

**16-1/2" (419 mm)  
Laser Crosshair Drill  
Press**

**Perceuse à colonne  
de 432 mm  
(16-1/2 po) avec  
laser à cible  
croisée**

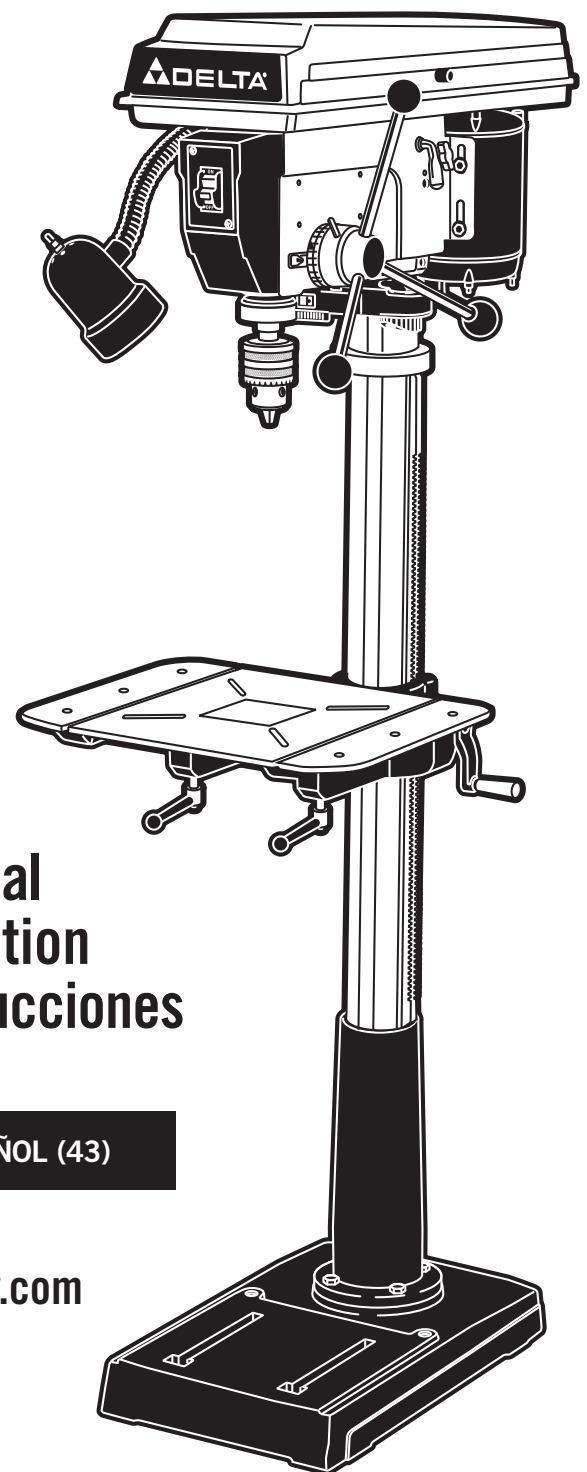
**Taladro de banco  
de 432 mm  
(16-1/2 pulg)  
con objetivo láser en  
cruz**

**Instruction Manual  
Manuel d'Utilisation  
Manual de Instrucciones**

**FRANÇAISE (23)    ESPAÑOL (43)**

**[www.deltamachinery.com](http://www.deltamachinery.com)**

**(800) 223-7278 - US  
(800) 463-3582 - CANADA**



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## IMPORTANT SAFETY INSTRUCTIONS

**⚠ WARNING** Read and understand all warnings and operating instructions before using any tool or equipment. When using tools or equipment, basic safety precautions should always be followed to reduce the risk of personal injury. Improper operation, maintenance or modification of tools or equipment could result in serious injury and property damage. There are certain applications for which tools and equipment are designed. Delta Machinery strongly recommends that this product NOT be modified and/or used for any application other than for which it was designed.

If you have any questions relative to its application DO NOT use the product until you have written Delta Machinery and we have advised you.

Online contact form at [www.deltamachinery.com](http://www.deltamachinery.com)

Postal Mail: Technical Service Manager  
Delta Machinery  
4825 Highway 45 North  
Jackson, TN 38305  
(IN CANADA: 125 Mural St. Suite 300, Richmond Hill, ON, L4B 1M4)

Information regarding the safe and proper operation of this tool is available from the following sources:

Power Tool Institute  
1300 Sumner Avenue, Cleveland, OH 44115-2851  
[www.powertoolinstitute.org](http://www.powertoolinstitute.org)

National Safety Council  
1121 Spring Lake Drive, Itasca, IL 60143-3201

American National Standards Institute, 25 West 43rd Street, 4 floor, New York, NY 10036 [www.ansi.org](http://www.ansi.org)  
ANSI 01.1 Safety Requirements for Woodworking Machines, and the U.S. Department of Labor regulations [www.osha.gov](http://www.osha.gov)

**SAVE THESE INSTRUCTIONS!**

# SAFETY GUIDELINES - DEFINITIONS

It is important for you to read and understand this manual. The information it contains relates to protecting YOUR SAFETY and PREVENTING PROBLEMS. The symbols below are used to help you recognize this information.



## ⚠ 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.

## CAUTION

Used without the safety alert symbol indicates potentially hazardous situation which, if not avoided, may result in property damage.

## CALIFORNIA PROPOSITION 65

**⚠ WARNING** Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:

- lead from lead-based paints,
- crystalline silica from bricks and cement and other masonry products, and
- 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, always wear NIOSH/OSHA approved, properly fitting face mask or respirator when using such tools.

# TOOL WARNING LABELS

⚠ WARNING	⚠ ADVERTENCIA	⚠ AVERTISSEMENT
<p><b>FOR YOUR OWN SAFETY. READ AND UNDERSTAND INSTRUCTION MANUAL BEFORE OPERATING DRILL PRESS. ALWAYS WEAR EYE PROTECTION AND WEAR PROPER RESPIRATORY PROTECTION. DO NOT WEAR GLOVES, NECKTIES, JEWELRY OR LOOSE CLOTHING. ALWAYS CLAMP WORKPIECE OR BRACE IT AGAINST COLUMN TO PREVENT ROTATION. KEEP HANDS AWAY FROM ROTATING BIT OR ACCESSORY. USE RECOMMENDED SPEED FOR THE DRILL AND WORKPIECE MATERIAL. BE SURE DRILL BIT OR CUTTING TOOL IS NOT DAMAGED AND PROPERLY LOCKED IN THE CHUCK BEFORE OPERATING. MAKE CERTAIN CHUCK KEY IS REMOVED BEFORE STARTING DRILL PRESS. DISCONNECT MACHINE FROM POWER SOURCE BEFORE MAKING REPAIRS OR ADJUSTMENTS. DO NOT EXPOSE TO RAIN OR USE IN DAMP LOCATIONS.</b></p>	<p><b>POR SU PROPIA SEGURIDAD. LEA Y COMPRENDA EL MANUAL DE INSTRUCCIONES ANTES DE UTILIZAR LA PRENSA DE TALADRO. SIEMPRE UTILICE PROTECCIÓN PARA LOS OJOS Y PROTECCIÓN APROPIADA PARA LA RESPIRACIÓN. NO USE GUANTES, CORBATAS, JOYAS NI ROPA HOLGADA. SIEMPRE SUJETE LA PIEZA DE TRABAJO CON ABRAZADERAS O AMÁRRELA CONTRA LA COLUMNA PARA EVITAR LA ROTACIÓN. MANTENGA LAS MANOS LEJOS DE LA BROCA O ACCESORIOS GIRATORIOS. USE LA VELOCIDAD RECOMENDADA PARA EL TALADRO Y EL MATERIAL DE LA PIEZA DE TRABAJO. ASEGÚRESE DE QUE LA BROCA DEL TALADRO O LA HERRAMIENTA DE CORTE NO ESTÉN DAÑADAS Y DE QUE ESTÉN CORRECTAMENTE BLOQUEADAS EN EL PORTABROCAS ANTES DE SU OPERACIÓN. ASEGÚRESE DE RETIRAR LA LLAVE DE PORTABROCAS ANTES DE ENCENDER LA PRENSA DE TALADRO. DESCONECTE LA MÁQUINA DE LA FUENTE DE ALIMENTACIÓN ANTES DE REALIZAR REPARACIONES O AJUSTES. NO EXPONGA A LA LLUVIA NI UTILICE EN LUGARES HÚMEDOS.</b></p>	<p><b>POUR VOTRE PROPRE SÉCURITÉ. BIEN LIRE ET COMPRENDRE LE MODE D'EMPLOI AVANT D'UTILISER LA PERCEUSE À COLONNE. TOUJOURS PORTER UNE PROTECTION OCULAIRE ET DES ARTICLES DE PROTECTION DES VOIES RESPIRATOIRES APPROPRIÉS. NE PAS PORTER DE GANTS, CRAVATES, BIJOUX OU VÊTEMENTS AMPLES. TOUJOURS FIXER LA PIÈCE OU BIEN LA CALER CONTRE LA COLONNE POUR EMPÊCHER UNE ROTATION. TENIR VOS MAINS ÉLOIGNÉES DE LA MÈCHE ROTATIVE OU ACCESSOIRE. UTILISER LA VITESSE RECOMMANDÉE POUR LA PERCEUSE ET LE MATÉRIEL DE LA PIÈCE À PERCER. S'ASSURER QUE LA MÈCHE OU L'ORGANE DE COUPE N'EST PAS ENDOMMAGÉ ET QU'IL EST BIEN VERROUILLÉ DANS LE MANDRIN AVANT SON UTILISATION. S'ASSURER DE RETIRER LA CLÉ DU MANDRIN AVANT DE DÉMARRER LA PERCEUSE DE COLONNE. DÉBRANCHER LA MACHINE DE LA SOURCE D'ALIMENTATION AVANT D'EFFECTUER DES RÉPARATIONS OU DES RÉGLAGES. NE PAS L'EXPOSER À LA PLUIE ET NE PAS L'UTILISER DANS UN ENDROIT HUMIDE.</b></p>
<p><b>⚠ WARNING</b> To reduce the risk of fire, use 40-watt or less Track Light Bulb.</p>	<p><b>⚠ ADVERTENCIA</b> Para reducir el riesgo de incendio, use bombillas de luz en riel de 40 vatios o menos.</p>	<p><b>⚠ AVERTISSEMENT</b> Pour réduire le risque d'incendie, utiliser une ampoule incandescente de 40 watts ou moins.</p>

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# GENERAL SAFETY RULES



**⚠ WARNING RISK OF UNSAFE OPERATION.** Read and understand all warnings and operating instructions before using this equipment. Failure to follow all instructions listed below, may result in electric shock, fire, and/or serious personal injury or property damage.

## IMPORTANT SAFETY INSTRUCTIONS

- FOR YOUR OWN SAFETY, READ THE INSTRUCTION MANUAL BEFORE OPERATING THE MACHINE.** Learning the machine's application, limitations, and specific hazards will greatly minimize the possibility of accidents and injury.
- WEAR EYE AND HEARING PROTECTION. ALWAYS USE SAFETY GLASSES.** Everyday eyeglasses are NOT safety glasses. USE CERTIFIED SAFETY EQUIPMENT. Eye protection equipment should comply with ANSI Z87.1 standards. Hearing equipment should comply with ANSI S3.19 standards.
- WEAR PROPER APPAREL.** Do not wear loose clothing, gloves, neckties, rings, bracelets, or other jewelry which may get caught in moving parts. Nonslip protective footwear is recommended. Wear protective hair covering to contain long hair.
- DO NOT USE THE MACHINE IN A DANGEROUS ENVIRONMENT.** The use of power tools in damp or wet locations or in rain can cause shock or electrocution. Keep your work area well-lit to prevent tripping or placing arms, hands, and fingers in danger.
- MAINTAIN ALL TOOLS AND MACHINES IN PEAK CONDITION.** Keep tools sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories. Poorly maintained tools and machines can further damage the tool or machine and/or cause injury.
- CHECK FOR DAMAGED PARTS.** Before using the machine, check for any damaged parts. Check for alignment of moving parts, binding of moving parts, breakage of parts, and any other conditions that may affect its operation. A guard or any other part that is damaged **should be properly repaired or replaced with Delta or factory authorized replacement parts.** Damaged parts can cause further damage to the machine and/or injury.
- KEEP THE WORK AREA CLEAN.** Cluttered areas and benches invite accidents.
- KEEP CHILDREN AND VISITORS AWAY.** Your shop is a potentially dangerous environment. Children and visitors can be injured.
- REDUCE THE RISK OF UNINTENTIONAL STARTING.** Make sure that the switch is in the "OFF" position before plugging in the power cord. In the event of a power failure, move the switch to the "OFF" position. An accidental start-up can cause injury. Do not touch the plug's metal prongs when unplugging or plugging in the cord.
- USE THE GUARDS.** Check to see that all guards are in place, secured, and working correctly to prevent injury.
- REMOVE ADJUSTING KEYS AND WRENCHES BEFORE STARTING THE MACHINE.** Tools, scrap pieces, and other debris can be thrown at high speed, causing injury.
- USE THE RIGHT MACHINE.** Don't force a machine or an attachment to do a job for which it was not designed. Damage to the machine and/or injury may result.
- USE RECOMMENDED ACCESSORIES.** The use of accessories and attachments not recommended by Delta may cause damage to the machine or injury to the user.
- USE THE PROPER EXTENSION CORD.** Make sure your extension cord is in good condition. When using an extension cord, be sure to use one heavy enough to carry the current your product will draw. An undersized cord will cause a drop in line voltage, resulting in loss of power and overheating. See the Extension Cord Chart for the correct size depending on the cord length and nameplate ampere rating. If in doubt, use the next heavier gauge. The smaller the gauge number, the heavier the cord.
- SECURE THE WORKPIECE.** Use clamps or a vise to hold the workpiece when practical. Loss of control of a workpiece can cause injury.
- FEED THE WORKPIECE AGAINST THE DIRECTION OF THE ROTATION OF THE BLADE, CUTTER, OR ABRASIVE SURFACE.** Feeding it from the other direction will cause the workpiece to be thrown out at high speed.
- DON'T FORCE THE WORKPIECE ON THE MACHINE.** Damage to the machine and/or injury may result.
- DON'T OVERREACH.** Loss of balance can make you fall into a working machine, causing injury.
- NEVER STAND ON THE MACHINE.** Injury could occur if the tool tips, or if you accidentally contact the cutting tool.
- NEVER LEAVE THE MACHINE RUNNING UNATTENDED. TURN THE POWER OFF.** Don't leave the machine until it comes to a complete stop. A child or visitor could be injured.
- TURN THE MACHINE "OFF", AND DISCONNECT THE MACHINE FROM THE POWER SOURCE** before installing or removing accessories, changing cutters, adjusting or changing set-ups. When making repairs, be sure to lock the start switch in the "OFF" position. An accidental start-up can cause injury.
- MAKE YOUR WORKSHOP CHILDPROOF WITH PADLOCKS, MASTER SWITCHES, OR BY REMOVING STARTER KEYS.** The accidental start-up of a machine by a child or visitor could cause injury.
- STAY ALERT, WATCH WHAT YOU ARE DOING, AND USE COMMON SENSE. DO NOT USE THE MACHINE WHEN YOU ARE TIRED OR UNDER THE INFLUENCE OF DRUGS, ALCOHOL, OR MEDICATION.** A moment of inattention while operating power tools may result in injury.
- ⚠ WARNING USE OF THIS TOOL CAN GENERATE AND DISBURSE DUST OR OTHER AIRBORNE PARTICLES, INCLUDING WOOD DUST, CRYSTALLINE SILICA DUST AND ASBESTOS DUST.** Direct particles away from face and body. Always operate tool in well ventilated area and provide for proper dust removal. Use dust collection system wherever possible. Exposure to the dust may cause serious and permanent respiratory or other injury, including silicosis (a serious lung disease), cancer, and death. Avoid breathing the dust, and avoid prolonged contact with dust. Allowing dust to get into your mouth or eyes, or lay on your skin may promote absorption of harmful material. Always use properly fitting NIOSH/OSHA approved respiratory protection appropriate for the dust exposure, and wash exposed areas with soap and water.

# ADDITIONAL SPECIFIC SAFETY RULES

**▲WARNING** RISK OF UNSAFE OPERATION. Failure to follow these rules may result in serious injury.

1. **DO NOT OPERATE THIS MACHINE** until it is completely assembled and installed according to the instructions. A machine incorrectly assembled can cause serious injury.
2. **OBTAIN ADVICE** from your supervisor, instructor, or another qualified person if you are not thoroughly familiar with the operation of this machine. Knowledge is safety.
3. **FOLLOW ALL WIRING CODES** and recommended electrical connections to prevent shock or electrocution.
4. **SECURE THE MACHINE TO A SUPPORTING SURFACE.** Vibration can cause the machine to slide, walk, or tip over.
5. **NEVER START THE MACHINE BEFORE CLEARING THE TABLE OF ALL OBJECTS** (tools, scrap pieces, etc.). Debris can be thrown at high speed.
6. **NEVER START THE MACHINE** with the drill bit, cutting tool, or sanding drum against the workpiece. Loss of control of the workpiece can cause serious injury.
7. **PROPERLY LOCK THE DRILL BIT, CUTTING TOOL, OR SANDING DRUM IN THE CHUCK** before operating this machine.
8. **REMOVE THE CHUCK KEY BEFORE STARTING THE MACHINE.** The chuck key can be thrown out at a high speed.
9. **TIGHTEN ALL LOCK HANDLES** before starting the machine. Loss of control of the workpiece can cause serious injury.
10. **USE ONLY DRILL BITS, CUTTING TOOLS, SANDING DRUMS, OR OTHER ACCESSORIES** with shank size recommended in your instruction manual. The wrong size accessory can cause damage to the machine and/or serious injury.
11. **USE ONLY DRILL BITS, CUTTING TOOLS, OR SANDING DRUMS** that are not damaged. Damaged items can cause malfunctions that lead to injuries.
12. **USE RECOMMENDED SPEEDS** for all operations. Other speeds may cause the machine to malfunction causing damage to the machine and/or serious injury.
13. **AVOID AWKWARD OPERATIONS AND HAND POSITIONS.** A sudden slip could cause a hand to move into the bit.
14. **KEEP ARMS, HANDS, AND FINGERS** away from the bit. Serious injury to the hand can occur.
15. **HOLD THE WORKPIECE FIRMLY AGAINST THE TABLE.** Do not attempt to drill a workpiece that does not have a flat surface against the table, or that is not secured by a vise. Prevent the workpiece from rotating by clamping it to the table or by securing it against the drill press column. Loss of control of the workpiece can cause serious injury.
16. **TURN THE MACHINE “OFF” AND WAIT FOR THE DRILL BIT, CUTTING TOOL, OR SANDING DRUM TO STOP TURNING** prior to cleaning the work area, removing debris, removing or securing work-piece, or changing the angle of the table. A moving drill bit, cutting tool, or sanding drum can cause serious injury.
17. **PROPERLY SUPPORT LONG OR WIDE** work-pieces. Loss of control of the workpiece can cause severe injury.
18. **NEVER PERFORM LAYOUT, ASSEMBLY OR SET-UP WORK** on the table/work area when the machine is running. Serious injury can result.
19. **TURN THE MACHINE “OFF”,** disconnect the machine from the power source, and clean the table/work area before leaving the machine. **LOCK THE SWITCH IN THE “OFF” POSITION** to prevent unauthorized use. Someone else might accidentally start the machine and cause serious injury to themselves.
20. **ADDITIONAL INFORMATION** regarding the safe and proper operation of power tools (i.e. a safety video) is available from the Power Tool Institute, 1300 Sumner Avenue, Cleveland, OH 44115-2851 ([www.powertoolinstitute.com](http://www.powertoolinstitute.com)). Information is also available from the National Safety Council, 1121 Spring Lake Drive, Itasca, IL 60143-3201. Please refer to the American National Standards Institute ANSI 01.1 Safety Requirements for Woodworking Machines and the U.S. Department of Labor OSHA 1910.213 Regulations.

## SAVE THESE INSTRUCTIONS.

Refer to them often  
and use them to instruct others.

# ADDITIONAL SAFETY RULES FOR THE LASER

**⚠ DANGER** FAILURE TO FOLLOW THESE RULES MAY RESULT IN SERIOUS INJURY.

**⚠ DANGER** EYE INJURY - LASER LIGHT

- \* Do not stare into beam aperture, or into a reflection from a mirror-like surface
- \* Do not use optical tools such as a telescope or transit to view the laser beam

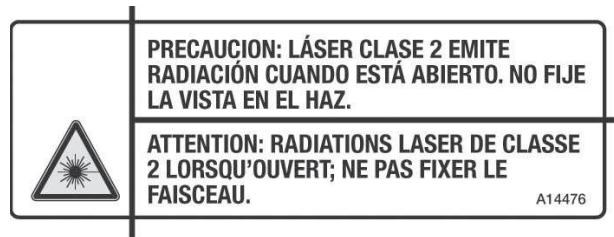
**⚠ WARNING** EYE INJURY - LASER LIGHT

- \* Do not operate the laser around children or allow children to operate the laser.
- \* Store idle laser out of reach of children and other untrained persons
- \* Turn the laser off when it is not in use
- \* Do not disassemble laser module. The class II laser output could be exceeded if the unit is disassembled. Laser complies with 21 CFR 1040.10 and 1040.11.

**⚠ WARNING** USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

**⚠ WARNING** EXPLOSION HAZARD. Do not operate the laser or drill press in explosive atmospheres such as in the presence of flammable liquids, gases, or dust. A spark could ignite the dust or fumes.

NOTE: Do not remove or deface warning labels.



## POWER CONNECTIONS

A separate electrical circuit should be used for your machines. This circuit should not be less than #12 wire and should be protected with a 20 Amp time lag fuse. If an extension cord is used, use only 3-wire extension cords which have 3-prong grounding type plugs and matching receptacle which will accept the machine's plug. Before connecting the machine to the power line, make sure the switch (s) is in the "OFF" position and be sure that the electric current is of the same characteristics as indicated on the machine. All line connections should make good contact. Running on low voltage will damage the machine.

**⚠ DANGER** Electrocutation hazard. Do not expose the machine to rain or operate the machine in damp locations.

## MOTOR SPECIFICATIONS

Your machine is wired for 120 Volts 60 HZ alternating current. Before connecting the machine to the power source, make sure the switch is in the "OFF" position.

## GROUNDING INSTRUCTIONS

**⚠ DANGER** Electrocutation hazard. This machine must be grounded while in use to protect the operator from electric shock.

### 1. All grounded, cord-connected machines:

In the event of a malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This machine is equipped with an electric cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into a matching outlet that is properly installed and grounded in accordance with all local codes and ordinances.

Do not modify the plug provided - if it will not fit the outlet, have the proper outlet installed by a qualified electrician.

Improper connection of the equipment-grounding conductor can result in risk of electric shock. The conductor with insulation having an outer surface that is green with or without yellow stripes is the equipment-grounding conductor. If repair or replacement of the electric cord or plug is necessary, do not connect the equipment-grounding conductor to a live terminal.

Check with a qualified electrician or service personnel if the grounding instructions are not completely understood, or if in doubt as to whether the machine is properly grounded.

Use only 3-wire extension cords that have 3-prong grounding type plugs and matching 3-conductor receptacles that accept the machine's plug, as shown in Fig. A.

Repair or replace damaged or worn cord immediately.

### 2. Grounded, cord-connected machines intended for use on a supply circuit having a nominal rating less than 150 volts:

If the machine is intended for use on a circuit that has an outlet that looks like the one illustrated in Fig. A, the machine will have a grounding plug that looks like the plug illustrated in Fig. A. A temporary adapter, which looks like the adapter illustrated in Fig. B, may be used to connect this plug to a matching 2-conductor receptacle as shown in Fig. B if a properly grounded outlet is not available. The temporary adapter should be used only until a properly grounded outlet can be installed by a qualified electrician. The green-colored rigid ear, lug, and the like, extending from the adapter must be connected to a permanent ground such as a properly grounded outlet box. Whenever the adapter is used, it must be held in place with a metal screw.

**NOTE:** In Canada, the use of a temporary adapter is not permitted by the Canadian Electric Code.

**⚠ DANGER** Electrocutation hazard. In all cases, make certain that the receptacle in question is properly grounded. If you are not sure, have a qualified electrician check the receptacle.

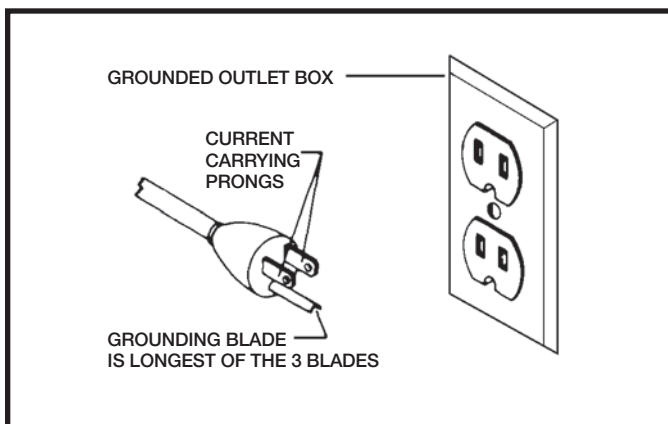


Fig. A

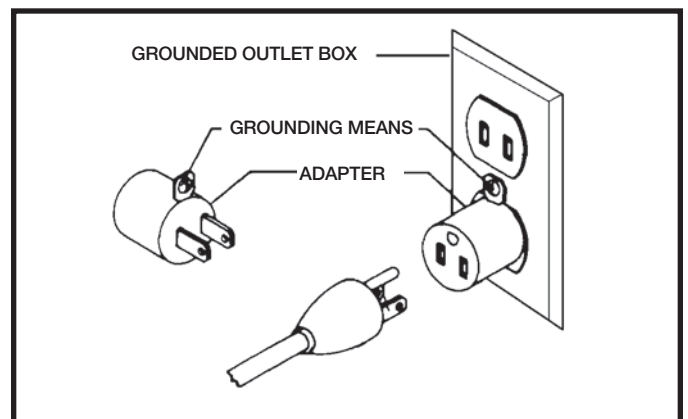


Fig. B

## EXTENSION CORDS

**⚠ WARNING** Use proper extension cords. Improper cord gauge can cause overheating. Make sure your extension cord is in good condition and is a 3-wire extension cord which has a 3-prong grounding type plug and matching receptacle which will accept the machine's plug. When using an extension cord, be sure to use one heavy enough to carry the current of the machine. An undersized cord will cause a drop in line voltage, resulting in loss of power and overheating. Fig. D-1 shows the correct gauge to use depending on the cord length. If in doubt, use the next heavier gauge. The smaller the gauge number, the heavier the cord.

<b>MINIMUM GAUGE EXTENSION CORD</b>			
RECOMMENDED SIZES FOR USE WITH STATIONARY ELECTRIC MACHINES			
<b>Ampere Rating</b>	<b>Volts</b>	<b>Total Length of Cord in Feet</b>	<b>Gauge of Extension Cord</b>
0-6	120	up to 25	18 AWG
0-6	120	25-50	16 AWG
0-6	120	50-100	16 AWG
0-6	120	100-150	14 AWG
6-10	120	up to 25	18 AWG
6-10	120	25-50	16 AWG
6-10	120	50-100	14 AWG
6-10	120	100-150	12 AWG
10-12	120	up to 25	16 AWG
10-12	120	25-50	16 AWG
10-12	120	50-100	14 AWG
10-12	120	100-150	12 AWG
12-16	120	up to 25	14 AWG
12-16	120	25-50	12 AWG
12-16	120	GREATER THAN 50 FEET NOT RECOMMENDED	

Fig. D-1

## FUNCTIONAL DESCRIPTION

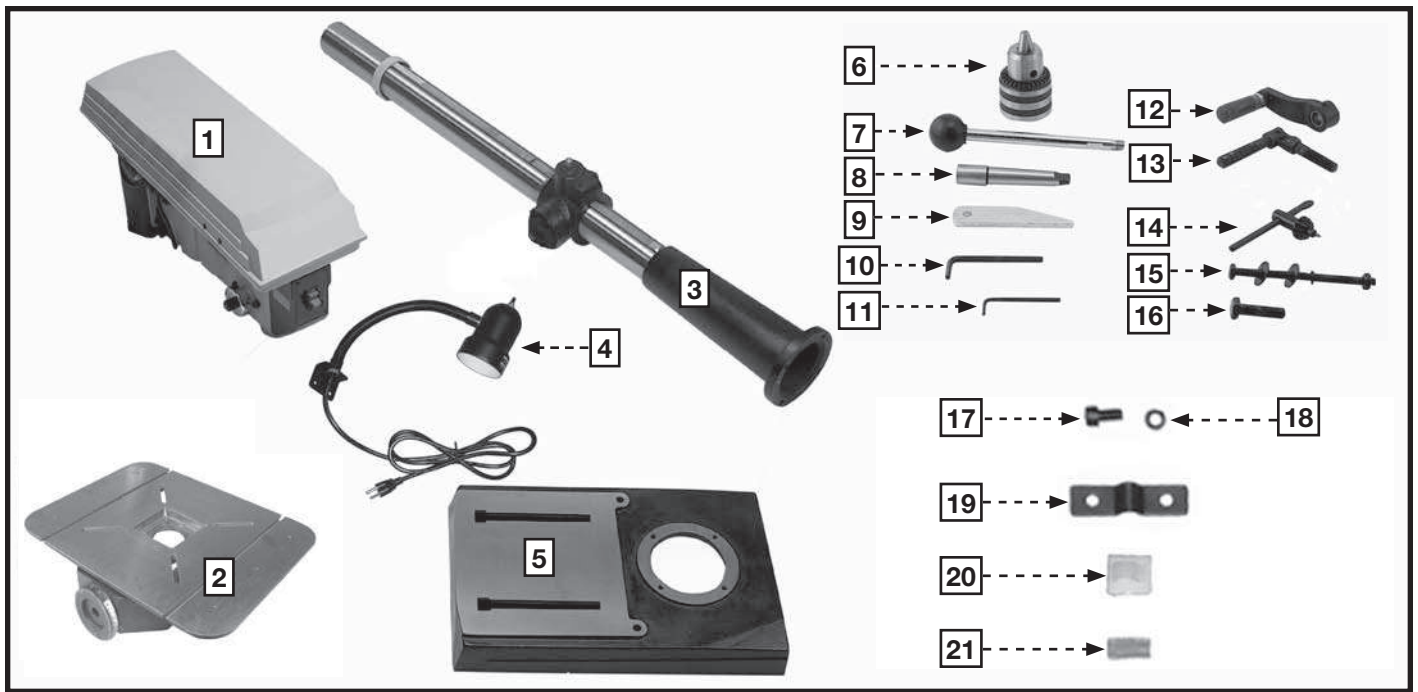
### FOREWORD

The Delta 17-950L drill press is a 16-1/2" drill press with a laser guide and a large woodworker's table (14x18 inches). The table can tilt forward and side to side and comes with T-slots for use with many drill press accessories. The 17-950L also comes with a 120V, 1/2 H.P. induction motor and a flexible lamp. This drill press has a 5/8" capacity chuck and a 3 7/8" stroke. There are 12 speed options, ranging from 250 rpm to 3000 rpm for optimum drilling performance in a variety of materials.

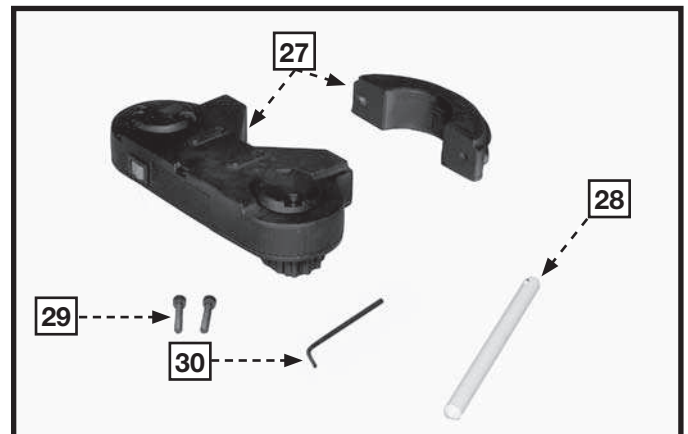
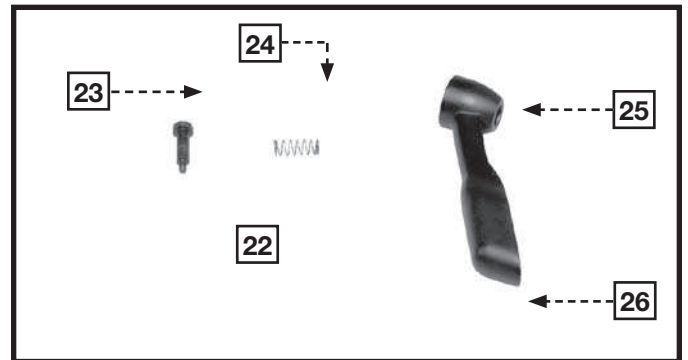
**NOTICE:** The photo on the manual cover illustrates the current production model. All other illustrations contained in the manual are representative only and may not depict the actual labeling or accessories included. These are intended to illustrate technique only.



# CARTON CONTENTS



1. Drill Press Head
2. Table
3. Table Bracket and Column
4. Light
5. Base
6. Chuck
7. Handle (3)
8. Spindle Adapter
9. Drift Key
10. 5mm Hex Wrench
11. 3mm Hex Wrench
12. Table Raising and Lowering Handle
13. Table Clamp Handle
14. Chuck Key
15. (2) M8x1.25x125mm carriage head screws, (4) flat washers, (2) lockwashers, and (2) hex nuts (for fastening drill press to a supporting surface)
16. M10x1.5x40mm Hex Head Screws (4)
17. M6x1x12mm Hex Cap Head Screw (2)
18. 1/4" Washer
19. Cord Strain Relief
20. Cord Clamp (2)
21. Cord Bushing
22. Table insert
23. Screws (2)
24. Springs (2)
25. Forward tilt levers
26. Screws (2)
27. Laser
28. Laser Alignment Rod
29. Hex Head Cap Screws (2)
30. 4mm Hex Wrench
31. 14mm Hex Wrench (Not Shown)



## UNPACKING AND CLEANING

Carefully unpack the machine and all loose items from the shipping container(s). Remove the rust-preventative oil from unpainted surfaces using a soft cloth moistened with mineral spirits, paint thinner or denatured alcohol.

**CAUTION FIRE HAZARD.** Do not use highly volatile solvents such as gasoline, naphtha, acetone or lacquer thinner for cleaning your machine. Such materials can easily catch fire. After cleaning, cover the unpainted surfaces with a good quality household floor paste wax.

# ASSEMBLY

**⚠ WARNING RISK OF UNSAFE OPERATION.** For your own safety, do not connect the machine to the power source until the machine is completely assembled and you read and understand the entire instruction manual.

## ASSEMBLY TOOLS REQUIRED

3mm and 5mm hex wrench (supplied)  
10mm, 17mm, 24mm open end or socket wrenches (not supplied)

## ASSEMBLY TIME ESTIMATE

Assembly for this machine takes approximately 30 minutes to 1 hour.

1. If you plan to use your drill press in a permanent location, you must secure the drill press base to the supporting surface with fasteners through the two mounting holes (A) Fig. 3 in the drill press base.

**⚠ WARNING RISK OF UNSAFE OPERATION.** If you do not fasten your drill press in a permanent manner, you must fasten the drill press to a plywood mounting board to prevent the drill press from tipping over during normal use.

**⚠ WARNING RISK OF UNSAFE OPERATION.** Use a good grade of plywood with a minimum 3/4" thickness. Do not make the mounting board from particle board since particle board breaks easily.

2. Use a plywood board base with the minimum dimensions as shown in Fig. 4 for mounting the drill press base to a supporting surface.
3. Place the drill press base (D) Fig. 5 centered on the supporting surface (E).

**⚠ WARNING RISK OF UNSAFE OPERATION.** Make sure that the plywood extends a minimum of 3" on all four sides of the base as shown in Fig. 5.

4. Drill two 3/8" diameter holes through the holes (A) Fig. 3 in the drill press base, and in the supporting surface (E) Fig. 5.

**NOTE:** Place a piece of scrap wood underneath the supporting surface when drilling the through holes so that the drill bit will not damage the material beneath the supporting surface.

5. Fasten the drill press base to the mounting board using the carriage bolts, flat washers, lockwashers, and hex nuts (C) Fig. 4 furnished with your drill press. Countersink the holes for the carriage bolt heads and flat washers under the board so that the bolt heads are flush with or below the bottom surface of the board. Use a flat washer, lock washer, and hex nut above the drill press base as shown at (F) Fig. 5.

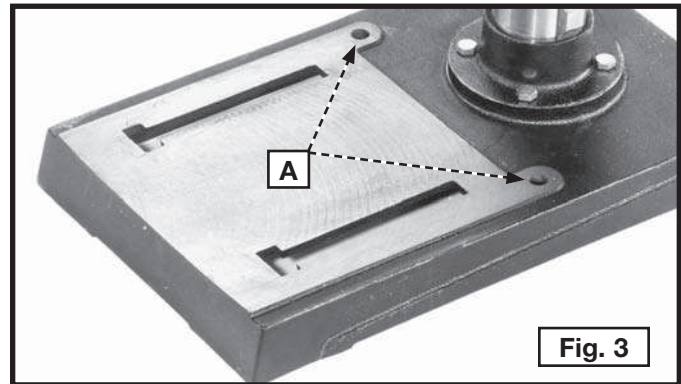


Fig. 3

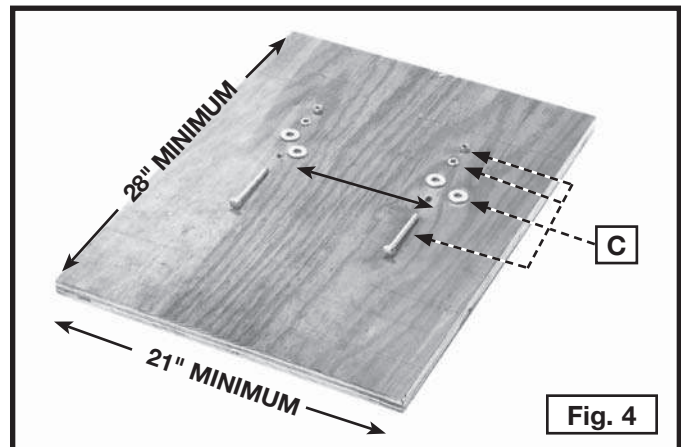


Fig. 4

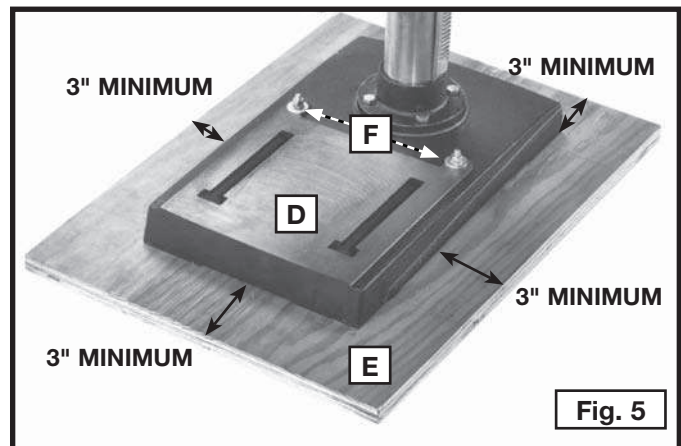
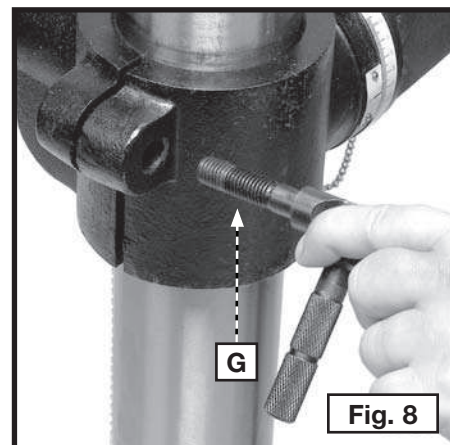
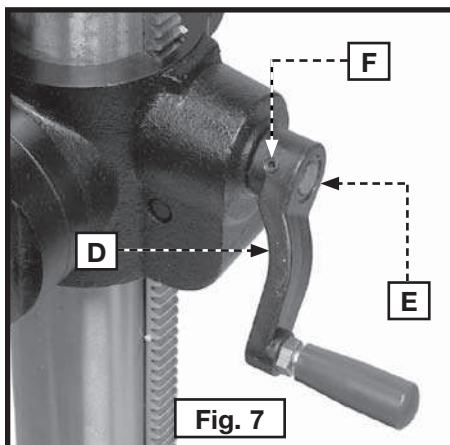
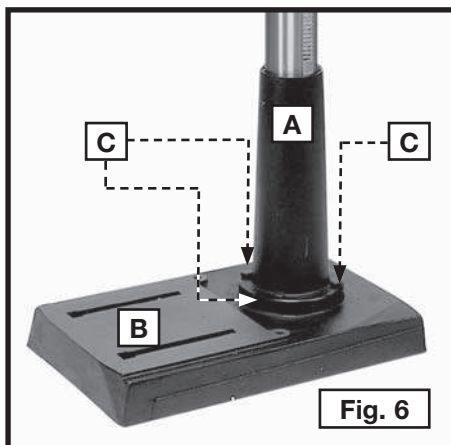


Fig. 5

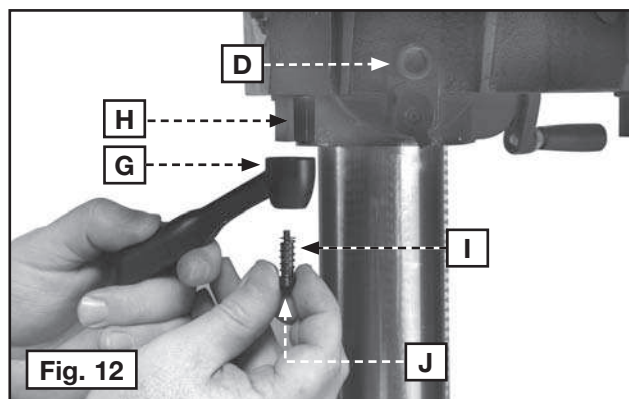
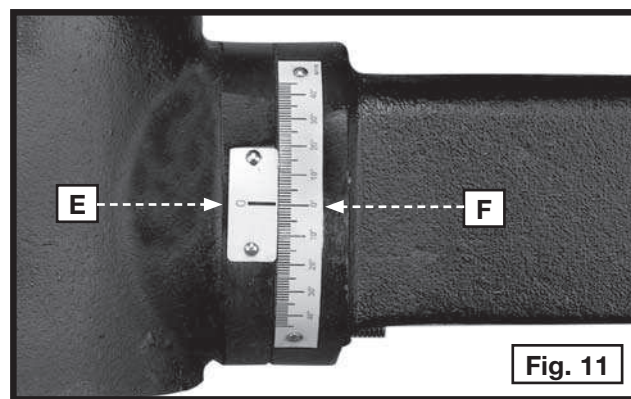
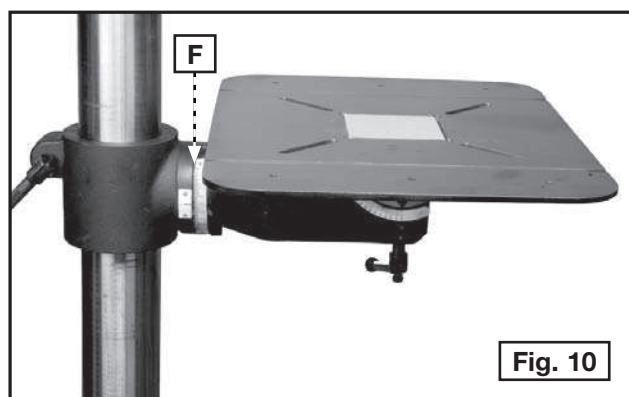
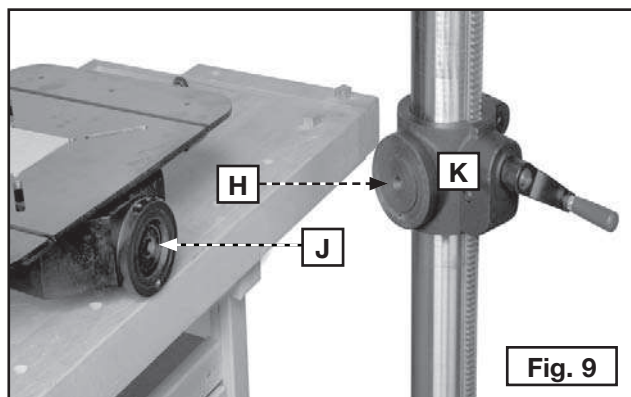
**⚠ WARNING RISK OF UNSAFE OPERATION.** You must secure the plywood base to the floor or supporting surface if the drill press has any tendency to vibrate, slide, or walk during normal operation.

6. Attach the column (A) Fig. 6 to the base (B) using the four M10x40mm hex head screws (C), three of which are shown.
7. Attach the table adjusting handle (D) Fig. 7 to the worm gear shaft (E). Tighten the screw (F) against the flat on the shaft with the 3mm wrench supplied.
8. Thread the table clamp handle (G) Fig. 8 in the hole in rear of table bracket.



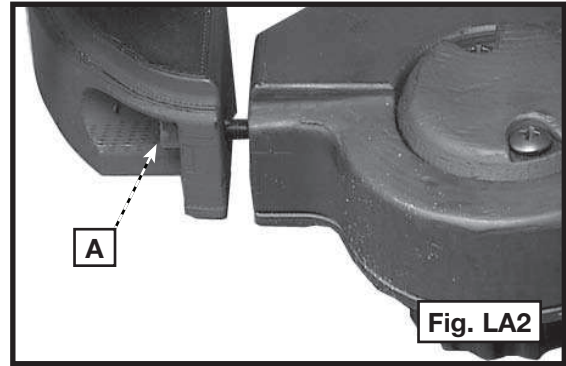
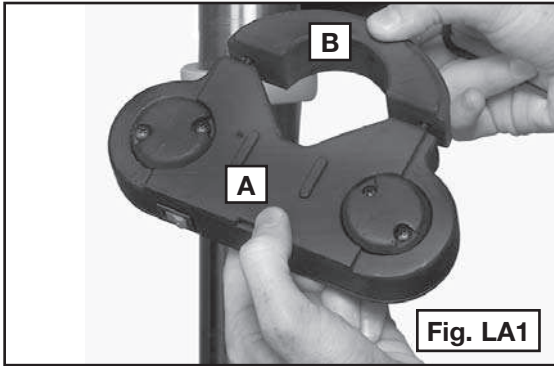
**⚠ WARNING LIFTING HAZARD.** The drill press table is heavy. Two people may be needed to attach it to the drill press column.

9. To attach the table to the knuckle, align the pilot face (H) Fig. 9 of the knuckle (K) with the table support (J) before tightening the table bolt (D) Fig. 10A with the 14mm hex wrench.
10. Check the scale (F) Fig. 9. Ensure the hairline pointer (E) Fig. 10 on the knuckle lines up with zero (0) on the scale (F) on the table support.
11. To attach the forward tilt locking lever (G) Fig. 10A, place the lever on the trunnion clamp nut (H).
12. Place the spring (I) on the slotted screw (J). Insert the screw into the lever and trunnion clamp nut.
13. Tighten the screw (J) until it bottoms. The lever should move up and down on the screw.

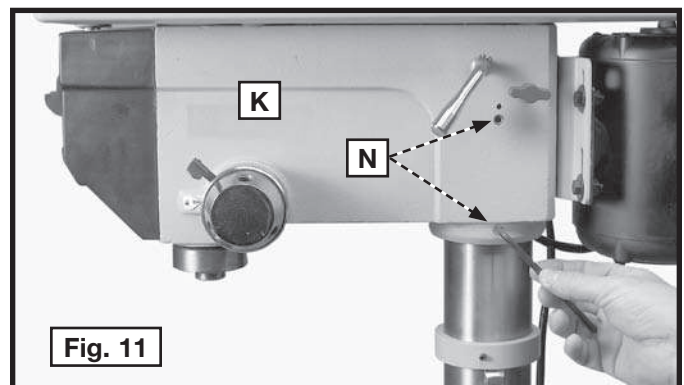
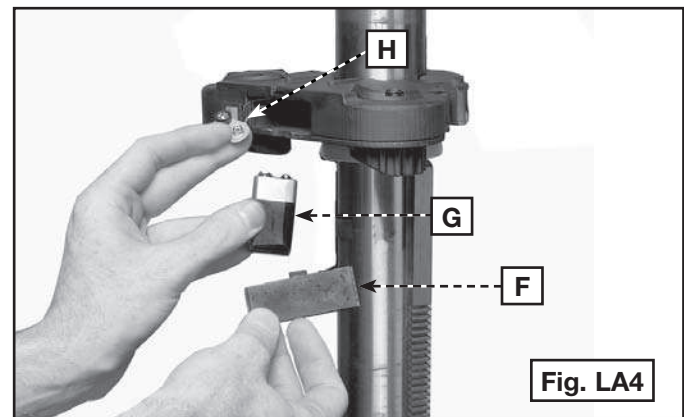
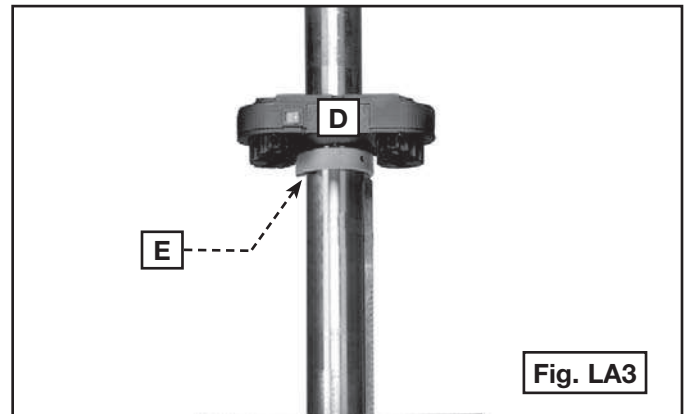


**⚠ WARNING EYE INJURY - LASER LIGHT. Do not stare into the laser beam or aperture or into a reflection from a mirror-like surface.**

14. Use the two socket head cap screws (C) Fig. LA2 included in laser packaging and the supplied 4mm hex wrench to attach the front laser housing (A) Fig. LA1 to the rear laser housing (B) loosely.



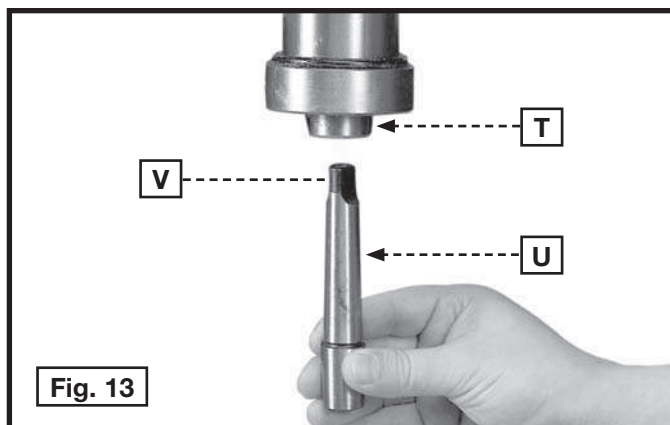
15. Place this laser housing assembly on the drill press column (D) Fig. LA3. Rest it on the collar (E) Fig. LA3.
16. Tighten the screws (C) Fig. LA2, making sure that one laser is positioned on each side of the column (D), (Fig. LA3).
17. Remove the battery cover (F) Fig. LA4 from the laser housing.
18. Connect a 9-volt battery (G) (not included) to the battery terminal (H).
19. Place the battery in the compartment (I). Replace the cover.
20. Place the drill press head (K) Fig. 11 on the column as far as it will go. Align the head (K) Fig. 12 with the table (L) Fig. 12 and base (M) Fig. 12. Tighten the two head-locking screws (N) Fig. 11 with the 5mm wrench supplied.



**IMPORTANT:** Make certain that the tapered hole in the bottom of spindle (T) Fig. 13, and the taper on the spindle adapter (U) are clean and free of grease, lacquer, or rust-preventive coatings.

**NOTE:** Household oven cleaner can effectively remove these coatings from the spindle and spindle adapter. However, carefully follow the manufacturer's safety rules regarding its use.

21. Push the spindle adapter (U) Fig. 13 into the spindle (T), making certain that the tang (V) engages the mating slot inside the spindle (T).

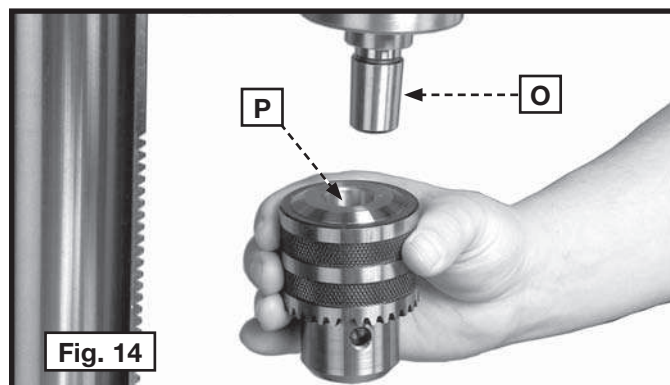


**CAUTION** **RISK OF PROPERTY DAMAGE.** To avoid damage to the laser, prevent contact of the laser pod with a cleaning solution. You can clean the laser pod with a dry cotton cloth.

**IMPORTANT:** Make certain the spindle taper (O) Fig. 14, and tapered hole in chuck (P) are clean and free of any grease, lacquer or rust preventive coatings.

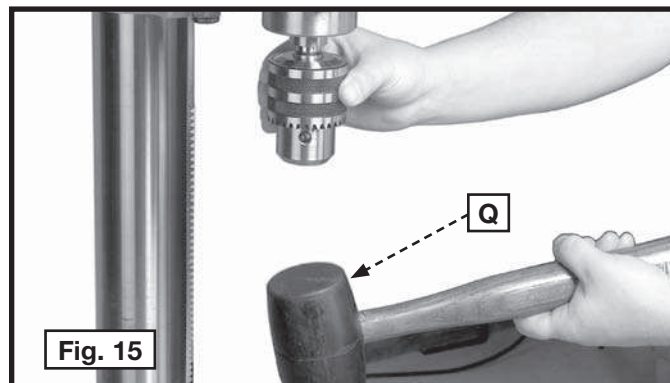
**NOTE:** Household oven cleaner can effectively remove any substance from the chuck. However, carefully follow the manufacturer's safety rules concerning its use.

**IMPORTANT:** Open the chuck jaws as wide as possible, making sure that the chuck jaws are inside the chuck.

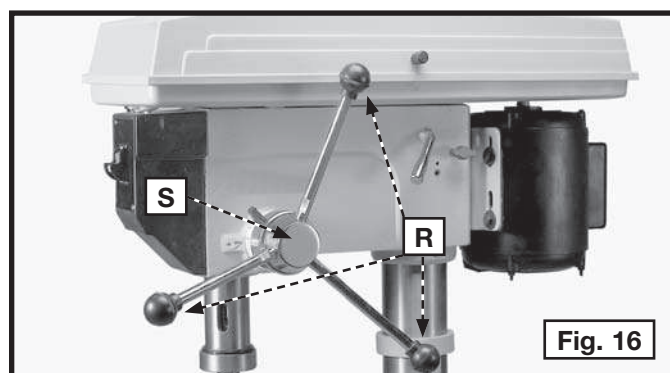


22. Holding chuck on taper of spindle, tap with a soft tip hammer (Q) or a block of wood and hammer to set chuck, as shown in Fig. 15.

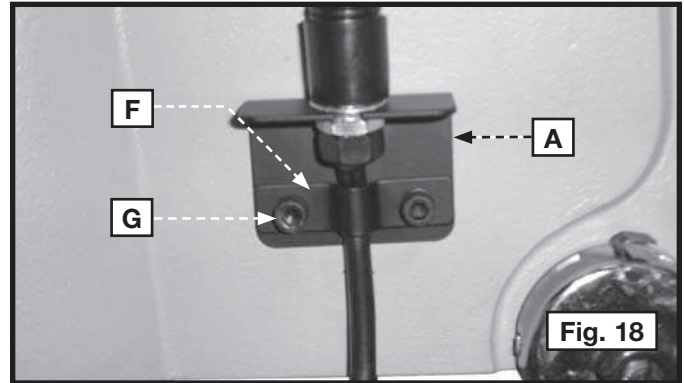
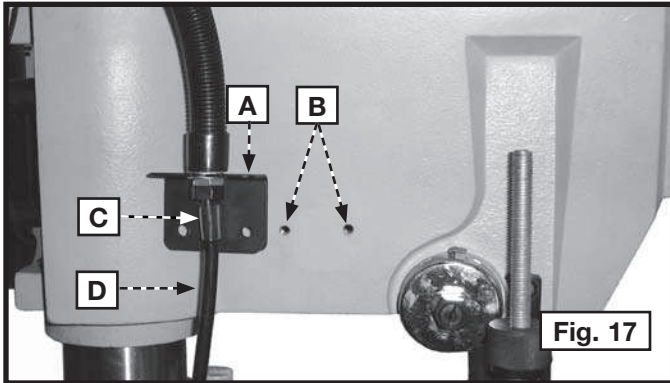
**CAUTION** **RISK OF PROPERTY DAMAGE.** To avoid damage to the chuck, NEVER drive the chuck on the spindle with a metal hammer.



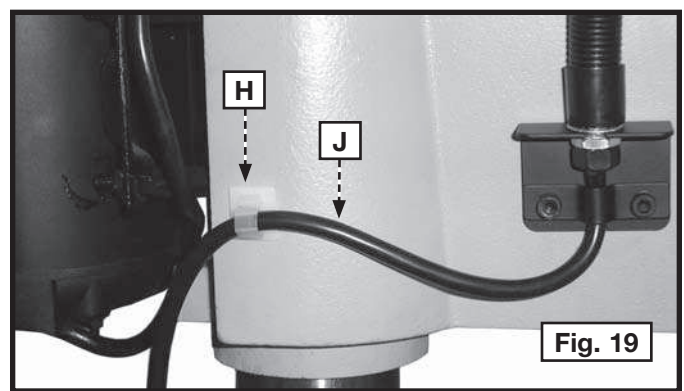
23. Thread the three pinion shaft handles (R) in the three holes located in the pinion shaft hub (S) Fig. 16.



24. Align the two holes in the lamp bracket (A) Fig. 17, with the two holes (B) on the side of the drill press head.
25. Place the cord bushing (C) Fig. 17, around the top of the lamp cord (D)
26. Align the two holes in the lamp cord bracket (F) Fig. 18 with the two holes in the lamp bracket (A) and drill press head.
27. Place a 1/4" washer onto a M6x12mm cap head screw. Insert the screw (G) Fig. 18 through the hole in the cord strain relief bracket and the lamp bracket and thread the screw into the drill press head. Repeat this process for the remaining hole in the cord strain relief bracket and tighten both screws securely.



28. Peel backing from cord clamp (H) Fig. 19, and apply clamp at the location shown. Make certain the lamp cord is routed out of the way of the drill, then secure cord (J) to cord clamp (H) as shown in Fig. 19.



## OPERATIONS

### OPERATIONAL CONTROLS AND ADJUSTMENTS

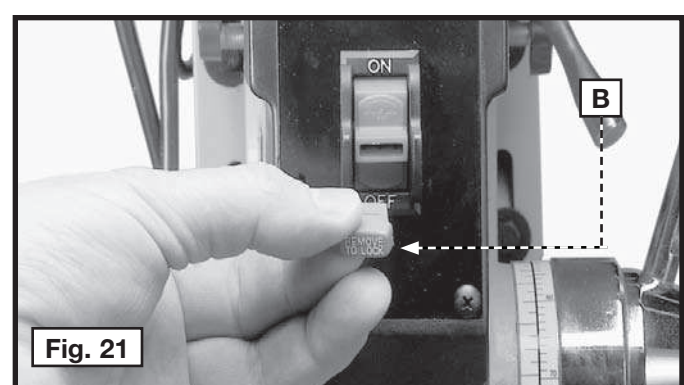
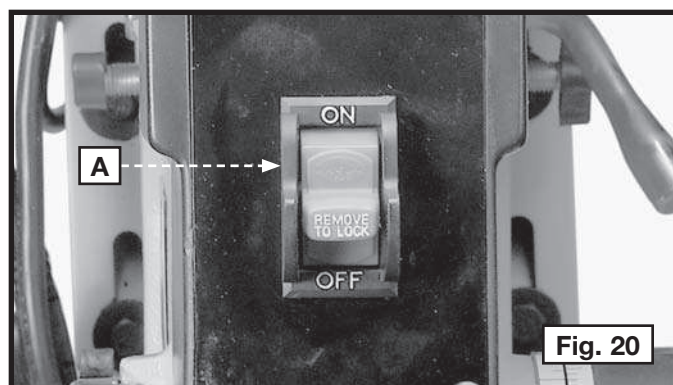
#### STARTING AND STOPPING THE DRILL PRESS

The switch (A) Fig. 20 is located on the front of the drill press head. To turn the drill press “ON” move the switch up to the “ON” position. To turn the drill press “OFF” move the switch down to the “OFF” position.

**⚠ WARNING** RISK OF PERSONAL INJURY. Make sure that the switch is in the “OFF” position before plugging in the power cord. In the event of a power failure, move the switch to the “OFF” position. an accidental start-up can cause injury.

#### LOCKING THE SWITCH IN THE “OFF” POSITION

**IMPORTANT:** When the machine is not in use, the switch should be locked in the “OFF” position to prevent unauthorized use. This can be done by grasping the switch toggle (B) and pulling it out of the switch, as shown in Fig. 21. With the switch toggle (B) removed, the switch will not operate. However, should the switch toggle be removed while the drill press is operating, the switch can be turned “OFF” once, but cannot be restarted without inserting the switch toggle (B).

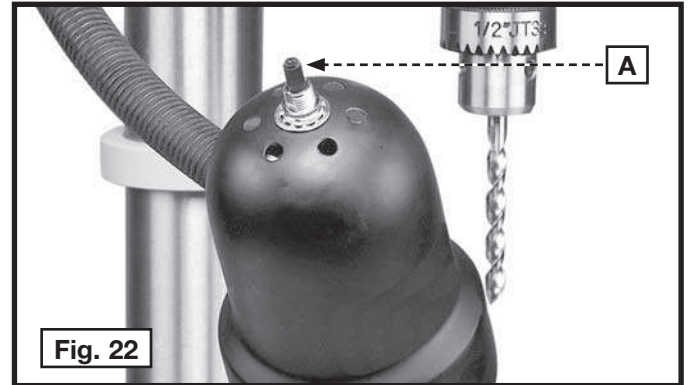


## FLEXIBLE LAMP

The flexible lamp operates independently of the drill press. To turn the lamp “ON” and “OFF”, rotate switch (A) Fig. 22.

**⚠ WARNING FIRE HAZARD.** To reduce the risk of fire, use 40 watt or less, 120 volt, reflector track type light bulb (not supplied). **DO NOT USE** a standard household light bulb. Do not allow the reflector track-type light bulb to extend below the lamp shade.

**⚠ WARNING RISK OF PERSONAL INJURY.** Disconnect the machine from the power source before making any adjustments.



## TABLE ADJUSTMENTS

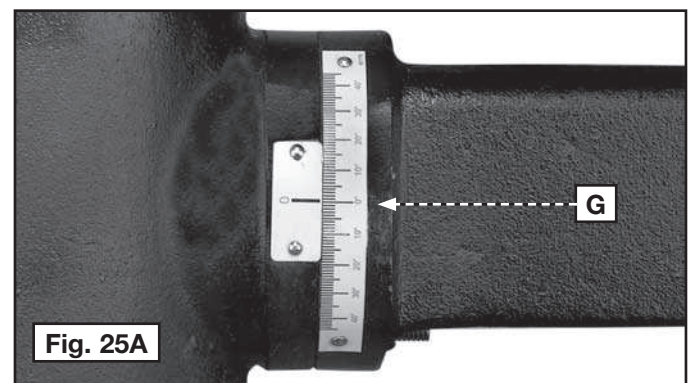
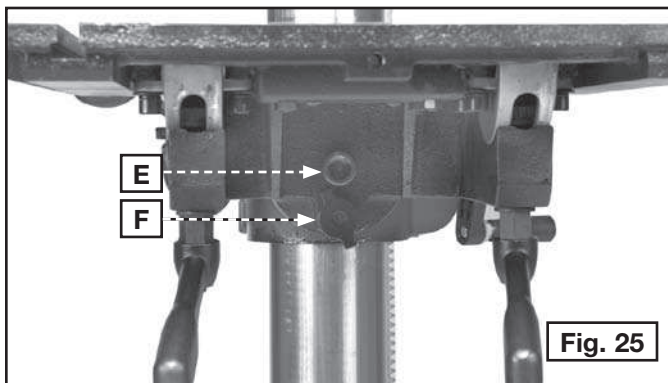
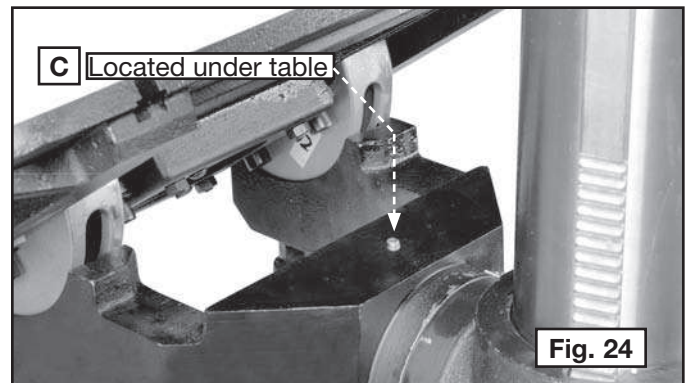
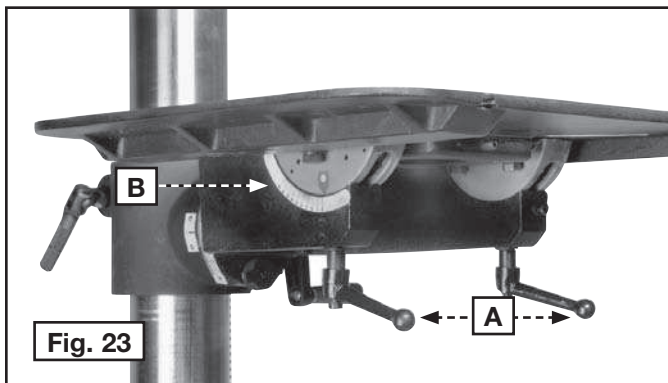
**⚠ CAUTION RISK OF PERSONAL INJURY.** Make sure that nothing is on the table and that the workpiece is clamped down. Falling objects can cause an injury.

You can tilt the table forward from zero (0) to 45 degrees. To adjust:

1. Loosen the two forward tilt levers (A) Fig. 23.
2. Adjust the table to your desired angle. The scale (B) Fig. 23 is located on the side of the table support.
3. Tighten the levers (A) Fig. 23.
4. A positive stop (C) Fig. 24 is provided to return the table to the zero position. Adjust this stop by turning the screw/stop (C), located under the table. Tighten the locknut to secure the stop.

You can tilt the table right or left. Positive stops are included for 0, 45 and 90 degrees. To adjust:

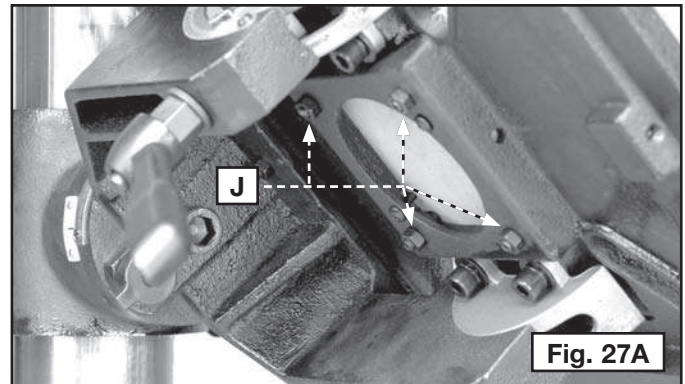
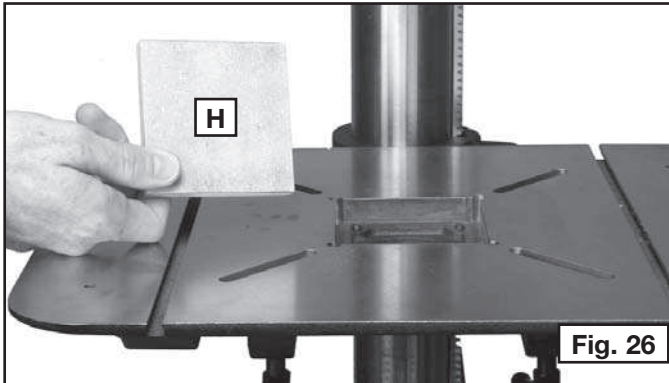
1. Loosen the table bolt (E) Fig. 25 approximately 1/4 turn with the supplied 14mm hex wrench.
2. Pull out the spring-loaded detent pin (F).
3. Rotate the table to your desired angle. The tilt scale (G) Fig. 25A is located on the knuckle behind the table. Use this scale for accuracy. You can allow the detent pin to slide in to the positive stops, but check your scale to be sure of the exact angle.
4. Tighten the table bolt.



## TABLE INSERT

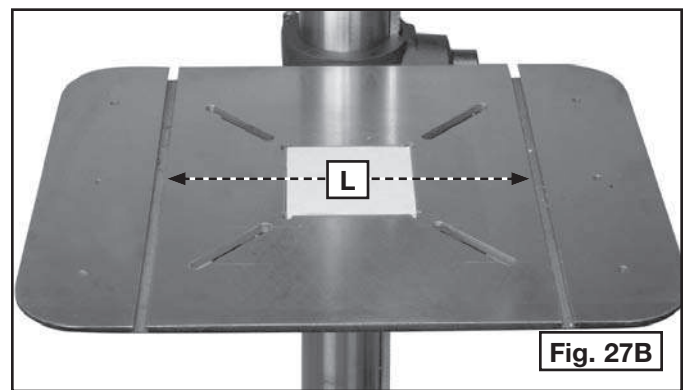
The drill press table comes with an insert (H) Fig. 26 made of MDF to help prevent wear and tear on the bit when it drills down through the workpiece. To adjust:

1. Place the insert (H) Fig. 26 in the hole in the table.
2. If the insert is not level with the table, adjust the four jack screws (J) Fig. 27A. When the table is level, tighten the locking nut on each screw.
3. Secure the insert with the 2 provided screws.



## T-SLOTS

The drill press table is fitted with two T-slots (L) Fig. 27B for use with various drill press accessories (stop blocks, fences, or clamps). Use 5/16" T-bolts when attaching your accessory to the table.



## ADJUSTING THE LASERS

**⚠ WARNING** Disconnect the machine from the power source.

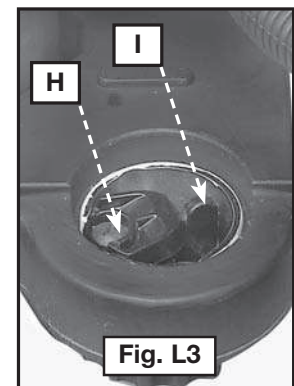
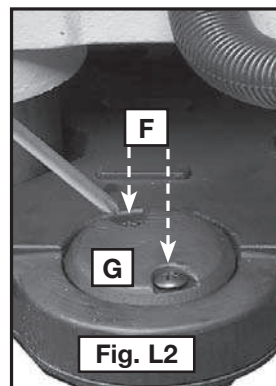
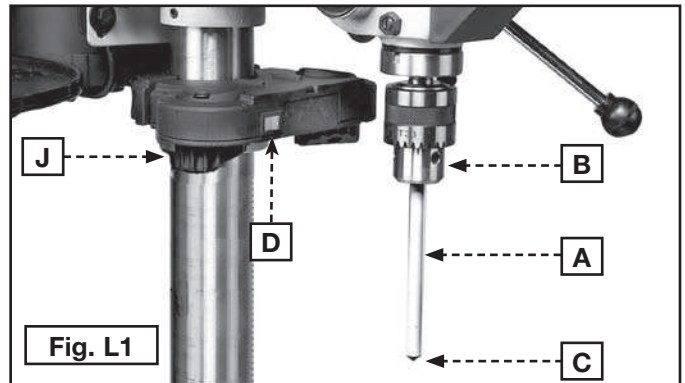
**⚠ WARNING** LASER LIGHT. Do not stare into the beam, aperture, or into a reflection from a mirror-like surface.

### MAKING THE LASERS PARALLEL

1. Install the alignment pin (A) in the chuck (B). Make sure that the pointed end (C) of the alignment pin is down (Fig. L1). The black scribed line on the pin should face toward the left laser.
2. Turn on the lasers using the switch (D) on the front of the laser housing.
3. With a Phillips screwdriver, remove the two screws (F) Fig. L2 and cap (G) above the left side of the laser housing.
4. Loosen the laser retainer screw (H) Fig. L3.
5. Move the laser lever (I) Fig. L3 so that the laser is shining on the alignment pin. Adjust the lever (I) until the laser is parallel with the black line.

**NOTE:** You may have to move the laser holder (J) Fig. L1 to get the laser to shine on the alignment pin. Once the light is on the pin, adjust the laser with the lever (I).

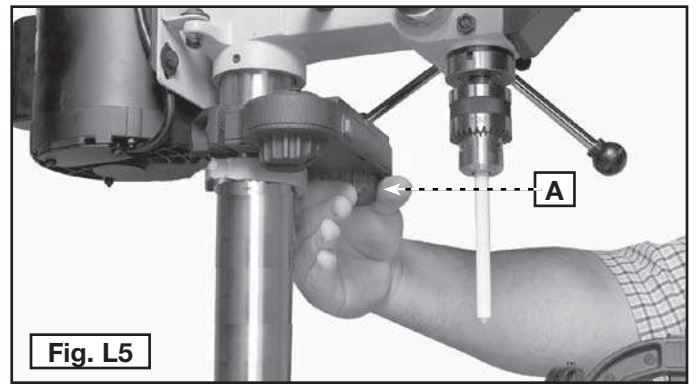
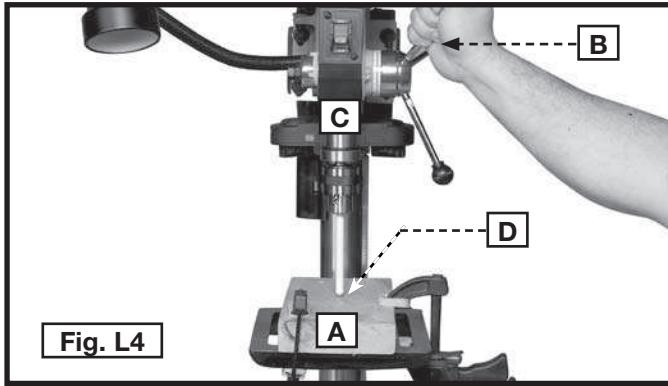
6. When the laser is set, tighten the laser retainer screw (H) Fig. L3. Replace the cap (G) Fig. L2 and loosely tighten the two screws (F).
7. Repeat for the otherside.





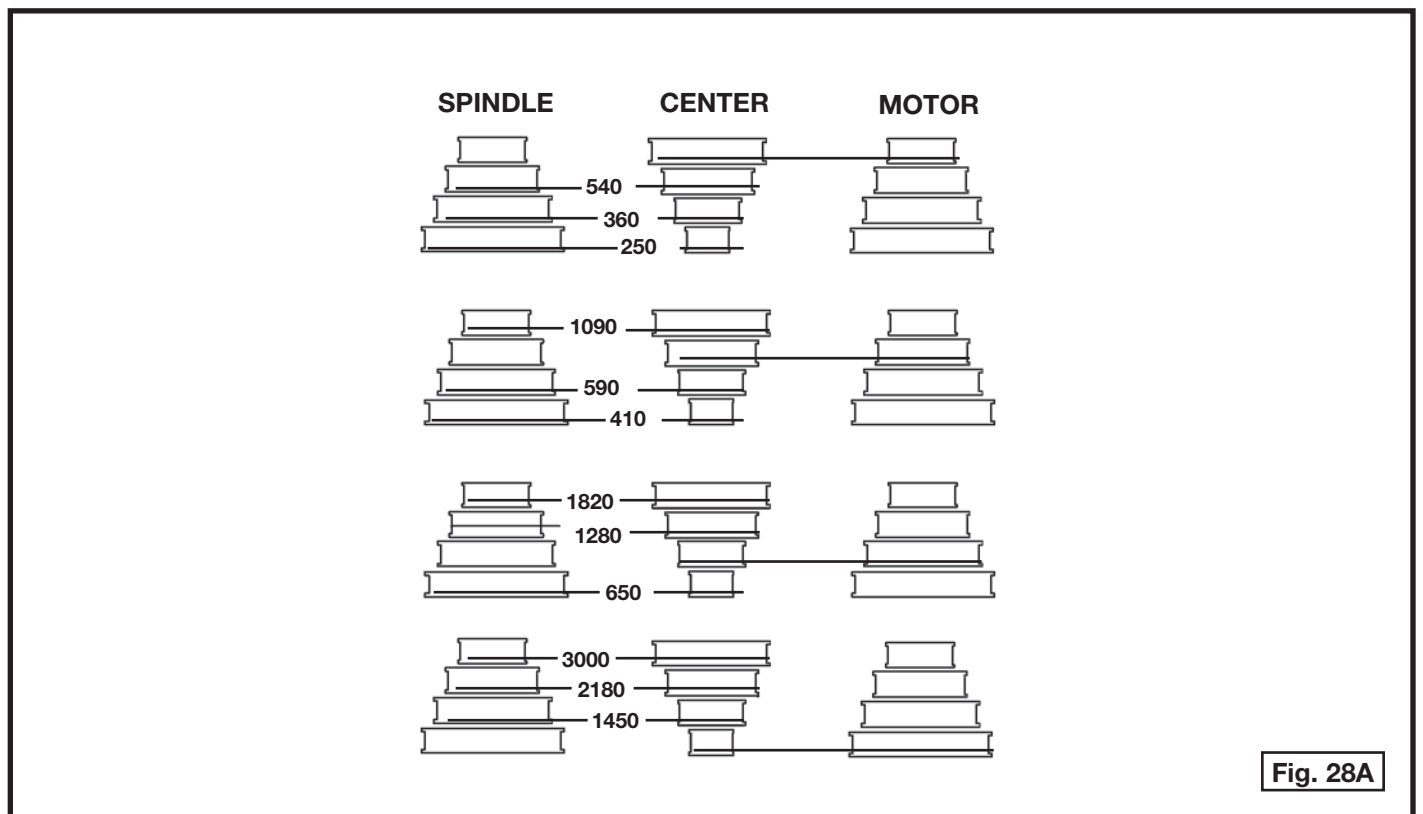
## MAKING THE LASERS INTERSECT

1. Place a piece of wood (A) Fig. L4 on the table and clamp it in place.
2. Use the handle (B) to lower the quill (C). Make an indentation in the wood with the alignment pin (D) Fig. L4.
3. Turn on the laser and adjust both beams to intersect at that point by rotating the laser holder (A) Fig. L5.
4. Ensure that the lasers align at different heights. Raise or lower the table, make a new indentation, and turn on the lasers. If the lasers do not align at different heights, you will need to check the parallel adjustment.
5. Once the lasers are adjusted, tighten the screws on each side of the laser housing, two of which are shown at (F) Fig. L2.



## SPINDLE SPEEDS

Twelve spindle speeds are available on the drill press. Fig. 28A illustrates the belt positions and the corresponding speeds.

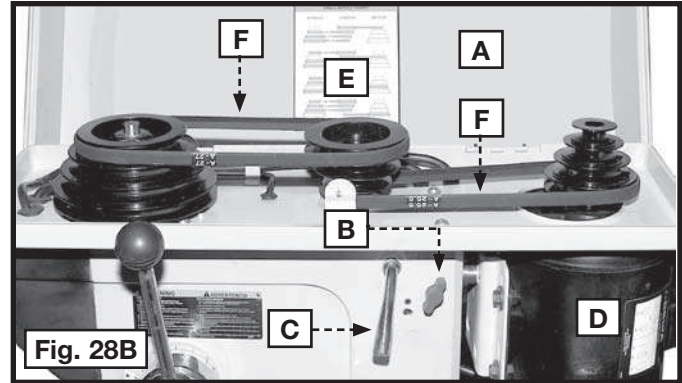


## CHANGING SPEEDS AND ADJUSTING THE BELT TENSION

**NOTE:** A belt-positioning speed chart (E) Fig. 28B is located on the inside top cover of the drill press.

**⚠ WARNING** Disconnect the machine from the power source!

1. Open the belt and pulley guard (A) Fig. 28B.
2. Loosen the tension lock knobs located on both sides of the head casting (one shown at (B) Fig. 28B). Move the tension lever (C) forward. Pivot the motor (D) toward the front of the drill press.
3. Hold the motor toward the front of the drill press, and position the belts (F) on the desired steps of the motor and spindle pulleys (Figs. 28A & 28B).
4. Move the motor (D) Fig. 28B to the rear until the belt is properly tensioned. Tighten the tension lock knob (B). The belt should be just tight enough to prevent slipping. Excessive tension will reduce the life of the belt, the pulleys, and the bearings. When you can flex the belts approximately 1" at the midway point between the pulleys, the tension will be correct.



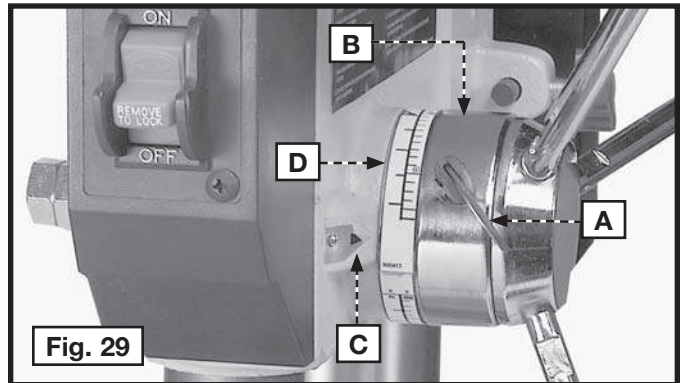
## DRILLING HOLES TO DEPTH

A depth-stop is provided for projects that require a number of holes at the same depth. To use:

**⚠ WARNING** Disconnect the machine from the power source!

1. Install your bit in the chuck.
2. Loosen the lock screw (A) Fig. 29. Rotate the pinion assembly (B) until the pointer (C) aligns (on the scale (D) Fig. 29) with your desired depth. Tighten the lock screw (A).
3. Place the workpiece on the drill press table. Raise the drill press table until the workpiece barely touches the drill bit.
4. Drill a test hole to check the depth.

**NOTE:** The scale (D) is calibrated in both inches and millimeters.



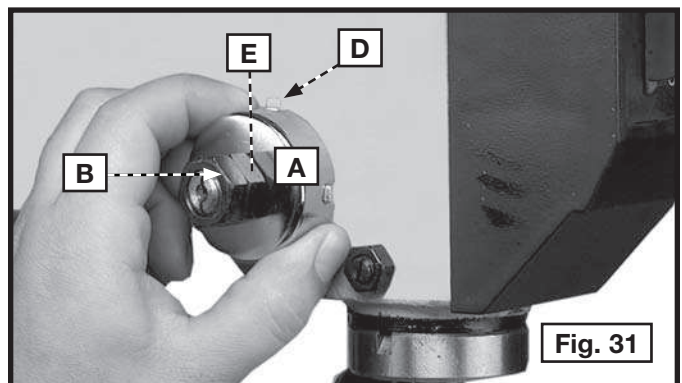
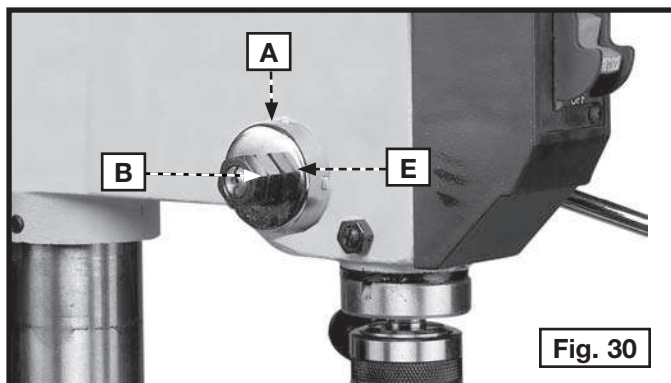
## ADJUSTING SPINDLE RETURN SPRING

The spindle will automatically return to its upper-most position when the handle is released. Allow the handle to return slowly to the top position after each hole has been drilled. This spindle-return spring was adjusted at the factory. However, to adjust (if necessary):

**⚠ WARNING** Disconnect the machine from the power source!

1. Loosen the nuts (B) and (E) Fig. 30. Make sure that the spring housing (A) stays engaged with the head casting.
2. **FIRMLY HOLD** the spring housing (A) Fig. 31, pull it out, and rotate it until the boss (D) is engaged with the next notch in the housing. Turn the housing counter-clockwise to increase or clockwise to decrease the spring tension. Turn the nut (E) until it contacts the spring housing (A), then back the nut (E) out 1/4 turn. Tighten the nut (B) against the nut (E) to hold the housing in place.

**IMPORTANT:** Do not allow the inside nut (E) to contact the spring housing (A).



## MACHINE USE

**NOTE:** Use bits with this drill press that have a shank of 5/8" or less in diameter.

**NOTE:** Use scrap material for practice to get a feel of the machine before attempting regular work.

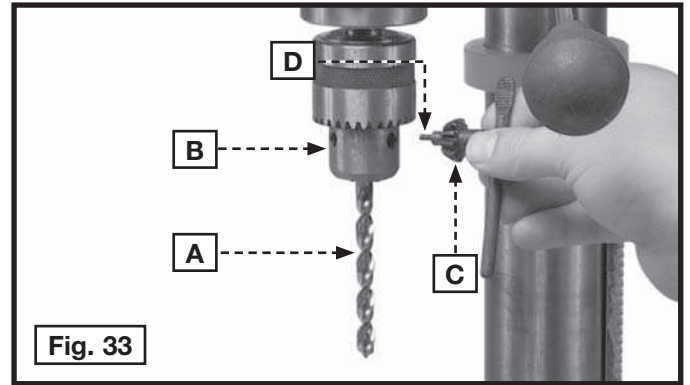
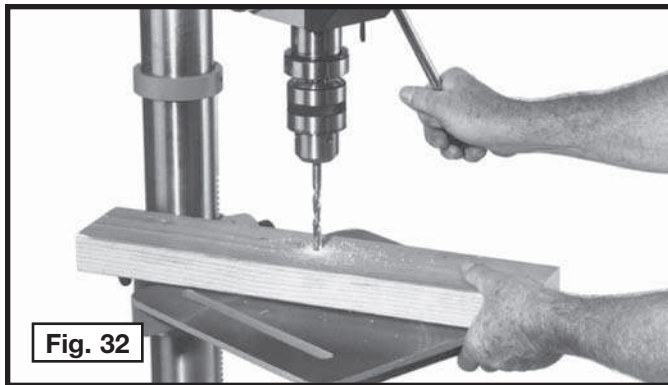
**⚠ WARNING RISK OF UNSAFE OPERATION.** The use of accessories and attachments not recommended by Delta may result in risk of injury.

**IMPORTANT:** If the workpiece is long enough, position it with one end against the left side of the column (Fig. 32). This action prevents the workpiece from rotating with the drill bit or cutting tool, causing damage to the workpiece or injury to you. If it is not possible to support the workpiece against the column, fasten it to the table using clamps or a vise.

### INSTALLING AND REMOVING DRILL BITS

**⚠ WARNING** Disconnect the machine from the power source!

1. Insert smooth end of drill bit (A) Fig. 33, into chuck (B), as far as it will go, and then back the bit out 1/16", or up to the flutes for small bits.
2. Make certain that the drill bit (A) Fig. 33, is centered in the chuck (B) before tightening the chuck with the key (C).
3. Turn the chuck key (C) Fig. 33, clockwise to tighten and counter-clockwise to loosen the chuck jaws.
4. Tighten all three chuck jaws to secure the drill bit sufficiently so that it does not slip while drilling.
5. **⚠ WARNING RISK OF FLYING OBJECTS. Don't tether the chuck key to the tool. The cord could get tangled and chuck key could be thrown at user or tool could be damaged. Also, make sure** that the chuck key (C) Fig. 33, is removed from chuck before starting drill press. Your chuck key (C) is equipped with a self-ejecting pin (D) which helps minimize the hazard of the key being left in the chuck.



### CORRECT DRILLING SPEEDS

Factors that determine the best drilling speed 1) the workpiece, 2) the size of the hole to be drilled, 3) the type of drill or other cutter, and 4) the quality of cut.

**⚠ WARNING RISK OF UNSAFE OPERATION.** Use the recommended speed for the drill press bit and workpiece material.

### DRILLING WOOD

Twist drills, although intended for metal drilling, may be used for boring holes in wood. However, machine spur bits are generally preferred for working in wood. These bits cut a flat-bottom hole and are designed for removal of wood chips. Do not use hand bits that have a screw tip. At drill press speeds, they turn too rapidly and will lift the work and spin it.

For through boring, align the table so that the bit will enter the center hole to avoid damage to the table. Scribe a vertical line on the front of the column and a matching mark on the table bracket and the drill press head, so that the table and drill press head can be clamped in the center position at any height.

When the bit is about to cut through the workpiece, feed it slowly to prevent splintering the bottom face. To help protect the bit and reduce splintering, a wooden insert is included in the table. Alternately, you can use a scrap piece of wood as a base block under the work.

## DRILLING METAL

Use clamps to hold the workpiece. DO NOT try to hold the workpiece with your hand. The drill bit may seize the work at any time and spin, causing damage to the machine and/or injury to you. The drill bit will break if the workpiece strikes the column.

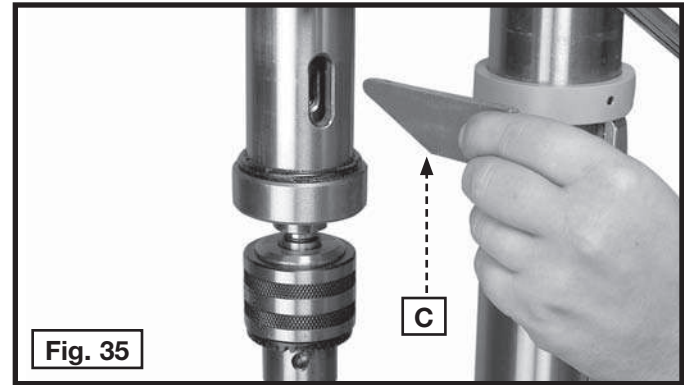
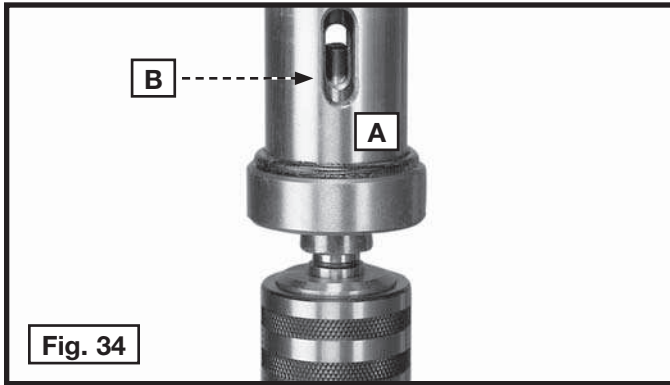
Clamp the workpiece firmly. Tilting, twisting, or shifting will result in a rough hole and drill bit breakage. For flat work, lay the workpiece on a wooden base and clamp it firmly against the table. If the workpiece is of irregular shape and cannot lie flat on the table, make sure that you clamp it securely.

## REMOVING SPINDLE ADAPTER

The spindle adapter and chuck can be removed for the purpose of using shanks with a #2 morse taper.

**⚠ WARNING** Disconnect the machine from the power source!

1. Align the slot in the quill (A) Fig. 34 with the slot in the spindle (B).
2. Insert the drift key (C) Fig. 35 through the slot in the quill and the slot in the spindle.
3. Tap the drift key (C) Fig. 35 with a hammer until the the spindle adapter and chuck fall from the quill.



## TROUBLESHOOTING

For assistance with your machine, visit our website at [www.deltamachinery.com](http://www.deltamachinery.com) for a list of service centers or call the DELTA Machinery help line at 1-800-223-7278 (In Canada call 1-800-463-3582).

## MAINTENANCE

### KEEP MACHINE CLEAN

Periodically blow out all air passages with dry compressed air. All plastic parts should be cleaned with a soft damp cloth. NEVER use solvents to clean plastic parts. They could possibly dissolve or otherwise damage the material.

**⚠ WARNING** Wear certified safety equipment for eye, hearing and respiratory protection while using compressed air.

### FAILURE TO START

Should your machine fail to start, check to make sure the prongs on the cord plug are making good contact in the outlet. Also, check for blown fuses or open circuit breakers in the line.

### LUBRICATION & RUST PROTECTION

Apply household floor paste wax to the machine table, extension table or other work surface weekly. Or use a commercially available protective product designed for this purpose. Follow the manufacturer's instructions for use and safety.

To clean cast iron tables of rust, you will need the following materials: a sheet of medium Scotch-Brite™ Blending Hand Pad, a can of WD-40® and a can of degreaser. Apply the WD-40 and polish the table surface with the Scotch-Brite pad. Degrease the table, then apply the protective product as described above.

## SERVICE

### REPLACEMENT PARTS

Use only identical replacement parts. For a parts list or to order parts, visit our website at [servicenet.deltamachinery.com](http://servicenet.deltamachinery.com). You can also order parts from your nearest factory-owned branch, or by calling our Customer Care Center at 1-800-223-7278 to receive personalized support from highly-trained technicians.

### SERVICE AND REPAIRS

All quality tools will eventually require servicing and/or replacement of parts. For information about Delta Machinery, its factory-owned branches, or an Authorized Warranty Service Center, visit our website at [www.deltamachinery.com](http://www.deltamachinery.com) or call our Customer Care Center at 1-800-223-7278. All repairs made by our service centers are fully guaranteed against defective material and workmanship. We cannot guarantee repairs made or attempted by others.

You can also write to us for information at Delta Machinery, 4825 Highway 45 North, Jackson, Tennessee 38305 - Attention: Product Service. Be sure to include all of the information shown on the nameplate of your tool (model number, type, serial number, etc.)

## ACCESSORIES

A complete line of accessories is available from your Delta Supplier, Porter-Cable • Delta Factory Service Centers, and Delta Authorized Service Stations. Please visit our Web Site [www.deltamachinery.com](http://www.deltamachinery.com) for a catalog or for the name of your nearest supplier.

**⚠ WARNING** Since accessories other than those offered by Delta have not been tested with this product, use of such accessories could be hazardous. For safest operation, only Delta recommended accessories should be used with this product.

## WARRANTY

To register your tool for warranty service visit our website at [www.deltamachinery.com](http://www.deltamachinery.com).

### Two Year Limited New Product Warranty

Delta will repair or replace, at its expense and at its option, any new Delta machine, machine part, or machine accessory which in normal use has proven to be defective in workmanship or material, provided that the customer returns the product prepaid to a Delta factory service center or authorized service station with proof of purchase of the product within two years and provides Delta with reasonable opportunity to verify the alleged defect by inspection. For all refurbished Delta product, the warranty period is 180 days. Delta may require that electric motors be returned prepaid to a motor manufacturer's authorized station for inspection and repair or replacement. Delta will not be responsible for any asserted defect which has resulted from normal wear, misuse, abuse or repair or alteration made or specifically authorized by anyone other than an authorized Delta service facility or representative. Under no circumstances will Delta be liable for incidental or consequential damages resulting from defective products. This warranty is Delta's sole warranty and sets forth the customer's exclusive remedy, with respect to defective products; all other warranties, express or implied, whether of merchantability, fitness for purpose, or otherwise, are expressly disclaimed by Delta.