

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 SER-VICE CENTER/DEPARTMENT THROUGHOUT THE UNITED STATES.

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

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

SEARS, ROEBUCK AND CO., 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.

- KEEP WORK AREA CLEAN Cluttered areas and benches invite accidents. Floor must not be slippery due to wax or sawdust.
- 6. AVOID DANGEROUS ENVIRONMENT Don't use power tools in damp or wet locations or expose them to rain. Keep work area well lighted. Provide adequate surrounding work space.

#### 7. KEEP CHILDREN AWAY

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

#### 8. MAKE WORKSHOP CHILD-PROOF

With padlocks, master switches, by removing starter keys, or storing tools where children can't get them.

#### 9. DON'T FORCE TOOL

It will do the job better and safer at the rate for which it was designed.

#### **10. USE RIGHT TOOL**

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

#### 11. WEAR PROPER APPAREL

Do not wear loose clothing, gloves, neckties, or jewelry (rings, wrist watches) to get caught in moving parts. NONSLIP footwear is recommended. Wear protective hair covering to contain long hair. Roll long sleeves above the elbow.

12. USE SAFETY GOGGLES (HEAD PROTECTION) Wear safety goggles (must comply with ANSI Z87.1) at all times. Everyday eyeglasses are not safety glasses. They only have impact resistant lenses. Also, use face or dust mask if cutting operation is dusty, and ear protectors (plugs or muffs) during extended periods of operation.

#### 13. SECURE WORK

Use clamps or a vise to hold work when practical. It frees both hands to operate tool.

#### 14. DON'T OVERREACH Keep proper footing and balance at all times.

#### 15. MAINTAIN TOOLS WITH CARE

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

#### 16. DISCONNECT TOOLS

Before servicing; when changing accessories such as blades, bits, cutters, etc.

#### 17. AVOID ACCIDENTAL STARTING Make sure switch is in "OFF" position before plug-

ging in.

#### **18. USE RECOMMENDED ACCESSORIES**

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

#### 19. NEVER STAND ON TOOL OR ITS STAND

Serious injury could occur if the tool is tipped or if the cutting tool is accidentally contacted. Do not store materials above or near the tool such that it is necessary to stand on the tool or its stand to reach them.

#### 20. CHECK DAMAGED PARTS

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

- 21. DIRECTION OF FEED Feed work into a blade or cutter against the direction of rotation of the blade or cutter only.
- 22. NEVERLEAVE 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 IN-STALLED ACCORDING TO THE INSTRUCTIONS ... AND UNTIL YOU HAVE READ AND UNDERSTAND THE FOLLOWING:

- 1. General Safety Instructions for Power Tools . 2
- 2. Getting to Know Your Drill Press ..... 17
- 4. Adjustments ...... 24

#### 6. Stability of Drill Press

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

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

#### 7. Location

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

#### 8. Kickback

A kickback occurs when the workpiece is suddenly thrown in the OPPOSITE direction to the DIREC-TION OF FEED: THIS CAN CAUSE SERIOUS IN-JURY. Kickbacks are most commonly caused by use of accessories NOT recommended for this tool.

- 9. Protection: Eyes, Hands, Face, Ears and Body WARNING: TO AVOID BEING PULLED INTO THE SPINNING TOOL -
  - 1. Do NOT wear:
    - gloves
    - necktie
    - loose clothing
    - jewelry
  - 2. Do tie back long hair
  - a. If any part of your drill press is missing, malfunctioning, has been damaged or broken ... such as the motor switch, or other operating control, a safety device or the power cord . . . 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.

- for drill presses 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 always properly support your work so
- Always property 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. side of the column.
- Whenever possible, position the WORK-PIECE to contact the left side of the column-if it is too short or the table is tilted. clamp solidly to the table. Use table slots or clamping ledge around the outside edge of the table.
- When using a drill press VICE, always fasten it to a table.
- Never do any work "FREEHAND" (handholding workpiece rather than supporting it on the table), except when polishing.
- Securely lock Head and Support to Column, and table to support before operating drill press.
- Never move the Head or Table while the tool is running.
- Before starting the operation, jog the motor switch to make sure the drill or other cutting tool does not wobble or cause vibration.
- If a workpiece overhangs the table such that it will fall or tip if not held, clamp it to the table or provide auxiliary support.
- Use fixtures for unusual operations to adequately hold, guide and position workpiece.
- Use the SPINDLE SPEED recommended for the specific operation and workpiece material-check the inside of the Belt Guard for drilling information; for accessories, refer to the instructions provided with the accessories.
  - f. Never climb on the drill press Table, it could break or pull the entire drill press down on you.
  - g. Turn the motor Switch Off and put away the Switch Key when leaving the drill press.
  - h. To avoid injury from thrown work or tool contact, do NOT perform layout, assembly, or setup work on the table while the cutting tool is rotating.
- 10. Use only accessories designed for this drill press to avoid serious injury from thrown broken parts or work pieces.
  - a. 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 this drill press.

Ö

SPINOLE

ROTATION

(ŲĽ

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

FOR YOUR OWN SAFETY: DANGER

Know This Tool! Read and Understand Owner's Manual before Using this Machine. Use Recommended Drill Speed-See Chart Inside Pulley Cover.

- Always wear safety goggles that comply with ANSI Z87.1
- Do not wear gloves, necktie or loose clothing. Tie back long hair.
- Securely clamp work to table if it is too short to contact the column when in operating position.
- Securely lock head and support to column, and table to support, before operating drill press.
- ■ Use only recommended accessories.

Ó

12. This Drill Press has 4 speeds as listed below:

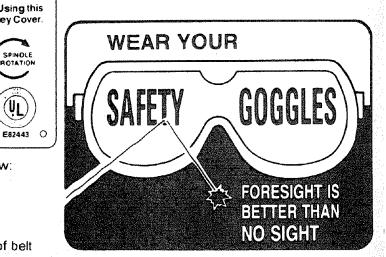
480 RPM 930 RPM 1750 RPM 3000 RPM

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

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

WARNING: DO NOT ALLOW FAMILIARITY (GAINED FROM FREQUENT USE OF YOUR DRILL PRESS) TO BECOME COMMONPLACE. ALWAYS RE-MEMBER 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 comply with ANSI Z87.1 (shown on Package) before commencing power tool operation. Safety Goggles are available at Sears retail or catalog stores.





# glossary of terms

#### 1. Workpiece

The item on which the cutting operations is being performed.

#### 2. Drill

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

#### 3. Backup Material

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

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

Revolution Per Minute (R.P.M.) The number of turns completed by a spinning object in one minute. Spindle Speed The RPM of the spindle.

5. Spindle Speed

# table of contents

#### Page

Getting to Know Your Drill Press 17	
On-Off Switch	
Removing the Chuck	
Drilling to Depth	
Depth Scale	n
Basic Drill Press Operation	5
Installing Drills	-
Positioning Table and Workpiece	3
Tilting Table	5
Hole Location	μ
Feeding 24 3	3
Adjustments 24	
Quill Return Spring	
Maintenance 25	
Lubrication	
Recommended Accessories	
Trouble Shooting	
Repair Parts	

Page

# 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 UNEX-PECTED STARTUP, DO NOT USE BLOWER OR WASHING MACHINE MOTORS OR ANY MOTOR WITH AN AUTOMATIC RESET OVERLOAD PRO-TECTOR.

#### CONNECTING TO POWER SOURCE OUTLET

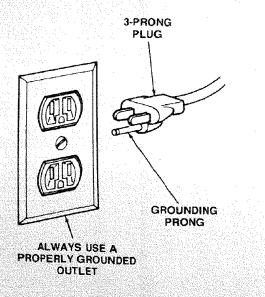
This machine must be grounded while in use to protect the operator from electric shock.

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

NOT ALL OUTLETS ARE PROPERLY GROUNDED. IF YOU ARE NOT SURE THAT YOUR OUTLET, AS PICTURED BELOW, IS PROPERLY GROUNDED, HAVE IT CHECKED BY A QUALIFIED ELECTRICIAN. WARNING: TO AVOID ELECTRIC SHOCK, DO NOT TOUCH THE METAL PRONGS ON THE PLUG, WHEN INSTALLING OR REMOVING THE PLUG TO OR FROM THE OUTLET.

WARNING: FAILURE TO PROPERLY GROUND THIS POWER TOOL CAN CAUSE ELECTRICUTION OR SERIOUS SHOCK, PARTICULARLY WHEN USED IN DAMP LOCATIONS, OR NEAR METAL PLUMBING. IF SHOCKED, YOUR REACTION COULD CAUSE YOUR HANDS TO HIT THE CUTTING TOOL.

IF POWER CORD IS WORN OR CUT, OR DAMAGED IN ANY WAY, HAVE IT REPLACED IMMEDIATELY TO AVOID SHOCK OR FIRE HAZARD.



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

6

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

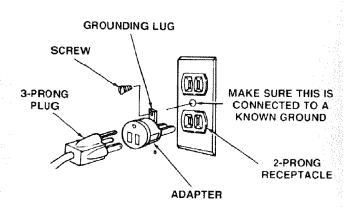
This plug requires a mating 3-conductor grounded type outlet as shown.

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

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

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

WARNING: THE GREEN GROUNDING LUG EX-TENDING FROM THE ADAPTER MUST BE CON-NECTED 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 3prong grounding type plugs and 3-pole receptacles which accept the tools plug.

Extension Cord Length	Wire Size A.W.G.
0-25 Feet	16
26-50 Feet	14
51-100 Feet	12

# unpacking and checking contents

WARNING: TO AVOID INJURY FROM UNEX-PECTED STARTING OR ELECTRICAL SHOCK, DO NOT PLUG THE POWER CORD INTO A SOURCE OF POWER. THIS CORD MUST REMAIN UNPLUG-GED WHENEVER YOU ARE WORKING ON THE DRILL PRESS.

Model 113.213090 Drill Press is shipped complete in one box.

1. Unpacking and Checking Contents

a. Separate all "loose parts" from packaging materials and check each item with "Table of Loose Parts" to make sure all items are accounted for, before discarding any packing material.

WARNING: IF ANY PARTS ARE MISSING. DO NOT ATTEMPT TO ASSEMBLE DRILL PRESS. PLUG IN THE POWER CORD, OR TURN THE SWITCH ON UNTIL THE MISSING PARTS ARE OBTAINED AND ARE INSTALLED CORRECTLY.

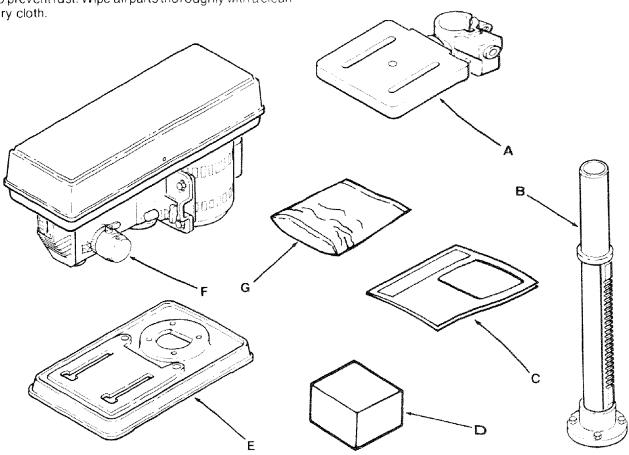
2. Remove the protective oil that is applied to the table and column. Use any ordinary household type grease and spot remover.

WARNING: TO AVOID FIRE OR TOXIC REAC-TION, NEVER USE GASOLINE, NAPTHA OR SIMILAR HIGHLY VOLATILE SOLVENTS.

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

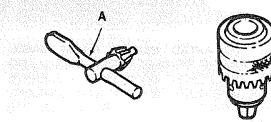
## TABLE OF LOOSE PARTS

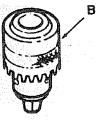
ltem	Description	Qty.	4
А	Table/Support Asm.	. 1	and
$\Box$	Column Support ASM.	. 1	6
С	Owner's Manual		Ξ <u></u>
D	Box of Loose Parts		<u>g</u>
E	Base		ğ-
F	Head Asm.	] :	ລັງ
G	Bag of Loose Parts	. 1	Ċ



## List of Loose Parts in Box 507884

		101117	2045		<b>-</b>		<u>135.06</u>		<u></u>	
lte /	가지 말을	huc	k Ke	<b>v</b> -		criptio			Qty.	
	3 C					•	9000/069623	1997 - 1997 - 1997 • Jan • Jan • Jan • 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 19 • Jan •		
							n de la seg Vinte de la segui		아는 것을 가 사람이 같은 것 사람이 같은 것	
		an di Anto		아파이다 - 고양하				(Balen) Bartana		

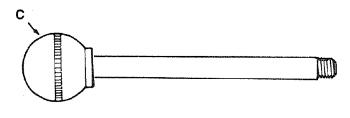


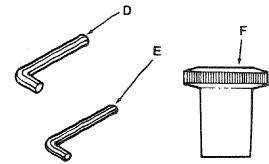


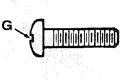
#### List of Loose Parts in Bag 507885

Item	Description	Qty.
C	Feed Handle	3
D	Wrench Hex "L" 3mm	1
E	Wrench Hex "L" 4mm	1
*F	Knob	1
*G	Screw Pan Hd. M5 x 0.8-12	1
Н	Table Crank	1
1	Support Lock Handle	1
*J_	Switch Key	1
*K	Screw Hex Hd. M8 x 1.25-20	4

#### \* These Parts Shown Full Size











.1

K

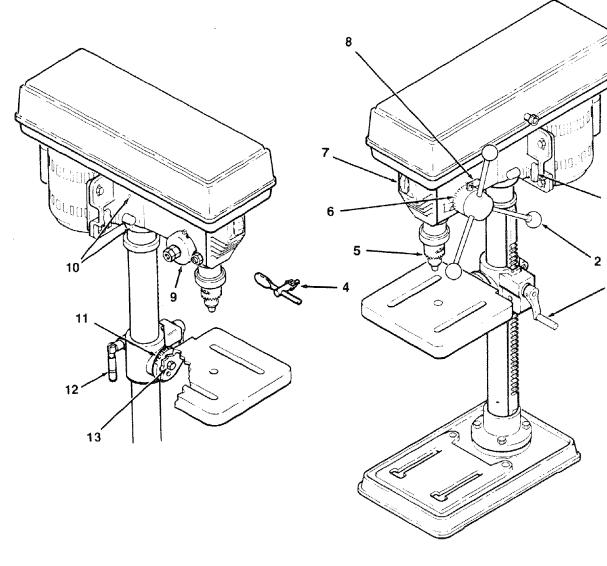
# Location and Function of Controls

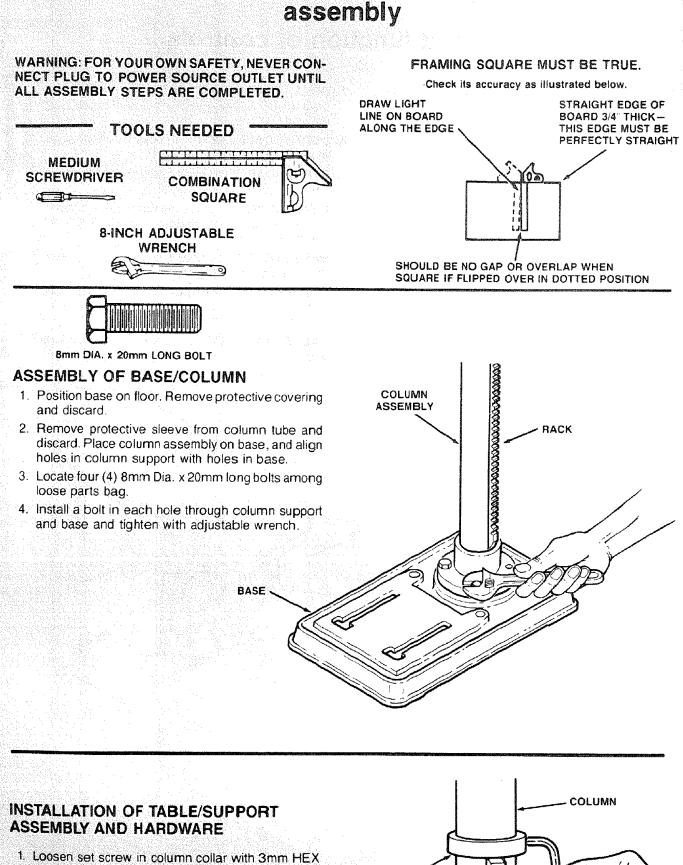
3

# location and function of controls

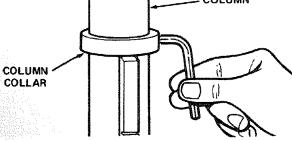
- 1. BELT TENSION LOCK HANDLES... Tightening handles locks motor bracket support and BELT TENSION HANDLE to maintain correct belt distance and tension.
- 2. FEED HANDLE ... For moving the chuck up or down. One or two of the handles may be removed if necessary whenever the workpiece is of such unusual shape that it interferes with the handles.
- 3. TABLE CRANK . . . Turn clockwise to elevate table. Support lock must be released before operating crank.
- 4. CHUCK KEY . . . Used to tighten drill in the chuck and also to loosen the chuck for drill removal.
- 5. CHUCK . . . Holds drill bit or other recommended accessory to perform desired operations.
- 6. DEPTH SCALE . . . Allows operator to adjust drill press to drill to a desired depth.

- 7. DRILL "ON-OFF" SWITCH . . . Turns drill press on and off . . . also used to lock drill press in off position.
- 8. **DEPTH SCALE LOCK** . . . Locks the depth scale at selected position.
- **9. SPRING CAP** . . . Provides means to adjust quill spring tension.
- HEAD LOCKS . . . Locks the head to the column. ALWAYS have them locked in place while operating the drill press.
- **11. BEVEL SCALE . . .** Shows degree table is tilted for bevel operations.
- 12. SUPPORT LOCK HANDLE ... Tightening locks table support to column. Always have it locked in place while operating the Drill Press.
- **13. TABLE BEVEL LOCK . . .** Locks the table in any position from 0°-45°.



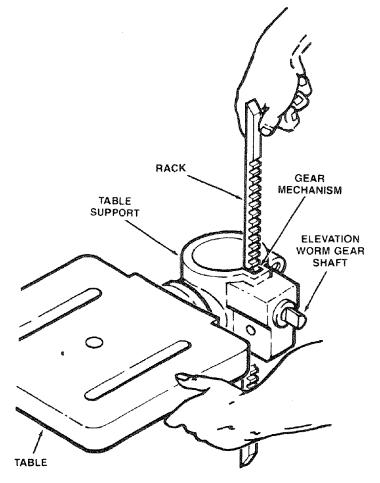


"L" wrench and remove collar and rack from column.

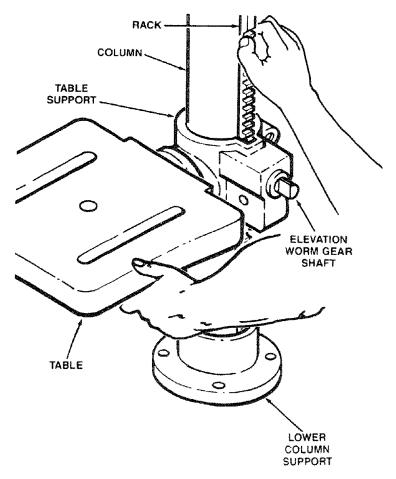


**SPECIAL NOTE:** Make sure the elevation worm gear shaft is extending through the opening in the table support as far as possible - See Illustration.

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

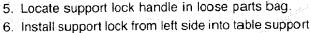


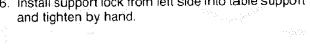
3. While holding rack and table support in an engaged position slide both down over column. Slide rack down column until rack is positioned against lower column support.

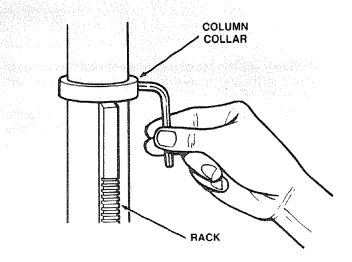


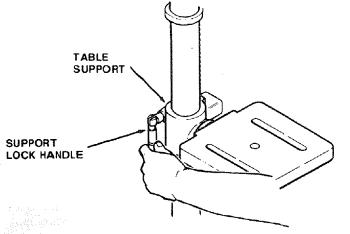
4. Replace column collar and position it bevel side down over rack. Tighten set screw in collar with 3mm HEX "L" wrench. To let the rack slide when the table is swung to the left or right around the column, the collar must sit loosely over rack and should not be angled on the column. Only tighten set screw enough to keep collar in place, otherwise the collar may be broken due to excess pressure.

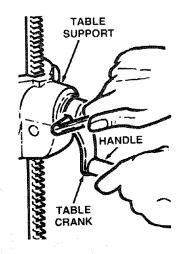
CAUTION: To avoid column tube or collar damage, do not over tighten set screw.









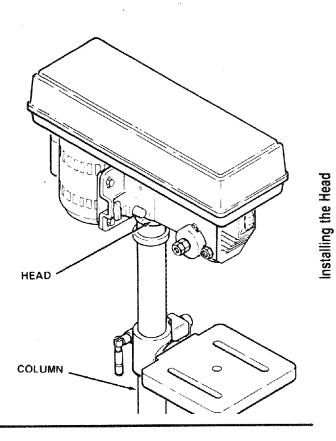


- 7 Locate table crank in loose parts bag.
- 8. Install table crank assembly and tighten set screw
  - with a 3mm HEX "L" wrench.

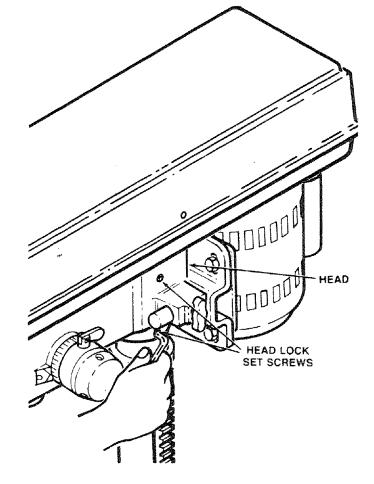
#### INSTALLING THE HEAD

CAUTION: The head assembly weighs about 45 pounds. Carefully lift head.

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

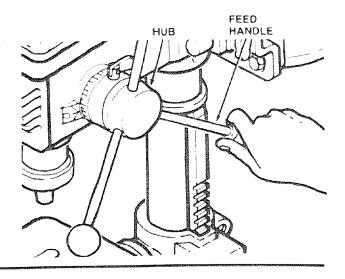


3. Using a 4mm Hex "L" wrench tighten the head lock set screws on the right side of the head.



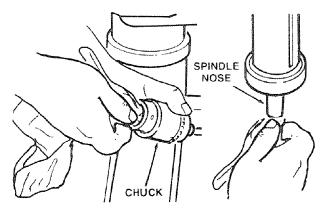
#### INSTALLING FEED HANDLES

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

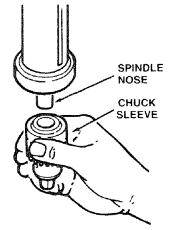


#### INSTALLING THE CHUCK

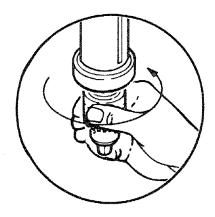
- 1. Locate the chuck among loose parts.
- Clean out the TAPERED HOLE in the chuck; clean the spindle nose with a clean cloth. Make sure there are no foreign particles sticking to the surfaces. The slightest piece of dirt on the spindle nose or in the chuck will prevent the chuck from seating properly. This will cause the drill to "wobble."
  - **NOTE:** If TAPERED HOLE in the chuck is extremely dirty, use a cleaning solvent on the clean cloth.

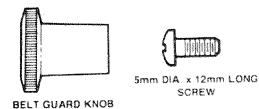


- 3. Push the chuck up on the spindle nose as far as the other of the spindle nose as far as
- 4. Turn chuck sleeve clockwise and open jaws in chuck completely.
- 5. Lightly tap the nose of the chuck with a piece of wood to insure proper seating of the chuck on the spindle.



14

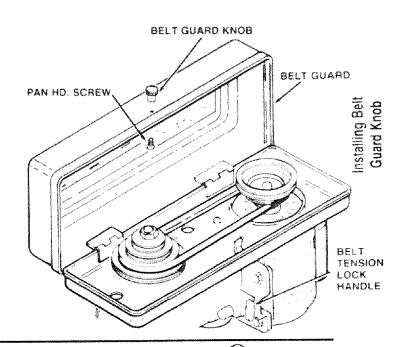




INSTALLING BELT GUARD KNOB

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

WARNING: TO AVOID POSSIBLE INJURY KEEP GUARD IN PLACE AND IN PROPER WORKING ORDER WHILE OPERATING.



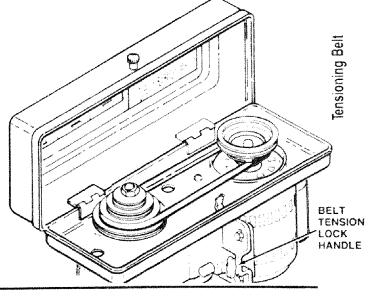
#### TENSIONING BELT

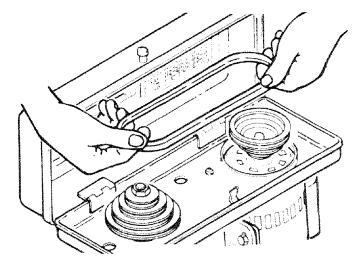
**NOTE:** The Drill Press is shipped with the belt installed but it should be properly tensioned before use

- 1. Lift guard from right side and leave opened on hinge
- 2. Loosen Belt Tension Lock Handles located on **BOTH SIDES** of Drill Press head. Pull the motor toward front of drill press to relieve tension on belt

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

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

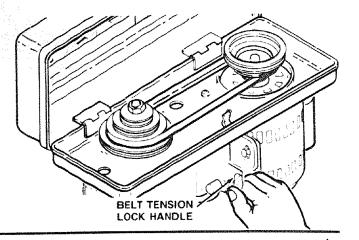




- Move the motor rearward to apply tension to the belt.
- 5. Tighten Belt Tension Lock Handles.

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

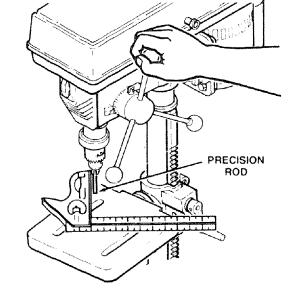
- 6. Close belt guard.
- 7. If belt slips while drilling, readjust belt tension.



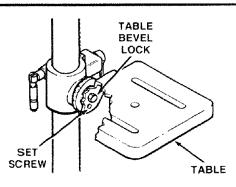
# ADJUSTING THE TABLE SQUARE TO HEAD

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

- Insert precision round steel rod approximately 3<sup>n</sup> long into chuck and tighten.
- With table raised to working height and locked on column, place combination square flat on table beside rod.



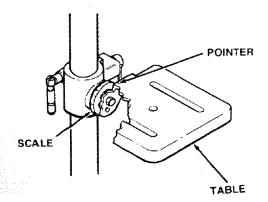
- 3. If an adjustment is necessary, loosen the set screw under bevel lock with 3mm "L" wrench, then loosen the table bevel lock bolt with an adjustable wrench. (This adjustment is located under the table).
- 4. Align the table square to the rod by rotating table until the square and rod are in line.
- 5. Retighten table bevel lock.
- 6. Retighten set screw.



#### BEVEL SCALE

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

- 1. To use the bevel scale do the following.
  - Loosen set screw and table bevel lock (see step 3 above)
  - b Move table so desired angle on bevel scale is straight across from zero line on table.
  - c. Retighten table bevel lock and set screw.



#### Getting to Know Your Drill Press getting to know your drill press 7 BELT GUARD 22 FEED HANDLE 2 BELT TENSION LOCK HANDLE 21 DEPTH SCALE LOCK 3 20 COLUMN COLLAR DEPTH SCALE 19 4 TABLE SUPPORT DEPTH SCALE INDICATOR $\odot$ FEED SPRING ADJUSTMENT 18 TABLE 5 FEED TABLE CRANK SPRING 17 COLUMN 6 RACK 7 COLUMN SUPPORT 8 16 BASE 15 **ON-OFF SWITCH** HEAD LOCK SET SCREWS SPLINES (GROOVES) 14 SPRING CAP Ŕ SPINDLE e RACK

QUILL AND SPINDLE ASSEMBLY INSIDE OF DRILL PRESS

(TEETH)

9 СНИСК

10 СНИСК КЕУ

11

TABLE BEVEL LOCK

12 BEVEL SCALE

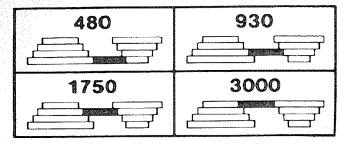
13 SUPPORT LOCK

HANDLE

#### This Drill Press has 4 speeds as listed below:

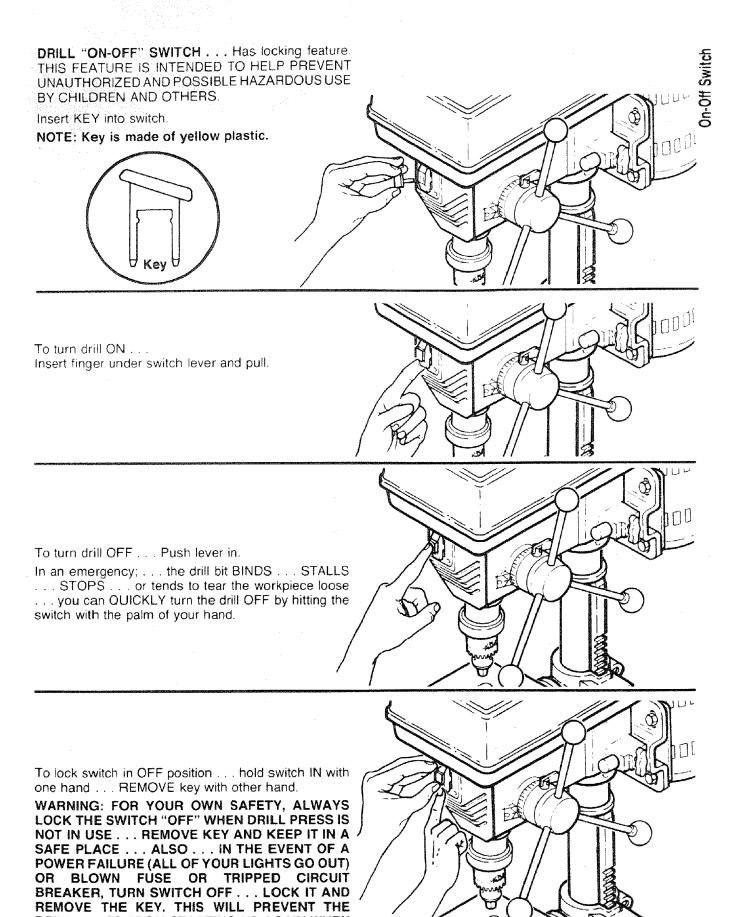
480 RPM 930 RPM 1750 RPM 3000 RPM

See inside of belt guard for specific placement of belts on pulleys. SPINDLE SPEEDS IN R.P.M.



- 1. **BELT GUARD**... Covers pulleys and belt during operation of drill press.
- 2. BELT TENSION LOCK HANDLE . . . Tightening handle locks motor bracket support to maintain correct belt distance and tension.
- COLUMN COLLAR ... Holds the rack to the column. Rack remains movable in collar to permit table support movement.
- 4. **TABLE SUPPORT...** Rides on column to support table.
- TABLE CRANK . . . Turn clockwise to elevate table. Support lock handle must be released before operating crank.
- RACK ... Combines with gear mechanism to provide easy elevation of table by hand operated table crank.
- 7 COLUMN SUPPORT . . . Supports column and provides mounting holes for column to base
- BASE... Supports Drill Press. For additional stability, holes are provided in base to bolt Drill Press to bench (See "Additional Safety Instructions for Drill Presses.")
- 9. CHUCK . . . Holds drill bit or other recommended accessory to perform desired operations.
- 10. 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.
- TABLE BEVEL LOCK ... Locks the table in any position from 0 –45.
- BEVEL SCALE . . . Shows degree table is tilted for bevel operations. Scale is mounted on table support. It is to be used for quick reference where accuracy is not critical.

- 13. SUPPORT LOCK ... Tightening locks table support to column. Always have it locked in place while operating the Drill Press.
- 14. SPRING CAP ... Provides means to adjust quill spring tension.
- 15. **HEAD LOCK SET SCREWS...** Locks the head to the column. ALWAYS have them locked in place while operating the drill press.
- 16. "ON-OFF SWITCH ... Has locking feature. THIS FEATURE IS INTENDED TO PREVENT UNAU-THORIZED AND POSSIBLE HAZARDOUS USE BY CHILDREN AND OTHERS.
- 17. **COLUMN . . .** Connects head, table, and base on a one-piece tube for easy alignment and movement.
- TABLE . . . Provides working surface to support workpiece.
- 19. **DEPTH SCALE INDICATOR** ... Indicates drilling depth selected on depth scale.
- 20. **DEPTH SCALE** . . . Shows depth of hole being drilled in inches and millimeters.
- 21. **DEPTH SCALE LOCK** ... Locks the depth scale to selected depth.
- 22. FEED HANDLE ... For moving the chuck up or down. One or two of the handles may be removed if necessary whenever the workpiece is of such unusual shape that it interferes with the handles.
- 23 BELT TENSION . . . Refer to section "Tensioning Belt."
- 24. **DRILLING SPEED...** Can be changed by placing the belt in any of the STEPS (grooves) in the pulleys. See Spindle Speed chart inside belt guard.



DRILL PRESS FROM STARTING UP AGAIN WHEN THE POWER COMES BACK ON.

19

#### **REMOVING THE CHUCK**

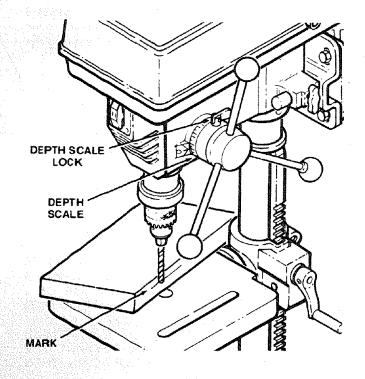
- 1 Open jaws of chuck as wide as they will go by turning chuck sleeve.
- 2. Carefully tap chuck with mallet in one hand while holding other hand under chuck to catch it when it falls. It may be necessary to tap the chuck at

# 0000 several different spots around the top of the chuck. SLEEVE CHUCK CHUCK BODY

#### **DRILLING TO A SPECIFIC DEPTH**

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

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



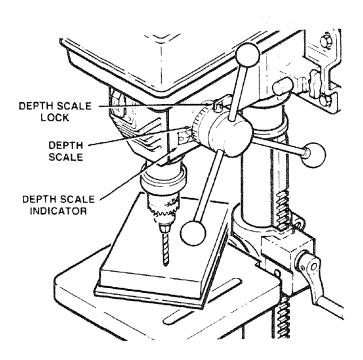
**J**OODC

# ANOTHER WAY - DEPTH SCALE

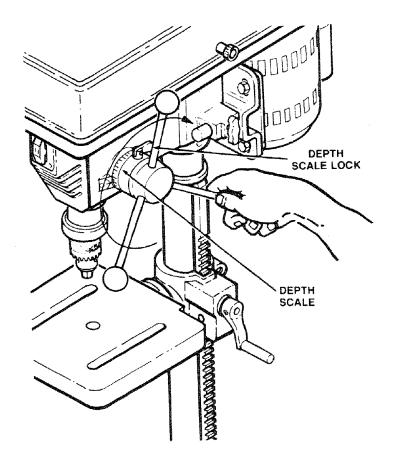
- 1. With the switch OFF, loosen the depth scale lock.
- 2. Turn the depth scale clockwise until the depth scale indicator points to the desired drilling depth on the depth scale.
- 3. Tighten the depth scale lock.
- 4. The chuck or drill will now be stopped after traveling downward the distance selected on the depth scale.

#### LOCKING CHUCK DESIRED DEPTH

- 1. With the switch off-loosen the depth scale lock.
- 2. Turn the feed handles until the chuck is at the desired depth. Hold feed handles at this position.



- 3. Turn the depth scale clockwise until it stops.
- 4. Tighten the depth scale lock.
- 5. The chuck will now be held at this depth when the feed handles are released.



# basic drill press operation

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

WARNING: FOR YOUR OWN SAFETY, ALWAYS OBSERVE THE SAFETY PRECAUTIONS HERE AND ON PAGES 2, 3, AND 4.

- 1. Protection: Eyes, Hands, Face, Ears and Body WARNING: TO AVOID BEING PULLED INTO THE SPINNING TOOL —
  - 1. Do NOT wear:
    - gloves
    - necktie
    - loose clothing
    - jewelry
  - 2. Do tie back long hair
  - a. If any part of your drill press is missing, malfunctioning, has been damaged or broken . . . such as the motor switch, or other operating control, a safety device or the power cord . . . 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 WORK-PIECE to contact the left side of the column—if it is too short or the table is tilted, clamp solidly to the table. Use table slots or clamping ledge around the outside edge of the table.
    - When using a drill press VICE, always fasten it to a table.
- **INSTALLING DRILLS**

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

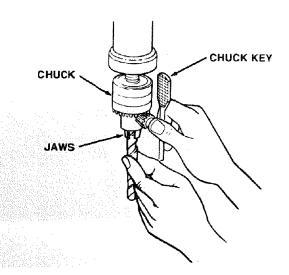
Make sure that the drill is CENTERED in the chuck before tightening the chuck with the key.

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

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

22

- Never do any work "FREE HAND" (handholding workpiece rather than supporting it on the table), except when polishing.
- Soourolu look Wood and Cuonantia Cal
- Securely lock Head and Support to Column, and table to support before operating drill press.
- Never move the Head or Table while the tool is running.
- Before starting the operation, jog the motor switch to make sure the drill or other cutting tool does not wobble or cause vibration.
- If a workpiece overhangs the table such that it will fall or tip if not held, clamp it to the table or provide auxiliary support.
- Use fixtures for unusual operations to adequately hold, guide and position workpiece.
- Use the SPINDLE SPEED recommended for the specific operation and workpiece material—check the panel inside the guard cover for drilling information; for accessories, refer to the instructions provided with the accessories.
- f. Never climb on the drill press Table, it could break or pull the entire drill press down on you.
- g. Turn the motor Switch Off and 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.

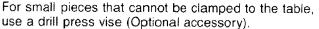


#### POSITIONING TABLE AND WORKPIECE

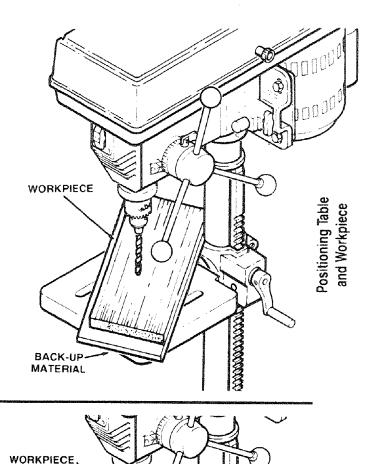
Lock the table to the column in a position so that the tip of the drill is just a little above the top of the workpiece.

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

WARNING: TO PREVENT WORKPIECE OR THE BACKUP MATERIAL FROM BEING TORN FROM YOUR HAND WHILE DRILLING, POSITION THEM AGAINST THE LEFT SIDE OF THE COLUMN. IF THE WORKPIECE OR THE BACKUP MATERIAL ARE NOT LONG ENOUGH TO REACH THE COLUMN, CLAMP THEM TO THE TABLE. FAILURE TO DO THIS COULD RESULT IN PERSONAL INJURY.



WARNING: THE VICE MUST BE CLAMPED OR BOLTED TO THE TABLE TO AVOID INJURY FROM SPINNING WORK AND VISE OR TOOL BREAKAGE.



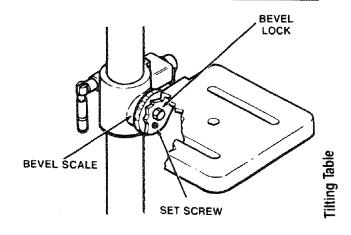
the table, DRILL PRESS VISE PED OR DY FROM AKAGE.

> BOLT OR CLAMP VICE SECURELY

#### TILTING TABLE

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

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



WARNING: TO AVOID INJURY FROM SPINNING WORK OR TOOL BREAKAGE, ALWAYS CLAMP WORKPIECE AND BACKUP MATERIAL SECURELY TO TABLE BEFORE OPERATING DRILL PRESS WITH THE TABLE TILTED.

#### 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.

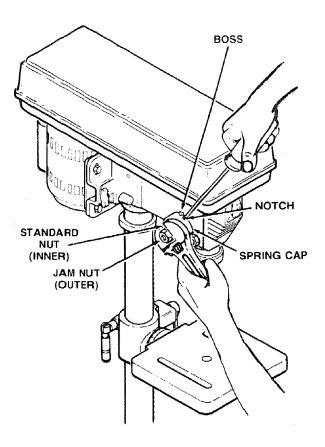
# adjustments

WARNING: FOR YOUR OWN SAFETY TURN SWITCH "OFF" AND REMOVE PLUG FROM POWER SOURCE OUTLET BEFORE MAKING ANY ADJUST-MENTS. TO AVOID INJURY FROM THROWN PARTS DUE TO SPRING RELEASE, FOLLOW INSTRUC-TIONS CAREFULLY AND WEAR EYE GOGGLES.

#### QUILL RETURN SPRING

- 1. With the chuck at its highest possible position, turn the depth scale clockwise until it stops and tighten the depth scale lock. This will prevent the quill dropping while tensioning the spring.
- 2. Lower table for additional clearance.
- 3. Work from left side of Drill Press.
- Place screwdriver in lower front notch of spring cap, and hold it in place while loosening and removing jam [outer] nut only.
- 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.
- Tighten standard nut with wrench only enough to engage boss. Do not overtighten as this will restrict quill movement.
- Move stop nuts and depth pointer to upper most position and check tension while turning feed handles.
- If there is not enough tension on spring, repeat steps 4–8 moving only ONE notch each time and checking tension after EACH repetition.
- Proper tension is achieved when quill returns gently to full up position when released from 3/4" depth.

24



- 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.

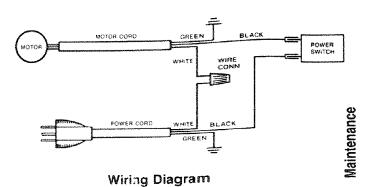
# maintenance

#### WARNING FOR YOUR OWN SAFETY, TURN SWITCH "OFF" AND REMOVE PLUG FROM POWER SOURCE OUTLET BEFORE MAINTAINING OR LUB-RICATING YOUR DRILL PRESS.

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

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

WARNING: TO AVOID SHOCK OR FIRE HAZARD, IF THE POWER CORD IS WORN OR CUT, OR DAM-AGED IN ANY WAY, HAVE IT REPLACED IM-MEDIATELY.



SPINDLE ASSEMBLY

OF DRILL PRESS

### Y SPLINES (GROOVES) SPINDLE RACK (TEETH) CHUCK

# lubrication

All of the BALL BEARINGS are packed with grease at the factory. They require no further lubrication. Periodically lubricate the SPLINES (grooves) in the spindle, and the RACK (teeth of the quill).

# **Sears Recommends the Following Accessories**

Drill Bits See Catalog	
Hold-Down and Guide 9-2457	
Drill Press Vises See Catalog	
5 pc. Stop Collar Set See Catalog	
Sanding Drums	

15 Piece Drum Sanding Kit					
Clamping Kit	•	•	•	•	. See Catalog . See Catalog
Power Tool Know-How Handbook					

Sears may recommend other accessories not listed in the manual.

See your nearest Sears store or Catalog department for other accessories.

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



Lubrication

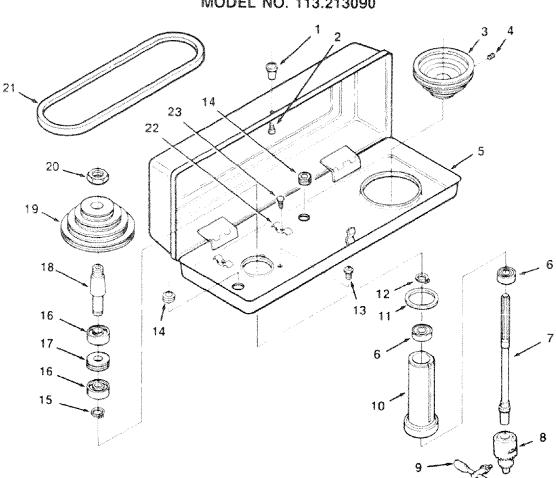
# trouble shooting

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	PROBABLECAUSE	REMEDY
Noisy Operation	<ol> <li>Incorrect belt tension.</li> <li>Dry Spindle.</li> <li>Loose spindle pulley.</li> <li>Loose motor pulley.</li> </ol>	<ol> <li>Adjust tension. See section "ASSEMBLY TENSIONING BELT."</li> <li>Lubricate spindle. See "Lubrication" section.</li> <li>Checking tightness of retaining nut on pulley. and tighten if necessary.</li> <li>Tighten setscrews in pulleys.</li> </ol>
Drill Burns	<ol> <li>Incorrect speed.</li> <li>Chips not coming out of hole.</li> <li>Dull Drill.</li> <li>Feeding too slow.</li> <li>Not lubricated.</li> </ol>	<ol> <li>Change speed. See section "Getting To Know Your Drill Press" DRILLING SPEED.</li> <li>Retract drill frquently to clear chips.</li> <li>Resharpen drill.</li> <li>Feed fast enough allow drill to cut.</li> <li>Lubricate drill. See "Basic Drill Press Operation" section.</li> </ol>
Drill leads off hole not round.	<ol> <li>Hard grain in wood or lengths of cutting lips and/or angles not equal.</li> <li>Bent drill bit.</li> </ol>	<ol> <li>Resharpen drill correctly.</li> <li>Replace drill bit.</li> </ol>
Wood splinters on underside.	1. No "back-up material" under workpiece.	1. Use "back-up material" See Basic Drill Press Operation" section.
Workpiece torn loose from hand.	1. Not supported or clamped properly.	1. Support workpiece or clamp it See "Basic Drill Press Operation" section.
Drill Binds in workpiece.	<ol> <li>Workpiece pinching drill or excessive feed pressure.</li> <li>Improper belt tension.</li> </ol>	<ol> <li>Support workpiece or clamp it See "Basic Drill Press Operation" section.</li> <li>Adjust tension See section "ASSEMBLY – TENSIONING BELT."</li> </ol>
Excessive drill runout or wobble.	<ol> <li>Bent drill.</li> <li>Worn spindle bearings.</li> <li>Drill not properly installed in chuck.</li> <li>Chuck not properly installed.</li> </ol>	<ol> <li>Use a straight drill.</li> <li>Replace bearings.</li> <li>Install drill properly See "Basic Drill Press Operation" section.</li> <li>Install chuck properly refer to "Unpacking and Assembly Instructions  INSTALLING THE CHUCK."</li> </ol>
Quill Returns too slow or too fast.	1. Spring has improper tension.	1. Adjust spring tension See section. "Adjustments—Quill Return Spring."
Chuck will not stay attached to spindle it falls off when trying to install it.	1. Dirty, grease, or oil on the tapered inside surface of chuck- or on the spindles tapered surface.	1. Using a household detergent-clean the tapered surface of the chuck and spindle to remove all dirt, grease and oil.

# repair parts



PARTS LIST FOR CRAFTSMAN 10" DRILL PRESS MODEL NO. 113.213090

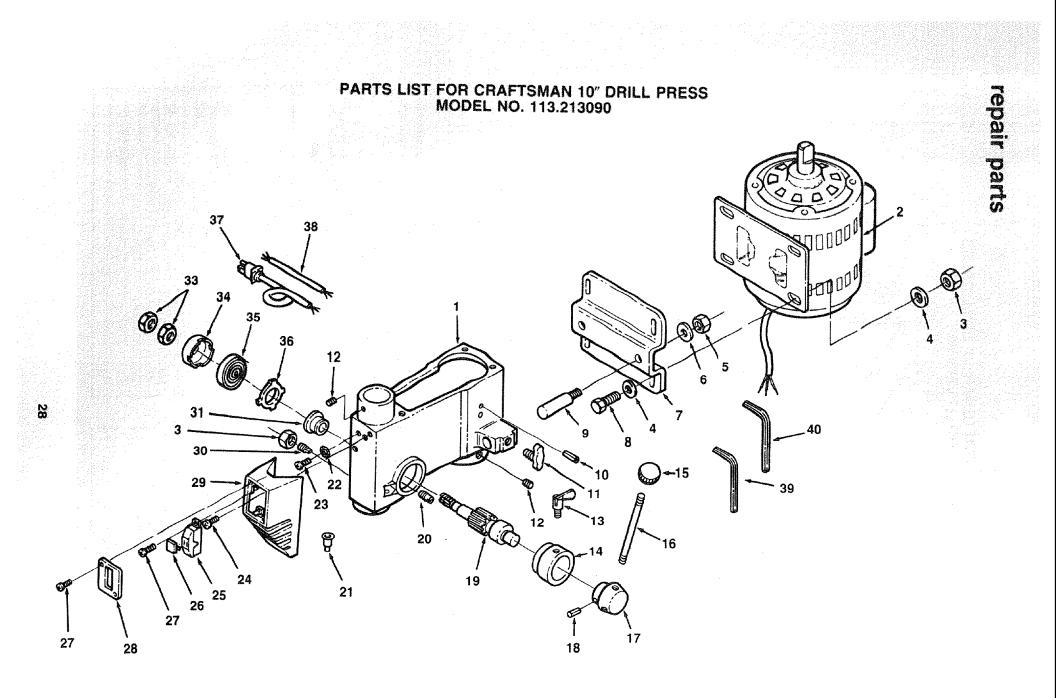
Always order by Part Number-Not by Key Number

FIGURE 1	PARTS	LIST
----------	-------	------

Key No.	Part No.	Description
1	817325	Knob
2	816755-3	Screw-Pan Hd. M5 x 0.8-12
3	817587	Pulley-Motor
4	817391-1	Screw-Hex Soc. Set
		M6 x 1.0-10
5	817779-1	Guard-Pulley w/Labels
6	STD315215	*Bearing-Ball 12mm
7	817605	Shaft-Spindle
8	817340-1	Chuck
9	817339-1	Key-Chuck
10	817606	Tube-Quill
11	817413	Gasket-Quill
12	817453	Ring-Retaining

\* Standard Hardware Item - May Be Purchased Locally

Key Part No. No.
13817358-21481745115817453-116STD3152351781740818817407198175862081744021817428-12280286423816755-1



# repair parts

#### PARTS LIST FOR CRAFTSMAN 10" DRILL PRESS MODEL NO. 113.213090

Always order by Part Number-Not by Key Number

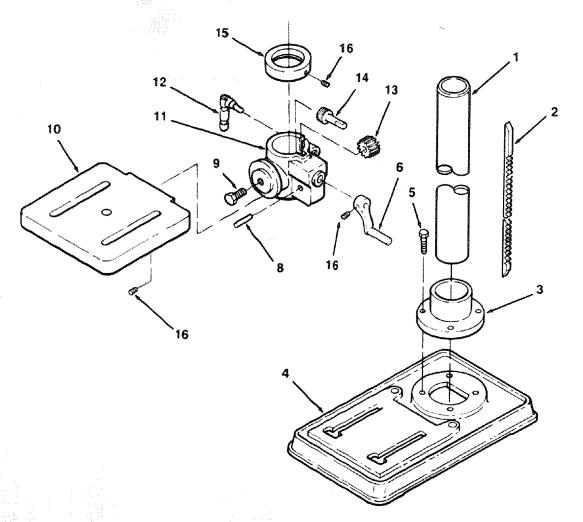
#### FIGURE 2 PARTS LIST

Key No.	Part No.	Description	Key No.	Part No.	Description
ж <u>ен на</u> нахад	817778	Head w/Pointer & Trim	25	816113	Switch-Locking
2	817610	<ul> <li>Motor</li> </ul>	26	815863	Key-Switch
3	STD840812	*Nut-Hex M8	27	817357	Screw-Sell Tap. Pan Hd.
4	STD551037	* Washer 5/16 x 7/8 x 5/64			M4 x 16-8
5	STD841015	*Nut-Hex M10	28	817585	Cover-Switch Plate
6	STD551143	*Lockwasher-7/16	29	817597	Box-Switch
7	817607	Bracket-Motor	30	817594	Screw-Special Set
8	STD835025	Screw-Hex Hd. M8 x 1.25-20			M8 x 1.25 x 18
9	817596	Support-Motor Bracket	31	817593	Seat-Spring
10	813249-152	Pin-Roll 6 x 16			
11	817421	Knob-Motor Adjusting	33	STD541150	*Nut-Hex 1/2-20
12	817391-2	Screw-Hex Soc. Set	34	817595	Cap-Spring
		M8 x 1.25-8	35	817415	Spring-Torsion
13	817343	Lock-Depth Screw	36	817443	Retainer-Spring
14	817775	Ring-Depth Stop w/Scale	37	817329-1	Cord-Power
15	817439	Knob	38	71252	Cord-Motor
16	817582	Rod	39	813317-6	Hex "L"-Wrench 3mm
17	817485	Hub	40	813317-7	Hex "L"-Wrench 4mm
18	813249-128			507885	Bag of Loose Parts
19	817603	Shaft-Pinion	1	F07004	(Not Illustrated) Box of Loose Parts
20	817303	Pin-Stop		507884	
21	STD375008	*Connector-Wire		005405	(Not Illustrated) Owners Manual
22	STD852005	*Lockwasher-Ext.5mm	-	SP5185	1
23	816755-4	Screw-Pan Hd. M5 x 0.8-8	1		(Not Illustrated)
24	816755-3	Screw-Pan Hd. M5 x 0.8-12			

- Any Attempt to Repair This Motor May Create a Hazard Unless Repair is Done by Qualified Service Technician. Repair Service is Available at Your Nearest Sears Store.
- \* Standard Hardware Item May Be Purchased Locally.

repair parts

#### PARTS LIST FOR CRAFTSMAN 10" DRILL PRESS MODEL NO. 113.213090



Always order by Part Number-Not by Key Number

#### FIGURE 3 PARTS LIST

Key No.	Part No.	Description		
1	817599	Tube-Column		
2	817601	Rack		
3	817600	Support-Column		
4	817609	Base		
5	STD835020	Screw-Hex Hd. M8 x 1.25-20		
6	817348	Crank		
8	817590	Shaft-Gear		

Key Par No. No
9         81744           10         81760           11         81777           12         817290           13         817589           14         81759           15         817592           16         817391

\* Standard Hardware Item - May Be Purchased Locally.

****	
Manufacture (attended a company) and a state and a	
	η. Γ
	Sec. 2

#### NOTES

SEARS						
owner's manual	MOTORIZED 10-INCH BENCH MODEL DRILL PRESS					
SERVICE	a need ever exist for repair parts or service, simply of any Sears Service Center and most Sears, Roebuck of	Now that you have purchased your 10-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.				
MODEL NO. 113.213090 DRILL PRESS WITH MAXIMUM DEVELOPED 1/2 HP MOTOR	The model number of your 10-inch Drill Press will be on a plate attached to the rear of the head.	found				
HOW TO ORDER	when ordering repair parts, always give the foll information:	OWING				
REPAIR PARTS	PART NUMBER PART DESCRIPTIO	N				
	MODEL NUMBER 113.213090 MOTORIZED 10-INC BENCH MODEL DRILL					
	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.

2012/2012

Form No. SP5185-4