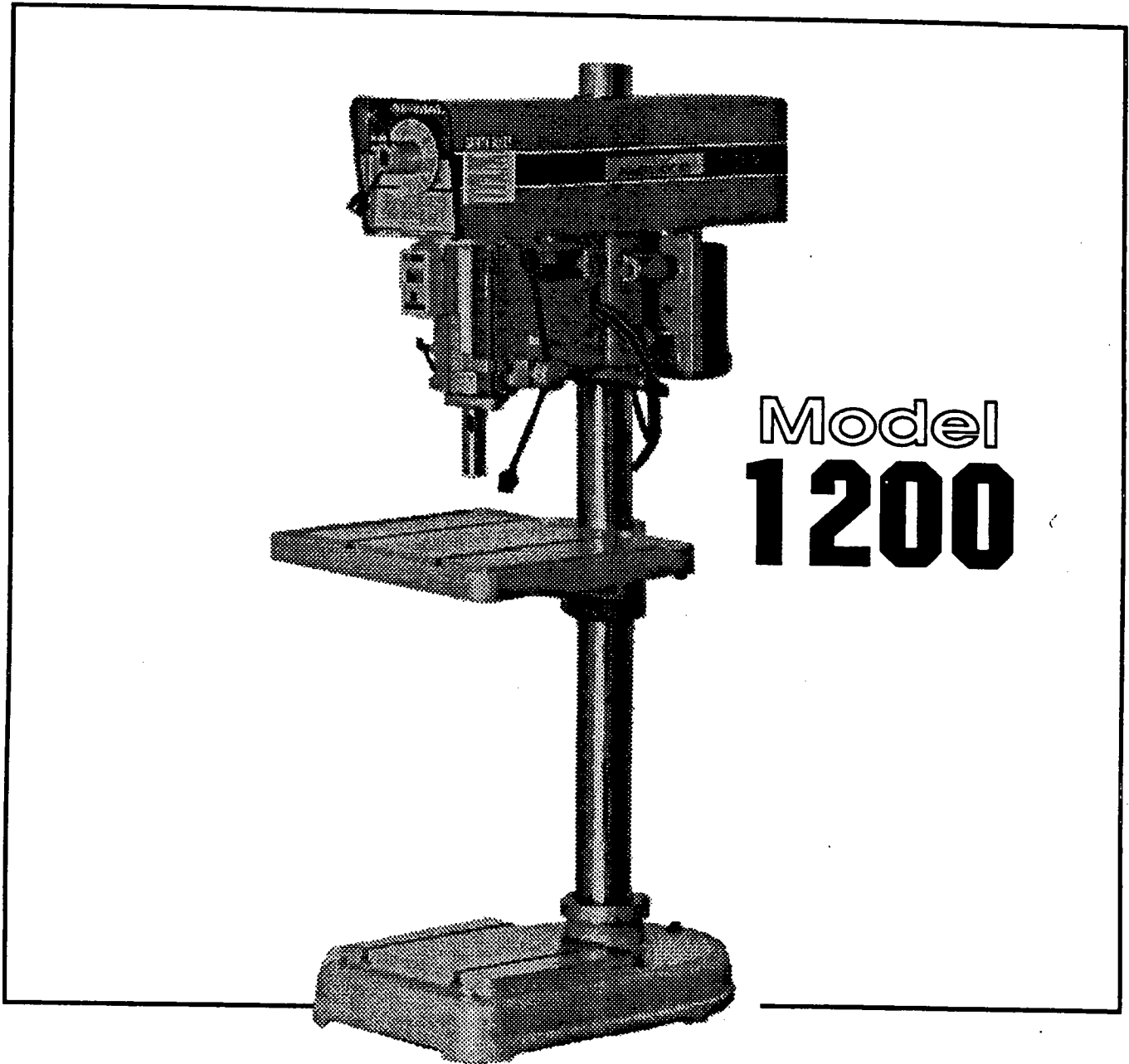


20" DRILL PRESS

OPERATING INSTRUCTIONS



POWERMATIC®  **®**

McMINNVILLE, TENNESSEE 37110 ■ AC 615-473-5551

FOREWORD

This manual has been prepared for the owner and those responsible for the operation of a Powermatic, Model 1200, Drill Press. Its purpose, aside from machine operation, is to promote safety through the use of accepted correct operating and maintenance procedures. Read the safety and maintenance instructions thoroughly before operating or servicing the machine. In order to obtain maximum life and efficiency from your Powermatic drill press and to aid in operating and maintaining the drill press with safety, read this manual thoroughly and follow all instructions carefully.

WARRANTY

Powermatic, a Division of DeVlieg-Bullard Inc., 607 Morrison Street, McMinnville, Tennessee 37110 ("Powermatic") warrants to its authorized distributors of Powermatic products and the original purchasers from such distributors, all products manufactured by Powermatic to be free of defects in material and workmanship for a period of twelve (12) months from the date of delivery from its authorized distributors or 2000 hours of use, whichever occurs first. During said warranty period Powermatic will, at its option, repair or replace any product (or component part thereof) proving defective during said period. This warranty applies only to products which are used in accordance with all instructions as to operation, maintenance and safety set forth in the catalogs, manuals, and/or instruction sets furnished by Powermatic. This warranty becomes effective only if the accompanying card is fully and properly completed and returned to Powermatic within ten (10) days from date of delivery to the original purchaser.

This warranty does not apply to items that would normally be consumed or require replacement due to normal wear (belts, lubricants, etc.); to electrical motors and components which are warranted by their manufacturer; or the costs of removal, shipment for service and reinstallation. Claims relating to electrical components must be taken to the component manufacturer's local authorized repair station for service.

This warranty is null and void if the product has been subjected to (1) misuse, abuse or improper service or storage; (2) accident, neglect, damage or other circumstances beyond Powermatic's control; (3) modifications, disassembly tampering, alterations or repairs outside of Powermatic's factory not authorized by Powermatic; or to any product not bearing its original serial number plate. This warranty does not apply to normal wear and tear, corrosion, abrasion, or repairs required due to natural causes or acts of God.

To obtain the fastest possible warranty service you must first notify in writing the authorized Powermatic distributor from whom you purchased the product specifying (1) the product by catalog number and serial number, (2) the date the product was delivered to you, (3) a description of the problem for which you seek warranty service, and (4) evidence of proof of purchase. Should circumstances prohibit you contacting the distributor then contact the Powermatic factory directly. If your claim is covered by this warranty, your Powermatic distributor will provide you with instructions as to how and where service will be provided. On simple warranty replacement or repairs, installations instructions will be provided to allow correction by customer personnel. Powermatic assumes no responsibility for products which are returned without its prior written authorization. Powermatic's obligation under this warranty shall be exclusively limited to repairing or replacing (at Powermatic's option) products which are determined by Powermatic to be defective upon delivery, F.O.B. (return freight paid by customer) Powermatic's factory, and on inspection by Powermatic. In no event shall Powermatic's liability under this warranty exceed the purchase price paid for the product.

THIS IS POWERMATIC'S SOLE WRITTEN WARRANTY. ANY AND ALL OTHER WARRANTIES WHICH MAY BE IMPLIED BY LAW, INCLUDING ANY WARRANTIES FOR MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE HEREBY LIMITED TO THE DURATION OF THIS WRITTEN WARRANTY. POWERMATIC SHALL NOT BE LIABLE FOR ANY LOSS, DAMAGE, OR EXPENSE DIRECTLY OR INDIRECTLY RELATED TO THE USE OF ITS PRODUCTS OR FROM ANY OTHER CAUSE OR FOR CONSEQUENTIAL DAMAGES (INCLUDING WITHOUT LIMITATION, LOSS OF TIME, INCONVENIENCE, AND LOSS OF PRODUCTION). THE WARRANTY CONTAINED HEREIN MAY NOT BE MODIFIED AND NO OTHER WARRANTY, EXPRESSED OR IMPLIED, SHALL BE MADE BY OR ON BEHALF OF POWERMATIC.

▲ SAFETY INSTRUCTIONS

- 1. Read, understand and follow the safety and operating instructions found in this manual. Know the limitations and hazards associated with a 1200 Drill Press. A safety rules decal is installed on the belt guard of this machine to serve as a reminder of basic safety practice.**
- 2. Grounding the drill press:** Make certain that the machine frame is electrically grounded and that a grounding lead is included in the incoming electrical service. In cases where a cord and plug are used, make certain that the grounding lug connects to a suitable ground. Follow the grounding procedure indicated by the National Electric Code.
- 3. Eye Safety:** Wear an approved safety face shield, goggles or glasses to protect eyes when operating the drill press.
- 4. Personal Protection:** Before operating the machine, remove tie, rings, watch and other jewelry and roll up sleeves above the elbow. Remove all outer loose clothing and confine long hair. Protective type footwear should be worn. Hearing protectors should be used where noise exceeds the level of exposure allowed in Section 1910.95 of the OSHA regulations. **Do Not Wear Gloves.**
- 5. Work Area:** Keep the floor around the machine clean and free of tools, tooling, stock scrap and other foreign material, and oil, grease or coolant to minimize the danger of tripping or slipping. Be sure the table is free of chips, tools and everything else not required for the task to be performed. Powermatic recommends the use of anti-skid floor strips on the floor area where the operator normally stands and that each machine's work area be marked off. Make certain the work area is well lighted and ventilated. Provide for adequate work space around the machine.
- 6. Guards:** Keep all machine guards in place at all times when the machine is in use. **Do Not Operate the Machine with the Guard Off.**
- 7. Do Not Overreach:** Maintain a balanced stance and keep your body under control at all times.
- 8. Maintain Tools in Top Condition:** Keep tools sharp and clean for safe and best performance. Dull tools can increase the feed force required and can result in burning the stock or seizing up, causing the work to be pulled free from its holding device. Dull or improperly sharpened drills will not produce a straight hole.
- 9. Use the Proper Speed and Feed:** A table is provided in the operating instruction manual as a guide in selecting the correct speed and feed rate for a variety of materials. For materials not shown, consult the material supplier for correct speed and feed rate. Adjust speed on variable speed models only with the power on. On step cone models, make sure power is off and the spindle has come to a complete stop before opening the access door to change speeds.
- 10. Never Drill Freehand:** Always block or clamp the work piece. A drill bit or tap can seize up causing the work piece, jig, or fixture to rotate with the spindle and can cause serious injury.
- 11. Remove Key Chucks:** When a key chuck is used, remove it immediately after using it to lock or unlock a tool in the chuck. If it is not removed, starting the spindle can cause it to be thrown off the chuck and could result in serious injury.
- 12. Hand Safety:** Keep hands away from the spindle when the machine is under power. Never clear chips when the spindle is under power and never use the hands to clear chips; use a brush or chip rake. Chips are razor sharp and can cause serious injury. **Do Not Change Tools with the Spindle Rotating Under Power.**
- 13. Spindle Rotation:** Be sure the rotation of the spindle is correct for the tool being used.
- 14. Machine Adjustments:** Make all machine adjustments with power off except speed on a variable speed model or feed rate on machine equipped with power feed.
- 15. Machine Capacity:** Do Not attempt to use the machine beyond its stated capacity or for operations requiring more than the rated horsepower of the motor. This type use will reduce the productive life of the machine and could cause the breakage of parts which could result in personal injury.
- 16. Avoid Accidental Starting:** Make certain the motor switch is in the "off" position before connecting power to the machine.
- 17. Careless Acts:** Give the work you are doing your undivided attention. Looking around, carrying on a conversation, and "horseplay" are careless acts that can result in serious injury.
- 18. Job Completion:** If the operator leaves the machine area for any reason, the drill press should be turned off and the spindle come to a complete stop before he departs. In addition, if the operation is complete, he should clean the machine and work area. Never clean the machine with power on and never clean chips with the hands; use a brush or chip rake.
- 19. Disconnect Machine:** Before performing any service or maintenance and when changing tools.
- 20. Replacement Parts:** Use only Powermatic or factory authorized replacement parts and accessories; otherwise, the drill press warranty and guarantee will be null and void.
- 21. Misuse:** Do Not use the 1200 Drill Press for other than its intended use. If used for other purposes, Powermatic disclaims any real or implied warranty and holds itself harmless for any injury that may result from the use. Do Not equip a 1200 Drill Press with a motor larger than 2 horsepower nor with a motor with a speed greater than

1800 rpm unless specifically authorized to do so in writing by Powermatic.

22. Do not equip your drill press with motor of higher than 1 horsepower nor run the spindle in excess of 4800 RPM without the express written consent of Powermatic. Doing so voids the warranty and Powermatic holds itself harmless from any injury that may result.

DRILL PRESS OPERATIONS

Familiarize yourself with all operating controls before attempting use of this machine.

CONTROLS (SEE FIGURE 1)

1. The spindle (A) in this machine has a No. 3 Morse Taper.
2. A depth stop rod (B) is provided to control hole depth and to prevent drilling through material into table surfaces.
3. A quill lock (C) is located on the left side of the head and is used to hold quill at any position.
4. The turret handle (D) is used to lower the spindle and quill a total depth of 6".
5. A safety collar (E) is provided to prevent head from falling when locks are released.
6. Starting switch (F) is mounted on the front of drill press head within easy reach of the operator.
7. A speed selection chart (G) is located on the front of the head. This chart is to provide assistance in determining proper drill speed.
8. On variable speed models, handle (I) is used to change speed. **CAUTION:** Change speed with motor running only on variable speed models.
9. On production table models, binder (J) locks the table to the column and handle (H) is used to raise and lower the table.

CONTROLS (Powerfeed)

On powerfeed models (Optional, Figure 2) the feed rate control lever varies in feed in inches/revolution between .004 and .012. Lever (L) engages

powerfeed and can be used to manually disengage powerfeed. Trip lever (N) automatically disengages powerfeed when contacted by the dog on the depth stop. Turret handle (K) can be used to manually feed the drill spindle.

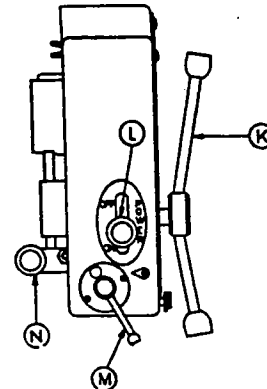
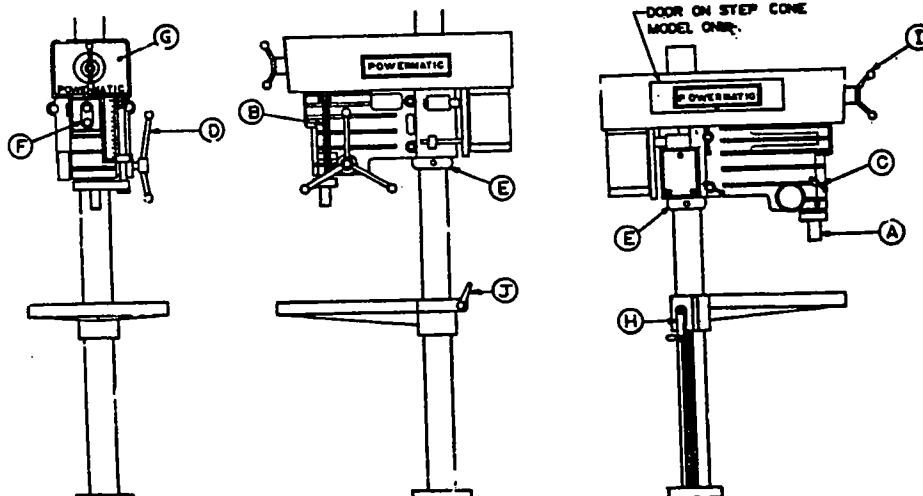


FIGURE 2

OPERATING HINTS

1. Determine drill size, inspect for sharpness, insert and lock securely in chuck or morse taper.
2. Arrange at this point to protect table surface from drill breakthrough. A piece of scrap material under the workpiece will prevent marring table surface and eliminate splintering at breakthrough point. Lock table securely to prevent movement.
3. Prevent the work from being torn from operator's hand, by always securing the workpiece, jig, fixture, or holding device to table by clamping or blocking on the table. **DO NOT** use the column as a stop. Clamp all light workpieces, jigs, fixtures, or holding devices to the table to prevent them from being picked up as the quill returns.
4. Select the proper RPM for the tool being used, the material being machined, the operations to be performed, and other conditions as indicated. (See Tables I, II, and III on pages 8, 9, and 10 for recommendations.) If drill press is the step pulley type, raise door and set drive belt in proper rotation position. If the machine is a variable speed model, turn machine on the turn control cam to proper



speed. NEVER attempt speed adjustment of variable speed machines unless machine is running. Turn machine off.

5. Set depth stop for desired hole depth. Fine adjustment is made by turning the fine adjustment collar directly under pointer on depth rod. Use upper jam nut to lock stop setting position.

6. Start coolant, if coolant is being used.

7. Turn spindle on and begin drilling operation.

As the breakthrough point is reached, always slow feed rate down slightly to assist in elimination of

burring underside of workpiece and to help prevent a sudden break through which can cause the drill to grab and pull the workpiece free of its clamping device.

8. Perform all operations with a minimum extension of the quill. Adjust table or head position rather than using excessive quill travel.

9. On tilting table models be sure to block the part or holding fixture from sliding off the table when it is used tilted at an angle. In addition, be sure the table is clamped.

SPECIFICATIONS

	<u>English</u>	<u>Metric</u>
Spindle, Steel.....	6 Spline, No. 3 Morse Taper	
Spindle, Travel.....	6"	
Quill Diameter.....	2-3/4"	152.4 mm
Column Diameter.....	4" O.D.	69.85 mm
Column Wall Thickness.....	1/2"	101.6 mm
Column Length, Floor Model.....	66"	12.7 mm
Column Length, Bench Model.....	42"	1676.4 mm
Production Table Working Surface.....	15-1/2" x 18"	1066.8 mm
Tilting Table Working Surface.....	15-7/8 x 17-7/8"	393.7 x 457.2 mm
Base Working Surface.....	13-1/2 x 18"	403.2 x 454 mm
Throat Depth.....	Drill to center of 20" diameter	342.9 x 457.2 mm
Capacity in Steel - 1 HP.....	3/4"	
Capacity in Cast Iron - 1 HP.....	1"	19.05 mm
Capacity in Steel - 1-1/2 HP.....	7/8"	25.5 mm
Capacity in Cast Iron - 1-1/2 HP.....	1-1/8"	22.2 mm
		28.6 mm

SPINDLE SPEEDS

Variable Speed Model

1800 RPM motor..... 200-2000 RPM

1200 RPM motor..... 135-1350 RPM

2 speed, 1800/900 RPM motor..... 100-2000 RPM

Step Pulley Model

1800 RPM motor..... 240, 380, 600, 1500 RPM

1200 RPM motor..... 160, 260, 400, 610, 1000 RPM

2 speed, 1800/900 RPM motor..... 120, 190, 240, 300, 380, 450, 600, 750, 900, 1500 RPM

WEIGHT

Approximate Weight Floor

Models W/O Power Feed..... 600 lbs

272 kg

Approximate Weight Bench

Models W/O Power Feed..... 485 lbs

220 kg

Approximate Weight Multiple Spindle Drills W/O Power Feed

2 Spindle..... 1270 lbs

576 kg

3 Spindle..... 2000 lbs

970 kg

4 Spindle..... 2330 lbs

1057 kg

6 Spindle..... 3500 lbs

1588 kg

8 Spindle..... 4600 lbs

2087 kg

BELTS

Variable Speed..... No. 6077053 (1922V443)

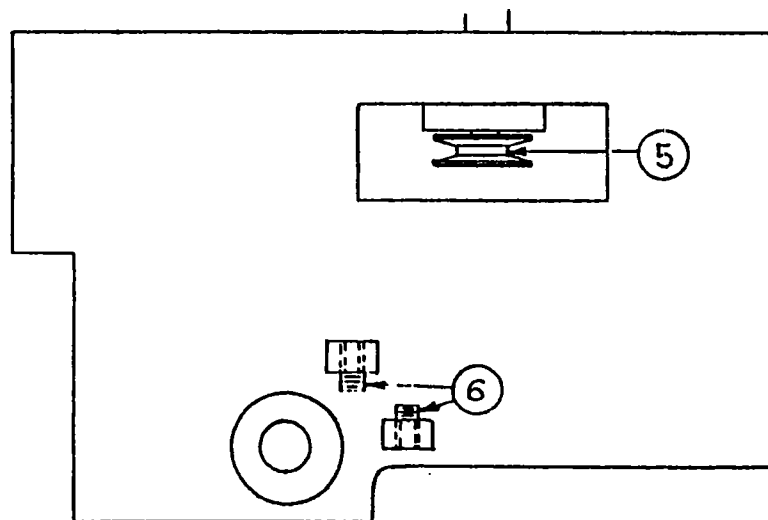
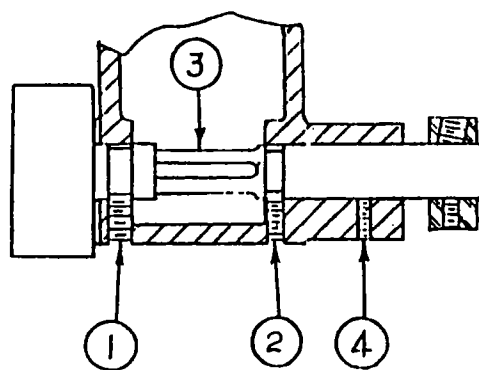
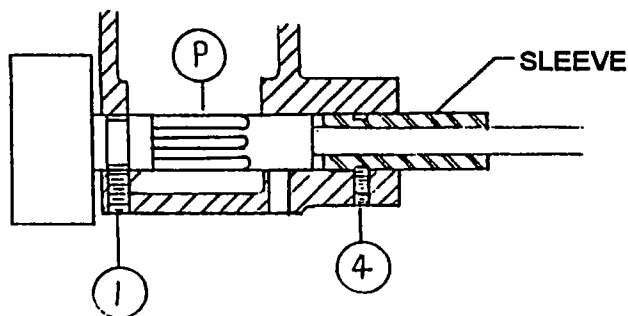
Step Cone..... No. 6077041 (5L-460)

Spindle Drive..... No. 6077076 (7M710) (Set of 2)

POWER FEED INSTRUCTIONS, INSTALLATION, AND OPERATION

STEP ITEM DESCRIPTION

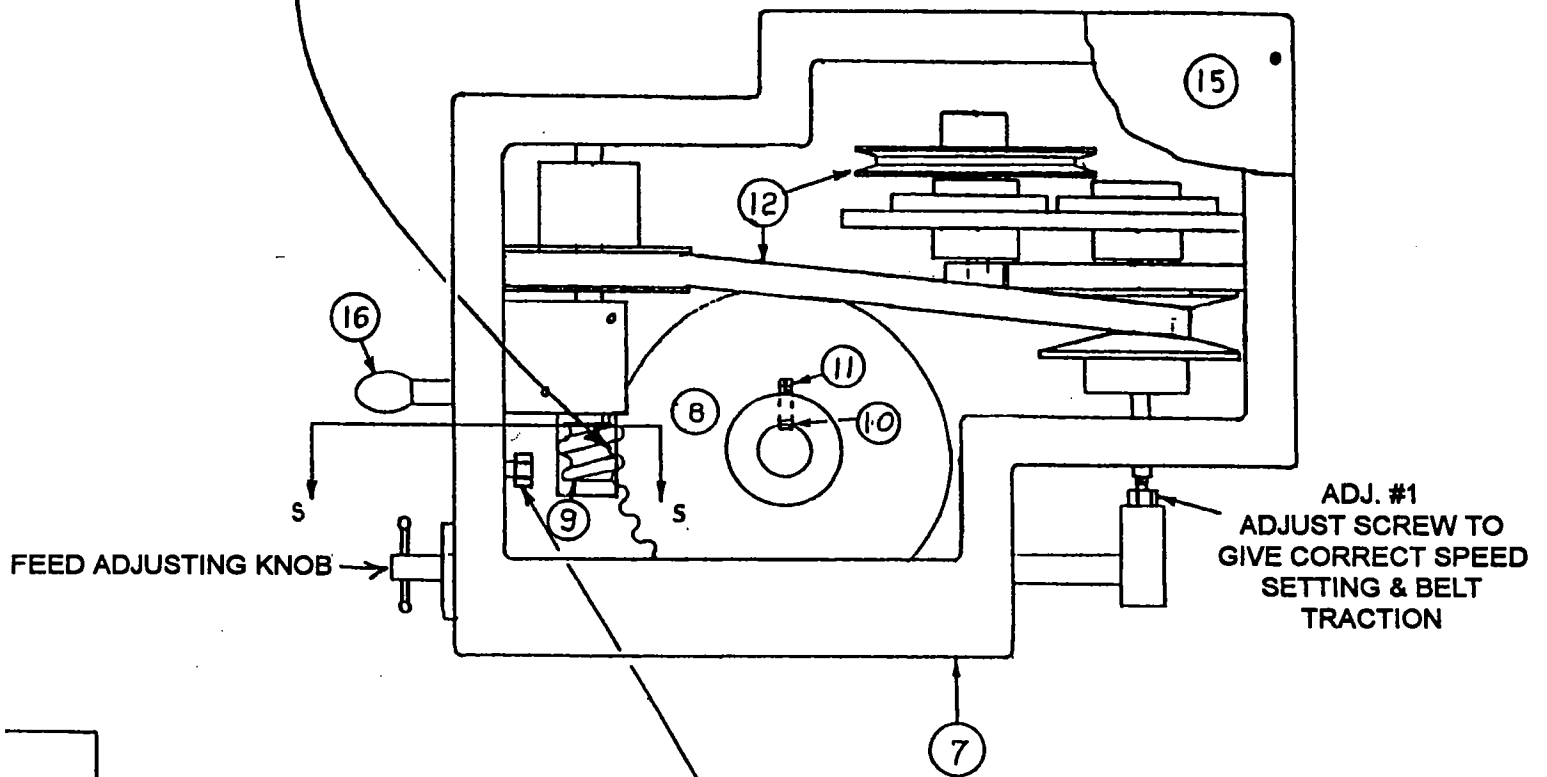
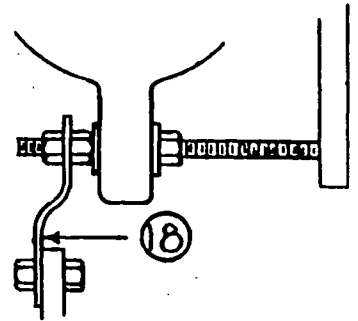
STEP	ITEM	DESCRIPTION
1	1	REMOVE SPRING TENSION LOOSEN 1/2 SETSCREW
2	2	REMOVE 1/2 SETSCREW; PINION GEAR
3	3	REMOVE PINION
4	P	INSTALL NEW PINION
5	4	INSTALL 5/16 SETSCREW & LOCK WITH NUT
6		RETURN SPRING TENSION
7	1	RETIGHTEN 1/2 SETSCREW
8	5	INSTALL PULLEY
9	6	INSTALL SETSCREWS
10	7&8	INSTALL HOUSING & LARGE GEAR
11	18	LEVEL HOUSING WITH HEAD & INSTALL BRACKET
12	6	TIGHTEN SETSCREW
13	8&9	ALIGN GEAR WITH WORM
14	10&11	INSTALL KEY & SETSCREW
15	12	INSTALL BELTS 'TWO'
16		ADJUST BELT TENSION
17		MAKE ADJ. 1, 2, 3
18	15	INSTALL PLATE
19	16	INSTALL HANDLE & HUB



OPERATING INSTRUCTIONS

1. To start power feed pull down handle no. 16. Drill must be running.
2. To stop feed, pull down return handle & quill returns.
3. Automatic return is set by moving depth adjusting block to desired position and feed will return automatic.
4. Set feed by turning feed adjusting knob to desired position.

NOTE: Worm and worm wheel are factory lubricated with lubriplate grease. Periodically inspect and regrease as required.



ADJ. #1
ADJUST SCREW TO GIVE CORRECT SPEED SETTING & BELT TRACTION

ADJ. #3
ADJUST BOLT SO PINION CLEARS GEAR BY APPROXIMATELY 1/8 INCH WHEN IN NETURAL POSITION

RETURN HANDLE

ADJ. #2
ADJUST BOLT SO ROD IS SNUG BEHIND BOLT HEAD IN FEED POSITION

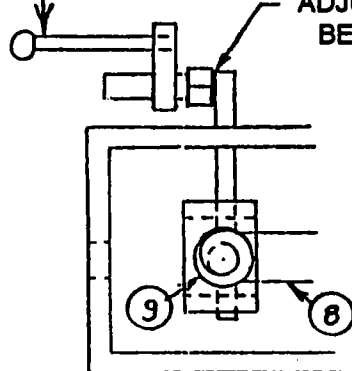


TABLE IA: DRILLING FEEDS - SPEED - HORSEPOWER REQUIRED

SIZE OF DRILL	FEED PER REVOLUTION	BRONZE BRASS	COPPER	ALUMINUM	MALLE-ABLETION	CAST IRON			STEEL CASTING
						MACHINE SURFACE	SCALE SURFACE	DEEP HOLES	
FT. PER MIN.		250 FT	150 FT	300 FT	80 FT	100 FT	80 FT	80 FT	40 FT
INCHES	INCHES	R P M	R P M	R P M	R P M	R P M	R P M	R P M	R P M
1/16	0.003	15279	9167	18320	4889	6111	4889	4889	2445
3/32	0.0035	10186	6111	12212	3262	4077	3262	3262	1628
1/8	0.004	7639	4583	9160	2445	3056	2445	2445	1222
5/32	0.0045	6111	3667	7328	1956	2445	1956	1956	976
3/16	0.005	5093	3056	6106	1630	2037	1630	1630	815
7/32	0.0055	4365	2619	5234	1398	1747	1398	1398	698
1/4	0.006	3820	2292	4575	1222	1528	1222	1222	611
9/32	0.0065	3395	2037	4071	1087	1359	1087	1087	542
5/16	0.007	3056	1833	3660	978	1222	978	978	489
11/32	0.0075	2778	1667	3330	889	1111	889	889	444
3/8	0.008	2546	1528	3050	815	1019	815	815	407
13/32	0.0085	2350	1410	2818	752	940	752	752	376
7/16	0.009	2183	1310	2614	698	873	698	698	349
15/32	0.0095	2037	1222	2442	652	815	652	652	326
1/2	0.01	1910	1146	2287	611	764	611	611	306
17/32	0.0102	1798	1079	2157	575	719	575	575	288
9/16	0.0106	1698	1019	2035	543	679	543	543	271
19/32	0.0107	1608	965	1930	515	643	515	515	257
5/8	0.011	1528	917	1830	489	611	489	489	244
21/32	0.0112	1455	873	1746	466	582	466	466	233
11/16	0.0115	1389	833	1665	444	556	444	444	222
23/32	0.0117	1329	797	1594	425	532	425	425	213
3/4	0.012	1273	764	1525	407	509	407	407	204
25/32	0.0122	1222	733	1467	391	489	391	391	196
13/16	0.0125	1175	705	1409	376	470	376	376	188
7/8	0.013	1091	655	1307	349	436	349	349	175
15/16	0.0135	1019	611	1221	326	407	326	326	163
1	0.014	955	573	1143	306	382	306	306	153

TABLE II: REAMING SPEEDS - HIGH SPEED STEEL TOOLS MATERIALS - RPM

	Brass	Bronze	Malle-able Iron	Cast Iron Class 30	Steel Casting	STEEL				
						Very Hard Br 400 - 425	Hard Br 300 - 375	Medium Br 225 - 300	Soft Br 100 - 200	Dead Soft Br Under 100
1/8	3500	1600	2200	2100	1700	640	800	1200	1900	2080
1/4	1700	800	1100	1050	850	320	400	600	950	1040
3/8	1200	530	730	700	600	210	270	430	640	700
1/2	880	400	550	520	440	160	190	320	480	520
5/8	700	320	440	410	350	130	150	250	380	410
3/4	580	270	370	350	280	105	130	200	315	345
7/8	500	230	315	300	240	90	115	170	270	300
1	440	200	275	260	210	80	100	150	240	260
NOTE: For Carbide Reamers Use 3 Times Chart Speeds										
Counterboring & Spotfacing - High Speed Steel Tools - Surface Ft./Min.										
	325	100	50	50	40	30	45	55	65	110
NOTE: For Carbide Spotfacers Use 4 Times Chart Values										

TABLE IB: DRILLING FEEDS - SPEED - HORSEPOWER REQUIRED

SIZE OF DRILL	FEED PER REVOLUTION	STEEL					CAST IRON		STEEL	
		VERY HARD BRINELL 402-444	HARD BRINELL 302-387	MEDIUM BRINELL 202-293	SOFT BRINELL 101-196	DEAD SOFT BRINELL UNDER100	CUTTING HP	FEED HP	CUTTING HP	FEED HP
		40 FT	50 FT	60 FT	70 FT	80 FT				
FT. PER MIN.	INCHES	R P M	R P M	R P M	R P M	R P M	HP	HP	HP	HP
1/16	0.003	2445	3056	3667	4278	4889	0.07	0.0043	0.18	0.0076
3/32	0.0035	1628	2039	2446	2852	3262	0.11	0.0044	0.27	0.0079
1/8	0.004	1222	1528	1833	2139	2445	0.14	0.0045	0.36	0.0081
5/32	0.0045	976	1223	1467	1711	1956	0.18	0.0046	0.45	0.0084
3/16	0.005	815	1019	1222	1426	1630	0.22	0.0047	0.54	0.0087
7/32	0.0055	698	874	1048	1222	1398	0.25	0.0049	0.63	0.0089
1/4	0.006	611	764	917	1070	1222	0.29	0.005	0.72	0.0092
9/32	0.0065	542	680	815	950	1087	0.33	0.0051	0.81	0.0095
5/16	0.007	489	611	733	856	978	0.37	0.0053	0.89	0.0097
11/32	0.0075	444	555	667	778	889	0.4	0.0054	0.98	0.01
3/8	0.008	407	509	611	713	815	0.44	0.0055	1.07	0.0102
13/32	0.0085	376	470	564	658	752	0.47	0.0056	1.16	0.0104
7/16	0.009	349	437	524	611	698	0.5	0.0057	1.25	0.0106
15/32	0.0095	326	408	489	570	652	0.54	0.0058	1.34	0.0107
1/2	0.01	306	382	458	535	611	0.57	0.0059	1.43	0.0109
17/32	0.0102	288	360	431	503	575	0.6	0.006	1.51	0.0111
9/16	0.0105	271	340	407	475	543	0.64	0.0061	1.6	0.0112
19/32	0.0107	257	322	382	450	515	0.68	0.0062	1.69	0.0114
5/8	0.011	244	306	367	428	489	0.72	0.00624	1.78	0.0115
21/32	0.0112	233	291	349	407	466	0.75	0.0063	1.87	0.0117
11/16	0.0115	222	278	333	389	444	0.79	0.0064	1.96	0.0118
23/32	0.0117	213	266	319	372	425	0.83	0.0065	2.05	0.012
3/4	0.012	204	255	306	357	407	0.87	0.0066	2.14	0.0121
25/32	0.0122	196	245	293	342	391	0.9	0.00665	2.22	0.0122
13/16	0.0125	188	235	282	329	376	0.94	0.0067	2.31	0.0123
7/8	0.013	175	218	262	306	349	1.01	0.0068	2.49	0.0126
15/16	0.0135	163	204	244	285	326	1.09	0.0069	2.67	0.0128
1	0.014	153	191	229	267	306	1.16	0.007	2.85	0.013

TABLE III: TAPPING AND THREADING FORMULA FOR CALCULATING HORSEPOWER REQUIREMENTS

HP = PPV x SFM x M x TD

- PPV = Power Pitch Value See Chart
- SFM = Surface Feet Per Minute "
- M = Material Factor "
- TD = Tool Dullness Factor "
- HP = Horsepower "
- RPM = Revolutions Per Minute "

TAPPING AND THREADING FACTORS CHART	
Threads Per Inch	Power Pitch Value* PPV
32	0.002
27	0.0034
24	0.004
20	0.006
18	0.007
16	0.009
14	0.011
13	0.012
12	0.014
11-1/2	0.015
11	0.016
10	0.020
9	0.025
8	0.030
7	0.035
6	0.040

*Multiply PPV by 2.2 for Double or Taper Pipe Threads

TD - Use (1.5 Factor) for Tool Dullness

MATERIAL AND SPEED FACTORS CHART		
MATERIAL	FACTOR - M	SPEED - S.F.M.
Aluminum	0.5	100
Bakelite	0.6	75
Brass	0.6	90
Bronze	0.6	50
Bronze Mang.	1.0	40
Copper	0.5	80
Alum. Die Cast	0.6	80
Fiber	0.5	75
Zinc Die Cast	0.6	80
Cast Iron	0.6	70
Malleable Iron	0.6	45
Magnesium	0.5	100
Steel Cast	1.4	35
Steel Fr. Mach.	1.0	50
Steel Chromium	1.7	30
Steel Alloy	1.7	25
Steel Stainless	1.7	20

REVOLUTIONS PER MINUTE CALCULATION

R.P.M. = 3.82 x S.F.M. + Dia.

DECALS — 1200 DRILL PRESS

DANGER

HEAD WILL FALL IF UNCLAMPED WITH THE SAFETY COLLAR LOOSE. MAKE SURE SAFETY COLLAR IS LOCKED TO COLUMN BEFORE UNCLAMPING HEAD WITH COLUMN CLAMP SCREWS. SEE INSTRUCTIONS FOR PROPER SPINDLE HEAD RAISING AND LOWERING.

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SAFETY RULES

CAREFULLY READ INSTRUCTION MANUAL BEFORE OPERATING MACHINE.

DO NOT OPERATE WITHOUT ALL GUARDS AND COVERS IN POSITION. BE SURE MACHINE IS ELECTRICALLY GROUNDED.

REMOVE OR FASTEN LOOSE ARTICLES OF CLOTHING SUCH AS NECKTIES, ETC. CONFINE HAIR.

REMOVE JEWELRY SUCH AS FINGER RINGS, WATCHES, BRACELETS, ETC.

USE SAFETY FACE SHIELD, GOGGLES, OR GLASSES TO PROTECT EYES AND OTHER PERSONAL SAFETY EQUIPMENT AS REQUIRED.

STOP MACHINE BEFORE MAKING ADJUSTMENTS OR CLEANING CHIPS FROM WORK AREA.

KEEP THE FLOOR AROUND THE MACHINE CLEAN AND FREE FROM SCRAPS, SAWDUST, OIL OR GREASE TO MINIMIZE THE DANGER OF SLIPPING.

TO AVOID SERIOUS INJURY, SECURELY CLAMP OR BLOCK WORK PIECE, JIG, OR FIXTURE TO PREVENT THEIR ROTATION SHOULD DRILL SEIZE-UP OCCUR.

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To order parts or reach our service department, please call our toll free number between 8:00 A.M. and 4:30 P.M. (CST), Monday through Friday. Having the Model Number and Serial Number of your machine available when you call will allow us to serve you quickly and accurately. Locating the EDP number of the part(s) required from your parts manual will also expedite your order.

Phone No. : 800-248-0144

Fax No. : 615-473-7819

