

Mastercraft

10" DRILL PRESS

Item No.: 055-5509-2



Instruction Manual

**Toll-Free Helpline
1-800-689-9928**

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I. Specifications

Model:	055-5509-2
Motor:	120 V 60 Hz 4.1 A
Spindle travel:	50 mm
Column diameter:	50 mm
Max. drilling capacity:	5/8" diameter
Pulley speeds:	620, 1150, 1630, 2180, 3070 RPM (no load)
Table size:	7 1/4 x 7 1/4"
Base size:	13 3/8 x 8 1/4"

II. General safety guidelines

▲ WARNING! READ ALL INSTRUCTIONS Failure to follow the safety rules listed below and other basic safety precautions may result in serious personal injury.

Work Area

KEEP CHILDREN AWAY

Do not let visitors contact tool or extension cord. All visitors should be kept safe distance from work area.

KEEP WORK AREAS CLEAN

Cluttered areas and benches invite accidents.

MAKE WORKSHOP CHILD-PROOF

With padlocks, master switches, or by removing starter keys.

AVOID DANGEROUS ENVIRONMENTS

Don't use power tools in damp or wet locations. Keep work area well lit. Do not expose power tools to rain. Do not use the tool in the presence of flammable liquids or gases.

Personal Safety

KNOW YOUR POWER TOOL

Read and understand the owner's manual and labels affixed to the tool. Learn its application and limitations as well as the specific potential hazards particular to this tool.

DON'T OVERREACH

Keep proper footing and balance at all times.

STAY ALERT

Watch what you are doing. Use common sense. Do not operate tool when you are tired. Do not operate while under medication or while using alcohol or other drugs.

WEAR PROPER APPAREL

Do not wear loose clothing, gloves, neckties, rings, bracelets, or other jewelry which may get caught in moving parts. Non-slip footwear is recommended. Wear protective hair covering to contain long hair.

ALWAYS USE SAFETY GLASSES

Also use face or dust mask if cutting operation is dusty, and ear plugs during extended periods of operation. Everyday eyeglasses have only impact resistant lenses, they are NOT safety glasses.

GUARD AGAINST ELECTRIC SHOCK

Prevent body contact with grounded surfaces. For example: pipes, radiators, ranges, refrigerator enclosures.

DISCONNECT TOOLS FROM POWER SOURCE

When not in use, before servicing, when changing blades, bits, cutters, etc.

KEEP GUARDS IN PLACE

In working order, and in proper adjustment and alignment.

REMOVE ADJUSTING KEYS AND WRENCHES

When not in use, before servicing, when changing blades, bits, cutters, etc.

REDUCE THE RISK OF UNINTENTIONAL STARTING

II. General safety guidelines (continued)

Make sure the switch is in the “OFF” position before plugging in tool.

GROUND ALL TOOLS

This tool is equipped with an approved 3-conductor cord and a 3-prong grounding type plug to fit the proper grounding type receptacle. The green conductor in the cord is the grounding wire. Never connect the green wire to a live terminal.

NEVER STAND ON TOOL OR ITS STAND

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

CHECK DAMAGED PARTS

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

▲WARNING! All repairs, electrical or mechanical, should be attempted only by trained repairmen. Contact the nearest Mastercraft® Service Centre, Authorized Service Station or other competent repair service.

▲WARNING! Use only Mastercraft® replacement parts; any others may create a hazard.

▲WARNING! The use of any other accessories not specified in the current Mastercraft® catalog may create a hazard.

ADDITIONAL SAFETY GUIDELINES FOR DRILL PRESS

Tool Use

DON'T FORCE TOOL

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

USE THE RIGHT TOOL

Don't force a small tool or attachment to do the job of a heavy duty tool. Don't use tool for purpose not intended—for example, don't use a circular saw for cutting tree limbs or logs.

SECURE WORK

Use clamps or vise to hold work. It is safer than using your hand and it frees both hands to operate the tool.

NEVER LEAVE TOOL RUNNING UNATTENDED

Turn power off. Don't leave tool until it comes to a complete stop.

Tool Care

DO NOT ALTER OR MISUSE TOOL

These tools are precision built. Any alteration or modification not specified is misuse and may result in dangerous conditions.

II. General safety guidelines (continued)

AVOID GASEOUS AREAS

Do not operate electric tools in a gaseous or explosive atmosphere. Motors in these tools normally spark, and this may result in a dangerous condition.

MAINTAIN TOOLS WITH CARE

Keep tools sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories. Inspect tool cords periodically and if damaged, have repaired by authorized service facility. Inspect extension cords periodically and replace if damaged. Keep handles dry, clean and free from oil and grease.

▲WARNING! Before connecting the tool to a power source (receptacle, outlet, etc.), be sure voltage supplied is the same as that specified on the nameplate of the tool. A power source with a voltage greater than that specified for the tool can result in serious injury to the user, as well as damage to the tool. If in doubt, **DO NOT PLUG IN THE TOOL**. Using a power source with a voltage less than the nameplate rating is harmful to the motor.

▲WARNING! For your own safety, do not operate your drill press until it is completely assembled and installed according to the instructions ... and until you have read and understood the following:

- 1. General safety guidelines**
- 2. Specifications**
- 3. Know your drill press**
- 4. Assembly and adjustments**
- 5. Operation**
- 7. Maintaining your drill press**
- 8. Troubleshooting**
- 9. STABILITY OF THE DRILL PRESS**

If there is any tendency of the drill press to tilt or move during use, bolt it to the bench top or to a piece of 3/4" exterior plywood large enough to stabilize the drill press. Bolt the plywood to the underside of the base so it extends beyond the sides of the base. **DO NOT USE PRESSED WOOD PANELS**. They can break unexpectedly. If the workpiece is too large to easily support with one hand, provide an auxiliary support.

10. LOCATION

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

11. PROTECTION: Eyes, hands, ears and body.

▲ TO AVOID BEING PULLED INTO THE SPINNING TOOL—

DO NOT WEAR: Loose fitting gloves

Necktie

Loose clothing

Jewelry

DO: TIE BACK LONG HAIR

ROLL LONG SLEEVES ABOVE ELBOWS

KEEP THIS USER'S MANUAL IN A SAFE PLACE FOR FUTURE REFERENCE

II. General safety guidelines (continued)

- a. If any part of your drill press is missing, malfunctioning, has been damaged or broken, such as the motor switch, or other operating control, a safety device or the power cord, cease operating immediately until the particular part is properly repaired or replaced.
- b. Never place your fingers in a position where they could contact the drill bit or other cutting tool if the workpiece should unexpectedly shift or your hand should slip.
- c. To avoid injury from parts thrown by the spring, follow the instructions exactly as given and shown in “SPINDLE RETURN SPRING” section.
- d. To prevent the workpiece from being torn from your hands, spinning on the table, shattering the tool, or being thrown, always support your work so it won’t shift or bind on the tool.
 - Always position “backup material” (used beneath the workpiece) to contact the left side of the column.
 - Whenever possible, position the workpiece to contact the left side of the column — if it is short or the table is tilted, clamp solidly to the table. Use table slots or clamping ledge around the outside edge of the table.
 - When using a drill press vise, always fasten to the table.
 - Never do any work “free hand” (hand holding a workpiece rather than supporting it on the table), except when polishing.
 - Securely lock head and table support to column, and table to table support before operating drill press.
 - Never move the head or table support while the tool is running.
 - Before starting the operation, jog the motor switch to make sure the drill bit or other cutting tool does not wobble or cause vibration.
 - If a workpiece overhangs the table such that it will fall or tip if not held, clamp it to the table or provide auxiliary support.
 - Use fixtures for unusual operations to adequately hold, guide and position the workpiece.
 - Use the SPINDLE SPEED recommended for the specific operation and workpiece material — check the panel inside the pulley cover for drilling information; for accessories, refer to the instructions provided with the accessories.
- e. Never climb on the drill press table; it could break or pull the entire drill press down on you.
- f. Turn the motor switch “OFF” and unplug from power source when not in operation.
- g. To avoid injury from thrown work or tool contact, DO NOT perform layout, assembly, or setup work on the table while the cutting tool is rotating.

12. USE ONLY ACCESSORIES DESIGNED FOR THIS DRILL PRESS TO AVOID SERIOUS INJURY FROM THROWN, BROKEN PARTS OR WORK PIECES.

- a. **WHEN CUTTING LARGE DIAMETER HOLES:** Clamp the workpiece firmly to the table. Otherwise the cutter may grab and spin at high speed. Use only one-piece, cup-type, hole cutters. DO NOT use fly cutters or multi-part hole cutters as they come apart or become unbalanced in use.

KEEP THIS USER’S MANUAL IN A SAFE PLACE FOR FUTURE REFERENCE

II. General safety guidelines (continued)

b. Drum sanders must NEVER be operated on this drill press at a speed greater than the speed rating of the drum sander.

c. Do not install or use any drill bit that exceeds 7" in length or extends 6" below the chuck jaws. They can suddenly bend outward or break.

d. Do not use wire wheels, router bits, shaper cutters, circle (fly) cutters, or rotary planers on this drill press.

e. Use recommended speed for drill accessory and workpiece material.

f. Accessories must be rated for at least the spindle speed setting of the drill press. This drill press has 5 spindle speeds. Check spindle speed setting of the drill press based on pulley speed chart located inside the pulley housing. Ensure accessories used have a higher speed rating than the current spindle speed setting of the drill press. Accessories running over their rated speed can fly apart and cause injury.

13. DIRECTION OF FEED FOR DRUM SANDING

▲WARNING! Feed workpiece into a sanding drum or other approved accessory, against the direction of rotation.

▲WARNING! A kickback occurs when workpiece suddenly binds on the cutting edge of the tool and the workpiece is thrown by the cutter in the direction of the cutter's rotation. This can cause serious injury.

14. NOTE AND FOLLOW THE SAFETY WARNINGS AND INSTRUCTIONS:

▲WARNING! For your own safety, read and understand instruction manual before operating drill press.

- Wear safety glasses or safety goggles.
- Do not wear loose fitting gloves, necktie or loose clothing. Tie back long hair.
- Clamp workpiece or brace against column to prevent rotation.
- Use recommended speed for drill accessory and workpiece material.
- Use only recommended accessories.
- Before, starting, be certain chuck key is removed from chuck and that motor, head and table are locked.
- Keep pulley cover closed when not making belt adjustments.
- Unplug drill press before making bit/accessory changes, adjustments or repairs.
- Do not expose to rain or use in damp locations.

15. THIS DRILL PRESS HAS 5 SPEEDS: 620 RPM, 1150 RPM, 1630 RPM, 2180 RPM AND 3070 RPM. See inside of guard for specific placement of belt on pulleys.

16. THINK SAFETY

SAFETY IS A COMBINATION OPERATOR COMMON SENSE AND ALERTNESS AT ALL TIMES WHEN THE DRILL PRESS IS BEING USED.

KEEP THIS USER'S MANUAL IN A SAFE PLACE FOR FUTURE REFERENCE

II. General safety guidelines (continued)

▲WARNING! Do not allow familiarity (gained from frequent use of your drill press) to become commonplace. Always remember that a careless fraction of a second is sufficient to inflict severe injury.

▲WARNING! WEAR EYE PROTECTION! The operation of any power tool can result in foreign objects being thrown into the eyes, which can result in severe eye damage. Always wear safety goggles before commencing power tool operation.

▲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
- 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 dust masks that are specially designed to filter out microscopic particles.

LASER SAFETY

WARNING! To reduce the risk of injury:

1. Do not stare directly at the laser beam. Eye damage may occur if you deliberately stare into the beam.
2. The laser light beam used in this system is Class II with maximum output 1 mW and 650 nm wavelength. AVOID DIRECT EYE EXPOSURE.
3. The laser must be used and maintained in accordance with the manufacturer's instructions:
 - Never aim the beam at any person or an object other than the workpiece.
 - Do not project the laser beam into the eyes of others.
 - Always ensure the laser beam is aimed at a workpiece without reflective surfaces as the laser beam could be projected into your eyes or the eyes of others.

▲CAUTION! Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

! ATTENTION/CAUTION

RAYONNEMENT LASER. NE REGARDEZ PAS DIRECTEMENT DANS LE FAISCEAU.

 LASER RADIATION. DO NOT STARE INTO BEAM.

Longueur d'onde / Wavelength: 650 nm
Puissance maximale / Max. Output: < 1 mW
Produit laser de classe II
Class II Laser Product
Conforme au règlement 21 CFR sections 1040.10e
Complies with 21 CFR 1040.10e

KEEP THIS USER'S MANUAL IN A SAFE PLACE FOR FUTURE REFERENCE

II. General safety guidelines (continued)



ALWAYS WEAR EYE PROTECTION THAT CONFORMS WITH CSA REQUIREMENTS.

FLYING DEBRIS can cause permanent eye damage.

Prescription eyeglasses are not a replacement for proper eye protection.

▲WARNING! EXPOSURE TO EXCESSIVE NOISE LEVELS CAN RESULT IN PERMANENT HEARING LOSS. ALWAYS WEAR EAR PROTECTION (SAFETY EAR MUFFS OR EAR PLUGS) TO REDUCE NOISE LEVELS WHEN OPERATING THE DRILL PRESS.

III. Electrical information

MOTOR SPECIFICATIONS

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

This Drill Press is designed to use a 1795 RPM motor. It is wired for operation on 110-120 V, 60 Hz. alternating current. Before connecting the motor cord to power source, make certain the switch is in the "OFF" position and be sure the electric current is of the same characteristics as stamped on the drill press nameplate.

CONNECTION TO A POWER SOURCE

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

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

Not all outlets are properly grounded. If you are not sure that your outlet, as pictured in Fig. A, is properly grounded; have it checked by a qualified electrician.

▲ DANGER: To avoid electric shock, do not touch the metal prongs on the plug when inserting or removing the plug into or from the outlet.

▲ DANGER: Failure to properly ground this power tool can cause electrocution or serious shock, particularly when used near metal plumbing or other metal objects. If shocked, your reaction could cause your hands to hit the tool.

▲ WARNING: If power cord is worn, cut or damaged in any way, have it replaced immediately to avoid shock or fire hazard.

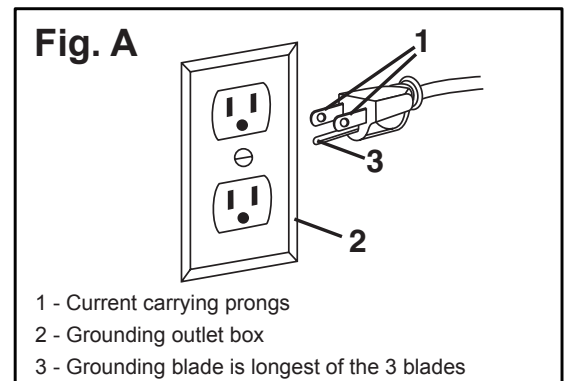
Your unit is for use on 120 V; it has a plug that looks like the one in Figure A.

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

If the outlet you are planning to use for this power tool is of the two-prong type, **DO NOT REMOVE OR ALTER THE GROUNDING PRONG IN ANY MANNER.** Have a qualified electrician replace the TWO-hole outlet with a properly grounded THREE-hole outlet.

Improper connection of the equipment-grounding conductor can result in a risk of electric shock. The conductor with insulation having an outer surface that is green with or without yellow stripes is the equipment 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 tool is properly grounded.

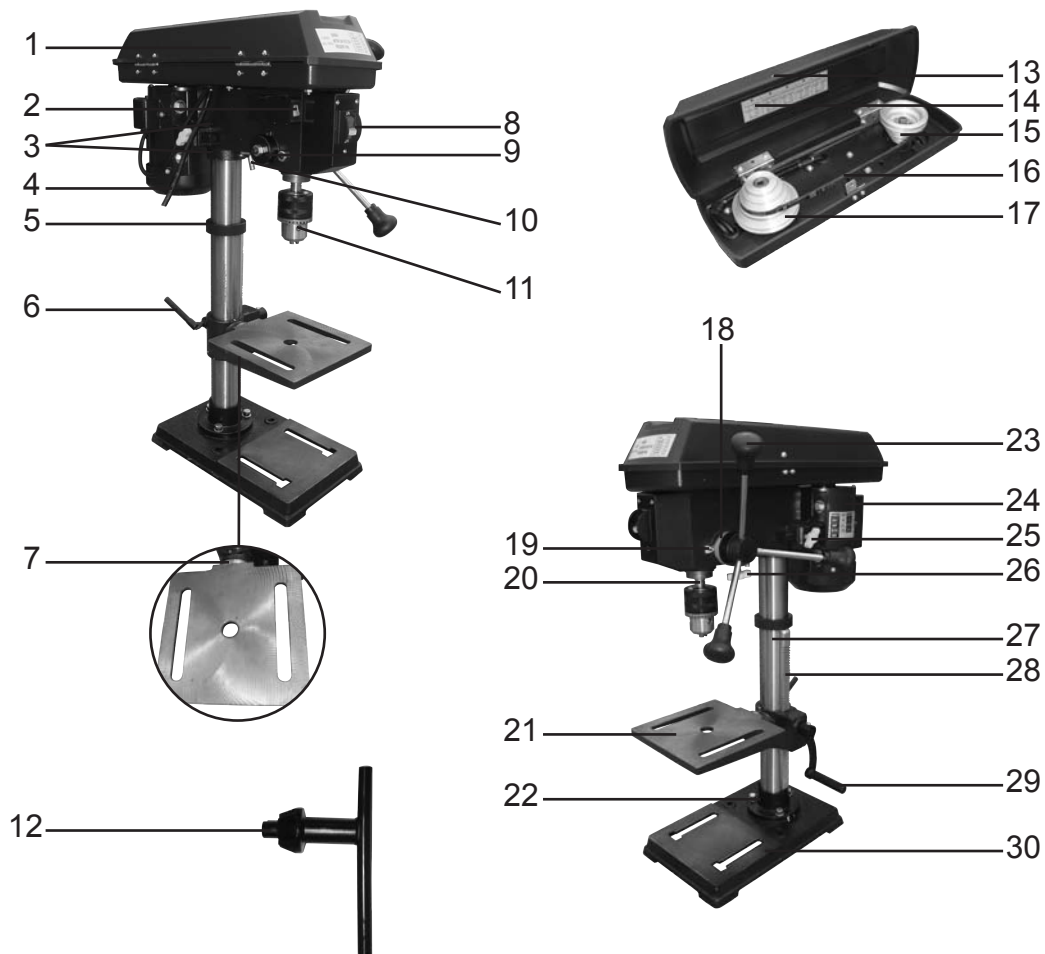


III. Electrical information (continued)

Always use proper extension cord. The use of any extension cord will cause some loss of power. To keep this to a minimum and to prevent overheating and motor burn-out, use the table below to determine the minimum wire size (A.W.G.) extension cord. Use only 3-wire extension cords which have 3-prong grounding type plugs and 3-pole receptacles which accept the tool's plug. Make sure your extension cord is in good condition.

Extension Cord Length	Wire Size A.W.G.
0–25' (0–7.6 m)	18
26–50' (7.7–15.3 m)	16
51–100' (15.4–30.5 m)	16

IV. Know your drill press



- 1 Pulley housing cover
- 2 Laser switch
- 3 Locking screws
- 4 Power cord
- 5 Rack collar
- 6 Support lock handle
- 7 Bevel scale
- 8 On/off switch
- 9 Feed return spring and cover
- 10 Laser lights
- 11 Chuck
- 12 Chuck key
- 13 Pulley housing screw
- 14 Belt/pulley speed chart
- 15 Motor pulley

- 16 Belt
- 17 Spindle pulley
- 18 Depth scale
- 19 Pointer
- 20 Quill
- 21 Table
- 22 Column support
- 23 Feed handle
- 24 Motor
- 25 Tension lock knob
- 26 Depth tension knob
- 27 Column
- 28 Rack
- 29 Crank handle
- 30 Base

V. Assembly and adjustments

UNPACKING

▲WARNING: To reduce the risk of injury, never connect plug to power source outlet until all assembly steps are complete and until you have read and understood the entire owner's manual.

MASTERCRAFT® Drill Press is shipped complete in one box.

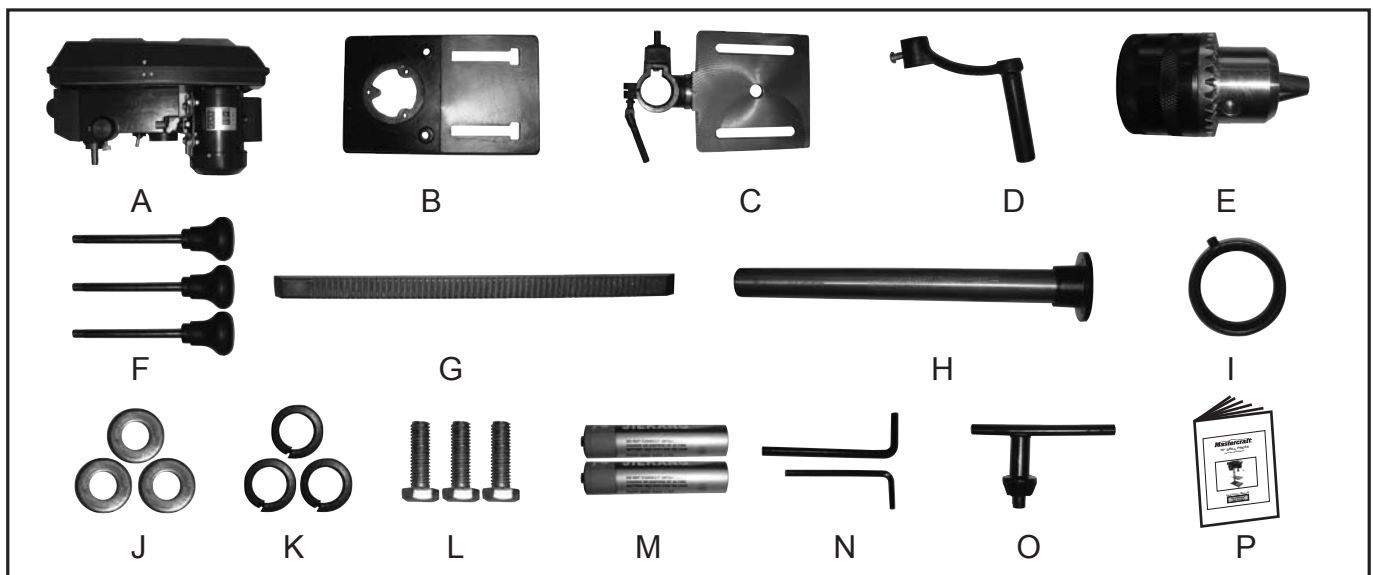
1. Unpacking and Checking Contents. Separate all parts from packing materials and check each one with the "Table of Loose Parts" to make sure all items are accounted for before discarding any packing material.

▲WARNING: If any parts are missing, do not attempt to assemble the drill press, plug in power cord or turn the switch on until the missing parts are obtained and are installed correctly.

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

▲WARNING: To avoid fire or toxic reaction, never use gasoline, naphtha or similar highly volatile solvents.

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



A Head assembly

B Base

C Table/support assembly

D Crank handle

E Chuck

F Feed handles

G Rack

H Column/support assembly

I Rack collar

J Flat washers M8

K Spring washers M8

L Bolts M8x25

M Batteries

N 3 mm/4 mm Allen wrench

O Chuck key

P Instruction manual

V. Assembly and adjustments (continued)

ASSEMBLY AND ADJUSTMENTS

▲ WARNING: To reduce the risk of injury, never connect plug to power source outlet until all assembly steps are completed.

TOOLS NEEDED FOR ASSEMBLY

- Adjustable wrench
- Screwdriver
- Hammer and block of wood

BASE TO COLUMN (Fig. 1)

1. Set the base (1) on the floor.
2. Place the column tube (2) on the base (1), align the column support holes with the base holes.
3. Install a bolt M8 x 25 (3), a flat washer M8 (4) and a spring washer M8 (5) in each column support hole and tighten with the wrench.

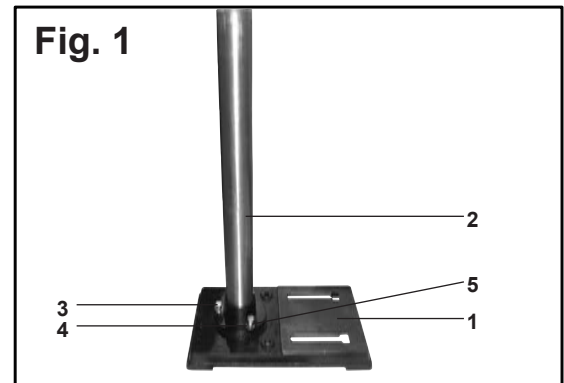
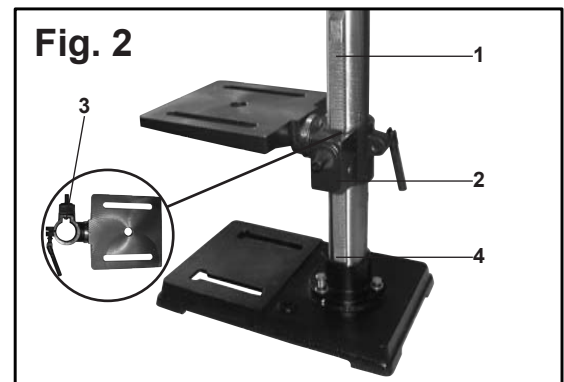


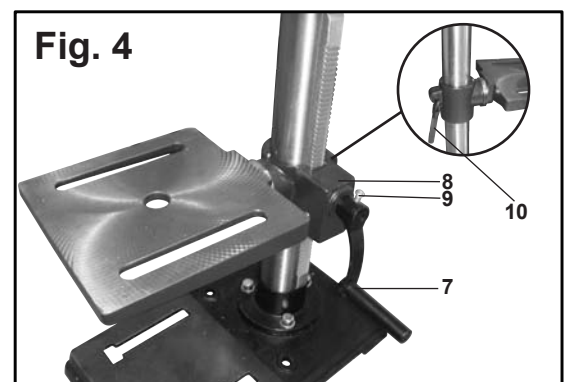
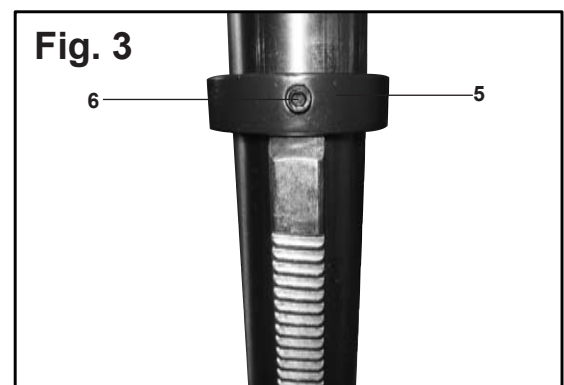
TABLE TO COLUMN (Fig. 2–4)

1. Insert the rack (1) into the geared groove of the table support (2). Make sure the worm shaft (3) on the inside of the table support is engaged with the teeth of the rack. The table support should sit at the centre of the rack.
2. Slide the table support and rack assembly (1, 2, 3) down together onto the column. Insert the bottom edge of the rack into the lip (4) of the column support. **HOLD IN THIS POSITION** until step 3 is completed.
3. Place the collar (5) bevel side down over the rack. Tighten the set screw (6) with the 3 mm Allen wrench to hold the rack in position.



▲ Note: Make sure there is enough clearance to allow the table to rotate around the column. The collar must sit loosely over rack and not angled on the column. To avoid column or collar damage, only tighten the set screw enough to keep collar in place (Fig. 3).

4. Insert the table support crank handle (7) into the worm gear shaft on the side of the table support (8). Make sure the set screw (9) is aligned on the flat of the shaft and as close to the table support as possible. Tighten the set screw (Fig. 4).
5. Position the table in the same direction as the base, and tighten the column lock handle (10).



V. Assembly and adjustments (continued)

DRILL PRESS HEAD TO COLUMN (Fig. 5)

1. Lift the drill press head assembly (1) carefully and place the mounting hole of the drill press head onto the top of the column (2). Make sure the head is seated properly on the column.
2. Align the direction of the drill press head to the direction of the base and the table.
3. Tighten the two set screws (3) using an allen wrench.

Fig. 5

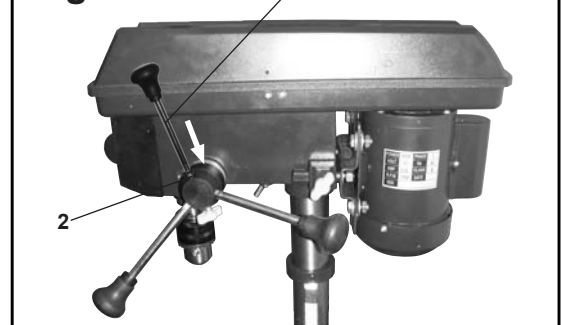


FEED HANDLES (Fig. 6)

1. Thread the three feed handle rods (1) into the holes on the feed hub (2).
2. Hand tighten.

▲ **Note:** One or two of the feed handles may be removed if an unusually-shaped workpiece interferes with handle rotation.

Fig. 6

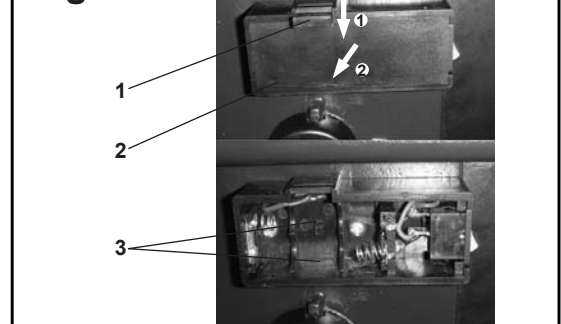


LASER BATTERIES (Fig. 7)

1. Turn off the laser.
2. Push the tab (1) located on the laser switch cover (2) down and towards you, then remove it.
3. Insert 2 “AAA” batteries in the laser battery compartment (4).
4. Replace the laser switch cover.

▲ **CAUTION:** Remove the laser light batteries when the tool is to be stored without use for a few days or more. If left in position, the batteries might leak and damage the laser light assembly. Damage due to leaking batteries is not covered under the warranty.

Fig. 7

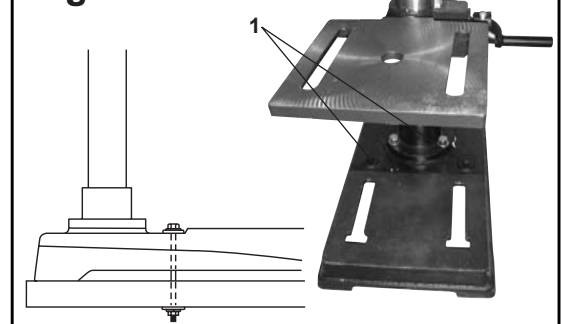


MOUNT THE DRILL PRESS (Fig. 8)

Your drill press must be securely fastened through the mounting holes (1) to a stand or work bench with heavyduty fasteners. This will prevent the drill press from tipping over, sliding, or walking during operation.

▲ **IMPORTANT:** If the stand or workbench has a tendency to move during operation, fasten it securely to the floor.

Fig. 8



V. Assembly and adjustments (continued)

INSTALL THE CHUCK (Fig. 9)

1. Inspect and clean the taper hole in the chuck (1) and the spindle (2). Remove all grease, coatings, and particles from the chuck and spindle surfaces with a clean cloth.

2. Open the chuck jaws (3) by turning the chuck barrel clockwise by hand. Make sure the jaws are completely recessed inside the chuck.

3. Seat the chuck on the spindle by placing a block of wood (4) under the chuck (1) and tapping the wood with a hammer (5) or tap the chuck with a rubber mallet.

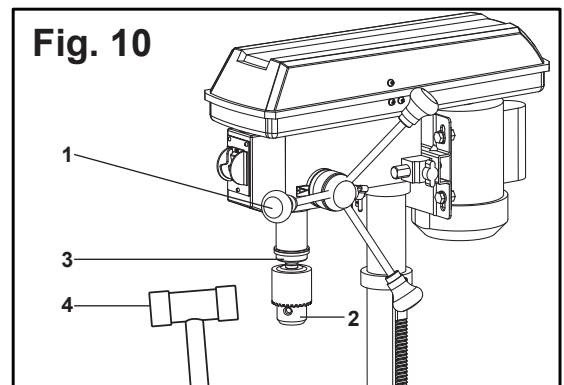
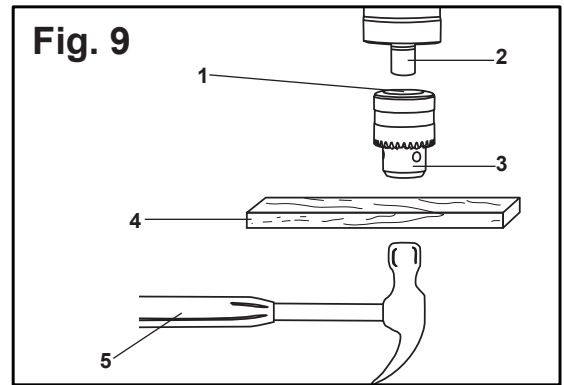
▲ CAUTION: To avoid damaging the chuck, make sure the jaws are completely recessed into the chuck. Do not use a metal hammer directly to drive the chuck into the spindle.

REMOVE THE CHUCK (Fig. 10)

1. Turn the feed handles (1) to lower the chuck (2) to the lowest position.

2. Place a ball joint separator (not shown) above the chuck (3) and tap it lightly with a hammer (4) to cause the chuck to drop from the spindle.

▲ Note: To avoid possible damage, be prepared to catch the chuck as it falls.



V. Assembly and adjustments (continued)

OPERATING ADJUSTMENTS

▲WARNING: To reduce the risk of injury:

- Turn switch “OFF” and remove plug from the power source before making adjustments.
- Follow instructions carefully and wear eye protection to avoid thrown parts due to spring release.
- Never operate drill press with pulley cover open.

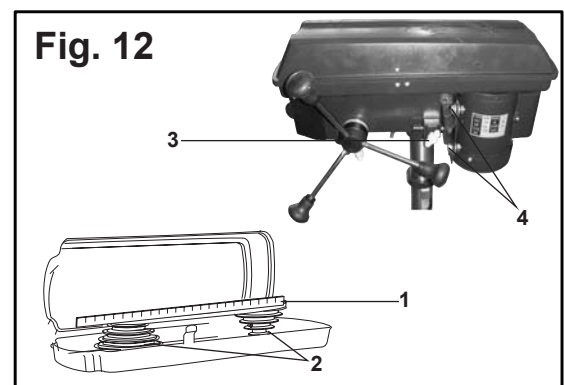
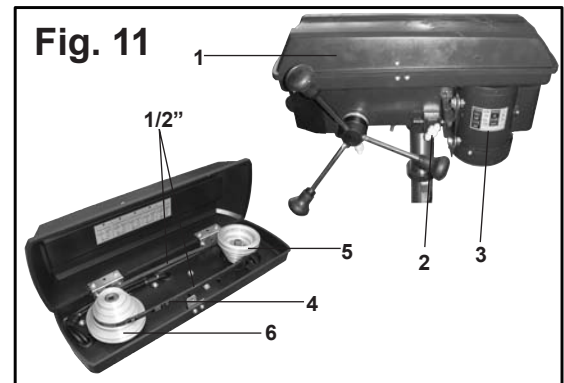
INSTALL THE BELT (Fig. 11)

1. Open the pulley and belt cover (1).
2. Loosen the belt tension lock knobs (2) on both sides of the drill press.
3. Slide the motor (3) as close to the drill press head as possible.
4. Place a belt (4) on the motor pulley (5) and the spindle pulley (6) in the proper position for the desired speed.
5. Pull the motor away from the drill press head until the belt is properly tensioned. Tighten the belt tension lock knobs (2).

▲ Note: The belt (4) should be tight enough to prevent slippage. Correct tension is set if the belt flexes about 1/2" (13 mm) when thumb pressure is applied at the midpoint of the belt between the pulleys.

ALIGN THE BELT PULLEYS (Fig. 12)

1. Check the alignment of the pulleys with a straight edge (1) (such as a ruler, level, or framing square) by laying the straight edge across the top of the pulleys (2).
2. If the pulleys are NOT aligned, release belt tension by loosening the belt tension lock knobs (3) on both sides of the head.
3. Loosen the motor mount nuts (4) with an adjustable wrench, and lower or raise the motor until the pulleys are aligned.
4. Tighten the motor mount nuts (4) with an adjustable wrench to maintain the position.
5. Lock the motor for the proper belt tension and tighten the tension lock knobs (3).

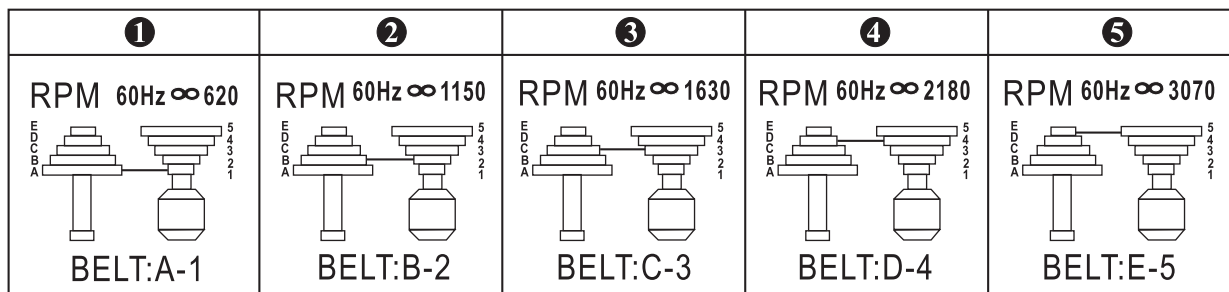


V. Assembly and adjustments (continued)

SPINDLE SPEEDS (Fig. 13)

This drill press offers 5 spindle speeds from 620 to 3070 RPM. The highest speed is obtained when the belt is positioned on the largest motor pulley step and the smallest spindle pulley stop.

Fig. 13

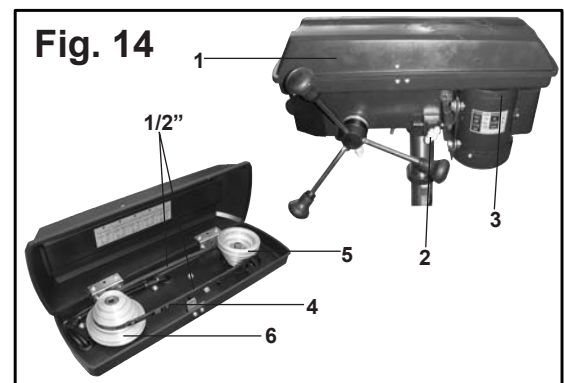


ASSEMBLY AND ADJUSTMENTS

▲CAUTION: To reduce the risk of injury, keep pulley cover in place and in proper working order when operating.

ADJUST SPEEDS AND TENSION THE BELT (Fig. 14)

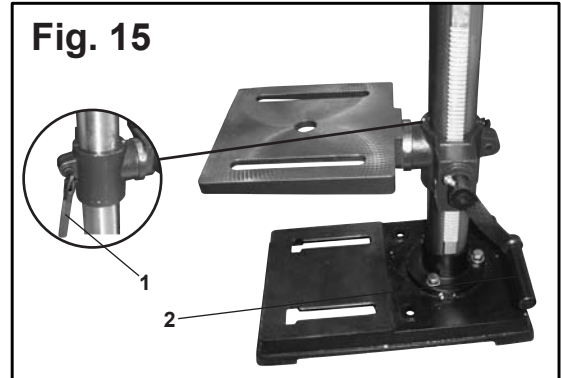
1. Open the drill press pulley cover (1).
2. Loosen the belt tension knobs (2) on both sides of the drill press head.
3. Pull the motor (3) towards the drill press head.
4. Set the belt on the desired steps of the motor (4) and spindle (5) pulleys according to the belt positions on the spindle speed chart (Fig. 13).
5. Pull the motor away from the drill press head to increase the belt tension. Tighten the tension knobs (2).
6. The belt (4) should be tight enough to prevent slippage. Correct tension is set if the belt flexes about 1/2" (13 mm) when thumb pressure is applied at the midpoint of the belt between the pulleys.



V. Assembly and adjustments (continued)

TABLE ADJUSTMENTS TO RAISE OR LOWER (Fig. 15)

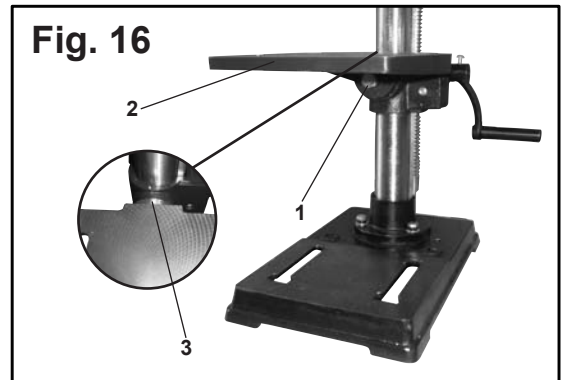
1. Raise or lower the table by loosening the column lock handle (1) and turning the crank handle (2) until the table is at the desired height.
2. Tighten the table lock handle (1) before drilling.
3. Rotate the table around the column by loosening the column lock handle (1) and turning the table around the column to the desired position.
4. Tighten the lock handle before drilling.



TO TILT THE TABLE (Fig. 16)

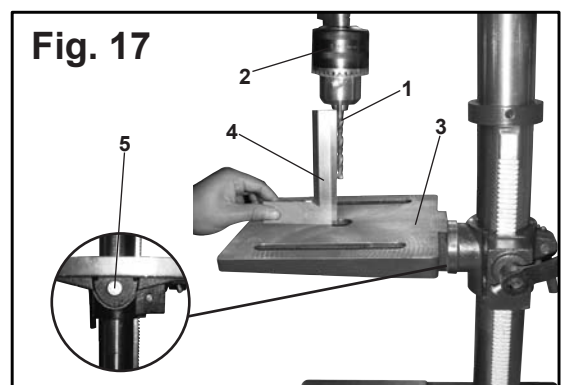
The table can be tilted from 0 to 45° to the left and right.

1. Loosen the bevel lock bolt (1) with a wrench.
2. Tilt the table (2) to the desired angle, using the bevel scale (3) as a basic guide.
3. Re-tighten the bevel lock bolt (1).
4. To return the table to its original position, loosen the bevel lock bolt. Realign the bevel scale (3) to the 0° setting.
5. Tighten the bevel lock bolt (1) with the wrench.



TO SQUARE THE TABLE TO THE HEAD (Fig. 17)

1. Insert a 3" (7.6 cm) drill bit (1) into the chuck (2) and tighten.
2. Raise and lock the table (3) about 1" (2.5 cm) from the end of the drill bit.
3. Place a combination square (4) on the table as shown. The drill bit should be parallel to the straight edge of the square.
4. If an adjustment is needed, loosen the bevel lock (5) with a wrench.
5. Square the table to the bit by tilting the table.
6. Tighten the bevel lock bolt (5) when square.



V. Assembly and adjustments (continued)

DRILLING DEPTH (Fig. 18)

1. To stop the drill at a specific depth for consistent and repetitive drilling, loosen the depth scale lock (1) located on the depth scale hub (2).
2. Turn the hub until the pointer (3) is aligned to the desired depth on the scale.
3. Tighten the depth scale lock (1). The chuck will stop after traveling downward to the distance selected.

SPINDLE RETURN SPRING (Fig. 19)

The spindle is equipped with an auto-return mechanism. The main components are a spring and a notched housing. The spring was properly adjusted at the factory and should not be readjusted unless absolutely necessary. If it needs to be adjusted, proceed as follows:

1. Unplug the drill press.
2. Place a screwdriver into the loop (1) to hold the spring in place.
3. Loosen the two housing nuts (2) approximately 1/4" (6 mm). Do not remove the nuts from the threaded shaft.
4. While firmly holding the spring housing (3), carefully pull it out until it clears the raised notch (4). Turn it until the next notch (5) is engaged with the raised notch (to increase the tension, turn it counterclockwise; to decrease the tension, turn it clockwise). Tighten the two housing nuts.

▲ IMPORTANT: Do not overtighten the two nuts. If the nuts are tightened too much, the movement of the spindle and feed handles will be sluggish.

ANGULAR PLAY OF THE SPINDLE (Fig. 20)

Move the spindle to the lowest downward position and hold in place. With your other hand, try to make it revolve around its axis with a side motion. If there is too much play proceed as follows:

1. Loosen the lock nut (1).
2. Turn the screw clockwise to eliminate the play but without obstructing the upward and downward motion of the spindle (a little bit of play is normal).
3. Tighten the lock nut (1).

Fig. 18

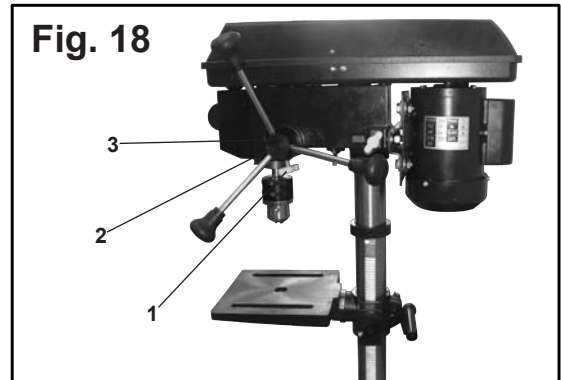


Fig. 19

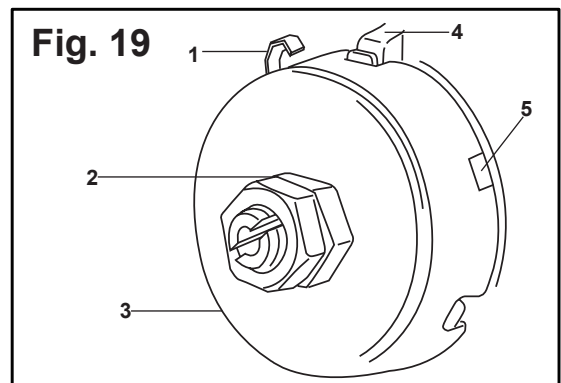
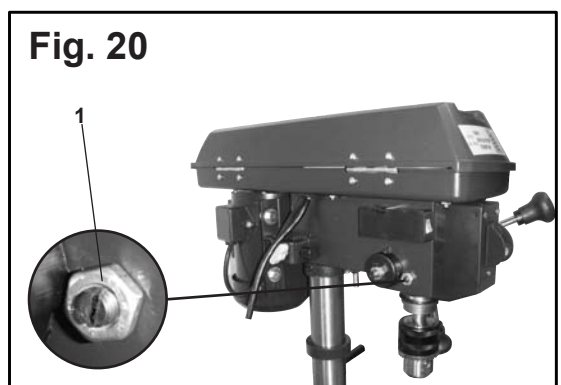


Fig. 20



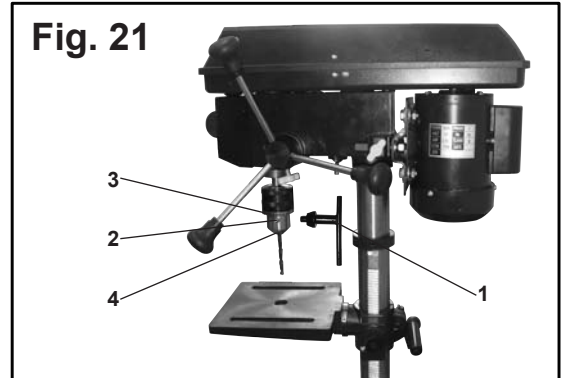
V. Assembly and adjustments (continued)

INSTALL DRILL BITS (Fig. 21)

1. Place the chuck key (1) into the side keyhole of the chuck (2), meshing the gear teeth (3).
2. Turn the chuck key counterclockwise to open the chuck jaws (4).
3. Insert a drill bit into the chuck far enough to obtain maximum gripping of the chuck jaws.
4. Centre the drill bit in the chuck jaws before final tightening of the chuck.
5. Use the chuck key for the final tightening to make sure the drill bit will not slip while drilling.

▲ WARNING: To reduce the risk of injury, only use the chuck key provided with this drill press or a duplicate of it. This chuck key is self-ejecting and will “pop” out of the chuck when you let go. This action is designed to help prevent throwing of the chuck key from the chuck when power is turned “on”. Do not use any other key as a substitute; order a new one if damaged or lost.

▲ WARNING: To reduce the risk of injury, make sure the chuck key is removed from the chuck before starting any drilling operation.

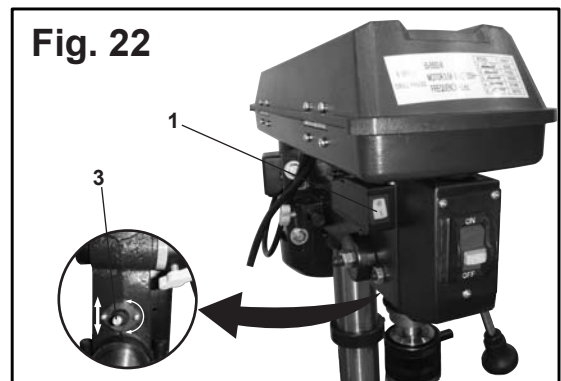


▲ WARNING: DO NOT STARE DIRECTLY AT THE LASER BEAM! Deliberately staring into the beam could be hazardous. Please observe all safety rules as follows:

- The laser must be used and maintained in accordance with the manufacturer's instructions.
- Never aim the beam at any person or an object other than the workpiece.
- Do not project the laser beam into the eyes of others.
- Always ensure the laser beam is aimed at a workpiece without reflective surfaces as the laser beam could be projected into your eyes or the eyes of others.

LASER SWITCH (Fig. 22)

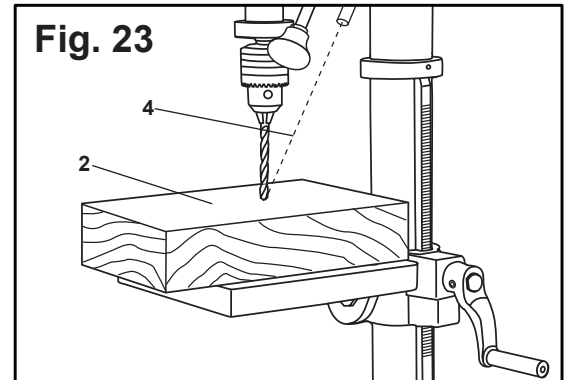
The laser switch (1) is located on the left side of the drill press housing.



V. Assembly and adjustments (continued)

ADJUST THE LASER LINE (Fig. 22-23)

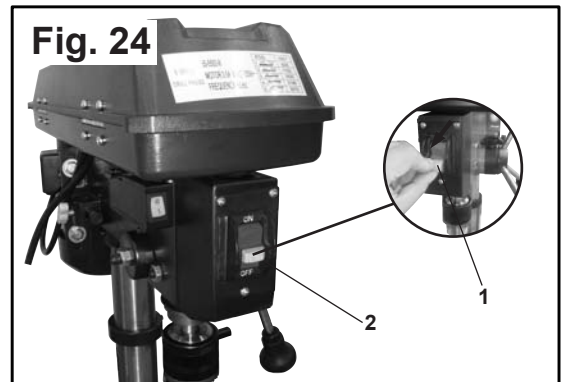
1. Place a workpiece on the table.
 2. Turn the laser switch (1) to the ON position.
 3. Lower the drill bit to meet the workpiece (2). The laser line should cross where the drill meets the workpiece.
 4. If the laser needs to be adjusted:
 - a. Lift the laser light housing (3) back and forth until the line (4) intersects where the drill meets the workpiece (2).
 - b. Or turn the laser clockwise or counterclockwise until the line (4) intersects where the drill meets the workpiece (2).
- DO NOT stare directly at the laser lines.



VI. Operating instructions

ON/OFF SWITCH (Fig. 24)

1. To turn the drill press ON, insert the safety key (1) into the switch housing (2). As a safety feature, the switch cannot be turned ON without the key.
2. Flip the switch upward to the ON position.
3. To turn the drill press OFF, move the switch to the down position.
4. To lock the switch in the OFF position, remove the safety key from the switch. Store the key in a safe place.



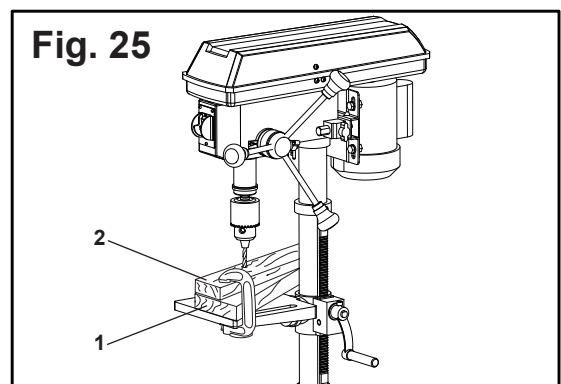
POSITION THE TABLE AND WORKPIECE (Fig. 25)

Always place a piece of backup material (1) (wood, plywood, etc.) on the table underneath the workpiece (2). This will prevent splintering on the underside of the workpiece as the drill bit breaks through. To keep the material from spinning out of control, it must contact the left side of the column as illustrated, or be clamped to the table.

▲ Note: For small workpieces that cannot be clamped to the table, use a drill press vise (optional accessory, not included). The vise must be clamped or bolted to the table to avoid injury.

▲ WARNING: To reduce the risk of injury and the workpiece and the backup material from being torn from your hand while drilling, position them to the left side of the column. If the workpiece and the backup material are not long enough to reach the column, clamp them to the table. Failure to do this could result in personal injury.

▲ WARNING: To reduce the risk of injury, make sure the chuck key is removed from the chuck before starting any drilling operation.



VI. Operating instructions (continued)

DRILLING A HOLE

Use a centre punch or sharp nail to dent the workpiece where you want the hole. With the switch OFF, bring the drill bit down to the workpiece, lining it up with the hole location. Turn the switch ON and pull down on the feed handles with only enough effort to allow the drill to cut.

- Feeding too slowly might cause the drill bit to burn.
- Feeding too rapidly might stop the motor, causing the belt or drill to slip, tearing the workpiece loose, or breaking the drill bit.
- For deeper cuts, drill into the workpiece about 1/4" (6.4 mm) and raise the drill bit out of the workpiece. This will clear chips out of the hole. Drill again another 1/4" (6.4 mm) and raise the drill bit out of the hole to clear debris and chips. Repeat until finished drilling the hole. Practice with scrap material to get the feel of the machine before attempting to do any regular drilling operation.

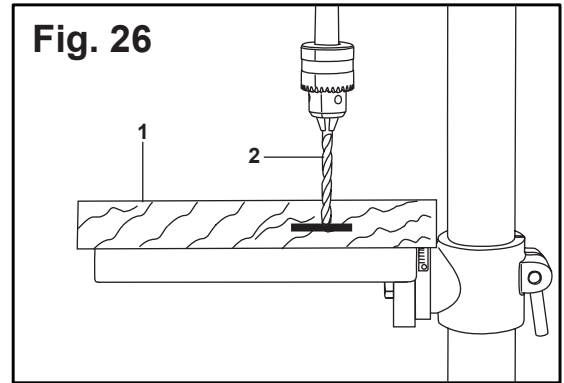
When drilling metal, it will be necessary to lubricate the tip of the drill with oil to prevent overheating the drill bit.

DRILLING TO A SPECIFIC DEPTH

Drilling a blind hole (not all the way through the workpiece) to a given depth can be done in two ways.

WORKPIECE METHOD (Fig. 26)

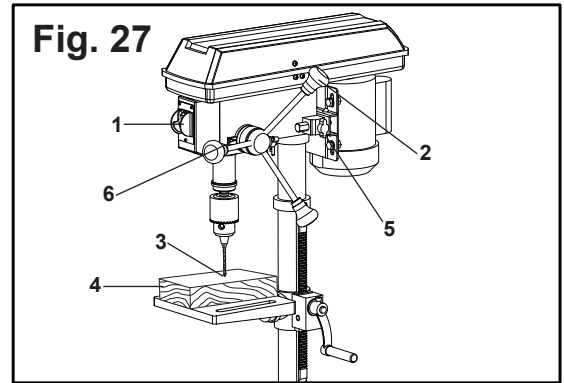
1. Mark the desired depth of the hole on the side of the workpiece (1).
2. With the switch off, bring the drill bit (2) down until the tip is even with the mark.
3. Hold the feed handle at this position.
4. Lock the depth scale lock knob. The chuck and the drill bit will now be stopped at the distance selected on the depth scale.



VI. Operating instructions (continued)

DEPTH SCALE METHOD (Fig. 27)

1. With the switch (1) OFF, turn the feed handle (2) until the drill bit tip (3) slightly touches the top of the workpiece (4).
2. Hold the feed handles in that position.
3. Loosen the depth lock knob (5).
4. Spin the depth scale hub (6) until the desired drilling depth is at the scale pointer.
5. Lock the depth lock knob. The chuck and drill bit will now drill into the workpiece only to the distance selected on the depth scale.



GENERAL DRILLING GUIDELINES

▲ WARNING: To reduce the risk of injury, make sure the chuck key is removed from the chuck before starting any drilling operation.

DRILLING SPEEDS

Important factors when determining the best drilling speed:

- Type of material
- Size of the hole to be drilled
- Type of drill bit or cutter
- Desired quality of the cut

Remember, smaller drill bits require greater speed than larger drill bits. Softer materials require greater speed than harder materials.

DRILLING METAL

- Use metal-piercing twist drill bits.
- It is always necessary to lubricate the tip of the drill with oil to prevent overheating the drill bit.
- All metal workpieces should be clamped down securely. Any tilting, twisting, or shifting causes a rough drill hole, and increases the potential of drill bit breakage.
- Never hold a metal workpiece with your bare hands.

The cutting edge of the drill bit may seize the workpiece and throw it, causing serious injury. The drill bit will break if the metal piece suddenly hits the column.

- If the metal is flat, clamp a piece of wood under it to prevent turning. If it cannot be laid flat on the table, then it should be blocked and clamped.

DRILLING WOOD

- Brad point bits are preferred. Metal piercing twist bits may be used on wood.
- Do not use auger bits. They turn so rapidly that they lift the workpiece off the table and whirl it around.
- Always protect the drill bit by positioning the table so the drill bit will enter the centre hole when drilling through the workpiece.
- To prevent splintering, feed slowly when the bit is about to cut through to the backside of the workpiece.
- To reduce splintering and protect the point of the bit, use scrap wood as a backing or a base block

VI. Operating instructions (continued)

under the workpiece.

FEEDING THE BIT

- Pull down on the feed handles with only enough force to allow the drill bit to cut.
- Feeding too rapidly might stall the motor, cause the belt to slip, damage the workpiece, or break the drill bit.
- Feeding too slowly will cause the drill bit to heat up and burn the workpiece.

VII. Maintenance

▲WARNING: To reduce the risk of injury, turn power switch OFF and remove plug from the power source outlet before maintaining or lubricating your drill press.

Frequently blow out or vacuum sawdust or metal chips that accumulate in and on the motor, pulley housing, table, and work surface.

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

The ball bearings in the spindle and the V-belt pulley assembly are greased and permanently sealed. Pull the spindle down and oil the spindle sleeve moderately every three months.

▲ CAUTION: Certain cleaning agents and solvents damage plastic parts. Some of these are: gasoline, carbon tetrachloride, chlorinated cleaning solvents, ammonia and household detergents that contain ammonia. Avoiding use of these and other types of cleaning agents minimizes the probability of damage.

To avoid shock or fire hazard, if the power cord is worn, cut or damaged in any way, have it replaced immediately.

▲ WARNING: All repairs, electrical or mechanical, should be attempted only by trained repairmen. Use only MASTERCRAFT® replacement parts; any other may create a hazard.

VIII. Troubleshooting

This section describes problems and malfunctions that you should be able to resolve yourself.

▲ DANGER: Many accidents happen particularly in connection with problems and faults. Therefore please note:

1. Always unplug before servicing.
2. Check that all safety devices are operational again after each servicing.

SYMPTOM	POSSIBLE CAUSE(S)	CORRECTIVE ACTION
Will not start	Power cord is not plugged in	Plug in
	Fuse or circuit breaker tripped.	Replace fuse or reset tripped circuit breaker.
	Cord damaged.	Have cord replaced by an a qualified electrician.
	Misaligned guides	Have switch replaced by a qualified service technician.
Does not come up to speed	Extension cord too light or too long	Replace with adequate cord
	Low house voltage	Contact your electric company

Contact service centre toll-free at 1-800-689-9928 when problems remain unsolved after performing the above checks.

IX. Warranty

3-Year Limited Warranty

This Mastercraft product is guaranteed for a period of 3 years from the date of original retail purchase against defects in workmanship and materials, except for the following component:

Component A: Accessories, which are guaranteed for a period of 1 year from the date of original retail purchase against defects in workmanship and materials.

Subject to the conditions and limitations described below, this product, if returned to us with proof of purchase within the stated warranty period and if covered under this warranty, will be repaired or replaced (with the same model, or one of equal value or specification), at our option. We will bear the cost of any repair or replacement and any costs of labour relating thereto.

These warranties are subject to the following conditions and limitations:

- a) A bill of sale verifying the purchase and purchase date must be provided;
- b) This warranty will not apply to any product or part thereof which is worn or broken or which has become inoperative due to abuse, misuse, accidental damage, neglect or lack of proper installation, operation or maintenance (as outlined in the applicable owner's manual or operating instructions) or which is being used for industrial, professional, commercial or rental purposes;
- c) This warranty will not apply to normal wear and tear or to expendable parts or accessories that may be supplied with the product that are expected to become inoperative or unusable after a seasonable period of use;
- d) This warranty will not apply to routine maintenance and consumable items such as, but not limited to, fuel, lubricants, vacuum bags, blades, belts, sandpaper, bits, fluids, tune-ups or adjustments;
- e) This warranty will not apply where damage is caused by repairs made or attempted by others (i.e. persons not authorized by the manufacturer);
- f) This warranty will not apply to any product that was sold to the original purchaser as a reconditioned or refurbished product (unless otherwise specified in writing);
- g) This warranty will not apply to any product or part thereof if any part from another manufacturer is installed therein or any repairs or alterations have been made or attempted by unauthorized persons;
- h) This warranty will not apply to normal deterioration of the exterior finish, such as, but not limited to, scratches, dents, paint chips, or to any corrosion or discolouring by heat, abrasive and chemical cleaners; and
- i) This warranty will not apply to component parts sold by and identified as the product of another company, which shall be covered under the product manufacturer's warranty, if any.

Additional Limitations

This warranty applies only to the original purchaser and may not be transferred. Neither the retailer nor the manufacturer shall be liable for any other expense, loss or damage, including, without limitation, any indirect, incidental, consequential or exemplary damages arising in connection with the sale, use or inability to use this product.

Notice to Consumer

This warranty gives you specific legal rights, and you may have other rights, which may vary from province to province. The provisions contained in this warranty are not intended to limit, modify, take away from, disclaim or exclude any statutory warranties set forth in any applicable provincial or federal legislation.

X. Parts list

MASTERCRAFT® Drill Press

055-5509-2

When servicing your Mastercraft® Drill Press, use Mastercraft® replacement parts only. Use of any other parts may cause product damage. Any and all servicing of the Drill Press should be performed by a qualified service technician.

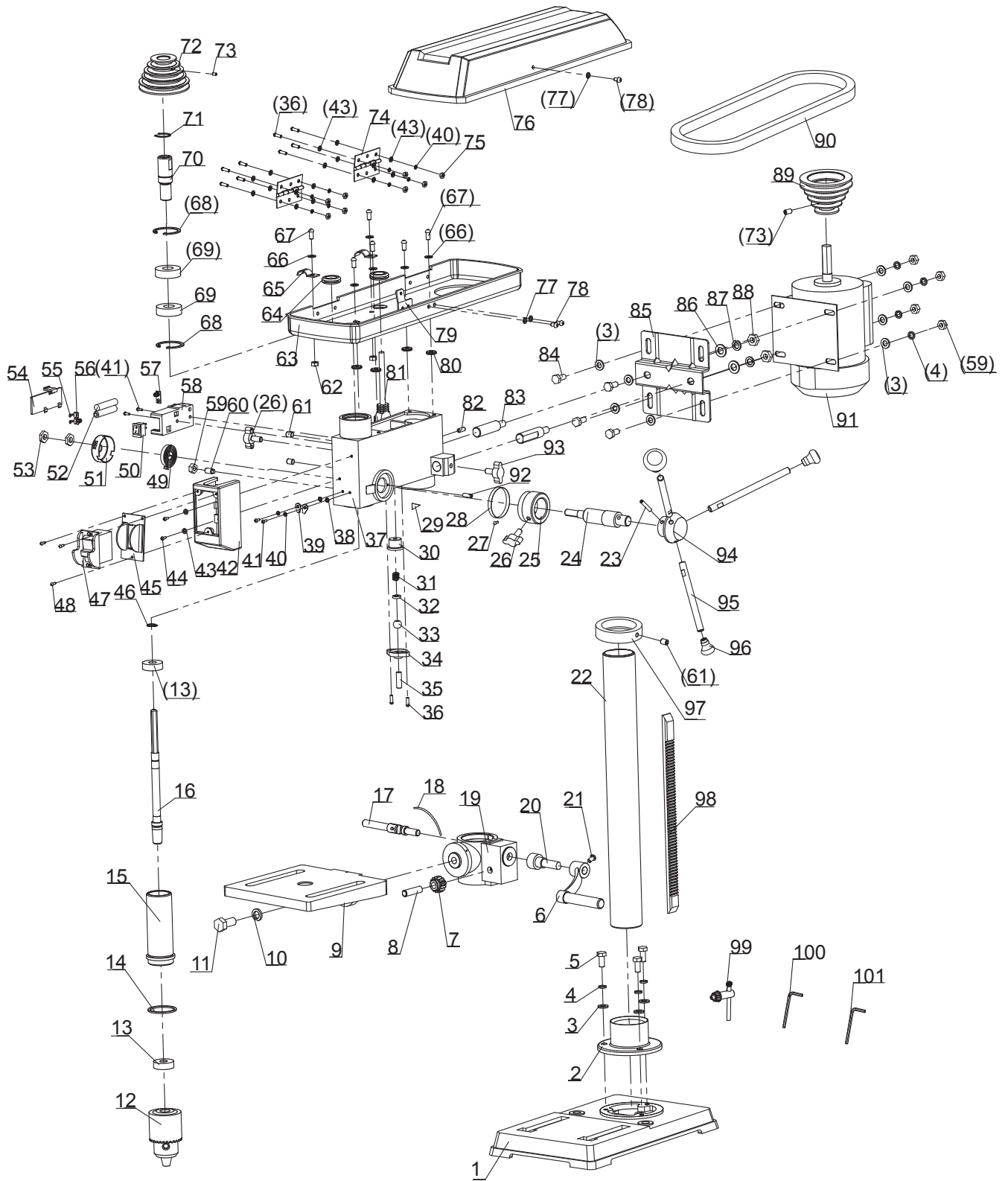
▲WARNING:

ANY ATTEMPT TO REPAIR OR REPLACE ELECTRICAL PARTS ON THIS TOOL MAY BE HAZARDOUS. REPAIRS SHOULD BE DONE BY A QUALIFIED SERVICE TECHNICIAN.

No	Description	Qty	No	Description	Qty
1	Base	1	42	Switch box	1
2	Column support	1	43	Flat washer	18
3	Flat washer	11	44	Screw	2
4	Spring washer	7	45	Fixed plate	1
5	Bolt	3	46	Spring ring	1
6	Crank handle	1	47	Self-locking switch	1
7	Gear	1	48	Screw	3
8	Pin sleeve	1	49	Loop spring	1
9	Working table	1	50	Switch	1
10	Spring washer	1	51	Spring cap	1
11	Bolt	1	52	Battery	2
12	Chuck	1	53	Hexagon thin nut	2
13	Bearing	2	54	Cover	1
14	Buffer washer	1	55	Electrode (B)	1
15	Axis sleeve	1	56	Electrode (A)	1
16	Axis	1	57	Electrodes (B)	1
17	Lock handle	1	58	Box for battery	1
18	Bevel scale	1	59	Hexagon nut	5
19	Support	1	60	Screw	1
20	Rail	1	61	Screw	3
21	Screws	1	62	Hexagon nut	2
22	Column	1	63	Lower guard	1
23	Elastic cylindrical pin	1	64	Coil protection	2
24	Axis	1	65	Pin	2
25	Scale plate	1	66	Flat washer	6
26	Knob	1	67	Screw	6
27	Rivet	1	68	Spring ring	2
28	Scale label	1	69	Axis	2
29	Pointer	1	70	Axis sleeve	1
30	Base	1	71	Spring ring	1
31	Compress spring (B)	1	72	Pulley	1
32	Compress board	1	73	Screw	2
33	Ball	1	74	Hinge	2
34	Spherical cap	1	75	Hexagon nut	8
35	Laser	1	76	Upper guard	1
36	Screw	10	77	Flat washer	3
37	Body	1	78	Screw	3
38	Gear pad	2	79	Lock	1
39	Earthing pin	2	80	Shock washer	4
40	Spring washer	10	81	Power cord	1
41	Screw	4	82	Positioned pin	1

X. Parts list (continued)

No	Description	Qty	No	Description	Qty
83	Connected axis	2	93	Handle	2
84	Bolt	4	94	Base for feed handle	1
85	Base board	1	95	Rail for feed handle	3
86	Flat washer	2	96	Ball for feed handle	3
87	Spring washer	2	97	Rack collar	1
88	Hexagon nut	2	98	Rack	1
89	Motor pulley	1	99	Chuck key	1
90	Belt	1	100	Allen wrench	1
91	Motor	1	101	Allen wrench	1
92	Worm pin	1			



Imported by Mastercraft Canada Toronto, Canada M4S 2B8