

OPERATING INSTRUCTIONS AND PARTS LIST FOR BENCH SAW

7-INCH

Model Number 103.23420

This is the model number of your Bench Saw. It will be found on a plate on the right side of the base. Always mention this model number when communicating with us regarding your Bench Saw or when ordering parts.

How to Order Parts

All parts must be ordered through a Sear's retail or mail order store. Parts are shipped prepaid. When ordering repair parks, always give the following information:"

1. The Part Number.
2. The Part Name
3. The Model Number 103.23420 which will be found on a plate on the right side of the base.

This list is valuable. It will assure your being able to obtain proper parts service. We suggest you keep it with other valuable papers.

SEARS, ROEBUCK and CO.

Source Form 33919

OPERATING INSTRUCTIONS AND PARTS LIST FOR CRAFTSMAN BENCH SAW

Model 103.23420

ASSEMBLING

This bench saw was completely inspected and tested at the factory. To prevent damage during shipment, the fence assembly, the guard and splitter assembly and the miter gage assembly were packed separately in an enclosed carton.

Before reassembling, check the alignment of the saw blade with one of the miter slots in the table. If the distance from the front and rear blade edge to the miter slot is not equal, loosen the two hex head cap screws which hold the table tilt protractor (Figure 2) to the table and shift the table until the blade and miter slot are parallel.

Install the guard and splitter by inserting the splitter pin (Figure 1) into the hole in the rear of the table support No. 33180. With a straight edge, align the splitter and saw blade before tightening the set screw X102. After loosening the rip fence clamp knob and rip fence lock knob (Figure 2) slide the fence into position so that it grips the protruding lip of the rear fence guide bar No. 18624 and slides over the front fence guide bar No. 33716 as illustrated. Place the miter gage on the table so that the bar rests in the miter slot as shown in Figure 3.

LUBRICATION

Before operating this saw, remove the two oil plugs over the spindle bearings (Figure 2) and fill the reservoirs with a good grade machine oil of S.A.E. viscosity No. 20. Use an oil can with a small spout, or a pressure can so that air in the reservoirs may be more easily displaced. Replace the plugs after oiling. The reservoirs extend completely around the bearing, and should be kept full of oil.

The bronze bearings used in this saw are designed to absorb, filter, and meter oil to the spindle. The bearings contain invisible pores which become saturated with oil. When the bearings and spindle become warm during operation, the oil flows through the bearings to the revolving spindle.

Caution: Do not drill holes through the bearings to feed oil to the spindle.

Oil should be applied occasionally to the other moving and sliding parts of the bench saw to maintain smooth operation.

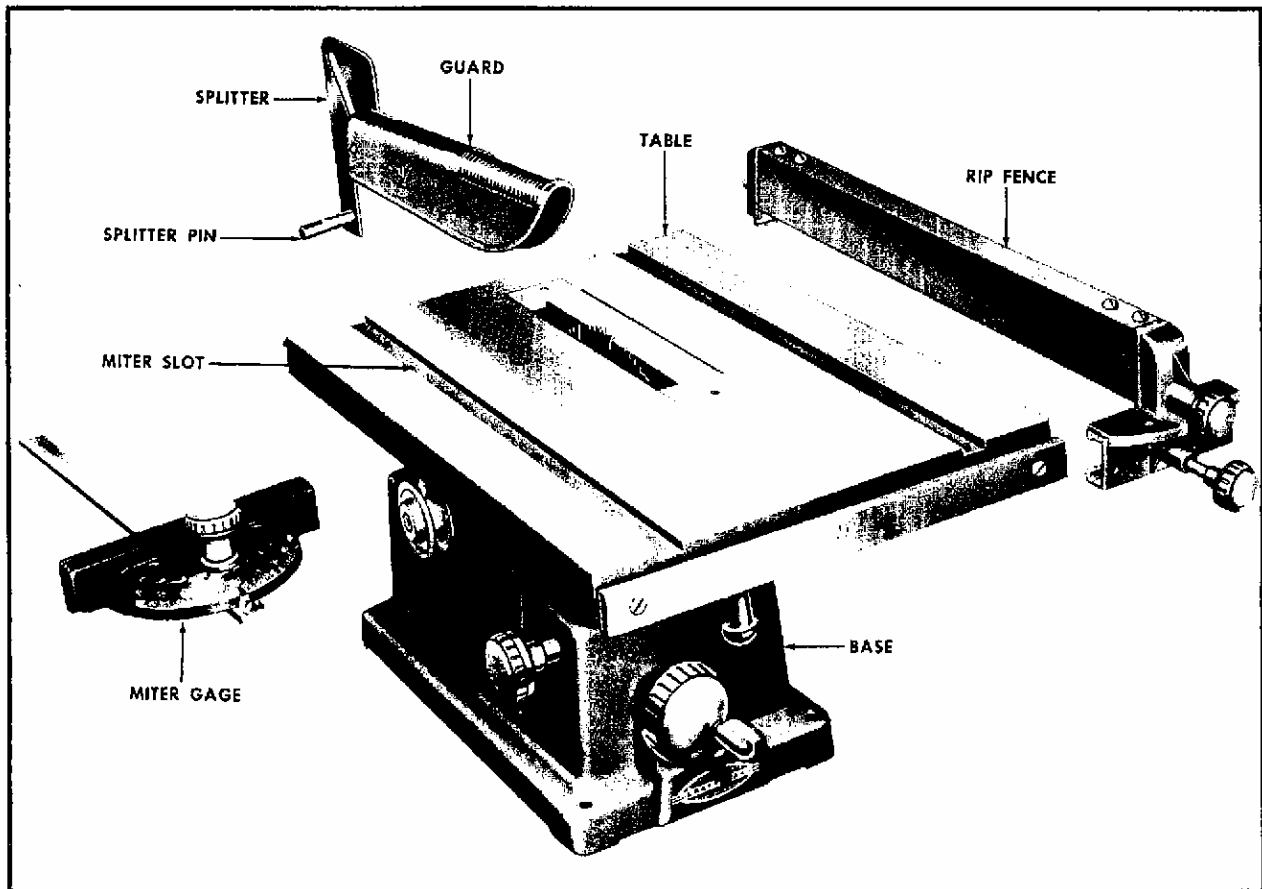


FIGURE I-ASSEMBLY

CONTROLS

The table crank (Figure 2) when turned will raise or lower the table in relation to the saw blade, thus regulating the depth of cut as indicated on the depth of cut scale.

The table clamp screw locks the table in position, and therefore should be loose during adjustment of table height. The table lock handle, with its hexagon recess is designed for use as a wrench on the table lock nut No. 33422 to clamp the table in position at any angle from 0° to 45° as shown on the table tilt protractor. The handle may be slid off the nut toward the saw and will hang in a neutral position when not in use.

NOTE: The table must be raised at least 1/4 inch from the lowest setting before tilting.

The rip fence clamp knob will clamp the fence to the front fence bar and will square the fence with the table if tightened while the lock knob is loose. The lock knob when tightened will lock the far end of the fence in place.

The face of the miter gage may be set at any desired angle from 30° to 90° in either direction by loosening the miter protractor lock knob and turning the protractor to the desired angle as shown on the calibrated scale.

ADJUSTMENTS

If a square cut is not produced with a 0 setting of the table tilt protractor, lower the table to the full depth of cut position and check the squareness of the blade and table with a square. Adjustment may be made with the table leveling screw shown in Figure 3. Following this adjustment, the table protractor pointer should be reset at the 0 mark. This may be accomplished by backing out the pointer screw X512 until the pointer can be turned to the desired position. Care should be exercised so that the pointer does not move when the screw is tightened. Raise the table 1/4 inch and tilt it 45° as indicated on the table tilt protractor. Adjust the 45° stop screw shown in Figure 3 so that the table is supported when tilted 45°. The jam nut on the stop screw must be retightened after adjustment.

The miter gage may be checked with an accurate try-square and the pointer reset at 90° if adjustment is necessary after setting the protractor square with the bar No. 33240.

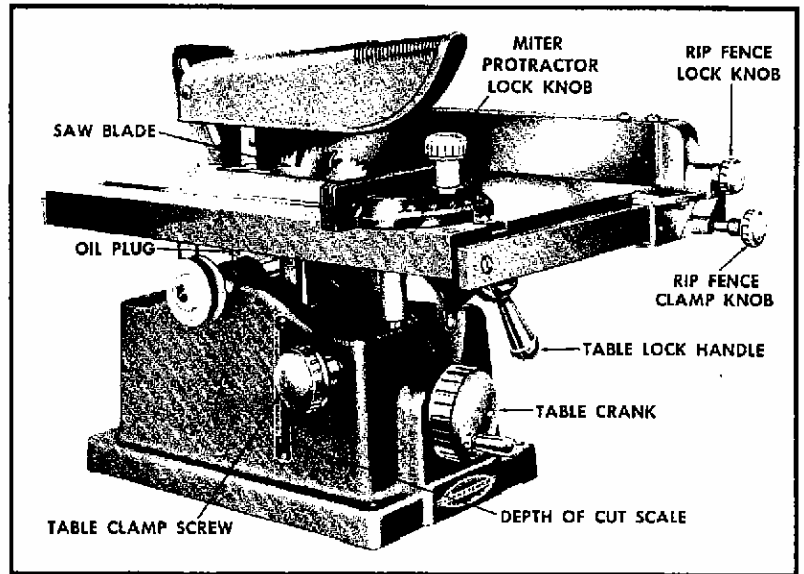


FIGURE 2-CONTROLS

The rip fence must be parallel with the saw blade to produce straight cuts and avoid binding. After the alignment of the miter slots and saw blade have been checked, as previously described, slide the edge of the fence

to the edge of the miter slot and tighten the clamp knob and lock knob in order mentioned. If the fence is not parallel with the miter slot, loosen the lock knob and the two screws shown on either side of the clamp knob in Figure 3. With the lock knob and the two screws loose, the fence may be pivoted until it is parallel with the miter slot. Tighten the lock knob. After the fence is set as described above, tighten the two screws securely to maintain the adjustment just completed.

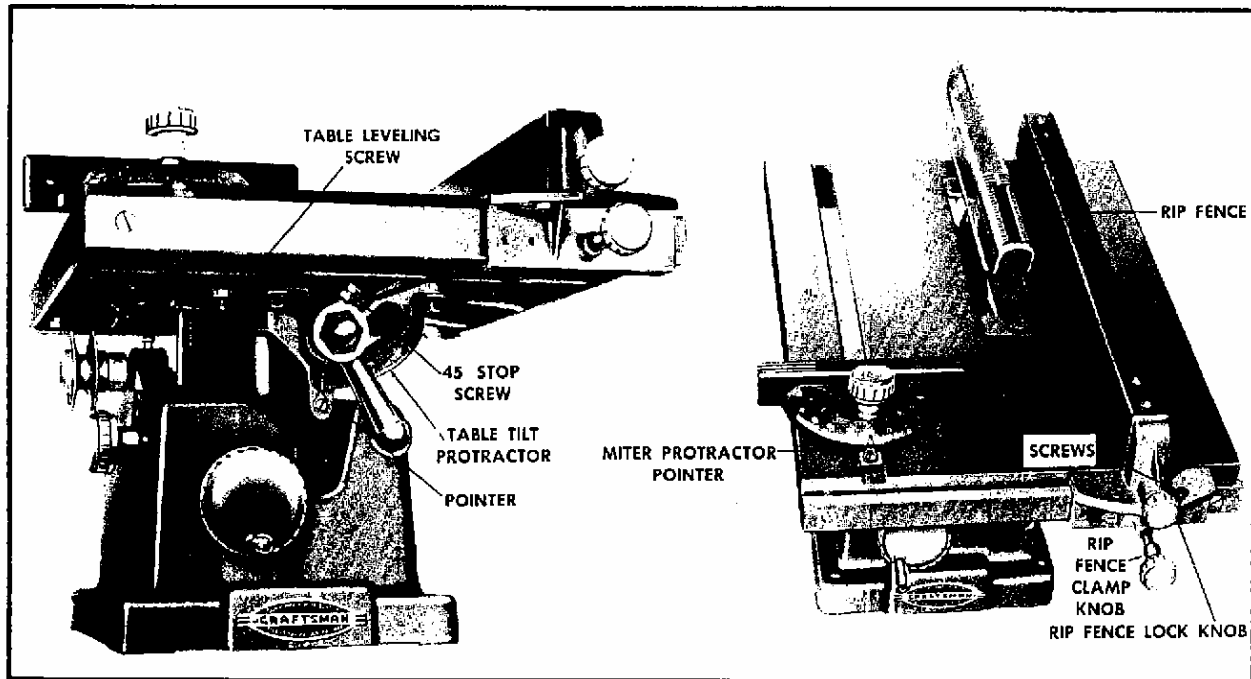


FIGURE 3-ADJUSTMENTS

SPEED

This bench saw will give best results when operated at approximately 4500 R.P.M. Satis. factory operating speed and power can be obtained with a 1/2 horsepower 3450 R.P.M. motor equipped with a 2-1/2 inch diameter pulley, or a 1/2 horsepower 1750 R.P.M. motor equipped with a 5 inch pulley. If the saw is to be used for light work only, a 1/3 horsepower motor with the above speed and pulley combinations will provide sufficient power. Direction of rotation must be clockwise when viewed from pulley side of saw.

This saw is designed to be driven either from below or from the rear. If the motor is installed behind the saw, clearance must be provided for the drive belt when the table is in the lowest position. The motor pulleys mentioned above are available from Sears Retail or Mail Order Stores. For the 5 inch pulley ask for catalog number 9-2805, for the 2-1/2 inch pulley ask for number 9-2802. Be sure to specify the shaft diameter of your motor.

Under normal circumstances any slight wobble apparent when the blade is rotated slowly will disappear at operating speed. If, however, the blade does not run true at operating speed, clean the contact surfaces of the saw clamp washers and the blade, and reinstall the saw clamp washers with the recessed side against the blades.

To insure accuracy during cross cutting operations the angle between the miter protractor face and the blade should be checked frequently with a square.

Caution: Always stop the blade before making a check of this type.

The rip fence should be used when making a series of ripping cuts. To move the fence, loosen both the lock knob and the clamp knob. Slide the fence to the point at which the distance from the fence edge to the blade equals the desired width of cut. Tighten the clamp knob and lock knob in the order mentioned. A trial cut should be made to check a setting of this type. When ripping narrow strips, always use a pusher of scrap wood to prevent injury when finishing a cut.

When possible, the table should be adjusted so that the blade projects through the work piece 1/4 to 1/2 inch to allow dust and chips to be cleared from the blade.

For continuous ripping operations, a rip saw blade will give best results, likewise, a cross cut blade will give best results if continuous cross cutting operations are planned.

Where maximum accuracy is desired, as with interior trim work, a hollow ground combination saw blade should be used, since it is much better suited for precision work than the flat combination blade.

This saw may be used for disc sanding by removing the table insert No. 19971 and replacing the blade with a 1/2 inch bore sanding disc. The table may be tilted to sand angle cuts. To change the abrasive, soak the disc in hot water and peel off the paper. Dry the disc thoroughly before cementing the new abrasive.

The guard should be in position over the blade at all time during sawing operations.

Due to the variety of installations possible, a guard cannot be supplied for the V-Belt. However, it is recommended that suitable protection be provided by the operator.

During continuous operation, the operator may experience a slight electrical shock upon touching the bench saw. This is a discharge of accumulated static electricity generated by the friction of the moving parts, such as the belt and the pulley. This may be eliminated by attaching a ground wire from the bench saw to a water or heating pipe.

CARE OF THE SAW BLADE;

When the blade requires sharpening, before filing the teeth, first make sure that they are all of the proper length. Raise the table until an oil stone will rest flat on the top of the table just above the saw. Lower the table until the teeth just touch the stone. With the belt removed, rotate the blade slowly backward until the ends of all the small teeth have been touched. Stone the small teeth just enough so they will all be the same length.

File the gullets of all teeth of the same shape to a uniform depth and width. Maintain the original shape and dimension when filing the teeth. Be careful not to cut a nick or sharp corner in the bottom of the gullet, which might cause the blade to crack.

Use either a setting stake or a hand set to provide uniform set for the small scoring teeth. Set only the top 1/4 of each scoring tooth. The large raker teeth of combination saw blades require no set. After setting the scoring teeth, check to see that all teeth are in alignment at each side. If some teeth are set too much, they may be corrected by filing. If the set is too light, use the saw set to correct the condition.

After setting, file the bevel of the scoring teeth h. The bevel must alternate from one side to the other on successive teeth. Maintain the original bevel angle, and be careful not to shorten the teeth. Make sure that all scoring teeth are of the same length. File the face as well as the back of the scoring teeth.

The large raker teeth should be filed straight across with no bevel. These raker teeth should be about 1/64 inch shorter than the small scoring teeth, PARTS LIST

Part No.	Prepaid Selling Price Each	Part No.	Prepaid Selling Price Each
BASE AND RELATED PARTS			
38034		33414	Table Tilt Protractor
		33419	Depth of Cut Pointer
		33422	Table Tilt Lock Nut
		33617	Table Crank Shaft
		33622	Retaining Screw
18444	\$.20	33624	Lift Screw
18522	.20	33627	Depth of Cut Pointer Rod.
18626	1.15	33711	Base Partition
18610	.40	33714	Depth of Cut Scale
1893	.15	33812	Snap Pin
18935	.15	X-822	Spindle Bearing
33105	14.50		
			TABLE AND RELATED PARTS
33110	1.25	18128	Fence Clamp
33170	.30	18419	Fence Guide Spacer
33180	5.00	18821	Lock Knob Washer
33190	.25		
33250	.45		
33412	.50		

This sheet is intended for instruction and repair parts only and is not a packing slip. The parts shown and listed may, include accessories not necessarily part of this tool. All prices are subject to change without notice. All parts we shipped prepaid

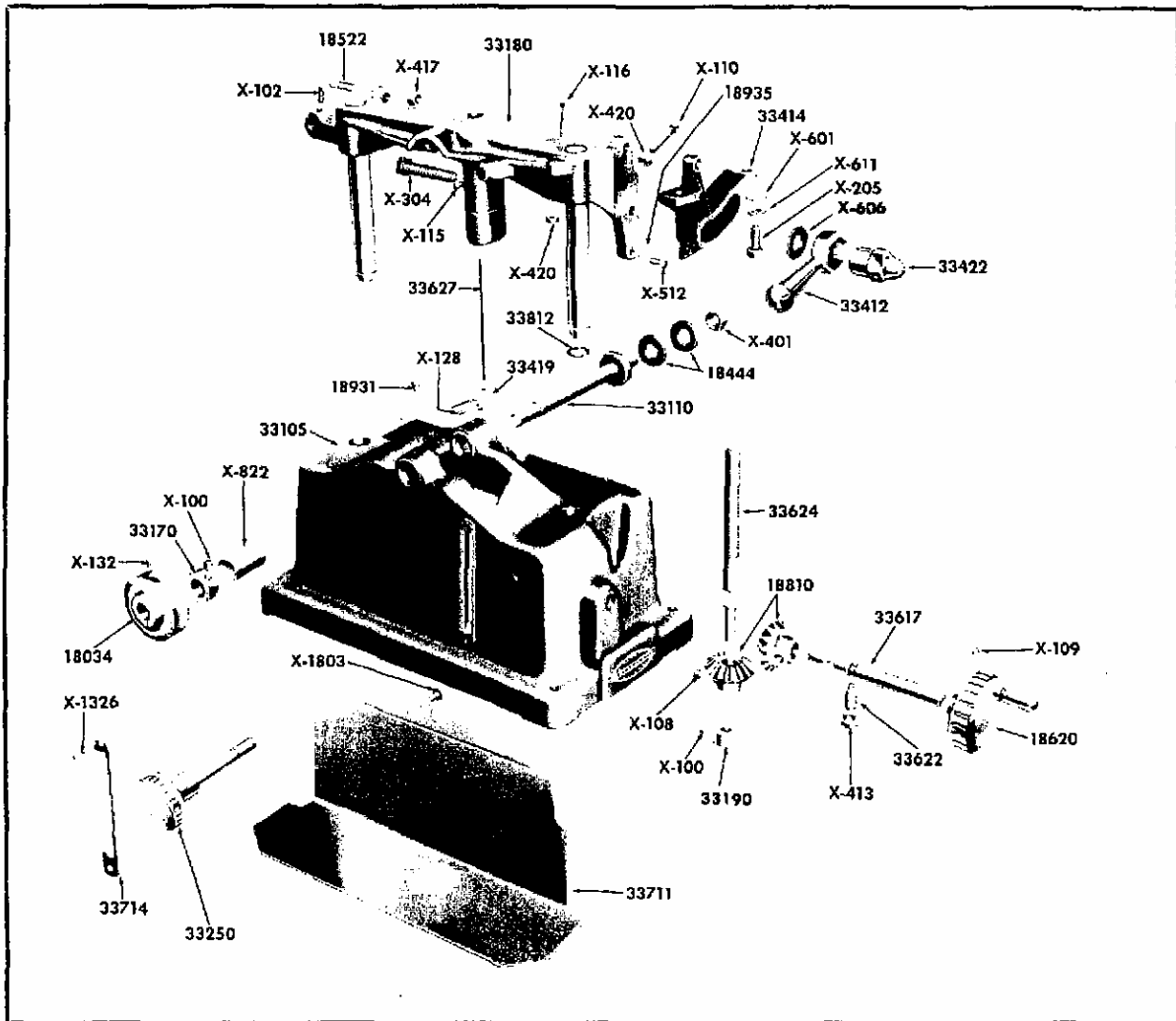


FIGURE 5--BASE AND RELATED PARTS

