

OPERATING INSTRUCTIONS
AND PARTS LIST FOR
**MASTER CRAFTSMAN
TEN-INCH BENCH SAW**

101-02161
MODEL NUMBER ~~101-02162~~

This is the Model Number of your saw. It will be found on the plate on the left side of the base directly below the table. Always mention this Model Number when communicating with us regarding your saw or when ordering parts.

SAW - ON - CART

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

SEARS, ROEBUCK AND CO.

ASSEMBLING AND OPERATING INSTRUCTIONS FOR CRAFTSMAN TEN INCH BENCH SAW

When unpacking be sure to examine all excelsior and paper for parts before discarding.

ASSEMBLY

Clean all units carefully. Best results will be obtained by following this order in assembling: (Refer to Fig. 1.) See NOTE below before making any adjustments — if required, table adjustment should be made first.

1. Mount the Front Guide Bar on the front of Saw Table. Use the three $\frac{3}{8}$ " x 1" cap screws and tighten securely.
2. Mount the handwheels "H" and "J" on the elevating screw (front) and the tilting screw (left side).
3. Assemble the Rip Fence and Bracket "M" to the guide bar by pulling out small knob "N" on outer bracket and sliding unit directly over the guide bar. Check the Rip Fence to see if it is parallel with saw blade. Raise the saw blade to its highest position and tighten clamp knob "O" when making this test. If adjustment is necessary, loosen one of the screws which holds the fence to the fence slide. Tap the fence lightly until it is parallel to saw blade and retighten screw.
4. Mount the motor bracket to the saw arm casting at rear of saw.
5. The Splitter and Guard assembly should now be mounted on the cradle. Remove the table insert plate and tilt the cradle to the 45 degree position. The splitter blade has "bayonet type" slots so that it may be assembled or removed from this cradle by merely loosening the machine screws. In fastening the splitter to the cradle be certain that only the 1/16" thick shim is on the outside. The thinner shim or shims — if present — should be between the splitter blade and the cradle face.
6. Mount motor on motor bracket with the four $\frac{5}{8}$ " x $1\frac{1}{2}$ " machine bolts furnished. Place pulley on motor shaft and line up with saw arbor pulley. Have saw arbor in lowest position during this adjustment. Follow manufacturers' instructions if necessary to reverse rotation of motor shaft. Important: Read paragraph headed "Motor Requirements" very carefully.

If saw is to be run by a very large motor which cannot be accommodated on the motor base, the motor should preferably be mounted on a floating rail and a belt with a minimum length of about 80" should be used. The position of the motor should be adjusted until the belt clears all obstructions with the saw blade in any position.

If saw is to be run from lineshaft, use a belt at least 100" long.

7. The belt may be placed over the saw arbor pulley and then over the motor pulley. Adjust belt tension by sliding motor bracket away from saw and lock in place with the two hex cap screws. **DO NOT HAVE BELT TOO TIGHT.** Turn belt by hand to make sure it runs clear of all obstructions with saw blade in any position.

8. Place mitre gauge assembly into table slot.

9. The plunger index housing is dowelled in place. If for some reason this housing must be removed or adjustment should be necessary, proceed as follows:

- (a) Loosen screw which secures the plunger housing to guide bar and remove housing.
- (b) Remove the dowel pin and re-assemble housing to bar.
- (c) With plunger "S" engaged, set gauge at right angles to saw blade using a square.
- (d) Lock mitre gauge in corrected position with knob "T" and retighten index housing screw. The dowel pin is not used again.

NOTE: The saw table besides being held in place by four cap screws is also held by two dowel pins. If for some reason it is necessary to remove the table, proceed as follows:

- (a) Loosen and remove the four cap screws at the corners inside the base, which fasten the table to the base. Next, pry the table from the base and remove the pins.
- (b) Place table back on the base, insert the cap screws; then adjust the table and tighten the screws **SECURELY**. The dowel pins are not used again. Important: After making this adjustment the rip fence and mitre gauge alignment should be rechecked following the instructions in sections 3 and 9.

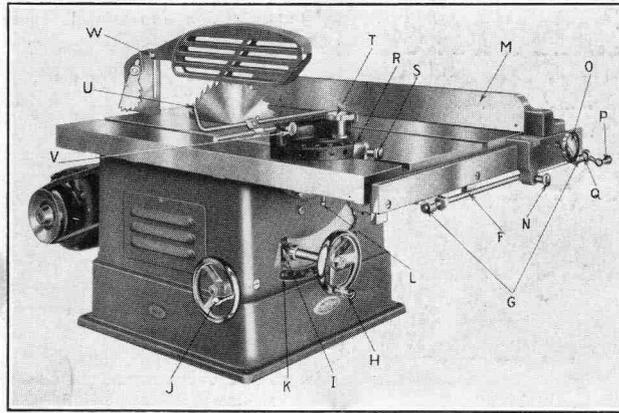


FIG. 1

MOTOR REQUIREMENTS

This saw was designed to be used with a $\frac{3}{4}$ H.P. 3450 R.P.M. motor, of the repulsion-induction or capacitor type. We strongly recommend the type shown in our catalog.

If a 1750 RPM motor is used, it will be necessary to purchase a 4" pulley (Part No. S8-41) and a 48" V section belt (Catalog No. 2764). These can be purchased from your local store.

Important: Under no circumstances should the 4" motor pulley be used in conjunction with a 3450 R.P.M. motor. Likewise, using the $2\frac{1}{2}$ " motor pulley on a 1750 R.P.M. motor will produce very unsatisfactory results.

STATIC ELECTRICITY

Sometimes a slight shock will be experienced upon touching a machine tool. This is caused by a static electrical charge which is built up by the friction of any two moving parts, such as the V-belt and pulley, etc. It is NOT necessarily an indication of faulty motor windings or grounds. To eliminate this condition the tool should be properly grounded to a water or heating pipe.

OPERATION AND CONTROLS

The following controls should be tested until the operator is thoroughly familiar with their use:

1. Elevation handwheel "H" on saw front controls saw elevation or depth of cut as indicated on drum-type dial I. To reset this dial, loosen set screw and turn dial to zero position with saw blade just flush with table surface. Tighten set screw. This adjustment will be necessary when saw is worn and filed to smaller than original diameter, or when using saw blades of smaller diameter.

2. Handwheel "J" on left side of saw controls saw tilting. Tilting range is 0° to 45°, and readings are taken on circular plate "K" below elevation dial.

3. Lock lever "L" under table front locks saw for both elevation and tilt. Note: **DO NOT ATTEMPT TO LOCK CRADLE AND SAW ARM SO RIGIDLY THAT HANDWHEELS CANNOT BE TURNED. ENOUGH TENSION TO HOLD SAW IN POSITION IS ALL THAT IS NECESSARY.**

4. Rip Fence "M" slides easily on front guide bar when knob "N" is pulled out and clamp handle "O" is loosened.

By engaging small knob "N" a vernier adjustment is provided, controlled by the ball crank "P" at the end of the guide bar. The crank collar "Q" (not visible in illustration) is graduated in 1/64ths and may be reset to zero if desired by loosening set screw and retightening after adjustment. Caution: Be certain rip fence is NOT locked in position with knob "O" when using vernier adjustment. After adjusting always clamp rip fence to guide bar with clamp handle "O".

5. Mitre Gauge "R" is graduated from 90° position to 30° position right and left. Plunger knob "S" provides positive indexing at the 15° positions. The large clamp knob "T" locks mitre in any position. The extension rods "U" on mitre gauge are locked in position by thumb screws "V". These rods are for duplicate work.

6. The table insert plate is held in position by spring clips and may be quickly pulled out for dado work or removal of the saw blade.

OPERATING INSTRUCTIONS (Cont'd)

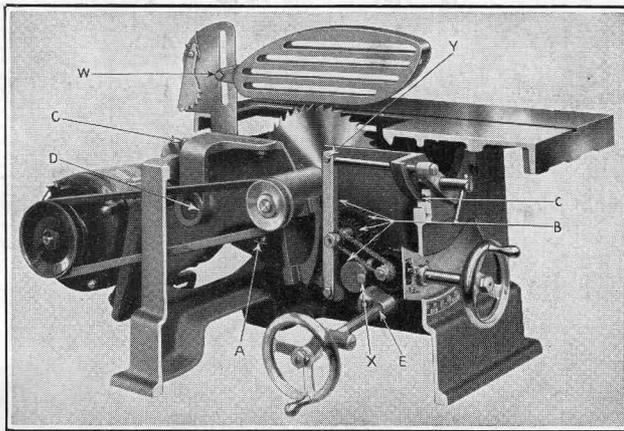


Fig. 2

ADJUSTMENTS

1. All pointers may readily be adjusted to zero position by loosening lock screw, resetting pointer and retightening screw.
2. The rip fence pointer should be set to zero with the rip fence JUST TOUCHING the teeth of the saw blade. The stop nuts on the feed screw "F" should then be adjusted so that the fence cannot touch the saw blade.
3. Stop screws are provided for 0° to 45° tilt positions and 3/4" saw depth positions. These set screws may be adjusted—if necessary—by loosening the lock nut and turning screw to proper position; then retightening lock nut.
4. To adjust tension on dial chain, loosen cap screw "X" (see Fig. 2) and adjust eccentric until proper tension is obtained; then tighten securely.
5. If end play develops in the elevation shaft controlled by hand-wheel "H" Fig. 1, loosen the set screw in the collar on the inside then bring collar snugly against face of dial plate and retighten very securely.

CROSS CUTTING

When using the saw blade in a tilted position, the mitre gauge must be used in the right hand slot because it will not clear the saw blade when used in left hand slot.

RIPPING

Ripping is a very common saw operation.

The width desired may be obtained very accurately and quickly by using the graduated slide bar on the front of the saw table as a scale. The pointer should be checked frequently as described under Adjustments.

The saw blade should project enough higher than the thickness of the work to enable the saw dust to be thrown out readily. In ripping narrow pieces, use a piece of wood to push the work through when close to the end as it is dangerous to push narrow pieces through by hand.

LUBRICATION

Your saw is a fine machine and should be given the best of care. Keep it clean, lubricate it regularly and it will give you many years of trouble-free service.

LUBRICATION CHART (Letters refer to Fig. 2) GREASING

- A. The saw arbor ball bearings are lubricated by means of the grease cup "A" which is accessible through the louvre plate on the left side of the saw. The bearings are fully lubricated at the factory. Fill cup with Lubrico M-6 grease or equivalent and turn cup frequently.
- B. Occasionally apply light grease to the worm, worm gear, rack and rack gear at "B".

OILING

The following parts should be oiled frequently:

- C. Trunnion segments in which cradle tilts.
- D. Saw arm hinge shaft inside rear of base under table.
- E. Tilting screw. (Remove side plate.)
- F. Feed screw in front of table (see Fig. 1).
- G. Two bearing brackets holding Acme Screw (Fig. 1).

Any other point where there is friction between two or more moving surfaces.

To prevent saw table from rusting keep covered with film of oil when not in use. Wipe off with cloth before using.

DISC SANDING

An eight inch sanding disc is available for converting the saw into a sanding machine with full provisions for tilting to 45°. See catalog.

To set up the saw for disc sanding, take out the table insert plate and replace the saw blade with the sanding disc. It will be necessary to purchase a special Sanding Disc Insert Plate (Part No. S10-66CB—Price \$1.50) for use with the disc as the table opening is too narrow when using the regular table insert plate.

The sanding disc is furnished with a coarse and a fine abrasive. Use the coarse grit for fast cutting operations and the fine for finishing operations. To remove old abrasives, soak disc in hot water until loose. It may then be easily pulled off with the fingers. Be sure disc is dry before cementing new discs.

DADOING AND RABBETING

For dado work, it is necessary to use a special dado insert plate. Part No. S10-66CA—Price \$1.50. This plate is illustrated in the part illustration on page 4.

To use the dado head, take out the table insert plate and remove the saw blade. Place one saw blade on this arbor first and then the side chippers as required to obtain the desired thickness and finally the outside blade. Then replace saw collar and tighten nut securely. (See Fig. 3.)

When wide dados (5/8" or more) are to be used it will be necessary to leave the outer washer off the arbor and tighten nut securely against outer dado cutter.

Important: Do not use the chipper blades by themselves without the outside saw blades or a very unsatisfactory job will be produced.

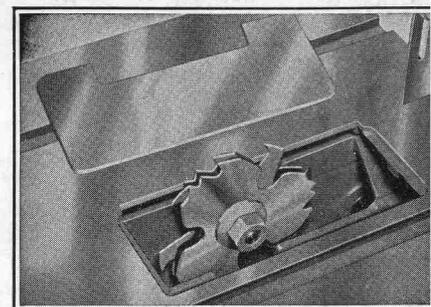


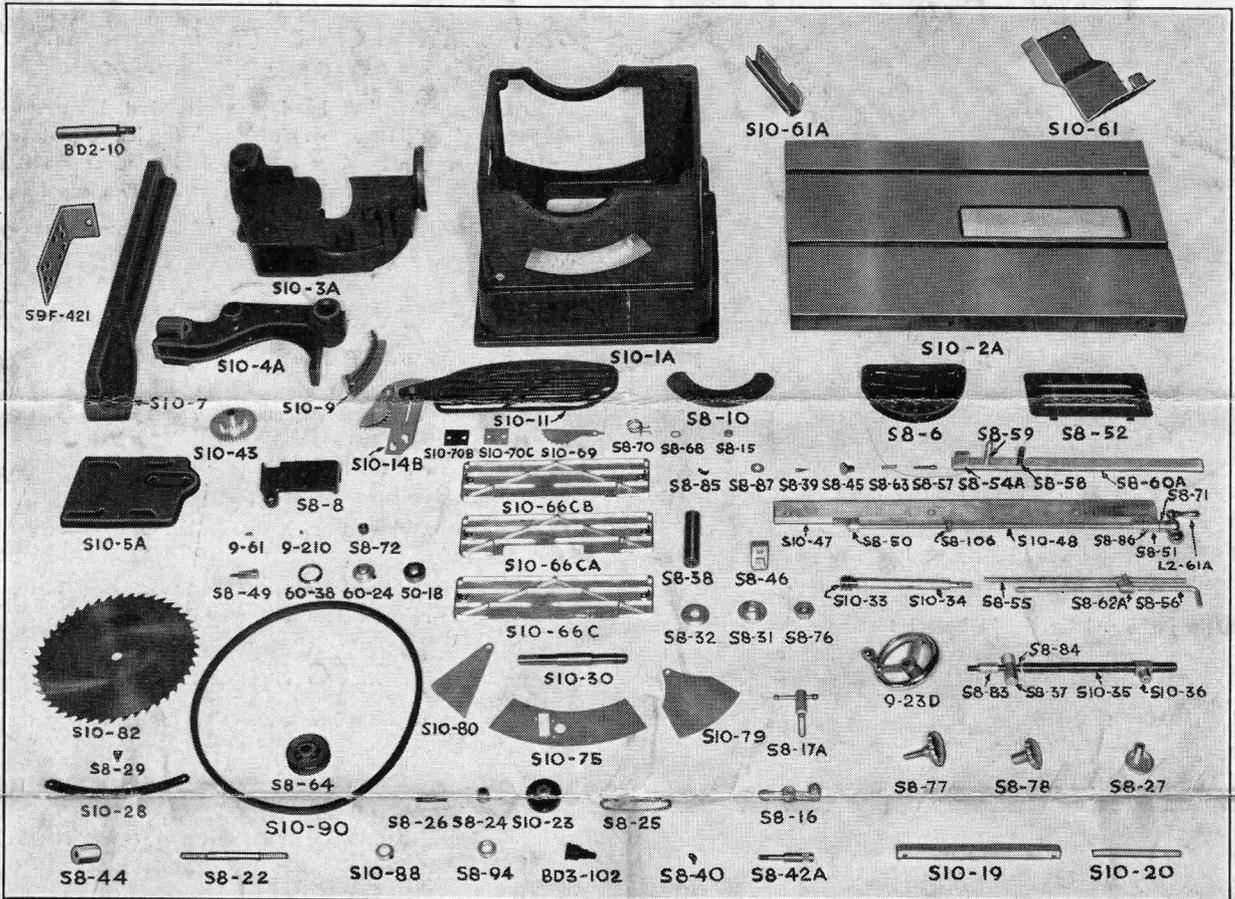
Fig. 3

HOW TO ORDER PARTS FOR CRAFTSMAN TEN-INCH BENCH SAW MODEL NUMBER 101.02162

All parts listed here may be ordered through any Sears retail store or the mail order store which serves the territory in which you live. When ordering, always give the following:

1. Part number in this list
2. Part name and price in this list
3. Model number 101.02162, which will be found on the plate on the left of the base.

ALL PARTS ARE SHIPPED PREPAID



Part No.	PART NAME	Selling Price Each
BASE ASSEMBLY		
S10-1A	Base	\$10.60
S8-10	Cradle Rim Segment (2 req.) each	.80
S10-28	Tilt Gauge	.30
S8-52	Louvre Plate (2 req.) each	.25
S8-67	Slot Plate Spring (not illustrated)	.15
S10-79	Circular Slot Plate (left)	.30
S10-80	Circular Slot Plate (right)	.30
TABLE ASSEMBLY		
S10-2A	Table	13.90
S10-66C	Table Insert	1.50
S8-85	Table Insert Spring (2 req.) each	.10
CRADLE ASSEMBLY		
S10-3A	Cradle	6.90
S10-23	Depth Dial	.45
S8-24	Depth Dial Sprocket (2 req.) each	.30
S8-25	Depth Dial Chain	.30
S8-26	Depth Dial Stud	.15
S8-27	Depth Dial Chain Tightener	.30
S8-29	Tilt Gauge Pointer	.15
S10-33	Saw Lift Worm	.45
S10-34	Saw Lift Worm Shaft	.35
S10-35	Tilt Screw	1.05
S10-36	Tilt Screw Nut	.35
S8-37	Tilt Screw Swivel Block	.25
S8-40	Depth Dial Pointer	.15
S8-42A	Worm Gear Stud	.15
S10-43	Worm and Rack Gear	1.20
S10-75	Dial Plate	.25
S8-83	Tilting Screw Sleeve	.15
S8-84	Tilting Screw Washer	.10
S8-94	Outer Thrust Collar	.15
SAW ARBOR HOUSING ASSEMBLY		
S10-4A	Arbor Housing	3.60
S10-9	Saw Arbor Lift Rack	.90
50-18	Ball Bearing (2 req.) each	1.65
60-24	Ball Bearing Collar	.25
S10-30	Saw Arbor	1.50
S8-31	Saw Arbor Collar (tight)	.25
S8-32	Saw Arbor Collar (loose)	.25
S8-38	Spindle Arm Pin	.35
60-38	Ball Bearing Lock Nut	.25
S8-64	Saw Pulley	.50

Part No.	PART NAME	Selling Price Each
S8-76	Saw Arbor Nut	.15
BD3-102	Grease Cup	.15
MOTOR BASE ASSEMBLY		
S10-5A	Motor Base	1.25
BD2-10	Motor Base Bracket Pin (2 req.) ea.	.30
MITRE GAUGE ASSEMBLY		
S8-6	Mitre Gauge	1.60
S8-39	Fence and Mitre Gauge Pointer, (2 req.) each	.15
S8-45	Mitre Index Knob	.15
S8-54A	Index Housing	.20
S8-55	Mitre Extension Rod (straight)	.20
S8-56	Mitre Extension Rod (angle)	.25
S8-57	Mitre Plunger	.15
S8-58	Mitre Spindle	.15
S8-59	Mitre Lock Stud	.15
S8-60A	Mitre Gauge Guide	.60
9-61	Plunger Spring	.15
S8-62A	Mitre Rod Clamp (assembly)	.35
S8-63	Mitre Plunger Spring	.15
S8-78	Mitre Clamp Knob	.40
S8-87	Mitre Gauge Washer	.10
RIP FENCE ASSEMBLY		
S10-7	Rip Fence	3.70
S8-8	Rip Fence Slide	1.50
S8-45	Half Nut Knob	.15
S10-48	Lead Screw	1.80
S8-49	Half Nut	.25
S8-77	Saw Fence Knob	.50
S8-88	Saw Fence Washer (Not illus.) (2 req.) each	.15
9-210	Steel Ball for Half Nut Assembly	.10
RIP FENCE GUIDE BAR ASSEMBLY		
S8-46	Rip Fence Guide Bar Bracket (3 req.) each	.25
S10-47	Rip Fence Guide Bar	2.10
S10-48	Lead Screw	1.80
S8-50	Lead Screw Bearing (left)	.15
S8-51	Lead Screw Bearing (right)	.15
L2-61A	Ball Crank (with handle)	.85
S8-71	Lead Screw Dial	.15
S8-86	Lead Screw Thrust Collar	.15

Part No.	PART NAME	Selling Price Each
S8-106	Stop Nut (2 req.) each	.10
SAW GUARD ASSEMBLY		
S10-11	Saw Guard	1.80
S10-14B	Saw Guard Splitter	.35
S8-15	Saw Guard Pivot Sleeve (3 req.) each	.15
S8-67	Saw Guard Spring (not illus.)	.15
S8-68	Pawl Spacer (2 req.) each	.15
S10-69	Kick-Back Pawl (2 req.) each	.35
S8-70	Kick-Back Pawl Spring	.25
S10-70B	Splitter Clamp Plate	.15
S10-70C	Splitter Clamp Plate Shim	.15
S8-73	Pawl Stop Pin (not illustrated)	.20
MISCELLANEOUS		
S8-16	Cradle Tilt Clamp	.55
S8-17A	Cradle Tilt Clamp Screw	.25
S10-19	Saw Lift Brake Beam	1.05
S10-20	Saw Lift Brake Beam Rod	.25
S8-22	Brake Beam Stud	.20
9-23D	Hand Wheel (large with handle) (2 req.) each	1.65
S8-44	Dust Cover Spacer	.20
S10-61	Dust Cover (large)	.50
S10-61A	Dust Cover (inner)	.25
S8-64	Motor Pulley (3/8" hole)	.50
S10-66CA	Table Insert (for Dado)	1.50
S10-66CB	Table Insert (for Sanding)	1.50
S10-82	Saw	2.40
S10-88	Saw Lift Shaft Collar	.15
S10-90	Belt (46-1/32" O.C.)	1.25
S9F-421	Switch Bracket	1.15
TABLE EXTENSION PARTS LIST FOR CRAFTSMAN 10" BENCH SAW		
S8-46	Rip Fence Guide Bar Bracket	.25
S10-123	Rip Fence Guide Bar (Long)	2.40
S10-124	Lead Screw (long)	2.40
S10-125	Table Extension (sides) (2 req.) each	4.65
S10-126	Table Extension (front)	4.50
S10-127	Rip Fence Facing	1.10

All prices are subject to change without notice.

Printed in U. S. A.

NOTICE: This is NOT a packing slip. The parts shown and listed include accessories that are not necessarily part of this tool.
NOTE: Standard parts, such as bolts, nuts, washers, etc., are not listed above as such parts can be obtained locally.