IN BACK OF BOOK

OPERATING INSTRUCTIONS AND PARTS LIST FOR

"SPD"

CRAFTSMAN SWING SAW

Model Number 103.25450

This is the model number of your Swing Saw. It will be found on a plate located on the base near the column. Always mention this model number when communicating with us regarding your Swing Saw, 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 FOLLOWING 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.

SOURCE FORM 44919

OPERATING INSTRUCTIONS AND PARTS LIST FOR SWING SAW

Model No. 103.25450

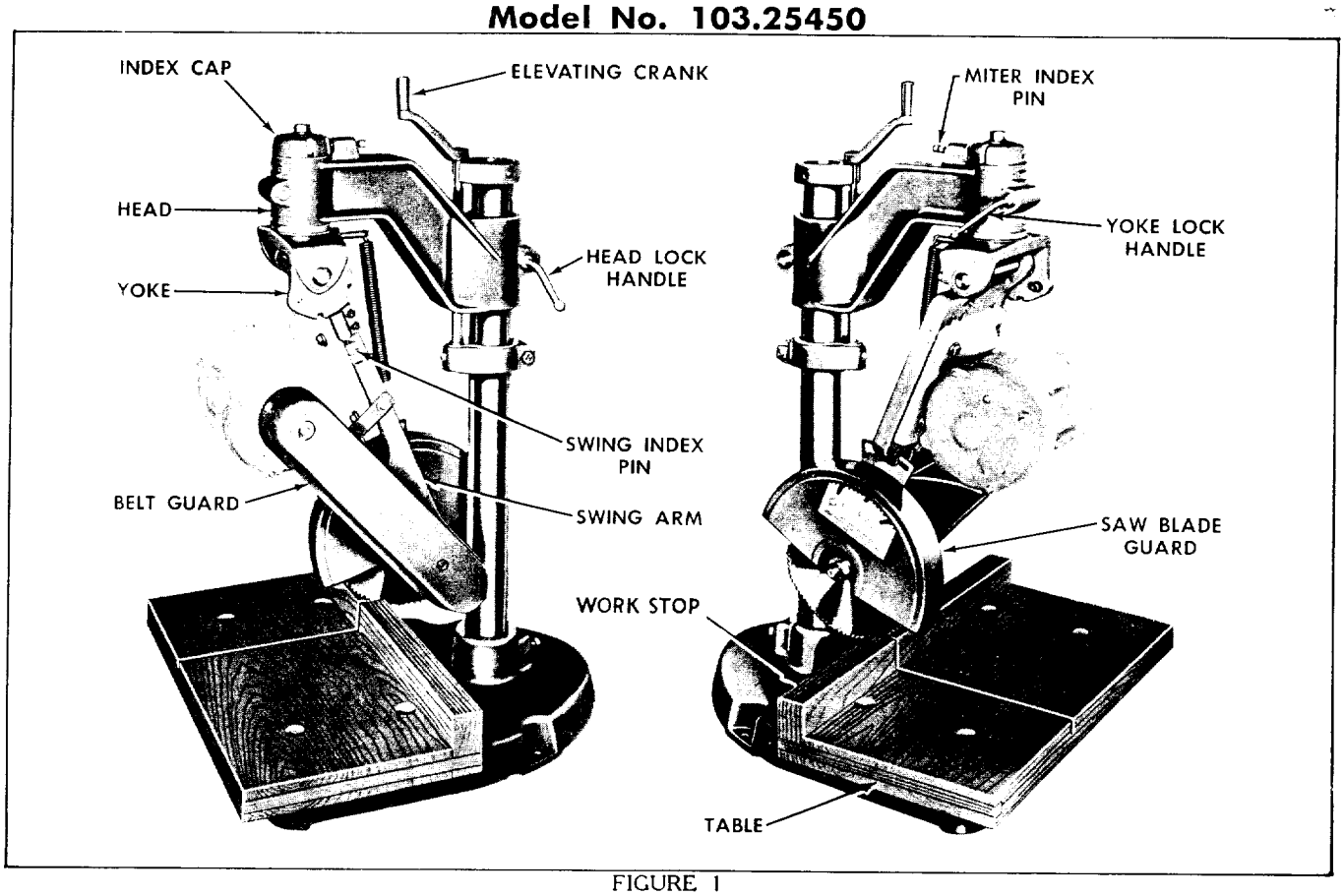

FIGURE 1

This Swing Saw is designed and constructed to produce highly satisfactory results either cross-cut or miter. Rip and dado cuts can also be accomplished. Easily accessible controls provide quick interchange of operations to promote speed in the completion of any work.

For the greatest protection of your Swing Saw it has been packed partially disassembled. It is necessary to read the following instructions for reassembly and adjustment so that you may realize the complete efficiency of the tool.

The disassembled parts are listed below. Be sure they are all accounted for before discarding any of the packing materials.

Box contains:

1. Illustration No. 8, Spring.
2. Illustration No. 39, Table.
3. Illustration No. 43, Blade guard.
4. Illustration No. 61, Belt guard.
5. Illustration No. 64, Belt.
6. Illustration No. 66, Motor pulley.
7. Paper bag which contains:
   Illustration No. 37, 4 pcs. Table screws.
   Illustration No. 38, 4 pcs. Table screw washers.
   Illustration Nos. 40 and 48, 8 pcs. Table screw and motor bolt nuts.
   Illustration Nos. 42, 50, 58, and 68, 22 pcs. Washers.
   Illustration No. 49, 4 pcs. Lock washers.
   Illustration No. 69, 4 pcs. Motor bolts.
   Illustration Nos. 41 and 59, 2 pcs. Guard screws.
   Illustration No. 75, Belt guard screw.
   Illustration No. 63, Sleeve-belt guard screw.
   Illustration No. 62, Belt guard washer.
   Illustration No. 60, Belt guard nut.
   Illustration No. 67, Allen wrench 5/32.
8. Folder which contains:
   Illustration No. 82, 10″ Saw blade.

ASSEMBLY:

Attach the spring to tool by placing the loop end of spring in the groove of the stud, No. 11, with the hook on the opposite end pointing toward the swing arm. (See Fig. 3.) Pull the **swing arm** toward you and engage the hook in the opening provided.

Release the **yoke lock handle** and rotate the swing arm until the **miter index pin** can be screwed in so as to engage the center groove in the **index cap.**

To assemble table to tool place one washer, No. 38, under the head of each of the 4 screws, No. 37, and after inserting the screws through the table start a nut, No. 40, on each one. Slide the table onto the base in position shown in Fig. 1, engaging the nuts in the "T" slots provided in the base. See paragraph "Table Alignment" under "Adjustments" to complete table installation.

Assemble motor to swing arm. Rotation of motor must be counter-clockwise when viewed from the pulley end. Place one washer, No. 68, under each bolt head and insert bolts through motor base, top to bottom. Position motor on swing arm and, as required by the excess bolt protruding through, place extra washers over ends of bolts leaving only enough thread to take one lock washer, No. 49, and one nut,

No. 48. Tighten bolts only enough to hold motor in place. Place motor pulley, No. 66, on motor shaft keeping it in line with saw arbor pulley and tighten set screw using the Allen wrench, No. 67. Place belt around the pulleys.

In making the final adjustment of the motor to correctly tension the belt, always keep the motor shaft parallel to the saw arbor. Loosen the two lock nuts, No. 73, and raise or lower the motor by turning the adjusting screws, No. 74. Belt tension should not be excessive. When belt tension is set and the motor shaft is parallel to saw arbor be sure to re-tighten the lock nuts, No. 73, and finish tightening the motor bolt nuts.

To place belt guard on tool put the square head bolt, No. 75, through hole in rib on swing arm. Place the sleeve, No. 63, over bolt followed by washer, No. 62, and then the belt guard. Place the nut, No. 60, on screw but leave it loose. Position the guard so that hole in bracket is in line with tapped hole in swing arm. Place washer, No. 58, on screw, No. 59, and insert screw through bracket into swing arm. Adjust guard so that it is centered approximately over pulleys and tighten both the nut and the screw to hold it in place.

Remove from the saw arbor, nut, No. 85, spacer, No. 84, and saw clamp collar, No. 83. Remove saw blade from folder and clean both sides of blade. Be sure the spindle collar, No. 81, and the saw clamp collar, No. 83, are clean on the faces that will contact the blade. Slide the blade onto the arbor. Replace the saw clamp collar, largest diameter against blade, then the spacer and nut. Tighten nut firmly.

Assemble **blade guard** to tool, as shown in Fig. 1. The "U" shaped opening in the back of guard fits around saw arbor in between the bearing retaining collar, No. 79, and the swing arm casting. Rotate the guard around the arbor until the half-moon slot in the guard bracket is in line with tapped hole in the swing arm. Insert the screw, No. 41, with washer, No. 42, into tapped hole and tighten. Refer to paragraph "Adjustments" for blade guard tilt.

INSTALLATION:

There are three 17/32 holes in the base of your saw through which screws or bolts may be inserted to fasten the tool securely to a bench or tool stand. The bench or stand must be rigidly constructed, and for greatest ease of operation, at a height that will bring the table of the saw slightly below waist level.

MOTOR:

A 3/4 horsepower 3450 R.P.M. motor will provide adequate power for general use. For heavy duty or continuous operation this saw should be equipped with a 1 horsepower 3450 R.P.M. motor.

SPEED:

The recommended speed of the saw arbor is 3450 R.P.M. This speed, being equal to the motor R.P.M., is reached by using the same size pulleys on the saw arbor and motor. The 1/2 x 38 inch "V" belt furnished will fit an installation using the 3" diameter pulleys furnished, providing the center of the motor shaft is approximately 4 5/8 inches above the base of the motor.

LUBRICATION:

The saw arbor bearings are lubricated and sealed and will not require attention during the life of the bearing.

The hinge pin, No. 31, should be oiled frequently at each end where it enters the yoke, No. 32.

The elevating screw, No. 19, should be oiled where it contacts the guide collar, the support collar, and on the threads.

The column should be wiped occasionally with an oil soaked cloth so as to deposit a film of oil on it to prevent rust and maintain the smooth sliding action of the head.

The yoke and the index cap should be lubricated with a light grease film where they contact the head.

The indexing pins should be oiled where they enter the castings and the points should have a light film of grease.

The head lock and yoke lock should be oiled occasionally.

CONTROLS:

The **elevating crank** is used to raise and lower the blade in relation to the table. Each complete turn of the crank will change the height of the blade 100 thousandths or approximately 3/32 inch.

The **head lock handle** locks the head on the column at any height set with the elevating crank. This handle should always be unlocked before adjusting and relocked before starting operations.

The **yoke lock handle** secures the yoke in the head. It should be locked at all times when the saw is in operation. It is the only means of locking the yoke in the intermediate positions between index points when making miter cuts.

The saw **swing index pin** locks the swing arm in a vertical position when screwed in to the index notch in the yoke, thereby positioning blade for ripping or dado operations.

The **miter index pin** accurately positions the saw blade in relation to the work stop when screwed into a notch in the index cap. It engages at 90° and 45° in either direction from normal operating position.

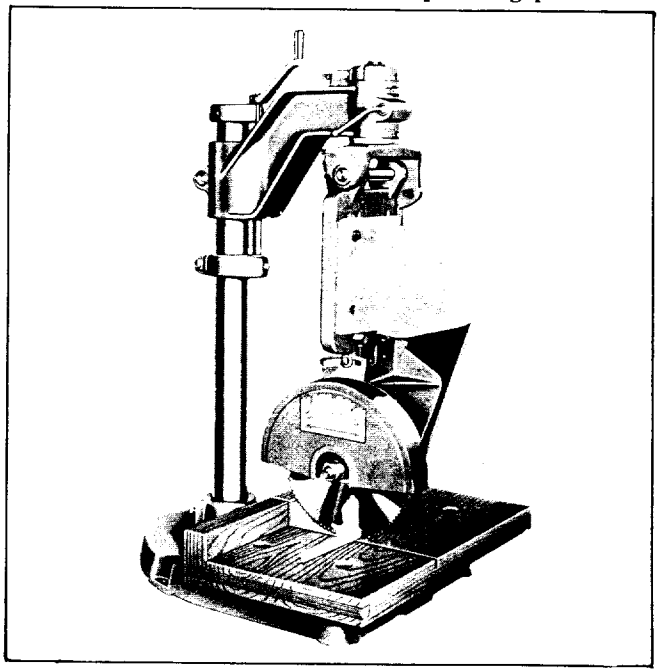

FIGURE 2

ADJUSTMENTS:

The elevating crank should clear the guide collar on the top of the column by 1/16 inch. If adjustment is necessary, loosen the hexagon head screw, No. 15, and the head lock handle and raise the complete head assembly until clearance is established. Be sure to re-tighten the screw and lock handle.

The **blade guard** should be tilted so that the front edge of guard is as close to the top of the work as possible. To do this loosen the screw, No. 41, tilt the guard as required and re-tighten screw.

The belt should be kept properly tensioned. When adjustment is necessary refer to "Assembly" paragraph for correct procedure.

Table Alignment;

To produce true and accurate work the table must be square with the saw blade in all directions. If adjustment is necessary proceed as follows;

1. Index the saw blade to cross-cut position and lock the yoke lock handle.
2. Swing the saw arm to vertical position and screw the swing index pin **snugly** into the index notch in the yoke.
3. Using an accurate square resting on the table surface, see Fig. 2, square the table to the saw blade. Use stamped washers as spacers. Slip washers on holding screws between table and base. Use only as many as required to raise low side of table. Keep one leg of square on table parallel with saw arbor.
4. Release the yoke lock handle and yoke index pin and rotate the saw blade 90° to rip position. Engage index pin and relock the yoke lock handle.
5. Place the square on the table again keeping one leg on the table parallel with the saw arbor. (See Fig. 3.) Square the table to the saw blade in same manner as before.
6. Re-check the first squaring operation and be sure all four hold down screws are tight.

The pointer on the head should be set to indicate 0° at cross-cut position. With the yoke indexed and securely locked in this position adjust the pointer and/or the scale as may be required.

The set screw, No. 9, fits in a groove in the hinge pin, No. 31. This set screw should be just tight enough to eliminate end play in the hinge pin but not tight enough to bind the rotation of the hinge pin.

Re-tighten pulley set screws after a few hours operation.

OPERATION:

In all operations that may be performed with this tool the work must be held **down** firmly and pushed **against** the work stop at the rear of the table.

For all operations where the blade is advanced into the work, swing the arm gradually. The blade may have a tendency to advance faster than it can cut thereby stopping it. By maintaining a firm grip on the handle you will soon be able to correctly feed the blade so that it will not advance too rapidly. If the blade stops, turn motor off and allow the blade to swing back. At the end of any swing-cutting operation do not let arm swing back free but control it so as to eliminate breaking the back stop.

Thickness and width of work to be cut are the factors determining the elevation of the saw blade and the setting of the table. The saw blade must

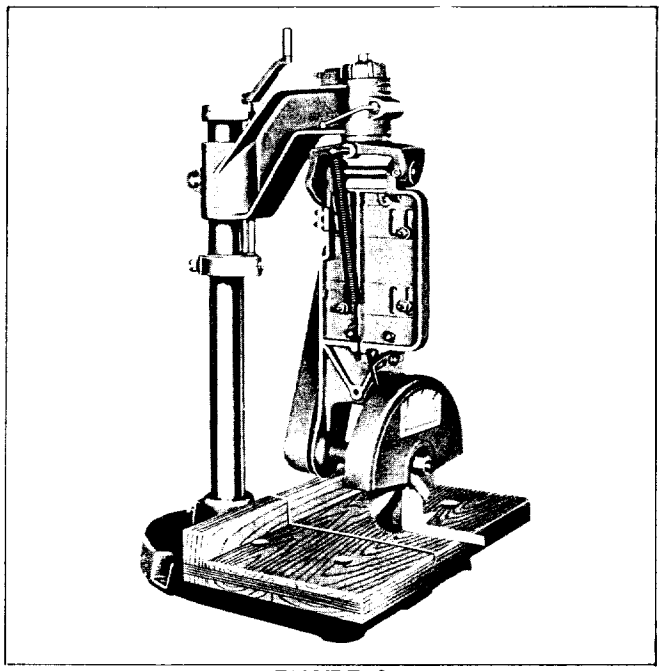

FIGURE 3

pass through the intersection of table top and work stop when cross-cutting and mitering. (See Fig. 2.) Do not attempt to cut work too wide thereby requiring saw blade to be lowered to a point where it would cut through the table at a vertical position. Keep at least 1/2 inch of table uncut. When changing the table position be sure to maintain the work stop square with the blade when saw blade is at cut off position.

Ripping and dado cuts (maximum one inch width) are made differently than cross-cutting and miter cuts in that the blade remains stationary and the work is advanced into it. Elevate blade to clear table, swing it to vertical position and securely engage the swing index pin. According to the width of stock to be cut rotate the swing arm 90° and engage the index pin on top of the head. For wide cuts rotate swing arm so that saw blade is farthest from column, see Fig. 3. For narrow cuts rotate arm in the opposite direction. Always re-lock yoke handle after indexing. Establish width of cut to be made by measuring from the work stop to the **nearest** side of a set tooth on the blade. Be sure and keep the work stop parallel to the saw blade. **After** the table is set, **slowly** lower the revolving blade into the table to establish point clearance for teeth. Blade may be elevated slightly as long as it enters the table 1/16 minimum.

CAUTION: Be certain blade is rotating correctly and is correctly placed on the saw arbor. Then follow the ripping instructions that appear on the blade guard. All dado cuts are made the **same** as rip cuts.

Continuous operation may cause slight heating of bearings while tool is new. A short breaking in period will correct this.

SAFETY:

Keep guards properly adjusted. Maintain control of the swing arm on all swing cuts from rest position throughout cut and back to rest position. Keep all lock handles tight during cutting operations.

Hold work firmly and after making any change of settings it is best to try a scrap piece of material to be certain every control is properly secured and the setting is as planned.

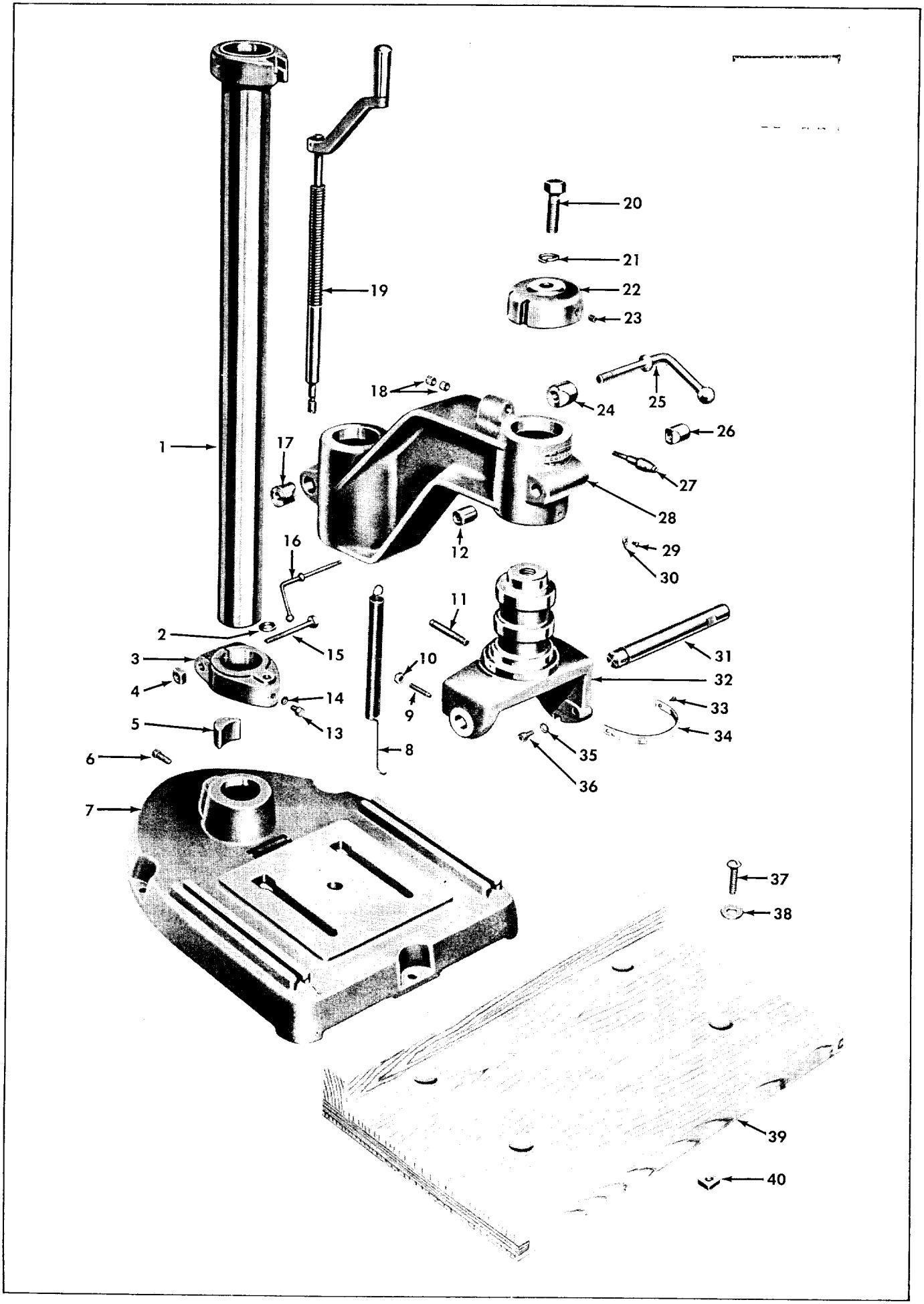
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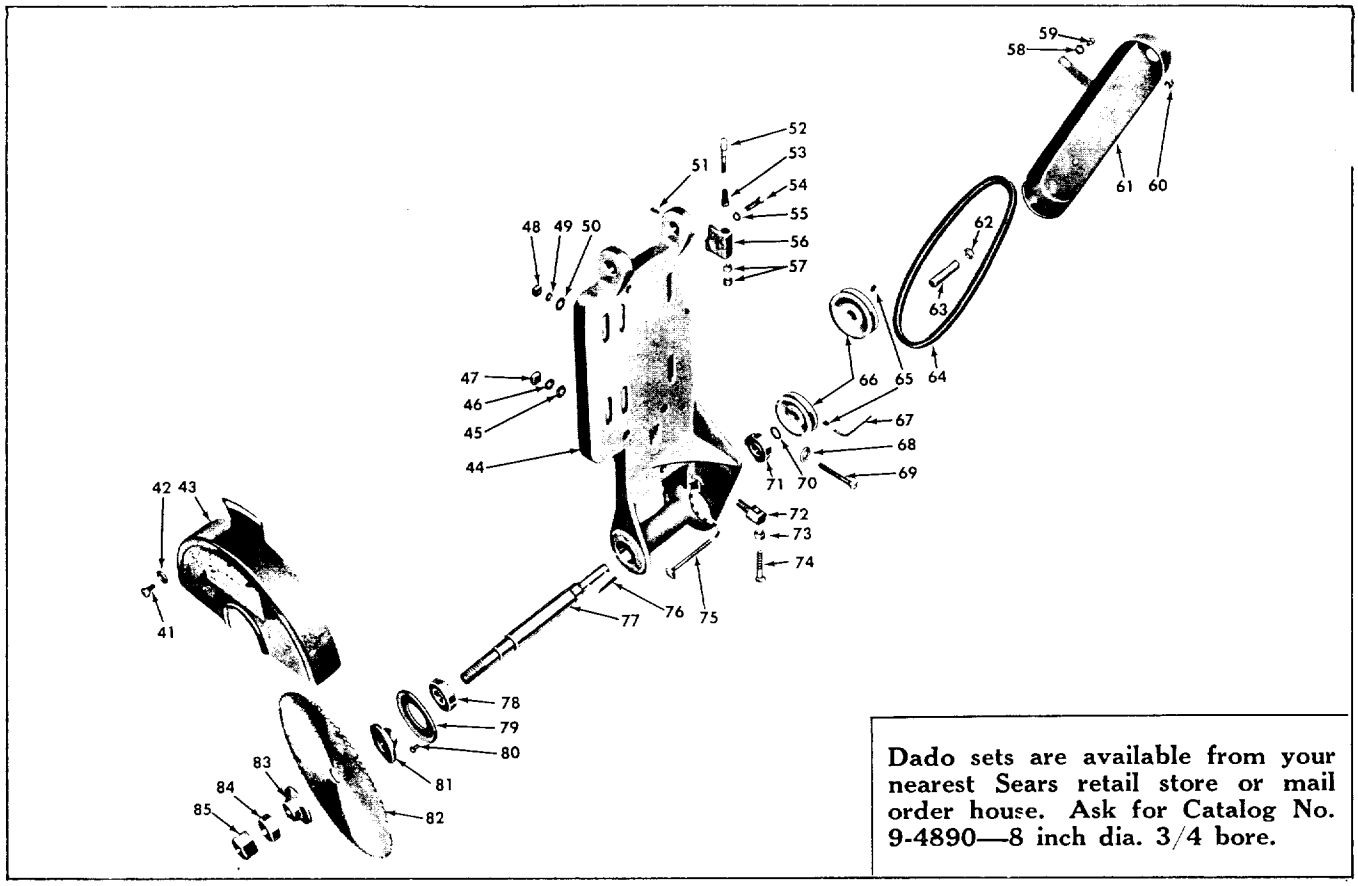
FIGURE 4



Dado sets are available from your nearest Sears retail store or mail order house. Ask for Catalog No. 9-4890—8 inch dia. 3/4 bore.

FIGURE 5

PARTS LIST

Illust. No.	Order By Part No.	PART NAME
1	44220	Column with collar
2	44624	Thrust washer
3	44215	Elevating screw stop collar
4	*X-435	Square nut 1/2-13
5	38211	Base lock shoe
6	X-185	Set screw 1/2-13 x 1 1/4 square head
7	44190	Base
8	44812	Spring-swing arm
9	X-197	Set screw 5/16-18 x 1 1/2 slotted head with full dog point
10	X-417	Hex. nut 5/16-18
11	44625	Spring stud
12	38632	Yoke lock sleeve
13	18515	Retaining screw
14	18421	Washer
15	*X-287	Cap screw 1/2-13 x 3 1/2 hex head
16	44619	Yoke lock handle
17	38629	Head lock
18	44614	Index pin knob
19	44210	Elevating screw and crank
20	*X-286	Cap screw 5/8-11 x 2 hex head
21	*X-676	Lock washer 5/8 inch
22	44218	Index cap
23	X-170	Set screw 5/16-18 x 1/2 socket head with cone point
24	38627	Head lock sleeve
25	38633	Head lock handle
26	38631	Yoke lock
27	44613	Index pin
28	44240	Head
29	*X-515	Machine screw No. 8-32 x 1/4 round head
30	38724	Pointer
31	44616	Hinge pin-swing arm
32	44230	Yoke includes Illust. Nos. 33 and 34
33	X-2951	Binding head screw No. 6-32 x 1/4 self tapping
34	44719	Miter scale
35	*X-616	Lock washer 3/8 inch
36	X-263	Cap screw 3/8-16 x 5/8 socket head
37	*X-567	Machine screw 5/16-18 x 1 3/8 round head
38	X-632	Plain washer 11/32 I.D. x 1 1/16 O.D.
39	44815	Table
40	*X-418	Square nut 5/16-18
41	*X-217	Cap screw 5/16-18 x 1/2 hex head
42	X-623	Plain washer 21/64 I.D. x 7/8 O.D.
43	44101	Blade guard
44	44102	Swing arm, includes Illust. Nos. 70, 71, 76, 77, 78, 79, and 80
45	X-631	Plain washer 25/64 I.D. x 3/4 O.D.
46	*X-615	Lock washer 3/8 inch

Illust. No.	Order By Part No.	PART NAME
47	*X-405	Square nut 3/8-16
48	*X-418	Square nut 5/16-18
49	*X-611	Lock washer 5/16 inch
50	X-623	Plain washer 21/64 I.D. x 7/8 O.D.
51	X-135	Set screw 5/16-18 x 5/8 socket head with cup point
52	44613	Index pin
53	44811	Index pin spring
54	X-237	Cap screw 5/16-18 x 1 1/4 socket head
55	*X-611	Lock washer 5/16 inch
56	44216	Index pin housing
57	44614	Index pin knob
58	X-623	Plain washer 21/64 I.D. x 7/8 O.D.
59	*X-217	Cap screw 5/16-18 x 1/2 hex head
60	X-417	Hex. nut 5/16-18
61	44120	Belt guard
62	X-624	Plain washer 11/32 I.D. x 1 1/16 O.D.
63	44717	Belt guard sleeve
64	X-1450	V-belt 1/2 x 38 inches long. Purchase from your nearest Sears retail store or mail order house. Ask for Catalog No. 9-1638
65	X-179	Set screw 5/16-18 x 5/16 socket head with cup point
66	44160	Pulley with set screw—3 inch single groove V-pulley. 5/8 inch bore. Purchase from your nearest Sears retail store or mail order house. Ask for Catalog No. 9-2883-5/8 inch bore
67	*X-1400	Allen wrench 5/32
68	X-623	Plain washer 21/64 I.D. x 7/8 O.D.
69	*X-320	Machine bolt 5/16-18 x 2 1/2 square head
70	44817	Retaining ring
71	38816	Bearing
72	44622	Adjusting screw block
73	X-430	Hex nut 1/4-20
74	X-113	Set screw 1/4-20 x 2 square head
75	*X-317	Machine bolt 5/16-18 x 3 1/2 square head
76	44813	Key
77	44617	Saw arbor
78	38816	Bearing
79	44718	Bearing retaining collar
80	X-556	Machine screw No. 10-24 x 3/8 fillister head
81	44619	Spindle collar
82	38723	10 inch diameter cut-off blade. Purchase from your nearest Sears retail store or mail order house. Ask for Catalog No. 9-4951-3/4 inch bore
83	44618	Saw clamp collar
84	44621	Spindle spacer
85	X-457	Hex. nut 3/4-10 left hand

***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.