

owners manual

MODEL NO. 113.299131



CRAFTSMAN

CAUTION:

Read SAFETY RULES and INSTRUCTIONS carefully

12-INCH MOTORIZED FLOOR SAW

assembly operating repair parts

Sears, Roebuck and Co., Chicago, III. 60684 U.S.A. and Simpsons-Sears Limited, Toronto

general safety instructions for power tools

1. KNOW YOUR POWER TOOL

Read the owner's manual carefully. Learn its application and limitations as well as the specific potential hazards peculiar to this tool.

2. 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.

3. KEEP GUARDS IN PLACE

and in working order.

4. REMOVE ADJUSTING KEYS AND WRENCHES

Form habit of checking to see that keys and adjusting wrenches are removed from tool before turning it on.

5. KEEP WORK AREA CLEAN

Cluttered areas and benches invite accidents. Floor must not be slippery due to wax or sawdust.

6. AVOID DANGEROUS ENVIRONMENT

Don't use power tools in damp or wet locations, Keep work area well lit. Provide adequate surrounding work space.

7. KEEP CHILDREN AWAY

All visitors should be kept a safe distance from work area.

8. MAKE WORKSHOP KID-PROOF

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

9. DON'T FORCE TOOL

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

10. USE RIGHT TOOL

Don't force tool or attachment to do a job it was not designed for.

11. WEAR PROPER APPAREL

No loose clothing, gloves, neckties or jewelry to get caught in moving parts. Rubber-soled footwear is recommended for best footing.

12. USE SAFETY GOGGLES

Safety goggles must comply with ANS Z87.1-1968.

Also use face or dust mask if cutting operation is dusty.

13. SECURE WORK

Use clamps or a vise to hold work when practical. It's safer than using your hand, frees both hands to operate tool.

14. DON'T OVERREACH

Keep proper footing and balance at all times.

15. MAINTAIN TOOLS WITH CARE

Keep tools sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.

16. DISCONNECT TOOLS

before servicing; when changing accessories such as blades, bits, cutters, etc.

17. AVOID ACCIDENTAL STARTING

Make sure switch is in "OFF" position before plugging in.

18. USE RECOMMENDED ACCESSORIES

Consult the owner's manual for recommended accessories. Follow the instructions that accompany the accessories. The use of improper accessories may cause hazards.

19. NEVER STAND ON TOOL

Serious injury could occur if the tool is tipped or if the cutting tool is accidentally contacted.

Do not store materials above or near the tool such that it is necessary to stand on the tool to reach them.

20. CHECK DAMAGED PARTS

A guard or other part that is damaged should be properly repaired or replaced before further use of the tool.

Carefully check the repaired or new part to assure that it will operate properly and perform its intended function.

If power cord is worn or cut, or damaged in any way, have it replaced immediately.



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 complying with ANS Z87.1-1968 before commencing power tool operation. We recommend Wide Vision Safety Mask for use over spectacles, or standard safety goggles ... available at Sears retail or catalog stores.



THIS SAFETY SEAL OF THE POWER TOOL INSTITUTE ASSURES YOU...

- That the manufacturer's power tools, including the particular tool associated with the Seal, are produced in accordance with applicable Standards For Safety of Underwriters' Laboratories and American National Standards (ANSI).
- That compliance with applicable safety standards is assured by independent inspection and testing conducted by Underwriters' Laboratories (UL).
- 3. That every motorized tool is inspected under power.
- That every tool has with it adequate instructions and a list of safety rules for the protection of the user.
- That the tool manufacturer is a member of the Power Tool Institute and is a sponsor of the Institute's Consumer Safety Education Program.

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SAFETY INSTRUCTIONS TO OPERATOR

WARNING: Do not connect power cord until the following steps have been satisfactorily completed:

- a. READ CAREFULLY AND UNDERSTAND THE FOL-LOWING INSTRUCTIONS and the "SAFETY RULES FOR POWER TOOLS" ON PAGE 2.
- b. Examination and operating familiarity with ON-OFF switch, elevation control, bevel control, miter gauge, and rip fence.

CAUTION: Always disconnect the power cord when removing the table insert, changing the cutting tool, or making adjustments.

- 1. The saw should be bolted down if there is any tendency to tip over or move during normal operations. The saw table should be approximately 36-inches above the floor.
- The saw work area should have adequate overhead, non-glare light and adequate surrounding work space.
- 3. The saw should be positioned so neither the operator nor a casual observer is forced to stand in line with the saw blade.
- 4. Kickbacks can cause serious injury. A "kickback" occurs when a part of the workpiece binds on the saw blade or binds between the saw blade and the rip fence or other fixed object, rises from the table, and is thrown toward the operator. Kickbacks are usually caused by one or more of the following conditions:
 - a. Failure to use a spreader when ripping, or failure to maintain the spreader in alignment with the saw blade.
 - b. Improperly conditioned (dull) saw that permits the material to pinch on the out-feed edge of the saw and rise from the table.
 - c. Failure to determine that the rip fence and the saw blade are parallel to one another.
 - d. Ripping wood that has a twisted grain, does not have a straight edge to guide along the fence, or wood that is twisted or not flat (which may rock on the table and pinch the blade).
 - e. Confining the cut-off piece when ripping or crosscutting.
 - f. Ripping by applying the feed force to the section of the workpiece that will become the cut-off (free) piece (feed force when ripping should always be applied between the saw blade and the fence — use push stick for narrow or short work).
 - g. Releasing workpiece before operation is complete; not pushing the workpiece all the way past the saw blade.
- Injury from kickbacks can be prevented or minimized by:
 - a. Avoiding any of the causes noted above;
 - Making sure by trial before starting the cut that the anti-kickback pawls will stop the kickback once it has started (sharpen all points if they do not);
 - c. Keeping your face and body always out of line of possible kickbacks, including turning the switch ON and OFF.
 - d. Always wearing safety goggles.
 - e. Never use both the rip fence and miter gauge during the same operation.

- 6. A large proportion of tilting arbor saw accidents is caused by dull, badly set, improperly filed cutting tools, by gum or resin adhering to cutting tools and by fence misalignment (out of parallel) with the saw blade. Such conditions cause the material to stick, jam, stall the saw, or kick-back at the operator. Cracked saw blades should be discarded immediately. A saw blade can become cracked if it wobbles or if it is not in balance. NEVER ATTEMPT TO FREE A STALLED SAW BLADE WITHOUT TURNING THE SAW OFF. Avoid potential injury by proper cutting tool and machine maintenance.
- 7. Gloves should not be worn while operating the saw. Loose flowing garments, jewelry (rings, wrist watches, etc.), and neckties should never be worn. Long sleeves should be rolled to above the elbows.
- 8. To protect your eyes, always wear safety goggles. In addition, wear a face shield to protect against flying particles. Ear protectors (ear plugs or muffs) should be used during extended periods of operation.
- 9. Provide proper support for the workpiece, based on its size and the type of operation to be performed; hold the work firmly against the gauge or guide. Use a push stick when ripping short work (under 6-inches long), or narrow work. A push block or miter gauge hold-down should be used when dadoing or molding.
- 10. Never use a length stop (such as the fence when crosscutting) on the free end or edge of the workpiece. Never hang onto or touch the free end of workpiece, or a free piece that is cut off, while power is "ON" and/or the sawblade is rotating. In short, to guard against kickbacks or other potential accidents, the cut-off piece in any thru-sawing operation must never be confined — it must be allowed to move laterally. Never use the rip fence when cross-cutting, or the miter gauge when ripping.
- Cross-cutting operations are more conveniently worked and with greater safety if an auxiliary wood facing is attached to the miter gauge using the holes provided.
- 12. Do not leave a long board unsupported so the spring of the board causes it to shift on the table. A support should be used to catch the end of the board behind the blade.
- 13. Never climb on or near the saw. Serious injury could occur if the tool is tipped or if the cutting tool is accidently contacted. Never leave the saw with power on, or before the cutting tool has come to a complete stop.
- 14. Avoid awkward operations and hand positions, where a sudden slip could cause a hand to move into a saw blade or other cutting tool. Never reach in back of the cutting tool with either hand to hold down the workpiece.
- 15. Make sure the top of the arbor or cutting tool rotates toward you when standing in normal operating position. Also make sure the cutting tool, arbor collars and arbor nut are installed properly. Keep the cutting tool as low as possible for the operation being performed. Keep all guards in place whenever possible.
- 16. Do not use any blade or other cutting tool marked for an operating speed in excess of the design speed of the saw. Never use a cutting tool larger in diameter than the diameter for which the saw was designed. For greatest safety and efficiency when ripping, use the maximum diameter blade for which the saw is designed, since under these conditions the spreader is nearest the blade.

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SAFETY INSTRUCTIONS TO OPERATOR

- 17. Adjust table inserts flush with, or slightly below, the table top.
- 18. For operations which do not permit the use of a spreader, serious consideration should be given to the use of jigs or fixtures to hold the work so the hands of the operator are removed a safe distance from the point of operation.
- 19. The use of abrasive or cut-off wheels, or wire wheels can be dangerous and is not recommended. (Abrasive or cut-off wheels are used to saw many different materials including metals, stone, and glass.)
- 20. Objects can be thrown upward toward the operator by the back of the blade if proper operating procedures are not followed. This usually occurs when a small loose piece of wood or other object works around to the rear of the revolving blade. It can usually be avoided by removing all loose pieces from the table immediately after they are cut off, using a long stick of wood, and by keeping the guard and spreader in place at all times. Use extra caution when the guard assembly is removed for dadoing or molding, and replace the guard as soon as that operation is completed.

Rubber mallet

Pencil

- 21. Never perform any operation "freehand." This term means feeding the stock into the saw blade or other cutting tool without using the miter gauge, rip fence, taper jig, or some other device which prevents rotating or twisting of the workpiece during the operation.
- 22. Never turn your saw "ON" before clearing the table of all objects (tools, scraps of wood, etc.) except the workpiece and related feed or support devices for the operation planned.
- 23. Safety is a combination of operator common sense and alertness at all times when the saw is being used.
- 24. Do not cycle the motor switch on and off rapidly, as this may cause the saw blade to loosen. In the event this should ever occur, allow the saw blade to come to a complete stop and retighten the arbor nut normally, not excessively.

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



NOTE: An arbor wrench and shaft wrench, for removing or installing the saw arbor nut, and all necessary hex-"L" wrenches are supplied with the saw. (Refer to the "Loose Parts List.")

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Small steel scale

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Pliers

unpacking and pre-assembly



UNPACKING AND CHECKING CONTENTS

This Craftsman Motorized Floor Saw is shipped complete in one carton. In order to prevent damage during shipment and facilitate packaging, certain items are removed at the factory and must be assembled when received by the purchaser. These "loose" parts are listed below and should be accounted for before discarding any packing material.

Key No. (Fig. 1)	Item Name	Qty.
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19	Leg Base Stiffener, Leg Fence, Auxiliary Extension Assembly, Table Sliding Support, Table Extension Extension, Table Guard Assembly, Saw Gauge Assembly, Miter Fence Assembly, Miter Fence Assembly, Rip Wrench, Arbor Wrench, Shaft Bar Assembly, Fence Rack, Table Rod Assembly, Extension Package Assembly, Loose Parts (Saw) Package Assembly, Loose Parts (Saw) Package Assembly, Loose Parts (Saw) Package Assembly, Loose Parts (Leg) Package Assembly, Loose Parts (Extension) Owners Manual List of Loose Parts, Basic Saw (Package 15, figure 1) Spacer, Fence Guide Bar Screw, Mach., RdHd. Slotted, 1/4-20 x 2" Nut, Hex., 1/4-20 Washer, Lock, 1/4 Wrench, Hex., 3/32"	

Key No. (Fig. 1)	Item Name Qty
	Wrench, Hex., 1/8" 1 Wrench, Hex., 5/32" 1 Wrench, Hex., 3/16" 1 Key, Switch 2
	List of Loose Parts, Auxiliary Fence (Package 16, figure 1)
	Clamp, Table Extension 2 Screw, Mach., HexHd., 5/16-18 x 3/4" 4 Nut, Hex., 5/16-18 2 Washer, Lock, 5/16 4 Nut, Wing, 5/16-18 4
	List of Loose Parts, Leg Assembly (Package 17, figure 1)
	Screw, Mach., HexHd., 5/16-18 x 5/8" 16 Nut, Hex., 5/16-18 16 Screw, Mach., HexHd., 1/4-20 x 1/2" 16 Nut, Hex., 1/4-20 16
	Nut, Hex., 1/2-13 8
	Foot, Leveling
	List of Loose Parts, Extension (Package 18, figure 1) Screw, Mach., HexHd., 5/16-18 x 1-1/4" 8 Nut, Hex., 5/16-18 8 Washer, Lock, 5/16" 8 Support, Extension Rod 2

POWER SUPPLY AND MOTOR DATA

MOTOR SPECIFICATIONS

The AC motor used in this saw is a single voltage capacitor start capacitor run, non-reversible type, with the following specifications:

Voltage		l
Amperes	s)

assembly and adjustments



MOTOR SPECIFICATIONS (Cont'd)

CAUTION: This saw is wired for operation on 240 volts only. Connect to a 15 ampere branch circuit protected by a 15 ampere time delay or circuit saver fuse or circuit breaker.

WARNING: Do not permit fingers to contact the terminals of power or motor plugs when installing or removing the plug to or from a live power source. Hold the plug as shown in figure 3.

MOTOR SAFETY PROTECTION

The saw motor is equipped with a manual-reset thermal overload protector, designed to open the power line circuit when the motor temperature exceeds a safe value. (See figure 4.)

- If the protector opens the line and stops the saw motor, press the saw switch to the "OFF" position immediately and allow the motor to cool.
- After cooling to a safe operating temperature, the overload protector can be closed manually by pushing in the red button on the motor terminal box cover. If the red button will not snap into place immediately, the motor is still too hot and must be allowed to cool for a while longer.
- 3. As soon as the red button will snap into running position, the saw may be started and operated normally by pulling the saw switch to the "ON" position.
- 4. Frequent opening of fuses or circuit breakers may result if motor is overloaded, or if the motor circuit is fused with a fuse other than those recommended. Do not use a fuse of greater capacity without consulting the power company.
- 5. Although the motor is designed for operation on the voltage and frequency specified on motor nameplate, normal loads will be handled safely on voltages not more than 10% above or below the nameplate voltage.

Heavy loads, however, require that voltage at motor terminals be not less than the voltage specified on nameplate.

6. Most motor troubles may be traced to loose or incorrect connections, overloading, reduced input voltage (which results when small size wires are used in the supply circuit) or when the supply circuit is extremely long. Always check connections, load and supply circuit when the motor fails to perform satisfactorily. Check wire sizes and lengths with the table in the next paragraph. Replace or repair damaged or worn cord immediately.

WIRE SIZES

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. All cords should be 3-wire, grounded.

Extension Cord Length	Wire Size A.W.G.
50 ft. or less	14
50 ft. to 100 ft.	12
100 ft. to 150 ft.	10
150 ft. to 200 ft.	8
200 ft. to 400 ft.	6

NOTE: For circuits of greater length, the wire size must be increased proportionately in order to deliver ample voltage to the saw motor.

ASSEMBLY AND ADJUSTMENTS

1. Remove the "loose" parts; clean the parts and the basic saw assembly thoroughly. (See figure 1.) Items having a rust-preventive coating, (saw table, etc.) may be cleaned with a cloth saturated with kerosene. Wipe other parts with a clean, dry cloth.

CAUTION: Before attempting to use the saw, assemble it as outlined in the following instructions. All adjustments are carefully checked prior to shipping the saw. However, rough handling in transit may necessitate some readjustments.

- 2. Assemble the basic saw assembly and check all adjustments as outlined in the following instructions:
 - a. Installation of Legs.
 - (1) With saw upside down, install legs and leg stif-



feners. (See figure 5.) Using parts from the correct loose parts bag, assemble the legs to the saw base with the sixteen $5/16-18 \times 5/8$ inch screws and 5/16-18 nuts. (See figure 6.) Leave these screws loose in order to facilitate mounting the stiffeners. All four leg stiffeners are identical and since the distance on the sides is greater than the distance on the ends, the leg stiffeners used on the sides should be attached at outer holes while the stiffeners at the ends should be attached at inner holes. (See figure 6.)

- (2) Assemble the four stiffeners with sixteen 1/4-20 x 1/2 inch screws and 1/4-20 inch nuts. After stiffeners are all in place, tighten all screws securely. Install leveling feet, each with 2 1/2-13 x 3/4 x 5/16 hex nuts. (See figure 6.)
- (3) Place the saw in an upright position on its legs.

b. Installation of Side Extensions.

 Install table extensions on each side of the table with four 5/16-18 x 1-1/4 inch screws, 5/16-18 inch nuts and 5/16 inch lockwashers in each extension (See figure 7.) These extensions are provided with multiple holes on both sides (front and back) to make them adaptable to various table mountings. Position the extensions to the sides of the table so the four holes in the table and the extensions are aligned when the table and extensions are correctly mated. An extension rod support should be located under each end screw at left-hand side of the saw. (See figures 7 and 8.) Leave screws snug (not tight). Be sure to position the extension rod supports as shown in figure 8.

- (2) Place a small steel scale across saw table edge and table extensions edge and, using the rubber mallet, tap extensions slightly up or down (or forward and rearward) until the surface of each table extension is even with surface of table top and front edge of table. (See figure 9.) Tighten nuts on all attaching bolts securely and recheck to make sure tightening nuts did not permit extension to move.
- c. Installation of fence guide bar, rack and switch box support. (See figure 10.)
 - Insert a 1/4-20 x 2 inch, slotted round-head screw through the center hole of guide bar and through a spacer. The guide bar should be positioned so the scale faces upward, and is readable from the front of the saw. (See figure 10.)

assembly and adjustments



- (2) Attach this assembly to the center hole in the table and secure the assembly with a 1/4 inch lockwasher and 1/4-20 inch hex nut. Do not tighten the nut until all attaching screws are in position.
- (3) Place each rack in position (as shown in figure 11) and insert a 1/4-20 x 2 inch slotted round head screw through the outside hole, through the guide bar, spacer and table extension. Secure with a 1/4 inch lockwasher and 1/4-20 inch hex nut. (See figure 10.)
- (4) Place switch box in position (either to right hand or left hand side of saw table as desired). Attach with two 1/4-20 x 2 inch slotted round head screws through switch box mounting flange, rack, guide bar, spacer and table. Secure with two 1/4 inch lockwashers and 1/4-20 inch hex nuts. (See figures 10 and 11.)
- (5) Complete attachment of opposite rack with two more screws, aligned with table in the same sequence described above. Tighten all screws securely.
- d. Installation of Auxiliary Fence and Extension. (See figure 12.)

NOTE: This adjustable, auxiliary fence and extension was designed for use on the left-hand side of the saw (when facing the saw at operator's position).

 Attach the table extension support (1, figure 12) to outside edge of left-hand table extension with two 5/16-18 x 3/4 inch screws (5), 5/16-18 inch nuts and 5/16 inch lockwashers in position as shown in figure 12. Do not tighten the screws fully.

- (2) Slide the extension slide rod (2) through each rod support (3) and through the hole in each end of the support (1). It will be necessary to slide these rods from under the table because of the retaining rings.
- (3) Attach the sliding extension (9) to each rod (2) with a 5/16-18 x 3/4 inch screw (5) and 5/16 inch lockwasher in the end of each rod. Do not tighten. This extension should be positioned as shown in figure 12.
- (4) Move the end of sliding extension in. Level the sliding extension (9) with the table extension. Tighten 5/16-18 x 3/4 screws (5) in the extension slide rods (2). Move sliding extension out and tighten 5/16-18 x 3/4 screws (5) attaching the support (1) to the extension. If binding is experienced, tap the rod supports (3) in the proper direction to relieve interference.
- (5) Position an extension clamp (7) over each rod and through the mating hole in support (1). Secure each extension clamp with a wing nut (8).
- (6) Attach the auxiliary fence (6) with the wing nuts(8), as shown in figure 12.
- e. Adjust the Table Insert. (See figures 13 and 14.)
 - (1) Press down on table insert with fingers to make sure it is properly secured in the table opening.
 - (2) Using a small scale or straightedge, check at



each of the four set screw positions to determine if the table insert is even with saw table surface. (See figure 13.) If uneveness exists, adjust as follows:

- (a) If an adjustment is necessary, rotate each of the four set screws (or as many as required) with a 3/32 inch hex-"L" wrench until table and insert surfaces are even. (See figure 14.)
- (b) Make sure that ends of all four set screws are making contact with table recess by pressing on the insert at each set screw location. If the insert "rocks" when pressed at any of the four screw locations, adjust set screws until the "rocking" is eliminated.

3. Adjust the 90° and 45° Stops.

- a. Checking and Adjusting the 0° Position
 - Loosen the elevation lock by pulling out the elevation lock knob and rotate the elevation crank to raise the saw blade to the deepest cut position. (See figure 15.) Push elevation lock in.
 - (2) Loosen the clamp knob and rotate the tilt crank counterclockwise until it will rotate no farther.
 - (3) With the saw blade in position described above, tighten the clamp knob to secure the tilt mechanism.
 - (4) Place a square on the saw table and against saw blade. (See figure 16.) The blade should be at 90 degrees (perpendicular) to the table top surface.
 - (5) If the blade is not square with the table top, loosen the clamp knob (figure 15) and rotate the tilt crank to move the mechanism off the 90° stop. This can be accomplished by rotating the tilt crank until the pointer on tilt scale indicates approximately 10 degrees. Rotate the 90° stop screw in table top with a 3/16-inch hex-"L" wrench to produce an approximate correction. (See figure 17.) Rotate the tilt crank until the saw blade is stopped by the 90° stop screw and recheck with the square for an exact 90° position of the saw blade. Continue these trial settings until the saw blade stops at exactly 90° with the table top.





(6) When the saw blade is adjusted squarely with the table top, check the pointer on the tilt gauge, which should be positioned at exactly "0" (zero) degrees. (See figure 15.) If not at zero, loosen the attaching screw and align pointer with the "0" mark, then tighten the screw.

assembly and adjustments



b. Checking and Adjusting the 45° Position

- Loosen the clamp knob and rotate the tilt crank clockwise until it will turn no farther. Tighten the clamp knob. At this point, the acute angle made between the saw blade and table top should be 45 degrees. (See figure 18.) The base of a combination square (or protractor) can be used effectively for this measurement.
- (2) If the angle between the saw blade and table top is not 45°, loosen the clamp knob and rotate the tilt crank counterclockwise until the pointer on tilt gauge indicates approximately 40°. Rotate the 45° stop screw in table top with a 3/16-inch hex-"L" wrench to produce an approximate correction. (See figure 17.) Rotate the tilt crank until the saw blade is stopped by the 45° stop screw and recheck for the exact 45° blade position. Continue these trial settings until the saw blade stops at exactly 45° with the table top.

NOTE: If the above adjustments have been performed accurately, the saw will now have a positive stop at "0" (90° position) and "45" degrees. The pointer on the tilt scale should indicate both positions accurately.

4. Aligning Saw Blade With Table Top.

a. Remove the table insert and check the saw arbor nut to make sure it is tight. Use the shaft wrench on arbor flats and arbor wrench on the arbor nut, as shown in figure 19. Install the table insert.

- b. Pull out the elevation lock knob (figure 20) to release the elevating mechanism and, using the elevation crank, position the saw blade for the deepest cut in preparation for aligning the saw blade with table grooves. Push in on the elevation lock knob.
- c. Loosen the clamp knob, and rotate the tilt crank clockwise until it stops (pointer at 0°). (See figure 20.) This will position the saw blade vertically. Tighten the clamp knob.
- d. Make a pencil mark on the saw tooth that is just above the table top at rear of the blade. (See figure 21.)
- e. Place the miter gauge in the table groove at left of saw blade. Make sure the miter gauge is set at "0".
- f. Lay a soft-lead pencil in the depression just ahead of the miter gauge scale, with the pencil point toward the blade. (See figure 21.) Hold the pencil in the depression with thumb of left hand as shown in figure 21.
- g. Slide the miter gauge to a position which will point the pencil at the marked saw tooth. Hold a small scale against the marked tooth and slide the pencil toward the saw until the point rests against the scale. With the left thumb, hold the pencil securely in the miter gauge head. It must not move.
- h. With the right hand, remove the scale and rotate the saw blade until the marked tooth is just above the saw table at the front. (See figure 22.)
- i. Slide the miter gauge toward the front of saw table until the pencil is pointing toward the marked tooth.

Insert the scale between the pencil point and blade, as shown in figure 22. If the saw is parallel to the table groove, the scale will just "slide" into the gap between the pencil point and blade. If the scale will not enter this gap, or is loose in the check shown in figure 22, an adjustment of the table trunnions is required. Proceed as follows:

- Tighten the clamp knob firmly (figure 20) and loosen the two screws which secure each table trunnion (front and rear) to the table. (See figure 23.) It will be necessary to reach these screws from underneath the table.
- (2) Shift the two trunnions until the preceding measurements are equal and tighten all four trunnion screws. Recheck measurements (figures 21 and 22) to make sure tightening the screws did not alter the setting.

5. Check and Adjust Rip Fence

Your Craftsman Rip Fence has been designed to provide accuracy, reliability and long life. In order for your fence to work properly it is imperative that it be adjusted accurately. The fence is adjusted at the factory, but due to shipping hazards and slight tolerance build-up between individual saws, it is sometimes necessary that your fence be adjusted to your particular saw. Therefore, check your fence and adjust it (if necessary) as outlined in the instructions that follow:

CAUTION: It is imperative that these instructions be followed precisely, as an incorrect adjustment could damage the fence and the fence guide bar attached to your saw.

a. Installation of Rip Fence

- Raise the lock handle and position the rip fence (10, figure 1) on the saw table. Do not latch the lock handle.
- (2) Slide the rip fence along the guide bar while watching the clearance between lower edge of fence and table top. If any portion of the fence (except sliding pad at rear) drags on table top, or if clearance between fence and table top varies appreciably as the fence is moved, the guide bar must be readjusted. This is accomplished by loosening the attaching screws (figure 10) and re-positioning the bar until a consistent clearance exists over entire top surface of the table.
- (3) Check for proper engagement (mesh) of teeth on fence adjusting shaft pinion with the gear teeth on underside of rack. (See figure 24.) The pinion should be adjusted up or down so that teeth are in full contact lengthwise. This adjustment is made as follows:
- (4) Push the fence adjusting knob all the way down and look underneath the rack to determine if pinion and rack teeth are aligned. (See figure 24.) If the pinion extends too far (or not far enough) loosen the set screw (1, figure 25) with a 1/8 inch hex-"L" wrench and slide the knob







assembly and adjustments



Figure 26



Figure 27





assembly (2) on the pinion shaft to achieve proper alignment. Tighten the set screw (1) with a 1/8 inch hex-"L" wrench.

- (5) To adjust for correct gear mesh (depth of tooth contact), loosen the set screw (3, figure 25) with a 1/8 inch hex-"L" wrench and rotate the eccentric (4) until proper mesh is obtained. Tighten the set screw (3) after adjusting and check for proper operation at various points along the rack.
- (6) Move the rip fence carefully across the central portion of table, by rotating the gear knob, to determine if the teeth engage the rack properly at the center division. The fence should pass over the center division of the rack smoothly. If any binding or resistance is noticed it may be necessary to loosen the guide bar attaching screws at one end and at the middle, and shift the rack enough to properly space the teeth at the center division. Several trials may be necessary.

b. Checking for Parallelism of Rip Fence with Table Groove.

- (1) With the lock handle not latched, slide the fence on the saw table so the front edge of the channel is flush with the side of one of the two miter grooves. (See figure 26.) This can be checked by using your fingers as shown to "feel" for correct alignment. Shift the rear of the fence to the right or left slightly, causing fence not to be square with the front edge of the table nor parallel to the miter groove.
- (2) Push down on the lock handle carefully (do not force) while watching the rear of the fence for its correcting action.

CAUTION: Do not force the lock handle. If the handle does not lock down readily, an adjustment is necessary — and to force it could cause damage to both the fence and and guide bar.

- (3) The lock handle should lock in the down position. Do not force the handle, as it is not necessary for the handle to be all the way down to lock the fence. (See figure 27.) The rear of the fence should move to correct itself, and do so parallel (flush) with the miter groove in saw table throughout its full length. Alignment may be checked with the forefingers to determine if the fence is flush with the side of miter groove, as shown in figures 26 and 27.
- (4) If the lock handle responded as described above, and the fence aligned itself with the table groove at both ends, the fence is properly adjusted and no further attention is necessary. If not, perform the following adjustment routine.

c. Adjusting the Rip Fence

 Remove the fence and turn it over. Then, with a 1/8 inch hex-"L" wrench, loosen the pawl set screw (located just behind the fence pawl) approximately two turns. (See figure 28.)

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- (2) Using a 5/32 inch hex-"L" wrench, loosen the set screw at the rear of the fence approximately two turns. (See figure 29.) This screw is located in the fence lock just inside the channel as shown.
- (3) Place the fence back on saw table and notice that the lock handle offers no resistance at any position.
- (4) Push the lock handle down in "locked" position and, using a 1/8 inch hex-"L" wrench inserted into the fence pawl set screw from underneath the saw table, tighten the set screw finger tight. (See figure 30.) Do not use wrench or pliers — finger tight only.
- (5) Raise the lock handle, push the fence to one side (off square) at the rear. Then lock the fence with the lock handle, while watching to make sure it "corrects" itself. Repeat this operation two or more times. The fence should "correct" itself each time it is locked.
- (6) Raise the lock handle and align the fence with the miter groove (at the front end of the groove) as shown in figure 26. Push the lock handle down.
- (7) Check for correct alignment with saw table groove for the full length of the fence. If it is aligned at the front but out of alignment at the rear, loosen the two hex-head screws on top of the channel near the front (figure 31) and tap the channel at the rear with one hand until it is aligned with the table groove. Tighten the two hex-head screws securely and recheck. More than one trial may be required, as tightening the screws may change the setting slightly.
- (8) Check for "automatic correcting" by releasing the lock lever, shifting the fence off square at the rear, then locking it. The fence should square itself automatically and be flush (parallel) with the miter groove each time the handle is locked down.
- (9) Lock the fence with the lock handle, using a 5/32 inch hex-"L" wrench, tighten the fence lock set screw at the rear, hand tight only. (See figure

29.) Check to see if rear of fence is "secure" to the table at the rear.

NOTE: If the fence fails to square itself everytime, check for any burr or foreign material on the surface of the fence head where it contacts the saw table. Also check for nicks or burrs in edges of saw table. Stone off any irregularities on these surfaces.

(10) After adjusting the fence on the saw table, move it to one of the table extensions and re-check the adjustment, as even the slightest difference in length between the extensions and saw table would affect the fence adjustment to some degree. If one is slightly shorter than the other it would be evidenced by a lighter "feel" of the fence lever when locking it. If a difference in "feel" is apparent, readjust the fence on the shorter member and it will, in turn, lock effectively on the longer member.

d. Aligning Rip Fence Plastic Indicators

- (1) If for any reason the tilt handle has been rotated during preceding operations, loosen the clamp knob (figure 20) and rotate the tilt crank clockwise until it stops (tilt pointer at "0"). Tighten the clamp knob.
- (2) Position the rip fence on the right-hand side of the saw blade with the fence channel one-inch from the blade and lock the fence. Be sure to use one of the teeth bent (set) to the right of blade. Measure from this to the fence, since this determines your width of cut. This distance should be measured accurately with a scale.
- (3) Set the right-hand indicator (a scribed line in the plastic window) to "1" inch on the guide-bar scale. This is accomplished as follows:
 - (a) A close look will show a reflection of the indicator line on the mirror surface of the guide-bar scale. In order to make sure that you are sighting squarely above the scale, move your eye until the indicator line and its reflected image coincide. (See figure 32.)

assembly and adjustments



- (b) If an adjustment is required, loosen the two screws (one at each end of the window) and shift the plastic window until the indicator line is aligned with the "1" inch line on the scale. (See figure 33.) Tighten the two screws and recheck for accuracy. If the plastic window cannot be shifted enough to provide this alignment, loosen the screws that secure the guidebar scale to the guide-bar at its ends, shift the scale slightly and tighten the screws. Then proceed to adjust the plastic window as described above.
- (c) When the fence is correctly adjusted and moved to any position at the right of the saw blade, the scale will indicate the width of the desired cut. Make several trial settings and check by measuring with a scale from the fence to the blade.

NOTE: When properly adjusted, the indicators may be used for most operations, thus eliminating the need for actual measurements except for extreme requirements. When sighting the indicator, always use the system shown in figure 32 in order to make sure the sight angle is correct.

(d) Move the fence to the left-hand side of saw blade and adjust the left-hand indicator, (right-hand side) in the same manner as for the right-hand indicator.

NOTE: Remember, if the guide-bar scale must be moved when adjusting the left indicator, it will change the settings just made on the righthand indicator and necessitate a readjustment.

6. Check and Adjust the Miter Gauge

NOTE: This gauge was set correctly at the factory, but rough handling during shipping might have disturbed the setting. To assure maximum accuracy the "O" (zero) degree stop should be checked and adjusted (if required) as follows:

a. Checking the Miter Gauge

 Loosen the lock handle and push the stop pin firmly into the middle detent ("O" position on the scale.) The stop pin will be seated more effectively if it is rotated slightly as it is being "pushed" into the detent. Tighten the lock handle. (See figure 34.)

NOTE: Always tighten the lock handle handtight only. Do not use a wrench on the lock handle.

(2) Using a combination square, check for an exact 90-degree angle between the miter gauge and rod assembly. If this measurement is exactly 90 degrees, the adjustment has not been disturbed and the gauge is ready for use. If not accurate at 90°, adjust the gauge as follows:

b. Adjusting the Miter Gauge

- (1) Loosen the lock handle, disengage stop pin, hold the square solidly against the rod assembly and face, then tighten the lock handle firmly by hand. Recheck to make sure that tightening the lock handle did not alter the setting. Remove the square from the gauge.
- (2) Loosen the two screws that attach the indicator block to the rod assembly. Shift the indicator block until the stop pin can be pushed solidly into its detent. Hold the indicator block aligned with the rod assembly and the stop pin seated firmly in the detent and tighten the two screws.
- (3) Loosen the lock handle and recheck for accuracy with the square. (Make certain the stop pin is fully seated.) Tighten the lock handle and readjust if necessary.
- (4) After completing the above adjustment, loosen the pointer attaching screw, set pointer at "0" (zero) and tighten the screw.

NOTE: Detents at the two 45-degree positions are jig bored. When the gauge is adjusted for a 90-degree cut, the 45-degree positions are correct.

7. Install and Adjust the Saw Guard Assembly.

Position the saw blade for deepest cut and against the 90° stop, (square with table top).

The guard assembly (8, figure 1) consists of a clear plastic blade guard, spreader and anti-kickback. The spreader must be aligned with the saw blade, which is accomplished as follows:

a. Installation of Saw Guard Assembly.

(See figures 35 and 36.)

- Loosen the lock handle on spreader support, slide the lower end of the spreader support on the spreader rod (attached to end of spreader bar). (See figures 35 and 36.)
- (2) Push the spreader support onto the spreader rod until the groove in spreader support is snug against the groove pin. Tighten the lock handle. (See figure 36.)
- b. Alignment of Saw Guard Assembly. (See figures 35 and 36.)
 - (1) Raise the plastic guard up to expose the spreader.

- (2) Place a square against the spreader and saw table top. (See figure 36.) If the spreader bar is not positioned at 90° with the table, loosen the two clamping screws (figure 35) and rotate the spreader bar until the spreader is square with the table (figure 36.) Tighten the two clamping screws (figure 35) and recheck to make sure tightening the screws did not change the adjustment. More than one trial may be required.
- (3) Sight along the spreader and saw blade to check for alignment. An alternate method is to hold a straightedge against each side of saw blade and notice whether or not the spreader is centered in the gap thus formed between the straightedges.
- (4) If the spreader is too far to the right or left, loosen the hex-head set screw in outer end of spreader bar and slide the spreader rod in or out of the hole in the spreader bar until correct alignment is obtained.
- (5) Rotate the plastic guard down into operating position.
- (6) For safety and to minimize kickbacks, the blade guard and spreader must always be in place for all thru-sawing operations. The spreader must always be kept in proper alignment with the saw blade so the spreader doesn't prevent pushing the work past the blade. The blade guard will help to prevent sawdust and splinters from being thrown upward.
- (7) To remove the blade guard and spreader, loosen the lock handle and slide it off. Do not disturb the spreader rod.

CAUTION: Use extra care whenever the blade guard is removed for operations including Dado and Molding.

8. Adjust the Exact-I-Cut Indicator.

(See figures 37 and 38.)

The cut indicator ("Exact-I-Cut") located a few inches ahead of the saw blade, enables the operator to determine precisely where the cut in a particular board will occur, provided the cut indicator shoes have been correctly positioned. It should be checked and adjusted (if necessary) as follows:

- a. Position the saw blade in the 90° position (0° on tilt scale), by loosening the clamp knob and rotating the tilt crank counterclockwise until it will rotate no farther. Tighten the clamp knob.
- b. With the saw running, place a straight board (preferably hardwood) against the miter gauge and hold it securely in the miter gauge.
- c. Make a small cut and pull the miter gauge back until the cut is directly on the "Exact-I-Cut". (See figure 37.) If both cut-indicator shoes are aligned with the edges of the cut, no adjustment is required. If not aligned, loosen the two socket, flat-head screws with a 1/16 inch hex-"L" wrench and slide the cut indicator shoes laterally until the edge of each shoe is aligned with its respective edge of the cut in the board. (See figure 38.) Tighten both screws and recheck for accuracy of the adjustment.



operating controls

OPERATING CONTROLS

Before operating the saw, the operator should examine all controls until thoroughly familiar with their functions, as well as making sure that controls are operating properly. (See figure 39.)

> CAUTION: Under no circumstances should a blade with a diameter greater than 12 inches be used with this saw.

- 1. Elevation Crank (1, figure 39). Located on the front panel to control elevation of the saw blade.
- 2. Elevation Lock (2, figure 39). Located on front panel for securing the saw in desired elevated position. It is pushed in to lock and pulled out to release.
- 3. Tilt Crank (3, figure 39). Located on front panel behind the elevation crank to control the angle of tilt. The saw blade can be tilted from 0° to 45°, as indicated on the TILT SCALE (5). If the angle of cut (tilt) must be extremely accurate, the angle of the saw blade should be checked with a protractor, or with a board known to be cut at the exact angle required.
- 4. Clamp Knob (4, figure 39.) Located on front panel to lock the tilt mechanism in any desired position. The tilt mechanism should always be locked before starting work and should always be unlocked before attempting to change the angle of tilt.
- 5. ON-OFF Switch and Key (6, figure 39). This unique switch is mounted in a switch box which is attached to the underside of saw table as shown in figure 39. To turn the switch on, the operator inserts the key (figure 40) and hooks the forefinger of the right hand under the end of switch lever and pulls downward. The switch is turned off by simply pressing upward on the switch lever. When removing the key (figure 41), always hold

the thumb or finger against end of switch lever to prevent the switch from being turned on as the key is removed.

- 6. Rip Fence (1, figure 42). When the lock handle (2, figure 42) is released (raised), the rip fence (1) may be moved toward, or away from, the saw by hand. Pushing the lock handle (2) down into locked position will automatically align the rip fence parallel to the table groove. This alignment correction will occur at the front of saw table. Therefore, it may be necessary to make more than one setting in order to produce the exact distance desired between saw blade and fence. Keep the saw table and rip fence clean, as saw dust may prevent the fence from assuming proper alignment when tightened.
- Lock Handle (2, figure 42). This handle is used to clamp the rip fence in place after it has been moved to the desired position. (Refer to preceding step 6.)
- 8. Fence Knob (3, figure 42). This knob (when depressed) moves a pinion into engagement with the rack teeth to permit accurate positioning of the rip fence.
- 9. Miter Gauge (4, figure 42). This gauge is used in table grooves as a guide for the work-piece when the rip fence is not used. The angle of the gauge can be adjusted by loosening the clamp handle (5) and positioning the gauge as indicated by the dial and pointer on the miter gauge (4).
- 10. Sliding Table Extension (6, figure 42). This extension permits a greatly extended work area and provides an outboard fence for handling such items as table tops, doors, etc. Loosen wing nut (7) to adjust the extension. Loosen wing nut (8) to raise or lower the auxiliary fence.
- 11. "Exact-I-Cut" (9, figure 42). Inserted into the saw table just ahead of the saw blade is a cut indicator shoe, commonly called an "Exact-I-Cut". When properly adjusted, the cut indicator shows the operator exactly where the edge of the cut will occur at either side of the saw blade.



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maintenance



MAINTENANCE AND LUBRICATION

This Craftsman Saw is a fine machine and should be given the best of care. If kept clean and properly lubricated, it will provide many years of trouble-free service. The following instructions should be carefully observed at all times.

1. Tilt worm, elevating worm and gears are covered with grease at the factory and should be checked occasionally for proper lubrication.

Clean the worm and gear teeth with kerosene or similar solvent and repack lightly with cup grease or automotive chassis lubricant. (See figure 43.)

- 2. The saw motor bearings have been packed at the factory with proper lubricant and require no additional lubrication. Other parts requiring lubrication should be oiled frequently with SAE No. 20 or No. 30 engine oil. The following parts should be lubricated regularly. (Refer to exploded view drawing for the following locations, if not apparent.)
 - a. Table trunnions.
 - b. Elevation shaft directly behind elevation hand wheel.
 - c. Clamp screw.
- All points where friction exists between two or more moving surfaces, or where a slip fit is necessary for

adjustment purposes, should be oiled occasionally.

4. If the saw is to be left standing for some time, particularly in damp climates, the table top surface should be coated with light engine oil or Sears "Stop Rust". Either material may be easily wiped off with a cloth before using the saw. Treat any unpainted parts and surfaces with Sears "Stop Rust". ("Stop Rust" is available at any Sears Retail Stores or Catalog Order House.)

NOTE: The aluminum table extensions may be adequately protected by applying a heavy coat of automobile or furniture wax. The wax also enables boards to slide more easily across the table extensions.

- Attention should be given to moving parts in the rip fence and miter gauge, to keep them clean and lubricated.
- 6. After extended use, slight wear may cause the elevation lock to slip and an adjustment is required. Remove the screw that holds the lock wrench and shift the wrench to a different hole. (See figure 43.) If the holes do not provide enough adjustment, remove the lock wrench and re-position it on the hex nut. The adjustment is correct when it is securely locked with the elevation lock knob approximately one-inch away from the front panel.

RECOMMENDED ACCESSORIES

ltem	Cat. No.	Item	Cat. No.	ltem	Cat. No.
HOLD DOWN CLAMP	9-29924 9-29928 9-3230	TAPER JIG DADO INSERT MOLDING INSERT MOLDING HEAD SET	9-3233 9-29935 9-29936	DADO HEAD DADO HEAD BLADE STABILIZERS SANDING WHEEL	9-32473 9-4952
UNIVERSAL JIG		MOLDING HEAD ONLY .	9-3214		

The above recommended accessories are current and were available at the time this manual was printed.

proper operating procedures



CROSSCUTTING

CROSSCUTTING is known as cutting wood across the grain, at 90° , or square with both the edge and the flat side of the wood. This is done with the miter gage set at "0".

The miter gage may be used in either of the grooves in the table. Make sure it is locked.

When using the miter gage in the LEFT hand groove, hold the workpiece firmly against the miter gage head with your left hand, and grip the lock handle with your right ... or use Hold-Down Clamp (Optional Accessory) (See figure 44.)

When using the RIGHT hand groove, hold the workpiece with your right hand and the lockhandle with your left hand.

REPETITIVE CUTTING

REPETITIVE CUTTING is known as cutting a quantity of pieces the same length without having to mark each piece.

Use the Stop Rods (Optional Accessory) for cutting pieces 6 inches long or longer. (See figure 45.)

When making repetitive cuts shorter than 6 inches, DO NOT USE THE RIP FENCE AS A LENGTH STOP ... BECAUSE THE CUT OFF PIECE COULD BIND BETWEEN THE FENCE AND BLADE AND CAUSE A KICKBACK.

ALWAYS clamp a block of wood at least 2 inches thick and 3 inches long to the table to act as a length stop. (See figure 46.)

- 1. Slide the workpiece along the miter gage until it touches the block ... hold it securely or clamp it with the Hold-Down Clamp (Optional Accessory).
- 2. Make the cut ... pull the workpiece back ... push the cut off pieces off the table with a long push stick ... DO NOT ATTEMPT TO PICK THEM UP AS THIS COULD ENDANGER YOUR HANDS.

MITER CUTTING

MITER CUTTING is known as cutting wood at an angle other than 90° with the edge of the wood. Follow the same procedure as you would for crosscutting.

Adjust the miter gage to the desired angle, and lock it.

The miter gage may be used in either of the grooves in the table.

When using the miter gage in the LEFT hand groove, hold the workpiece firmly against the miter gage head with your left hand, and grip the lock handle with your right ... or use Hold-Down Clamp (Optional Accessory). (See figure 47.)

When using the RIGHT hand groove, hold the workpiece with your right hand and the lockhandle with your left hand.

BEVEL CROSSCUTTING

BEVEL CROSSCUTTING is the same as crosscutting except that the wood is also cut at an angle ... other than 90 degrees with the flat side of the wood.

Adjust the blade to the desired angle.

Use the miter gage in the groove to the RIGHT of the blade ... NEVER TO THE LEFT. Hold the workpiece with your right hand and the lockhandle with your left hand ... or use Hold-Down Clamp (Optional Accessory). (See figure 48).

COMPOUND MITER CUTTING

Compound miter cutting is a combination of miter cutting and bevel crosscutting. The cut is made at an angle other than 90 degrees to both the edge and the flat side of the wood.

Adjust the miter gage and the blade to the desired angle ... make sure miter gage is locked.

Use the miter gage in the groove to the RIGHT of the blade ... NEVER TO THE LEFT. Hold the workpiece with your right hand and the lockhandle with your left hand ... or use Hold-Down Clamp (Optional Accessory).

RIPPING, BEVEL RIPPING, RESAWING AND RABBETING (along the edge of a workpiece) are performed using the RIP FENCE together with AUXILIARY devices when required.

WARNING: FOR YOUR OWN SAFETY, ALWAYS OBSERVE THE FOLLOWING SAFETY PRECAUTIONS.

- 1. Never make these cuts FREEHAND (without using the rip fence or auxiliary devices when required) because the blade could bind in the cut and cause a KICKBACK.
- 2. Always lock the rip fence securely when in use.
- 3. Remove miter gage from table.
- Make sure blade guard is installed for all rip type cuts. Replace the guard IMMEDIATELY following completion of resawing, rabbeting, dadoing, or molding operations.

Frequently check the action of the ANTI-KICKBACK PAWLS by passing the workpiece alongside of the spreader while saw is OFF.

Pull the workpiece TOWARD you. If the PAWLS do not DIG into the workpiece and HOLD it ... the pawls must be SHARPENED. Refer to "Maintenance" section further on in this manual.

- Have blade extend approximately 1/8 inch above top of workpiece. Additional blade exposure could be hazardous.
- Do not stand directly in front of the blade in case of a KICKBACK. Stand to either side of the blade.
- 7. Keep your hands clear of the blade and out of the path of the blade.
- 8. If the blade stalls or stops while cutting, TURN SWITCH OFF before attempting to free the blade.



- 9. Do not reach over or behind the blade to pull the workpiece through the cut ... to support long or heavy workpieces ... to remove small cut-off pieces of material or FOR ANY OTHER REASON.
- 10. Do not pick up small pieces of cut-off material from the table. REMOVE them by pushing them OFF the table with a long stick. Otherwise they could be thrown back at you by the rear of the blade.
- 11. Do not remove small pieces of cut-off material that may become TRAPPED inside the blade guard while the saw is RUNNING. THIS COULD ENDANGER YOUR HANDS or cause a KICKBACK.

Turn the saw OFF ... lift the guard and remove the piece.

Certain ripping cuts require the use of Auxiliary Devices.

Learn to know WHEN and HOW to use these devices for NARROW ripping. You can make them from scraps of wood.

PUSH STICK

Make one using a small piece of 1×2 . (See figure 49.)

AUXILIARY FENCE/PUSH BLOCK

Make one using a piece of 3/8 inch plywood and a small piece of 2×4 . (See figure 50.)

proper operating procedures



Figure 54

7

WORK SUPPORT

Use a "saw horse" \ldots and a piece of plywood. (See figure 51.)

When "WIDTH OF RIP" is 6 inches and WIDER use your RIGHT hand to feed the workpiece until it is clear of the table. (See figure 52.)

Use LEFT hand ONLY to guide the workpiece ... do not FEED the workpiece with the left hand.

When "WIDTH of RIP" is 2 inches to 6 inches wide USE THE PUSH STICK to feed the work. (See figure 53.)

When WIDTH of RIP is NARROWER than 2 inches, the push stick CANNOT be used because the guard will INTERFERE ... USE the AUXILIARY FENCE/PUSH BLOCK. (See figure 54.)

NARROW RIPPING - SHORT PIECES - UP TO 18"

Position the AUXILIARY FENCE to the desired WIDTH OF RIP ... lock RIP FENCE in place.

Hold workpiece against AUXILIARY FENCE ... feed with RIGHT hand ... guide with LEFT hand until clear of table. (See figure 55.)

NARROW RIPPING - LONG PIECES - 18" and LONGER

Position the AUXILIARY FENCE with handle against the table to the desired WIDTH of RIP ... lock fence in place. (See figure 56.)



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Hold workpiece against auxiliary fence and feed with left hand until workpiece is about EVEN with END of table ... Stop Feeding. (See figure 57.)

Hold workpiece FIRMLY ... turn AUXILIARY FENCE over ... (See figure 58.)

Hold workpiece against AUXILIARY FENCE ... feed with RIGHT Hand ... guide with LEFT hand until clear of table. (See figure 59).

When ripping thin strips that may enter the guard and strike the baffle. CAREFULLY raise guard only enough to clear the workpiece. (See figure 60 and 61.)

RESAWING

RESAWING is known as ripping a piece of wood through its thickness. To RESAW a piece of wood wider than 2-1/8 inch ... it will be necessary to remove the blade guard ... and use an AUXILIARY FENCE which you can make.

Do not attempt to resaw BOWED or WARPED material.

Use a piece of 3/8 inch plywood 9 in. x 20 in. . . . and attach a strip of wood 1-5/8 inches thick x 2-1/2 inches wide. (See figure 62.)

Clamp it to the table so that the workpiece will SLIDE EASILY but not TILT or MOVE SIDEWAYS without BINDING between the two fences. (See figure 63.)

WARNING: FOR YOUR OWN SAFETY ...

- NEVER RESAW FREEHAND (WITHOUT USING RIP FENCE AND AUXILIARY FENCE) BECAUSE THE BLADE COULD BIND IN THE CUT AND CAUSE A KICKBACK.
- DO NOT "BACK UP" (REVERSE FEEDING) WHILE RESAWING BECAUSE THIS COULD CAUSE A KICKBACK.
- 3. INSTALL BLADE GUARD IMMEDIATELY UPON COMPLETION OF THE RESAWING OPERATION.

DADOING

For best results and to avoid excessive load on the motor, NEVER CUT A 13/16" WIDE DADO, DEEPER THAN 3/4" IN ONE PASS.







trouble shooting

WARNING: FOR YOUR OWN SAFETY, TURN "OFF" AND ALWAYS REMOVE PLUG FROM POWER SOURCE OUTLET BEFORE TROUBLE SHOOTING

TROUBLE	PROBABLE CAUSE	REMEDY
Excessive vibration	 Failure to tighten clamp knob 	1. See "Clamp Knob" under "Operating Controls"
	2. Blade out of balance	2. Use a different blade
Cannot make square cut when crosscutting	 Miter gauge not adjusted properly 	 See "Check and Adjust the Miter Gauge" under "Assembly and Adjustments" See "Aligning Saw Blade with Table Top" under
	 Blade not properly aligned 	"Assembly and Adjustments"
Cut binds, burns or stalls motor when	 Dull blade with improper tooth set 	1. Check set and sharpness of blade
ripping	2. Warped board	2. True up material
	 Blade not properly aligned 	 See "Aligning Saw Blade with Table Top" under "Assembly and Adjustments"
	4. Rip fence not properly aligned	 See "Check and Adjust Rip Fence" under "Assembly and Adjustments"
	5. Spreader out of alignment	5. Align spreader with saw blade
Blade not true at 90° or 45°	 Stop screws not properly adjusted 	 See "Adjust the 90° and 45° Stops" under "Assembly and Adjustments"
Tilt crank and elevating hand wheel turn hard	 Tilt clamp knob not loosened when making tilt adjustment 	 See "Clamp Knob" under "Operating Controls"
	 Dirt in worm and sector gears — and need of lubrication 	2. See "Maintenance and Lubrication"
Kickbacks when ripping	 Not using spreader or spreader not aligned 	1. Use spreader and align with saw blade
	2. Rip fence not parallel to blade	 Adjust rip fence. (Refer to paragraph "Assembly and Adjustments")
	 Failure to push wood all the way past saw blade 	3. Push wood all the way past saw blade (Refer to paragraph "Proper Operating Procedures")
	4. Warped wood	 Use caution (Refer to paragraph "Proper Operating Procedures")
	 Anti-kickback pawls not working properly 	 Clean out any dust and apply a drop of oil around pin Replace spring if broken Sharpen pawl teeth with a file
	6. Cut-off piece confined	6. Allow cut-off piece to move laterally
	7. Failure to use push stick properly	 Apply the push stick to the work piece between the fence and the saw blade
	8. Duli or improperly set blade	8. Use sharp, properly set blade
	 9. Failure to use auxiliary fence and push stick when ripping material narrower than 2" 	 See "Auxiliary Fence/Push Block" and "Push Stick" under "Proper Operating Procedures"

TROUBLE SHOOTING TABLE

TROUBLE-SHOOTING TABLE-MOTOR

The following table lists some of the most common troubles caused by **low voltage**, their causes and suggested remedies:

NOTE: Motors used on wood-working tools are particularly susceptible to the accumulation of sawdust and wood chips and should be blown out or "vacuumed" frequently to prevent interference with normal motor ventilation.

TROUBLE	PROBABLE CAUSE	REMEDY
Motor fails to develop full power. (Power output of motor decreases rapidly with decrease in voltage at motor terminals.) For example: a reduction of 10% in voltage causes a reduction of 19% in maximum power output of which the motor is capable, while a reduction of 20% in voltage causes a reduction of 36% in maxi- mum power output.	 Power line overloaded with lights, appliances and other motors. Undersize wires or circuit too long. General overloading of power company's facilities. (In many sections of the country, demand for electrical power exceeds the capacity of existing generating and distribution systems.) 	 Reduce line load. Increase wire sizes, or reduce length of wiring. Request a voltage check from the power company.
Motor starts slowly or fails to come up to full speed.	 Low Voltage — will not trip relay. Starting relay not operating. 	 Correct low voltage condition. Have relay replaced.
Motor overheats.	 Motor overloaded. Improper cooling. (Air circulation restricted through motor due to sawdust, etc.) 	 Correct overload condition. Clean out sawdust to provide normal air circulation through motor.
 Starting relay in motor will not operate. 1. Burned relay contacts (due to extended hold-in periods caused by low line voltage, etc.). 2. Open relay coil. 3. Loose or broken connections in motor terminal box. 		 Have relay replaced. Have relay replaced. Have wiring checked and repaired.
Motor stalls (resulting in blown fuses or tripped circuit breakers).	 Starting relay not operating. Voltage too low to permit motor to reach operating speed. Fuses or circuit breakers do not have sufficient capacity. 	 Have relay replaced. Request voltage check from power company. Replace fuses or circuit breakers with proper capacity units.
Frequent opening of fuses or circuit breakers.	 Motor overloaded. Fuses or circuit breakers do not have sufficient capacity. Starting relay not operating (motor does not reach normal speed). 	 Reduce motor load. Replace fuses or circuit breakers. Have relay replaced.



PARTS LIST FOR CRAFTSMAN 12-INCH MOTORIZED FLOOR SAW MODEL NUMBER 113.299131

WHEN ORDERING REPAIR PARTS, ALWAYS GIVE THE FOLLOWING INFORMATION AS SHOWN ON THIS LIST:

1. THE PART NUMBER

2. THE PART NAME

3. THE MODEL NUMBER - 113.299131

4. THE NAME OF ITEM-12-INCH MOTORIZED FLOOR SAW

Always order by Part Number - not by Key Number

FIGURE 1

Key No.	Part No.	Description	Key No.	Part No.	Description
1	62398	Guard Assembly, Saw (See Fig. 3)	27	62216	Extension Assembly, Table Sliding
2	62325	+Gauge Assembly, Miter (See Fig. 7)	28	STD 551131	*Lockwasher, 5/16"
3	62403	Insert Assembly, Table (Includes	29	STD 523107	*Screw, Mach., 5/16 -18 x 3/4",Hex.Hd.
Ŭ	02.00	Key Nos. 4, 5, 6, 7)	30	62217	Fence, Auxiliary
4	STD 501102	*Screw, Set, 10-32 x 1/4", Hex.Soc.Cup Pt.	31	142745	*Nut, Wing, 5/16 -18
5	62473	Insert, Table	32	STD 523112	*Screw,Mach.,5/16 -18 x 1-1/4",Hex.Hd.
6	144628	*Screw, Type A No. 4 x 5/16", Flat Hd.	33	62140	Support, Extension Rod
7	62474	Clip, Insert	34	STD 541031	*Nut, Hex., 5/16 -18 x 9/16 x 7/32"
8	62290	Fence Assembly, Rip (See Fig. 6)	35	62141	Clamp, Table Extension
9	60122	*Screw, Set, 3/8 -16 x 15/16", Hex.Soc.Cup Pt.	36	62215	Support, Table Extension
10	62343	Table, Saw	37	62402	Extension, Table
11	STD 541025	*Nut, Hex., 1/4 -20 x 7/16 x 3/16"	38	60195	Screw, Flat Hex.Rec., 4-40 x 3/8"
12	STD 551125	*Lockwasher, 1/4"	39	38845	Shoe, Cut Indicator
13	62011	Spacer, Fence Guide Bar	40	62257	Housing, Cut Indicator
14	60049	*Screw, Self Tapping,No. 4-40 x 3/16"	41	38746	Washer, Spring
15	62081	Tape, Fence	42	38747	Plate, Cut Indicator
16	62344	Bar, Fence Guide	43	STD 510803	Screw, Mach., Pan Hd., 8-32 x 3/8"
17	62083	Rack, Table		62461	Bag of Loose Parts (Legs)
18	STD 512520	*Screw, Mach., 1/4-20 x 2",Rd.Hd.,Slotted			(not illustrated)
19	37158	Ring, Retaining		62462	Bag of Loose Parts (Aux. Fence)
20	62120	Rod, Table Extension Slide			(not illustrated)
21	STD 551237	*Lockwasher, 3/8"		62463	Bag of Loose Parts (Saw)
22	454896	*Screw, 3/8 -16 x 1/2",Hex.Hd.			(not illustrated)
23	60127	*Bolt, 7/16-14 x 1'',Hex.Hd.		62464	Bag of Loose Parts (Extension)
24	STD 551143	*Lockwasher, 7/16"		00405	(not illustrated)
25	30613	Clamp, Cord		62465	Owners Manual (not illustrated)
26	STD 600803	*Screw, Type 23, No.8-32 x 3/8",Pan Hd.,Slotted			

*Standard Hardware Item - May be Purchased Locally.

+Stock Item - May be secured through the hardware departments of most Sears or Simpsons-Sears Retail Stores or Catalog Order Houses.





Key No.	Part No.	Description		Key No.	Part No.	Description
. 1	62459	Motor Assembly (See Fig. 4)		38	STD 522506	*Screw, Mach., 1/4 -20 x 5/8′′,
2	30494	Collar				Hex. Hd.
3	60177	+Blade, Saw, 12" Chisel Tooth		39	62106	Indicator, Tilt
4	6362	Nut, Saw Arbor		40	STD 511002	*Screw, Mach., No.10-24 x 1/4",Pan Hd.
5	3540	Wrench, Arbor		41	62091	Worm, Elevating
6	63062	Wrench, Shaft		42	62332	Knob Assembly, Pull
7	STD 600803	*Screw, Self-Tapping, No.8-32 x 3/8",		43	62333	Crank Assembly
		Pan Hd.		44	STD 502503	*Screw, Set, 1/4 -20 x 5/16",
8	30613	Clamp, Cord				Hex.Soc. Cup Pt.
9	62341	Ring, Retaining, 3/4"		45	62356	Crank Assembly, Tilt
10	62342	Washer, Plain, 25/32 x 1-3/8 x 1/8''		46	62222	Shaft, Tilt
11	62340	Pin, Motor Pivot		47	62219	Ring, Retaining
12	62339	Support, Motor		48	62221	‡Gear
13	STD 551131	*Lockwasher, 5/16''		48A	60159	Washer, Spacing, 1-1/2 x .630 x .005
14	STD 523106	*Screw, Mach., 5/16 -18 x 5/8''				(Used to adjust end-play after installing
15	STD 503705	*Screw, Set, 3/8 -16 x 5/8'',				Key No. 48, supplied 5 in a package)
		Hex.Soc. Flat Pt.		49	62223	Worm, Tilt
16	62093	Screw, Stop		50	STD 541031	*Nut, Hex., 5/16 -18 x 9/16'' x 7/32''
17	62330	Cradle		51	62220	#Gear
18	STD 503103	*Screw, Set, 5/16 -18 x 3/8'',		51A	60160	Washer, Spacing, 1-1/2 x .875 x .005
		Hex.Soc. Cup Pt.				(Used to adjust end-play after installing
19	62098	Trunnion, Back				Key No. 51, supplied 5 in a package)
20	STD 601103	*Screw, Mach., Type 23, 10 32 x 3/8'',		52	62400	Base, Saw
		Pan Hd.		53	STD 541025	*Nut, Hex., 1/4 -20 x 7/16 x 3/16''
21	STD 551012	*Washer, Plain, 7/32 x 1 x 1/16''		54	62401	Panel, Front
22	62100	Bolt		55	STD 610802	*Screw, Sheet Metal, No.8 x 5/16",
23	STD 571812	Pin, Roll, 3/16 x 1-1/4"				Type "B", Pan Hd.
24	62111	Rod, Spreader		56	62113	Stiffener, Leg
25	62218	Bar, Spreader		57	803835	Foot, Leveling
26	STD 551050	*Washer, Flat, 17/32 x 1-1/16 x 3/32''		58	118647	*Nut, Hex., 1/2-13 x 3/4 x 5/16"
27	62094	Screw, Lock		59	STD 522505	*Screw,Mach., 1/4 -20 x 1/2",Hex.Hd.
28	38825	Ring, Retaining		60	62460	Leg, Base
29	62097	Rod, Lock Screw Push		61	62095	Nut, Height Lock
30	62331	Knob Assembly, 2-1/4''		62	STD 522503	*Screw, Mach., 1/4 -20 x 3/8",Hex.Hd.
31	63011	Washer, Knob Clamp		63	62096	Wrench, Lock
32	62101	Spacer		64	37911	*Wrench, Hex-"L", 3/16″
33	62099	Trunnion, Front		65	37837	*Wrench, Hex-''L'', 5/32''
34	62086	Collar		66	30505	*Wrench, Hex-"L", 1/8"
35	STD 571810	Pin, Roll, 3/16 x 1"	1	67	37836	*Wrench, Hex-''L'', 3/32′′
36	62090	Plate, Bearing		68	60194	*Wrench, Hex-"L", 1/16"
37	STD 551125	*Lockwasher, 1/4''	Í			

PARTS LIST FOR CRAFTSMAN 12-INCH MOTORIZED FLOOR SAW MODEL NUMBER 113.299131

*Standard Hardware Item — May Be Purchased Locally. +Stock Item — May be secured through the hardware departments of most Sears or Simpsons-Sears Retail Stores or Catalog Order Houses.

#When replacing gear (Key 48), use spacing washers (Key 48A) to adjust end-play. #When replacing gear (Key 51), use spacing washers (Key 51A) to adjust end-play.

repair parts



PARTS LIST FOR CRAFTSMAN 12-INCH MOTORIZED FLOOR SAW MODEL NUMBER 113.299131

FIGURE 3 – 62398 GUARD ASSEMBLY

Key No.	Part No.	Description	Key No.	Part No.	Description
1 2 3 4 5 6 7 8	62398 60297 62391 62395 62389 62390 STD 551025 62136 62396	Guard Assembly, Saw Nut, Push Pin, 1/4 x 1-1/2'' Support, Guard Guard, Saw Pin, 1/4 x 1-3/4'' *Washer, 17/64 x 5/8 x 1/16'' Spacer, Pawl Pawl	9 10 11 12 13 14 15 16 17	62210 26637 62399 STD 522505 62392	*Nut, Hex, 1/4-20 x 7/16 x 3/16" Support, Splitter Handle, Lock Blade Assembly, Spreader *Screw, Hex Ind. Hd., 1/4-20 x 1/2" Pin, 1/4 x 1" *Pin, Roll, 3/16 x 15/16" Ring, Retaining, 1/4" Spring, Pawl

*Standard Hardware Item - May be Purchased Locally.

PARTS LIST FOR CRAFTSMAN 12-INCH MOTORIZED FLOOR SAW MODEL NUMBER 113.299131



 ANY ATTEMPT TO REPAIR THIS MOTOR MAY CREATE A HAZARD UNLESS REPAIR IS DONE BY QUALIFIED SERVICE TECHNICIAN.
 REPAIR SERVICE IS AVAILABLE AT YOUR NEAREST SEARS STORE.

Figure 4

FIGURE 4 – 62459 MOTOR ASSEMBLY

Key No.	Part No.	Description
_	62459	 Complete Motor Assembly
1	62467	Box Assembly, Control (w/Nameplate)
2		*Screw, Self-Tapping, No.6-32 x 3/8", Pan Hd., Slotted
3	STD 600803	*Screw, Self-Tapping, No.8-32 x 5/16", Pan Hd., Slotted
4	63309	Cover, Brake

*Standard Hardware Item - May be Purchased Locally.

• Any attempt to repair this motor may create a Hazard unless repair is done by qualified Service Technician.

Repair service is available at your nearest Sears Store.



SEE WIRING DIAGRAM, PAGE 5

Figure 5

FIGURE 5 - SWITCH ASSEMBLY

Key No.	Part No.	Description
1	62466	Bracket, Housing
2	STD 601103	Screw, Type 23, 10-32 x 3/8", Pan Hd.
3	STD 551210	Lockwasher, External No. 10
4	STD 541110	Nut, Hex., 10-32 x 3/8 x 1/8"
5	60282	Box, Switch
5	60291•	• Box, Switch
6	60290	Washer, 3/4 x 1-1/16 x 1/64"
7	60287	Screw, Nylon, 6-32 x 5/16"
8	60256	Key
9	37838	Washer, 5/8 x 7/8 x 1/64''
10	37818	Relief, Strain
11	61086	Relief, Strain
12	62375	Cord with Plug
13	60267	Switch
14	63467	Cap, Insulator
15	STD 611005	Screw, Type B No.10 x 1/2"

*Standard Hardware Item – May be Purchased Locally. •Canadian Model Only.

repair parts



PARTS LIST FOR CRAFTSMAN 12-INCH MOTORIZED FLOOR SAW MODEL NUMBER 113.299131

FIGURE 6 - 62290 RIP FENCE ASSEMBLY

Key No.	Part No.	Description
-	62290	Fence Assembly, Rip
1	423350	*Screw, Mach., w/Ext. Tooth Lockwasher, 3/8 -16 × 1/2", Hex. Hd., Steel
2	62126	Channel, Fence
2 3	60049	*Screw, Tapping, No.4-40 x 3/16", Pan Hd. Slotted
4	62052	Retainer, Fence Index
45	62051	Indicator, Fence
6	62046	Shoe, Cam Face
7	STD 511005	*Screw, Mach., No.10-24 x 1/2", Pan Hd. Slotted
8	62291	Handle, Fence Lock
9	62127	Head, Fence
10	62130	Bushing, Fence Adjusting Shaft
11	62131	Spring, Fence Adjusting Shaft

Key No.	Part No.	Description
12 13 14 15 16 17 18 19 20 21 22 23 24	60067 62132 62049 62048 60230 30505 62129 62050 62047 62128 62055 62073 37837	*Screw, Set, 1/4 -20 x 1/4, Socket Hd., Cup Pt. Knob, Fence Adjusting Spring, Squaring Pawl Pawl, Fence Screw, Set-Locking, 1/4-20 x 1" *Wrench, Hex-"L", 1/8" Shaft Assy., Fence Adjusting Pin Pin Rod, Lock Spring, Fence Lock Lock, Fence *Wrench, Hex-"L", 5/32"
25 26	60229 62053	Screw, Set-Locking, 5/16-18 x 1/2" Support, Fence Lock

*Standard Hardware I tem - May be Purchased Locally.

PARTS LIST FOR CRAFTSMAN 12-INCH MOTORIZED FLOOR SAW MODEL NUMBER 113.299131



Figure 7



Key No.	Part No.	Description
- 1 2 3 4 5 6 7	62325 62068 STD 551031 37893 STD 600803 135 37895 37895 37896	Gauge, Miter

Key No.	Part No.	Description
8	9417295	*Screw, Mach., w/Lockwasher, No.8-32 x 5/8'', Pan Hd. Slotted
9	62230	Rod Assembly, Miter Gauge, Consisting of Items 10,11,12
10	STD 541231	
11	62225	Stud, Clamp
12	62383	Stud, Pivot
13	60288	Screw, Set, 1/4-20 x 3/8'', Self-Locking
14	30505	*Wrench, Hex-"L", 1/8"

*Standard Hardware Item — May be Purchased Locally.
 †Stock Item — May be secured through the Hardware Departments of most Sears or Simpsons-Sears Retail Stores or Catalog Order Houses.

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