

CENTRAL MACHINERY

®

5-SPEED DRILL PRESS

Model 38119

SET UP AND OPERATING INSTRUCTIONS



Visit our website at: <http://www.harborfreight.com>



Read this material before using this product.

Failure to do so can result in serious injury.

SAVE THIS MANUAL.

Copyright® 1998 by Harbor Freight Tools®. All rights reserved. No portion of this manual or any artwork contained herein may be reproduced in any shape or form without the express written consent of Harbor Freight Tools. Diagrams within this manual may not be drawn proportionally. Due to continuing improvements, actual product may differ slightly from the product described herein. Tools required for assembly and service may not be included.

For technical questions or replacement parts, please call 1-800-444-3353.

Revised Manual 10e

CONTENTS

IMPORTANT SAFETY INFORMATION	3
GENERAL TOOL SAFETY WARNINGS.....	3
DRILL PRESS SAFETY WARNINGS	5
VIBRATION SAFETY	6
GROUNDING INSTRUCTIONS	6
GROUNDED TOOLS: TOOLS WITH THREE PRONG PLUGS	6
UNPACKING	8
FEATURES	9
SPECIFICATIONS.....	9
ASSEMBLY	10
TABLE TO COLUMN.....	10
HEAD TO COLUMN	10
INSTALLING THE CHUCK.....	10
PULLEY COVER KNOB.....	11
ADJUSTING THE DRIVE BELT	11
SETTINGS AND ADJUSTMENTS	11
TO ADJUST THE TABLE	11
SETTING THE REQUIRED ANGLE.	12
TO SET DRILLING DEPTH	12

CHANGING DRILL (SPINDLE) SPEED	12
DRILL SPEED TABLE.....	13
OPERATION	13
CUTTING SPEEDS.....	14
AFTER OPERATION	14
MAINTENANCE	15
TROUBLESHOOTING.....	15
PARTS LISTS AND ASSEMBLY DIAGRAMS.....	16
PULLEY ASSEMBLY.....	16
HEAD ASSEMBLY	17
QUILL ASSEMBLY	18
BASE AND TABLE ASSEMBLY	18
LIMITED 90 DAY WARRANTY	19

SAVE THIS MANUAL

Keep this manual for the safety warnings and precautions, assembly, operating, inspection, maintenance and cleaning procedures. Write the product's serial number in the back of the manual near the assembly diagram (or month and year of purchase if product has no number). Keep this manual and the receipt in a safe and dry place for future reference.

IMPORTANT SAFETY INFORMATION

In this manual, on the labeling, and all other information provided with this product:



This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

DANGER

DANGER indicates a hazardous situation which, if not avoided, will result in death or serious injury.

WARNING

WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.

CAUTION

CAUTION, used with the safety alert symbol, indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

NOTICE

NOTICE is used to address practices not related to personal injury.

CAUTION

CAUTION, without the safety alert symbol, is used to address practices not related to personal injury.

General Tool Safety Warnings



WARNING Read all safety warnings and instructions.

Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.

Save all warnings and instructions for future reference.

1. KEEP GUARDS IN PLACE and in working order.
2. REMOVE ADJUSTING KEYS AND WRENCHES. Form habit of checking to see that keys and adjusting wrenches are removed from tool before turning it on.
3. KEEP WORK AREA CLEAN. Cluttered areas and benches invite accidents.
4. DON'T USE IN DANGEROUS ENVIRONMENT. Don't use power tools in damp or wet locations, or expose them to rain. Keep work area well lighted.

5. KEEP CHILDREN AWAY. All visitors should be kept safe distance from work area.
6. MAKE WORKSHOP KID PROOF with padlocks, master switches, or by removing starter keys.
7. DON'T FORCE TOOL. It will do the job better and safer at the rate for which it was designed.
8. USE RIGHT TOOL. Don't force tool or attachment to do a job for which it was not designed.

RECOMMENDED MINIMUM WIRE GAUGE FOR EXTENSION CORDS (120 VOLT)				
NAMEPLATE AMPERES (at full load)	EXTENSION CORD LENGTH			
	25'	50'	100'	150'
0 – 6	18	16	16	14
6.1 – 10	18	16	14	12
10.1 – 12	16	16	14	12
12.1 – 16	14	12	Do not use.	

TABLE A

9. USE PROPER EXTENSION CORD. Make sure your extension cord is in good condition. When using an extension cord, be sure to use one heavy enough to carry the current your product will draw. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating. Table A shows the correct size to use depending on cord length and nameplate ampere rating. If in doubt, use the next heavier gage. The smaller the gage number, the heavier the cord.
10. WEAR PROPER APPAREL. Do not wear loose clothing, gloves, neckties, rings, bracelets, or other

jewelry which may get caught in moving parts. Nonslip footwear is recommended. Wear protective hair covering to contain long hair.

11. ALWAYS USE SAFETY GLASSES. Also use face or dust mask if cutting operation is dusty. Everyday eyeglasses only have impact resistant lenses, they are NOT safety glasses.
12. SECURE WORK. Use clamps or a vise to hold work when practical. It's safer than using your hand and it frees both hands to operate tool.
13. DON'T OVERREACH. Keep proper footing and balance at all times.
14. MAINTAIN TOOLS WITH CARE. Keep tools sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.
15. DISCONNECT TOOLS before servicing; when changing accessories, such as blades, bits, cutters, and the like.
16. REDUCE THE RISK OF UNINTENTIONAL STARTING. Make sure switch is in off position before plugging in.
17. USE RECOMMENDED ACCESSORIES. Consult the owner's manual for recommended accessories. The use of improper accessories may cause risk of injury to persons.
18. NEVER STAND ON TOOL. Serious injury could occur if the tool is tipped or if the cutting tool is unintentionally contacted.

19. **CHECK DAMAGED PARTS.** Before further use of the tool, a guard or other part that is damaged should be carefully checked to determine 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.
20. **DIRECTION OF FEED.** Feed work into a blade or cutter against the direction of rotation of the blade or cutter only.
21. **NEVER LEAVE TOOL RUNNING UNATTENDED. TURN POWER OFF.** Don't leave tool until it comes to a complete stop.

Drill Press Safety Warnings

For Your Own Safety Read Instruction Manual Before Operating Drill Press

1. Wear eye protection.
2. Do not wear gloves, necktie, or loose clothing.
3. Clamp workpiece or brace against column to prevent rotation.
4. Use recommended speed for drill accessory and workpiece material.
5. The use of accessories or attachments not recommended by the manufacturer may result in a risk of injury to persons.
6. When servicing use only identical replacement parts.
7. Only use safety equipment that has been approved by an appropriate

- standards agency. Unapproved safety equipment may not provide adequate protection. Eye protection must be ANSI-approved and breathing protection must be NIOSH-approved for the specific hazards in the work area.
8. Maintain labels and nameplates on the tool. These carry important safety information. If unreadable or missing, contact Harbor Freight Tools for a replacement.
9. Avoid unintentional starting. Prepare to begin work before turning on the tool.
10. People with pacemakers should consult their physician(s) before use. Electromagnetic fields in close proximity to heart pacemaker could cause pacemaker interference or pacemaker failure. In addition, people with pacemakers should:
 - Avoid operating alone.
 - Do not use with power switch locked on.
 - Properly maintain and inspect to avoid electrical shock.
 - Any power cord must be properly grounded. Ground Fault Circuit Interrupter (GFCI) should also be implemented – it prevents sustained electrical shock.
11. Some dust created by power sanding, sawing, grinding, drilling, and other construction activities, contains chemicals known [to the State of California] to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:
 - Lead from lead-based paints
 - Crystalline silica from bricks and

cement or other masonry products
• Arsenic and chromium from chemically treated lumber
Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: work in a well ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles. (California Health & Safety Code § 25249.5, *et seq.*)

12. **WARNING:** Handling the cord on this product will expose you to lead, a chemical known to the State of California to cause cancer, and birth defects or other reproductive harm. Wash hands after handling. (California Health & Safety Code § 25249.5, *et seq.*)
13. The warnings, precautions, and instructions discussed in this instruction manual cannot cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.

Vibration Safety

This tool vibrates during use. Repeated or long-term exposure to vibration may cause temporary or permanent physical injury, particularly to the hands, arms and shoulders. To reduce the risk of vibration-related injury:

1. Anyone using vibrating tools regularly or for an extended period should

first be examined by a doctor and then have regular medical check-ups to ensure medical problems are not being caused or worsened from use. Pregnant women or people who have impaired blood circulation to the hand, past hand injuries, nervous system disorders, diabetes, or Raynaud's Disease should not use this tool. If you feel any medical or physical symptoms related to vibration (such as tingling, numbness, and white or blue fingers), seek medical advice as soon as possible.

2. Do not smoke during use. Nicotine reduces the blood supply to the hands and fingers, increasing the risk of vibration-related injury.
3. Wear suitable gloves to reduce the vibration effects on the user.
4. Use tools with the lowest vibration when there is a choice between different processes.
5. Include vibration-free periods each day of work.
6. Grip tool as lightly as possible (while still keeping safe control of it). Let the tool do the work.
7. To reduce vibration, maintain the tool as explained in this manual. If any abnormal vibration occurs, stop use immediately.



SAVE THESE INSTRUCTIONS.

GROUNDING INSTRUCTIONS

⚠️ WARNING TO PREVENT ELECTRIC SHOCK



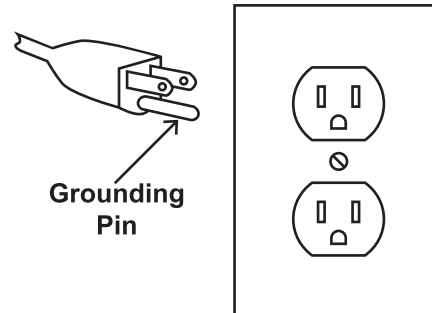
AND DEATH FROM INCORRECT GROUNDING WIRE CONNECTION READ AND FOLLOW THESE INSTRUCTIONS:

Grounded Tools: Tools with Three Prong Plugs

1. In the event of a malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This tool is equipped with an electric cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into a matching outlet that is properly installed and grounded in accordance with all local codes and ordinances.
2. Do not modify the plug provided – if it will not fit the outlet, have the proper outlet installed by a qualified electrician.
3. Improper connection of the equipment-grounding conductor can result in a risk of electric shock. The conductor with insulation having an outer surface that is green with or without yellow stripes is the equipment-grounding conductor. If repair or replacement of the electric cord or plug is necessary, do not connect the equipment-grounding conductor to a live terminal.
4. Check with a qualified electrician or service personnel if the grounding instructions are not completely

understood, or if in doubt as to whether the tool is properly grounded.

5. Use only 3-wire extension cords that have 3-prong grounding plugs and 3-pole receptacles that accept the tool's plug.
6. Repair or replace damaged or worn cord immediately.



125 V~ 3-Prong Plug and Outlet
(for up to 125 V~ and up to 15 A)

7. This tool is intended for use on a circuit that has an outlet that looks like the one illustrated above in **125 V~ 3-Prong Plug and Outlet**. The tool has a grounding plug that looks like the plug illustrated above in **125 V~ 3-Prong Plug and Outlet**.
8. The outlet must be properly installed and grounded in accordance with all codes and ordinances.
9. Do not use an adapter to connect this tool to a different outlet.

UNPACKING

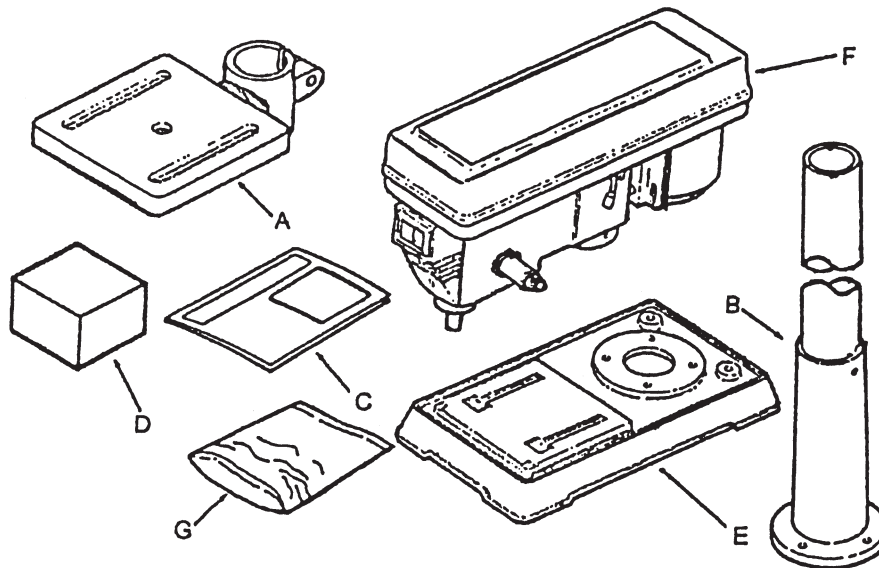
Unpack and check contents. Make sure you have all parts described in the Parts Lists and **Figure 1**.

Remove all preservative lubricants from parts with a clean dry cloth.

Some of the parts are heavy and may require two people for lifting.

If any parts are missing or broken, please call Harbor Freight Tools at 1-800-444-3353. The shipping box should contain:

- | | |
|---|--------------------|
| A. Table Assembly | B. Column Assembly |
| C. Instruction manual and warranty card | D. Base |
| E. Head assembly | F. Head Assembly |
| G. One (1) bag of loose items | |



Loose Items in Box and Bag

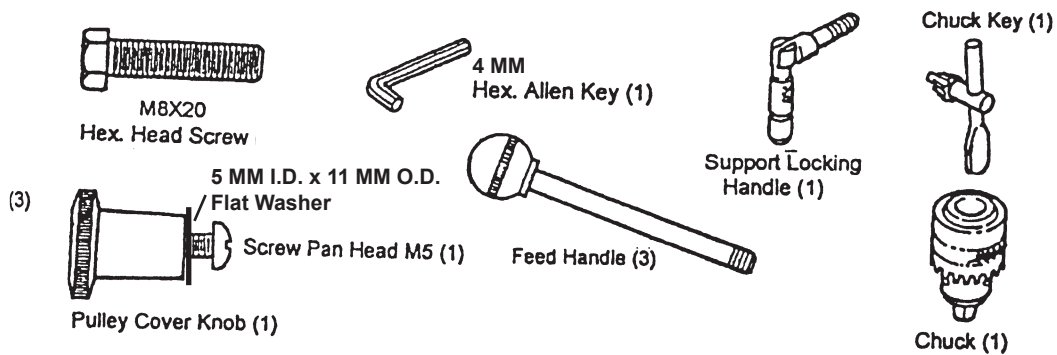
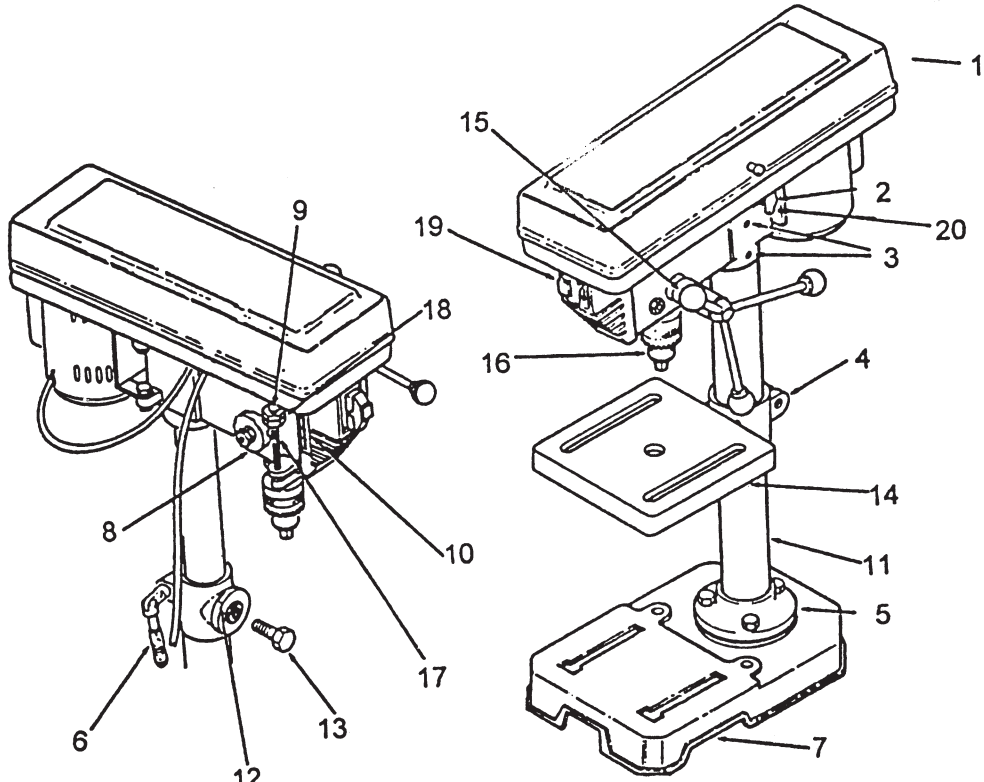


Figure 1

FEATURES



- | | |
|---|---|
| <ul style="list-style-type: none"> 1. Pulley Cover 2. Belt Tension Locking Screw 3. Head Lock Set Screws 4. Table Support 5. Column Support 6. Table Support Locking Handle 7. Base 8. Quill Spring Assembly 9. Pointer 12. Bevel Scale 13. Table Lock Set Screw 17. Feed Stop Rod 18. Stop Nuts | <ul style="list-style-type: none"> 10. Depth Scale 11. Column 14. Table 15. Feed Handles 16. Chuck 19. Switch 20. Motor Stop |
|---|---|

SPECIFICATIONS

Electrical Requirements	120 V~ / 60 Hz
Spindle Speeds	620, 1100, 1720, 2340, 3100 RPM
Drill Chuck Capacity	1/2"
Maximum Spindle Stroke	2"
Maximum Distance from Chuck to Table	6-3/4"

Maximum Distance from Chuck to Base	10"
Maximum Swing	8"
Column Diameter	1.89"
Table Size	6-5/16" x 6-1/2"
Overall Dimensions	23" x 7" x 17"
Base Size	7" x 11-1/8"



ASSEMBLY

CAUTION! Consider the weight of the components and take necessary precautions when lifting components. **Assistance will be required when assembling.**

Before adjustments are made, ensure that the machine is SWITCHED OFF AND UNPLUGGED. Also make sure all locking handles and securing screws are FULLY TIGHTENED when adjustments are completed.

Before assembling, remove all traces of preservative from the components and wipe all parts thoroughly with a clean dry cloth. Apply a thin coating of light machine oil to the table, column and base to prevent rust.

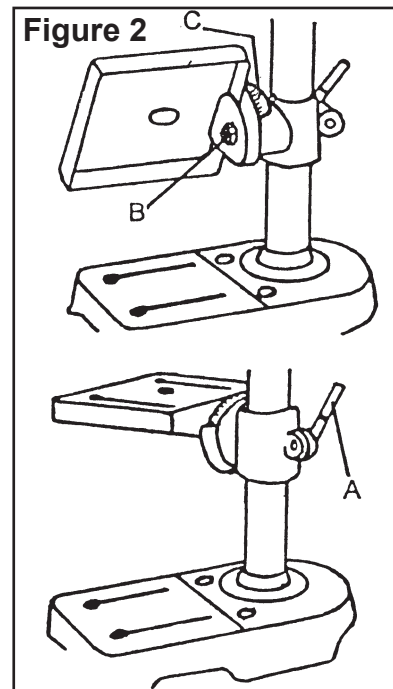
Part Numbers described below refer to illustration on page 9.

Table to Column

1. Thread the Table Support Locking Handle (6) into the Table Support (4) from the left hand side, and leave it loose until later.
2. Slide the Table Support with Table over the Column (11) and secure at a convenient position by tightening the Table Support Locking Handle.

Head to Column

1. It may be necessary to unscrew the Head Lock Set Screws (3) slightly to ensure they do not protrude internally, as this will prevent the head from sliding fully into position.
2. With assistance, raise the Head and place it on top of the Column, ensuring it slides home fully.
3. Align the head with the base (7), and firmly secure with the Head Lock Set Screws (3).
4. Screw the three Feed Handles (15) firmly into the hub of the Feed Shaft.



Installing the Chuck

1. With the Chuck Guard lifted clear of the spindle nose, slide the work table up the column to within 6" of the spindle.
2. Open the jaws of the chuck to their maximum, using the Chuck Key supplied.
3. Put a piece of scrap wood on the table to protect the Chuck Nose.

4. Ensuring all parts are thoroughly clean and dry and burr free, place the chuck over the end of the spindle, and pull the spindle down using the feed handles, pressing the chuck jaws hard against the piece of scrap wood until the chuck is forced home.

Pulley Cover Knob

1. Locate the knob with pan head screw and attach to the cover.
2. Screw on tightly.

Adjusting the Drive Belt

The drive belt is pre-installed. However, if the belt requires tightening or the spindle speed needs to be changed, proceed with the following steps:

1. Undo the Belt Tension Locking Screw to loosen the belt.
2. Consult the chart inside the pulley cover (or the Drill Speed chart in this manual), and install the belt in the position corresponding to spindle/drill speed required.
3. Lever the motor, on its bracket, away from the head, so that tension is applied to the belt. Tension is correct when the belt deflects by approximately 1/2" at its center when using reasonable thumb pressure. Lock the motor in this position using the locking screw.

Note: If the belt slips during operation, adjust the belt tension.

SETTINGS AND ADJUSTMENTS

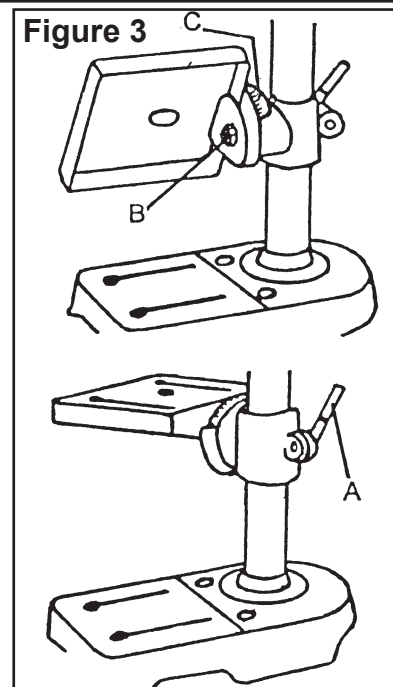
Before adjustments are made, ensure that the machine is SWITCHED OFF AND UNPLUGGED. Also make sure all locking handles and securing screws are FULLY TIGHTENED when adjustments are completed.

WARNING! TO PREVENT SERIOUS INJURY:
Secure the drill press to the bench or table top before using.

TO ADJUST THE TABLE

The table is capable of being raised, lowered, or swiveled about the column by:

1. Loosening the table support locking handle (A), adjusting as desired, and re-tightening the handle; or,
2. Loosening the Set Screw (B), tilting to the desired position (up to 45° in either direction), and tightening.



SETTING THE REQUIRED ANGLE

1. The Bevel Scale (C), on the table mounting, is graduated in degrees to assist in setting the angle. For normal operations the table should be set at 0°. **(See Figure 3)**
2. To ensure the drill is precisely perpendicular to the table, insert a piece of straight round bar in the chuck, place a square on the table and bring it up to the round bar. Adjust the table tilt if necessary so that the table is correctly aligned.

TO SET DRILLING DEPTH

Located on the left side of the drill head (G) is the Spindle Feed (or depth feed) adjuster assembly, which allows the depth of the hole to be set. The procedure for setting the drilling depth is as follows **(See Figure 4)**:

1. Lower the Chuck (F) until the drill contacts the surface of the workpiece and hold that in position.
2. Screw down the adjuster nut (B) so that the gap between its underside and face (E) is the depth of the hole required.
3. Screw down nut (C) and lock it against the adjuster nut (B).

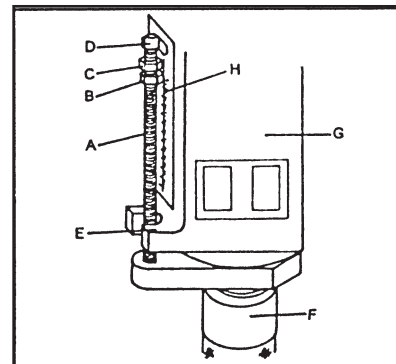


Figure 4

The drill is now set to drill holes to your predetermined depth from that particular start point (i.e., providing the surface of your workplace is flat and level, you may drill a series of holes, each to the same depth.

The scale (H) and pointer (D) can be used to drill one off, by lowering the chuck — as explained above in “To Set Drilling Depth” section — until the drill contacts the work, setting the pointer (D) against a set point on the scale (H), switching the drill ON and proceeding to drill to the required depth using the scale (H) as a guide.

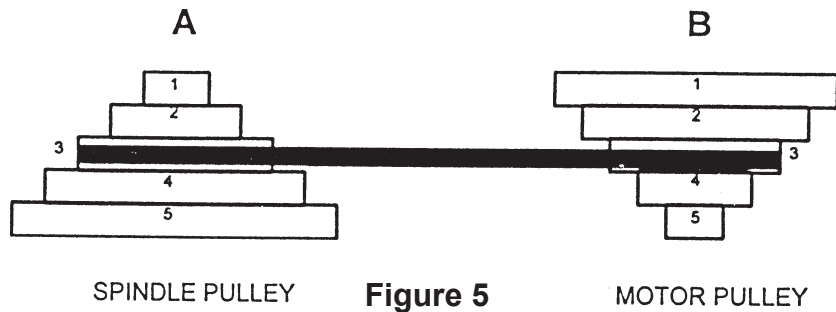
CHANGING DRILL (SPINDLE) SPEED

1. Switch machine OFF and unplug it.
2. Open the pulley cover.
3. Loosen the Belt Tension Locking Screw to relieve tension on the drive belt.
4. Consult the chart inside the pulley cover (or **Figure 5**) and position the belt on the pulleys according to the spindle/drill speed required
5. When the belts have been correctly positioned, tighten them by levering the motor away from the head until the belt deflects by approximately 1/2” at its center when

using moderate thumb pressure. Lock the motor in this position with the Belt Tension Locking Screw.

DRILL SPEED TABLE

The table below shows the belt arrangements for given drill speeds (A full chart is also located on the inside of the pulley cover). In the diagram, the belts are fitted to Step Three of the Spindle Pulley, producing a drill speed of 1,720 RPM.



Spindle Pulley Step	Spindle Speed (RPM)
1	3100
2	2340
3	1720
4	1100
5	620

OPERATION

1. Secure the tool to a supporting structure before use.
2. Insert the drill into the jaws of the chuck approximately 1", ensuring that the jaws do not touch the flutes of the drill. Before tightening the chuck, ensure that the drill is centered within the jaws. Refer to **Figure 6**.
3. Make sure the table height and position is set so that the drill travel range is sufficient for the material to be drilled.
4. Make sure the work is securely clamped. That is, held in a drill vice, or bolted to the table. Never hold the material with your bare hands while drilling. Severe personal injury may be caused if the material is flung out of the operator's hand.
5. IF THE MATERIAL IS IRREGULARLY SHAPED and cannot be laid flat on the table, it should be securely blocked and clamped. Any tilting, twisting or shifting will result not only in a roughly drilled hole but also increases the chances of damage to the drill.

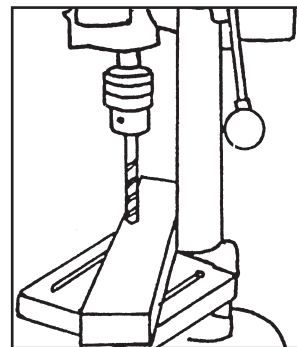


Figure 6

6. FOR FLAT WORK, lay the piece on to a wooden base and clamp it down firmly against the table to prevent it from turning.
7. FOR SMALL MATERIALS that cannot be clamped to the table, use a drill press vice. Make sure the vice is clamped or bolted to the table.
8. WHEN DRILLING COMPLETELY THROUGH WOOD, always position a piece of scrap wood between the material and the table to prevent splintering on the underside of the material as the drill breaks through. The scrap piece of wood must make contact with the left side of the column as shown in **Figure 5**. Also, set the depth of the drill so that the drill will not come in contact with the table - or align the table so that the hole in its center is in line with the drill bit.
9. Once the instructions above have been followed, lower the Chuck Guard into place and switch the machine ON .

Note: A switch inside the Pulley Cover will prevent the machine from operating unless the Pulley Cover is fully closed.

The motor housing may get hot under normal operating conditions.

Cutting Speeds

Factors which determine the best speed to use in the drill press operation are:

- a. Type of material to be drilled
- b. Size of hole
- c. Type of drill bit
- d. Quality of the hole/cut desired.

Generally, the SMALLER THE DRILL BIT the GREATER THE OPTIMAL RPM. In soft material, the speed should be higher than for hard metals. As a guide, the drill speed for a given drill bit size is listed in the chart below.

SPEED RANGE	(RPM)	3100	2340	1720	1100	620
Wood	in	3/8	5/8	7/8	1-1/4	1-5/8
	mm	9.5	18	22	31.75	41.4
Zinc Diecast	in	1/4	3/8	1/2	3/4	7/8
	mm	6.4	9.5	12.5	19	25.4
Aluminum & Brass	in	7/32	11/32	15/32	11/16	3/4
	mm	5.6	8.75	12	17.5	19
Mild Steel & Iron	in	3/32	5/32	1/4	3/8	1/2
	mm	2.4	4	6.4	9.5	12.5

AFTER OPERATION

1. Remove debris and drill bits from the machine. Thoroughly clean and dry all surfaces. Oil machined surfaces lightly.
2. Child-proof the machine and work area. Use padlocks, master switches and/or remove starter keys.

MAINTENANCE

CLEANING: Regularly clean the work surface with dry brush or clean cloth. Keep machined parts of the press lightly greased. Always keep the motor and chuck clean. Prevent metal, wood, dust and debris from accumulating in this area. If jaws do not operate smoothly, have the chuck serviced by a qualified technician.

LUBRICATION: For average use, lubricate twice a year with #20-30 weight household oil. Lubricate more frequently with increased usage.

POWER CORD: Inspect the power cord periodically and, if damaged, have it repaired by an authorized technician.

REPLACEMENT PARTS: Replace belts at the first sign of slippage or fraying. When servicing, use only identical replacement parts. Use of any other parts will void the warranty.

STORAGE: Always remove and store drill bits.

KEEP OUT OF REACH OF CHILDREN

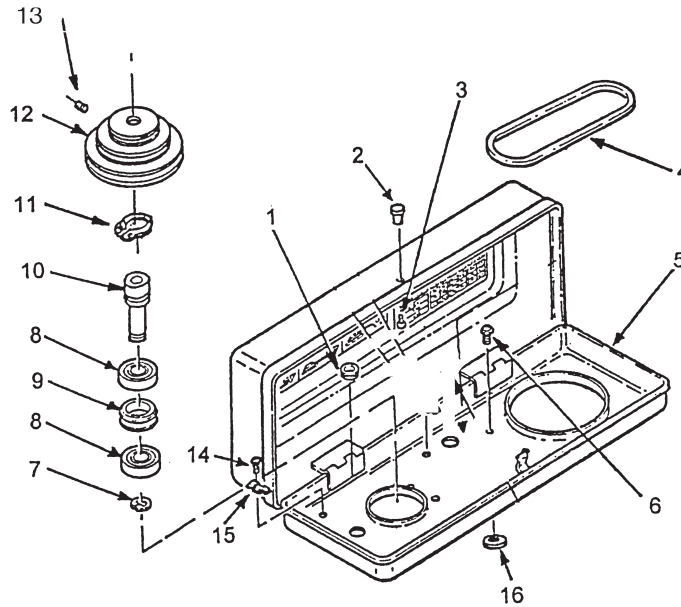
Troubleshooting

PROBLEM	PROBABLE CAUSE	REMEDY
Noisy operation (under load)	<ul style="list-style-type: none"> • Incorrect belt tension • Dry spindle • Loose pulley • Loose belt • Worn bearing 	<ul style="list-style-type: none"> • Adjust tension • Lubricate spindle • Tighten pulley • Adjust belt tension • Replace bearing
Excessive drill wobble	<ul style="list-style-type: none"> • Loose chuck • Worn spindle, or bearing • Worn chuck • Bent drill bit 	<ul style="list-style-type: none"> • Tighten by pressing chuck down on to a block of wood against the table. • Replace spindle or bearing • Replace chuck • Replace drill bit
Motor won't start	<ul style="list-style-type: none"> • Power supply • Motor connection • Faulty switch • Motor windings burn 	<ul style="list-style-type: none"> • Check power cord • Check motor connections • Replace switch • Replace motor
Drill binds in material	<ul style="list-style-type: none"> • Excessive pressure on feed handle • Loose belt • Loose drill bit • Incorrect drill speed • Drill angles incorrect for type of material 	<ul style="list-style-type: none"> • Apply less pressure • Check belt tension • Tighten drill with key • Refer to Cutting Speed chart • Consult an appropriate source (e.g., manual, instruction book, professional) and adjust drill accordingly.
Drill burns or smokes	<ul style="list-style-type: none"> • Incorrect speed • Chips are not discharging • Dull drill or not the proper clearance allowed for material • Needs coolant • Feed pressure is wrong 	<ul style="list-style-type: none"> • Refer to Cutting Speed chart • Clean drill • Use coolant while drilling • Apply less pressure
Table difficult to raise	<ul style="list-style-type: none"> • Needs lubrication • Table lock tightened 	<ul style="list-style-type: none"> • Lubricate with light oil • Loosen clamp

PARTS LISTS AND ASSEMBLY DIAGRAMS

Pulley Assembly

Figure 7

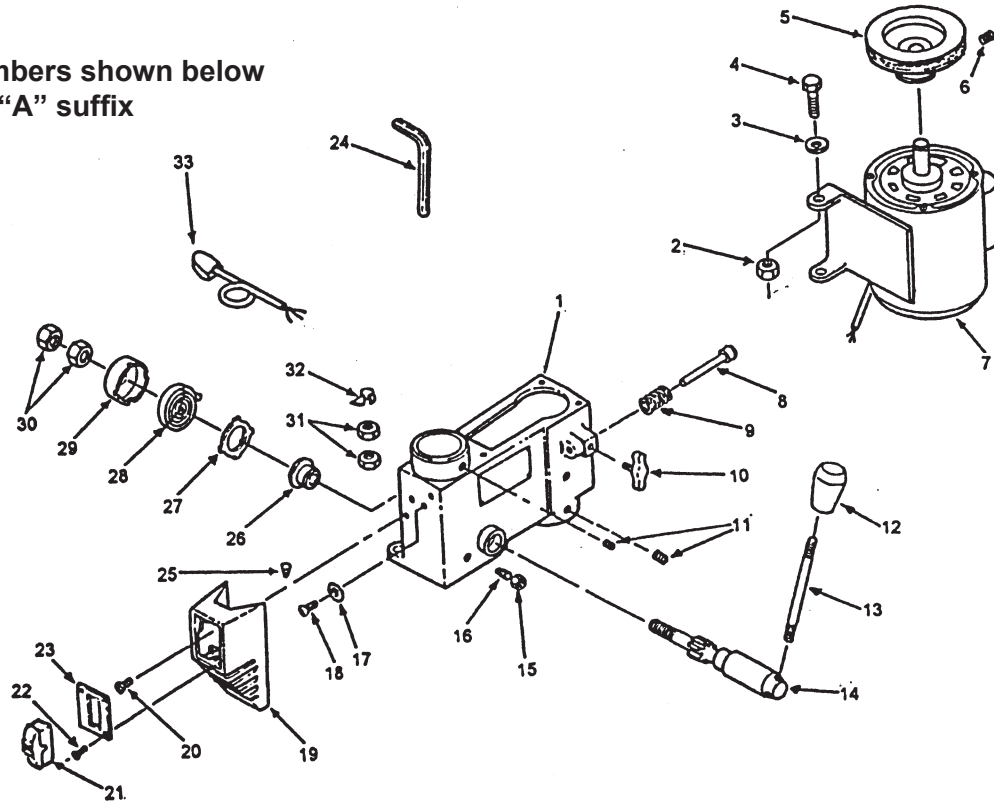


Item	Description	No.
1	Rubber Bushing	2005010
2	Knob	1505008
3	Pan Head Screw	GB818-85
4	"V" Belt K26	0805007
5	Pulley Cover w/labels	0805000
6	Washer Hd. Screw M6	GB9074.1-88
7	Retaining Ring 17mm	GB894.1-86
8	Ball Bearing 60203	GB278-89C
9	Spacer	1302023
10	Pulley Insert	0802022A
11	Retaining Ring 22mm	GB894.1-86C
12	Spindle Pulley	0805006D
13	Hex Socket Set Screw	GB80-85
14	Pan Head Screw M5	GB818-85B
15	Cable Clamp	1502014A
16	Foam Washer	0805009

Head Assembly

Figure 8

Part Numbers shown below have an "A" suffix

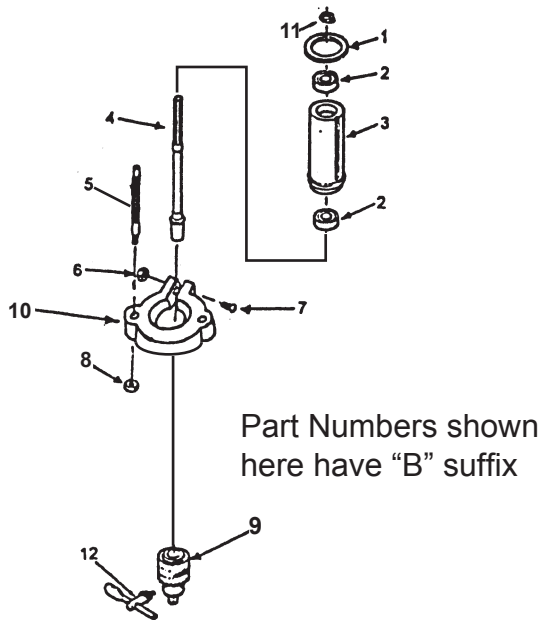


Item	Description	No.
1A	Head w/Roll Pin/trim	0802001
2A	Locknut M8	DIN985-85
3A	Washer 5/16	GB97.2-85
4A	Hex. Screw M8	GB5781-86A
5A	Motor Pulley	0805005B
6A	Screw Hex. Skt. M6	GB80-85A
7A	Motor	0802020B
8A	Stop Motor	0802002
9A	Spring (Motor Stop)	0802004
10A	Belt Tension Lock Screw	0802005
11A	Hex. Skt. Screw M8	GB80-85B
12A	Knob	0804011F
13A	Feed Handle	0804005F
14A	Pinion Shaft	0804002E
15A	Hex. Nut M8	GB6170-86C
16A	Fit Set Screw M8	0802021
17A	Ext. Lockwasher 5mm	GB862.1-87

Item	Description	No.
18A	Pan Head Screw M5	GB818-85B
19A	Switch Box w/Depth Scale	S0802008A
20A	Pan Head Screw M5	GB818-85B
21A	No Voltage Switch	1502010E
22A	Self Tapping Screw M5	GB845-85
23A	Switch Plate Cover	0802009B
24A	Allen Key 4mm	GB5356-85B
25A	Connector Wire	1302019
26A	Spring Seat	0804006
27A	Spring Retainer	0804007
28A	Quill Spring	0804009
29A	Quill Spring Cap	0804008
30A	Hex. Nut 3/8	n/a
31A	Hex. Nut M10	GB6171-86
32A	Pointer	0806002
33A	Power Cable	1302015F

Quill Assembly

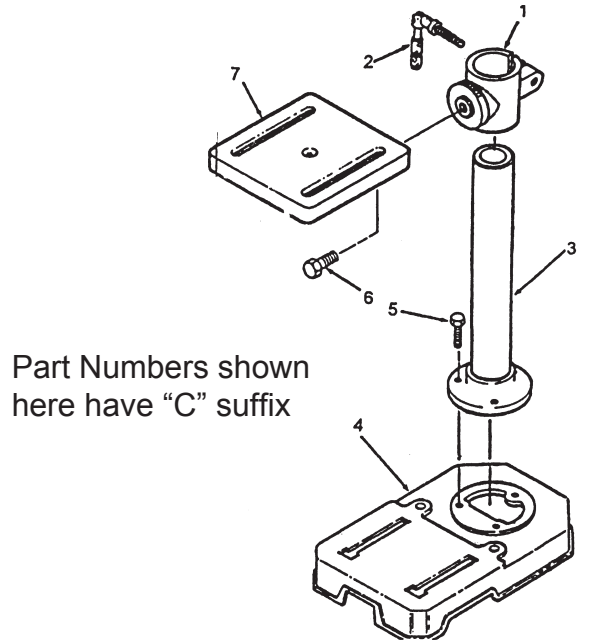
Figure 9



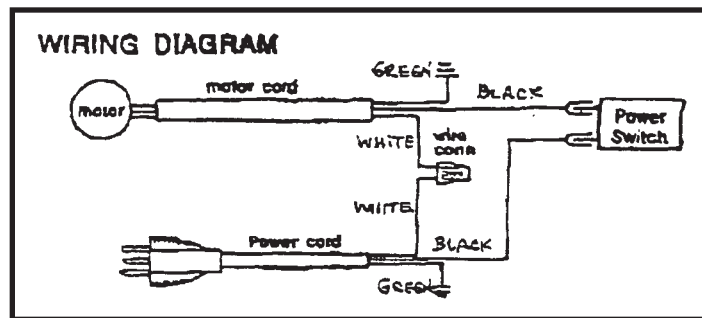
Item	Description	No.
1B	Quill Gasket	1303003
2B	Ball Bearing	GB278-89
3B	Quill Shaft	0803002A
4B	Spindle Shaft	0803001B
5B	Stop Rod	0803005
6B	Hex. Nut M4	GB6170-86
7B	Pan Hd. Screw M5x20	GB818-85
8B	Hex. Nut M6	GB6170-86
9B	Chuck	1303009
10B	Collar	0803004
11B	Retaining Ring	GB894.1-86
12B	Chuck Key	1303010

Base and Table Assembly

Figure 10



Item	Description	No.
1C	Table Support w/scale	0801004
2C	Table Spt. Lock Handle	0501013A
3C	Column Support	0801002/03
4C	Base	0801001
5C	Hex. Hd. Screw	GB5761-86
6C	Hex. Hd. Screw 1/2"	na
7C	Table	0801014



LIMITED 90 DAY WARRANTY

Harbor Freight Tools Co. makes every effort to assure that its products meet high quality and durability standards, and warrants to the original purchaser that this product is free from defects in materials and workmanship for the period of 90 days from the date of purchase. This warranty does not apply to damage due directly or indirectly, to misuse, abuse, negligence or accidents, repairs or alterations outside our facilities, criminal activity, improper installation, normal wear and tear, or to lack of maintenance. We shall in no event be liable for death, injuries to persons or property, or for incidental, contingent, special or consequential damages arising from the use of our product. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation of exclusion may not apply to you. THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS.

To take advantage of this warranty, the product or part must be returned to us with transportation charges prepaid. Proof of purchase date and an explanation of the complaint must accompany the merchandise. If our inspection verifies the defect, we will either repair or replace the product at our election or we may elect to refund the purchase price if we cannot readily and quickly provide you with a replacement. We will return repaired products at our expense, but if we determine there is no defect, or that the defect resulted from causes not within the scope of our warranty, then you must bear the cost of returning the product.

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

3491 Mission Oaks Blvd. • PO Box 6009 • Camarillo, CA 93011 • (800) 444-3353