



## MODEL G0794 FLOOR DRILL PRESS WITH LASER AND DRO MANUAL INSERT

The Model G0794 is the same machine as the Model G7944, except the G0794 has a laser, a digital read-out, and no work light. Aside from the differences noted in this insert, all other content in the Model G7944 owner's manual applies to this machine.

**▲WARNING: To reduce the risk of serious injury, you MUST read and understand this insert—and the entire Model G7944 manual—BEFORE assembling, installing, or operating this machine!**

*If you have any further questions about this manual insert or the differences between the Model G0794 and the Model G7944, contact our Technical Support at (570) 546-9663 or email [techsupport@grizzly.com](mailto:techsupport@grizzly.com).*



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(FOR MODELS MANUFACTURED SINCE 09/14) #WK16957 PRINTED IN CHINA



# MACHINE DATA SHEET

Customer Service #: (570) 546-9663 · To Order Call: (800) 523-4777 · Fax #: (800) 438-5901

## MODEL G0794 FLOOR DRILL PRESS WITH LASER AND DRO

### Product Dimensions:

Weight..... 155 lbs.  
Width (side-to-side) x Depth (front-to-back) x Height..... 14 x 24 x 64 in.  
Footprint (Length x Width)..... 18 x 11 in.

### Shipping Dimensions:

Type..... Cardboard Box  
Content..... Machine  
Weight..... 171 lbs.  
Length x Width x Height..... 56 x 20 x 10 in.  
Must Ship Upright..... No

### Electrical:

Power Requirement..... 110V, Single-Phase, 60 Hz  
Full-Load Current Rating..... 9A  
Minimum Circuit Size..... 15A  
Connection Type..... Cord & Plug  
Power Cord Included..... Yes  
Power Cord Length..... 8-1/2 ft.  
Power Cord Gauge..... 16 AWG  
Plug Included..... Yes  
Included Plug Type..... 5-15  
Switch Type..... Paddle Safety Switch w/Removable Key

### Motors:

#### Main

Type..... TEFC Capacitor-Start Induction  
Horsepower..... 3/4 HP  
Phase..... Single-Phase  
Amps..... 9A  
Speed..... 1720 RPM  
Power Transfer..... V-Belt Drive  
Bearings..... Shielded & Permanently Lubricated

### Main Specifications:

#### Construction

Table..... Precision-Ground Cast Iron  
Spindle Housing..... Cast Iron  
Column..... Steel  
Head..... Cast Iron  
Base..... Cast Iron  
Paint Type/Finish..... Enamel

#### Head Information

Head Swivel..... 360 deg.



**Other Related Information**

Base Length.....	18 in.
Base Width.....	11 in.
Quill Diameter.....	2.040 in.
Depth Stop Type.....	Hub
Column Diameter.....	3.150 in.
Mobile Base.....	D2260A

**Spindle Information**

Spindle Taper.....	MT#2
Spindle Travel.....	3-1/4 in.
Distance From Spindle To Column.....	7 in.
Distance From Spindle To Table.....	31-1/2 in.
Distance From Spindle To Base.....	49 in.

**Table Information**

Table Length.....	11-3/8 in.
Table Width.....	11-3/8 in.
Table Thickness.....	1-1/4 in.
Floor To Table Height.....	20 – 46 in.
Vertical Table Movement.....	Crank Handle Operation
Table Swing.....	360 deg.
Max Table Tilt (Left/Right).....	90 deg.
Table Swivel Around Center.....	360 deg.
Table Swivel Around Column.....	360 deg.
Maximum Movement Of Work Table.....	26 in.
Number of T Slots.....	4
T Slot Width.....	5/8 in.
T Slot Length.....	3-7/8 in.

**Operation Information**

Type.....	Floor
Swing.....	14 in.
Drilling Capacity (Mild Steel).....	3/4 in.
Number of Spindle Speeds.....	12
Range of Spindle Speeds.....	140 – 3050 RPM
Drill Chuck Type.....	JT33 Key Chuck
Drill Chuck Size.....	1/64 – 5/8 in.

**Other Specifications:**

Country of Origin .....	China
Warranty .....	1 Year
Approximate Assembly & Setup Time .....	45 Minutes
Serial Number Location .....	ID Label on Head
ISO 9001 Factory .....	No
CSA, ETL, or UL Certified/Listed .....	No

**Features:**

- Built-in digital readout for spindle depth
- Adjustable laser sight
- Four 5/8" T-slots
- 12 speeds
- Threaded depth stop
- Rack-and-pinion vertical table movement
- Table features locking levers and a coolant trough



# Laser Guide

The laser should be checked and adjusted before starting a new project, and any time you raise or lower the table, or change workpiece thickness.

## **!WARNING**

**DO NOT** look directly into laser. Severe eye injury will result.

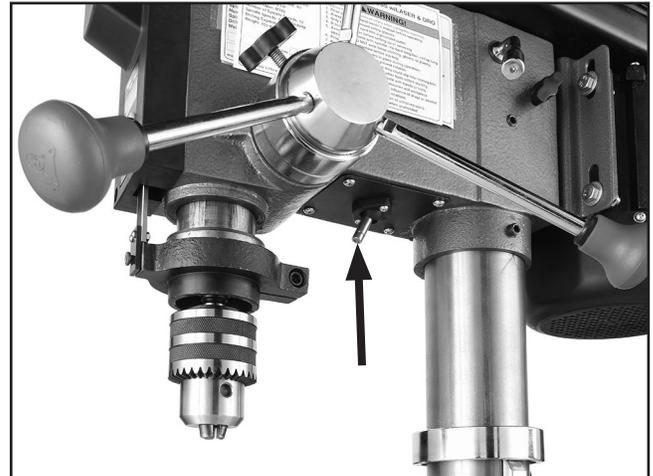
### To adjust laser:

1. DISCONNECT DRILL PRESS FROM POWER!
2. Install drill bit in chuck (see **Installing/Removing Drill Bits** on **Page 25** of Model G7944 manual).
3. Clamp workpiece securely to table.
4. Adjust table so workpiece is within range of drill bit, then lock table in horizontal position.
5. Lower drill bit so it touches workpiece, making a slight indentation in the surface, then raise bit.
6. Connect drill press to power. Turn laser **ON** using switch on front of drill press (see **Figure 1**).

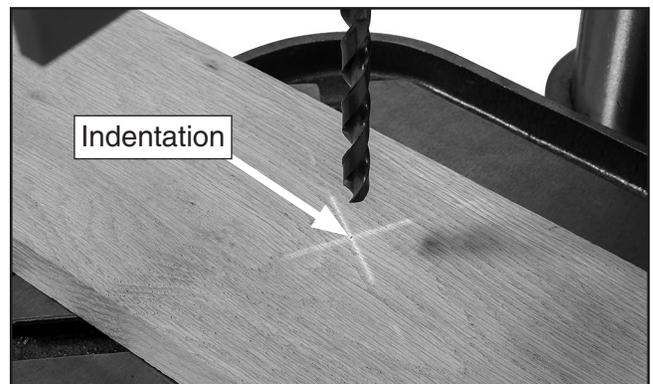


**Figure 1.** Location of laser ON/OFF switch.

7. Adjust laser (**Figure 2**), positioning it by hand so crosshairs align with indentation you made earlier in surface of workpiece, as shown in **Figure 3**.



**Figure 2.** Location of laser.



**Figure 3.** Crosshairs aligned with indentation on workpiece.



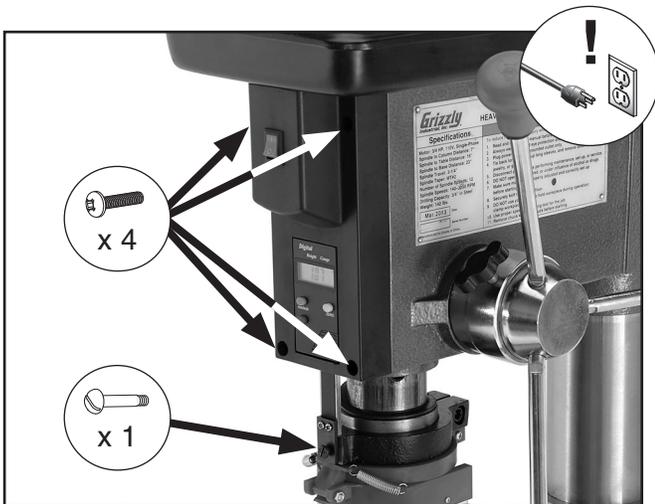
# Digital Readout

The model G0794 is equipped with a digital readout (DRO) for precision spindle adjustment. The DRO is independently powered by a SR44 button cell battery, which may need to be changed from time to time. Follow the instructions below to change the battery.

**Tools Needed:** Qty  
Phillips Head Screwdriver #2 ..... 1

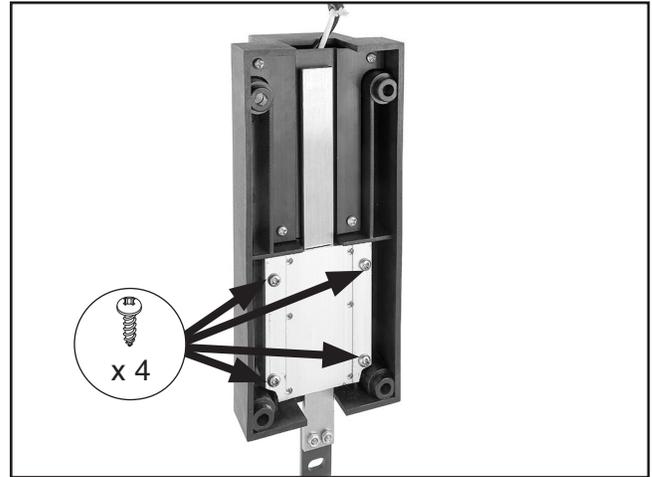
## To change DRO battery:

1. DISCONNECT DRILL PRESS FROM POWER!
2. Remove (1) shoulder screw, then remove (4) M5-8 x 14 Phillips head screws shown in **Figure 4** and remove DRO housing.



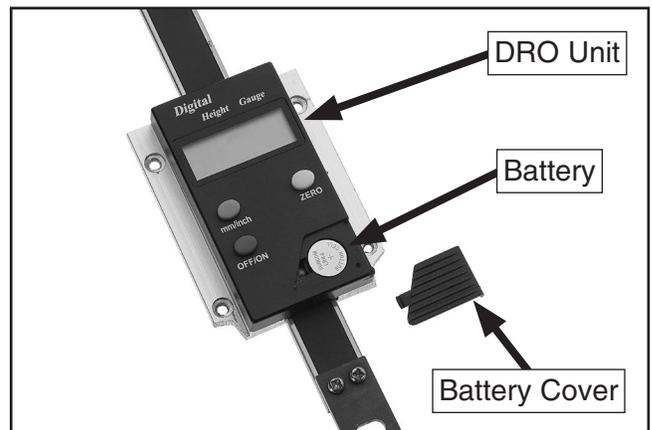
**Figure 4.** Location of DRO mounting screws.

3. Remove (4) M4 x 12 tap screws shown in **Figure 5**, and remove DRO unit from housing.



**Figure 5.** DRO housing removed from drill press head.

4. Lay DRO unit on a flat surface and remove battery cover, as shown in **Figure 6**.



**Figure 6.** DRO battery cover removed.

5. Replace battery with new SR44 button cell battery and re-install battery cover.
6. Re-install DRO unit and DRO housing, making sure to re-install shoulder screw from **Step 2**.





# WIRING

These pages are current at the time of printing. However, in the spirit of improvement, we may make changes to the electrical systems of future machines. Compare the manufacture date of your machine to the one stated in this manual, and study this section carefully.

If there are differences between your machine and what is shown in this section, call Technical Support at (570) 546-9663 for assistance BEFORE making any changes to the wiring on your machine. An updated wiring diagram may be available. **Note:** Please gather the serial number and manufacture date of your machine before calling. This information can be found on the main machine label.

## WARNING

### Wiring Safety Instructions

**SHOCK HAZARD.** Working on wiring that is connected to a power source is extremely dangerous. Touching electrified parts will result in personal injury including but not limited to severe burns, electrocution, or death. Disconnect the power from the machine before servicing electrical components!

**MODIFICATIONS.** Modifying the wiring beyond what is shown in the diagram may lead to unpredictable results, including serious injury or fire. This includes the installation of unapproved after-market parts.

**WIRE CONNECTIONS.** All connections must be tight to prevent wires from loosening during machine operation. Double-check all wires disconnected or connected during any wiring task to ensure tight connections.

**CIRCUIT REQUIREMENTS.** You MUST follow the requirements at the beginning of this manual when connecting your machine to a power source.

**WIRE/COMPONENT DAMAGE.** Damaged wires or components increase the risk of serious personal injury, fire, or machine damage. If you notice that any wires or components are damaged while performing a wiring task, replace those wires or components.

**MOTOR WIRING.** The motor wiring shown in these diagrams is current at the time of printing but may not match your machine. If you find this to be the case, use the wiring diagram inside the motor junction box.

**CAPACITORS/INVERTERS.** Some capacitors and power inverters store an electrical charge for up to 10 minutes after being disconnected from the power source. To reduce the risk of being shocked, wait at least this long before working on capacitors.

**EXPERIENCING DIFFICULTIES.** If you are experiencing difficulties understanding the information included in this section, contact our Technical Support at (570) 546-9663.

#### NOTICE

The photos and diagrams included in this section are best viewed in color. You can view these pages in color at [www.grizzly.com](http://www.grizzly.com).

#### COLOR KEY

BLACK 	BLUE 	YELLOW 	LIGHT BLUE 
WHITE 	BROWN 	YELLOW GREEN 	BLUE WHITE 
GREEN 	GRAY 	PURPLE 	TURQUOISE 
RED 	ORANGE 	PINK 	



# G0794 Wiring

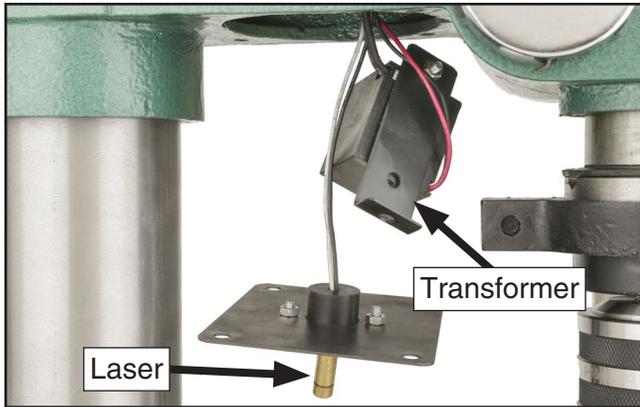


Figure 6. Laser and transformer.

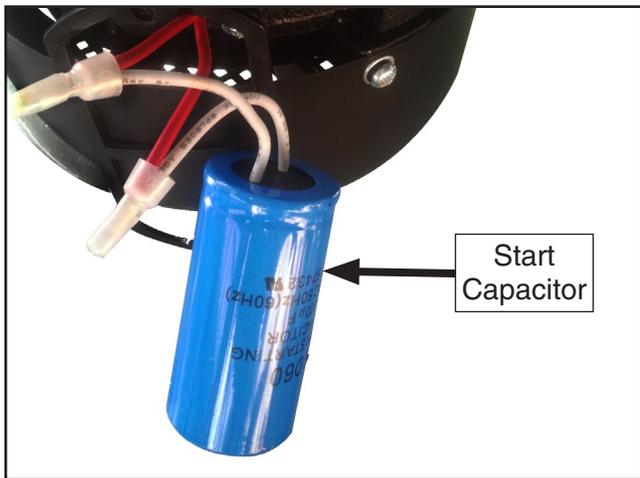


Figure 7. Start capacitor.

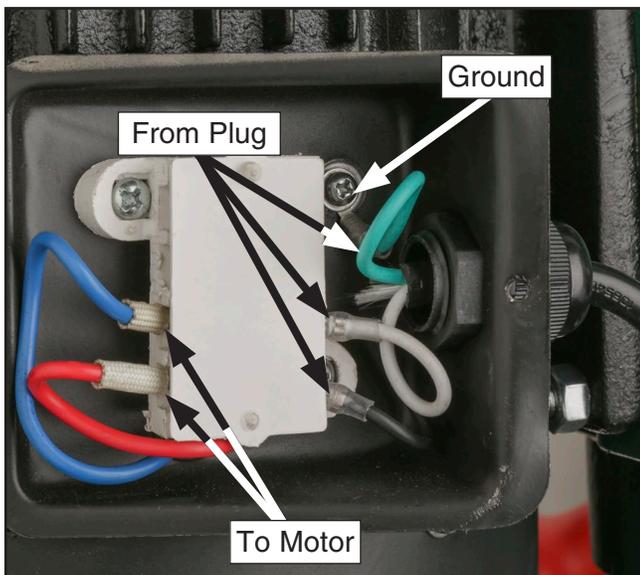
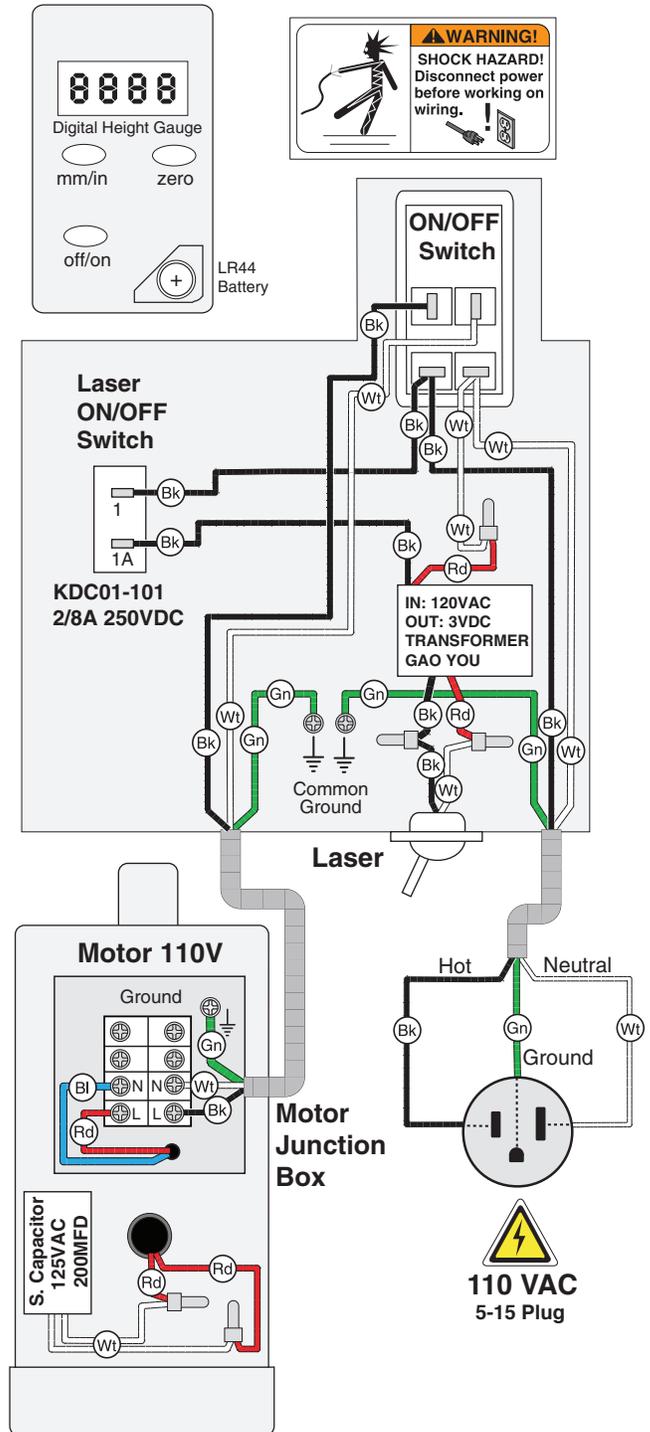


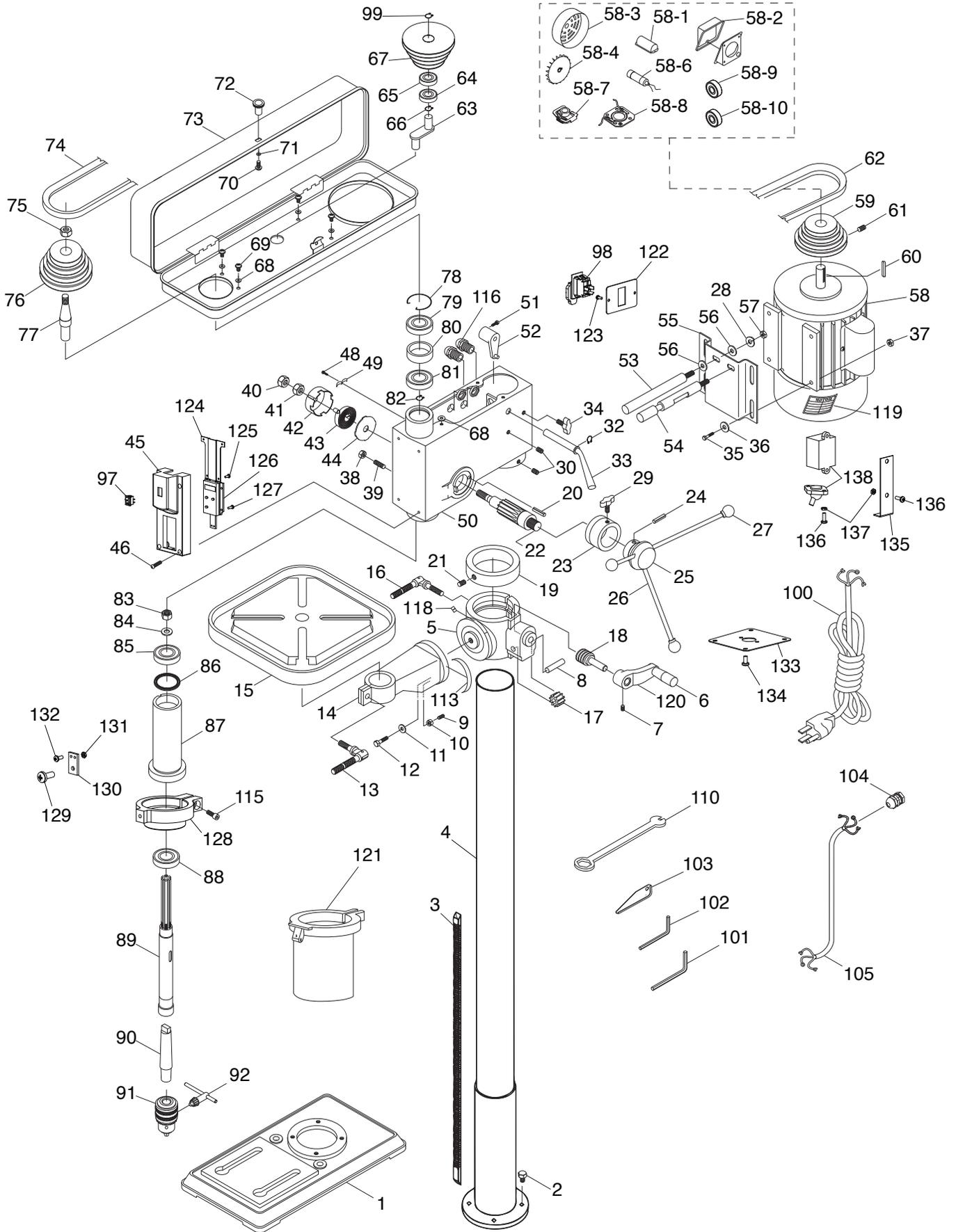
Figure 8. Motor junction box.



READ ELECTRICAL SAFETY  
ON PAGE 6!



# Parts Breakdown



# Parts List

REF	PART #	DESCRIPTION
1	P0794001	BASE
2	P0794002	HEX BOLT M10-1.5 x 35
3	P0794003	LONG RACK
4	P0794004	COLUMN W/COLUMN HOLDER
5	P0794005	TABLE BRACKET
6	P0794006	HANDLE
7	P0794007	SET SCREW M6-1 X 10
8	P0794008	SHAFT
9	P0794009	STUD-SE M6-1 X 12, 17
10	P0794010	HEX NUT M6-1
11	P0794011	FLAT WASHER 16MM
12	P0794012	HEX BOLT M16-2 X 40
13	P0794013	SWIVEL LOCK HANDLE M10-1.5 X 30
14	P0794014	TABLE ARM BRACKET
15	P0794015	TABLE
16	P0794016	SWIVEL LOCK HANDLE M12-1.75 X 50
17	P0794017	GEAR 10T
18	P0794018	WORM GEAR
19	P0794019	RACK RING
20	P0794020	STOP PIN
21	P0794021	SET SCREW M6-1 X 10
22	P0794022	FEED SHAFT
23	P0794023	DEPTH RING
24	P0794024	ROLL PIN 5 X 40
25	P0794025	DOWNFEED HANDWHEEL HUB
26	P0794026	DOWNFEED HANDLE M12-1.75 MALE
27	P0794027	DOWNFEED KNOB M12-1.75 FEMALE
28	P0794028	LOCK WASHER 12MM
29	P0794029	KNOB BOLT M8-1.25 X 22
30	P0794030	SET SCREW M10-1.5 x 10
32	P0794032	EXT RETAINING RING 15MM
33	P0794033	BELT TENSION LEVER
34	P0794034	KNOB BOLT M10-1.5 X 25
35	P0794035	HEX BOLT M8-1.25 X 24
36	P0794036	FLAT WASHER 8MM
37	P0794037	HEX NUT M8-1.25
38	P0794038	HEX NUT M10-1.5
39	P0794039	SET SCREW M10-1.5 X 25 PLASTIC
40	P0794040	HEX NUT M12-1.5
41	P0794041	HEX NUT M12-1.5
42	P0794042	RETURN SPRING COVER
43	P0794043	COILED RETURN SPRING
44	P0794044	RETURN SPRING PLATE
45	P0794045	SWITCH/DRO HOUSING
46	P0794046	PHLP HD SCR M5-.8 X 14
48	P0794048	PHLP HD SCR M5-.8 X 10
49	P0794049	CORD CLAMP
50	P0794050	HEADSTOCK CASTING
51	P0794051	HEX BOLT M8-1.25 X 16
52	P0794052	SHIFTER
53	P0794053	MOTOR MOUNT SLIDE BAR (SOLID)
54	P0794054	MOTOR MOUNT SLIDE BAR (GROOVED)

REF	PART #	DESCRIPTION
55	P0794055	MOTOR MOUNTING PLATE
56	P0794056	FLAT WASHER 12MM
57	P0794057	HEX NUT M12-1.75
58	P0794058	MOTOR 3/4HP 110V 1-PH
58-1	P0794058-1	CAPACITOR COVER
58-2	P0794058-2	MOTOR JUNCTION BOX
58-3	P0794058-3	MOTOR FAN COVER
58-4	P0794058-4	MOTOR FAN
58-6	P0794058-6	S CAPACITOR 200M 125V 1-3/8 X 2-3/4
58-7	P0794058-7	CENTRIFUGAL SWITCH
58-8	P0794058-8	CONTACT PLATE
58-9	P0794058-9	BALL BEARING 6203ZZ
58-10	P0794058-10	BALL BEARING 6203ZZ
59	P0794059	MOTOR PULLEY
60	P0794060	KEY 5 X 5 X 20
61	P0794061	SET SCREW M6-1 X 10
62	P0794062	V-BELT M24
63	P0794063	CENTER SHAFT
64	P0794064	BALL BEARING 6202ZZ
65	P0794065	BALL BEARING 6202ZZ
66	P0794066	EXT RETAINING RING 15MM
67	P0794067	CENTER PULLEY
68	P0794068	FLAT WASHER 6MM
69	P0794069	PHLP HD SCR M6-1 X 10
70	P0794070	PHLP HD SCR M5-.8 x 8
71	P0794071	FLAT WASHER 5MM
72	P0794072	PULLEY COVER KNOB M5-.8
73	P0794073	PULLEY COVER
74	P0794074	V-BELT M25
75	P0794075	PULLEY NUT
76	P0794076	SPINDLE PULLEY
77	P0794077	PULLEY SHAFT
78	P0794078	INT RETAINING RING 62MM
79	P0794079	BALL BEARING 6205ZZ
80	P0794080	SPACER
81	P0794081	BALL BEARING 6205ZZ
82	P0794082	INT RETAINING RING 62MM
83	P0794083	ROUND NUT M17-1
84	P0794084	TAB WASHER
85	P0794085	BALL BEARING 6203ZZ
86	P0794086	RUBBER WASHER 62 X 50 X 2
87	P0794087	QUILL
88	P0794088	BALL BEARING 6205ZZ
89	P0794089	SPINDLE
90	P0794090	DRILL CHUCK ARBOR MT2/JT33
91	P0794091	DRILL CHUCK 5/8" X JT33 W/KEY
92	P0794092	CHUCK KEY 5/16" TH-SE 11T SD-5/8"
97	P0794097	LASER SWITCH KCD1-101 2/8A 250VAC
98	P0794098	GRIZZLY SAFETY PADDLE SWITCH
99	P0794099	INT RETAINING RING 38MM
100	P0794100	POWER CORD 16G X 3W 73"L 5-15P



REF	PART #	DESCRIPTION
101	P0794101	HEX WRENCH 5MM
102	P0794102	HEX WRENCH 3MM
103	P0794103	DRIFT KEY
104	P0794104	STRAIN RELIEF 1/4"-5/16" ST PLASTIC
105	P0794105	MOTOR CORD 16G 3W 11"
110	P0794110	TABLE BOLT WRENCH
113	P0794113	ANGLE SCALE
115	P0794115	CAP SCREW M8-1.25 X 20
116	P0794116	STRAIN RELIEF 1/4"-5/16" ST PLASTIC
118	P0794118	ANGLE INDICATOR
119	P0794119	MOTOR LABEL
120	P0794120	CRANK LEVER
121	P0794121	CHUCK GUARD ASSEMBLY
122	P0794122	SWITCH PLATE
123	P0794123	PHLP HD SCR M4-.7 X 10

REF	PART #	DESCRIPTION
124	P0794124	DRO SLIDE PLATE 16MM X 192MM
125	P0794125	TAP SCREW M3 X 8
126	P0794126	DIGITAL READOUT 40MM X 74MM
127	P0794127	TAP SCREW M4 X 12
128	P0794128	QUILL CLAMP
129	P0794129	SHOULDER SCREW M4-.7 X 15
130	P0794130	CONNECTING PLATE
131	P0794131	HEX NUT M3-.5
132	P0794132	PHLP HD SCR M3-.5 X 10
133	P0794133	LASER LIGHT RETAINING PLATE
134	P0794134	PHLP HD SCR M5-.8 X 8
135	P0794135	LASER TRANSFORMER BRACKET
136	P0794136	PHLP HD SCR M4-.7 X 12
137	P0794137	HEX NUT M4-.7
138	P0794138	LASER LIGHT ASSEMBLY BY-11-1





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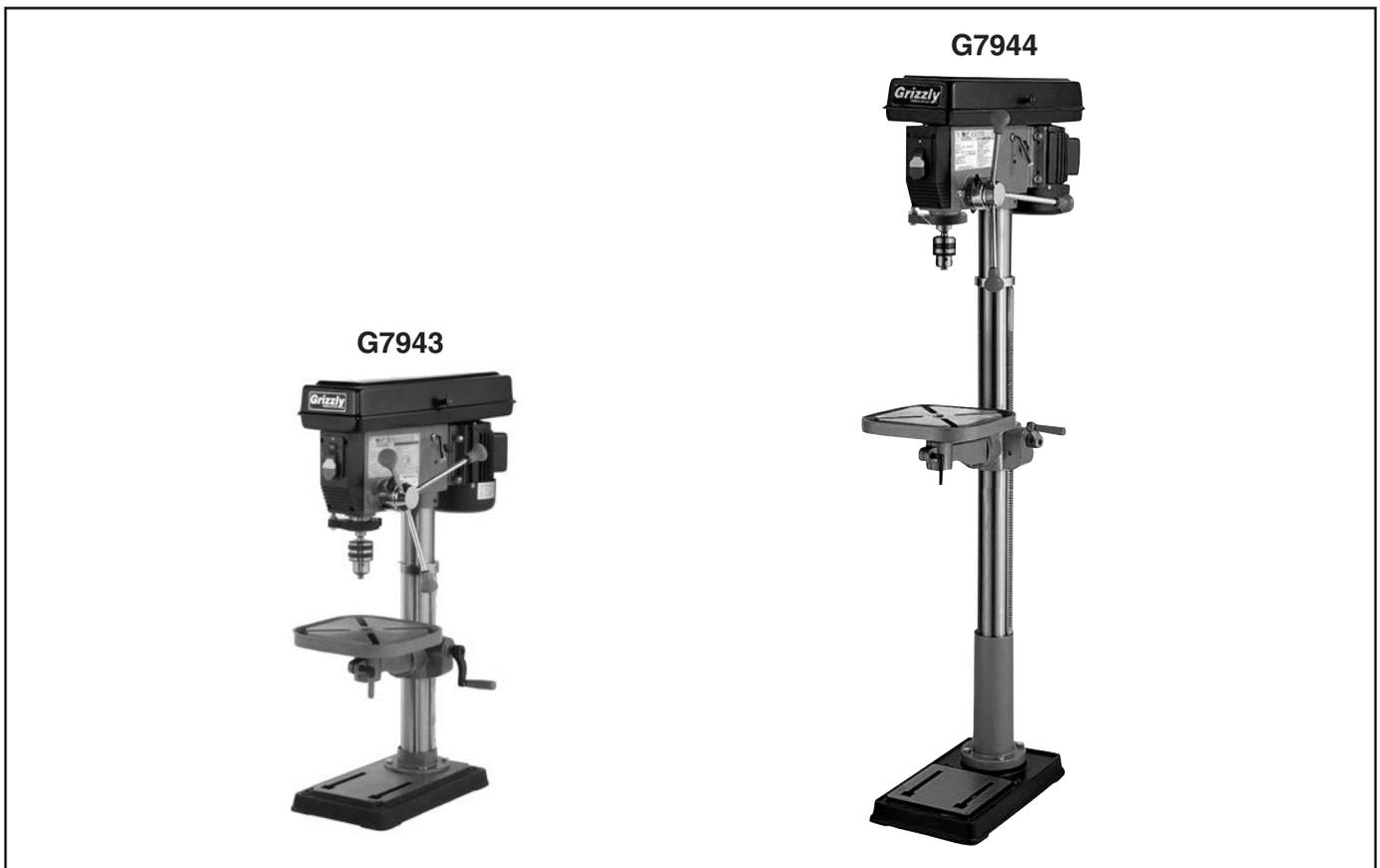
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# *Grizzly* *Industrial, Inc.*®

## MODEL G7943/G7944 12 SPEED HEAVY-DUTY DRILL PRESS

### OWNER'S MANUAL



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(FOR MODELS MANUFACTURED SINCE 10/02) #BL3698 PRINTED IN CHINA



## **WARNING!**

**This manual provides critical safety instructions on the proper setup, operation, maintenance, and service of this machine/tool. Save this document, refer to it often, and use it to instruct other operators.**

**Failure to read, understand and follow the instructions in this manual may result in fire or serious personal injury—including amputation, electrocution, or death.**

**The owner of this machine/tool is solely responsible for its safe use. This responsibility includes but is not limited to proper installation in a safe environment, personnel training and usage authorization, proper inspection and maintenance, manual availability and comprehension, application of safety devices, cutting/sanding/grinding tool integrity, and the usage of personal protective equipment.**

**The manufacturer will not be held liable for injury or property damage from negligence, improper training, machine modifications or misuse.**



## **WARNING!**

**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, cement and 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.**

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# INTRODUCTION

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## Foreword

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We are proud to offer the Model G7943/G7944 12 Speed Heavy Duty Drill Press. This machine is part of a growing Grizzly family of fine wood-working and metalworking machinery. When used according to the guidelines set forth in this manual, you can expect years of trouble-free, enjoyable operation and proof of Grizzly's commitment to customer satisfaction.

We are pleased to provide this manual with the Model G7943/G7944. It was written to guide you through assembly, review safety considerations, and cover general operating procedures. It represents our effort to produce the best documentation possible.

The specifications, drawings, and photographs illustrated in this manual represent the Model G7943/G7944 as supplied when the manual was prepared. However, owing to Grizzly's policy of continuous improvement, changes may be made at any time with no obligation on the part of Grizzly. For your convenience, we always keep current Grizzly manuals available on our website at **www.grizzly.com**. Any updates to your machine will be reflected in these manuals as soon as they are complete. Visit our site often to check for the latest updates to this manual!

## Contact Info

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If you have any comments regarding this manual, please write to us at the address below:

Grizzly Industrial, Inc.  
c/o Technical Documentation Manager  
P.O. Box 2069  
Bellingham, WA 98227-2069

We stand behind our machines. If you have any service questions or parts requests, please call or write us at the location listed below.

Grizzly Industrial, Inc.  
1203 Lycoming Mall Circle  
Muncy, PA 17756  
Phone: (570) 546-9663  
Fax: (800) 438-5901  
E-Mail: [techsupport@grizzly.com](mailto:techsupport@grizzly.com)  
Web Site: <http://www.grizzly.com>





# MACHINE DATA SHEET

Customer Service #: (570) 546-9663 · To Order Call: (800) 523-4777 · Fax #: (800) 438-5901

## MODEL G7943 12 SPEED HEAVY-DUTY BENCH-TOP DRILL PRESS

### Product Dimensions:

Weight..... 142 lbs.  
Width (side-to-side) x Depth (front-to-back) x Height..... 14 x 24 x 38 in.  
Footprint (Length x Width)..... 18 x 11 in.

### Shipping Dimensions:

Type..... Cardboard Box  
Content..... Machine  
Weight..... 154 lbs.  
Length x Width x Height..... 33 x 20 x 12 in.  
Must Ship Upright..... No

### Electrical:

Power Requirement..... 110V, Single-Phase, 60 Hz  
Prewired Voltage..... 110V  
Full-Load Current Rating..... 9A  
Minimum Circuit Size..... 15A  
Connection Type..... Cord & Plug  
Power Cord Included..... Yes  
Power Cord Length..... 8-1/2 ft.  
Power Cord Gauge..... 16 AWG  
Plug Included..... Yes  
Included Plug Type..... 5-15  
Switch Type..... Paddle Safety Switch w/Removable Key

### Motors:

#### Main

Type..... TEFC Capacitor-Start Induction  
Horsepower..... 3/4 HP  
Phase..... Single-Phase  
Amps..... 9A  
Speed..... 1720 RPM  
Power Transfer..... V-Belt Drive  
Bearings..... Shielded & Permanently Lubricated

### Main Specifications:

#### Construction

Table..... Precision-Ground Cast Iron  
Spindle Housing..... Cast Iron  
Column..... Steel  
Head..... Cast Iron  
Base..... Cast Iron  
Paint Type/Finish..... Enamel

#### Head Information

Head Swivel..... 360 deg.



### Other Related Information

Base Length.....	18 in.
Base Width.....	11 in.
Quill Diameter.....	2.040 in.
Depth Stop Type.....	Threaded Rod with Positive Stop
Column Diameter.....	3.150 in.
Has Work Light.....	Yes
Light Socket Type.....	110V, Std Bulb
Maximum Bulb Wattage.....	60 W

### Spindle Information

Spindle Taper.....	MT#2
Spindle Travel.....	3-1/4 in.
Distance From Spindle To Column.....	7 in.
Distance From Spindle To Table.....	16 in.
Distance From Spindle To Base.....	23 in.

### Table Information

Table Length.....	11-3/8 in.
Table Width.....	11-3/8 in.
Table Thickness.....	1-1/4 in.
Floor To Table Height.....	9-1/2 – 23-1/2 in.
Vertical Table Movement.....	Crank Handle Operation
Table Swing.....	360 deg.
Max Table Tilt (Left/Right).....	90 deg.
Table Swivel Around Center.....	360 deg.
Table Swivel Around Column.....	360 deg.
Maximum Movement Of Work Table.....	25-3/4 in.
Number of T Slots.....	4
T Slot Width.....	5/8 in.
T Slot Length.....	3-7/8 in.

### Operation Information

Type.....	Bench
Swing.....	14 in.
Drilling Capacity (Mild Steel).....	3/4 in. in Steel
Number of Spindle Speeds.....	12
Range of Spindle Speeds.....	140 – 3050 RPM
Drill Chuck Type.....	JT33 Key Chuck
Drill Chuck Size.....	1/64 – 5/8 in.

### Other Specifications:

Country of Origin .....	China
Warranty .....	1 Year
Approximate Assembly & Setup Time .....	45 Minutes
Serial Number Location .....	ID Label on Head
ISO 9001 Factory .....	Yes
CSA, ETL, or UL Certified/Listed .....	No
Awards .....	Popular Woodworking Editor's Choice Tool Buying Guide





# MACHINE DATA SHEET

Customer Service #: (570) 546-9663 · To Order Call: (800) 523-4777 · Fax #: (800) 438-5901

## MODEL G7944 12 SPEED HEAVY-DUTY 14" FLOOR DRILL PRESS

### Product Dimensions:

Weight..... 155 lbs.  
Width (side-to-side) x Depth (front-to-back) x Height..... 14 x 24 x 64 in.  
Footprint (Length x Width)..... 18 x 11 in.

### Shipping Dimensions:

Type..... Cardboard Box  
Content..... Machine  
Weight..... 171 lbs.  
Length x Width x Height..... 56 x 20 x 10 in.  
Must Ship Upright..... No

### Electrical:

Power Requirement..... 110V, Single-Phase, 60 Hz  
Prewired Voltage..... 110V  
Full-Load Current Rating..... 9A  
Minimum Circuit Size..... 15A  
Connection Type..... Cord & Plug  
Power Cord Included..... Yes  
Power Cord Length..... 8-1/2 ft.  
Power Cord Gauge..... 16 AWG  
Plug Included..... Yes  
Included Plug Type..... 5-15  
Switch Type..... Paddle Safety Switch w/Removable Key

### Motors:

#### Main

Type..... TEFC Capacitor-Start Induction  
Horsepower..... 3/4 HP  
Phase..... Single-Phase  
Amps..... 9A  
Speed..... 1720 RPM  
Power Transfer..... V-Belt Drive  
Bearings..... Shielded & Permanently Lubricated

### Main Specifications:

#### Construction

Table..... Precision-Ground Cast Iron  
Spindle Housing..... Cast Iron  
Column..... Steel  
Head..... Cast Iron  
Base..... Cast Iron  
Paint Type/Finish..... Enamel

#### Head Information

Head Swivel..... 360 deg.



**Other Related Information**

Base Length.....	18 in.
Base Width.....	11 in.
Quill Diameter.....	2.040 in.
Depth Stop Type.....	Hub
Column Diameter.....	3.150 in.
Mobile Base.....	D2260A
Has Work Light.....	Yes
Light Socket Type.....	110V, Std Bulb
Maximum Bulb Wattage.....	60 W

**Spindle Information**

Spindle Taper.....	MT#2
Spindle Travel.....	3-1/4 in.
Distance From Spindle To Column.....	7 in.
Distance From Spindle To Table.....	31-1/2 in.
Distance From Spindle To Base.....	49 in.

**Table Information**

Table Length.....	11-3/8 in.
Table Width.....	11-3/8 in.
Table Thickness.....	1-1/4 in.
Floor To Table Height.....	20 – 46 in.
Vertical Table Movement.....	Crank Handle Operation
Table Swing.....	360 deg.
Max Table Tilt (Left/Right).....	90 deg.
Table Swivel Around Center.....	360 deg.
Table Swivel Around Column.....	360 deg.
Maximum Movement Of Work Table.....	14 in.
Number of T Slots.....	4
T Slot Width.....	5/8 in.
T Slot Length.....	3-7/8 in.

**Operation Information**

Type.....	Floor
Swing.....	14 in.
Drilling Capacity (Mild Steel).....	3/4 in. in Steel
Number of Spindle Speeds.....	12
Range of Spindle Speeds.....	140 – 3050 RPM
Drill Chuck Type.....	JT33 Key Chuck
Drill Chuck Size.....	1/64 – 5/8 in.

**Other Specifications:**

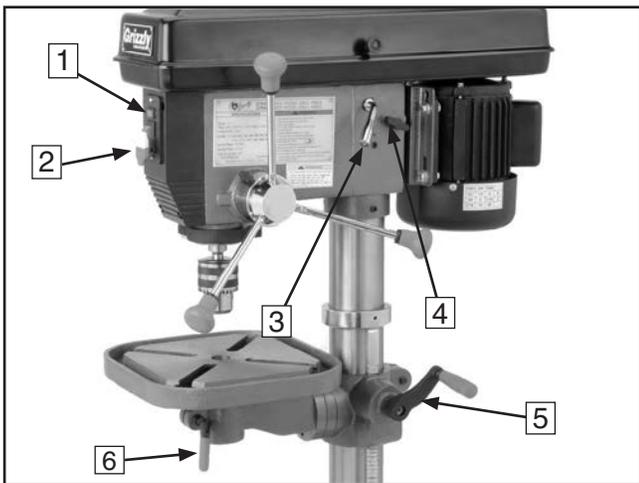
Country of Origin .....	China
Warranty .....	1 Year
Approximate Assembly & Setup Time .....	45 Minutes
Serial Number Location .....	ID Label on Head
ISO 9001 Factory .....	Yes
CSA, ETL, or UL Certified/Listed .....	No
Awards .....	Popular Woodworking Editor's Choice Tool Buying Guide, American Woodworker Best Buy 2001, Woodworker's Journal Tools That Endure



# Identification

Refer to the list below and see **Figures 1 & 2** to become familiar with the drill press controls.

1. **Light Switch:** Turns light **ON/OFF**.
2. **Power Switch:** Turns motor **ON/OFF**.
3. **Belt Tension Lever:** Adjusts motor location to increase/decrease belt tension.
4. **Belt Tension Lock:** Locks motor in place to maintain belt tension.
5. **Crank Lever:** Raises/lowers table.
6. **Small Lock Lever:** Locks table rotation.
7. **Large Lock Lever:** Locks table height.
8. **Torsion Spring:** Returns quill into headstock.
9. **Lash Screw:** Removes quill lash.
10. **Depth Stop:** Limits quill travel to a pre-set drilling depth.
11. **Table Tilt Scale:** Displays current table-tilt angle.



**Figure 1.** Right-side controls.

Refer to the list below to become familiar with the drill press terms and definitions.

**Headstock:** The cast iron upper portion of the drill press, which houses the quill and work light, and supports the motor and belt housing.

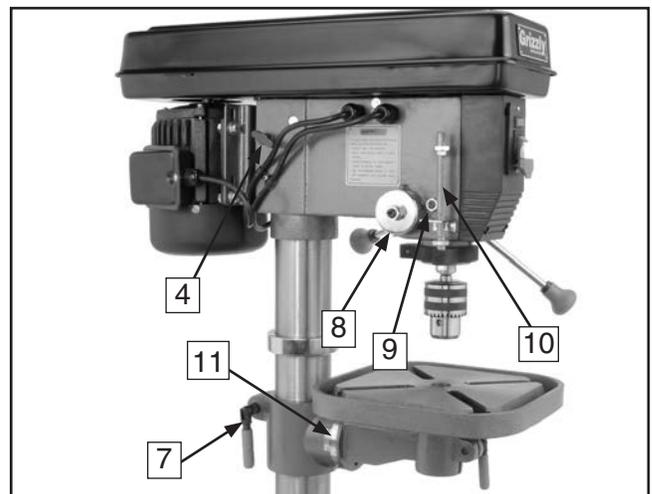
**Drift Key:** A wedge-shaped tool used to separate tapers.

**T-Slot:** A slot in a table used to trap a hex nut or hex bolt to clamp down a workpiece or a vise.

**Arbor:** A tapered shaft that connects the chuck to the spindle.

**Quill:** Houses the spindle and bearings.

**Spindle:** The hollow shaft that accepts the arbor.



**Figure 2.** Left-side controls.



# SECTION 1: SAFETY

## WARNING

### For Your Own Safety, Read Instruction Manual Before Operating this Machine

The purpose of safety symbols is to attract your attention to possible hazardous conditions. This manual uses a series of symbols and signal words which are intended to convey the level of importance of the safety messages. The progression of symbols is described below. Remember that safety messages by themselves do not eliminate danger and are not a substitute for proper accident prevention measures.

 **DANGER** Indicates an imminently hazardous situation which, if not avoided, WILL result in death or serious injury.

 **WARNING** Indicates a potentially hazardous situation which, if not avoided, COULD result in death or serious injury.

 **CAUTION** Indicates a potentially hazardous situation which, if not avoided, MAY result in minor or moderate injury. It may also be used to alert against unsafe practices.

**NOTICE** This symbol is used to alert the user to useful information about proper operation of the machine.

## WARNING

### Safety Instructions for Machinery

- 1. READ THROUGH THE ENTIRE MANUAL BEFORE STARTING MACHINERY.** Machinery presents serious injury hazards to untrained users.
- 2. ALWAYS USE ANSI APPROVED SAFETY GLASSES WHEN OPERATING MACHINERY.** Everyday eyeglasses only have impact resistant lenses, they are NOT safety glasses.
- 3. ALWAYS WEAR AN ANSI APPROVED RESPIRATOR WHEN OPERATING MACHINERY THAT PRODUCES DUST.** Wood dust is a carcinogen and can cause cancer and severe respiratory illnesses.
- 4. ALWAYS USE HEARING PROTECTION WHEN OPERATING MACHINERY.** Machinery noise can cause permanent hearing damage.
- 5. WEAR PROPER APPAREL. DO NOT** wear loose clothing, gloves, neckties, rings, or jewelry which may get caught in moving parts. Wear protective hair covering to contain long hair and wear non-slip footwear.
- 6. NEVER OPERATE MACHINERY WHEN TIRED, OR UNDER THE INFLUENCE OF DRUGS OR ALCOHOL.** Be mentally alert at all times when running machinery.



# WARNING

## Safety Instructions for Machinery

7. **ONLY ALLOW TRAINED AND PROPERLY SUPERVISED PERSONNEL TO OPERATE MACHINERY.** Make sure operation instructions are safe and clearly understood.
8. **KEEP CHILDREN AND VISITORS AWAY.** Keep all children and visitors a safe distance from the work area.
9. **MAKE WORKSHOP CHILD PROOF.** Use padlocks, master switches, and remove start switch keys.
10. **NEVER LEAVE WHEN MACHINE IS RUNNING.** Turn power **OFF** and allow all moving parts to come to a complete stop before leaving machine unattended.
11. **DO NOT USE IN DANGEROUS ENVIRONMENTS.** DO NOT use machinery in damp, wet locations, or where any flammable or noxious fumes may exist.
12. **KEEP WORK AREA CLEAN AND WELL LIT.** Clutter and dark shadows may cause accidents.
13. **USE A GROUNDED EXTENSION CORD RATED FOR THE MACHINE AMPERAGE.** Undersized cords overheat and lose power. Replace extension cords if they become damaged. DO NOT use extension cords for 220V machinery.
14. **ALWAYS DISCONNECT FROM POWER SOURCE BEFORE SERVICING MACHINERY.** Make sure switch is in OFF position before reconnecting.
15. **MAINTAIN MACHINERY WITH CARE.** Keep blades sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.
16. **MAKE SURE GUARDS ARE IN PLACE AND WORK CORRECTLY BEFORE USING MACHINERY.**
17. **REMOVE ADJUSTING KEYS AND WRENCHES.** Make a habit of checking for keys and adjusting wrenches before turning machinery **ON**.
18. **CHECK FOR DAMAGED PARTS BEFORE USING MACHINERY.** Check for binding and alignment of parts, broken parts, part mounting, loose bolts, and any other conditions that may affect machine operation. Repair or replace damaged parts.
19. **USE RECOMMENDED ACCESSORIES.** Refer to the instruction manual for recommended accessories. The use of improper accessories may cause risk of injury.
20. **DO NOT FORCE MACHINERY.** Work at the speed for which the machine or accessory was designed.
21. **SECURE WORKPIECE.** Use clamps or a vise to hold the workpiece when practical. A secured workpiece protects your hands and frees both hands to operate the machine.
22. **DO NOT OVERREACH.** Keep proper footing and balance at all times.
23. **MANY MACHINES WILL EJECT WORKPIECE TOWARD OPERATOR.** Know and avoid conditions that cause the workpiece to "kickback."
24. **ALWAYS LOCK MOBILE BASES (IF USED) BEFORE OPERATING MACHINERY.**
25. **BE AWARE THAT CERTAIN WOODS MAY CAUSE AN ALLERGIC REACTION** in people and animals, especially when exposed to fine dust. Make sure you know what type of wood dust you will be exposed to and always wear an approved respirator.



# **WARNING**

## **Safety for Drill Presses**

- 1. EYE/FACE/HAND PROTECTION.** A face shield used with safety glasses is recommended. Always keep hands and fingers away from the drill bit. Never hold a workpiece by hand while drilling! **DO NOT** wear gloves when operating the drill.
- 2. SECURING BIT.** Properly tighten and securely lock the drill bit in the chuck.
- 3. CORRECT BIT.** Use only round, hex, or triangular shank drill bits.
- 4. ADJUSTING KEYS AND WRENCHES.** Remove all adjusting keys and wrenches before turning the machine **ON**.
- 5. DRILLING SHEET METAL.** Never drill sheet metal unless it is securely clamped to the table.
- 6. SURFACE/WORKPIECE PREPARATION.** Never turn the drill press **ON** before clearing the table of all objects (tools, scrap wood, etc.) **DO NOT** drill material that does not have a flat surface, unless a suitable support is used.
- 7. DAMAGED TOOLS.** Never use tools in poor condition. Dull or damaged cutting tools are hard to control and may cause serious injury.
- 8. DRILL OPERATION.** Never start the drill press with the drill bit pressed against the workpiece. Feed the drill bit evenly into the workpiece. Back the bit out of deep holes.  
  
Turn the machine **OFF** and clear chips and scrap pieces with a brush. Shut power **OFF**, remove drill bit, and clean table before leaving the machine.
- 9. OPERATING SPEED.** Always operate your drill press at speeds that are appropriate for the drill bit size and the material that you are drilling.
- 10. MAINTENANCE/SPEED CHANGES.** Never do maintenance or change speeds with the machine plugged in.
- 11. MOUNTING WORKPIECES.** Use clamps or vises to secure workpiece before drilling. Position work so you avoid drilling into the table.
- 12. TABLE LOCK.** Make sure the table lock is tightened before starting the drill press.
- 13. EXPERIENCING DIFFICULTIES.** If at any time you are experiencing difficulties performing the intended operation, stop using the machine! Contact our Service Department at (570) 546-9663.

### **WARNING**

Like all machines there is danger associated with this machine. Accidents are frequently caused by lack of familiarity or failure to pay attention. Use this machine with respect and caution to lessen the possibility of operator injury. If normal safety precautions are overlooked or ignored, serious personal injury may occur.

### **CAUTION**

No list of safety guidelines can be complete. Every shop environment is different. Always consider safety first, as it applies to your individual working conditions. Use this and other machinery with caution and respect. Failure to do so could result in serious personal injury, damage to equipment, or poor work results.



# SECTION 2: CIRCUIT REQUIREMENTS

## 110V Operation

### **!WARNING**

Serious personal injury could occur if you connect the machine to the power source before you have completed the set up process. **DO NOT** connect the machine to the power source until instructed to do so.

### Amperage Draw

The 3/4 HP motor on the Model G7943/G7944 will draw the following amps:

Motor Draw ..... 9 Amps

### Circuit Requirements

Whether you have a dedicated or shared circuit, **ONLY** connect your machine to a circuit with a verified ground, correctly sized wiring, and a properly rated circuit breaker. Obey all applicable safety and electrical codes, including the National Electric Code (NEC). **If you are unsure about any wiring practices, consult a qualified electrician.**

Minimum Circuit Requirement ..... 15 Amp

### Plug/Receptacle Type

Included Plug Type ..... NEMA 5-15

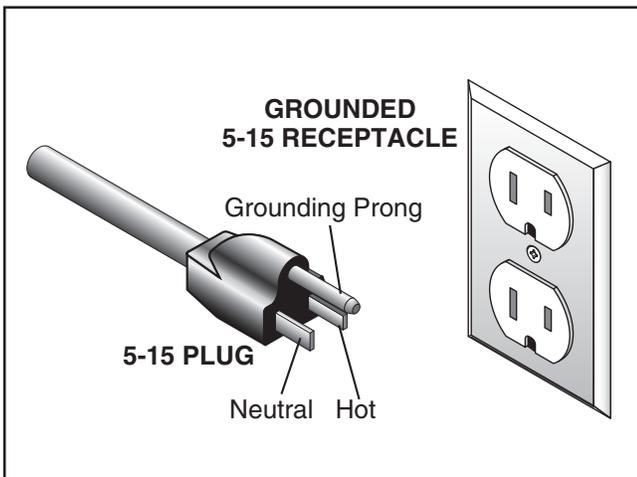
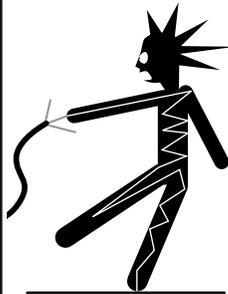
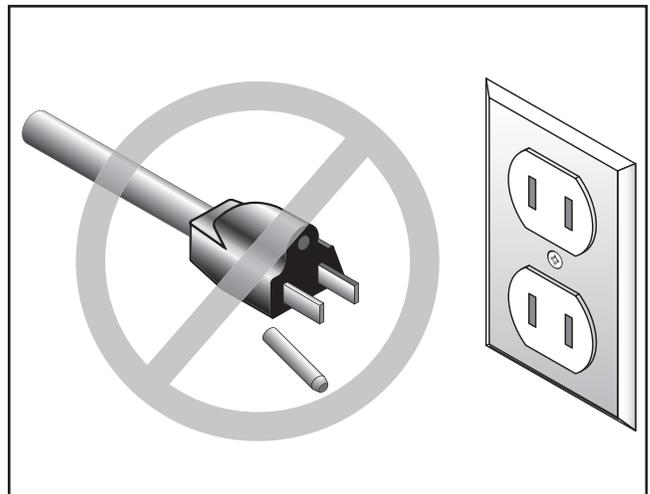


Figure 3. Typical type 5-15 plug and receptacle.



### **!WARNING**

Electrocution or fire could result if this machine is not grounded correctly or if your electrical configuration does not comply with local and state codes. Ensure compliance by checking with a qualified electrician!



### **!CAUTION**

This machine must have a ground prong in the plug to help ensure that it is grounded. **DO NOT** remove ground prong from plug to fit into a two-pronged outlet! If the plug will not fit the outlet, have the proper outlet installed by a qualified electrician.

### Extension Cords

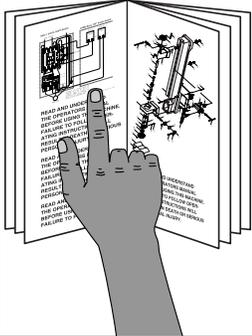
We do not recommend the use of extension cords. If you find it absolutely necessary to use an extension cord with your machine:

- Use at least a 10 gauge cord that does not exceed 50 feet in length!
- The extension cord must also contain a ground wire and plug pin.
- A qualified electrician **MUST** size cords over 50 feet long to prevent motor damage.



# SECTION 3: SET UP

## Set Up Safety



**!WARNING**  
This machine presents serious injury hazards to untrained users. Read through this entire manual to become familiar with the controls and operations before starting the machine!



**!WARNING**  
Wear safety glasses during the entire set up process!



**!WARNING**  
The Model G7943/G7944 is a heavy machine. DO NOT over-exert yourself while unpacking or moving your machine—get assistance.

## Items Needed for Set Up

The following items are needed to complete the set up process, but are not included with your machine:

Description	Qty
• Wrench 16mm.....	1
• Wrench $\frac{9}{16}$ .....	1
• Plumb Bob.....	1
• People for Lifting Help.....	1
• Rubber Mallet.....	1
• 60W Light Bulb.....	1
• Permanent Marker.....	1
• Lag Bolts $\frac{3}{8}$ -16 x 3 (or length as needed)..	4
• Carriage Bolts M10-1.5 x 95.....	4
• Flat Washers 10mm.....	4
• Hex Nuts M10-1.5.....	4
• Ruler.....	1
• Drill.....	1
• Drill Bit $\frac{1}{32}$ ".....	1
• Plywood $\frac{3}{4}$ " x $23\frac{3}{4}$ " x $23\frac{3}{4}$ ".....	2
• Wood Glue.....	As Needed
• Wood Screws #6 x $\frac{1}{4}$ ".....	24

## Unpacking

The Model G7943/G7944 was carefully packed when it left our warehouse. If you discover the machine is damaged after you have signed for delivery, *please immediately call Customer Service at (570) 546-9663 for advice.*

Save the containers and all packing materials for possible inspection by the carrier or its agent. *Otherwise, filing a freight claim can be difficult.*

When you are completely satisfied with the condition of your shipment, you should inventory the contents.

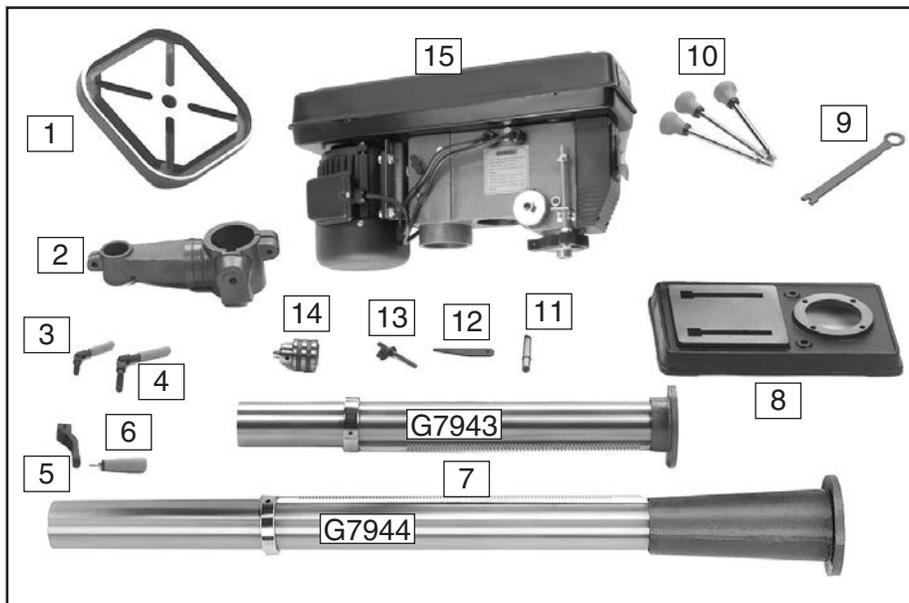


# Inventory

If any nonproprietary parts are missing (e.g. a nut or a washer), we would be glad to replace them, but for the sake of expediency, you can get replacements at a hardware store.

Use **Figure 4** and the inventory list below to inventory your drill press parts:

Description	Qty
1. Table .....	1
2. Table Support Assembly .....	1
3. Small Lock Lever.....	1
4. Large Lock Lever .....	1
5. Crank Lever.....	1
6. Handle .....	1
7. Column .....	1
8. Base .....	1
9. Lock Wrench .....	1
10. Downfeed Handles .....	3
11. Arbor.....	1
12. Drift Key.....	1
13. Chuck Key .....	1
14. Chuck .....	1
15. Headstock Assembly.....	1
16. Hardware Bag (Not Shown) .....	1
—Belt Cover Knob .....	1
—Hex Wrench 3mm.....	1
—Hex Wrench 5mm.....	1
—Hex Bolt M10-1.5 x 25mm.....	4



**Figure 4.** G7943/G7943 box inventory.



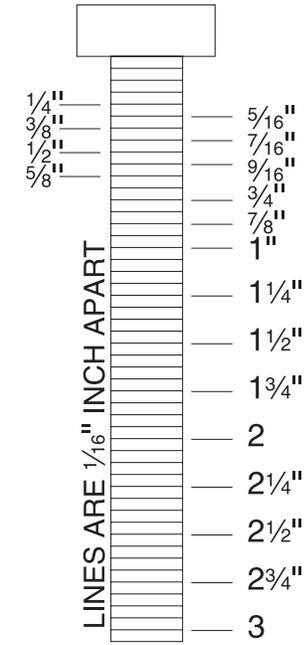
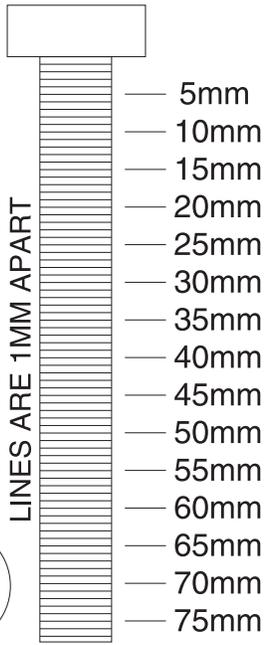
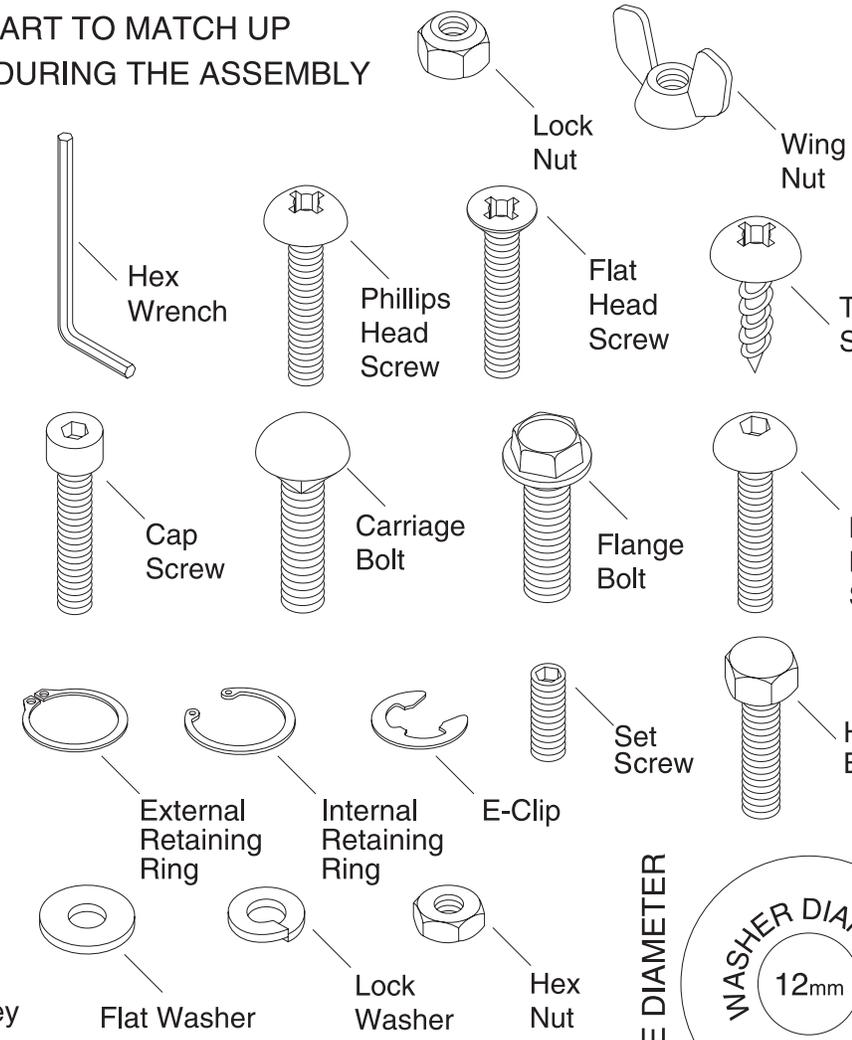
# Hardware Recognition Chart

USE THIS CHART TO MATCH UP HARDWARE DURING THE ASSEMBLY PROCESS.

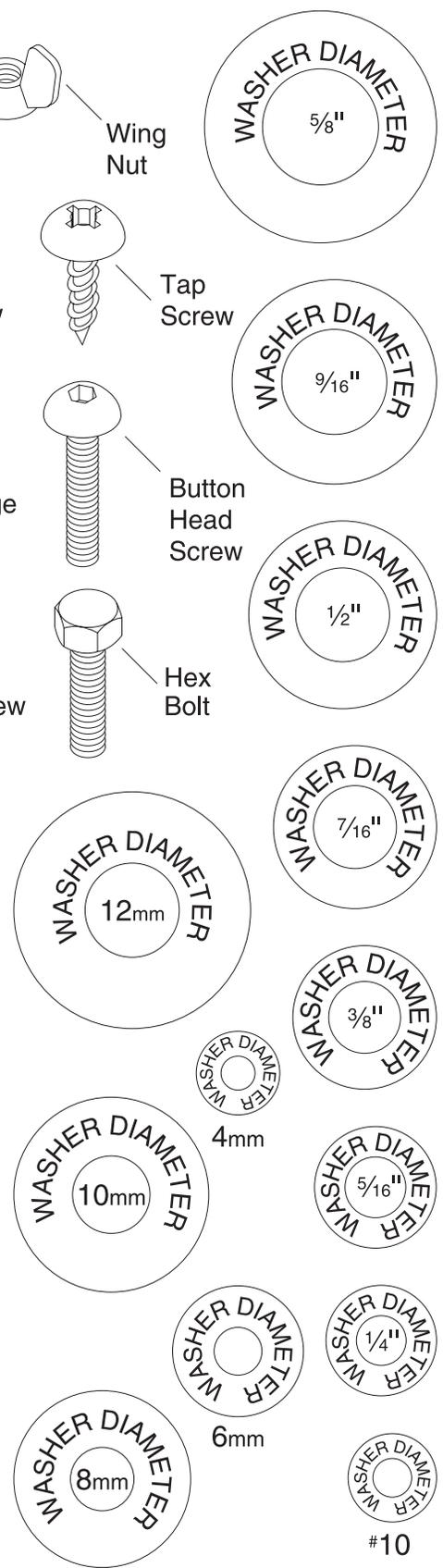
MEASURE BOLT DIAMETER BY PLACING INSIDE CIRCLE

- #10
- 1/4"
- 5/16"
- 3/8"
- 7/16"
- 1/2"

- 4mm
- 6mm
- 8mm
- 10mm
- 12mm
- 16mm



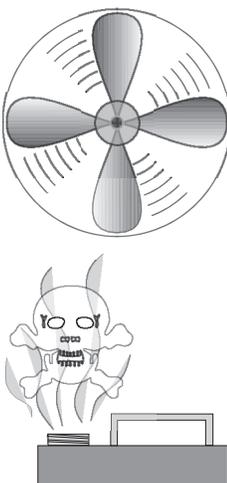
WASHERS ARE MEASURED BY THE INSIDE DIAMETER



# Clean Up

The unpainted surfaces are coated with a waxy oil to protect them from corrosion during shipment. Remove this protective coating with a solvent cleaner or citrus-based degreaser such as Grizzly's G7895 Degreaser. To clean thoroughly, some parts may need to be removed. **For optimum performance from your machine, make sure you clean all moving parts or sliding contact surfaces that are coated.** Avoid chlorine-based solvents, such as acetone or brake parts cleaner, as they may damage painted surfaces should they come in contact. Always follow the manufacturer's instructions when using any type of cleaning product.

	<p><b>⚠️ WARNING</b> Gasoline and petroleum products have low flash points and could cause an explosion or fire if used to clean machinery. <b>DO NOT</b> use gasoline or petroleum products to clean the machinery.</p>
--	--

	<p><b>⚠️ CAUTION</b> Many of the solvents commonly used to clean machinery can be toxic when inhaled or ingested. Lack of ventilation while using these solvents could cause serious personal health risks or fire. Take precautions from this hazard by only using cleaning solvents in a well ventilated area.</p>
---	--

# Site Considerations

## Floor Load

Refer to the **Machine Data Sheet** for weight and footprint specifications for your machine. Some residential floors may require additional reinforcement to support both the machine and operator.

## Working Clearances

Consider existing and anticipated needs, size of material to be processed through each machine, and space for auxiliary stands, work tables or other machinery when establishing a location for your machine. See **Figure 5** for the minimum working clearances of the Model G7943/G7944.

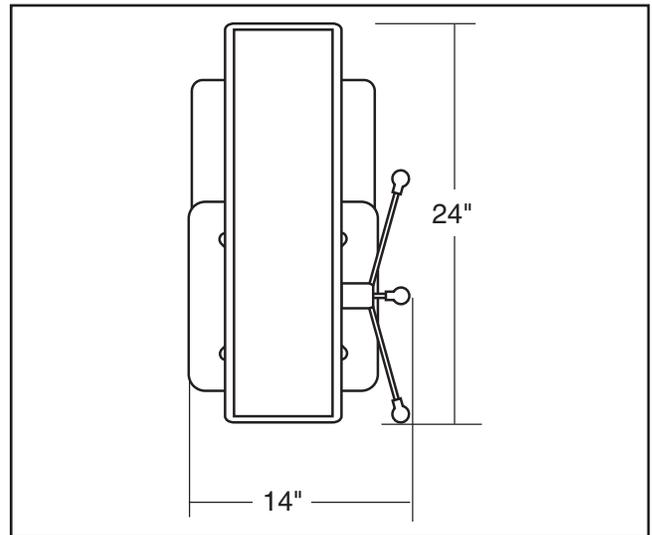
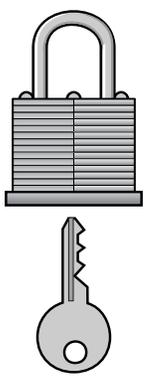


Figure 5. Working clearances.

	<p><b>⚠️ CAUTION</b> Unsupervised children and visitors inside your shop could cause serious personal injury to themselves. Lock all entrances to the shop when you are away and <b>DO NOT</b> allow unsupervised children or visitors in your shop at any time!</p>
--	--



# Column and Base

Components and Hardware Needed:	Qty
Base .....	1
Column .....	1
Hex Bolts M10-1.5 x 25 .....	4

The column must be secured on the base to properly assemble your drill press.

### To secure the column to the base:

1. Place the column on the base and align the mounting holes.
2. Secure the column to the base with the four hex bolts, as shown in **Figure 6**.



**Figure 6.** Column secured to base.

# Table Support

Components and Hardware Needed:	Qty
Table Support Assembly .....	1
Crank Handle .....	1
Handle .....	1
Large Lock Lever.....	1
Small Lock Lever.....	1

The table support must be installed as described to properly assemble your drill press.

### To install the table support:

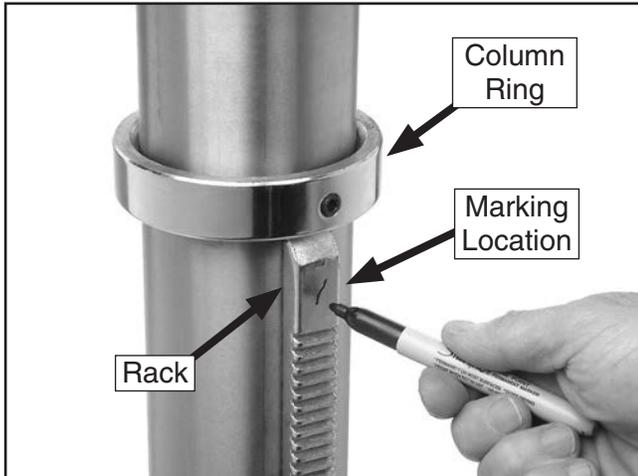
1. Check to make sure the pinion is inserted into the table support, as shown in **Figure 7**, so the pinion and gear teeth mesh together.



**Figure 7.** Pinion correctly installed in table support.



2. Mark the top of the rack, as shown in **Figure 8**, to keep track of which end is up.



**Figure 8.** Marking top of rack to show which end is up.

3. Remove the column ring by loosening the setscrew, and remove the rack.
4. Place the rack inside of the table support assembly, mesh it together with the pinion, and slide the table support/rack assembly over the column, as shown in **Figure 9**.



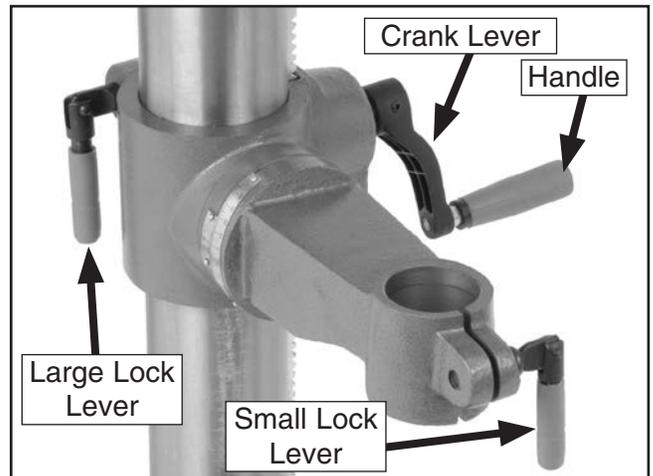
**Figure 9.** Sliding table support and rack over the column.

5. Slide the column ring over the column with the beveled edge facing down (**Figure 10**), fit the beveled edge of the column ring over the rack, and tighten the setscrew. **Note:** Do not over-tighten the setscrew or you may split the column ring. Also make sure the rack is seated firmly in the lower ring.



**Figure 10.** Correct column ring orientation.

6. Install the crank lever over the pinion shaft, and tighten the setscrew in the crank handle against the flat part of the pinion shaft.
7. Thread the handle into the crank lever.
8. Thread the large lock lever into the back of the table support assembly approximately three turns, for now.
9. Thread the small lock lever into the front part of the table support assembly approximately three turns, for now. The assembly should now be assembled as shown in **Figure 11**.



**Figure 11.** Handles and lock levers installed.



# Headstock

<b>Components and Hardware Needed:</b>	<b>Qty</b>
Headstock.....	1

The headstock must be mounted on the column/base assembly before the drill press can be operated. Moving and installing the headstock is a two-person job.

	<p><b>! WARNING</b></p> <p>The headstock is very heavy. You <b>MUST</b> have assistance when moving, lifting or mounting the headstock on the column and base assembly.</p>
---	---

## To mount the headstock onto the column:

1. Loosen the two set screws on the right side of the headstock enough so they are flush with the inside pocket of the headstock.
2. With the help of an assistant, lift the headstock assembly above the column, and gently slide it down the column as far as it will go.

<p><b>NOTICE</b></p> <p>Do <b>NOT</b> force the headstock onto the column! If you do, you could damage the headstock and the column.</p>
--

3. Suspend a plum bob from the center of the headstock spindle so it is over the tape/ruler as shown in **Figure 12**.
4. Center the headstock directly over the base as indicated by the plum bob and ruler.

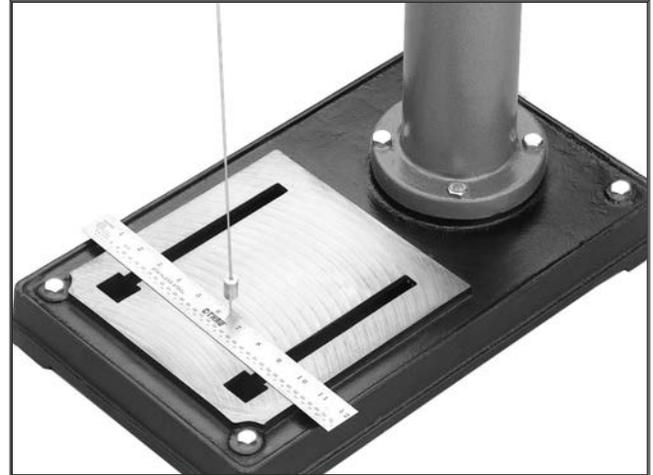


Figure 12. Aligning headstock with base.

5. Tighten the two headstock setscrews to the column, as shown in **Figure 13**.

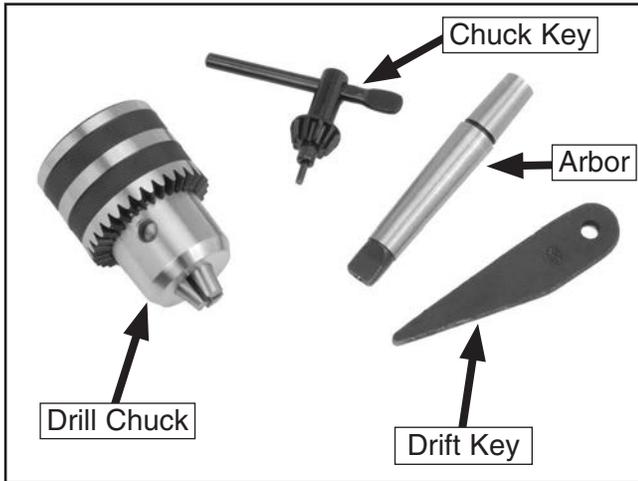


Figure 13. Securing headstock to column.



# Drill Chuck & Arbor

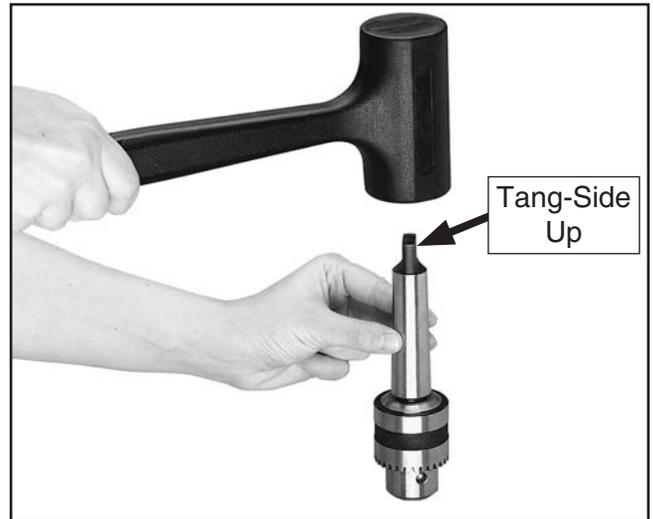
The drill chuck attaches to the spindle by means of the arbor, shown in **Figure 14**. Matched tapers on the arbor and the inside of the chuck create a semi-permanent assembly when properly joined.



**Figure 14.** Chuck components.

**To assemble the drill chuck and mount it to the spindle:**

1. Use mineral spirits to thoroughly clean the drill chuck, arbor, and spindle sockets and dry all surfaces before assembly. Follow all safety warnings on the container of the mineral spirits. **Failure to clean the mating surfaces may cause the tapered fit to loosen during operation, resulting in separation and an unsafe condition.**
2. Use the chuck key to adjust the jaws of the drill chuck until they are inside the drill chuck body.
3. Place the drill chuck face down on a workbench. The arbor has a short taper and a long taper. Place the short taper into the socket in the back of the drill chuck and tap it with a rubber or wooden mallet, as shown in **Figure 15**. If the chuck fails to remain secure on the arbor, repeat **Steps 1 & 2**.



**Figure 15.** Seating arbor into chuck.

4. Slide the arbor into the spindle socket while slowly rotating the drill chuck. The socket has a rectangular pocket where the tang (or flat portion of the arbor shown in **Figure 15**) fits into.
5. Seat the chuck with a rubber mallet, as shown in **Figure 16**.

## **! CAUTION**

**DO NOT use a steel hammer on the drill chuck to seat the arbor into the spindle. You will damage the chuck and/or spindle, which may make them unusable or unsafe.**



**Figure 16.** Seating arbor and chuck into spindle.



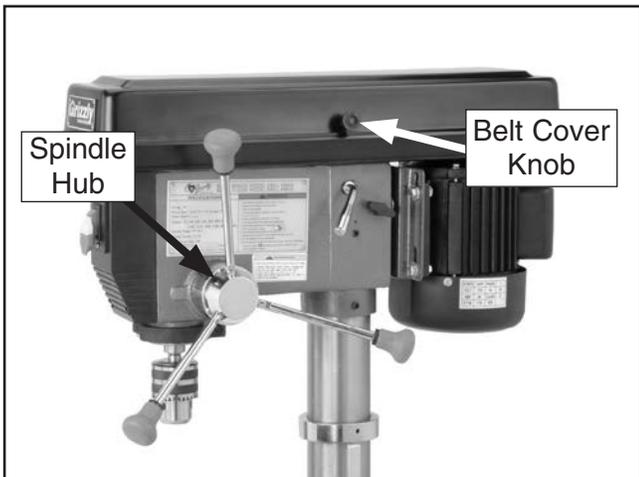
# Downfeed Handles & Belt Cover Knob

Components and Hardware Needed:	Qty
Downfeed Handles .....	3

The downfeed handles must be installed to properly operate the drill press.

### To install the downfeed handles:

1. Thread the handles into the spindle hub, as shown in **Figure 17**, and tighten.
2. Install the belt cover knob in its place (see **Figure 17** for location).



**Figure 17.** Downfeed handles and belt cover knob installed.

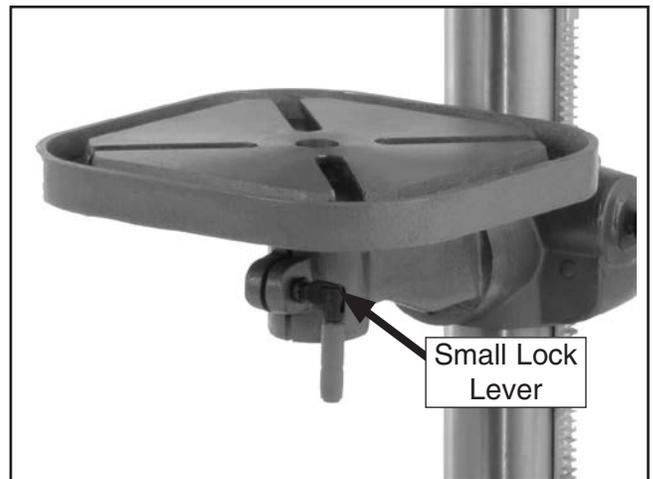
# Table

Components and Hardware Needed:	Qty
Table .....	1

The table must be installed to properly support the workpiece during operation.

### To install the table:

1. Insert the table shaft into the table support assembly.
2. Tighten the small locking lever (**Figure 18**) to secure the table in the table support assembly.



**Figure 18.** Table installed.



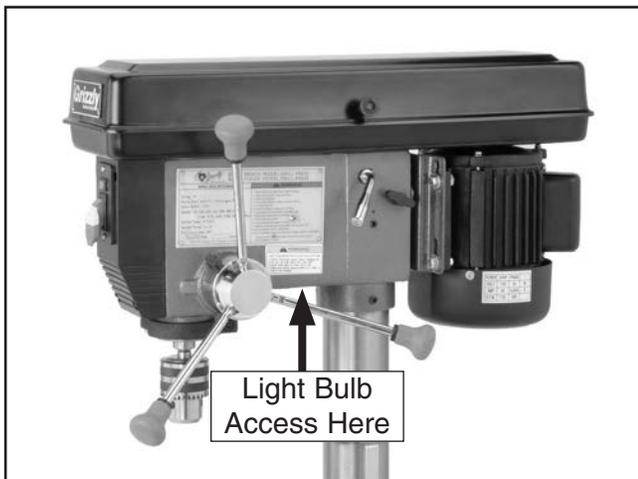
# Light

Components and Hardware Needed:	Qty
60W Light Bulb .....	1

The Model G7943/G7944 includes a light socket. When the drill press is shipped from the factory, a dust plug is installed in the light socket for protection.

## To install a light bulb in the drill press:

1. Remove the dust plug from the light socket.
2. Install a 60W or smaller light bulb in the location shown in **Figure 19**.



**Figure 19.** Light bulb access location.

## **!WARNING**

Use only bulbs that are “safety coated” and shatter resistant. The bulb will be exposed at the bottom of the head casting which helps with illumination. Impacts with a bulb not “safety coated” may shatter, exposing the electrical filaments and creating an electrical shock hazard.

# Test Run

Once assembly is complete, you are ready to test run the drill press.



## To test run the drill press:

1. Turn the power supply **ON** at the main panel.
2. With your finger poised on the paddle switch (in case there is a problem), flip the START button **ON**. The drill press should run smoothly, with little or no vibration or rubbing noises.

Investigate and correct for strange or unusual noises before operating the machine further.

If you cannot easily locate the source of a potential problem, refer to **Troubleshooting** on **Page 35**. If you still can't solve the problem, contact our Technical Support at (570) 546-9663.



# Mounting

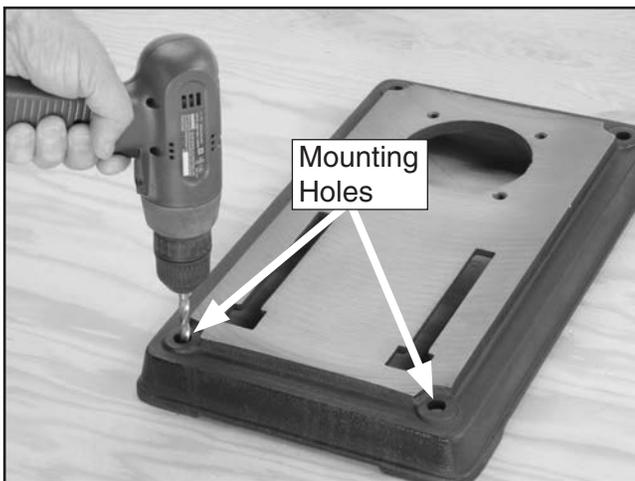
The Model G7943 should be secured to a bench. The Model G7944 base should be secured to the floor.

## Bench Mounting

Components and Hardware Needed:	Qty
Assembled Drill Press .....	1
Lag Bolts $\frac{3}{8}$ -16 x 3 (Not Included) .....	4
Carriage Bolts M10-1.5 x 95 (Not Included) .....	4
Flat Washers 10mm (Not Included).....	4
Hex Nuts M10-1.5 (Not Included) .....	4

### To mount the G7943 drill press to a table:

1. Clamp the base on a bench top capable of holding approximately 160 lbs. plus the weight of the workpiece using two clamps. Make sure the surface is flat and stable.
2. Using holes in the base as a guide (**Figure 20**), drill and bolt the base to the bench top using lag bolts, or carriage bolts, flat washers, and hex nuts.



**Figure 20.** Using holes as a drilling guide.

## Floor Mounting

Once you have confirmed that your Model G7944 is running properly, we strongly recommend mounting it to the floor to ensure optimum stability.

Lag shield anchors with lag bolts and anchor studs (**Figure 21**) are two popular methods for anchoring an object to a concrete floor. We suggest you research the many options and methods for mounting your machine and choose the best that fits your specific application.



**Figure 21.** Typical concrete mounting hardware.

## Mobile Base Mounting

Because the Model G7944 drill press is top-heavy by nature, we recommend mounting it to the floor, rather than a mobile base.

If you must use a mobile base, ALWAYS mount your drill press to a base plate inside of the mobile base, as shown in **Figure 23**.

A good quality base plate increases the standard footprint of the drill press to make it much more stable. The base plate must be at least 1½" thick and made of plywood (do not use OSB, MDF, or particle board) to hold the weight of the drill press. A common way for making the baseplate is described in this sub-section.

Continued on next page →



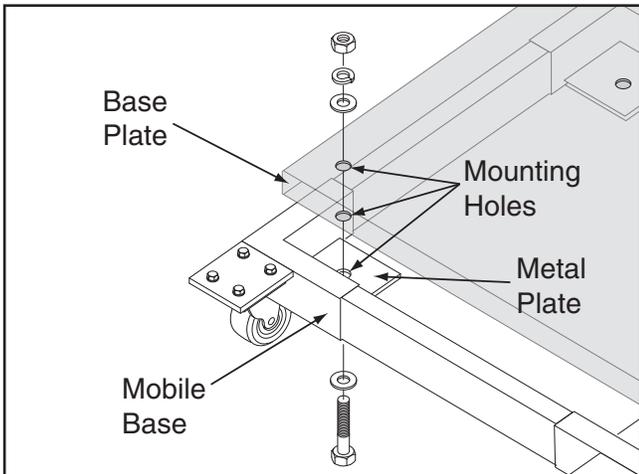
# ⚠ CAUTION

Drill presses are top-heavy and must be securely attached to a large-footprint base plate when used with a mobile base. Failure to use a base plate greatly increases possibility of tipping and personal injury.

Needed Materials for Base Plate	Qty
• Plywood $\frac{3}{4}$ " x $23\frac{3}{4}$ " x $23\frac{3}{4}$ " .....	2
• Wood Glue .....	As Needed
• Wood Screws #6 x $1\frac{1}{4}$ " .....	24
• Mounting Hardware .....	Varies

## To make and use the base plate:

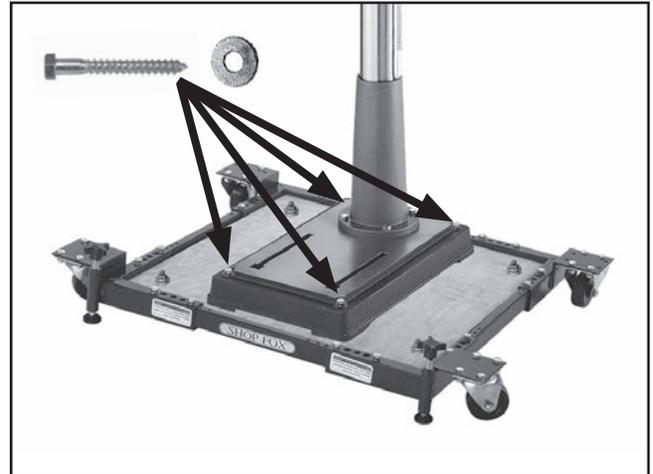
1. Glue the two pieces of plywood together, and align the edges and corners so the two boards make one thick piece.
2. Use the wood screws to fasten the boards together from both sides.
3. Allow 24 hours for the glue to dry before placing the drill press on it.
4. Place the base plate on the mobile base.
5. Drill holes through the base plate and the metal plates at the corners of the mobile base.
6. Secure the base plate to the mobile base with hex bolts, hex nuts, flat washers and lock washers, as shown in **Figure 22**.



**Figure 22.** Mounting base plate to mobile base.

**Note:** Use 2" to 2 $\frac{1}{4}$ " long hex bolts.

7. Place the drill press on the base plate.
8. Position the drill press close to the front of the mobile base, so the mobile base will not be a tripping hazard.
9. Mount the drill press to the base plate with lag bolts and flat washers (**Figure 23**); or with through bolts, flat washers, and hex nuts.



**Figure 23.** Drill press mounted on mobile base, using a base plate for support.

## Recommended Adjustments

For your convenience, the adjustments listed below have been performed at the factory; however, because of the many variables involved with shipping, we recommend that you at least verify the following adjustments before operating your machine—this will ensure that you know the operating tolerances of your machine, and you have them adjusted to your expectation.

Step-by-step instructions for these adjustments can be found in **SECTION 7: SERVICE**.

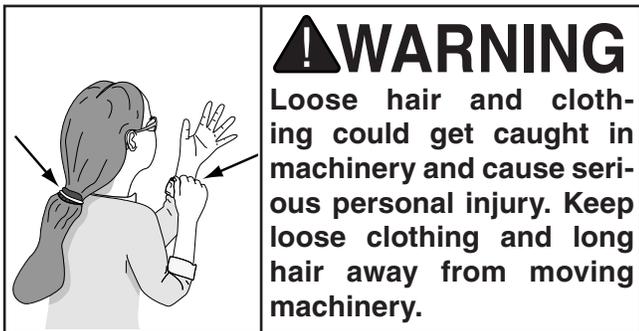
### Factory adjustments that should be verified:

1. Depth Stop Calibration (**Page 38**)
2. Feed Shaft Spring Tension (**Page 38**)



# SECTION 4: OPERATIONS

## Operation Safety



### **NOTICE**

If you have never used this type of machine or equipment before, WE STRONGLY RECOMMEND that you read books, trade magazines, or get formal training before beginning any projects. Regardless of the content in this section, Grizzly Industrial will not be held liable for accidents caused by lack of training.

## Switch/Lockout

The ON/OFF switch can be locked-out to prevent unauthorized use.

### To use the switch:

1. To turn the drill press **ON**, flip the switch up.
2. To turn the drill press **OFF**, press the switch down.
3. To lock-out the switch, remove the yellow key from the switch housing, as shown in **Figure 24**. Place the key in a safe place.

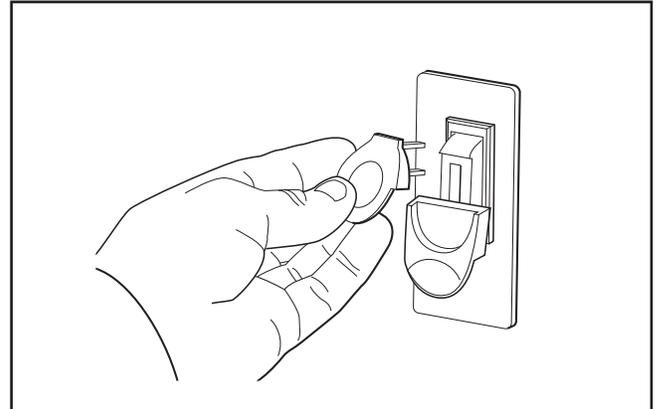


Figure 24. Locking-out.

## Installing/Removing Drill Bits

Any drill bit you install in the chuck must be tight enough that it will not come loose during operation.

### To install a drill bit:

1. UNPLUG THE DRILL PRESS!
2. Open the drill chuck wide enough to accept the shank of the drill bit.
3. Insert the drill bit as far as possible into the chuck **WITHOUT** allowing the chuck jaws to touch the fluted portion of the bit, and hand tighten the chuck.

**Note:** Make sure small bits are not trapped between the edges of two jaws; if they are, reinstall the drill bit or it will not be secure enough to use for drilling.

4. Final tighten the drill bit with the chuck key.

### To remove a drill bit:

1. UNPLUG THE DRILL PRESS!
2. Use the chuck key to open the drill chuck, and catch the drill bit with a rag to protect your hands.



# Choosing Speeds

## Using the Drill Bit Speed Chart

The chart shown in **Figure 25** is intended as a guide only. Always follow the manufacturer's speed recommendations if provided with your drill bits, cutters, or hole saws. Exceeding the recommended speeds may be dangerous to the operator.

The speeds shown here are intended to get you started. The optimum speed will always depend on various factors, including tool diameter, drilling pressure, material hardness, material quality, and desired finish.

Often, when drilling materials other than wood, some type of lubrication is necessary.

## Lubrication Suggestions

Wood ..... None  
 Plastics ..... Soapy Water  
 Brass ..... Water-Based Lubricant  
 Aluminum..... Paraffin-Based Lubricant  
 Mild Steel..... Oil-Based Lubricant

**⚠ CAUTION**

**Larger bits turning at slower speeds tend to grab the workpiece aggressively. This can result in the operator's hand being pulled into the bit or the workpiece being thrown with great force. Always clamp the workpiece to the table to prevent injuries.**

Twist/Brad Point Drill Bits	Soft Wood	Hard Wood	Plastic	Brass	Aluminum	Mild Steel
1/16" – 3/16"	3000	2500	2500	2500	3000	2500
13/64" – 3/8"	2000	1500	2000	1250	2500	1250
25/64" – 5/8"	1500	750	1500	750	1500	600
11/16" – 1"	750	500	1000	400	1000	350

Spade/Forstner Bits	Soft Wood	Hard Wood	Plastic	Brass	Aluminum	Mild Steel
1/4" – 1/2"	2000	1500	/	/	/	/
9/16" – 1"	1500	1250	/	/	/	/
1-1/8" – 1-7/8"	1000	750	/	/	/	/
2–3"	500	350	/	/	/	/

Hole Saws	Soft Wood	Hard Wood	Plastic	Brass	Aluminum	Mild Steel
1/2" – 7/8"	500	500	600	600	600	500
1" – 1-7/8"	400	400	500	500	500	400
2" – 2-7/8"	300	300	400	400	400	300
3" – 3-7/8"	200	200	300	300	300	200
4" – 5"	100	100	200	200	200	100

Rosette Cutters	Soft Wood	Hard Wood	Plastic	Brass	Aluminum	Mild Steel
Carbide Insert Type	350	250	/	/	/	/
One-Piece Type	1800	500	/	/	/	/

Tenon/Plug Cutters	Soft Wood	Hard Wood	Plastic	Brass	Aluminum	Mild Steel
3/8" – 1/2"	1200	1000	/	/	/	/
5/8" – 1"	800	600	/	/	/	/

**Figure 25.** Drill bit speed chart.

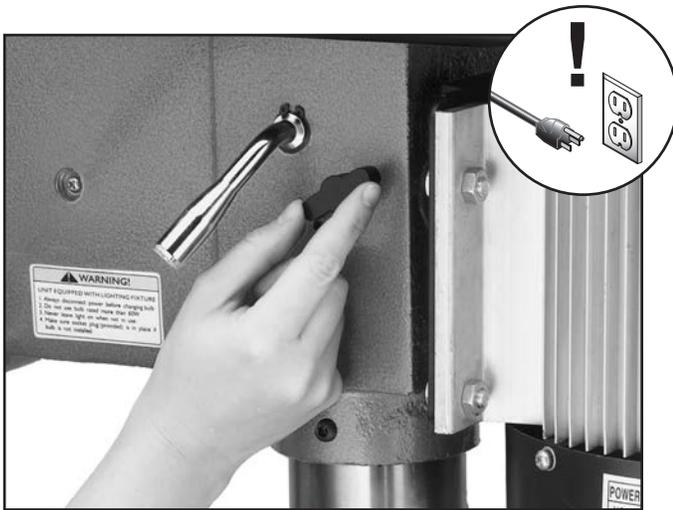


# Changing Speeds

The belts in the head of the drill press must be rearranged to change speeds. A chart under the belt cover shows the belt positions needed to make the drill press run at the desired speed.

## To change speeds:

1. UNPLUG THE DRILL PRESS!
2. Loosen the belt tension lock knobs (shown in **Figure 26**) on both sides of the headstock, so the motor is free to move.



**Figure 26.** Loosening lock knob (both sides).

3. Rotate the belt tension lever clockwise, as shown in **Figure 27**, to take tension off the V-belts.



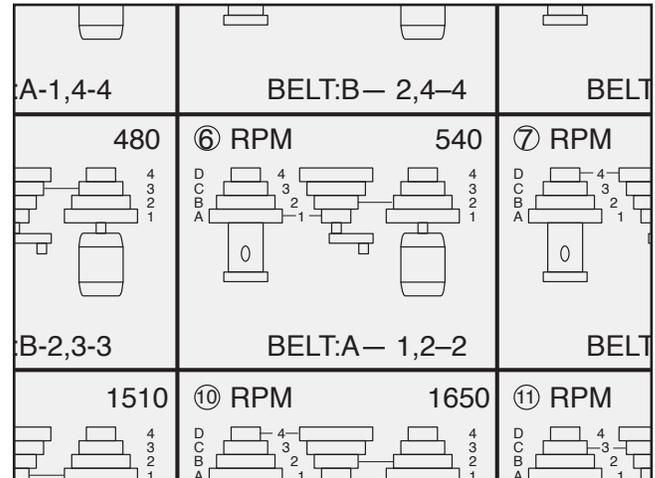
**Figure 27.** Using the belt tension lever.

4. Locate the desired speed on the speed chart under the belt cover and move the V-belts to the desired V-grooves on the motor, idler, and spindle pulleys.

**For Example:** As indicated in the speed chart for **540 RPM (Figure 28)**, a belt combination of **A-1, 2-2** creates 540 RPM.

- The “**A-1**” refers to the belt position between the spindle pulley and the idler pulley.
- The “**2-2**” refers to the belt position between the motor pulley and the idler pulley.

**Note:** Both belts may have to be removed before certain speed changes can be made.



**Figure 28.** Pulley combination for 540 RPM for example.

5. Rotate the belt tension lever until the belts are tight. Tighten both lock knobs.
6. Close the cover before plugging in the machine.



# Drilling

---

The Model G7943/G7944 is designed for drilling holes in wood or metal. The basic operation of a drill press is lining up your drill bit with the intended hole location, turning the drill press **ON**, and using the down feed levers to move the spinning drill bit into the workpiece.

**For safe operation and optimum results, it is very important to follow these guidelines when drilling:**

**CLEARING CHIPS:** Raise the drill bit often to clear chips and cool the drill bit. This will ease the work of the drill press motor and extend the life of your drill bits.

**SECURING WORKPIECE TO TABLE:** Secure the workpiece to the table or in a vise that is secured to the table before drilling.

**PROTECTING TABLE:** Protect the table by placing the workpiece on scrap wood, or center the location of the hole to be drilled over the pocket in the table when through drilling. Also, make use of the depth stop so that the drill bit goes no deeper than necessary.

**USING CORRECT SPEEDS:** Use the correct speed for the diameter of the drill bit being used and the type of material being drilled. Refer to the **Drill Bit Speed Chart** on **Page 26** to help you choose the correct speed for your application.

**LARGE DIAMETER BITS:** Large diameter drill bits require slower spindle speeds.

**SMALL DIAMETER BITS:** Smaller diameter drill bits require faster spindle speeds.

**HARD MATERIAL:** The harder the material, (steel vs. wood) the slower the spindle speed.

**SOFT MATERIAL:** The softer the material, the faster the spindle may turn. (Plastics can melt at too high of a spindle speed!)

**LUBRICANT:** Use some form of lubricant on all materials except wood. Refer to **Lubrication Suggestions** on **Page 26** to find the correct lubrication for your application.

**DRILLING ACCURACY:** To prevent drill bit wandering and ensure accurate placement of holes, mark the hole location with a center punch before drilling. Also consider using a center-point drill to start the hole.

**PLUG/ROSETTE CUTTERS:** Plug cutters and rosette cutters are for wood only. However, carbide-tipped bits and cutters cut at a higher speed and can cut materials other than wood, depending on the cutter type.

**5-FLUTE/2-FLUTE CUTTERS:** Use a 5-flute cutter when cutting into plastics, brass, aluminum, and mild steel. A 2-flute cutter can aggressively grab the workpiece and damage the tool if used with materials other than wood.

**SPADE BITS AND PLASTIC:** When drilling plastic with a spade bit, use a spade bit with spurs.

**HOLE SAWS:** When using hole saws, apply firm and even pressure, so the saw teeth contact the surface all at the same time—not at an angle. You can also flip the workpiece and finish drilling from the other side.

## CAUTION

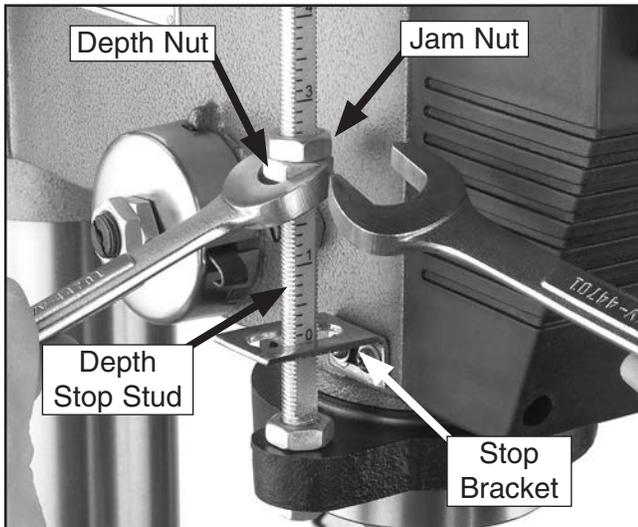
**Larger bits turning at slower speeds tend to grab the workpiece aggressively. This can result in the operator's hand being pulled into the bit or the workpiece being thrown with great force. Always clamp the workpiece to the table to prevent injuries.**



# Depth Stop

The Model G7943/G7944 has a depth stop that allows you to drill repeated non-through holes to the same depth every time.

The depth stop consists of a stud attached to the quill with two hex nuts that can be lowered or raised on the stud so the lower nut (depth nut) hits a stop bracket when the drill bit is lowered. The upper hex nut (jam nut) is then used to tighten against the depth nut to secure it in place so it doesn't move with repeated operations. **Figure 29** shows the various components of the depth stop.



**Figure 29.** Depth stop components.

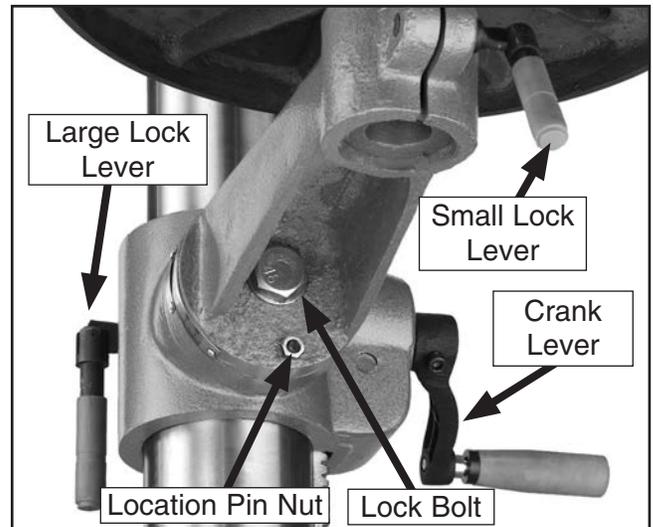
## To set the depth stop:

1. Lower the drill bit to the required height.
2. Thread the depth nut down against the stop bracket.
3. Lower the jam nut against the depth nut.
4. Using wrenches, hold the depth nut in place and tighten the jam nut against the depth nut.

**Note:** The scale on the depth stop can be recalibrated if it gets moved or has changed since the factory setting. Refer to **Calibrating Depth Stop** on **Page 38** for instructions on how this is done.

# Adjusting Table

The table can be raised/lowered, rotated, and tilted 90° left or right. Table adjustment controls are shown in **Figure 30**.



**Figure 30.** Table adjustment controls.

## Table Height

1. Loosen the large lock lever.
2. Adjust the height.
3. Lock the large lock lever.

## Table Rotation

1. Loosen the small lock lever.
2. Rotate the table as necessary.
3. Lock the small lock lever.

## Table Tilt

1. Tighten the location pin nut to draw the location pin out of the hole. **Note:** The location pin is friction fit in the hole to lock the table at 0°. When reinstalling, set the table to 0°, back the nut off, and tap the pin back in the hole.
2. Loosen the lock bolt and tilt the table to the desired angle (make sure the small lock lever is locked, so the table won't fall out).
3. Tighten the lock nut bolt.

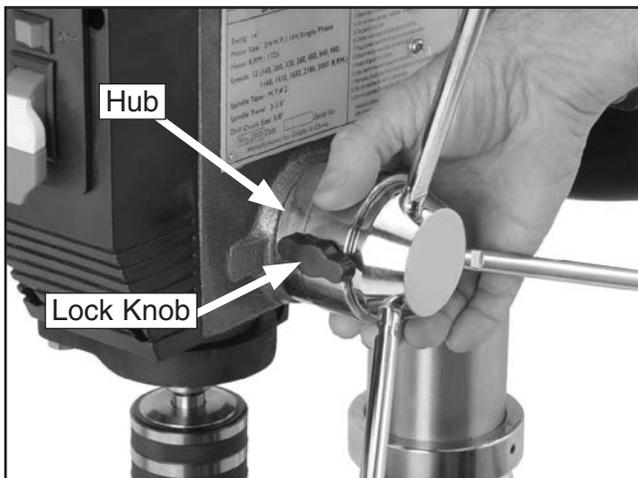


# Arbor Removal

The arbor can be removed to install another drill chuck in the spindle. A drift key is included to help remove the arbor from the spindle. Usually, once the chuck and arbor have been properly mounted together, they are considered semi-permanent connections. (If you would like to install a different chuck, we recommend getting a new arbor for that chuck.)

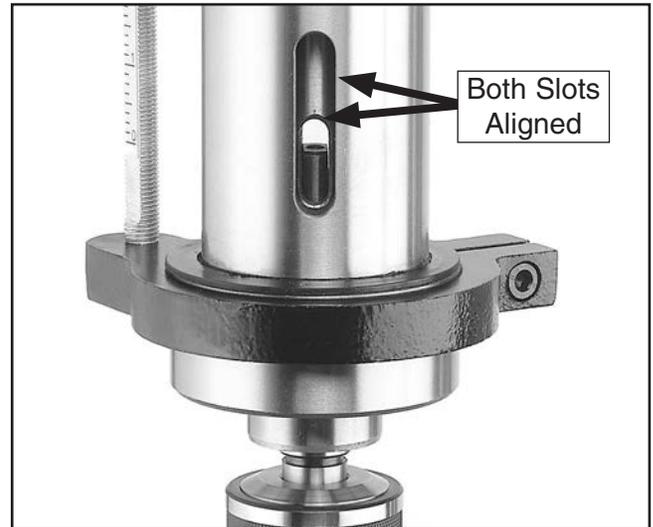
## To remove the drill chuck and arbor:

1. UNPLUG THE DRILL PRESS!
2. Rotate the spindle handles until the drift-key slot is exposed in the side of the quill.
3. Loosen the lock knob and rotate the hub (**Figure 31**) clockwise until it stops.



**Figure 31.** Rotating hub.

4. Tighten the lock knob. The quill should not return up into the head casting.
5. Move the table up until it is 1/4" below the bottom of the chuck, and place a towel or cloth under the chuck.
6. Rotate the spindle until the inner drift-key slot is aligned with the outer slot, as shown in **Figure 32**. You will see through the spindle when the slot is properly aligned.



**Figure 32.** Inner and outer drift-key slots aligned.

7. Insert the drift key into the drift-key slot.
8. Tap the drift key with a rubber or wooden mallet, as shown in **Figure 33**, until the chuck releases.



**Figure 33.** Using drift key to remove arbor.

9. Hold a downfeed handle with one hand, and loosen the lock knob with the other hand.
10. Carefully retract the quill into the headstock.



# SECTION 5: ACCESSORIES

## G2500—20-PC Regular Sanding Drum Set

Use on your drill press, lathe, or hand drill. This kit consists of 5 drums in popular 1/2" x 1/2", 3/4" x 1", 1" x 1", 1 1/2" x 1 1/2", and 2" x 1 1/2" sizes. Comes with 50, 80 and 120 grit sizes for each drum.



Figure 34. Model G2500 20-PC Sanding Drum Set.

## G5753—Drill Press Vise 6"

If you use a drill press and value your fingers, you need one of these. Made from high-grade cast iron, these hefty horizontal vises offer support and stability, allowing you to keep your hands well away from fast moving bits and cutters.

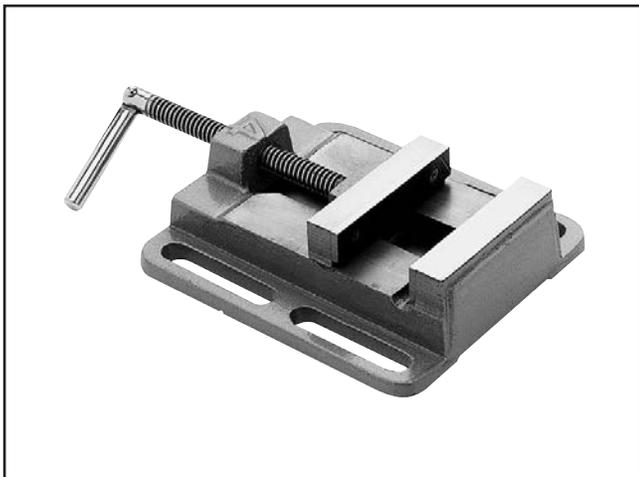


Figure 35. Model G5753 Drill Press Vise 6".

## G8581—1/2" Keyless Drill Chuck JT #33

Industrial grade keyless chucks are excellent for quick bit changes. Knurled grips and exceptional accuracy make these chucks an indispensable part of any shop. Use on drill presses, lathe tailstocks and milling machines. 0 – 1/2" capacity with a Jacobs Taper #33 in back.



Figure 36. Model G8581 1/2" Keyless Drill Chuck JT #33.

## G5562—SLIPIT® 1 Qt. Gel

## G5563—SLIPIT® 12 oz Spray

## G2871—Boeshield® T-9 12 oz Spray

## G2870—Boeshield® T-9 4 oz Spray

## H3788—G96® Gun Treatment 12 oz Spray

## H3789—G96® Gun Treatment 4.5 oz Spray



Figure 37. Recommended products for protecting unpainted cast iron/steel areas.

Call 1-800-523-4777 To Order



- T20501—Face Shield Crown Protector 4"
- T20502—Face Shield Crown Protector 7"
- T20503—Face Shield Window
- T20452—"Kirova" Anti-Reflective S. Glasses
- T20451—"Kirova" Clear Safety Glasses
- H7194—Bifocal Safety Glasses 1.5
- H7195—Bifocal Safety Glasses 2.0
- H7196—Bifocal Safety Glasses 2.5



Figure 38. Eye protection assortment.

- H2499—Small Half-Mask Respirator
- H3631—Medium Half-Mask Respirator
- H3632—Large Half-Mask Respirator
- H3635—Cartridge Filter Pair P100

Wood dust has been linked to nasal cancer and severe respiratory illnesses. If you work around-dust everyday, a half-mask respirator can be a lifesaver. Also compatible with safety glasses!



Figure 39. Half-mask respirator with disposable cartridge filters.

**Call 1-800-523-4777 To Order**

- G8865—Cobalt Alloy Drill Bits 13-PC. Set
- G8866—Steelex® Cobalt Alloy Drill Bits 21-PC Set
- G8867—Steelex® Cobalt Alloy Drill Bits 29-PC Set

Cobalt Alloy bits will retain their edge sharpness longer than normal HSS bits, resulting in a significant saving of time and money in the workshop. Includes a heavy-gauge steel index case for storing. G8865: 1/16" -1/4"; G8866: 1/16" - 3/8"; G8867: 1/16" -1/2".



Figure 40. Model G8865 13-PC Alloy Drill Bits.

- G3639—Power Twist® V-Belt 3/8" x 48"

Smooth running with less vibration and noise than solid belts. The Power Twist® V-belts can be customized in minutes to any size—just add or remove sections to fit your needs. Size: 3/8" x 48"; replaces all "M" sized V-belts. Requires two Power Twist® V-belts to replace the stock V-belts on your Model G7943/G7944. Well worth it!

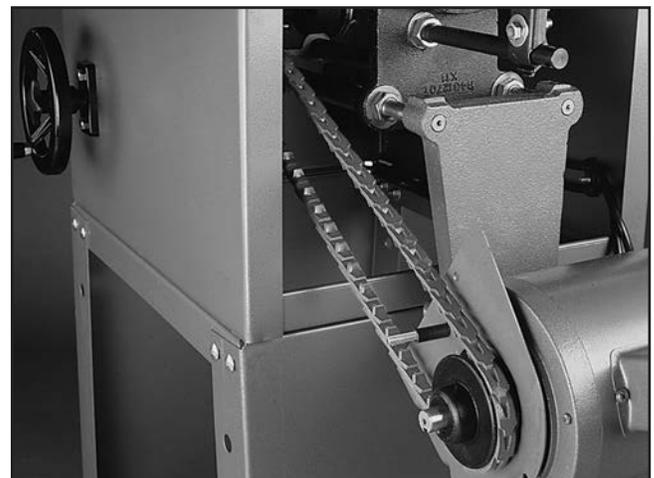


Figure 41. G3639 Power Twist® V-Belt installed.



### H8071—Lathe Attachment for Drill Press

Perform vertical spindle turning on your multi-speed drill press with this Lathe Attachment. Easy setup means quick change over from drill press mode to lathe mode. A 12" tool rest allows a maximum work piece length of 24" when the work piece is reversed. Includes a base plate with live center, 12" tool rest, mounting bolts, mini screw center and spur center. Fits all drill presses with a through hole in the table.

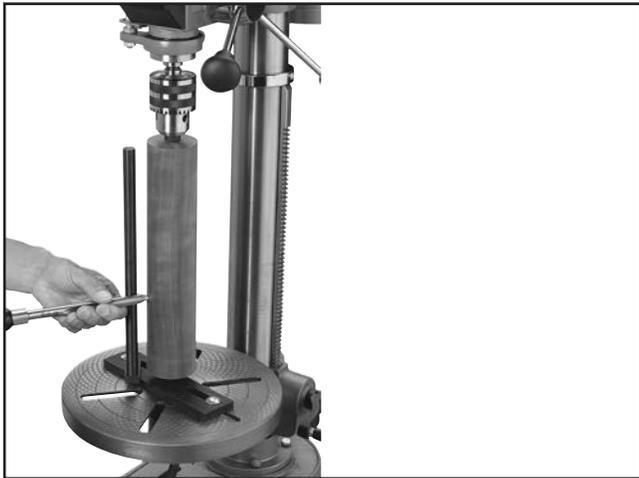


Figure 42. Model H8071 Lathe Attachment.

### H6238—Drill Press Roller Supports

This Drill Press Roller Support provides stability and control for longer work. Rollers clamp to the column and measure 9½" wide x 1⅜" diameter. Lateral adjustment range is 8" minimum to 24" maximum on each side and vertical adjustment is 8".



Figure 43. Model H6238 Roller Supports.

### H7827—Drill Press Table

Add this 23¾" wide x 11⅞" deep Drill Press Table with 3" high fence and stop block to your drill press for greater work support and increased accuracy. The fence and stop block slide along T-slots for quick, yet secure set-up and a removable 3⅛" square center block allows thru drilling past the table. Fits all standard drill press tables and includes two universal table clamps. Mortising chisel and clamps not included.

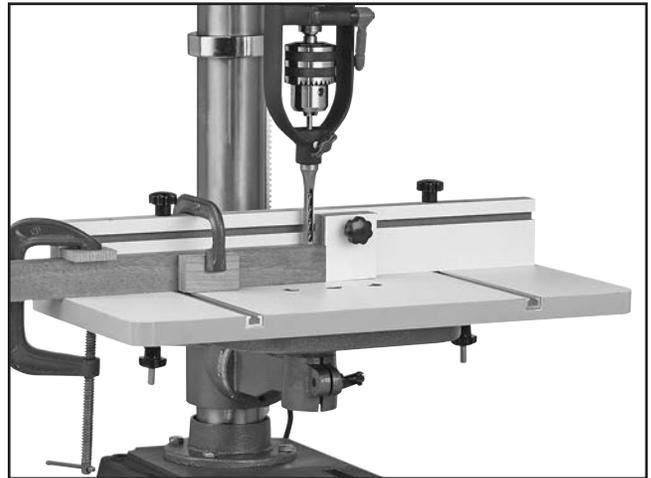


Figure 44. Model H7827 Drill Press Table.

### G1083—Mortising Attachment

A mortising attachment and chisel lets you drill square holes in wood. The attachment holds the sharp cornered chisel in place while the inner drill cuts out the center. Drills have ½" shank.



Figure 45. Model G1083 Mortising Attachment.

**Call 1-800-523-4777 To Order**



# SECTION 6: MAINTENANCE

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## General

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Regular periodic maintenance on your drill press will ensure optimum performance. Make a habit of inspecting your machine each time you use it. Check for the following conditions and repair or replace when necessary:

- Loose mounting bolts.
- Worn switch.
- Worn or damaged cords and plugs.
- Damaged V-belt.
- Any other condition that could hamper the safe operation of this machine.

## Cleaning

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Cleaning the Model G7943/G7944 is relatively easy. Vacuum excess wood chips and sawdust, and wipe off the remaining dust with a dry cloth. If any resin has built up, use a resin dissolving cleaner to remove it. Treat all unpainted cast iron and steel with a non-staining lubricant after cleaning.

## Unpainted Cast Iron

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Protect the unpainted cast iron surfaces by wiping them clean after every use—this ensures moisture from wood dust does not remain on bare metal surfaces.

Keep these surfaces rust-free with regular applications of products like G96® Gun Treatment, SLIPIT®, or Boeshield® T-9 (see **SECTION 5: ACCESSORIES** on **Page 31** for more details).

## Lubrication

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Since all bearings are shielded and permanently lubricated, simply leave them alone until they need to be replaced. **DO NOT** lubricate them.

Keep quill, spindle, column, and table top well lubricated to prevent rust.

## V-Belts

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Inspect regularly for tension and wear. Check pulleys to ensure that they are properly aligned. See **Changing Speeds** on **Page 26** for more information about removing/installing belts if you need help replacing the belts.



# SECTION 7: SERVICE

## About Service

This section is provided for your convenience—it is not a substitute for the Grizzly Service Department. If you need help troubleshooting, you need replacement parts, or you are unsure of how to perform the procedures in this section, then feel free to call our Technical Support at (570) 546-9663.

## Troubleshooting



### Motor & Electrical

Symptom	Possible Cause	Possible Solution
Machine does not start or a breaker trips.	<ol style="list-style-type: none"> <li>1. Plug or receptacle is at fault or wired incorrectly.</li> <li>2. Start capacitor is faulty.</li> <li>3. Motor connection is wired incorrectly.</li> <li>4. Power supply is faulty, or is switched <b>OFF</b>.</li> <li>5. Safety switch key is at fault.</li> <li>6. ON/OFF switch is faulty.</li> <li>7. Cable or wiring is open or has high resistance.</li> <li>8. Motor is at fault.</li> </ol>	<ol style="list-style-type: none"> <li>1. Test power plug and receptacle for good contact and correct wiring.</li> <li>2. Replace capacitor.</li> <li>3. Correct motor wiring (see <b>Page 42</b>).</li> <li>4. Make sure all hot lines and grounds are operational and have correct voltage on all legs.</li> <li>5. Install or replace safety key, or replace switch assembly.</li> <li>6. Replace faulty switch.</li> <li>7. Troubleshoot wires for internal or external breaks, check for disconnected or corroded connections and repair or replace wiring.</li> <li>8. Test, repair or replace motor.</li> </ol>
Machine stalls or is underpowered.	<ol style="list-style-type: none"> <li>1. Incorrect spindle speed for task.</li> <li>2. Machine is undersized for the task.</li> <li>3. Bit or cutter is dull.</li> <li>4. Low power supply voltage.</li> <li>5. Belt(s) is slipping.</li> <li>6. Plug or receptacle is at fault.</li> <li>7. Motor connection is wired incorrectly.</li> <li>8. Pulley is slipping on shaft.</li> <li>9. Motor bearings are at fault.</li> <li>10. Motor has overheated.</li> <li>11. Motor is at fault.</li> </ol>	<ol style="list-style-type: none"> <li>1. Decrease spindle speed.</li> <li>2. Use smaller drill bits/cutters and reduce the feed rate and spindle speed.</li> <li>3. Sharpen/replace bit or cutter.</li> <li>4. Make sure hot lines and grounds are operational w/correct voltage.</li> <li>5. Replace bad belts, align pulleys, and re-tension.</li> <li>6. Test power plug and receptacle for good contact and correct wiring.</li> <li>7. Correct motor wiring (see <b>Page 42</b>).</li> <li>8. Replace loose pulley and shaft.</li> <li>9. Rotate motor shaft for noisy or burnt bearings, repair/replace as required.</li> <li>10. Clean inside/outside of motor, let cool, and reduce workload on machine.</li> <li>11. Test, repair or replace motor.</li> </ol>



Symptom	Possible Cause	Possible Solution
Machine has vibration or noisy operation.	<ol style="list-style-type: none"> <li>1. Motor or component is loose.</li> <li>2. Belts are slapping belt cover.</li> <li>3. V-belt(s) is worn or is loose.</li> <li>4. Motor fan is rubbing on fan cover.</li> <li>5. Pulley is loose.</li> <li>6. Machine is incorrectly mounted to the floor, or the floor is uneven.</li> <li>7. Chuck or cutter is at fault.</li> <li>8. Motor bearings are at fault.</li> <li>9. Spindle bearings at fault.</li> </ol>	<ol style="list-style-type: none"> <li>1. Inspect, replace for stripped or damaged bolts/nuts, and re-tighten with thread locking fluid.</li> <li>2. Replace/realign belts with a new matched set, and retension belts (refer to <b>Page 27</b>).</li> <li>3. Replace belts.</li> <li>4. Replace/repair dented fan cover, and replace loose or damaged fan.</li> <li>5. Remove pulley, replace with key as required, and re-install securely.</li> <li>6. Make sure floor mounting hardware is tight; place shims under machine.</li> <li>7. Replace out-of-round chuck, replace or resharpen cutter, use appropriate feed rate and cutting RPM.</li> <li>8. Check bearings, replace motor or bearings as required.</li> <li>9. Replace bearing.</li> </ol>



## Drill Press Operations

Symptom	Possible Cause	Possible Solution
Drilling stops, but the motor still operates.	<ol style="list-style-type: none"> <li>1. The belt is loose or worn.</li> <li>2. The pulley for the spindle shaft or the motor is slipping on the shaft.</li> <li>3. Bit slips in chuck.</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace and/or adjust the belt.</li> <li>2. To resecure the pulley, do these steps:               <ol style="list-style-type: none"> <li>a. UNPLUG THE DRILL PRESS!</li> <li>b. Remove the setscrew on the slipping pulley.</li> <li>c. Align the flats on the pulley shaft with the setscrew hole.</li> <li>d. Reinstall and tighten the setscrew.</li> </ol> </li> <li>3. Tighten bit; inspect bit for burrs or other obstructions that might interfere with clamping surface.</li> </ol>
The chuck wobbles or is loose on the spindle shaft.	<ol style="list-style-type: none"> <li>1. Foreign material is stuck between the chuck-to-spindle mating surface.</li> <li>2. Damaged chuck.</li> </ol>	<ol style="list-style-type: none"> <li>1. Remove the chuck and clean and deburr the tapered chuck and spindle mating surfaces, then reassemble.</li> <li>2. Replace.</li> </ol>
The spindle does not retract completely in the uppermost position or it binds.	<ol style="list-style-type: none"> <li>1. The quill shaft is gummy with sawdust and oil.</li> <li>2. The feed shaft return spring is weak.</li> <li>3. The quill deflection screw is binding the quill.</li> </ol>	<ol style="list-style-type: none"> <li>1. Clean the gummy substance with penetrating oil and lubricate with a light coat of oil.</li> <li>2. Increase the feed shaft return spring tension as described on <b>Page 38</b>.</li> <li>3. Loosen the jam nut, and slightly turn out the screw where the quill binds. Retighten the jam nut and recheck for binding and looseness at all spindle locations.</li> </ol>
The quill has excessive deflection.	<ol style="list-style-type: none"> <li>1. The quill shaft is at fault.</li> <li>2. The quill and/or bearings are worn.</li> </ol>	<ol style="list-style-type: none"> <li>1. Adjust the quill screw.</li> <li>2. Replace the quill and/or bearings.</li> </ol>
Holes drilled at an angle.	<ol style="list-style-type: none"> <li>1. Table is not at 90 degrees.</li> </ol>	<ol style="list-style-type: none"> <li>1. Adjust table angle (see <b>Page 29</b>).</li> </ol>
Drill bit wobbles, holes are oversized.	<ol style="list-style-type: none"> <li>1. Drill bit installed incorrectly.</li> </ol>	<ol style="list-style-type: none"> <li>2. Remove drill bit and reinstall.</li> </ol>

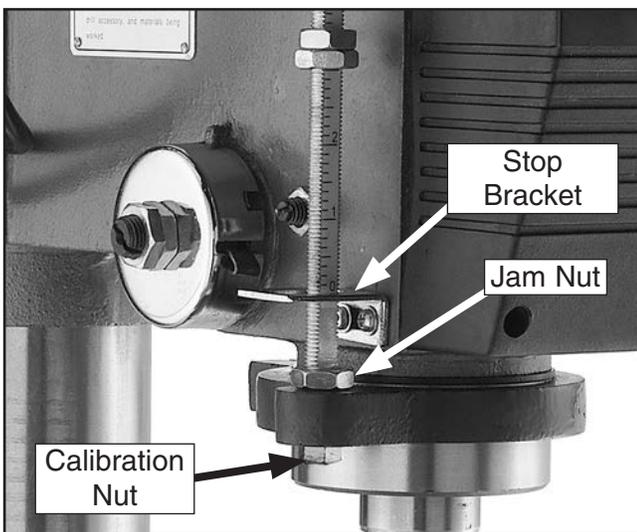


# Depth Stop Calibration

The drill press comes fitted with a depth stop to use when drilling multiple holes at the same depth. The scale on this depth stop can be calibrated if it ever becomes incorrect.

## To calibrate the depth stop:

1. Loosen the jam nut and calibration nut shown in **Figure 46**.



**Figure 46.** Depth stop assembly.

2. Use the calibration nut to zero the depth stop scale with the stop bracket.
3. Hold the depth stop at zero, and tighten the jam nut to hold the depth stop in position.
4. Test the depth stop by measuring how far the spindle actually moves with respect to where you set the depth stop.

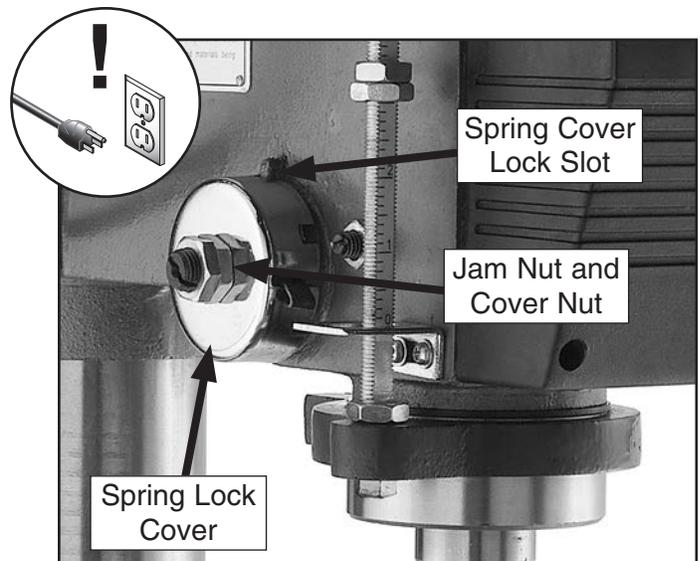
# Feed Shaft Spring Tension

The feed shaft return spring is adjusted at the factory; however, during the life of the drill press you may want to adjust the feed shaft return spring so the feed shaft return pressure suits your operating needs.



## To adjust the feed shaft spring tension:

1. UNPLUG THE DRILL PRESS!
2. Wipe off any oil on the spring lock cover so it does not slip in your fingers when you hold the cover from spinning (see **Figure 47**).



**Figure 47.** Feed shaft return spring assembly.



3. While holding the spring lock cover against the side of the headstock so the cover stays splined with the locking lug; loosen the jam nut and loosen the cover nut approximately  $\frac{1}{4}$ " (see **Figure 48**).



**Figure 48.** Example of loosening cover and jam nut.

## CAUTION

A high tension coiled spring is underneath the cover. Put on heavy leather gloves to protect your hands from possible lacerations when removing the cover.

4. Put on heavy leather gloves to protect your hands from possible lacerations if the spring uncoils during the next step.
5. Pull the cover outward just enough to disengage the spring-cover lock slot from the locking lug. **Note:** *It is important to keep a good grip during this step. Letting go of the cover will cause the spring to rapidly uncoil.*
6. Rotate the cover counterclockwise to increase spring tension, or let the cover slowly unwind in the clockwise direction to reduce spring tension.
7. Engage the next available spring-cover lock slot with the locking lug and hold the spring lock cover tightly against the side of the headstock.
8. Snug the cover nut against the spring cover just until the nut stops, and then back off the nut approximately  $\frac{1}{3}$  turn, or just enough so there is no binding at complete spindle travel.
9. Hold the cover nut and tighten the jam nut against the cover nut.



# SECTION 8: WIRING

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These pages are current at the time of printing. However, in the spirit of improvement, we may make changes to the electrical systems of future machines. Study this section carefully. If there are differences between your machine and what is shown in this section, call Technical Support at (570) 546-9663 for assistance BEFORE making any changes to the wiring on your machine.

## WARNING

### Wiring Safety Instructions

- 1. SHOCK HAZARD.** Working on wiring that is connected to a power source is extremely dangerous. Touching electrified parts will result in personal injury including but not limited to severe burns, electrocution, or death. Disconnect the power from the machine before servicing electrical components!
- 2. QUALIFIED ELECTRICIAN.** Due to the inherent hazards of electricity, only a qualified electrician should perform wiring tasks on this machine. If you are not a qualified electrician, get help from one before attempting any kind of wiring job.
- 3. WIRE CONNECTIONS.** All connections must be tight to prevent wires from loosening during machine operation. Double-check all wires disconnected or connected during any wiring task to ensure tight connections.
- 4. WIRE/COMPONENT DAMAGE.** Damaged wires or components increase the risk of serious personal injury, fire, or machine damage. If you notice that any wires or components are damaged while performing a wiring task, replace those wires or components before completing the task.
- 5. MODIFICATIONS.** Using aftermarket parts or modifying the wiring beyond what is shown in the diagram may lead to unpredictable results, including serious injury or fire.
- 6. MOTOR WIRING.** The motor wiring shown in these diagrams is current at the time of printing, but it may not match your machine. Always use the wiring diagram inside the motor junction box.
- 7. CAPACITORS.** Some capacitors store an electrical charge for up to five minutes after being disconnected from the power source. To avoid being shocked, wait at least this long before working on capacitors.
- 8. CIRCUIT REQUIREMENTS.** You **MUST** follow the requirements on **Page 12** when connecting your machine to a power source.
- 9. EXPERIENCING DIFFICULTIES.** If you are experiencing difficulties understanding the information included in this section, contact our Technical Support at (570) 546-9663.



# Electrical Components

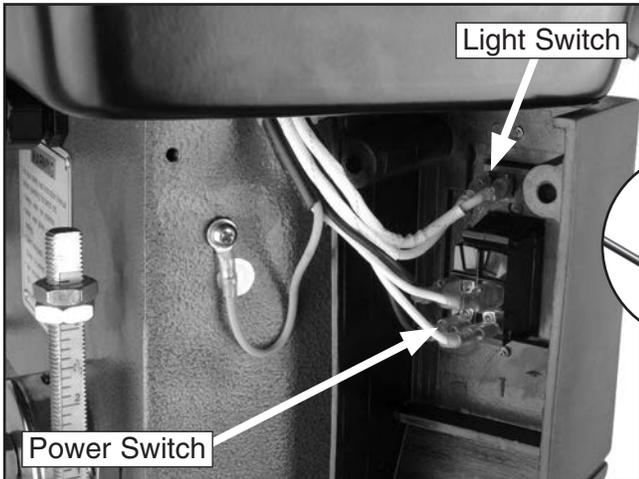


Figure 49. Power and light switch assembly.

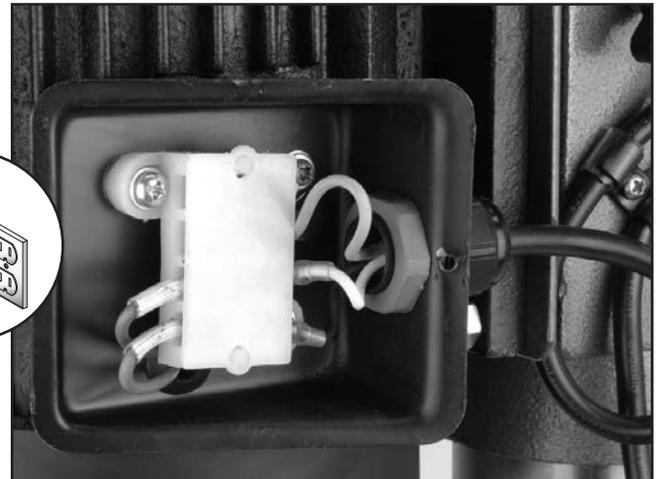


Figure 51. Motor wiring inside junction box.

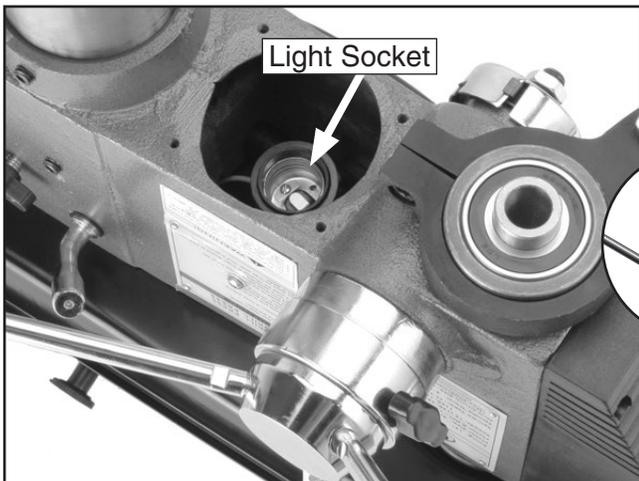
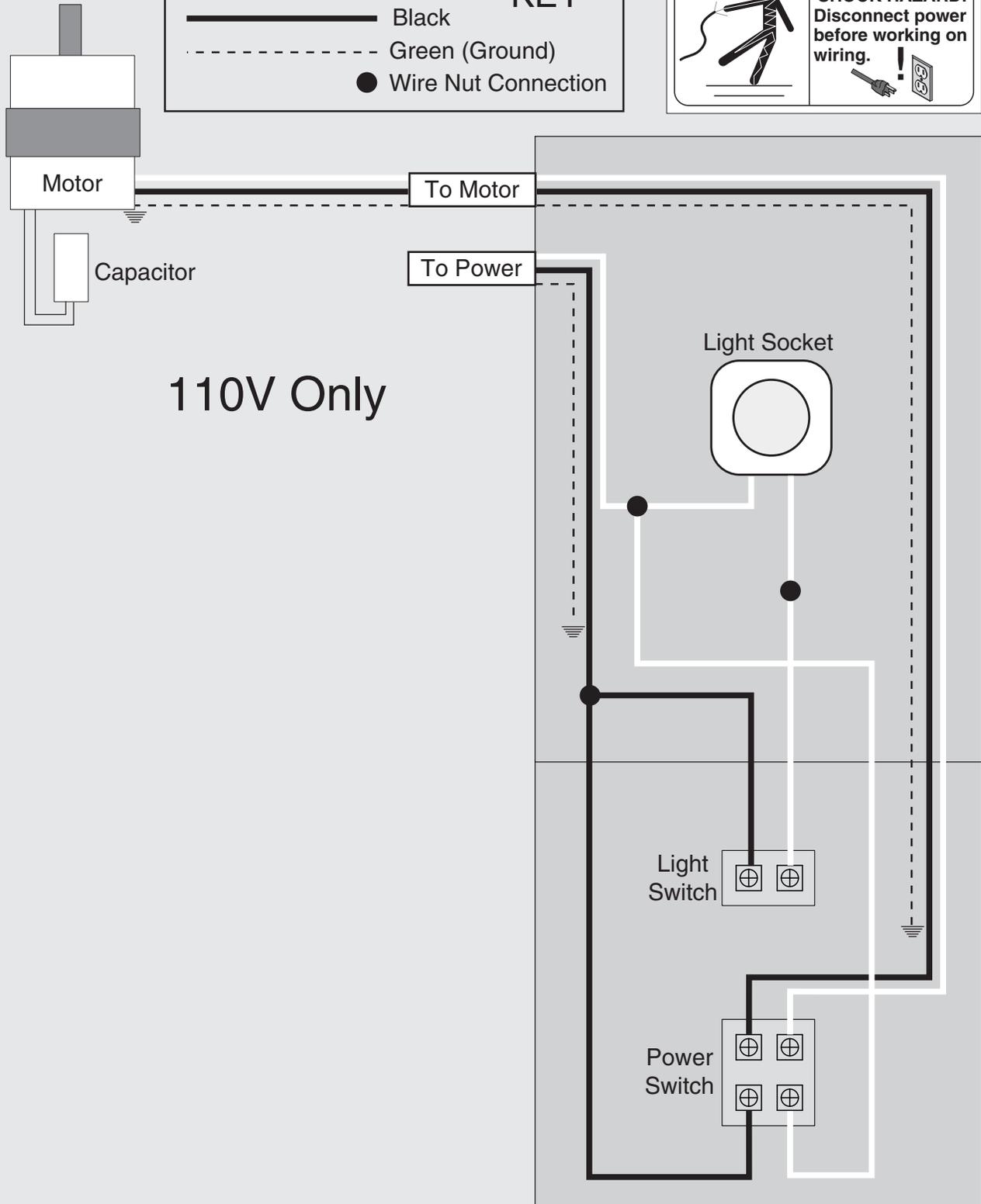
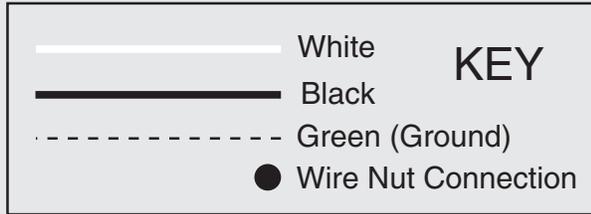


Figure 50. Light socket with dust plug removed.

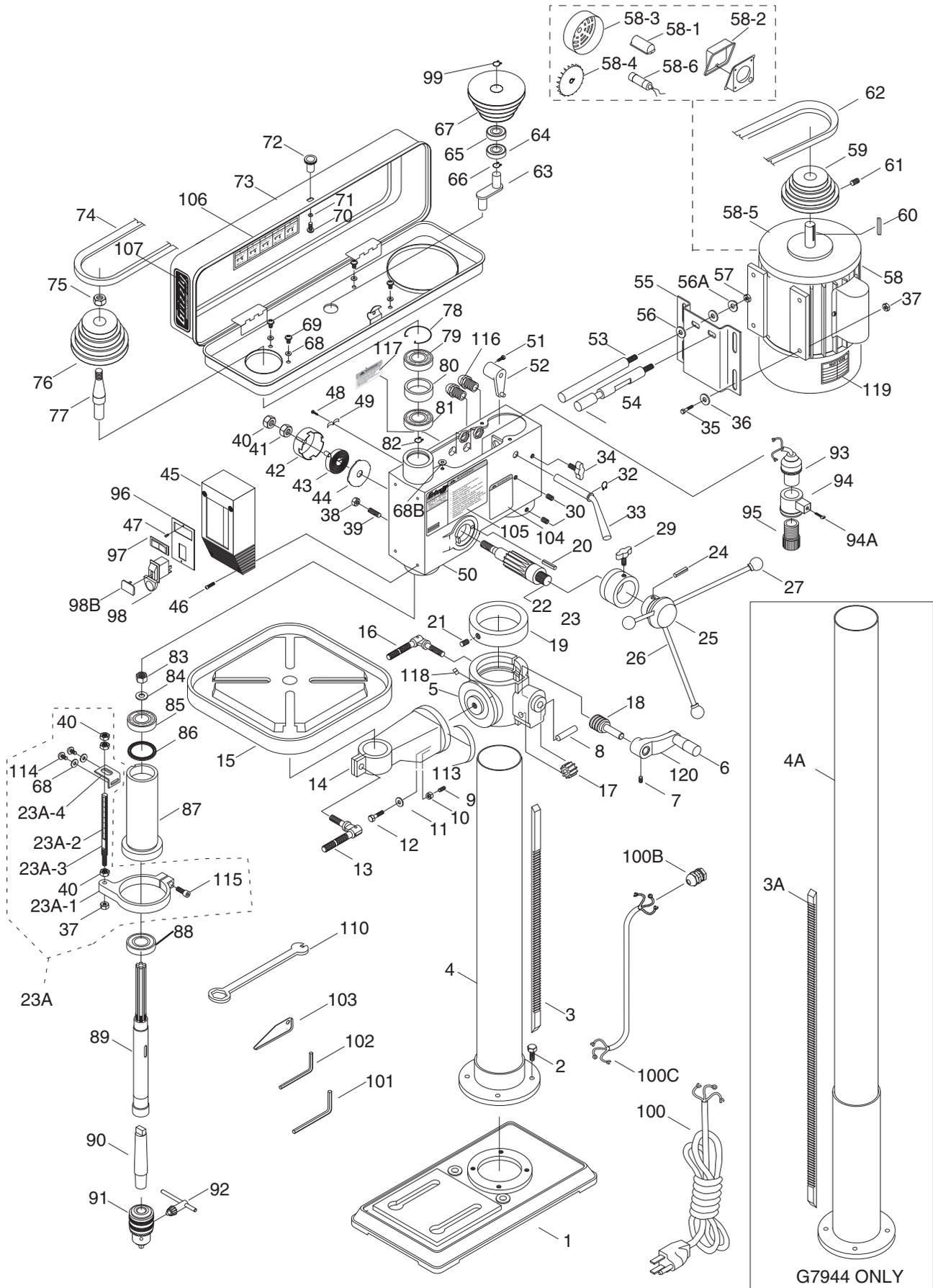


Figure 52. Capacitor.

# G7943/G7944 Wiring Diagram



# G7943/G7944 Breakdown



# G7943/G7944 Parts List

REF	PART #	DESCRIPTION
1	P7943001	BASE V2.07.04
2	P7943002	HEX BOLT M10-1.5 x 25
3	P7943003	RACK
4	P7943004	COLUMN W/ COLUMN SHOULDER
5	P7943005	TABLE BRACKET
6	P7943006	HANDLE
7	P7943007	SET SCREW M3-1 X 5
8	P7943008	SHAFT
9	P7943009	TABLE PIN
10	P7943010	HEX NUT M6-1
11	P7943011	FLAT WASHER #6
12	P7943012	HEX BOLT M16-2 X 40
13	P7943013	TABLE BOLT M10 X 30
14	P7943014	TABLE ARM BRACKET
15	P7943015	TABLE
16	P7943016	CLAMP BOLT M12
17	P7943017	GEAR
18	P7943018	WORM GEAR
19	P7943019	RACK RING
20	P7943020	PIN-STOP
21	P7943021	SET SCREW M6-1 x 10
22	P7943022	FEED SHAFT
23	P7943023	DEPTH RING
23A-1	P7943023A-1	DEPTH STOP BRACKET V1
23A-2	P7943023A-2	SCALE V2.11.02
23A-3	P7943023A-3	THREADED DEPTH BAR
23A-4	P7943023A-4	RIGHT ANGLE BRACKET
24	P7943024	ROLL PIN 5 X 40

REF	PART #	DESCRIPTION
25	P7943025	HANDLE BODY
26	P7943026	HANDLE
27	P7943027	KNOB
28	P7943028	COLUMN W/ COLUMN SHOULDER
29	P7943029	SLIDE BAR BOLT M8 X 20
30	P7943030	SET SCREW M5-.8 X 10
32	P7943032	EXT RETAINING RING 15MM
33	P7943033	SHIFTER BAR
34	P7943034	SLIDE BAR BOLT M10 X 40
35	P7943035	HEX BOLT M8-1.25 X 24
36	P7943036	FLAT WASHER #8
37	P7943037	HEX NUT M8-1.25
38	P7943038	HEX NUT M10-1.25
39	P7943039	SPECIAL SET SCREW M10 x 25
40	P7943040	HEX NUT M12-1.5 THIN
41	P7943041	HEX NUT M12-1.5 THIN
42	P7943042	SPRING CAP
43	P7943043	SPRING-TORSION
44	P7943044	SPRING COVER
45	P7943045	SWITCH BOX
46	P7943046	PHLP HD SCR M5-.8 X 12
47	P7943047	SCREW 4.2 X 9
48	P7943048	PHLP HD SCR M5-.8 X 10
49	P7943049	CORD CLAMP
50	P7943050	BODY
51	P7943051	HEX BOLT M8-1.25 X 16
52	P7943052	SHIFTER



REF	PART #	DESCRIPTION
53	P7943053	SLIDE BAR
54	P7943054	SLIDE BAR
55	P7943055	MOTOR BASE
56	P7943056	FLAT WASHER 12MM
56A	P7943056A	LOCK WASHER 12MM
57	P7943057	HEX NUT M12-1.75
58	P7943058	MOTOR 3/4HP 110V 1PH
58-1	P7943058-1	CAPACITOR COVER
58-2	P7943058-2	CONNECTION BOX
58-3	P7943058-3	MOTOR COVER
58-4	P7943058-4	MOTOR FAN
58-5	P7943058-5	CAST IRON END BELL FOR MOTOR
58-6	P7943058-6	S CAPACITOR 200MFD 125VAC
59	P7943059	MOTOR PULLEY V2.02.99
60	P7943060	KEY 5 X 5 X 20
61	P7943061	SET SCREW M3-1 X 5
62	P7943062	V-BELT M24 3L240
63	P7943063	CENTER SHAFT
64	P7943064	BALL BEARING 6202ZZ
65	P7943065	BALL BEARING 6202ZZ
66	P7943066	EXT RETAINING RING 15MM
67	P7943067	CENTER PULLEY V2.02.99
68	P7943068	FLAT WASHER 6MM
68B	P794368B	FLAT WASHER 6MM
69	P7943069	PHLP HD SCR M6-1 X 10
70	P7943070	PHLP HD SCR M5-.8 X 15
71	P7943071	FLAT WASHER #6
72	P7943072	KNOB
73	P7943073	PULLEY COVER
74	P7943074	V-BELT A25
75	P7943075	PULLEY NUT
76	P7943076	SPINDLE PULLEY V2.02.99
77	P7943077	INSERT PULLEY V2.02.99
78	P7943078	INT RETAINING RING 62MM
79	P7943079	BALL BEARING 6205ZZ
80	P7943080	SPACER
81	P7943081	BALL BEARING 6205ZZ
82	P7943082	INT RETAINING RING 62MM

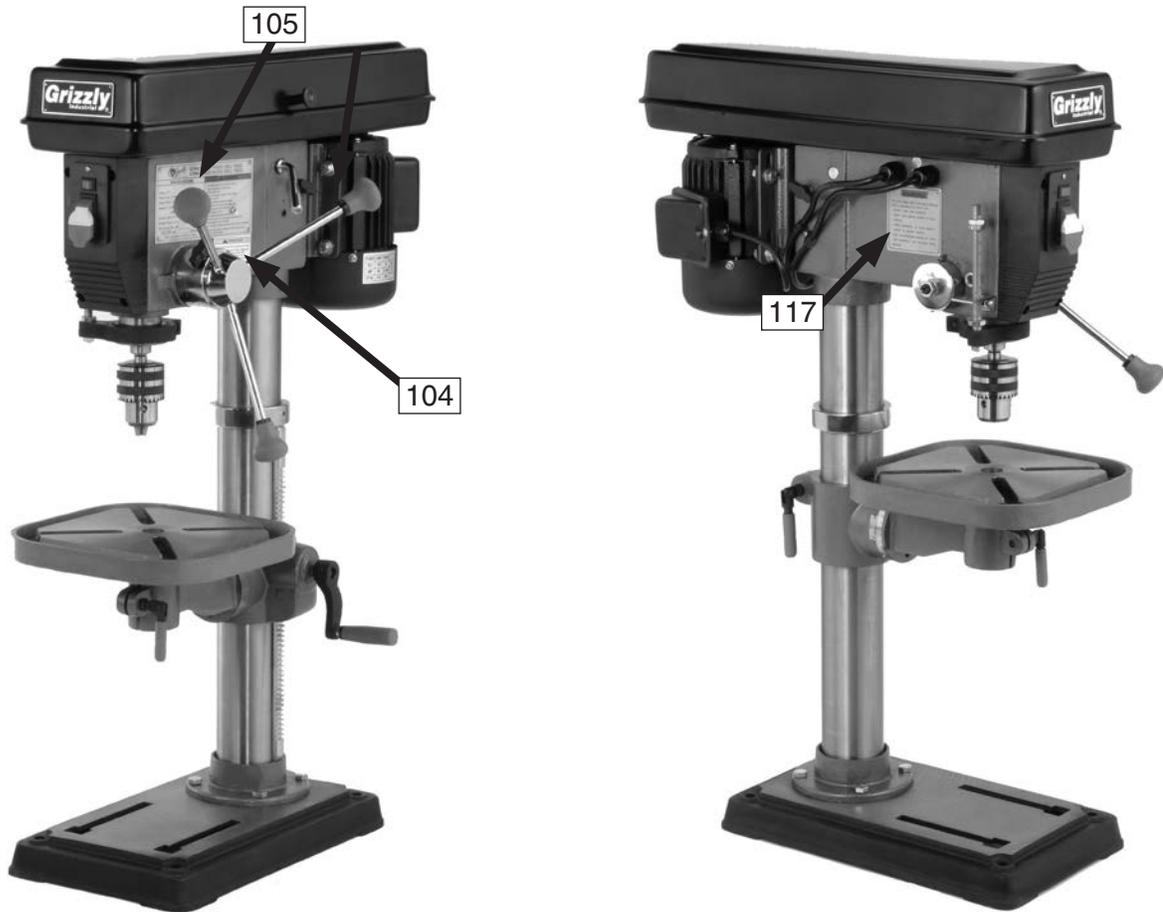
REF	PART #	DESCRIPTION
83	P7943083	ROUND NUT M17-1
84	P7943084	TAB WASHER
85	P7943085	BALL BEARING P6203Z
86	P7943086	RUBBER WASHER 62 X 50 X 2
87	P7943087	SPINDLE SLEEVE
88	P7943088	BALL BEARING 6205ZZ
89	P7943089	SPINDLE
90	P7943090	ARBOR
91	P7943091	CHUCK
92	P7943092	CHUCK KEY
93	P7943093	LIGHT BODY
94	P7943094	LIGHT BASE
94A	P7943094A	PHLP HD SCR M5-.8 x 20
95	P7943095	LIGHT SCREW (PLUG)
96	P7943096	SWITCH BASE
97	P7943097	SWITCH (LIGHT)
98	P7943098	PADDLE SWITCH 110/220V WITH KEY
98B	P7943098B	YELLOW SWITCH KEY
99	P7943099	INT RETAINING RING 38MM
100	P7943100	POWER CORD 16-GAUGE 3-WIRE 73"-LENGTH
100B	P7943100B	WIRE GASKET
100C	P7943100C	MOTOR CORD
101	P7943101	HEX WRENCH 5MM
102	P7943102	HEX WRENCH 3MM
103	P7943103	WEDGE SHIFTER
104	P7943104	LIGHT WARNING LABEL
105	P7943105	WARNING ID/LABEL
106	P7943106	SPEED CHART LABEL
107	P7943107	GRIZZLY BLACK/AL LABEL
110	P7943110	TABLE BOLT WRENCH
113	P7943113	ANGLE SCALE
114	P7943114	PHLP HD SCR M6-1 X 8
115	P7943115	CAP SCREW M8-1.25 X 20
116	P7943116	STRAIN RELIEF
117	P7943117	DRILL PRESS LABEL
118	P7943118	INDICATOR
119	P7943119	MOTOR LABEL
120	P7943120	CRANK LEVER



# Label Placement and Parts List

## WARNING

The safety labels on this machine warn and indicate how to protect the operator or bystander from machine hazards. The machine owner **MUST** maintain the original label location and readability. If a label is removed or becomes unreadable, **REPLACE** the label before using the machine. For new labels, contact Grizzly Industrial Inc. at (570) 546-9663 or [techsupport@grizzly.com](mailto:techsupport@grizzly.com).



REF	PART #	DESCRIPTION
104	P7943104	LIGHT WARNING LABEL
105	P7943105	WARNING ID/LABEL
117	P7943117	DRILL PRESS LABEL





# WARRANTY CARD

Name \_\_\_\_\_  
 Street \_\_\_\_\_  
 City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_  
 Phone # \_\_\_\_\_ Email \_\_\_\_\_  
 Model # \_\_\_\_\_ Order # \_\_\_\_\_ Serial # \_\_\_\_\_

The following information is given on a voluntary basis. It will be used for marketing purposes to help us develop better products and services. **Of course, all information is strictly confidential.**

1. How did you learn about us?

Advertisement                       Friend                       Catalog  
 Card Deck                                 Website                       Other:

2. Which of the following magazines do you subscribe to?

<input type="checkbox"/> Cabinetmaker & FDM	<input type="checkbox"/> Popular Science	<input type="checkbox"/> Wooden Boat
<input type="checkbox"/> Family Handyman	<input type="checkbox"/> Popular Woodworking	<input type="checkbox"/> Woodshop News
<input type="checkbox"/> Hand Loader	<input type="checkbox"/> Precision Shooter	<input type="checkbox"/> Woodsmith
<input type="checkbox"/> Handy	<input type="checkbox"/> Projects in Metal	<input type="checkbox"/> Woodwork
<input type="checkbox"/> Home Shop Machinist	<input type="checkbox"/> RC Modeler	<input type="checkbox"/> Woodworker West
<input type="checkbox"/> Journal of Light Cont.	<input type="checkbox"/> Rifle	<input type="checkbox"/> Woodworker's Journal
<input type="checkbox"/> Live Steam	<input type="checkbox"/> Shop Notes	<input type="checkbox"/> Other:
<input type="checkbox"/> Model Airplane News	<input type="checkbox"/> Shotgun News	
<input type="checkbox"/> Old House Journal	<input type="checkbox"/> Today's Homeowner	
<input type="checkbox"/> Popular Mechanics	<input type="checkbox"/> Wood	

3. What is your annual household income?

\$20,000-\$29,000                       \$30,000-\$39,000                       \$40,000-\$49,000  
 \$50,000-\$59,000                       \$60,000-\$69,000                       \$70,000+

4. What is your age group?

20-29     30-39     40-49  
 50-59     60-69     70+

5. How long have you been a woodworker/metalworker?

0-2 Years                       2-8 Years                       8-20 Years                       20+ Years

6. How many of your machines or tools are Grizzly?

0-2                       3-5                       6-9                       10+

7. Do you think your machine represents a good value?                       Yes                       No

8. Would you recommend Grizzly Industrial to a friend?                       Yes                       No

9. Would you allow us to use your name as a reference for Grizzly customers in your area?

**Note: We never use names more than 3 times.**                       Yes                       No

10. Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

CUT ALONG DOTTED LINE

FOLD ALONG DOTTED LINE

\_\_\_\_\_
\_\_\_\_\_
\_\_\_\_\_



Place Stamp Here



GRIZZLY INDUSTRIAL, INC.
P.O. BOX 2069
BELLINGHAM, WA 98227-2069



FOLD ALONG DOTTED LINE

Send a Grizzly Catalog to a friend:

Name \_\_\_\_\_
Street \_\_\_\_\_
City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

TAPE ALONG EDGES--PLEASE DO NOT STAPLE

# WARRANTY AND RETURNS

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Grizzly Industrial, Inc. warrants every product it sells for a period of **1 year** to the original purchaser from the date of purchase. This warranty does not apply to defects due directly or indirectly to misuse, abuse, negligence, accidents, repairs or alterations or lack of maintenance. This is Grizzly's sole written warranty and any and all warranties that may be implied by law, including any merchantability or fitness, for any particular purpose, are hereby limited to the duration of this written warranty. We do not warrant or represent that the merchandise complies with the provisions of any law or acts unless the manufacturer so warrants. In no event shall Grizzly's liability under this warranty exceed the purchase price paid for the product and any legal actions brought against Grizzly shall be tried in the State of Washington, County of Whatcom.

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 products.

To take advantage of this warranty, contact us by mail or phone and give us all the details. We will then issue you a "Return Number," which must be clearly posted on the outside as well as the inside of the carton. We will not accept any item back without this number. Proof of purchase must accompany the merchandise.

The manufacturers reserve the right to change specifications at any time because they constantly strive to achieve better quality equipment. We make every effort to ensure that our products meet high quality and durability standards and we hope you never need to use this warranty.

Please feel free to write or call us if you have any questions about the machine or the manual.

Thank you again for your business and continued support. We hope to serve you again soon.

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