

10/21/42

OPERATING INSTRUCTIONS AND PARTS LIST FOR

JIG SAW 24 INCH

MODEL NUMBERS

103.0403

103.0404

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

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.

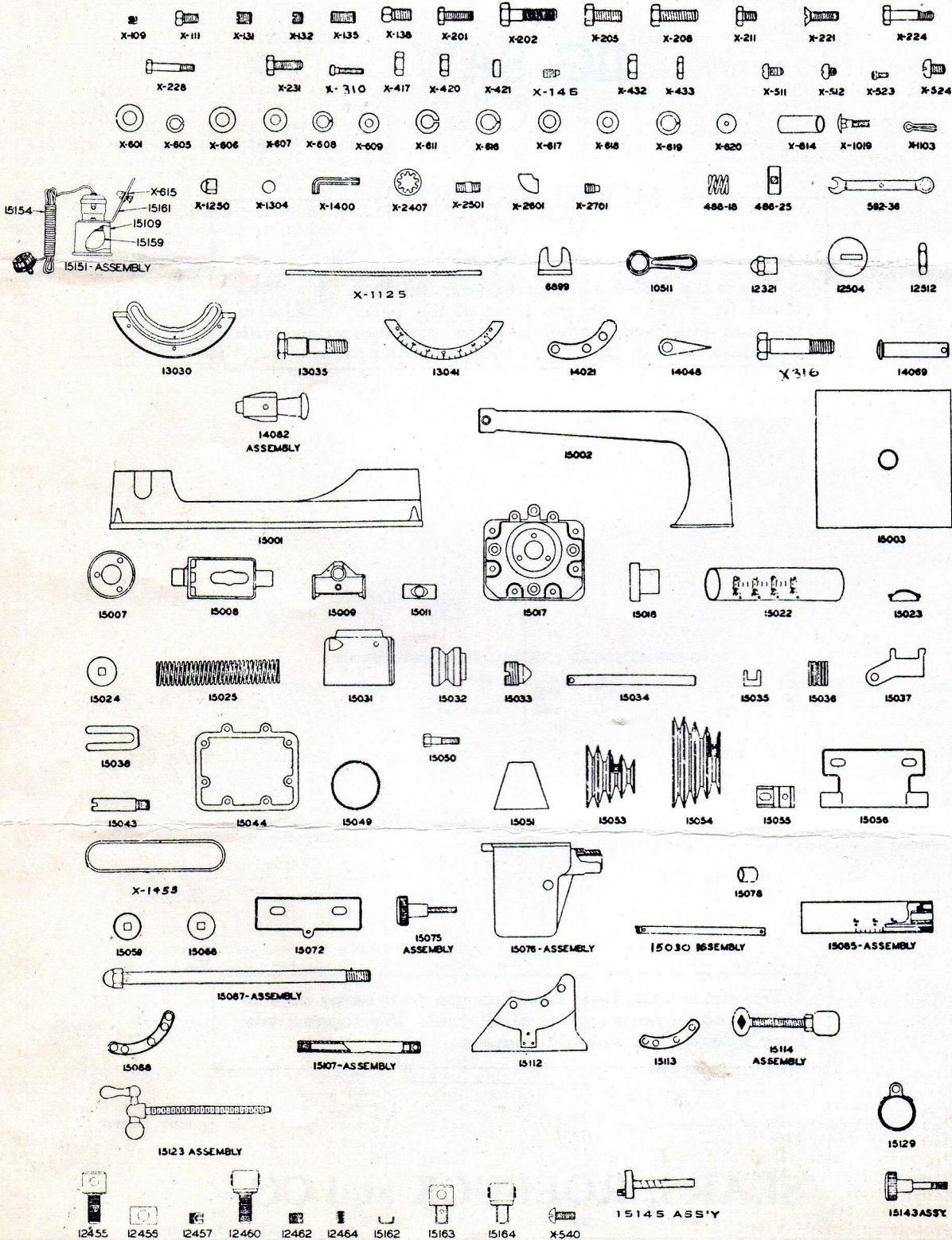
SEARS, ROEBUCK and CO.

11/18/49

HOW TO ORDER PARTS FOR SEARS 24 INCH JIG SAW MODEL NUMBERS 103.0403 OR 103.0404

All parts listed here may be ordered through any Sears retail or mail order store. Parts are shipped prepaid. When ordering repair parts, always give the following information:

1. The Part Number in this List.
2. The Part Name and Price in this List.
3. The Model Number, which is 103.0403 or 103.0404 and will be found on a plate in the right hand corner on the front of the base



PARTS LIST

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 Parts Are Shipped Prepaid

All prices are subject to change without notice.

Part Number	Name of Part	Selling Price (each)	Part Number	Name of Part	Selling Price (each)
486-18	Protractor Clamp Pin Spring	.15	15114	Motor Adjusting Bracket Thumb Screw Assembly	.25
486-25	Shaft Collar Assembly	.15	15123	Tensioner Screw Crank Assembly	.50
592-36	Wrench	.25	15129	Tensioner Collar	.25
6899	Motor Support Clip	.15	15138	Pump Tube Assembly Complete	2.50
10511	Protractor Lock Wrench	.45	15139	Crank Case Assembly Complete Includes Boot and Chuck Less Pulley	6.00
12321	Protractor Clamp Nut	.20	15143	Pump Tube Clamp Knob Assembly Includes 15141 (1), 15142 (1)	.35
12455	Chuck Housing—Lower	.30	15145	Pulley Shaft and Crank Assembly	.90
12456	Blade Centering Cover	.20	15151	Lamp Assembly Complete	1.00
12457	Socket Head Clamp Screw	.15	15154	Socket, Cord and Plug	.75
12460	Chuck Assembly—Lower	.50	15155	Complete Upper Head Assembly (Not Illus.)	5.60
12462	Slotted Head Set Screw	.15	15159	Lamp Bulb	.25
12464	Lower Guide Rod Plug	.15	15161	Lamp Bracket	.15
12504	Table Insert	.25	15162	Upper Guide Tube Spacer	.15
12512	Chuck Jaw Housing Lock Nut	.15	15163	Chuck Housing—Upper	.35
13030	Protractor	.70	15164	Chuck Assembly—Upper	.65
13035	Table Protractor Guide Screw, Short	.20	X-814	Pulley Shaft Bearing	.30
13041	Protractor Scale	.20	X-1125	Jig Saw Blade—5" Length 15 teeth per inch—Purchase from division 9 in nearest retail store	
14021	Table Protractor Clamp, Rear	.15	X-1455	V Belt 1/2" x 32" - Purchase from Div. 9 in nearest retail store	.65
14048	Mitre Gage Pointer	.15	X-2407	Boot Lock Washer 3/8 Shakenroof	.10
14069	Protractor Clamp Pin—Rear	.15	THE FOLLOWING PARTS ARE STANDARD AND CAN BE PURCHASED LOCALLY		
14082	Mitre Gage Plunger Assembly	.45	X-109	Tensioner Collar Set Screw 3/16-24x1/4	.10
15001	Base	7.60	X-111	Collar Set Screw 1/4-20x3/8	.10
15002	Arm	7.00	X-131	Motor Pulley Set Screw 1/4-20x3/8 sq. hd.	.10
15003	Table	4.30	X-132	Driven Pulley Set Screw 5/16-18x3/8	.10
15007	Boot Retainer	.15	X-135	Driven Pulley Set Screw 5/16-18x1/4	.10
15008	Lower Guide Rod Bracket	.70	X-138	Yoke Set Screw 5/16-18-1/2 Sq. Hd.	.10
15009	Yoke	.50	X-146	Crank Disc Set Screw	.10
15011	Yoke Pin	.25	X-201	Crank Case and Guide Rod Bracket Screw 1/4-20-3/4	.10
15017	Crank Case Cover	1.10	X-202	Thrust Roller Guide Support Screw 1/4-20-1 3/8	.10
15018	Mounting Insulator	.15	X-205	Table Mounting Screw 5/16-18-3/4	.10
15022	Pump Tube	.50	X-208	Table Support Mounting Screw 5/16-18-1	.10
15023	Pump Tube Cap	.30	X-211	Hold Down Spring Screw 1/4-20-7/8	.10
15024	Pump Leather	.15	X-221	Motor Rail Clip Screw 1/4-20-7/8	.10
15025	Pump Spring	.25	X-224	Thrust Roller Holder Guide Screw 1/4-20-1 1/8	.10
15030	Upper Guide Tube Assembly	.20	X-228	Pump Tube Support Pilot Screw 3/4-16-2 1/4	.10
15031	Pump Tube Support	1.40	X-231	Thrust Roller Holder Sc. 1/4-20-3/4	.10
15032	Pump Tube Support Pilot	.60	X-310	Motor Support Screw 5/16-18x1 1/2	.10
15033	Pump Tube Support Pilot Lock Screw	.15	X-316	Table Protractor—Lock Screw 3/4-24x2	.10
15034	Saw Guide Rod	.30	X-417	Motor Support Screw Nut 5/16-18	.10
15035	Thrust Roller Holder Guide	.25	X-420	Roller Holder Guide Sc. Nut 1/4-20	.10
15036	Saw Thrust Roller	.20	X-421	Motor Rail Clip Screw Nut 1/4-20	.10
15037	Thrust Roller Holder	.25	X-432	Protractor Guide Screw Nut 3/8-24	.10
15038	Hold Down Spring	.20	X-433	Protractor Scale Nut #4-40	.10
15043	Thrust Roller Pin	.15	X-511	Pump Leather Retaining Screw #10-24x3/8	.10
15044	Crank Case Gasket	.15	X-512	Protractor Pointer Screw #8-32x1/8	.10
15049	Boot Spring	.15	X-523	Lamp Bracket Screw #5-40x5/16	.10
15050	Protractor Lock Plunger Housing Screw	.15	X-524	Protractor Scale Screw #4-40x3/8	.10
15051	Boot	.20	X-540	Upper Guide Tube Spacer Screw 6-32x3/16	.10
15053	Motor Pulley	.80	X-601	Plain Washer 5/16 Std.	.10
15054	Jig Saw Pulley	1.45	X-605	Lock Washer 1/4 Std.	.10
15055	Thrust Roller Holder Support	.20	X-606	Plain Washer 3/4 Std.	.10
15056	Motor Support	.40	X-607	Plain Washer 1/4 Std.	.10
15059	Pump Spring Guide	.15			
15066	Pump Leather Washer	.15			
15072	Motor Adjusting Bracket	.40			
15075	Saw Guide Rod Lock Knob Assembly	.35			
15076	Crank Case Assembly Includes 15004 (1) X-814 (1)	2.25			
15078	Motor Support Sleeve	.15			
15085	Pump Tube Assembly	1.20			
15087	Arm Stud Assembly	.60			
15088	Protractor Guide—Rear	.40			
15107	Lower Guide Rod Assembly	.60			
15109	Lamp Shade	.25			
15112	Table Support	2.25			
15113	Protractor Guide—Front	.30			

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X-608	Lock Washer 3/16 Std.	.10	X-1019	Carriage Bolt 3/16-24x 1/2	.10
X-609	Plain Washer 3/16 Std.	.10	X-1103	Cotter Pin 1/16 Standard	.10
X-611	Lock Washer 5/16 Std.	.10	X-1250	Acorn Nut 3/16-24	.10
X-615	Lamp Bracket Spacer Washer 1/4 Std.	.10	X-1304	Check Ball 9/32	.10
X-616	Lock Washer 3/8 Std.	.10	X-1400	Allen Wrench 5/32 Across Flats	.15
X-617	Plain Washer 5/16-9/16	.10	X-2501	Filler Pipe 1/4 Pipe Coupling	.10
X-618	Plain Washer #4 Std.	.10	X-2601	Filler Elbow 1/4 Std. Elbow	.10
X-619	Lock Washer #5 Std.	.10	X-2701	Plug 1/4 Pipe Plug (Male)	.10
X-620	Pump Leather Screw Washer 13/64-1	.10			

The Following Parts Are Sold Separately as Accessories

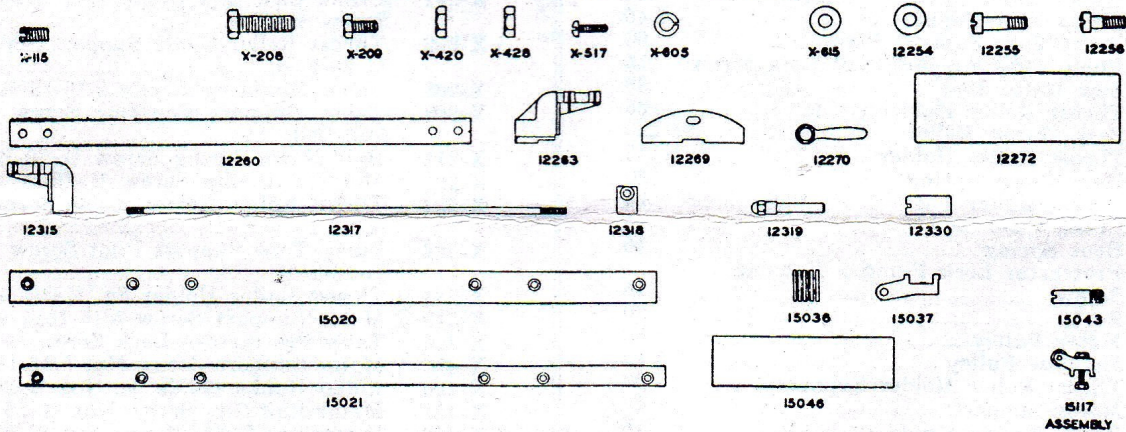
RIP FENCE AND TABLE EXTENSIONS
SEARS 2278

15090	Complete Unit		12319	Rip Fence Clamp Bolt	.15
12254	Fence Guide Spacer	.15	12330	Lock Rod Nipple	.15
12255	Fence Guide Screw—Long	.15	15020	Fence Guide—Front	1.25
12256	Fence Guide Screw—Short	.15	15021	Fence Guide—Rear	.85
12260	Fence Sub-Assembly—Long	.90	15046	Table Extension—Front	3.25
12263	Fence End—Front	.35	X-115	Aligning Screws	.10
12269	Rip Fence Equalizer	.25	X-209	Equalizer Clamp Screw	.10
12270	Rip Fence Clamp Lever	.20	X-428	Lock Rod Nut	.10
12272	Table Extension—Long	1.00	X-517	Fence Screw	.10
12291	Fence Assembly (Not Illus.)	2.90	X-605	Equalizer Screw Lock Washer	.10
12315	Fence End—Rear	.30	X-615	Equalizer Screw Plain Washer	.10
12317	Rip Fence Lock Rod—Long	.25			
12318	Rip Fence Clamp—Rear	.15			

LOWER ROLLER GUIDE ASSEMBLY

15117	Lower Roller Guide Assembly Includes		15043	Thrust Roller Pin	.15
	15036 (1) 15037 (1) 15043 (1) X-202		X-202	Holder Screw	.10
	(1) X-607 (1) X-420 (1)	.60	X-420	Holder Screw Nut	.10
15036	Saw Thrust Roller	.20	X-607	Holder Screw Washer	.10
15037	Thrust Roller Holder	.25			

THE FOLLOWING PARTS ARE SOLD AS ACCESSORIES ONLY

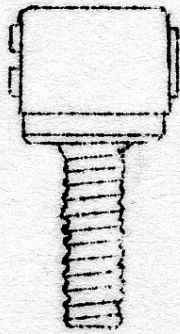


We Suggest You Write Your Orders for Repair Parts Like This Sample.

Sears, Roebuck and Co.
 Enclosed find my check for \$.65 for which please
 send me by parcel post the following parts for my
 24-inch Jig Saw, Model No. 103.0403:
 1 Each No. 15051 — Boot\$.20
 1 Each No. 10511 — Wrench45
 \$.65
 Yours truly, John Martin, Box 128, Richmond, Ind.

FOR OPERATING INSTRUCTIONS SEE INSERT

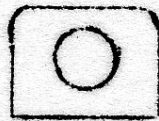
PART LIST FOR CHUCKS



12460



12455



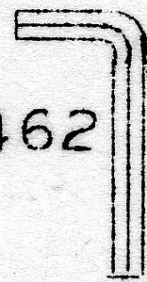
12456



12457

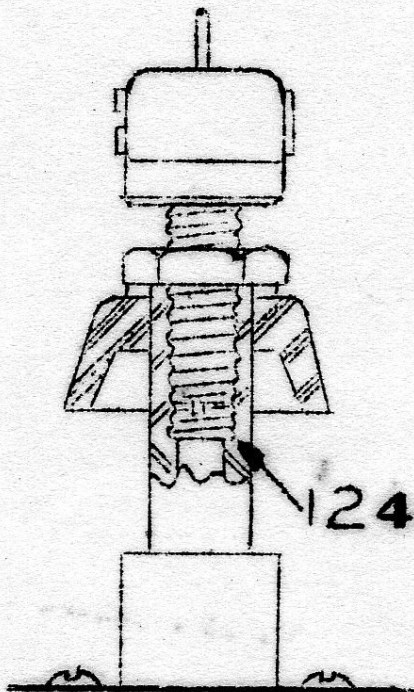


12462



X-1400

12460	Chuck Assembly Complete	.50
12455	Chuck Housing	.30
12456	Blade Centering Cover	.20
12457	Socket Head Clamp Screw	.15
12462	Slotted Head Set Screw	.15
X-1400	Allen Wrench	.10



When the number 12460 chuck is substituted for the old style LOWER jig saw chuck it is necessary to also use the screw plug #12464 as shown in the drawing.

This chuck is also used to hold files. To insert file remove 12456 & 12457. Use only 12462 set screw to hold file.

JIG SAW WITH TENSIONER—MODEL 103.0404 ONLY

A blade tensioner is provided so that correct tension can be obtained when using various sizes of blades. Tension can be varied with blade in place and while machine is in operation.

Improper tension will cause vibration which will disappear when correct point is reached.

To increase or decrease the tension of the saw blade, loosen pump tube clamp screw and turn ball crank to the right or left. Lock clamp screw when desired tension is reached.

SAW BLADE ROLLER GUIDE AND HOLD DOWN SPRING

To move roller guide toward and away from the saw loosen bolt A in Fig. 2 and slide the assembly to the desired position. To move the roller laterally loosen the bolt B and slide the roller and hold down spring to the groove selected.

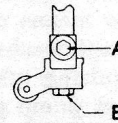


FIG. 2

TO CHUCK SAW BLADES

1. Place blade in the lower chuck and tighten socket head clamp screw.
 2. Turn drive pulley until the lower chuck is raised to its highest position.
 3. Loosen pump tube clamp screw and set pump tube at proper position for length of saw blade being inserted.
 4. While in this position insert blade in upper chuck by pulling down upper chuck slightly and tightening the clamp screw.
 5. Turn pulley over by hand to make certain that the spring in head is under tension at the top of stroke. Failure to observe this condition will result in pounding.
- Install blade with cutting teeth pointing downward.
Blade will work best with cutting edge square with table.
Maximum thickness to cut with 5" blade is $\frac{3}{4}$ ". For thicker material use longer blades and raise pump tube. Blades up to 10" long can be used without changing the setting for 5" blades, but the blade must be put through the upper chuck starting from below the table through the table insert.

FILING

The round shank files to be used in this machine, listed in the Sears Power Tool Catalog, are held in the lower chuck. To insert a file remove the chuck screws and lift off the blade centering cap. Place file in chuck and fasten securely by tightening slotted set screw only against the file shank. The table may be tilted to file angles or to correct for any bow in the file.

TABLE

To tilt the table unlock the front trunnion by pulling the lever wrench on to hexagon nut. Loosen. Pull plunger stop for important angular positions, intermediate angles must be lined up with the pointer. Relock with lever wrench on nut. The pointer on the graduated protractor is adjustable if necessary to correct any error on protractor with the table top.

OVERARM

Marks on the top of the overarm and pump tube housing at the joint permits the entire housing assembly to be returned to its normal alignment.

Overarm is pivoted at the rear of the base so it can be swung to the right or left or entirely removed by loosening the stud which clamps it to the base. The distance from the center of the saw to the inside of arm permits full 24" cuts.

At the overarm pivot joint at the rear end of the base a mark determines the normal sawing alignment of the arm.

RUBBER MOUNTING INSULATORS

Place one in each cored recess on the inside corners of base. These rubbers will help to level your saw and deaden sounds which may be transmitted through your mounting stand or bench.

SABRE SAWING ACCESSORY

Loosen blade in upper chuck. Remove roller guide and hold-down spring by taking out the screw at the bottom. Loosen acorn nut on rear of upper arm and move arm to either side. Tilt table to the left 45°. With long screw through slot, line up roller guide with small support casting (Part No. 15055) included with extra parts. Fasten this assembly to boss underneath the table and behind the blade. Return table to horizontal position.

ADDITIONAL ACCESSORIES AVAILABLE

FENCE AND TABLE EXTENSIONS

Provision is made in the ends of the table for attaching fence guides and extensions for the front and sides of the table. These extensions increase the table size from 14-3/16" square to 13-3/16" x 25-1/2". The table space in front of the saw is increased from 7-1/2" to 11-1/2".

OPERATING INSTRUCTIONS FOR 24 INCH JIG SAW

LUBRICATION

To prepare for shipping, the oil has been removed from this tool. Do not run until refilled with a good grade of oil similar to S.A.E. No. 30. To refill, remove the pipe plug from filler pipe in front of crank case and pour in **SLIGHTLY LESS THAN ONE PINT OF OIL.**

THIS FILLING OF OIL SHOULD LAST INDEFINITELY, BUT IF MORE OIL IS ADDED, POUR IN ENOUGH TO HAVE IT JUST VISIBLE AT THE BOTTOM OF THE FILLER PIPE.

Any oil in excess of the above amount will be wasted as same will pass from crank case either through breather hole or vents around piston rod until required level is reached. The crank case mechanism and main bearing are lubricated by means of an oil pressure system. The pressure is produced by a simple pump arrangement in combination with the mechanism in crank case which pumps and forces the oil from the bottom of the crank case to all parts requiring lubrication in the crank case.

The square upper pump piston rod should be oiled or greased and a few drops of oil should be applied through the hole in the pump tube cap occasionally.

Periodic greasing of the table trunnions is recommended.

REASSEMBLY INSTRUCTIONS

This jig saw has once been completely assembled at the factory and to avoid breakage through rough handling while in transit the table has been removed.

Looking at the under side of this table you will note that one pair of trunnion bosses is close to one edge of the table. To reassemble table, place the table on the trunnions with these bosses toward the back.

The four mounting screws are in the cloth bag. Place the plain washer next to the trunnion boss, then the lock washer before tightening screws.

The blade has been pushed up into the upper chuck to avoid breakage.

CAUTION. For shipping purposes the upper pump tube assembly has been lowered and the clamp bolt tightened.

To raise or turn this tube loosen the clamp bolt and move the assembly by hand.

Do not turn pump tube with **WRENCH OR PLIERS.**

SPEEDS

The large pulley is mounted with large diameter next to the crank case and the small pulley is mounted on a 1750 R.P.M. motor with the small diameter adjacent to the motor. This will give approximate speeds of 1750—1284—926 and 657. 926 and 1284 are the recommended speeds. A 1/3 horsepower motor is recommended for this saw.

PULLEY ON CRANK CASE MUST RUN IN DIRECTION INDICATED BY ARROW SHOWN ON OUTSIDE OF CRANK CASE SHAFT BEARING HOUSING.

MOTOR MOUNTING

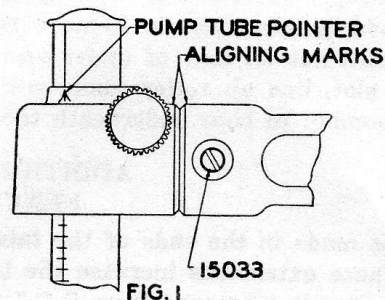
The motor mounting is in two parts, the front end being the conventional floating type pivoted in adjustable clips. The rear part has an adjusting screw so weight of motor can be relieved from the belt and bearings.

PUMP MECHANISM

The upper guide tube and pump mechanism is mounted in a housing which is fastened in the overarm by means of taper pointed screws which register against the angular surfaces of a groove in a pivot pilot which is bolted to the housing.

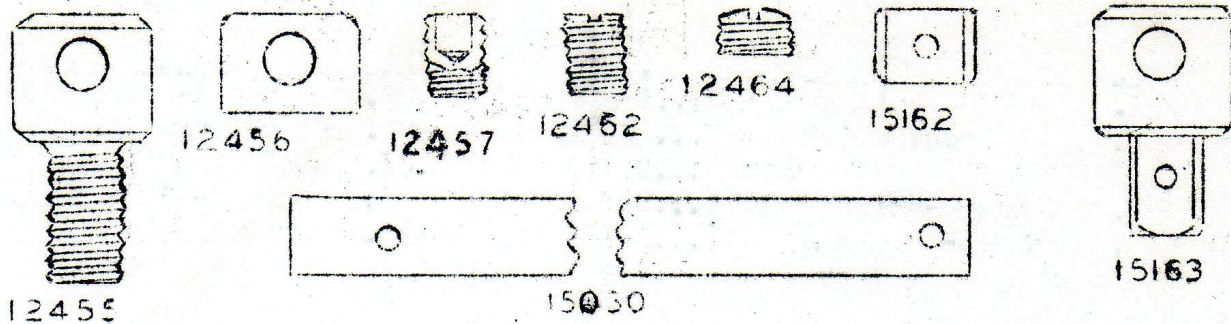
Loosening the screws permits the entire assembly to be turned radially. Removing the screws permits the removal of the assembly. Air for blowing dust away from the work is provided through a tube concealed in the pump tube. Additional air is exhausted through chuck jaws in upper guide tube.

The graduations on the pump tube signify the length of saw blades and the pounds pressure of the spring at the top of the stroke. For example, when using a 5" blade the 5"—6½ # mark should register at the top edge of housing.



For radial alignment the vertical line through graduation on the tube must register with the pointer on support housing located 45° to the right from the front.

Fasten the tube securely in this position. For ripping turn the entire pump tube assembly and saw blade roller guide 90° to the right so that vertical line on the tube lines up with pointer.



<u>NO.</u>	<u>PART NAME</u>	<u>PRICE</u>	<u>NO.</u>	<u>PART NAME</u>	<u>PRICE</u>
12455...	Chuck Housing-Lower	.30	12464...	Threaded Plug	.15
12456...	Blade Centering Cover	.20	15030...	Upper Guide Tube	.20
12457...	Socket Head Clamp Screw	.15	15162...	Spacer	.15
12460...	Chuck Assembly-Lower	.50	15163...	Chuck Housing-Upper	.35
12462...	Slotted Head Set Screw	.15	15164...	Chuck Assembly-Upper	.65

IMPORTANT NOTICE

The lower chuck may be used to hold machine files or sabre saws by removing the centering cover. To clamp files remove the socket head screw and use the slotted head set screw only.

Use the Allen wrench supplied with the Jig Saw to tighten the 12457 clamp screws when sawing with regular blades.

INSTALLATION INSTRUCTIONS

LOWER CHUCK

- Loosen the lock screws (15033) and remove the complete upper head assembly.
- Unscrew and remove the lower chuck, holding washer under top of boot in place.
- Slip the washers off the lower chuck stem and onto the new lower chuck. Transfer the lock nut (12512) from the old chuck stem to the new chuck.
- Screw the plug (12464) into the lower guide rod turning it with a small screwdriver until it seats properly.
- Holding the boot and its washer with one hand, insert and tighten the chuck.

UPPER CHUCK

- Replace and tighten the head at right angles to its normal position. (Fig. 1)
- Remove the saw guide rod (15034) and the cap (15023).
- Take out one chuck screw (X-2902). Turn the head over and take out the second chuck screw. Remove the chuck. Push the guide tube out of the top of the pump tube.
- Remove the screw, lock washer, and small plain washer from the guide tube and fasten them in the same order to the new guide tube, remove the new chuck, slip off the three large washers and place them on the new tube in the same order.
- Place this assembly inside of the spring and reinsert in the pump tube, keeping the small holes (A) in line vertically.
- Slipping the chuck stem into the guide tube, place the spacers (15162) over the tube, and fasten the chuck into place with the new chuck screws (X-540).
- Replace the saw guide and cap and return the head to its vertical position

