OPERATING INSTRUCTIONS AND PARTS LIST FOR

CRAFTSMAN JOINTER

43/8 INCH

-Model **N**umber 103.23340-

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

HOW TO ORDER REPAIR PARTS

All parts listed herein may be ordered through Sears, Roebuck and Co. or Simpsons-Sears Limited. When ordering parts by mail from the mail order house which serves the territory in which you live, selling prices will be furnished on request or parts will be shipped at prevailing prices and you will be billed accordingly.

WHEN ORDERING REPAIR PARTS, ALWAYS GIVE THE FOL-LOWING INFORMATION AS SHOWN IN THIS LIST:

- 1. The PART NUMBER.
- 2. The PART NAME.
- 3. The MODEL NUMBER.
- 4. The NAME of item.

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.—U.S.A. SIMPSONS-SEARS LIMITED—CANADA

LITHOGRAPHED IN U.S. A.

OPERATING INSTRUCTIONS AND PARTS LIST FOR JOINTER

MODEL NUMBER 103.23340

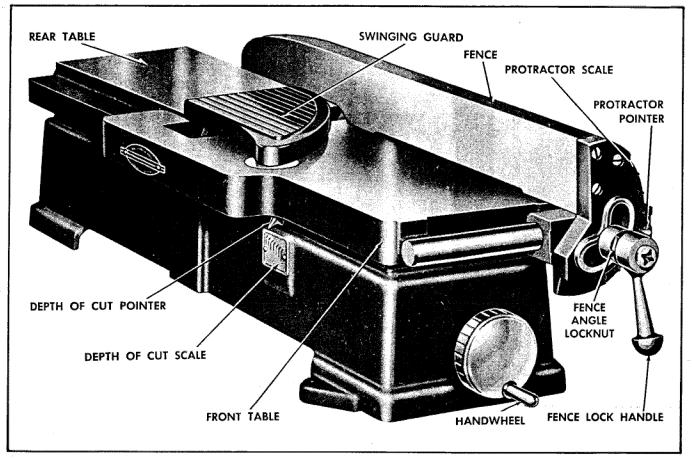


FIGURE I

INSTALLATION:

The jointer should be mounted securely on a work bench or stand so that the table surface is at a comfortable working height. Three 11/32 inch holes are provided in the base for this purpose. The motor should be installed below on a wooden shelf. The jointer pulley is designed to use a standard ½ inch Vee type belt. After the position of the motor has been established, the required belt length may be determined by measuring with a flexible tape around the outside of the pulleys, not in the groove. Cutter head rotation must be counterclockwise as viewed from the pulley side of the jointer. Pulley alignment, and belt tension adjustment, as well as direction of rotation should be considered when installing the jointer and its power unit.

LUBRICATION:

The precision ball bearings used in this jointer have been packed with grease and sealed at the factory. They should require no further attention for the life of the bearings.

To maintain smooth easy operation of the controls, oil should be applied occasionally to the following units located under the front table: the upper and lower slides, and the elevation screw and bracket. Oil should also be applied to the swinging guard insert and fence slide from time to time.

SPEED:

For best results, the jointer should be operated at approximately 4500 R.P.M. Satisfactory operating speed and power may be attained by using a 1/3 H.P. 1750 R.P.M. motor equipped with a 5 inch diameter pulley, if continuous heavy duty work is planned, a 1/2 H.P. motor should be used. Be sure to specify the shaft diameter of your motor when ordering this pulley.

CONTROLS:

The position of the fence is maintained by the clamping action of the fence angle lock nut and the fence slide lock 18133. The fence may be positioned at any point across the table by loosening the fence slide lock 18133 and moving the entire fence assembly along the fence slide bar 29613.

The fence lock handle is designed so that it may be disengaged after use on the lock nut and will hang in a neutral position as shown. The angle between the fence and the table may be changed for beveling operations by loosening the fence angle lock nut. The angle selected for the bevel cut is indicated on the protractor scale. After changing the fence position as described above, check carefully that the fence angle lock nut is secure before proceeding with a cutting operation.

The handwheel when turned will raise or lower the front table, thus regulating the depth of cut as indicated by the depth of cut pointer and scale.

ADJUSTMENTS:

If at any time the cut obtained should vary from that indicated on the depth of cut scale the following adjustment may be made. Set the front and rear tables at the same level and check with a straightedge. Loosen the screw X2951 holding the pointer 29719, and shift the pointer until it indicates zero on the scale. Tighten the screw securely after making the above adjustment.

If a 90° setting of the fence angle protractor does not produce square cuts the fence may be reset square with the table by using an accurate tri-square. After the 90° relation between the fence and table has been established, the screw X2951 holding the protractor pointer may be loosened and the pointer reset at 0.

If a gouge or step is produced at the end of a cut it is an indication that the rear table is too low. Likewise, the cut may diminish or taper as the work is pushed through as a result of a high rear table. Either of these conditions may be rectified by aligning the table surfaces in the following manner. Lay a straightedge across both tables as shown in figure 2. By adjusting any of the six leveling jacks 18516 as needed, set the tables so that they are level and in the same plane, so that when the cutter head is turned slowly by hand, the knives will touch the straightedge lightly at either side of the table. The leveling jacks 18516 may be adjusted by loosening the lock screws X232. After the jacks have been adjusted and the tables are in their proper relation to each other and to the cutter head, hold the jacks with a wrench so that they will not turn while retightening the lock screws.

Trial cuts should be made after any adjustment or repositioning to make sure that no other control unit has been disturbed and that all controls are functioning in proper relation to each other.

Note: After a few hours of operation tighten all pulley set screws.

SHARPENING THE BLADES:

The three 43% inch high speed steel cutter knives 18127 will give satisfactory cutting surface for many hours of operation without regrinding, if they are

honed occasionally with a fine abrasive stone to retouch the edge. This operation can be performed as shown in figure 3. It is not necessary to remove the cutter blades from the head. Before honing, cover part of the stone with paper as shown to prevent injury to the table surface. For satisfactory results, the original bevel angle must be maintained on the knives. With the handwheel adjust the front table level so that the stone when resting on the table will touch the full width of the knife bevel. Secure the cutter head in the desired position by inserting a wooden wedge between it and the table as shown. Place the paper-covered portion of the stone on the table and by moving the stone back and forth, hone the full length of each knife in turn.

The small burr on the flat side of the blades may be removed by a few light strokes with a fine abrasive stick or a piece of emery cloth.

CAUTION!

To insure safe operation of the machine, blades should not be reinstalled which have been ground down to less than 9/16 inch in width.

RESETTING BLADES:

If the blades are removed from the cutter head, extreme care should be exercised at time of replace-

Set both tables at the same level-check with an accurate straight-edge as shown in fig 2. The distance from the table surfaces to the cutter head should be the same at each end of the cutter head. Adjustment of the tables may be made with the leveling jacks as explained under "adjustments".

Install the blades so that they project 1/16 inch at left hand end of the cutter head. The edges should project slightly above the level of the table surfaces. Clamp the blades lightly in position. The flat point of each set screw must engage the bevel on the face of each wedge. See inset, Fig. 2. With the straightedge

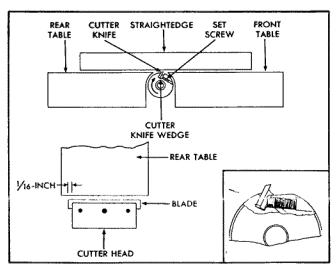


FIGURE 2

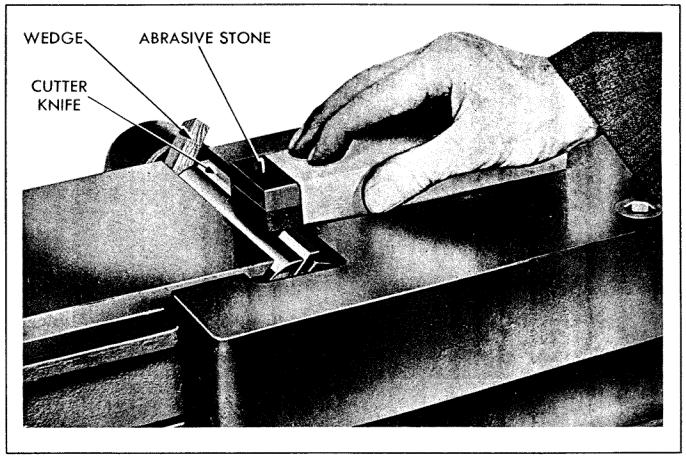


FIGURE 3

on the table as shown in fig. 2, tap the blades into the cutter head with a piece of hardwood until the knife edge just touches the straightedge lightly at either end of the blade as the cutter head is turned by hand. When all three blades have been aligned in the above manner, tighten the nine set screws securely.

OPERATION:

The swinging guard shown in figure 1 should be in operating position at all times except during rabbeting operations at which time it may be removed by lifting it straight up out of its hexagonal socket in the front table.

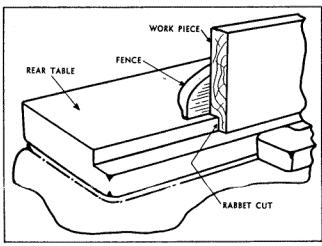


FIGURE 4

For the rabbeting operations, the fence is shifted from its normal position at the right hand edge of the table to the desired position on the left hand side. The width of cut is determined by the distance from the end of the cutter knives to the fence. (See figure 4).

Face planing or surfacing is the most common function of the jointer, yet extreme care must be exercised during this operation. The depth of cut should be determined by the width of the material; the wider the material, the less the cut. In most cases a 1/32 cut will produce the best surface.

Deeper cuts should be made in successive passes across the cutter head until the full depth has been attained. The work should be advanced through the guard to the cutter head with a smooth slow feed. Place both hands on top of the work piece, the left hand pressing the piece firmly against the rear table surface, the right hand exerting the feed pressure over the front table.

When cutting pieces over three feet in length, the most uniform cut will be maintained by supporting the piece at table height after it leaves the rear table surface.

Warped stock should be cut on the concave side for best results. To avoid pitting or torn grain it is advisable, wherever possible, to determine which way the grain emerges on the surface of a piece of wood. The direction of feed should be governed accordingly; the grain should emerge on the lower surface of the piece and should point toward the front of the jointer.

When surfacing thin stock (1/2 inch or less), a push block should always be used.

Because of the cut-out in the lower edge of the fence, designed for clearance at a maximum depth of cut setting, a guide surface is not available beyond the cutter head when surfacing stock less than ½ inch thick. It may be necessary to clamp an auxiliary face to the fence if a guide is needed under the above circumstances. This "face piece" should be

attached after the front table position has been established, and should rest on the rear table surface. The function of the fence in the beveling operation has been described in the paragraph on controls.

The swinging guard was incorporated for your safety—use it to its best advantage.

To be sure you will make a depth of cut as planned, always lower the table beyond the depth wanted and then crank the table up to the correct depth.

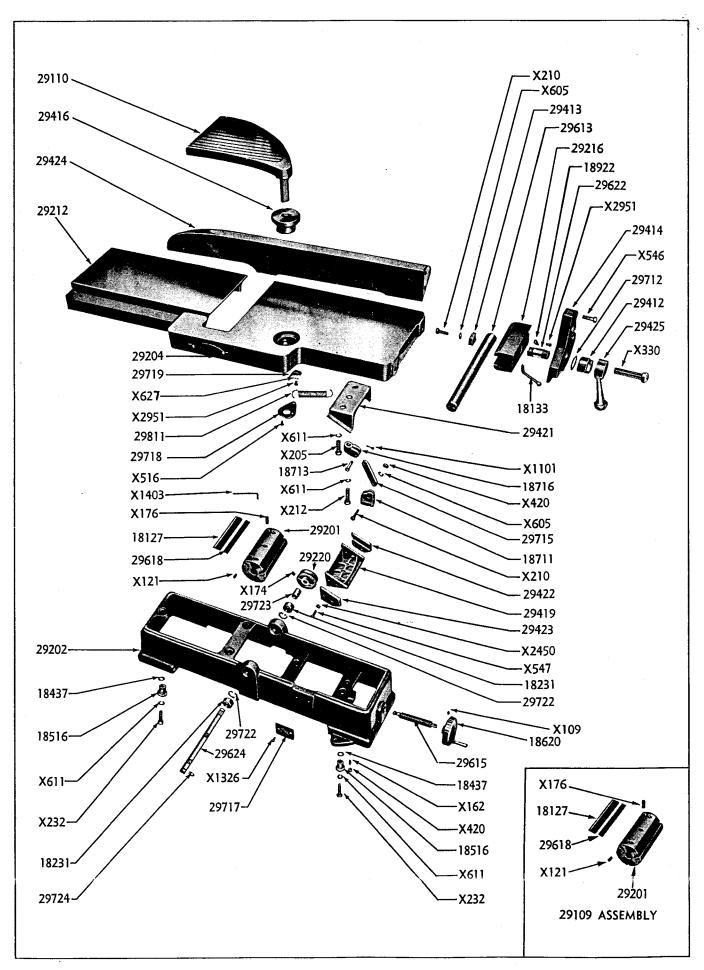
An interesting booklet covering special operations which may be performed on your jointer is available.

PARTS LIST

| Part No. | Part Name | Part No. | Part Name |
|----------|---|----------|--|
| 18127 | Cutter blades - Purchase from nearest | 29712 | Fibre Washer |
| ,012, | Sears retail store or mail order houseAsk | 29715 | Link |
| | for Cat. No. 9-2291 | 29717 | Depth of Cut Scale |
| 18133 | Fence Slide Lock Handle | 29718 | Bracket |
| 18231 | Ball Bearing | 29719 | Depth of Cut Pointer |
| 18437 | Washer | 29722 | Retaining Ring |
| 18516 | Leveling Jack | 29723 | Spacer |
| 18620 | Hand Wheel with Set Screw | 29724 | Snap Ring |
| 18711 | Clevis | 29811 | Spring |
| 18713 | Pin | *X109 | Set Screw-No. 10-24 x 1/4 Slotted Hd. |
| 18716 | Bracket | | Cup Point |
| 18922 | Protractor Pointer | *X121 | Set_Screw-5/16-24 x 3/4-Socket Hd. |
| 29109 | Cutterhead Ass'y Complete—Includes blades, wedges, and set screws | | Dog Point |
| 29110 | Swinging Guard | *X162 | Set Screw-1/4-20 x 5/8 Slotted Hd. Half |
| 29201 | Cutter Head with Set Screws | | Dog Point |
| 29202 | Base with Depth of Cut Scale and Retain- | *X174 | Set Screw 5/16—18 x 3/8 Socket Hd. Cup |
| | ing Rings No. 29722 | | Point |
| 29204 | Front Table | *X176 | Set Screw 5/16-24 x 1/2 Socket Hd. Cup |
| 29212 | Rear Table | | Point |
| 29216 | Fence Slide | *X205 | Cap Screw 5/16—18 x 3/4 Hex Hd. |
| 29220 | Pulley with Set Screw - Purchase from | *X210 | Cap Screw 1/4-20 x 1 Hex Hd. |
| | nearest Sears retail store or mail order | *X212 | Cap Screw 5/16—18 x 11/4 Hex Hd. |
| | house. 2 inch single groove V-pulley \(\frac{1}{2}\) inch bore. Ask for Cat. No. 9-2801—\(\frac{1}{2}\) | *X232 | Cap Screw 5/16—18 x 13/4 Hex Hd. |
| | inch bore. | X330 | Mach. Screw 3/8-16 x 13/4 Phillips-Fil- |
| 29412 | Fence Angle Lock Nut | | lister Hd. |
| 29413 | Spacer | *X420 | Hex Nut 1/4-20. |
| 29414 | Protractor | *X516 | Mach, Screw No. 8-32 x 1/4 Round Hd. |
| 29416 | Swinging Guard Insert | X546 | Mach. Screw 1/4-20 x 3/4 Fillister Hd. |
| 29419 | Lower Slide | *X547 | Mach. Screw No. 10-24 x 1/2 Round Hd. |
| 29421 | Upper Slide | *X605 | Lock Washer 1/4 I.D. x 1/2 O.D. |
| 29422 | Gib, R. H. | *X611 | Lock Washer 5/16 I.D. x ½ O.D. |
| 29423 | Gib, L. H. | *X629 | Plain Washer 5/32 l.D. x 5/16 O.D. |
| 29424 | Fence | | Cotter Pin 1/16 x 1/2 |
| 29425 | Fence Angle Lock Handle | | |
| 29613 | Fence Slide Bar | | Drive Screw No. 4 x 3/16 |
| 29615 | Elevating Screw | | Allen Wrench 5/32 |
| 29618 | Wedge | *X2450 | External Lock Washer No. 10 I.D. x 13/32 |
| 29622 | Stud | **** | O.D. |
| 29624 | Arbor | *X2951 | Mach. Screw No. 6—32 x 1/4 Round Hd. |

*Standard hardware items-may be purchased locally.

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.



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