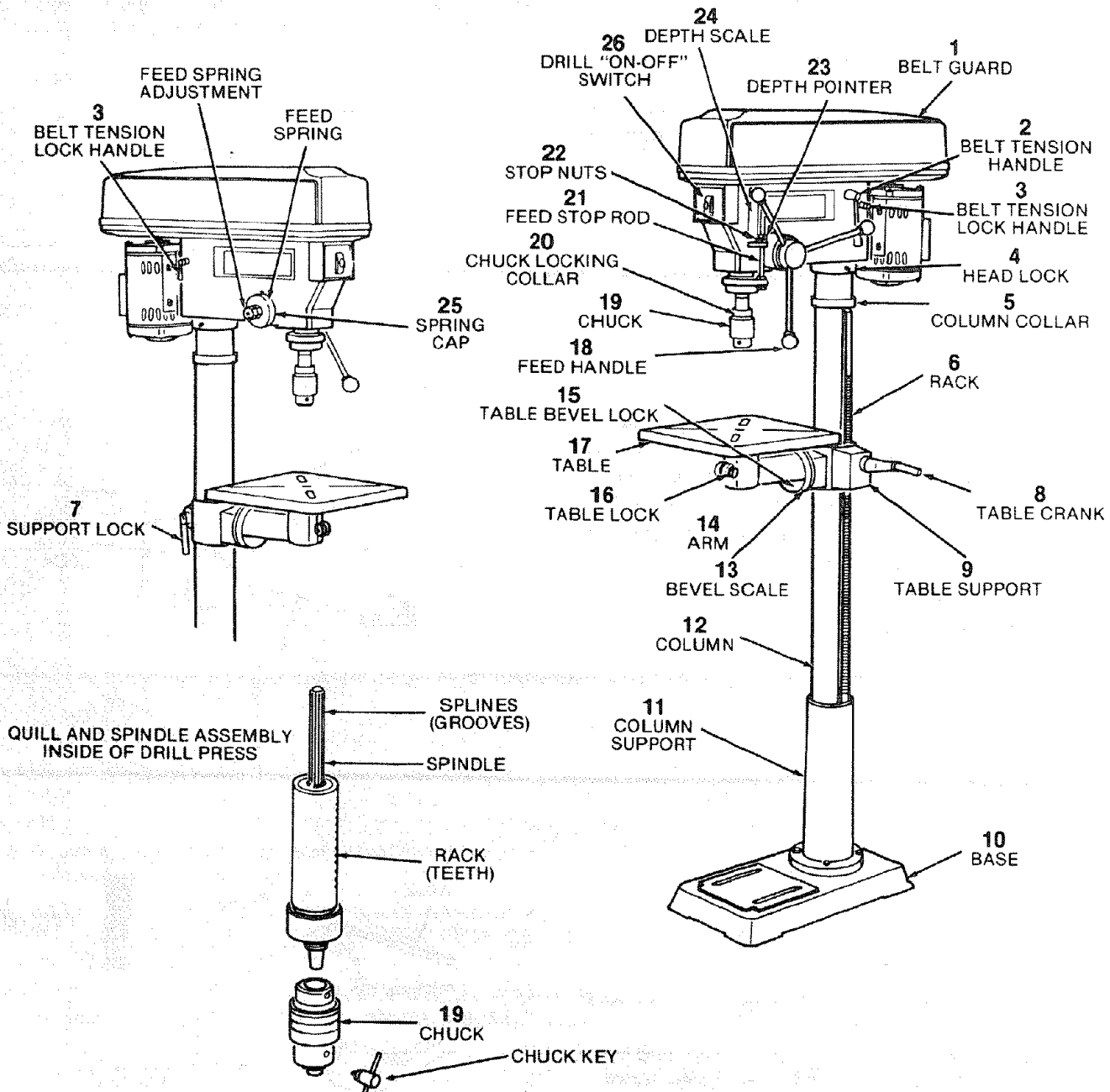


ADJUSTING POINTER

1. With the table squared to the head, the table bevel pointer should be adjusted.
2. Loosen screw in pointer with screwdriver, and move pointer to "0" position on scale. Retighten screw.



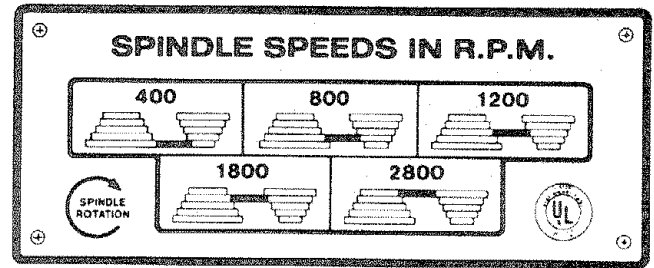
getting to know your drill press



This Drill Press has 5 speeds as listed below:

400 RPM
800 RPM
1200 RPM
1800 RPM
2800 RPM

See right side of Head for specific placement of belts on pulleys.



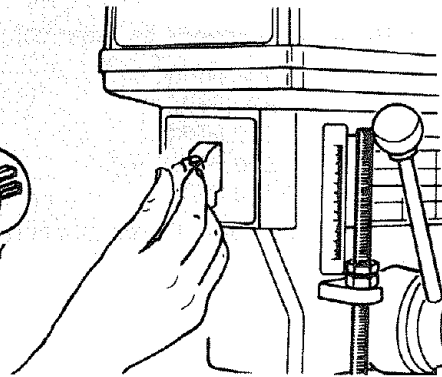
1. **BELT GUARD ASSEMBLY** . . . Covers pulleys and belt during operation of drill press.
2. **BELT TENSION HANDLE** . . . Turn handle counter clockwise to apply tension to belt, turn handle clockwise to release belt tension.
3. **BELT TENSION LOCK HANDLES** . . . Tightening handles locks motor bracket support and **BELT TENSION HANDLE** to maintain correct belt distance and tension.
4. **HEAD LOCKS** . . . Lock the head to the column. ALWAYS have them locked in place while operating the drill press.
5. **COLUMN COLLAR** . . . Holds the rack to the column. Rack remains movable in collar to permit table support movements.
6. **RACK** . . . Combines with gear mechanism to provide easy elevation of table by hand operated table crank.
7. **SUPPORT LOCK** . . . Tightening locks table support to column. Always have it locked in place while operating the Drill Press.
8. **TABLE CRANK** . . . Turn clockwise to elevate table. Support lock must be released before operating crank.
9. **TABLE SUPPORT** . . . Rides on column to support arm and table.
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. **COLUMN** . . . Connects head, table, and base on a one-piece tube for easy alignment and movement.
13. **BEVEL SCALE** . . . Shows degree table is tilted for bevel operations. Scale is mounted on side of arm.
14. **ARM** . . . Extends beyond table support for mounting and aligning the table.
15. **TABLE BEVEL LOCK** . . . Locks the table in any position from 0°-45°.
16. **TABLE LOCK** . . . Table can be rotated in various positions and locked.
17. **TABLE** . . . Provides working surface to support workpiece.
18. **FEED HANDLE** . . . For moving the quill up or down. One or two may be removed if necessary whenever the workpiece is of such unusual shape that it interferes with the handles.
19. **CHUCK** . . . Holds drill bit or other recommended accessory to perform desired operations.
20. **CHUCK LOCKING COLLAR** . . . Draws the chuck onto the spindle nose. It helps prevent the chuck from coming loose during operation. ALWAYS have the collar tightened.
21. **FEED STOP ROD** . . . Holds stop nuts for drilling to specific depths.
22. **STOP NUTS** . . . Limits the downward movement of the quill at any desired point within its travel, and prevents the pointer from moving upward. Helps prevent quill from falling out from over extension.
23. **DEPTH POINTER** . . . Indicates drilling depth and is located between stop nuts.
24. **DEPTH SCALE** . . . Shows depth of hole being drilled.
25. **SPRING CAP** . . . Provides means to adjust quill spring tension.

getting to know your drill press

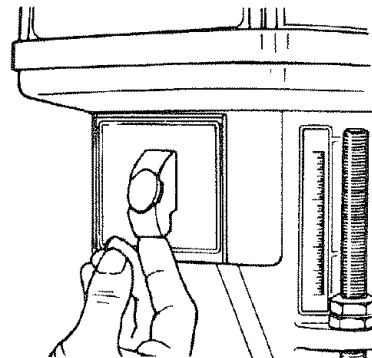
26. **DRILL "ON-OFF" SWITCH** . . . Has locking feature. THIS FEATURE IS INTENDED TO HELP PREVENT UNAUTHORIZED AND POSSIBLE HAZARDOUS USE BY CHILDREN AND OTHERS.

Insert KEY into switch.

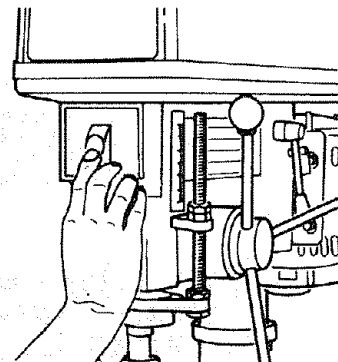
NOTE: Key is made of yellow plastic.



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

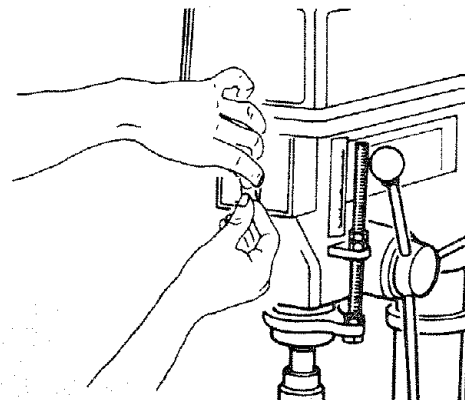


To turn drill OFF . . . Push lever in.
In an emergency; . . . the drill bit BINDS . . . STALLS . . . STOPS . . . or tends to tear the workpiece loose . . . you can QUICKLY turn the drill OFF by hitting the switch with the palm of your hand.



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.



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.

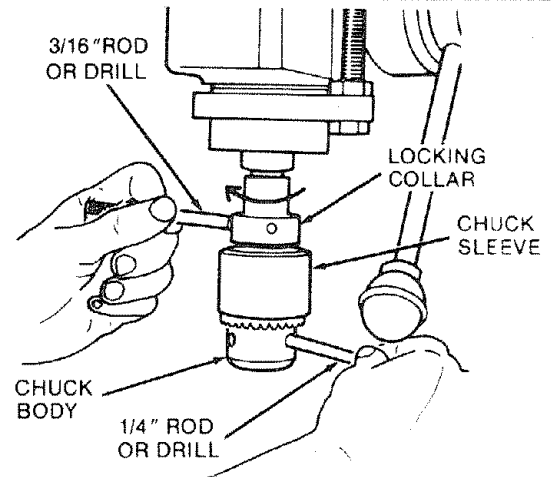
BELT TENSION . . . Refer to section "Assembly - Installing and Tensioning Belt" (Page 9).

DRILLING SPEED . . . Can be changed by placing the belt in any of the STEPS (grooves) in the pulleys. See Spindle Speed chart on right side of Head.

To determine the approximate drilling speed, refer to the table on the LEFT side of the drill press head.

REMOVING THE CHUCK

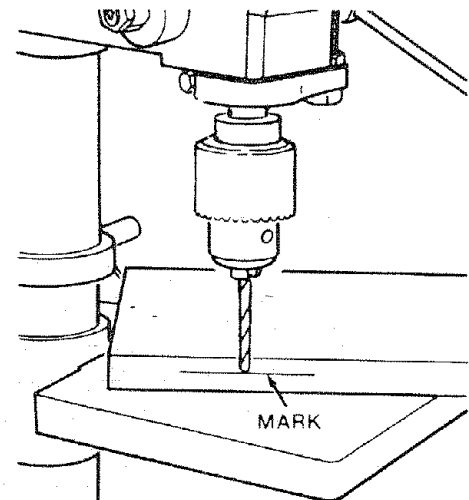
1. Insert a piece of 1/4" dia. steel rod in one of the holes in the chuck body.
2. Insert 3/16" dia. rod or drill into one of the holes in the collar . . . turn it in the direction of arrow until LOOSE. Continue to turn it until the chuck is released.



DRILLING TO DEPTH

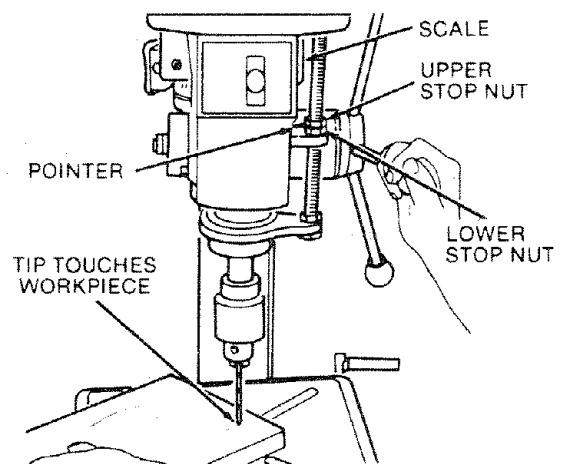
To drill a BLIND hole (not all the way through) to a given depth, can be done two ways.

1. Mark the depth of the hole on the side of the work-piece.
2. With the switch OFF bring the drill 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. Move the POINTER all the way down.
5. Spin the upper nut down and tighten against the pointer.



ANOTHER WAY — DEPTH SCALE

1. With the switch OFF, bring the drill down until the TIP touches the TOP of the WORKPIECE.
2. Adjust the nuts so the Pointer is set to the desired DEPTH . . . TIGHTEN the UPPER NUT against the Pointer. For example . . . if you want to drill a hole one inch deep, set the pointer at the one inch mark in the scale.



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. 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.
 - A drill press **VICE** must always be fastened to the table.

- Never perform any operation "FREE-HAND" (hand-holding workpiece rather than supporting it on the table), except when polishing.
- Securely lock Head and Support to Column, Table Arm to support, and Table to Table Arm 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 have excessive runout (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 on the left side of the head 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.

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

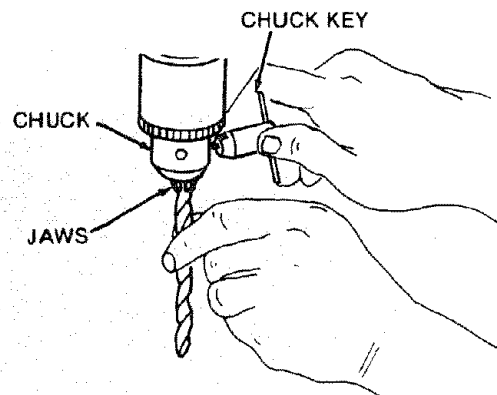
- a. Holesaws must **NEVER** be operated on this drill press at a speed greater than 400 RPM.
- b. Drum sanders must **NEVER** be operated on this drill press at a speed greater than 1800 RPM.
- c. Do not install or use any drill that exceeds 7" in length or extends 6" below the chuck jaws. They can 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.

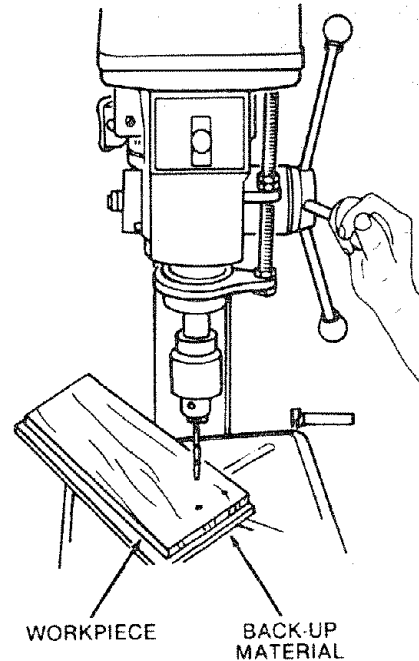


POSITIONING TABLE AND WORKPIECE

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.

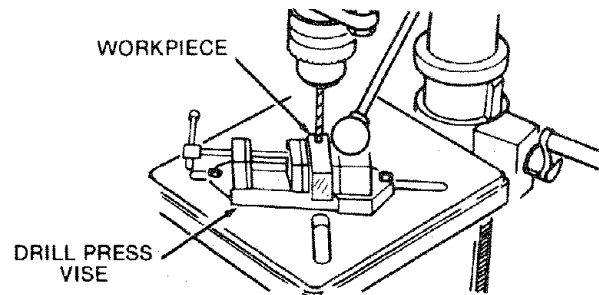
Always place a piece of BACK-UP MATERIAL (wood, plywood . . .) on the table underneath the workpiece. This will prevent "splintering" or making a heavy burr on the underside on the workpiece as the drill breaks through. To keep the backup material from spinning out of control, it must contact the left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

WARNING: To prevent 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 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).

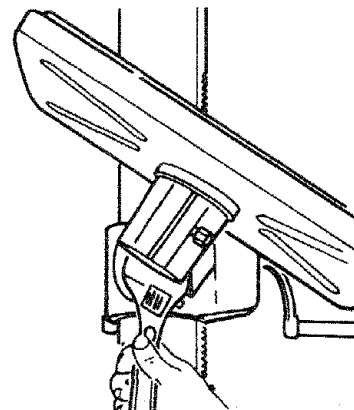
WARNING: The vise must be clamped or bolted to the table to avoid injury from spinning work and vise or tool breakage.



TILTING TABLE

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

Tilt table to desired angle by reading bevel scale. Retighten bevel lock and set screw.



basic drill press operation

WARNING: To avoid injury from spinning work or tool breakage, always clamp workpiece and back-up material securely to table before operating Drill Press with the table tilted.

To return table to original position: loosen set screw and bevel lock, tilt table back to 0° on bevel scale, and retighten set screw - then tighten bevel lock.

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.

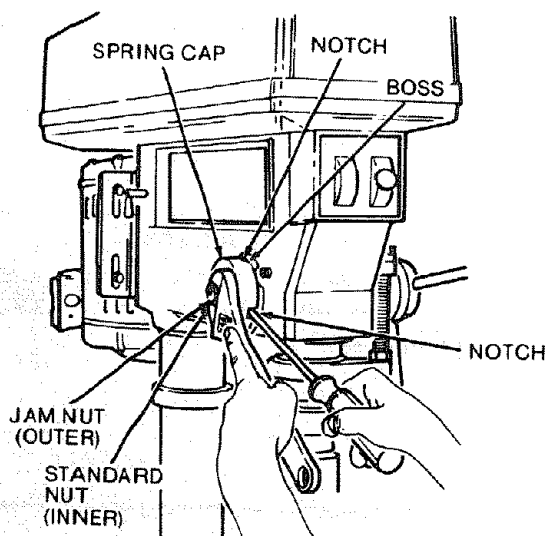
Feeding TOO SLOWLY might cause the drill to burn . . . Feeding TOO RAPIDLY might stop the motor . . . cause the belt or drill to SLIP . . . tear the workpiece LOOSE or BREAK the drill bit.

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.

QUILL RETURN SPRING

1. Move the stop nuts and depth pointer to 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. REMOVE SCREWDRIVER.
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 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 automobile-type 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 gear and rack table elevation mechanism, the SPLINES (grooves) in the spindle, and the RACK (teeth of the quill). See "Getting to Know Your Drill Press" - p. 14 for diagram.

recommended accessories

WARNING: Use only recommended accessories. Follow instructions that accompany accessories. Use of improper accessories may cause hazards.

Drill Bits See Catalog
Hold-Down and Guide 9-2457
Drill Press Vises See Catalog
Rotary Table 9-2495
Drill Press Mortising Kit 9-29503
Hole Saw up to 2 1/2" dia. max. See Catalog
5 Pc. Stop Collar Set 9-67063

Sanding Drums 9-2497 - 9-2498
Buffing Wheels up to 4" dia. max. See Catalog
Polishing Wheel, 1 1/2" x 1" 9-64991
Power Tool Know-How Handbooks
Radial Saw 9-2917
Table Saw 9-2918

The recommended accessories listed here are current and were available at the time this manual was printed.

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. Check tightness of retaining nut on pulley, and tighten if necessary. 4. Tighten setscrews in pulleys.
Drill Burns.	<ol style="list-style-type: none"> 1. Incorrect speed. 2. Chips not coming out of hole. 3. Dull Drill. 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 frequently to clear chips. 3. Resharpen drill. 4. Feed fast enough . . . allow drill to cut. 5. Lubricate drill. See "Basic Drill press Operation" section.
Drill 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. 	<ol style="list-style-type: none"> 1. Resharpen drill correctly.
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 Binds in workpiece.	<ol style="list-style-type: none"> 1. Workpiece pinching drill 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 runout or wobble.	<ol style="list-style-type: none"> 1. Bent drill. 2. Worn spindle bearings. 3. Drill not properly installed in chuck. 4. Chuck not properly installed. 	<ol style="list-style-type: none"> 1. Use a straight drill. 2. Replace bearings. 3. Install drill 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".

repair parts

PARTS LIST FOR CRAFTSMAN 13" DRILL PRESS MODEL NO. 113.213843

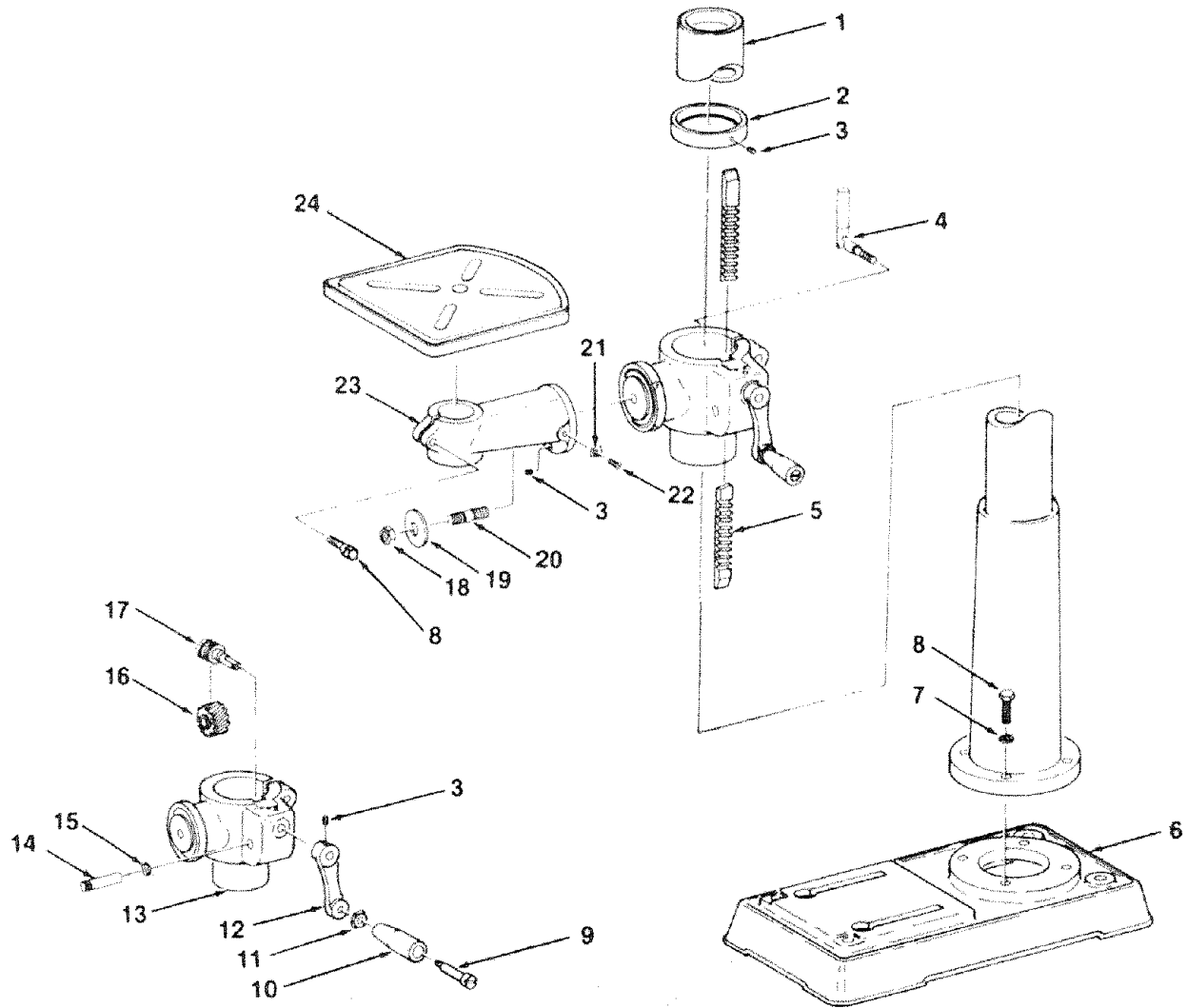


FIGURE 1

Key No.	Part No.	Description
1	71377	Tube, Column
2	71320	Collar, Rack
3	STD 502503	*Screw, Sec. Set 1/4-20x3/8
4	71392	Handle Asm. Table Support
5	71402	Rack
6	71314	Base
7	STD 551137	*Lockwasher 3/8
8	STD 523715	*Bolt, Hex Hd. 3/8-16x1 1/2
9	71243	Bolt, Handle
10	71259	Handle, Sleeve
11	STD 741006	*Nut Hex M6X1
12	71327	Crank

Key No.	Part No.	Description
13	71403	Support, Table
14	71354	Pin, Gear
15	71373	Spacer
16	71332	Gear, Helical
17	71386	Worm, Elevation
18	114507	Nut, Hex 5/8-11
19	STD 551062	*Washer, 5/8x1 3/4x5/32
20	71376	Stud, Arm Mtg.
21	71264	Indicator, Table
22	STD 511103	*Screw, Pan Hd. 10-32x3/8
23	71313	Arm, Table
24	71383	Table

* Standard Hardware Item — May be Purchased Locally.

repair parts

**PARTS LIST FOR CRAFTSMAN 13"
DRILL PRESS MODEL
NO. 113.213843**

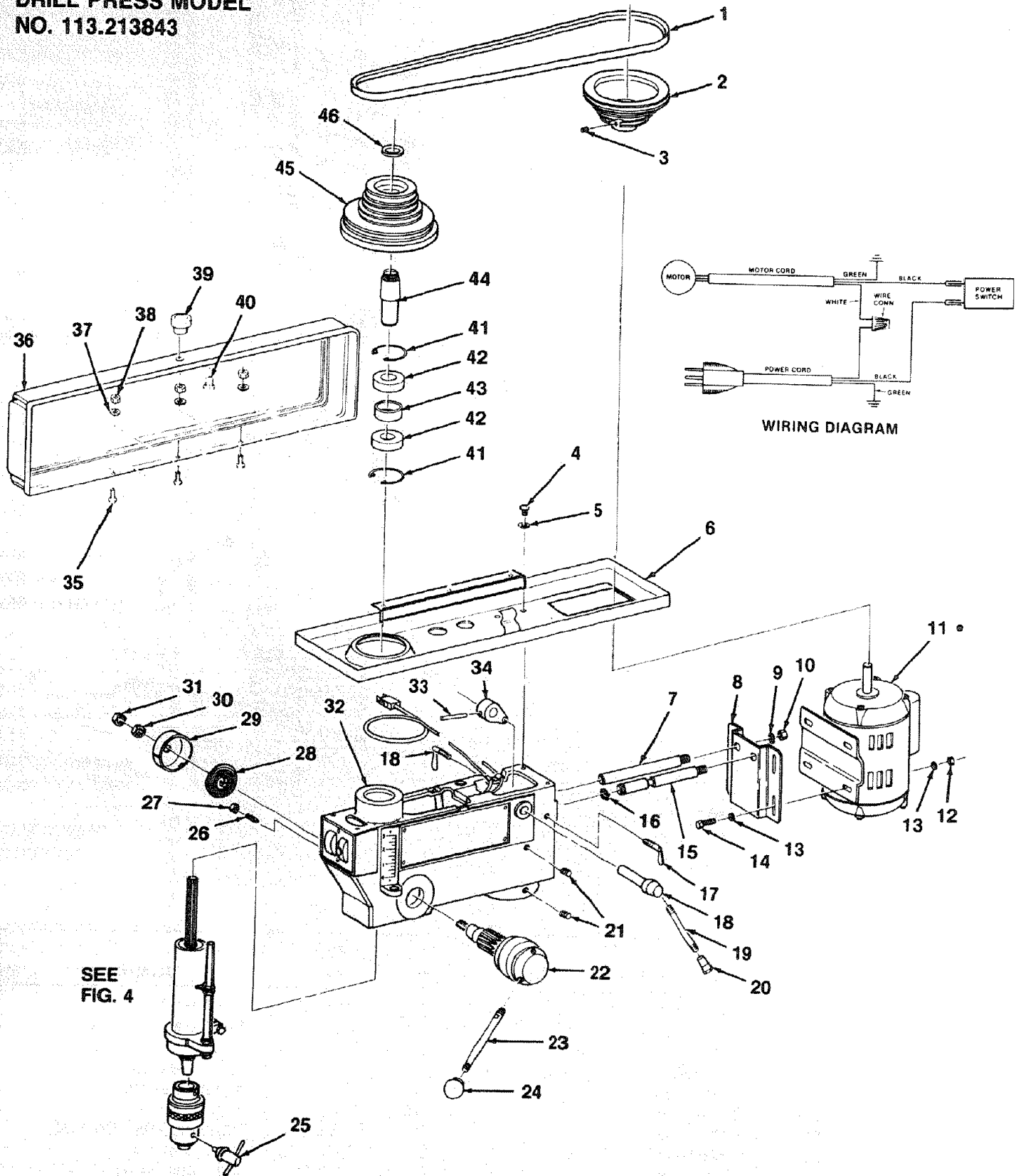


FIGURE 2

• 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.

PARTS LIST FOR CRAFTSMAN 13" DRILL PRESS MODEL NO. 113.213843

FIGURE 2

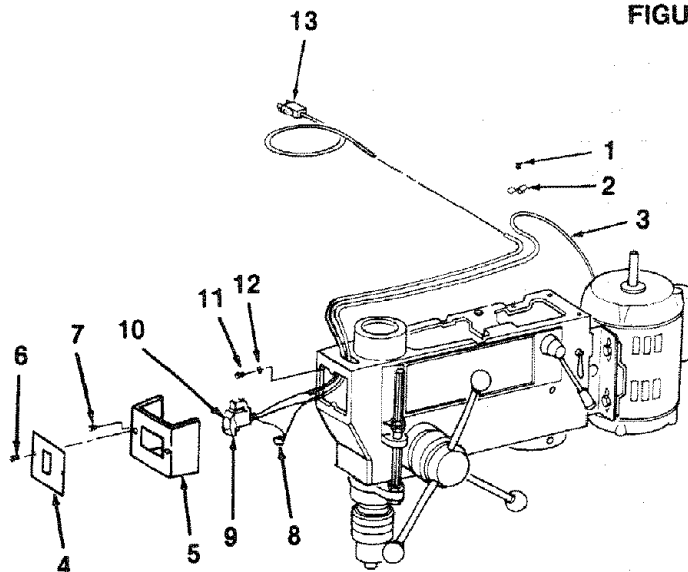
ALWAYS ORDER BY PART NO. - NOT BY KEY NO.

Key No.	Part No.	Description
1	60504	Belt "V" 3/8x42
2	71361	Pulley, Motor
3	STD 502503	*Screw, Soc. Set 1/4-20x3/8
4	805517	Screw, Pan Hd. 5/16-18x1/2
5	STD 551131	*Lockwasher 5/16
6	814750-2	Guard Belt
7	71379	Support, Motor Bracket
8	71346	Mount, Motor
9	STD 551150	*Lockwasher 1/2
10	STD 541050	*Nut, Hex 1/2-13
11	71425	●Motor 1/3 H.P.
12	STD 541031	*Nut, Hex 5/16-18
13	STD 551031	*Washer 5/16x1/2x1/32
14	STD 523107	*Screw, Hex Hd. 5/16-18x3/4
15	71319	Support, Motor Bracket
16	60514	Ring, Retaining
17	71319	Clamp, Bolt
18	71369	Shaft, Lever
19	71368	Rod
20	71340	Knob
21	71340	*Screw, Soc. Set 3/8-16x1/2
22	71370	Shaft, Asm. Pinion
23	71367	Rod, Handle
24	71339	Knob
25	71338	Key, Chuck
26	60520	Screw, Slotted Set Flat Pt.

Key No.	Part No.	Description
27	STD 541037	*Nut, Hex 3/8-16
28	71375	Spring, Torsion
29	71317	Cap, Spring
30	STD 541150	*Nut, Hex 1/2-20
31	STD 541350	*Nut, Hex Jam 1/2-20
32	71333	Head
33	60508	Pin, Taper
34	71342	Lever, Adjusting
35	STD 510805	*Screw, Pan Hd. 8-32x1/2
36	507378	Guard - Upper (includes Key #35, #37 & #38)
37	STD 551208	*Lockwasher #8
38	STD 541008	*Nut, Hex 8-32
39	71399	Knob
40	STD 512503	*Screw Pan Hd. 1/4-20x3/8
41	60515	Ring, Retaining
42	STD 315255	*Bearing, Ball 25 MM
43	71372	Spacer, Bearing
44	71337	Insert, Pulley
45	71362	Pulley, Spindle
46	71347	Nut, Ring - Left Handed Thread
—	507375	Bag of Loose Parts (Not Illus.)
—	507376	Box of Loose Parts (Not Illus.)
—	507438	Bag of Loose Parts (Not Illus.)
—	SP4963	Owners manual (Not Illus.)

PARTS LIST FOR CRAFTSMAN 13" DRILL PRESS MODEL NO. 113.213843

FIGURE 3



Key No.	Part No.	Description
1	STD 510807	*Screw, Pan Hd. 8-32x3/4
2	63418	Clamp, Cord
3	71428	Cord, Motor
4	71400	Cover, Switch Plate
5	71356	Plate, Switch Mtg.
6	STD 511105	*Screw, Pan Hd. 10-32x1/2
7	133423	Screw, Flat Hd. 6-32x1/4
8	803709	Connector, wire
9	62442	Switch, Locking
10	60256	Key, Switch
11	STD 511102	*Screw, Pan Hd. 10-32x1/4
12	STD 551210	*Lockwasher, Ext. #10
13	71323	Cord W/Plug

* Standard Hardware Item — May be Purchased Locally.

repair parts

PARTS LIST FOR CRAFTSMAN 13" DRILL PRESS MODEL NO. 113.213843

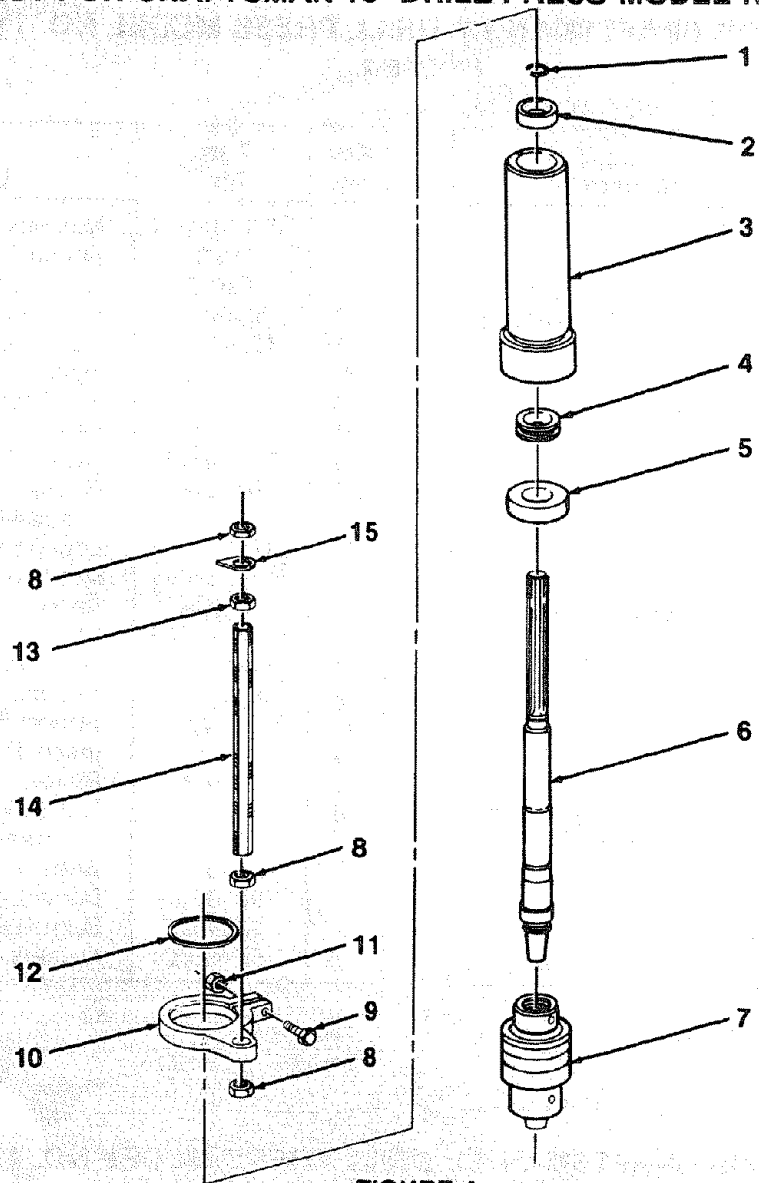


FIGURE 4

ALWAYS ORDER BY PART NO. - NOT BY KEY NUMBER

Key No.	Part No.	Description
1	60509	Ring, Retaining 21/32
2	STD 315235	*Bearing, Ball 17MM
3	71384	Tube, Quill
4	60503	Bearing, Thrust
5	STD 315255	*Bearing, Ball 25MM
6	71374	Spindle
7	38623	Chuck, Drill
8	STD 541150	*Nut, Hex 1/2-20
9	STD 522512	*Screw, Hex Hd. 1/4-20x1 1/4
10	71321	Collar, Stop
11	STD 541025	*Nut, Hex 1/4-20
12	71331	Gasket, Quill
13	STD 541350	*Nut, Hex Jam 1/2-20
14	71366	Rod, Hex Stop
15	71263	Indicator, Depth

* Standard Hardware Item — May be Purchased Locally.

NOTES:

SEARS

*owners
manual*

SERVICE

**MODEL NO.
113.213843**

**DRILL PRESS WITH
1/3 HP MOTOR**

HOW TO ORDER REPAIR PARTS

MOTORIZED 13 INCH FLOOR MODEL DRILL PRESS

Now that you have purchased your 13 inch drill press should a need ever exist for repair parts or service, simply contact any Sears Service Center and most Sears, Roebuck and Co. stores. Be sure to provide all pertinent facts when you call or visit.

The model number of your 13 inch drill press will be found on a plate attached to the rear of the head.

WHEN ORDERING REPAIR PARTS, ALWAYS GIVE THE FOLLOWING INFORMATION:

PART NUMBER	PART DESCRIPTION
MODEL NUMBER 113.213843	NAME OF ITEM MOTORIZED 13 INCH FLOOR MODEL DRILL PRESS

All parts listed may be ordered from any Sears Service Center and most Sears stores. If the parts you need are not stocked locally, your order will be electronically transmitted to a Sears Repair Parts Distribution Center for handling.

Sold by SEARS, ROEBUCK AND CO., Chicago, IL. 60684 U.S.A.