

SAVE THIS MANUAL  
FOR FUTURE REFERENCE



**owners  
manual**

**MODEL NO.  
113.213850**

**DRILL PRESS WITH  
1/2 HP MOTOR**

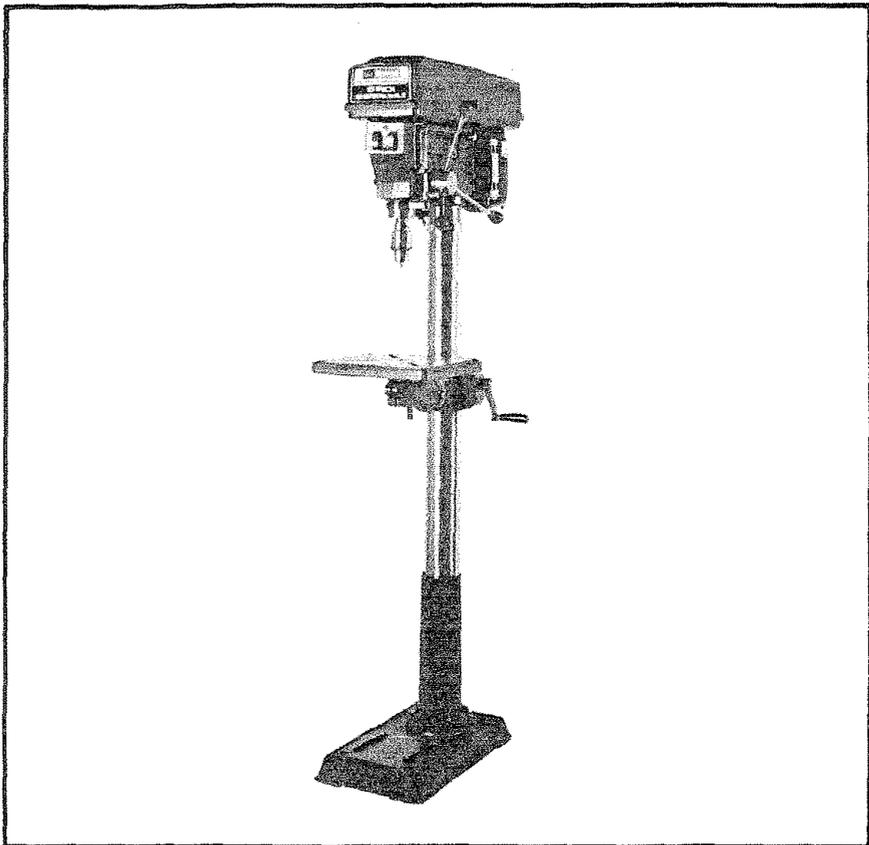
Serial  
Number \_\_\_\_\_

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



**MOTORIZED  
15 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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**6. Stability of Drill Press**

The drill press should be bolted to the floor; an alternate is to securely bolt a piece of 1/2" exterior plywood to the underside of the Base, extending to both sides, and to rear if desired.

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.

**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:

- a. Relaxing your grip of the workpiece while surfacing or planing.
- b. Taking too heavy a cut while surfacing or planing.
- c. Ignoring the instructions for surfacing or planing.

**9. Protection: Eyes, Hands, Face, Ears, Body**

**WARNING: FOR YOUR OWN SAFETY, DO NOT WEAR GLOVES, NECKTIE OR LOOSE CLOTHING, AND TIE BACK LONG HAIR WHEN OPERATING DRILL PRESS.**

- a. If any part of your drill press is 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.

ANSI Z87.1, and a face mask if operation is dusty. Wear ear plugs or muffs during extended periods of operation.

- c. Never place your fingers in a position where they could contact the drill or other cutting tool if the workpiece should unexpectedly shift.
- d. To avoid injury, follow instructions exactly as given and shown in adjusting spring tension of quill.
- e. ALWAYS position backup material to contact the left side of the column. POSITION workpiece to butt against the column whenever possible—if it is too short, clamp solidly to the Table. Use table slots or clamping ledge around outside edge of Table. This is to prevent the drill bit from grabbing the work from your hands. This action would cause the workpiece to spin with the drill, and could cause serious injury. A drill press vise must be fastened to the table.
- f. Never perform any operation "free-hand" (hand-holding workpiece rather than support it on the Table), except when polishing — **Wear Safety Goggles!**
- g. Securely lock Head and Support to Column, Arm to Support, and Table to Arm before operating Drill Press.
- h. Never perform any operation by moving the Head or Table with respect to one another.
- i. Before pulling the motor switch "ON", be positive the belt guard is closed, the Chuck is installed properly, and the drill or other cutting tool is securely clamped in the chuck.
- j. Before starting the operation, jog the motor switch to be sure the drill or other cutting tool does not have excessive run-out or cause vibration.
- k. Do not operate the Drill Press unless the Depth Stop and Stop Nut are installed.
- l. Use the spindle speed recommended for the specific operation and workpiece material - refer to panel on left side of the Head for drilling information; for accessories, refer to the instruction sheets that accompany the accessories.
- m. If workpiece overhangs the Table such that it will fall to floor if unsupported, clamp it to the Table or provide auxiliary support.

# additional safety instructions for drill presses

- n. Use fixtures for unusual operations to adequately hold, guide and position workpiece for best quality and minimum hazard.
  - o. Never climb on the drill press Table.
  - p. Turn the motor Switch off and put away the Switch Key when leaving the drill press.
  - q. DO NOT perform layout, assembly, or set-up work on the table while the cutting tool is rotating.
  - r. ALWAYS clamp workpiece securely to table when table is tilted.
- 10. Use only accessories designed for this drill press.**
- 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 2300 RPM.
  - c. Do not install or use any drill that exceeds 7" in length or extends 6" below the chuck jaws.
  - d. Do not use wire wheels, router bits, shaper cutters, or circle (fly) cutters 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 12 speeds as listed below:

300 RPM	1450 RPM
375 RPM	1530 RPM
525 RPM	2000 RPM
560 RPM	2200 RPM
700 RPM	3400 RPM
860 RPM	4600 RPM

See right side of Head for specific placement of belts 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 INFLECT 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. 113.213850 is shipped complete in one carton and includes a 1/2 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.

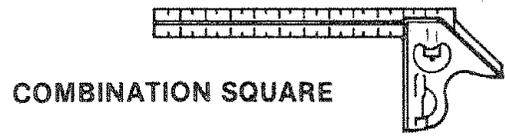
If any parts are missing, do not attempt to assemble the drill press, plug in the power cord or turn the switch on until the missing parts are obtained and installed correctly.

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

**CAUTION:** Never use gasoline, naphtha or similar highly volatile solvents.

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

## TOOLS NEEDED

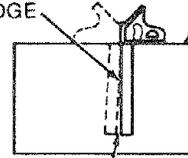


COMBINATION SQUARE

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

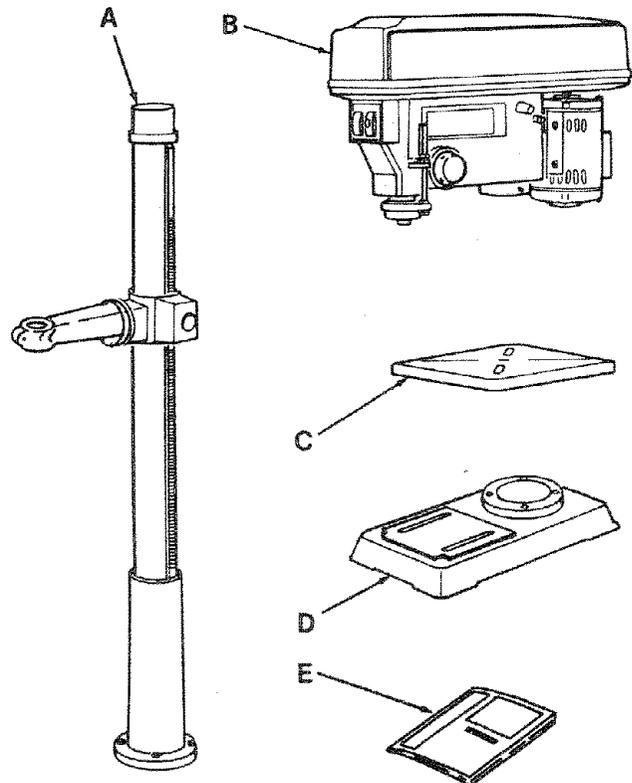


8-INCH ADJUSTABLE WRENCH



## TABLE OF LOOSE PARTS

Item	Description	Qty.
A	Column Assembly .....	1
B	Head Assembly .....	1
C	Table .....	1
D	Base .....	1
E	Owners Manual .....	1
	Box of Miscellaneous Small Parts, Part # 71388 Consisting of the Following:	
	Chuck .....	1
	Rod .....	3
	Support Lock .....	1
	Chuck Key 16MM .....	1
	Table Crank Assembly .....	1
	*Knob .....	3
	*Tension Rod .....	1
	*Tension Rod Knob .....	1
	*Screw, Pan Hd. 10-32x3/8 .....	1
	*Pointer .....	1
	*Set Screw Wrench 1/8 .....	1
	*Set Screw Wrench 3/16 .....	1
	*Bolts, Hex Hd. 3/8-16x1 1/2 .....	4
	*Lockwasher 3/8 .....	4
	*Hex Soc. Set Screw 3/8-16x1/2 .....	2
	*Switch Key .....	1



\*Parts Contained In Loose Parts Bag; Part No. 71389

# 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.

**CAUTION: Do not use blower or washing machine motors or any motor with an automatic reset overload protector as their use may be hazardous.**

## CONNECTING TO POWER SOURCE OUTLET

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

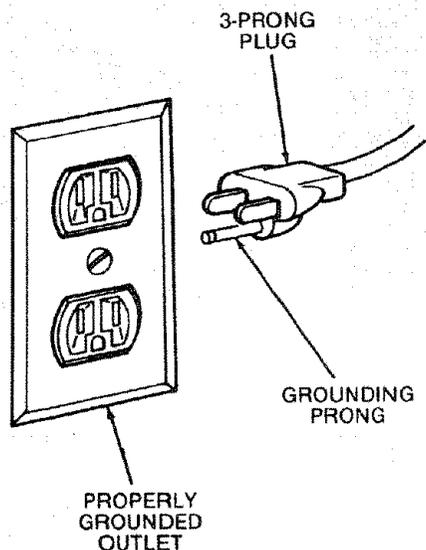
Plug power cord into a 110-120V properly grounded type outlet protected by a 15-amp. dual element time delay or Circuit-Saver fuse or circuit breaker.

**IF YOU ARE NOT SURE THAT YOUR OUTLET 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.



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

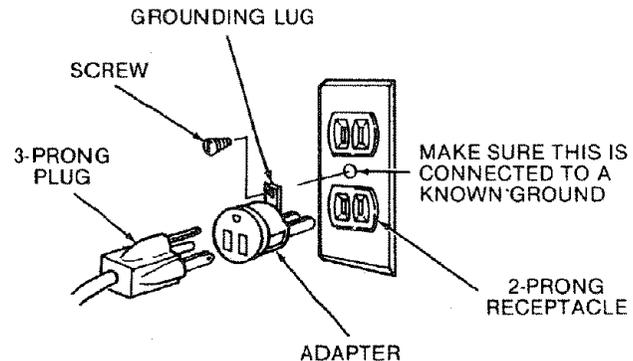
This power tool is equipped with a 3-conductor cord and grounding type plug which has a grounding prong, approved by Underwriters' Laboratories and the Canadian Standards Association. The ground conductor has a green jacket and is attached to the tool housing at one end and to the ground prong in the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

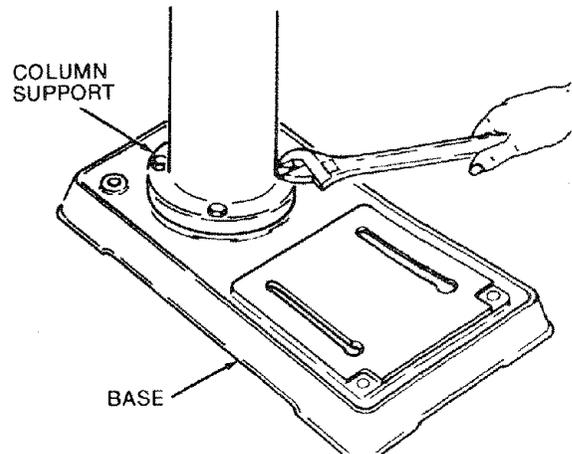
Extension Cord Length	Wire Size A.W.G.
Up to - 100 Ft.	16
100 - 200 Ft.	14
200 - 400 Ft.	10

# assembly

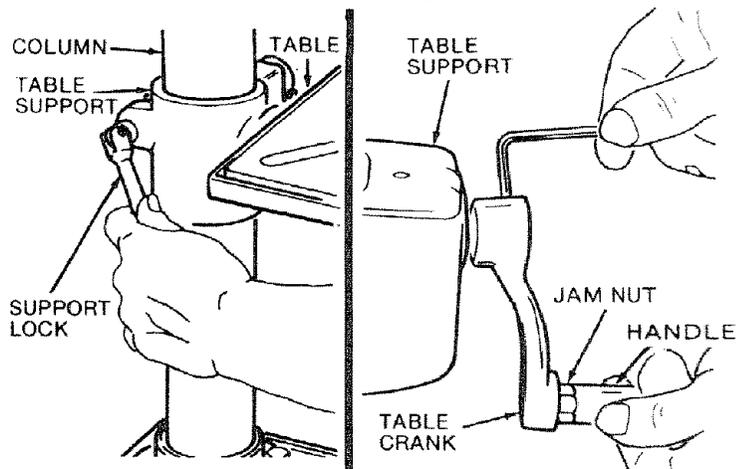
**WARNING: FOR YOUR OWN SAFETY, NEVER CONNECT PLUG TO POWER SOURCE OUTLET UNTIL ALL ASSEMBLY STEPS ARE COMPLETED.**

## ASSEMBLY OF COLUMN AND TABLE HARDWARE

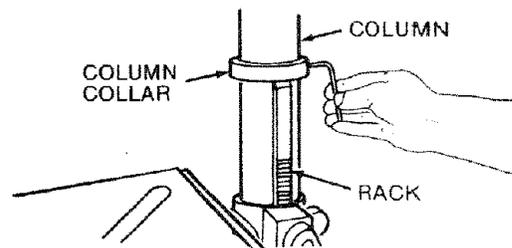
1. Position base on floor. Remove protective covering and discard.
2. Remove protective sleeve from column tube and discard. Place column assembly on base, and align holes in column support with holes in base.
3. Locate four (4) 3/8-16X1½ bolts and four (4) 3/8 lockwashers among loose parts bag.
4. Install 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 set screw wrench among loose parts.
6. Install table crank assembly and tighten set screw with wrench provided.
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.

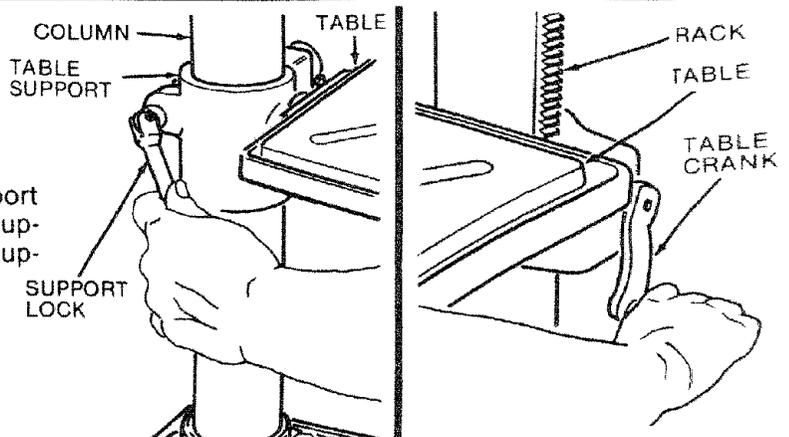


9. Position column collar over rack and tighten set screw in collar with wrench provided. Allow sufficient movement to prevent rack from binding when moving table to the side.



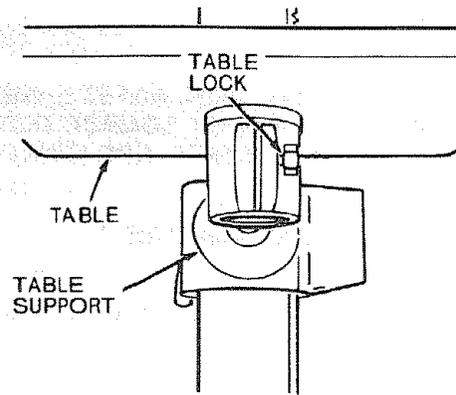
## INSTALLING THE TABLE

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

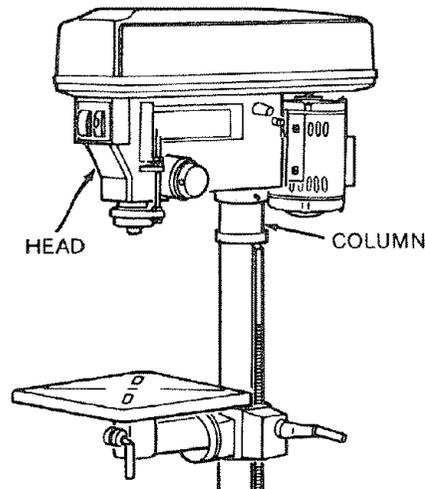
2. Remove protective covering from table and discard. Place table in support and tighten table lock (located under table) by hand.



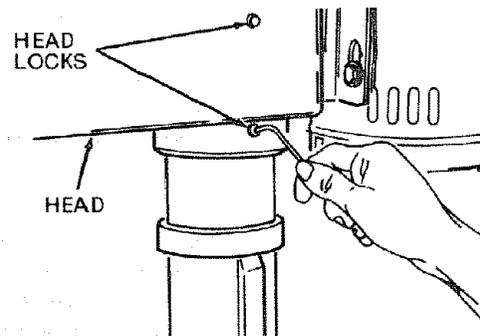
## INSTALLING THE HEAD

**CAUTION: THE HEAD ASSEMBLY WEIGHS ABOUT 60 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.

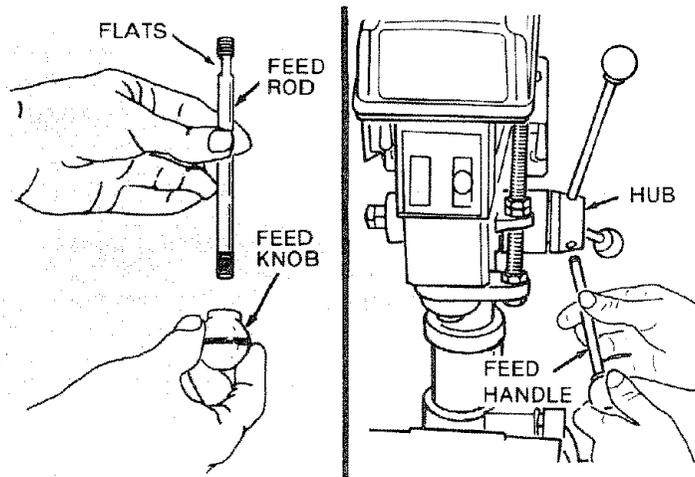


2. Locate two (2) 3/8-16x1/2 set screws among loose parts bag.
3. Install set screws in right side of head to lock head into position, and tighten with wrench provided.

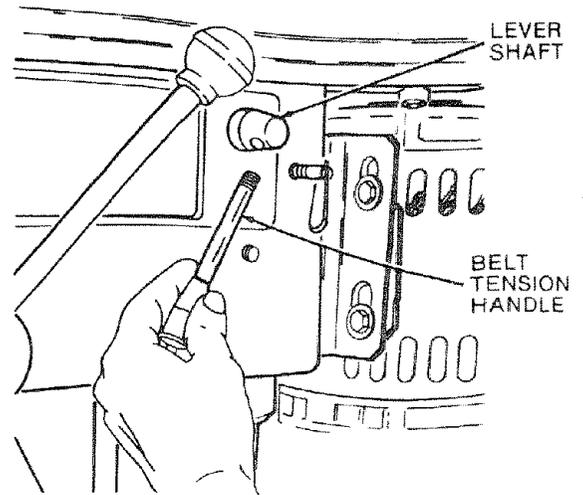


## INSTALLING FEED AND TENSION HANDLES

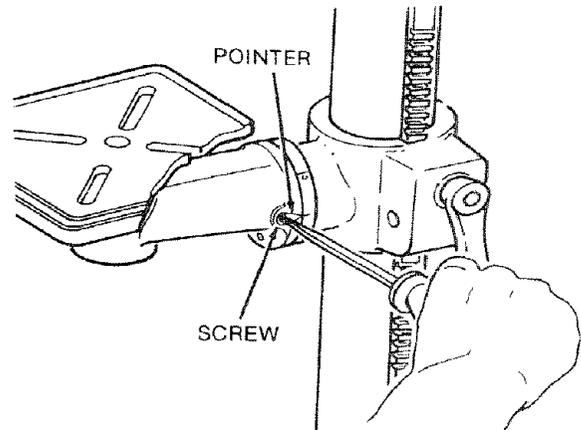
1. Locate three (3) rods and three (3) knobs among loose parts.
2. Screw a knob on each rod, then screw the other rod end into the threaded holes in the hub and tighten. Use an adjustable wrench on the flats provided to tighten the feed rods securely.



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

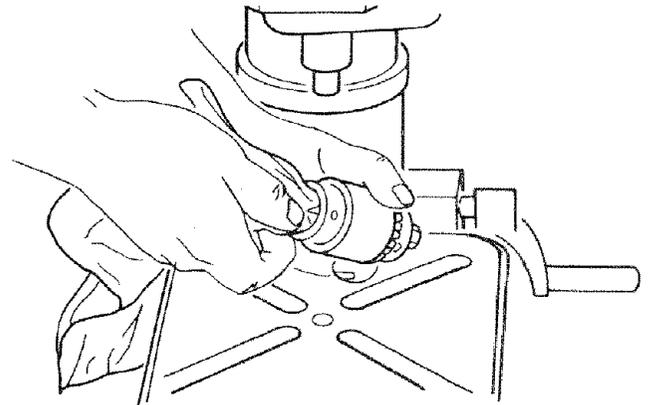


5. Locate one (1) 10-32x3/8 pan hd. screw and one (1) pointer among loose parts bag.
6. Install screw through pointer into table support, and tighten with screwdriver.

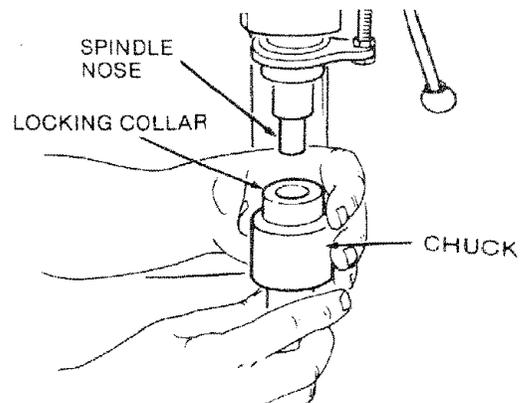


### INSTALLING THE CHUCK

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."

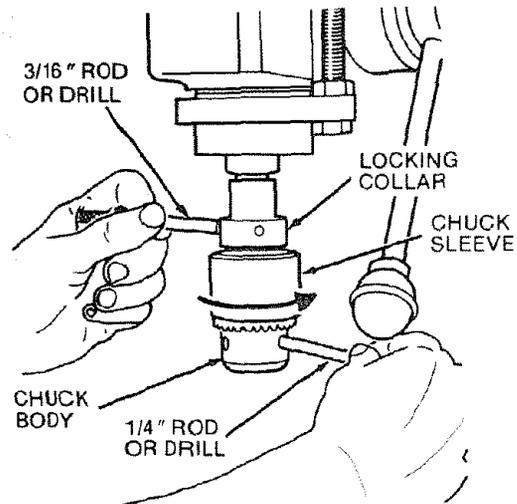


2. Apply a light film of oil such as Sears household oil to the spindle nose.
3. Place the chuck on the spindle nose and screw the locking collar up as far as it will go.



## assembly

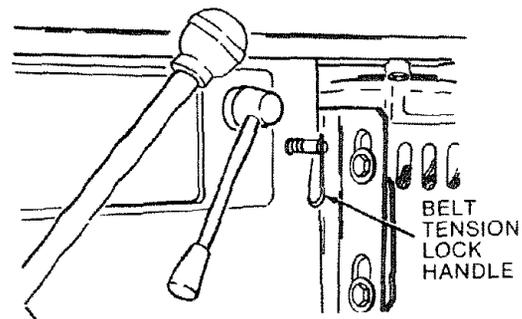
4. Insert a piece of 1/4" dia. STEEL ROD in to one of the holes in the chuck body.
5. Insert 3/16" dia. rod or drill into one of the holes in the collar...TURN IT IN THE DIRECTION OF ARROW UNTIL IT IS TIGHT.
6. To remove chuck, turn the collar in the opposite direction until the chuck is ejected from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



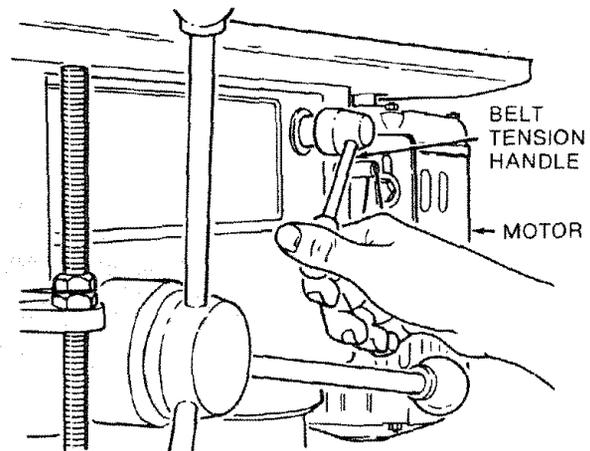
## TENSIONING BELT

**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 Handles located on each side of Drill Press head.

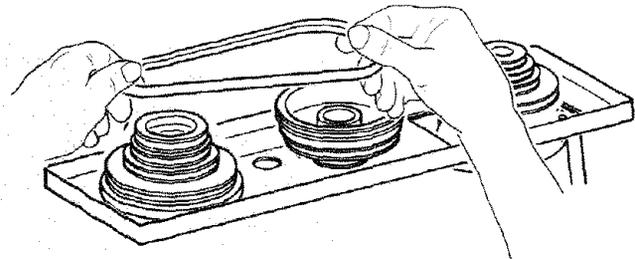


3. Loosen Belt Tension Handle by turning clockwise.

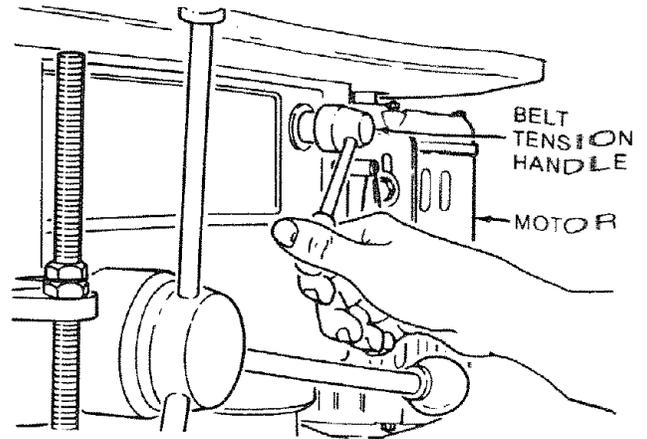


4. Choose speed for drilling operation, and move belt to correct position for desired speed.

**NOTE:** Refer to chart on side of Drill Press for Recommended Drilling Speeds.

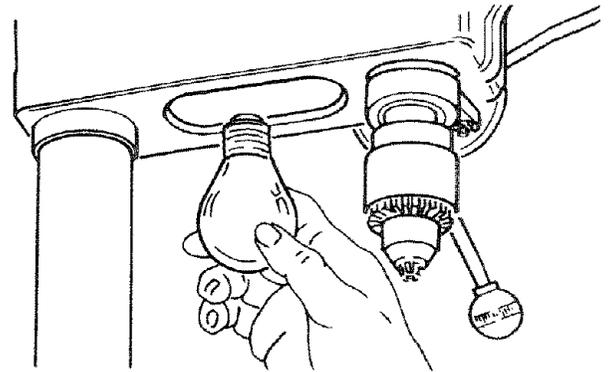


5. Apply tension to belt by turning Belt Tension Handle counter clockwise until belt has moderate tension on pulleys.
6. Tighten Belt Tension Lock Handles. Belt should deflect approximately 1/2 inch by thumb pressure at center of belt.
7. Close belt guard.
8. If belt slips while drilling, readjust belt tension.



### INSTALLING LIGHT BULB

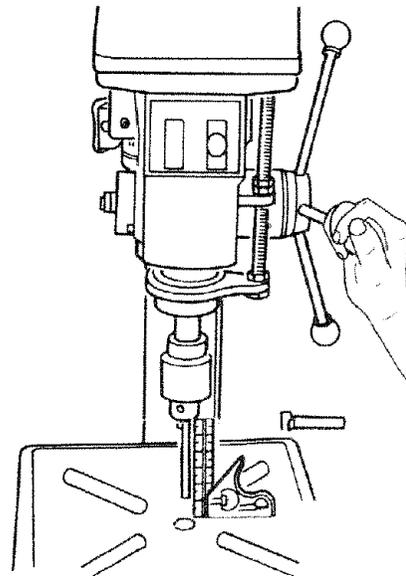
1. Install a light bulb (not larger than 60 watt) into the socket inside the head.



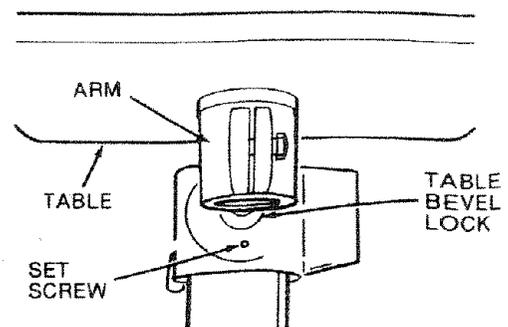
### ADJUSTING THE TABLE SQUARE TO HEAD

**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.



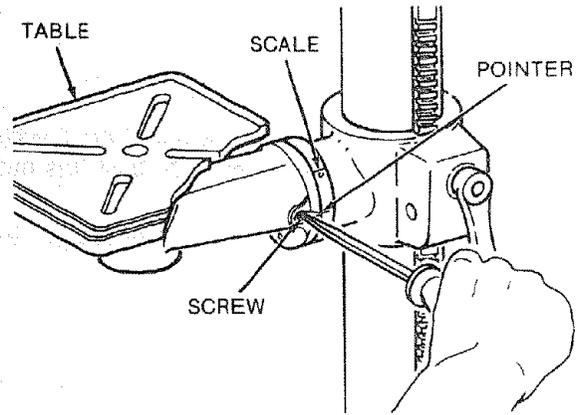
3. If an adjustment is necessary, loosen the set screw under bevel lock with set screw wrench, then loosen the table bevel lock with adjustable wrench. [These adjustments are located under the table].
4. Align the table square to the rod by tilting arm until square and rod are in line.
5. Retighten table bevel lock nut.
6. Retighten set screw.



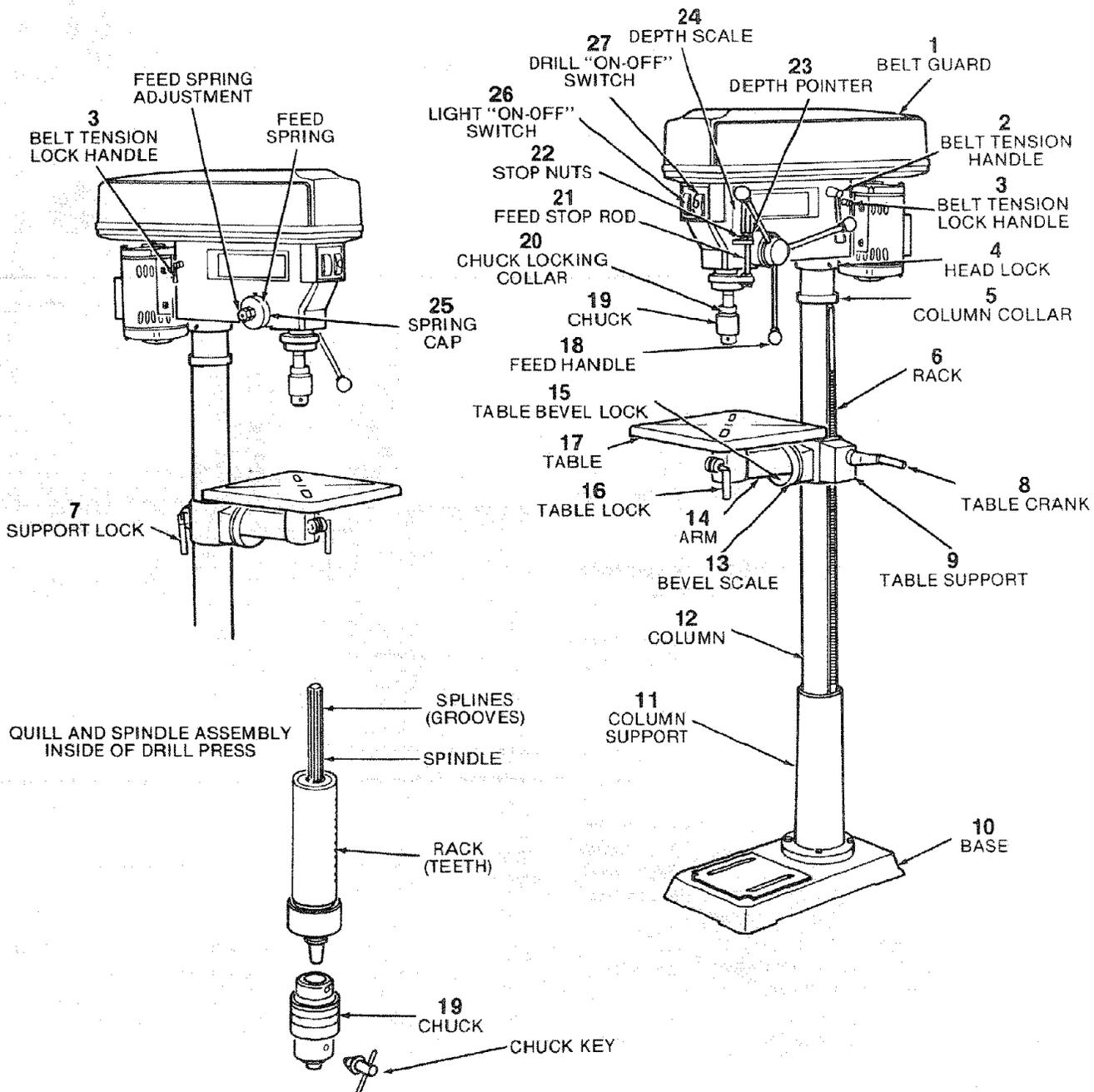
# assembly

## 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.



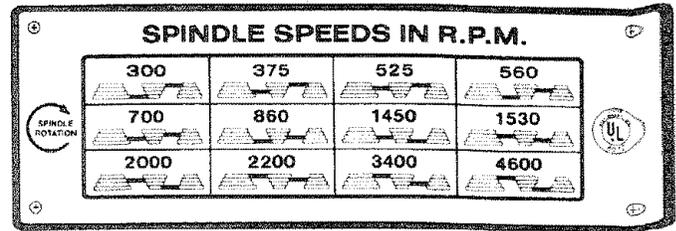
## getting to know your drill press



This Drill Press has 12 speeds as listed below:

300 RPM	1450 RPM
375 RPM	1530 RPM
525 RPM	2000 RPM
560 RPM	2200 RPM
700 RPM	3400 RPM
860 RPM	4600 RPM

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



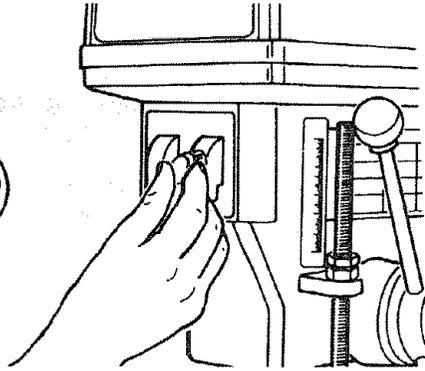
- BELT GUARD**...Covers pulleys and belt during operation of drill press.
- BELT TENSION HANDLE**...Turn handle counter clockwise to apply tension to belt, turn handle clockwise to release belt tension.
- BELT TENSION LOCK HANDLES**...Tightening handles locks motor bracket support and **BELT TENSION HANDLE** to maintain correct belt distance and tension.
- HEAD LOCKS**...Lock the head to the column. ALWAYS have them locked in place while operating the drill press.
- COLUMN COLLAR**...Holds the rack to the column. Rack remains movable in collar to permit table support movements.
- RACK**...Combines with gear mechanism to provide easy elevation of table by hand operated table crank.
- SUPPORT LOCK**...Tightening locks table support to column. Always have it locked in place while operating the Drill Press.
- TABLE CRANK**...Turn clockwise to elevate table. Support lock must be released before operating crank.
- TABLE SUPPORT**...Rides on column to support arm and table.
- 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").
- COLUMN SUPPORT**...Supports column, guides rack, and provides mounting holes for column to base.
- COLUMN**...Connects head, table, and base on a one-piece tube for easy alignment and movement.
- BEVEL SCALE**...Shows degree table is tilted for bevel operations. Scale is mounted on side of arm.
- ARM**...Extends beyond table support for mounting and aligning the table.
- TABLE BEVEL LOCK**...Locks the table in any position from 0°-45°.
- TABLE LOCK**...Table can be rotated in various positions and locked.
- TABLE**...Provides working surface to support workpiece.
- 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.
- CHUCK**...Holds drill bit or other recommended accessory to perform desired operations.
- CHUCK LOCKING COLLAR**...Draws the chuck onto the spindle nose. It prevents the chuck from coming loose during operation. ALWAYS have the collar tightened.
- FEED STOP ROD**...Holds stop nuts for drilling to specific depths.
- STOP NUTS**...Limits the downward movement of the quill at any desired point within its travel, and prevents the pointer from moving upward.
- DEPTH POINTER**...Indicates drilling depth and is located between stop nuts.
- DEPTH SCALE**...Shows depth of hole being drilled.
- SPRING CAP**...Provides means to adjust quill spring tension.
- LIGHT "ON-OFF" SWITCH**...Separate switch to operate light independent of drill switch. This permits the light to be "on" while making setups.

# getting to know your drill press

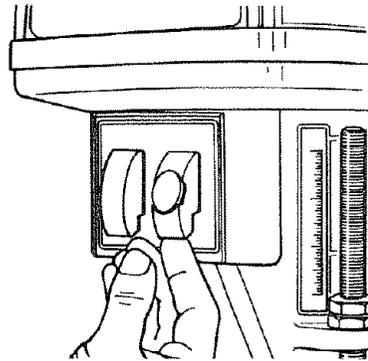
27. **DRILL "ON-OFF" SWITCH**... Has locking feature. THIS FEATURE IS INTENDED TO PREVENT UNAUTHORIZED AND POSSIBLE HAZARDOUS USE BY CHILDREN AND OTHERS.

Insert KEY into switch.

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

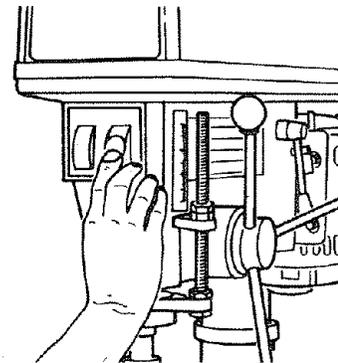


To turn drill ON . . .  
Insert finger under switch lever and pull.



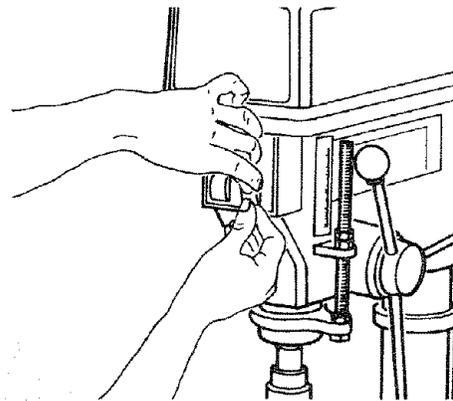
To turn drill OFF . . . Push lever in.

In an emergency;...the drill bit BINDS... STALLS... STOPS... or tends to tear the work-piece 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 preclude 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.

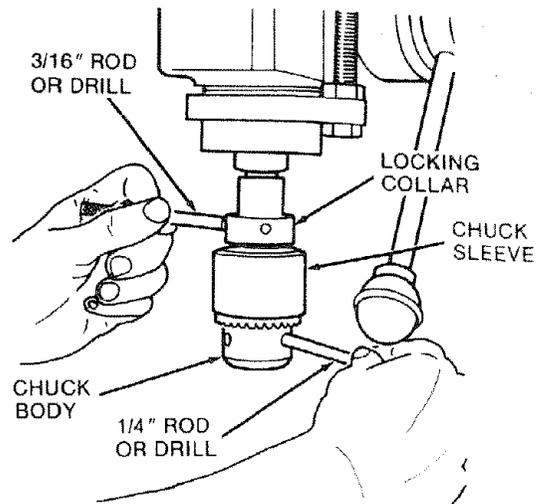
**BELT TENSION** . . . Refer to section "Assembly - Tensioning Belt".

**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

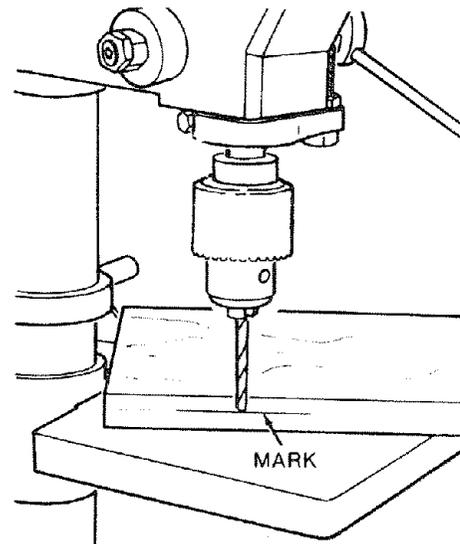
1. Insert a piece of 1/4 in. dia. steel rod in one of the holes in the chuck body.
2. Insert 3/16 in. dia. rod or drill into one of the holes in the collar . . . turn it in the direction of arrow until LOOSE. Continue to turn it until the chuck is released.



## DRILLING TO DEPTH

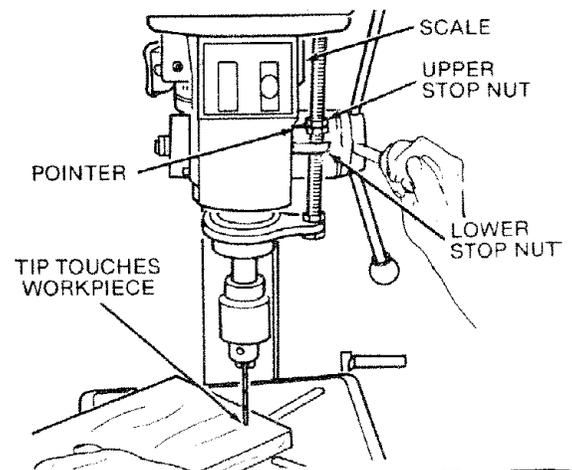
To drill a BLIND hole (not all the way through) to a given depth, can be done two ways.

1. Mark the depth of the hole on the side of the workpiece.
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 —

1. With the switch OFF, bring the drill down until the TIP touches the TOP of the WORK-PIECE.
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 FOLLOWING SAFETY PRECAUTIONS.**

1. Check spindle speed.
2. Before operating, turn the switch "on", then

"off" immediately, to make sure that the cutting tool is centered in the chuck properly and that the cutting tool is not causing excessive vibration.

3. Never perform any operation freehand (hand-holding workpiece rather than supporting it on table) except when polishing.
4. Keep your hands clear of the cutting tool.

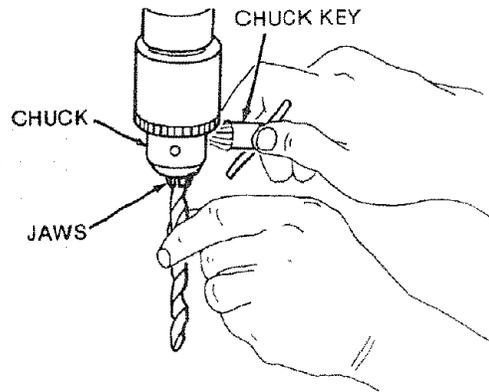
# basic drill press operation

## INSTALLING DRILLS

Insert drill into chuck far enough to obtain maximum GRIPPING of the CHUCK JAWS... the jaws are approx. 1 in. 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.



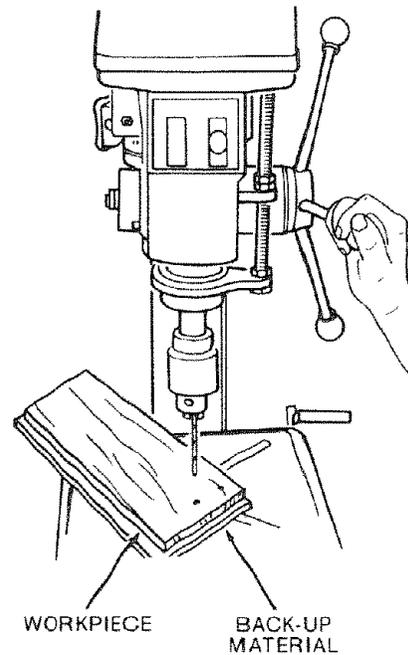
## POSITIONING TABLE AND WORKPIECE

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.

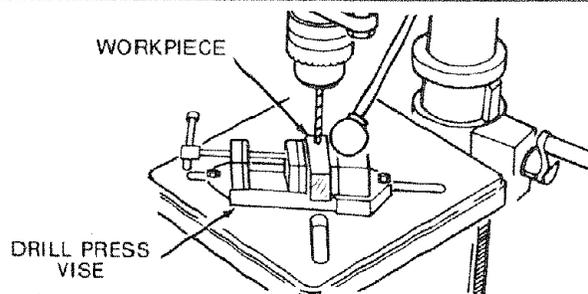
Always place a piece of BACK-UP MATERIAL (wood, plywood...) on the table underneath the workpiece. This will prevent "splintering" or making a heavy burr on the underside of the workpiece as the drill breaks through. The back-up material must contact the left side of the column.

**CAUTION:** To prevent the workpiece or the back-up material from being torn from your hand while drilling, position them against the left side of the column. Failure to do this could result in personal injury.

**CAUTION:** If the workpiece or the back-up material are not long enough to reach the column, CLAMP them to the table. Failure to do this could result in personal injury.



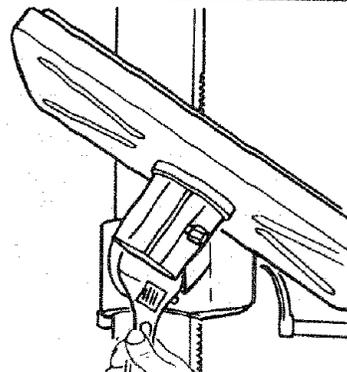
For small pieces that cannot be clamped to the table, use a drill press vise (Optional accessory). The vise must be clamped or bolted to the table.



## 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.



When drilling with the table tilted, **ALWAYS CLAMP WORKPIECE AND BACK-UP MATERIAL SECURELY TO TABLE** before operating Drill Press.

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.

### SOLE 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.

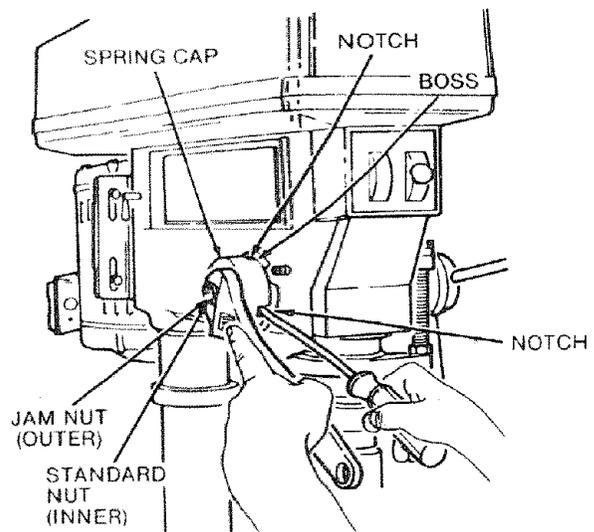
Feeding **TOO SLOWLY** might cause the drill to burn . . . Feeding **TOO RAPIDLY** might stop the motor . . . cause the belt or drill to **SLIP** . . . tear the workpiece **LOOSE** or **BREAK** the drill bit.

## adjustments

**WARNING: FOR YOUR OWN SAFETY TURN SWITCH "OFF" AND REMOVE PLUG FROM POWER SOURCE OUTLET BEFORE MAKING ANY ADJUSTMENTS.**

### 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.
6. Carefully turn screwdriver counter clockwise and engage next notch in boss. **DO NOT REMOVE SCREWDRIVER.**
7. Tighten standard nut with wrench only enough to engage boss. Do not overtighten as this will restrict quill movement.
8. Move stop nuts and depth pointer to uppermost 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, **SLIGHTLY** loosen jam nut until unrestricted.



## **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.

If the power cord is worn or cut, or damaged in any way, have it replaced immediately.

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## **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 on the quill). See "Getting to Know Your Drill Press" - p. 12 for diagram.

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## **recommended accessories**

Drill Bits ..... See Catalog  
Rotary Planer ..... 9-2745  
Hold-Down and Guide ..... 9-2457  
Drill Press Vises ..... See Catalog  
Rotary Table ..... 9-2495  
Drill Press Mortising Kit ..... 9-29503  
Circle Cutter 1/4", 1/2" Shank ..... 9-3645 - 9-3640  
Hole Saws up to 2 1/2 in. dia. max. .... See Catalog

5 Pc. Stop Collar Set ..... 9-67063  
Sanding Drums ..... 9-2497 - 9-2498  
Buffing Wheels up to 4 in. dia. max. . See Catalog  
Polishing Wheel, 1 1/2" x 1 In ..... 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"> <li>1. Incorrect belt tension.</li> <li>2. Dry Spindle.</li> <li>3. Loose spindle pulley.</li> <li>4. Loose motor pulley.</li> </ol>	<ol style="list-style-type: none"> <li>1. Adjust tension. See section "ASSEMBLY - TENSIONING BELT."</li> <li>2. Lubricate spindle. See "Lubrication" section.</li> <li>3. Check tightness of retaining nut on pulley, and tighten if necessary.</li> <li>4. Tighten setscrews in pulleys.</li> </ol>
Drill Burns.	<ol style="list-style-type: none"> <li>1. Incorrect speed.</li> <li>2. Chips not coming out of hole.</li> <li>3. Dull Drill.</li> <li>4. Feeding too slow.</li> <li>5. Not lubricated.</li> </ol>	<ol style="list-style-type: none"> <li>1. Change speed. See section "Getting To Know Your Drill Press" . . . DRILLING SPEED.</li> <li>2. Retract drill frequently to clear chips.</li> <li>3. Resharpen drill.</li> <li>4. Feed fast enough . . . allow drill to cut.</li> <li>5. Lubricate drill. See "Basic Drill Press Operation" section.</li> </ol>
Drill leads off . . . hole not round.	<ol style="list-style-type: none"> <li>1. Hard grain in wood or lengths of cutting lips and/or angles not equal.</li> </ol>	<ol style="list-style-type: none"> <li>1. Resharpen drill correctly.</li> </ol>
Wood splinters on underside.	<ol style="list-style-type: none"> <li>1. No "back-up material" under workpiece.</li> </ol>	<ol style="list-style-type: none"> <li>1. Use "back-up material" . . . See Basic Drill Press Operation" section.</li> </ol>
Workpiece torn loose from hand.	<ol style="list-style-type: none"> <li>1. Not supported or clamped properly.</li> </ol>	<ol style="list-style-type: none"> <li>1. Support workpiece or clamp it . . . See "Basic Drill Press Operation" section.</li> </ol>
Drill Binds in workpiece.	<ol style="list-style-type: none"> <li>1. Workpiece pinching drill or excessive feed pressure.</li> <li>2. Improper belt tension.</li> </ol>	<ol style="list-style-type: none"> <li>1. Support workpiece or clamp it . . . See "Basic Drill Press Operation" section.</li> <li>2. Adjust tension . . . See section "ASSEMBLY - TENSIONING BELT".</li> </ol>
Excessive drill runout or wobble.	<ol style="list-style-type: none"> <li>1. Bent drill.</li> <li>2. Worn spindle bearings.</li> <li>3. Drill not properly installed in chuck.</li> <li>4. Chuck not properly installed.</li> </ol>	<ol style="list-style-type: none"> <li>1. Use a straight drill.</li> <li>2. Replace bearings.</li> <li>3. Install drill properly . . . See "Basic Drill Press Operation" section.</li> <li>4. Install chuck properly . . . refer to "Unpacking and Assembly Instructions . . . INSTALLING THE CHUCK".</li> </ol>
Quill Returns too slow or too fast.	<ol style="list-style-type: none"> <li>1. Spring has improper tension.</li> </ol>	<ol style="list-style-type: none"> <li>1. Adjust spring tension . . . See section "Adjustments - Quill Return Spring".</li> </ol>

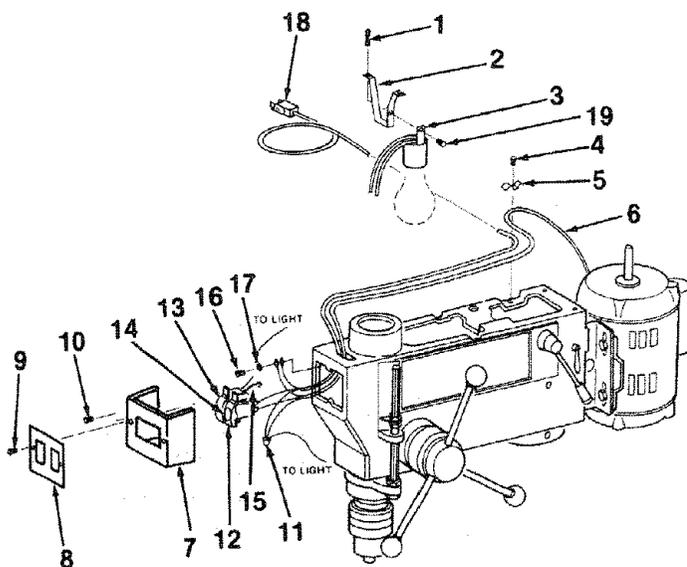


**PARTS LIST FOR CRAFTSMAN 15" DRILL PRESS MODEL NO. 113.213850**

Key No.	Part No.	Description
1	STD 303240	*Belt "V" 3/8X24
2	60522	Ring, Retaining
3	60510	Ring, Retaining
4	STD 315225	*Bearing, Ball 15MM
5	71363	Pulley, Center
6	71364	Pulley, Motor
7	STD 502503	*Screw, Soc. Set 1/4-20X3/8
8	71406	*Belt "V" 3/8X27
9	71315	Pivot Asm.
10	71399	Knob
11	STD 512505	*Screw Pan Hd. 1/4-20x1/2
12	805517	Screw, Pan Hd. 5/16-18X1/2
13	STD 551131	*Lockwasher 5/16
14	71404	Guard
15	71379	Support, Motor Bracket
16	71346	Mount, Motor
17	STD 551150	*Lockwasher 1/2
18	120238	*Nut, Hex 1/2-13
19	71344	*Motor 1/2 H.P.
20	STD 541031	*Nut, Hex 5/16-18
21	STD 551031	*Washer 5/16X1/2X1/32
22	STD 523107	*Screw, Hex Hd. 5/16-18X3/4
23	71380	Support Motor Bracket
24	60514	Ring, Retaining
25	71319	Clamp, Bolt
26	71369	Shaft, Lever

Key No.	Part No.	Description
27	71368	Rod
28	71340	Knob
29	STD 503705	*Screw, Soc. Set 3/8-16X1/2
30	71370	Shaft, Asm. Pinion
31	71367	Rod, Handle
32	71339	Knob
33	71338	Key, Chuck
	60520	Screw, Slotted Set
34		Flat Pt. 3/8-16
35	STD 541037	*Nut, Hex 3/8-16
36	71375	Spring, Torsion
37	71317	Cap, Spring
38	STD 541150	*Nut, Hex 1/2-20
39	STD 541350	*Nut, Hex Jam 1/2-20
40	71334	Head
41	60508	Pin, Taper
42	71342	Lever, Adjusting
43	60515	Ring, Retaining
44	STD 315255	*Bearing, Ball 25MM
45	71372	Spacer, Bearing
46	71337	Insert, Pulley
47	71357	Pulley, Spindle
48	71347	Nut, Ring
—	71389	Bag Of Loose Parts (Not Illus.)
—	71388	Box Of Loose Parts (Not Illus.)
—	71329	Owners Manual (Not Illus.)

**PARTS LIST FOR CRAFTSMAN 15" DRILL PRESS MODEL NO. 113.213850**

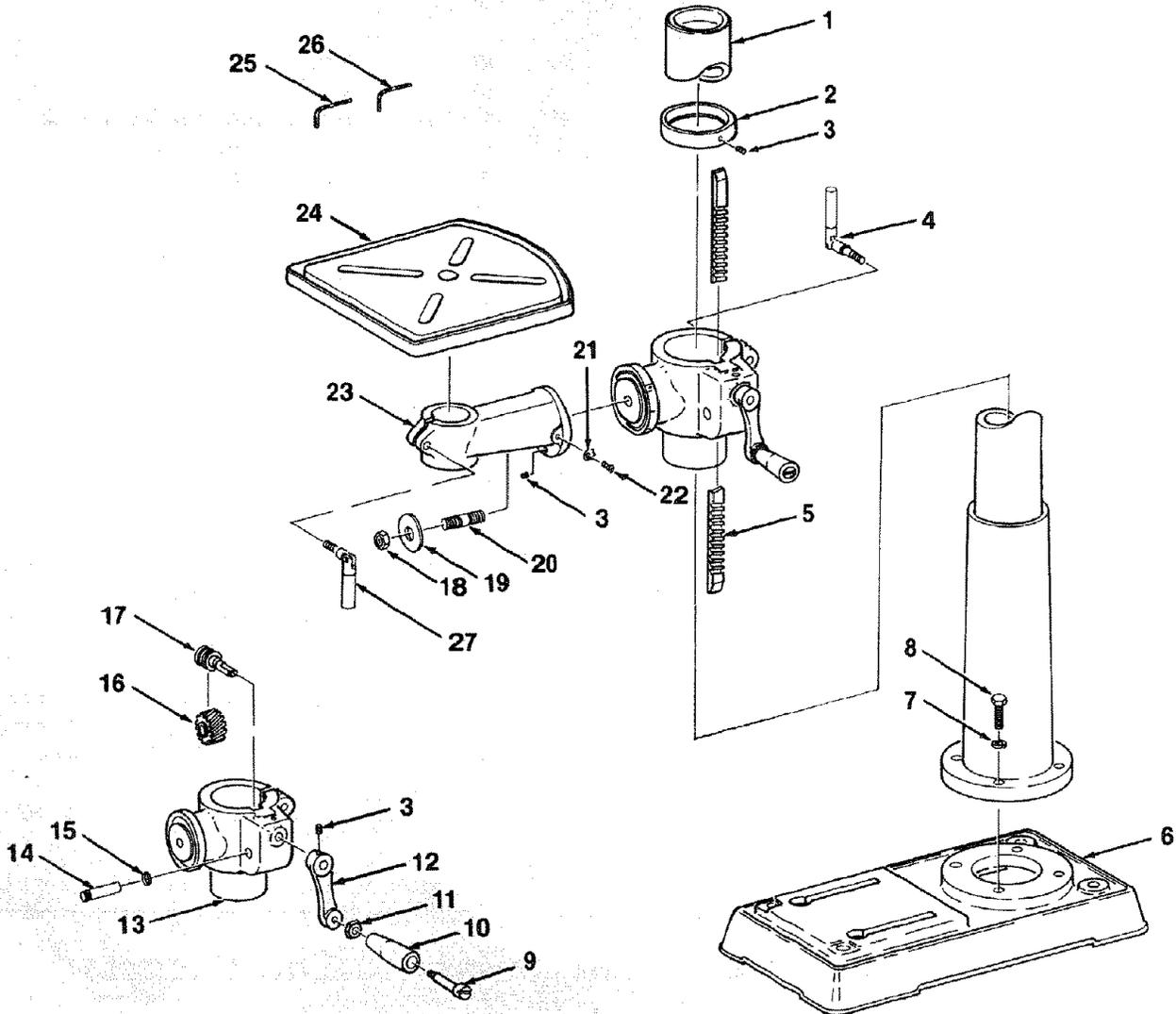


Standard Hardware Item — May be Purchased Locally.

Key No.	Part No.	Description
1	STD 510807	*Screw, Pan Hd. 8-32X3/4
2	71269	Bracket, Bulb
3	71371	Socket, Bulb
4	STD 511103	*Screw, Pan Hd. 10-32x3/8
5	63418	Clamp, Cord
6	71393	Cord, Motor
7	71356	Plate, Switch Mtg.
8	71326	Cover, Switch Plate
9	STD 511105	*Screw, Pan Hd. 10-32x1/2
10	133423	Screw, Flat Hd. 6-32X3/8
11	803709	Connector, Wire
12	62442	Switch, Locking
13	71397	Switch
14	60256	Key, Switch
15	71341	Lead, Jumper Black
16	STD 511002	*Screw, Pan Hd. 10-24X1/4
17	STD 551210	*Lockwasher, Ext. #10
18	71323	Cord W/Plug
19	STD 510803	*Screw Pan Hd. 8-32X3/8

# repair parts

## PARTS LIST FOR CRAFTSMAN 15" DRILL PRESS MODEL NO. 113.213850



Key No.	Part No.	Description
1	71385	Tube, Column
2	71320	Collar, Rack
3	STD 502503	*Screw, Soc. Set 1/4-20X3/8
4	71392	Handle Asm. Table Support
5	71365	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
13	71378	Support, Table
14	71354	Pin, Gear

Key No.	Part No.	Description
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	71312	Arm, Table
24	71381	Table
25	37787	Wrench, Hex "L" 5/32
26	60096	Wrench, Hex "L" 3/16
27	71303	Handle Asm. Table Lock

PARTS LIST FOR CRAFTSMAN 15" DRILL PRESS MODEL NO. 113.213850

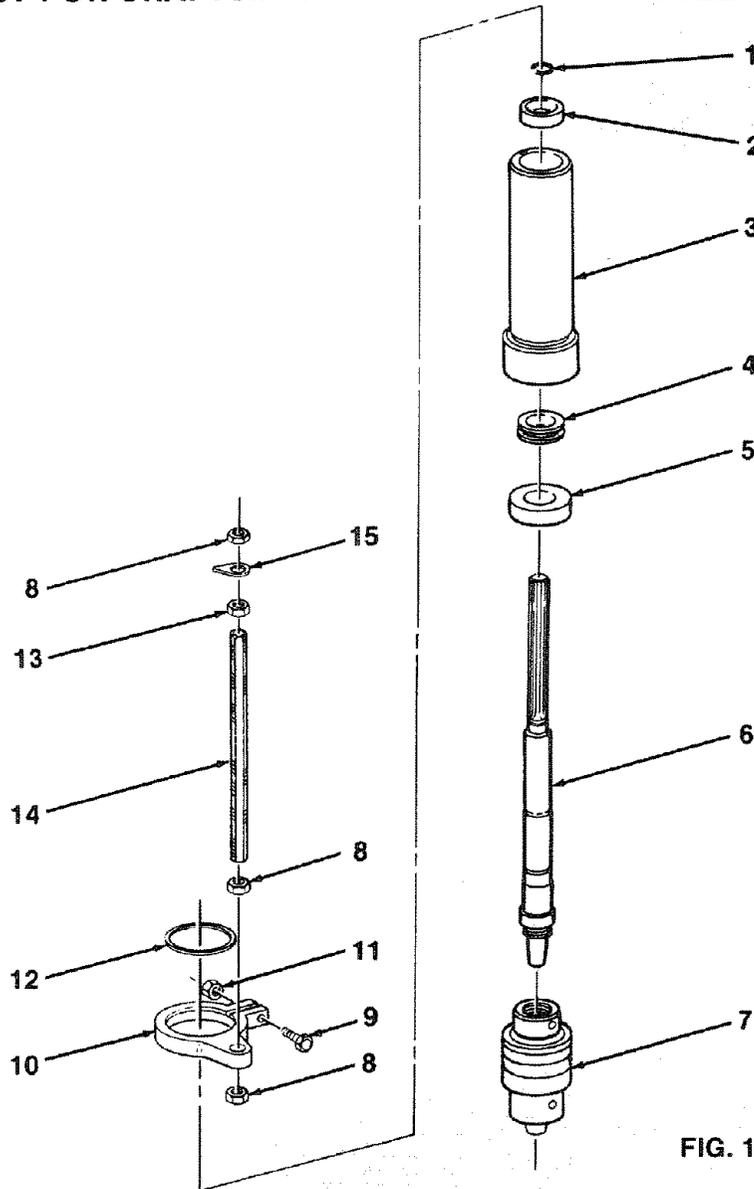


FIG. 1

Key No.	Part No.	Description
1	60509	Ring, Retaining 21/32
2	STD315235	*Bearing, Ball 17MM
3	71384	Tube, Quill
4	60503	Bearing, Thrust
5	STD315255	*Bearing, Ball 25MM
6	71374	Spindle
7	71318	Chuck
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.



**owners  
manual**

**SERVICE**

**MODEL NO.  
113.213850**

**DRILL PRESS WITH  
1/2 HP MOTOR**

**HOW TO ORDER  
REPAIR PARTS**

**MOTORIZED  
15 INCH  
FLOOR MODEL  
DRILL PRESS**

Now that you have purchased your 15 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 15 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 113.213850	NAME OF ITEM MOTORIZED 15 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.**