OPERATING INSTRUCTIONS AND PARTS LIST FOR

CRAFTSMAN JIG SAW

18 INCH

MODEL NUMBER 103.20720

This model number of your Jig Saw will be found on a plate located on the back surface of the base. Always mention this model number when communicating with us regarding your Jig 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. 103.20720
4. The NAME of item. JIG SAW

COAST TO COAST NATION-WIDE SERVICE FROM SEARS FOR YOUR CRAFTSMAN POWER TOOLS

SEARS, ROEBUCK AND CO. and SIMPSONS-SEARS LIMITED in Canada back up your investment with quick, expert mechanical service and genuine CRAFTSMAN replacement parts.

If and when you need repairs or service, call on us to protect your investment in this fine piece of equipment.

SEARS, ROEBUCK AND CO. — U.S.A.

IN CANADA, SIMPSONS-SEARS LIMITED

SOURCE FORM 31949

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OPERATING INSTRUCTIONS AND PARTS LIST FOR
JIG SAW
MODEL NUMBER 103.20720

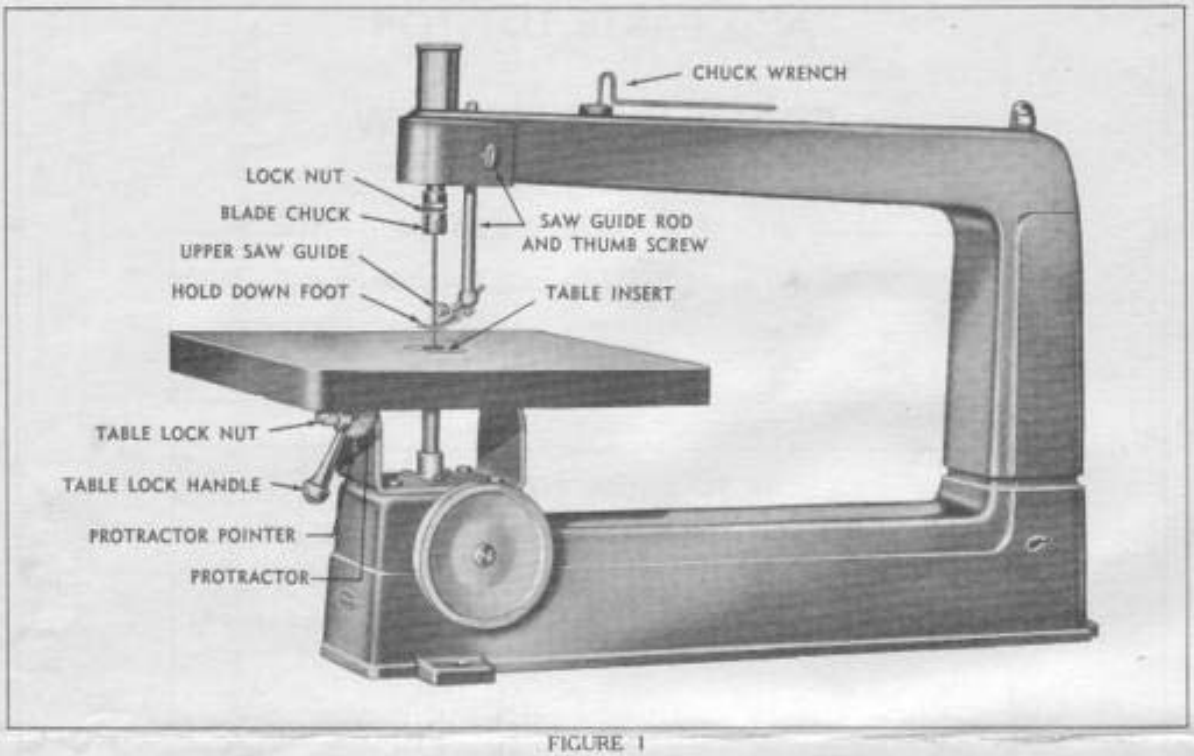


FIGURE 1

You now own a saw with ruggedly constructed, precision machined parts in which the mechanism is soundly designed to give you maximum trouble-free service.

The crankcase contains a modified scotch yoke running in a bath of oil which imparts a smooth stroke with a minimum of vibration.

This saw may be quickly and easily converted to sabre sawing.

Truly a quality tool backed by the experience gained through the production of thousands of saws.

ASSEMBLY:

This tool is completely assembled. A rubber grommet, No. 59, has been placed in the upper arm to hold the special Allen wrench, No. 13. This extra long wrench will provide easy access to chucks when adjustment is necessary.

LUBRICATION:

Before operating this jig saw the crankcase **must be filled** with oil.

Fill the crankcase to the level of the filler plug with any good quality automobile engine oil, S.A.E. No. 30. This will take approximately one pint. The filler plug is located on the left side of the crankcase.

The main bearing is a long-life porous bronze bearing and requires oiling by hand. This bearing is surrounded by a reservoir accessible by removing the oil plug, No. 65, located behind the pulley and directly over the pulley shaft. To completely fill this reservoir use either a pressure oil can or one with a small spout. Use a good quality automobile engine oil, S.A.E. No. 30. When filled this reservoir feeds oil to the bearing which, in turn, filters and meters the oil to the shaft.

Do not drill holes through this bearing to feed oil to the shaft.

A few drops of oil should be applied occasionally directly to the leather cup washer, No. 5, to maintain pliability. Remove the pump tube cap, No. 58, to do this.

The lower end of the upper pull rod, No. 3, requires oil also, and may be done by pulling the rod down as far as possible by hand and applying oil to the exposed portion.

The lower pull rod, No. 38, should have oil applied to the exposed portion when the stroke is in full up position.

INSTALLATION:

There are three 11/32 inch diameter holes in the base of your jig saw through which bolts or screws may be inserted to securely fasten it to a well constructed bench or table. The motor may be mounted behind or below the saw.

The direction of rotation of the saw pulley is shown by the arrow on the pulley shaft hub on the base. The top of the pulley should turn forward.

SPEED - POWER:

This jig saw is designed to operate most efficiently at 800 to 1000 strokes per minute. For average home shop operations proper operating speed and power may be attained by using a 1/4 horsepower 1750 R.P.M. motor equipped with a 2 inch diameter

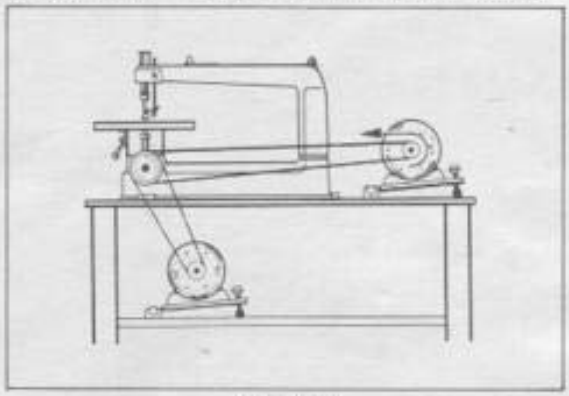


FIGURE 2

pulley. If continuous heavy-duty work is planned, a 1/3 horsepower motor should be used. Be sure to specify the shaft size of your motor when ordering your motor pulley.

The motor should be positioned so that most of its weight will be supported on the bench and not suspended on the belt. Tension on the belt should be just enough to prevent slippage. (See Fig. 2).

BELT:

After the motor has been approximately positioned, the belt length may be determined by measuring around the outside of the pulleys, not in the groove, with a steel tape. Use a standard 1/2 inch V-belt.

CONTROLS:

The table lock handle, when engaged on the hexagon head of the table lock nut, locks the table at any desired degree of tilt from 0° to 45°.

The angle of tilt is indicated by the protractor pointer.

The saw guide rod allows the hold down foot, No. 53, and the upper saw blade guide to be raised or lowered to accommodate various thicknesses of materials. The spring steel hold down foot should always contact the work piece with sufficient pressure to prevent chatter.

The thumb screw, No. 62, holds the saw guide rod in position.

The blade chucks may be turned 90° for ripping pieces longer than 18 inches by loosening the lock nuts, Nos. 11 and 48, on each chuck, thus allowing the chucks to turn to the desired position. Use the Allen wrench, No. 13, in the socket head set screw as a lever to relieve the twisting action on the pull rods when turning the lock nuts, as shown in Fig. 3. Before resuming operation after indexing the chucks 90°, check to be sure that the chucks are aligned, that the blade is not twisted when secure in both chucks, that the lock nuts have been securely tightened and the saw blade guides are clear of the blade.

ADJUSTMENTS:

Your Jig Saw was inspected and tested under power at the factory. Shipping hazards may have caused some misalignment during transit. Following are several points which should be checked to insure proper operation.

The blade should run in a true vertical line. Check by holding a pencil on the table with the point touching the flat side of the blade. Turn the pulley slowly by hand.

If the blade is not properly centered or is twisted as shown in Fig. 4, it will not remain in contact with the pencil point through the entire stroke without moving the pencil or deflecting the blade.

Adjustment for twist in the blade may be made by loosening the chuck lock nut, Nos. 11 or 48, and making the correction. As mentioned before, use the Allen wrench as a lever to eliminate undue strain on the pull rods, whenever loosening or tightening the chuck lock nut, as shown in Fig. 3.

Minor adjustment for recentering the blade in the chuck is accomplished by adjusting the set screws, Nos. 74 and 75. The slotted head screw, No. 74, has a serrated face designed for gripping the blade. To prevent scoring the blade, turn this screw only after the socket head screw, No. 75, has been loosened. The slotted head screw is to be used only as an **adjusting** screw to center the blade in the chuck and the socket head screw for final tightening.

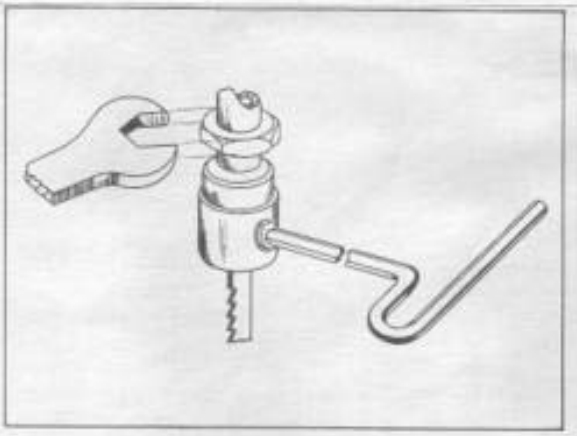


FIGURE 3

If greater adjustment is necessary when recentering the blade in the chuck, the entire upper arm may be pivoted in relation to the base after loosening the acorn nut, No. 70.

The blade centering cover, No. 71, automatically positions regular saw blades in the chuck. If blades of greater width are used, the cover may be slipped off after removing the set screws from the chuck body. This allows insertion of wide blades in the chuck. The chuck shoe, No. 72, installed between the socket head set screw and the blade, provides maximum holding power for the blade.

The blade requires only enough tension to keep it in a straight line during normal operation. Correct tension may be applied as follows:

With the blade clamped firmly in the lower chuck and free in the top chuck, rotate the pulley until the lower chuck is at the top of its stroke. Pull the upper chuck down approximately 1/4 inch and clamp the blade securely. If the blade is sharp, this tension should be sufficient.

The upper and lower saw blade guide assemblies consist of the body, No. 76, four steel balls, Nos. 77 and 78, and a cap, No. 79, which is threaded onto the body.

The cap has three slots of different widths to accommodate blades of various thicknesses. It may be revolved to align the proper slot to the blade being used.

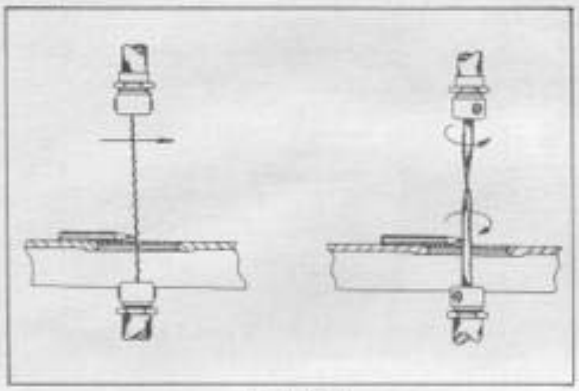


FIGURE 4

The cap may be turned in or out to permit maximum slot engagement for any blade width. When properly adjusted the teeth of the blade should not contact the cap. The rear edge of the blade must contact only the ball to prevent excessive wear on slots in the cap.

Note: To revolve the cap it is necessary to disengage the blade from the slot. This may be accomplished by loosening set screws, Nos. 55 and 40, using Allen wrench, No. 54, and backing off the guide assemblies. Adjustment for centering the guide slot to the blade may also be made while these set screws are loose. Hold the cap and rotate the guide body until the guide slot moves into line with the blade.

CAUTION: The lower guide should be set as close as possible to the underside of the table insert. This may be done by loosening set screw No. 42, in the lower guide holder, No. 41. Back off the guide holder while holding the guide in contact with the blade.

This will cause the guide to slide upward along the blade.

Retighten all set screws securely.

After making the pencil test and necessary adjustments, use a combination square to set the table square to the blade. Lock the table in position and reset the pointer to 0 degree by loosening the screw, No. 27.

The arm, No. 60, may be either swung to one side or completely removed by loosening, or removing the acorn nut, No. 70. This provides full view vision and greater capacity for sabre sawing. The lower guide assembly may be used as a support for sabre blades.

When reassembling the Jig Saw for conventional sawing, make sure the chuck is reassembled correctly. (See Insert on Page 6.) Set and check the blade as previously outlined.

Note: After a few hours operation, retighten pulley set screws.

OPERATION:

To minimize blade breakage, always use as wide a blade as is practical for the type of cut intended. For unusually fine cuts a puzzle blade is recommended. A fret saw blade having widely spaced teeth and no set is recommended for use with material which tends to gum the blade. These blades produce a very smooth cut.

When sawing material harder than wood, blades with small teeth should be used. The fine tooth blade should also be used when cutting thin material, for if the tooth spacing is wider than the thickness of the work piece the blade will catch and tear rather than produce a smooth cut.

Do not use excessive force when feeding material to the blade. This increases the frequency of blade breakage and makes it much more difficult to saw on a line. Feed direct to the blade and avoid side thrust.

Although the jig saw is intended for the cutting of irregular figures, it is advisable to avoid sharp turns

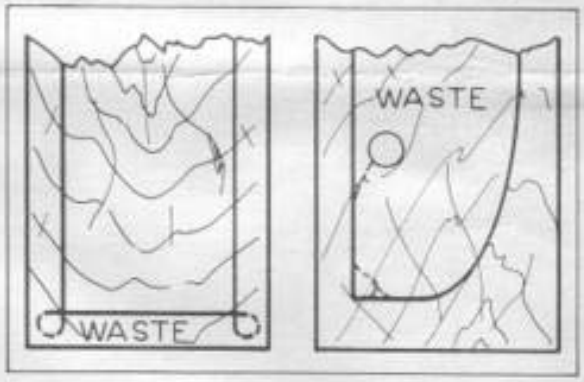


FIGURE 5

whenever possible by cutting into the waste material of the work piece. In this manner sharp clean corners are maintained, and blade distortion and breakage is minimized.

Inside or included holes may be cut by drilling through the work piece, removing the blade from the chucks, and reinstalling it through the drilled hole.

When changes are made in the table angle or when new tools are inserted, it is well to make a trial cut using a scrap piece of material.

SAFETY:

Due to the variety of possible installations, a pulley guard is not furnished for this machine. However, it is advisable that suitable protection be provided for the operator to prevent clothing becoming entangled in the fast turning pulley.

PARTS LIST

Item No.	Order by Part No.	PART NAME
1	31101	Pump tube assembly complete
2	31622	Pump tube
3	31613	Upper pull rod
4	38722	Pump spring washer
5	31812	Leather cup washer
6	38722	Pump spring washer
7	31621	Pump spring
8	31414	Upper pull rod support
9	31813	Rubber bumper ring
10	X-2407	Internal tooth lock washer 3/8 inch
11	31626	Jam nut
12	31102	Chuck ass'y—includes items 71, 72, 73, 74, and 75
13	38841	T-Allen wrench 5/32
14		Jig saw blade. 6 to 8½ in. long, plain end. Purchase from your nearest Sears Retail Store or Mail Order House.
15	18126	Table insert
16	*X-519	Machine screw No. 10-32x3/8 slotted flat head
17	31213	Table
18	38130	Protractor with item 21
19	*X-608	Lock washer No. 10
20	X-429	Hex nut No. 10-32
21	38616	Protractor pivot pin
22	18629	Table lock handle
23	18517	Table lock nut
24	X-607	Plain washer 17/64 I.D.x19/32 O.D.
25	38220	Saw blade guide ass'y—includes items 76, 77, 78, and 79
26	*X-209	Cap screw 1/4-20x1/2 hex head
27	X-512	Machine screw No. 8-32x3/16 slotted round head
28	18935	Pointer
29	X-117	Set screw 5/16-24x3/8 square head cup pt.
30	18618	Lower pull rod support
31	38836	Yoke pin
32	31140	Fly wheel and shaft ass'y—includes item 35
33		Pulley with set screw—4 inch single groove V-pulley with 3/8 inch bore. Purchase from your nearest Sears retail store or mail order house. Ask for Catalog No. 9-2804—3/8 inch bore.
34	X-179	Set screw 5/16-18x5/16 socket head cup pt.
35	X-170	Set screw 5/16-18x1/2 socket head cone pt.
36	18438	Yoke
37	31815	Lower pull rod support gasket
38	31624	Lower pull rod
39	31716	Table support
40	X-3607	Set screw No. 10-24x1/4 socket head flat pt.
41	31416	Lower saw guide support
42	X-3607	Set screw No. 10-24x1/4 socket head flat pt.
43	*X-428	Hex nut 1/4-28
44	X-2407	Internal tooth lock washer 3/8 inch
45	*X-608	Lock washer No. 10
46	31629	Table pivot pin
47	*X-511	Machine screw No. 10-24x3/8 slotted round head
48	31626	Jam nut
49	31102	Chuck ass'y—includes items 71, 72, 73, 74, and 75
50	*X-1005	Carriage bolt 1/4-20x3/4
51	X-424	Hex nut No. 10-24
52	X-613	Plain washer 13/64 I.D.x3/8O.D.
53	18932	Hold down foot
54	*X-1407	Allen wrench 3/32
55	X-3607	Set screw No. 10-24x1/4 socket head flat pt.
56	31628	Saw guide rod
57	38220	Saw blade guide ass'y—includes items 76, 77, 78, and 79
58	31817	Pump tube cap
59	18988	Rubber grommet
60	31211	Arm
61	X-103	Set screw 1/4-20x3/8 slotted head cup pt.
62	X-2204	Thumb screw 1/4-20x1
63	31811	Crankcase gasket
64	*X-2704	Pipe plug 1/8-27x3/8 slotted head
65	18931	Oil hole plug
66	31201	Base ass'y—includes items 64, 65 and 67
67	X-805	Bearing
68	31715	Dowel
69	31611	Stud
70	X-1254	Acorn nut 1/2-20
71	18917	Blade centering cover
72	18938	Chuck shoe
73	31617	Chuck body
74	18519	Blade chuck adjusting screw
75	X-149	Set screw 5/16-24x3/8 socket head flat pt.
76	38655	Saw blade guide body
77	X-1301	Steel ball 3/32 dia.
78	X-1307	Steel ball 3/16 dia.
79	38656	Saw blade guide cap

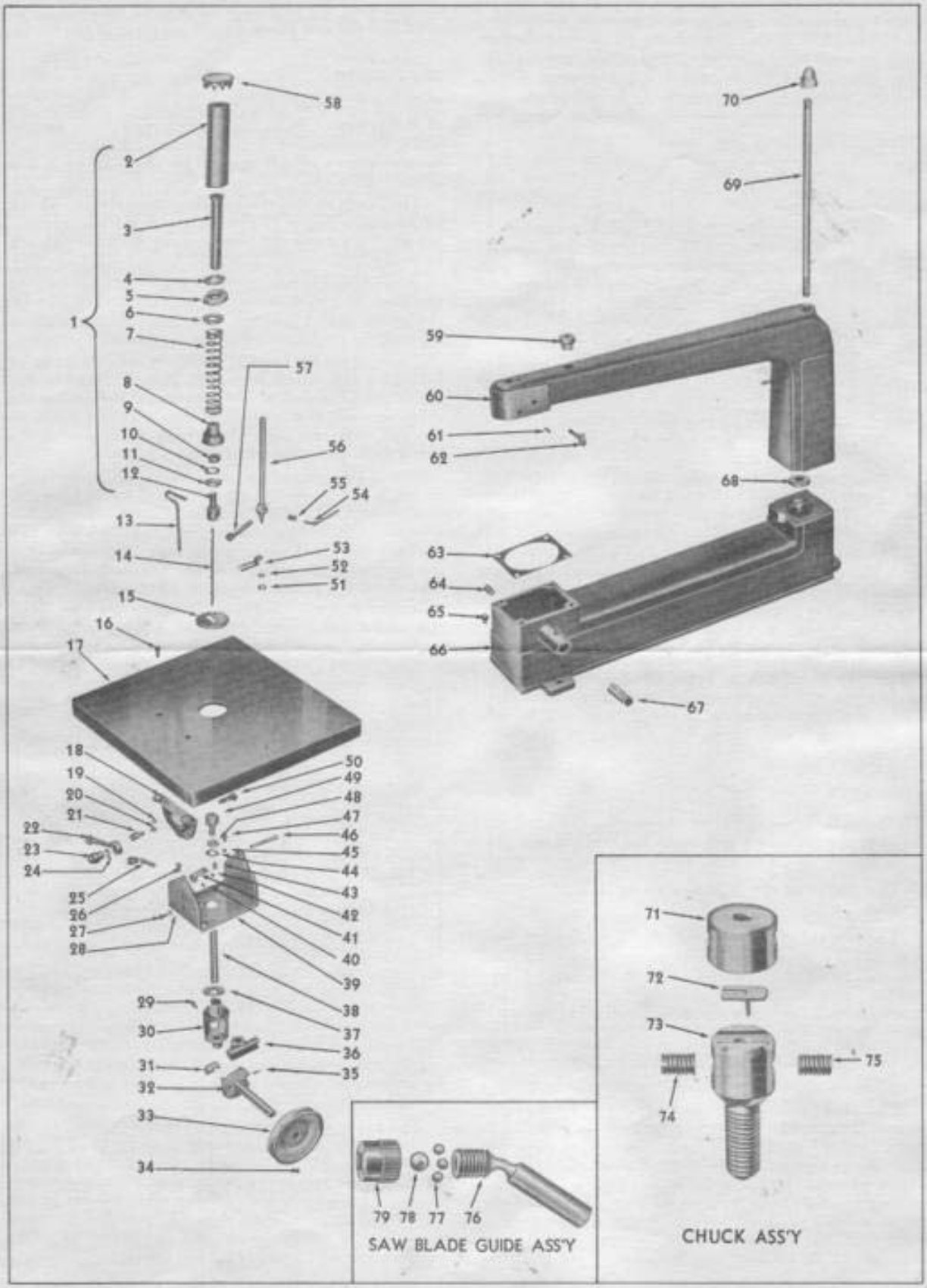
***Standard hardware items—may be purchased locally.**

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.

FIGURE 6

ACCESSORIES:

Fig. 6 illustrates accessories for your jig saw
Tool Stand—Catalog No. 99-2958
Saw Guard—Catalog No. 9-2911
Powr Panel—Catalog No. 9-2120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SAW BLADE GUIDE ASS'Y
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CHUCK ASS'Y

CRAFTSMAN 1/3 H. P. SPLIT-PHASE TYPE ELECTRIC MOTOR—MODEL NUMBER 113.19665

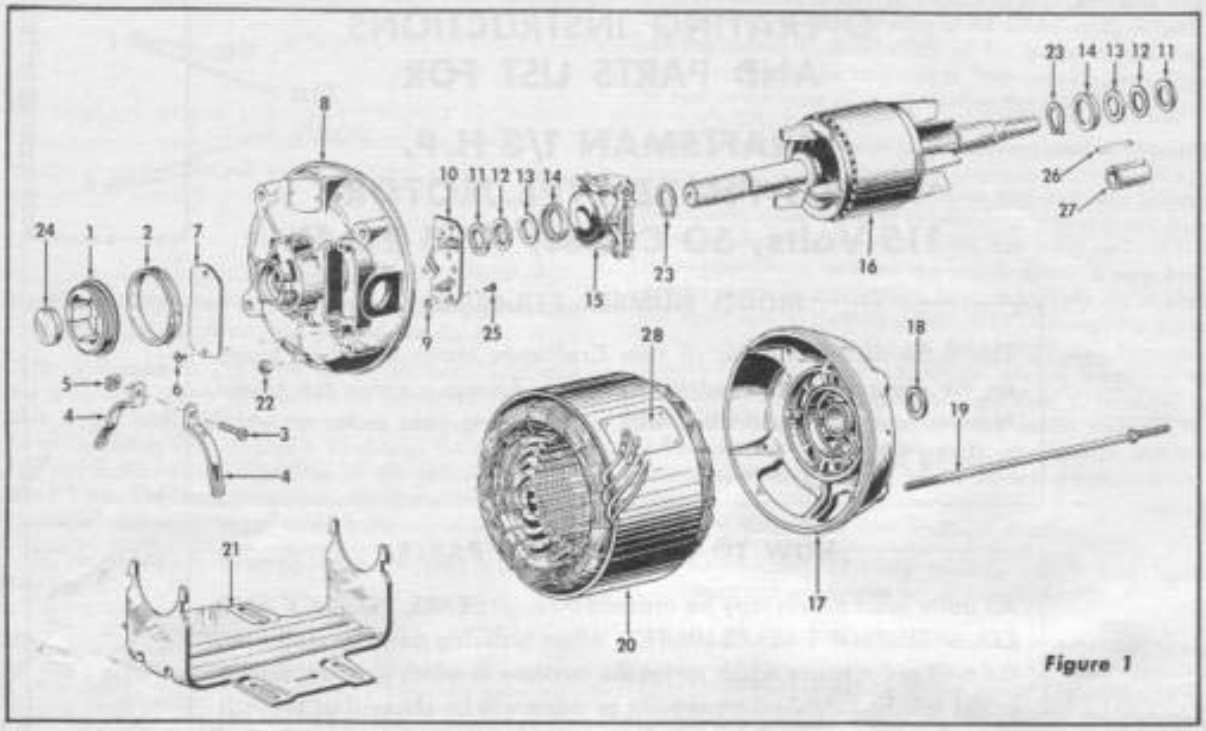


Figure 1

All parts illustrated in Figure No. 1 and listed below under part numbers may be ordered through any Sears retail or mail order store. Order parts by mail from the mail order store which serves the territory in which you live. In several instances part numbers are listed for COMPLETE ASSEMBLIES. All parts are shipped prepaid within the limits of the continental United States.

WHEN ORDERING REPAIR PARTS ALWAYS GIVE THE FOLLOWING INFORMATION:

1. The PART NUMBER.
2. The PART NAME.
3. The MODEL NUMBER 113.19665.
4. The NAME OF ITEM—1/3 H. P. MOTOR.

Do not use Reference Numbers when ordering Repair Parts, always use Part Numbers.

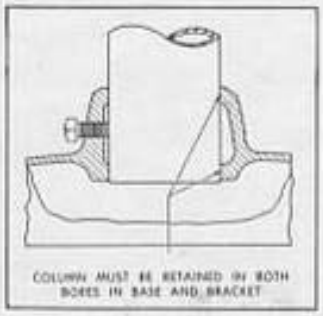
PARTS LIST

Ref. No.	Part No.	Description
1	30760	Mounting Ring
2	30761	Outer Ring for Hub Ring
3	S-1396	*Screw, #10-32 x 1 Fil. Hd. Mach. Cd. Pl.
4	30762	Base Clamp
5	S-1397	*Nut, #10-32 x 3/8 x 1/8 Sq. Cd. Pl.
6	S-1369	*Screw, #6-32 x 5/16 Ty. 23 Pan Hd. Cd. Pl.
7	37096	Terminal Cover
8	37097	End Shield Assembly, (Terminal Plate End)
9	S-1229	*Nut, #8-32 x 11/32 x 1/8 Hex. Cd. Pl.
10	30765	Starting Switch Assembly
11	30766	End Play Washer (Plastic)
12	30767	End Play Washer (Steel)
13	30768	Thrust Washer (Rubber)
14	30769	Thrust Washer Retainer
15	30770	Centrifugal Actuator Assembly
16	30786	Rotor Assembly
17	37098	End Shield Assembly, (Shaft Extension End)
18	30779	Oil Sling Washer (Rubber)
19	37094	Stator Stud
20	37105	Stator Assembly
21	37103	Base,
22	S-1274	*Nut, #10-32 x 3/8 x 1/8 Hex. Cd. Pl.
23	30783	Retaining Ring
24	30784	Bearing Cap, Cd. Pl.
25	S-1330	*Screw, #8-32 x 3/8 Ty. 23 Pan Hd. Cd. Pl.
26	30789	Shaft Key
27	30790	Bushing (to Adapt Shaft from 1/2" to 5/8" Diameter—with Shaft Key)
28	37102	Label, Craftsman
Not Shown	37104	Operating Instructions and Parts List for Craftsman 1/3 H.P. Motor Model Number 113.19665.

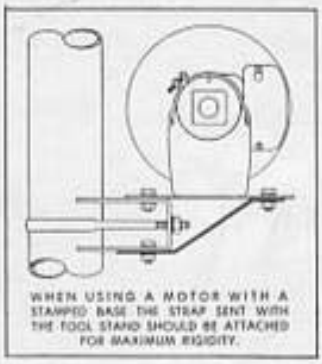
* Standard hardware items — may be purchased locally.

NOTE: Shipping and handling charges for standard hardware items (identified by*) such as nuts, screws, washers, etc. make buying these items by mail uneconomical. To avoid shipping and handling charges, you may obtain most of these locally.

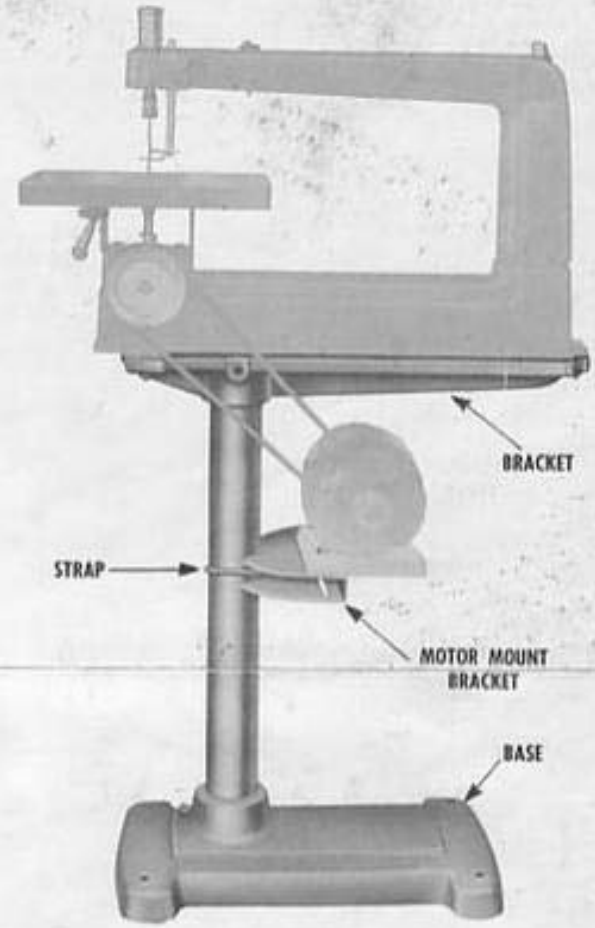
INSTRUCTIONS FOR ASSEMBLY OF PEDESTAL TYPE
CRAFTSMAN TOOL STAND 99-2958
FOR JIG SAW-CAT. NO. 2315 and 2072



COLUMN MUST BE RETAINED IN BOTH BORES IN BASE AND BRACKET



WHEN USING A MOTOR WITH A STAMPED BASE THE STRAP SENT WITH THE TOOL STAND SHOULD BE ATTACHED FOR MAXIMUM RIGIDITY.



Assemble the column into the base casting and tighten the square head set screw securely. Position motor support bracket and retainer strap, as shown in illustration, and slide entire unit over the column to an approximate position. Secure lightly for final adjustment.

NOTE: The motor support bracket is made with the V-slot off-center. On the 18" Jig Saw the large portion of the bracket should be to the left as you face the tool, to allow sufficient motor adjustment.

Place tool support bracket in position and secure with set screw.

Fasten your Jig Saw to the assembled tool stand using the 5/16-18 x 2 inch square head bolts, washers, and square nuts provided.

Final adjustment can now be made for belt installation.

1. Shift motor on motor support bracket until the two pulleys are in the same plane.
2. Adjust entire motor mount assembly up or down on column for proper tensioning of belt.

A spacer and carriage bolt has been included which will permit mounting a Powr-Panl, Catalog No.21205, if so desired.

The illustrations show a suggested position at one of the forward tool mounting holes. Mount the switch to best suit your needs.

After removing one of the mounting bolts, attach the switch with the long carriage bolt using the tool mounting bracket to provide adequate accessibility for motor cord plug.

AVAILABLE ACCESSORIES

PURCHASE FROM YOUR NEAREST SEARS RETAIL STORE OR MAIL ORDER HOUSE.

SET OF 4 CASTERS — CAT. NO. 2819 — FOR READY MOBILITY
BELT GUARD — CAT. NO. 29115-42". BELT LENGTH REQUIRED WHEN GUARD IS USED
POWR PANL — CAT. NO. 21205— FOR SAFE HOOK-UP

SEARS, ROEBUCK and CO.—U.S.A.
SIMPSONS-SEARS LIMITED—CANADA

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