Rockwell
MANUFACTURING COMPANY
The Rockwell Building • Pittsburgh, Pa.

PM-1086082

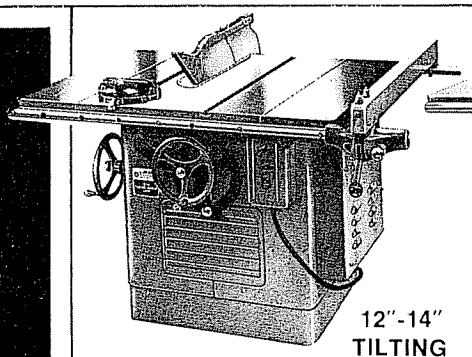
IM 1-15-71

ROCKWELL/DELTA
9" DELUXE SAW

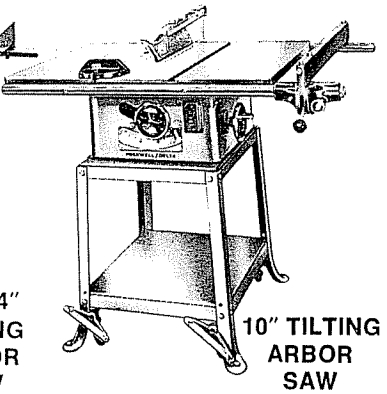
INTRODUCTION

The Rockwell/Delta Deluxe 9" Circular Saw you have just purchased is a quality-built machine, capable of dependable, precision performance throughout its lifetime. In order to take full advantage of these capabilities you should throughly understand the construction and assembly of the saw and the proper techniques for operating it. Therefore, we suggest you read this booklet before assembling the saw and also that you save it for future reference.

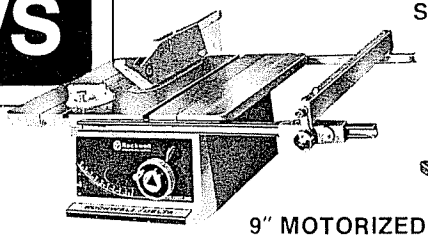
SAFETY SUGGESTIONS FOR ROCKWELL DELTA CIRCULAR SAWS



12"-14" TILTING ARBOR SAW

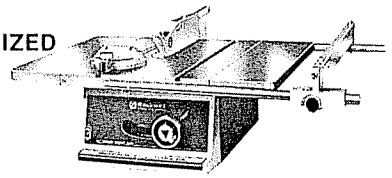


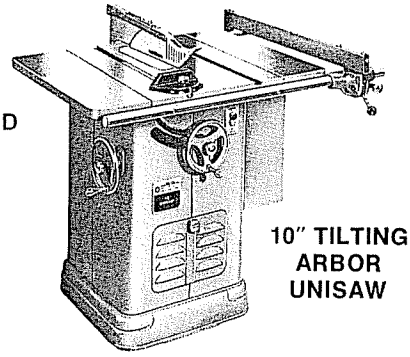
10" TILTING ARBOR SAW



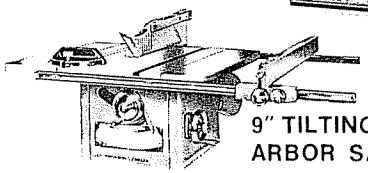
9" MOTORIZED SAW

10" MOTORIZED SAW

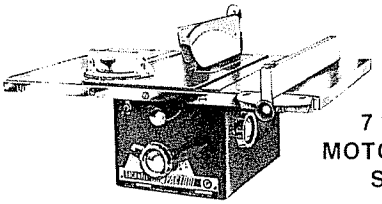




10" TILTING ARBOR UNISAW



9" TILTING ARBOR SAW



7 1/4" MOTORIZED SAW

1. IF YOU ARE NOT thoroughly familiar with the operation of Circular Saws, obtain advice from your supervisor or instructor.
2. REMOVE tie, rings, watch and other jewelry, and roll up sleeves.
3. ALWAYS wear safety glasses or a face shield.
4. KEEP saw blade sharp and free of all rust and pitch.
5. MAKE all adjustments with the power off.
6. GUARDS should be in place and used at all times.
7. ALWAYS use splitter and anti-kick back fingers when ripping.
8. ALWAYS hold the work firmly against the miter gage or fence.
9. ALWAYS use a push stick for ripping narrow stock.
10. STAND to one side, NOT in line with the saw cut when ripping.
11. MOVE the rip fence out of the way when cross cutting.
12. WHEN CUTTING mouldings, NEVER run the stock between the fence and the moulding cutterhead.
13. NEVER use the fence as a cut-off gage when cross cutting.
14. DISCONNECT saw from the power source when making repairs.
15. SHUT OFF power and clean the saw before you leave it.

INSTALLATION

1. The saw can be mounted on a bench or a suitable steel or wood stand. If the 50-810 Open Steel Stand shown in Fig. 2, or the 50-139 Enclosed Steel Stand are used, fasten the saw to the stand using the four hexagon head cap screws, washers, and nuts supplied.

2. Attach front and rear guide rails to the table using the screws and spacers provided. The guide rail with the calibrations goes on the front, as shown in Fig. 2.

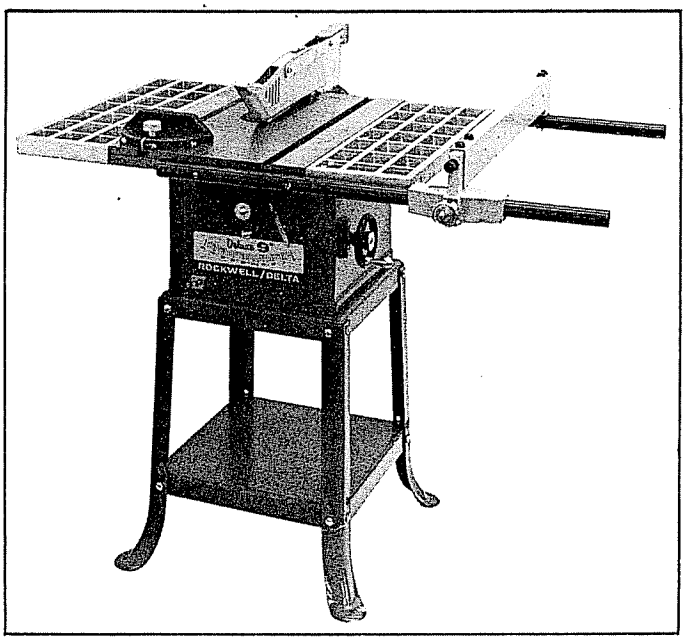


Fig. 2.

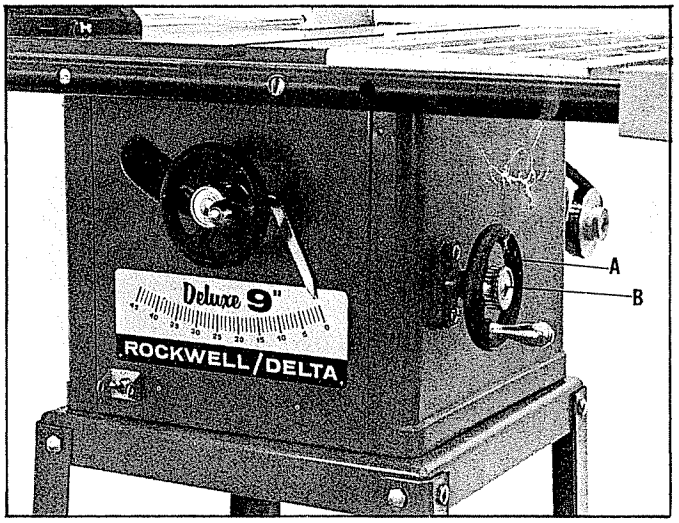


Fig. 3.

3. Mount the tilting handwheel (A) and the lock knob (B), as shown in Fig. 3.

4. Place the motor mounting plate in position, as shown in Fig. 4, and insert rod (A). Tighten set screw (B) against the flat surface of the rod.

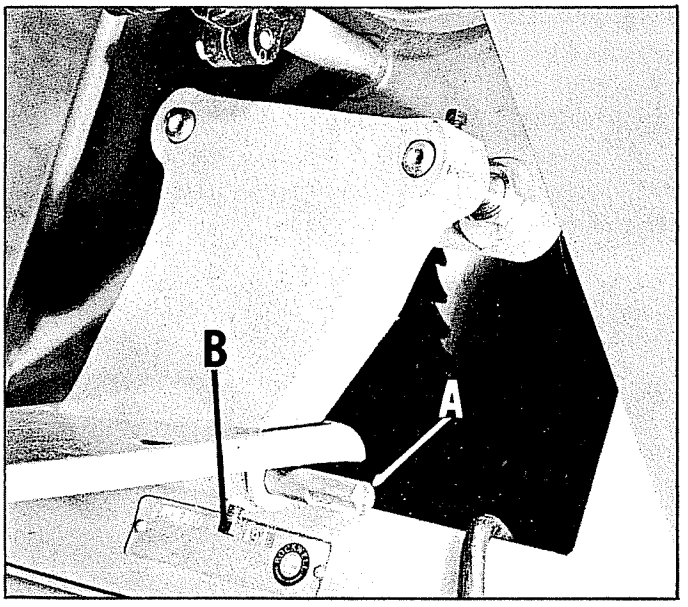


Fig. 4.

5. Attach the motor to the motor mounting plate using the bolts, nuts and washers provided. Before tightening the nuts, place the motor pulley on the motor shaft with the hub of the pulley extending out, as shown in Fig. 5. CAUTION: If the pulley does not readily slip onto the motor shaft, do not force it. Check the hole in the pulley, the key slots, and the motor shaft for any burrs or other obstructions which should be removed. If necessary, slightly enlarge the hole in the pulley with a round file or a piece of sand paper wrapped around a small dowel rod.

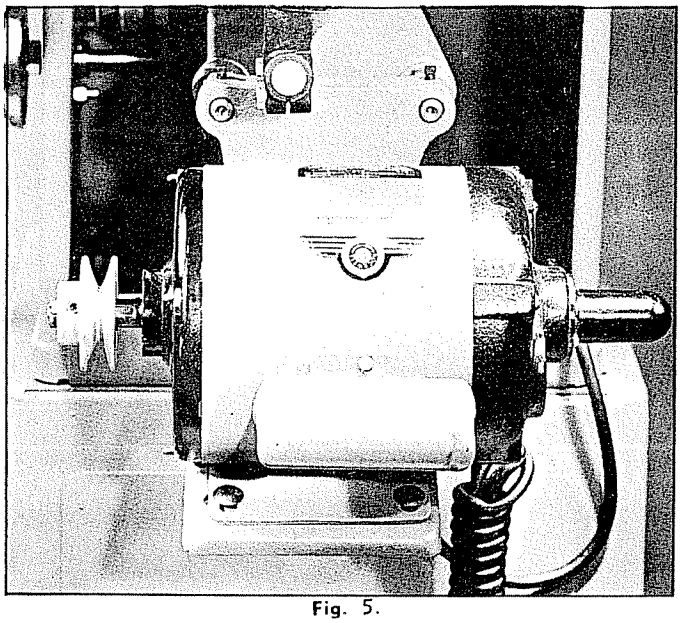


Fig. 5.

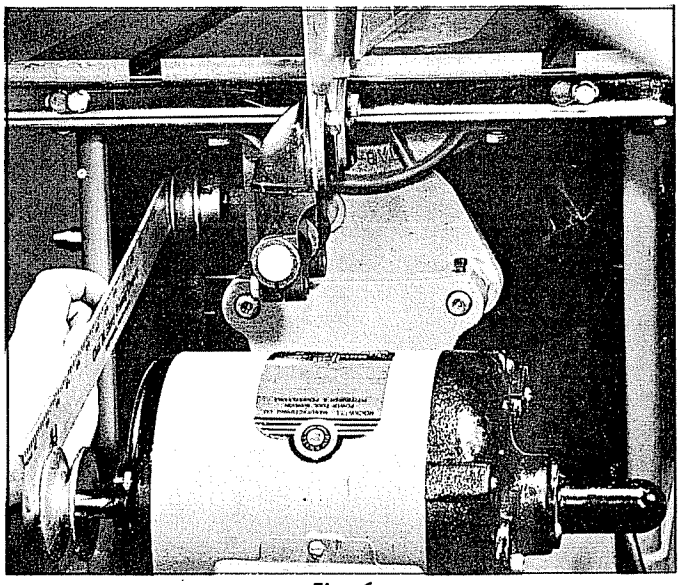


Fig. 6.

6. Using a straight edge, align the motor pulley with the arbor pulley, as shown in Fig. 6. Then tighten set screw in the motor pulley.

7. Make sure the set screw in the arbor pulley is tight, and tighten the nuts on the motor mounting bolts.

8. Place the belt on the pulleys.

ELECTRICAL RECOMMENDATIONS

The Rockwell 62-273, 1 horsepower motor is recommended for use with your saw. A separate electrical circuit should be used for your power tools. This circuit should not be less than #12 wire and should be protected with a 20 Amp time lag fuse. Never use long extension cords.

The Rockwell motor has a reset overload relay button. If the motor shuts off or fails to start due to overloading or low voltage, let the motor cool three to five minutes and push the reset button (A) Fig. 7, which will reset the overload device. The motor can then be turned on again in the usual manner.

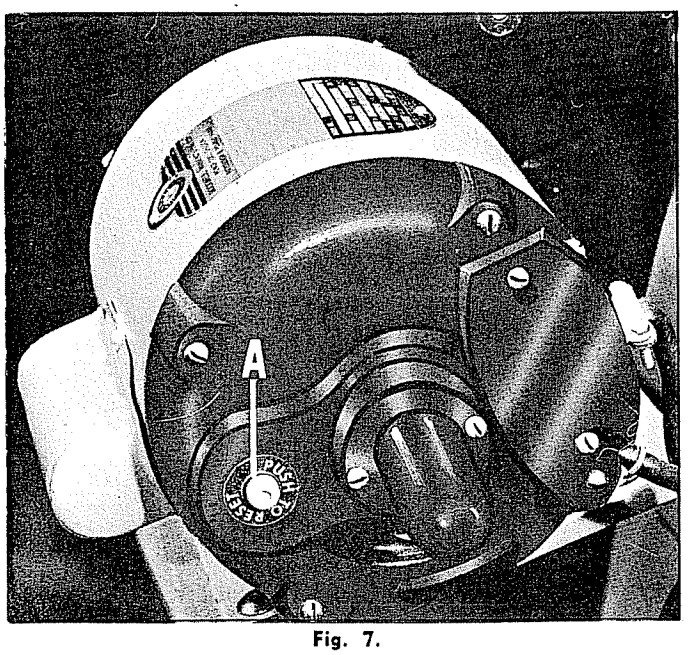


Fig. 7.

INSTALLING THE SWITCH

The switch and motor cord are supplied with the 62-273 motor. The following procedure should be followed when mounting the motor switch to the front of the saw cabinet.

1. Assemble the switch through the cabinet from the inside.

2. Place the switch plate (A) over the threaded extension of switch as shown in Fig. 8.

3. Assemble the round nut (B) Fig. 8, on the threaded extension and tighten slightly. Turn switch and switch plate until the word "off" is in the up position and tighten the round nut (B) securely. CAUTION: Before plugging in power cord, check the inside of the cabinet and make sure the cord is placed in such a position as to clear all moving parts.

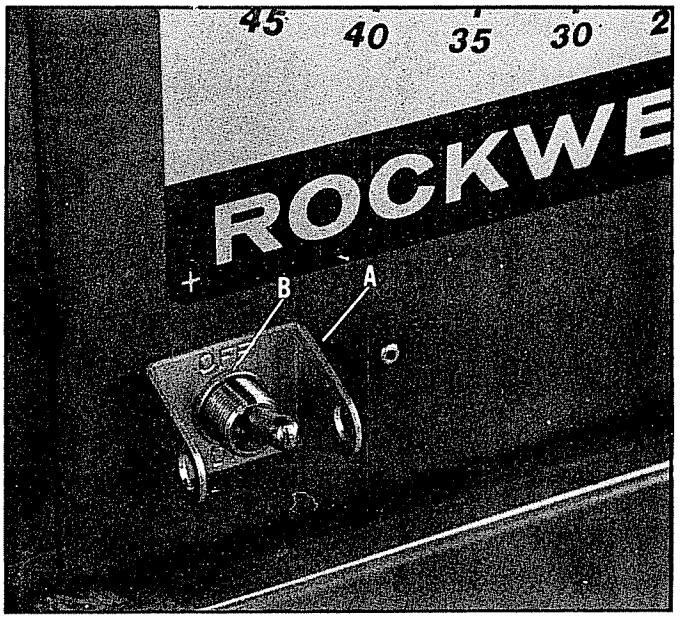


Fig. 8.

OPERATING ADJUSTMENTS

The principle adjustment of your saw is the relationship between the saw blade to the fence and table.

These adjustments were set at the factory, however, during shipment they may have been disturbed.

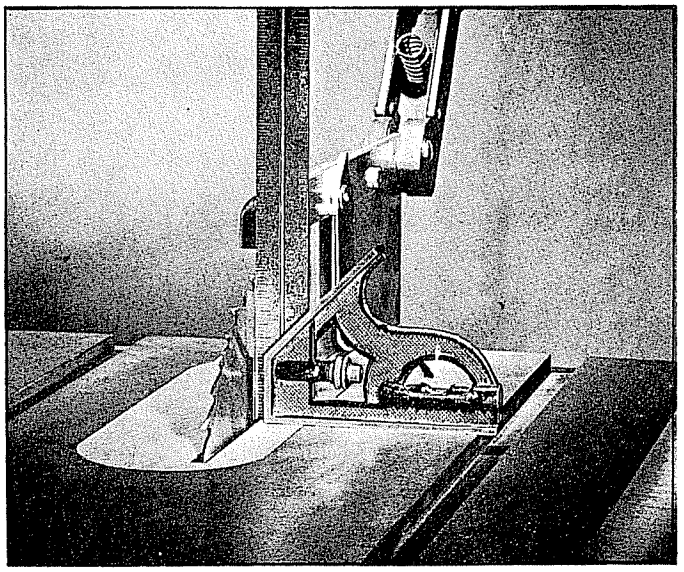


Fig. 9.

The following adjustments should be checked and adjusted if necessary.

1. Raise the saw blade by loosening the lock knob and turning the raising handwheel as far as it will go.

2. Set the blade at 90 degrees by loosening lock knob and turning the tilting handwheel counterclockwise as far as it will go.

3. Place a square on the table as shown in Fig. 9, and check to see if the blade is at a perfect 90 degree angle.

4. If the blade is not at 90 degrees, loosen locknut (A) Fig. 10, and turn adjusting stop screw (B) in or out. The adjusting stop screw (B) should stop against the end of the tilting screw (C) when the blade is at 90 degrees to the table. Recheck and adjust further if necessary.

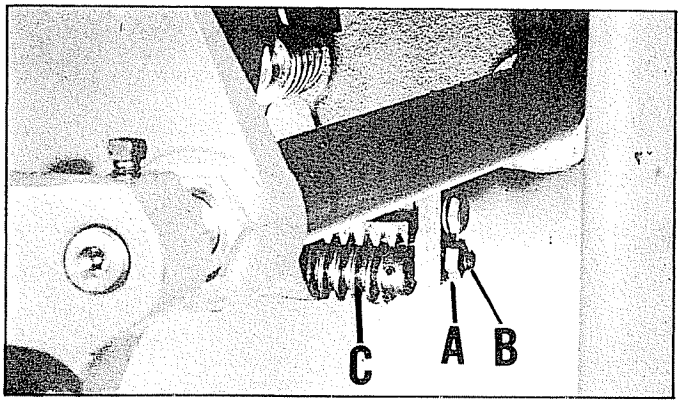


Fig. 10.

5. When you are certain the blade stops at 90 degrees to the table, set the pointer at the 0 degree mark on the scale by removing raising handwheel and lock knob, loosen screw (A) Fig. 11 and move the pointer to 0 degree.

Fig. 11.

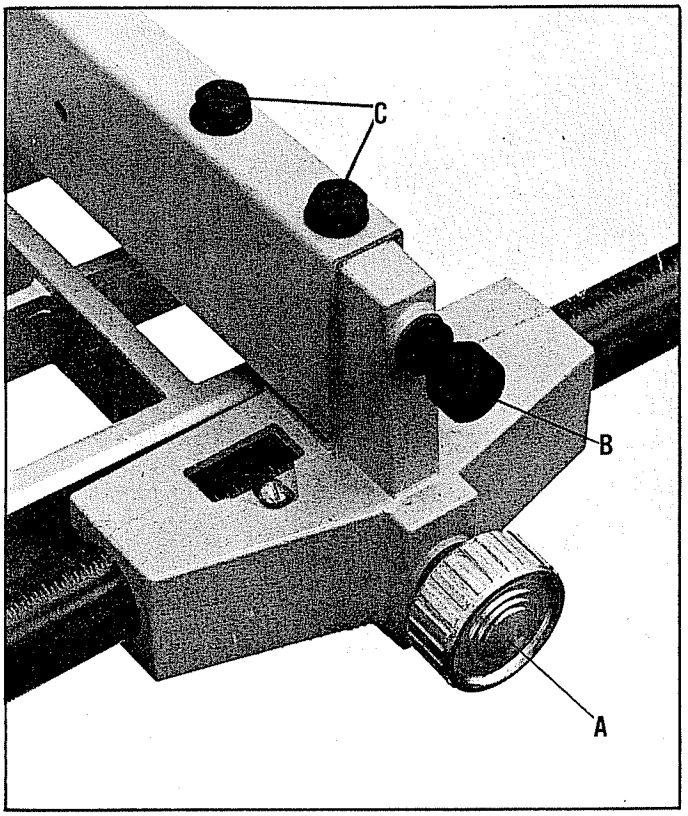


Fig. 12.

6. The blade is set parallel to the miter gage slot at the factory. The fence should be adjusted so it is parallel to the miter gage slot. To check the rip fence, set it at one of the miter gage slots. Tighten the front lock knob (A) and rear lock knob (B) Fig. 12. The fence should then line up parallel with the miter gage slot. If an adjustment is necessary loosen the fence adjusting screws (C) and rear lock knob (B) Fig. 12. With the front lock knob (A) still tight move back end of fence to the right or left lining it up to the miter gage slot . Then tighten rear lock knob (B) and fence adjusting screws (C).

RAISING MECHANISM

To raise or lower the saw blade, loosen lock knob (A) Fig. 13, and turn raising handwheel (B). With exception of hollow ground blades, the blade should be raised 1/8" to 1/4" above the top surface of the material being cut. With hollow ground blades the blade should be raised to the maximum to provide chip clearance. The blade can be raised to a maximum of 2 3/4".

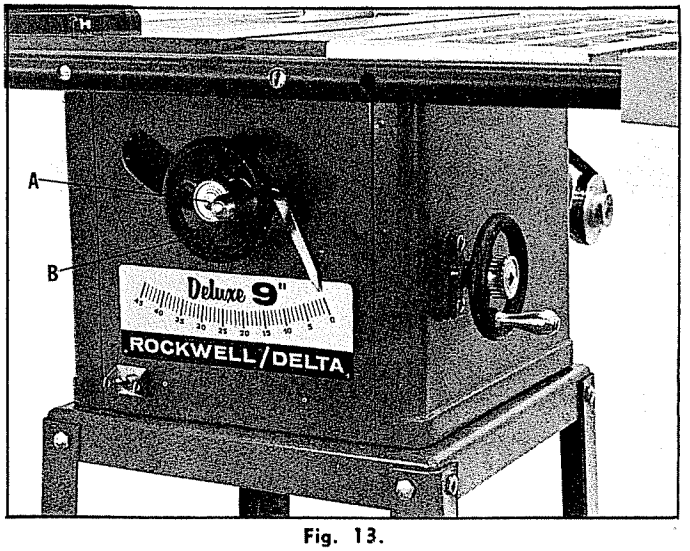


Fig. 13.

After a long period of time, it is possible that the raising worm and the teeth on the arbor bracket will wear slightly resulting in play in the raising mechanism. To compensate for this wear the raising worm and the arbor bracket can be brought closer together. This can be done as follows:

1. Remove lock knob and raising handwheel but do not remove pointer.

2. Loosen lock nut (A) Fig. 14, and using the pointer (B) as a lever turn to the right or left until all the perceptible play between the worm and arbor bracket is removed.

3. When this adjustment is completed, reset the pointer to 0 degree.

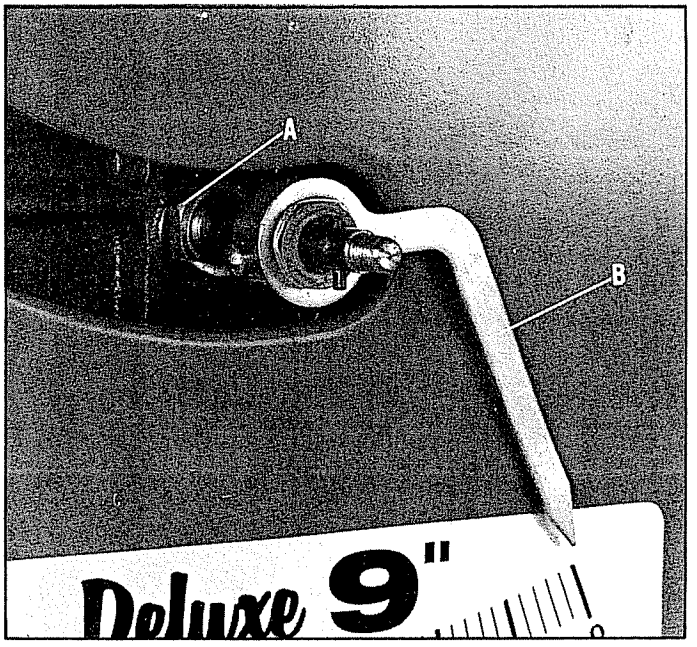


Fig. 14.

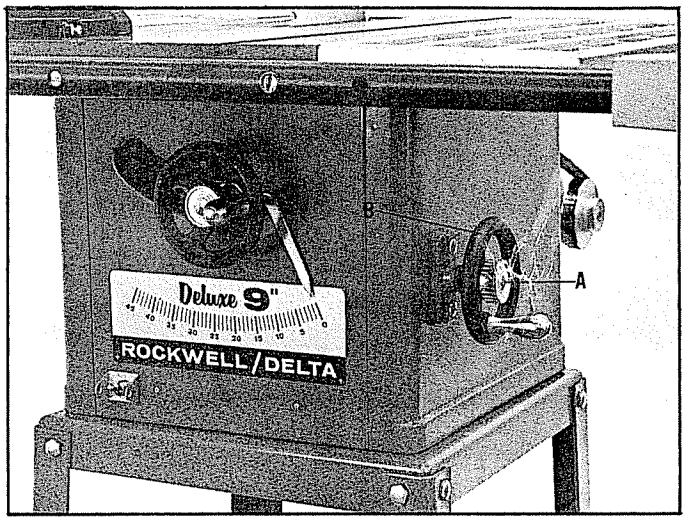


Fig. 15.

TILTING MECHANISM

To tilt the saw blade, loosen lock knob (A) Fig. 15, and turn the tilting handwheel (B). When desired angle is obtained, tighten lock knob (A).

TABLE INSERT

The table insert should always be flush with the table top. To adjust the table insert, turn the adjusting screws (A) Fig. 16 in or out.

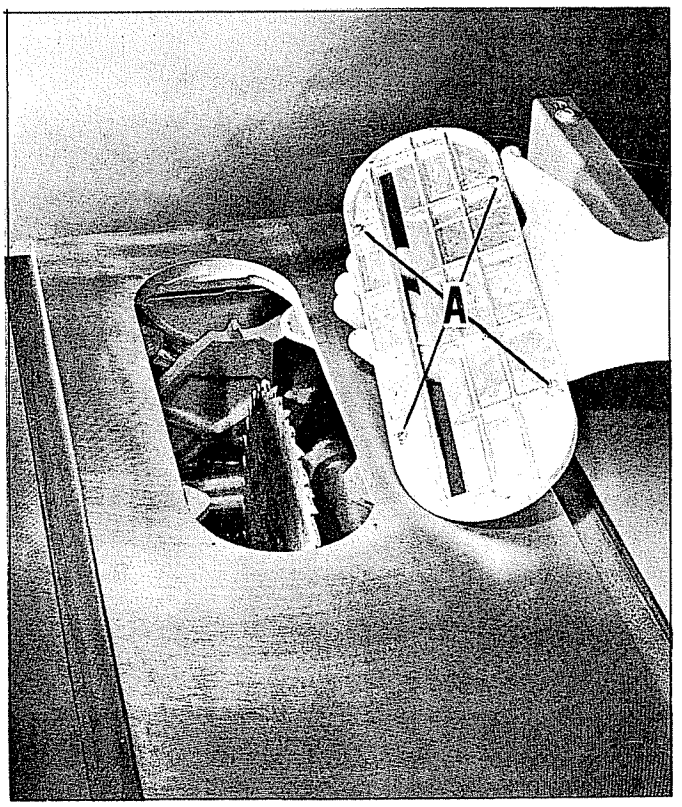


Fig. 16.

RIP FENCE

The rip fence can be used on either side of the saw blade. The most common location is on the right hand side. To align the rip fence to the miter gage slot, refer to Step 6 under OPERATING ADJUSTMENTS. The rip fence is guided by means of guide rails fastened to the front and rear of the table. The front guide is calibrated to show the distance the fence is set from the saw blade.

To move the rip fence, loosen both front lock knob (A), and rear lock knob (B) Fig. 17. The fence can then be moved rapidly to the approximate position.

If an adjustment to the pointer is necessary, loosen set screw (C) Fig. 17, move the pointer to the correct position and tighten set screw (C).

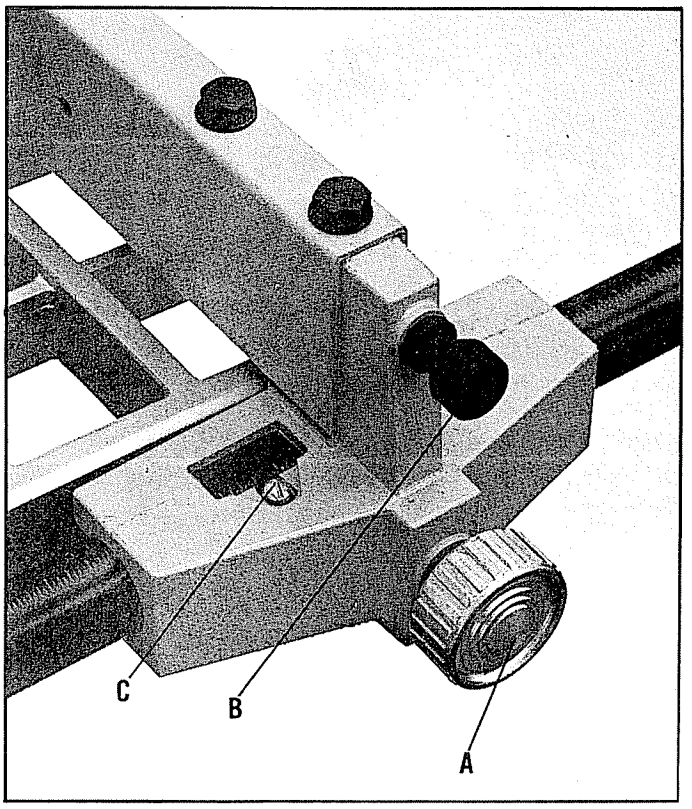


Fig. 17.

OPERATION

Plain sawing includes ripping and crosscutting, plus a few other standard operations of a fundamental nature. The following methods feature safety and are intended for homeshop use, however, some inevitable variations in operating technique will result from personal preferences. Figures 18, 19, and 20 are shown with the guard removed for clarity.

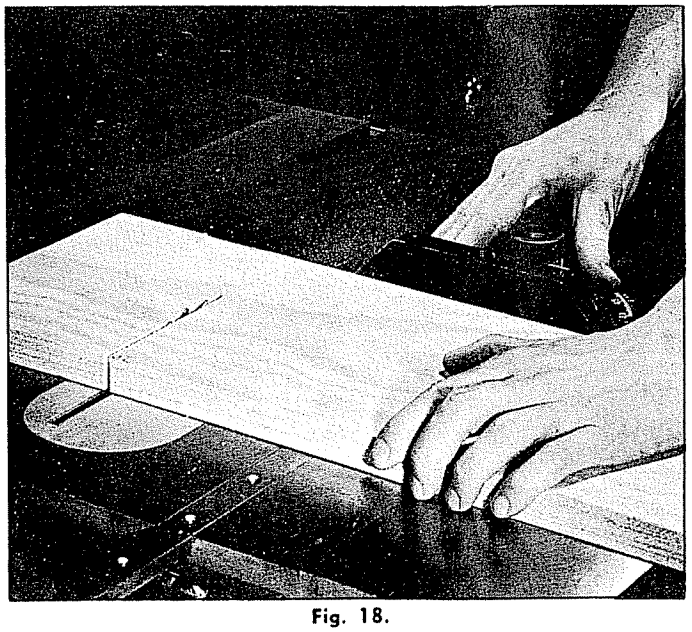


Fig. 18.

CROSS CUTTING

Crosscutting is done by placing the work against the miter gage and advancing both the gage and work toward the saw blade, as shown in Fig. 18. The miter gage may be used in either table groove, most operators prefer the left groove for average work.

Most crosscuts can be done with one hand. One of the rules in running a saw is that you never hang onto or touch a free piece of work. You hold the supported piece not the free piece that is cut off. The feed in crosscutting continues until the work is cut in two, then the miter gage and work are pulled back to the starting point. Before pulling the work back, it is good practice to give the work a little sideways shift to move the work slightly away from the saw blade.

RIPPING

Ripping is the operation of making a lengthwise cut through a board. One edge of the board rides against the rip fence while the flat side of the board rests on the table.

The start of a ripping cut on a long board demands no particular method. Push the work along the fence and, into the saw blade. At the stage shown in Fig. 19, the left hand is removed from the work, and the feed is continued with the right hand only. If the cut is 3 inches or wider, the right hand can safely guide the work past the blade.

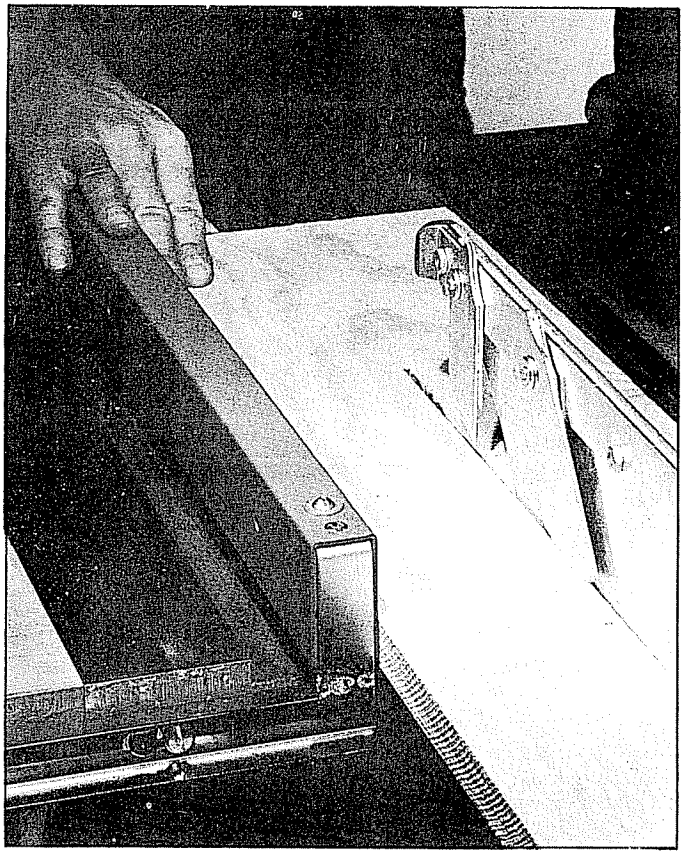


Fig. 19.

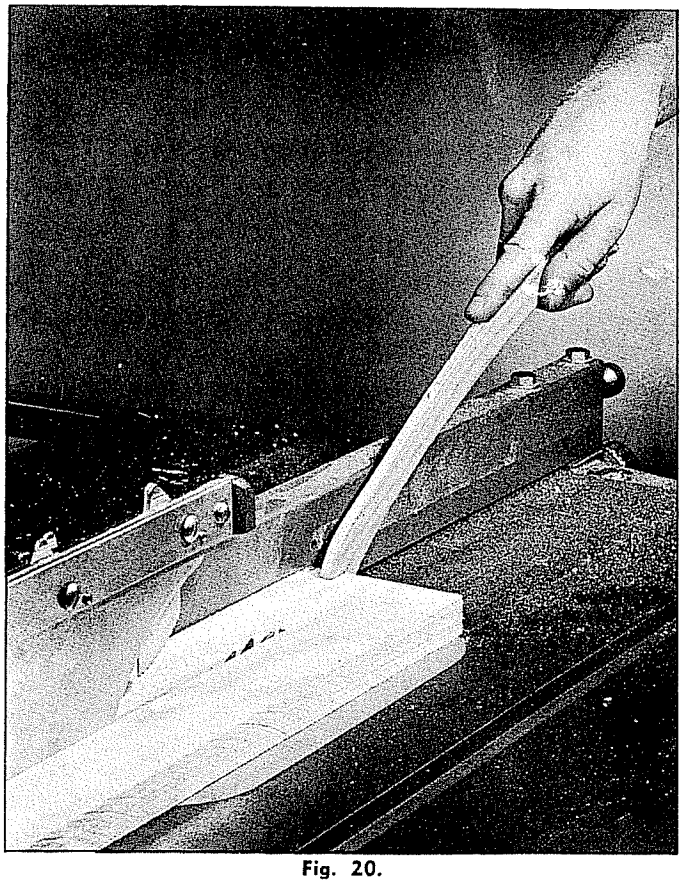


Fig. 20.

If the ripped work is less than 3 inches wide, a push stick should be used to complete the feed, as shown in Fig. 20. A push stick as shown, can easily be made from scrap material.

SAW BLADES

The saw blade furnished with your saw is a 9" Combination blade suitable for both crosscutting (across the grain) and ripping (with the grain).

Saw blades should always be sharp and unless you are capable of properly sharpening or setting saw blades, we suggest you locate a reputable sharpening service to sharpen your blade.

Always keep your blades clean.

To remove saw blades from your saw, first disconnect the saw from the power source. Remove the table insert, place a block of wood against the front of the saw blade and using the arbor nut wrench, turn the arbor nut toward you, as shown in Fig. 21.

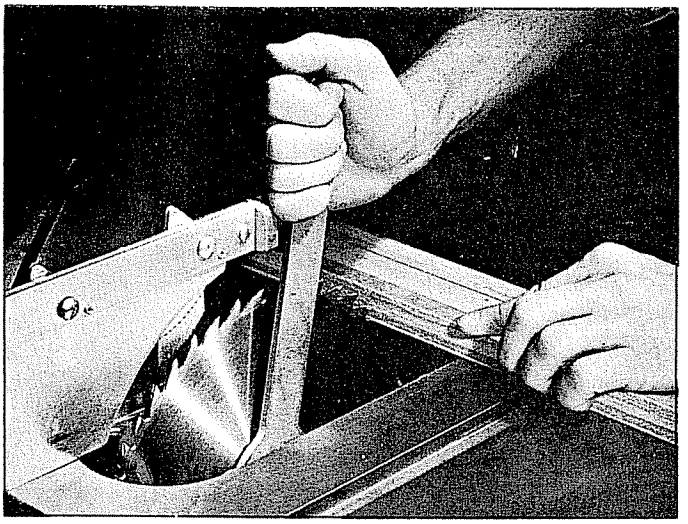


Fig. 21.

Rockwell
MANUFACTURING COMPANY

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Rockwell Manufacturing Company
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Phone: 213 749-0386

OAKLAND, 94601
Rockwell Manufacturing Company
4621 Malat Street
Post Office Box 7327
Phone: 415 535-2424

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Rockwell Manufacturing Company
4900 East 39th Avenue
Phone: 303 388-5803

GEORGIA

ATLANTA (Doraville), 30340
3500 McCall Place
Phone: 404 458-2263

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HONOLULU, 96819
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3209 Koapaka Street
Phone: 808 872-048

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Rockwell Manufacturing Company
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Phone: 313 358-1000

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Rockwell Manufacturing Company
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Rudolf Bass, Incorporated
175 Lafayette Street, Cor. Grand Street
Phone: 212 CA 6-4000

BUFFALO, 14204
Karle Saw Company, Incorporated
138-150 Chicago Street, Cor. So. Park Avenue
Phone: 716 853-8053 or 853-8054

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CINCINNATI, 45203
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906 Dalton Street
Phone: 513 241-2737

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Rockwell Manufacturing Company
1234 East 26th Street
Phone: 216 621-6329

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Post Office Box 47767
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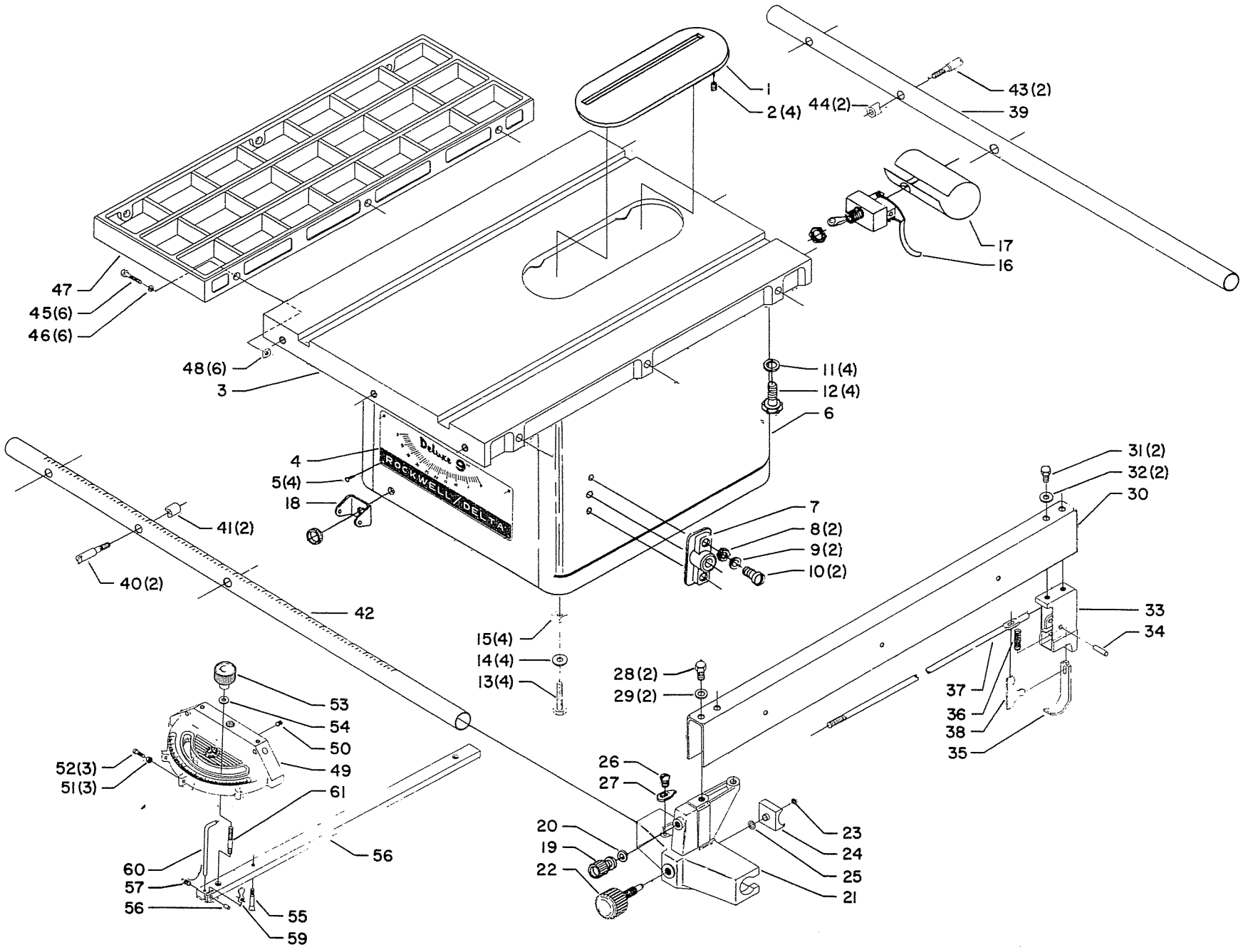
Authorized Delta Parts Distributors stock a complete line of replacement parts. To save time and shipping cost send your parts orders to your nearest distributor and in most cases they will be filled and shipped within 48 hours. We do not fill any parts orders direct from the factory.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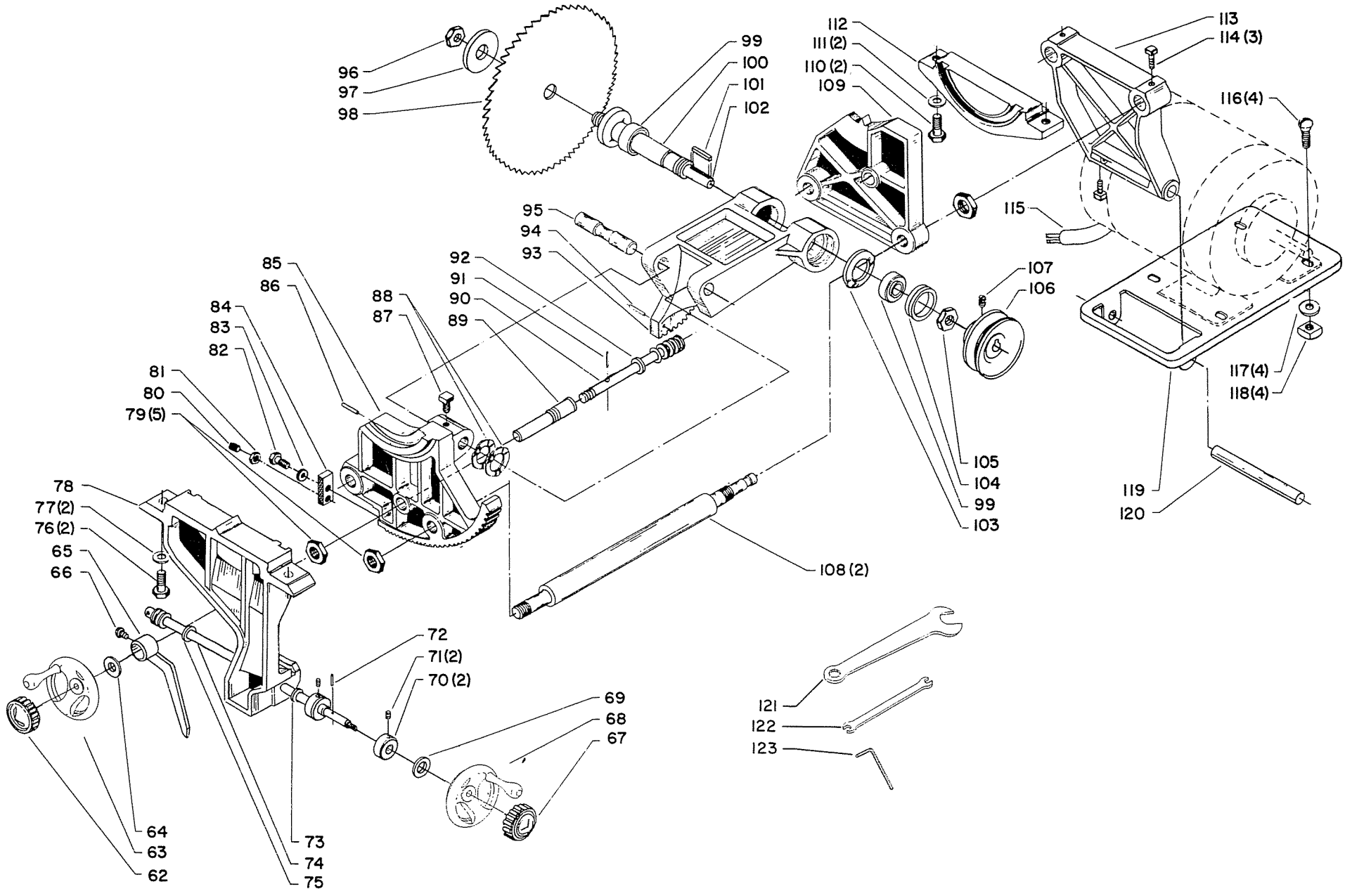
Replacement Parts

Ref. No.	Part No.	Description
1	Cat. #34-661	Table Insert, including:
2	SP-153	#10-32 x 1/4" Headless Set Scr.
3	1085804	Table
*	TAB-510-S	Cabinet Assembly, consisting of:
4	1086007	Tilt Scale
5	SP-3000	#6-32 x 1/4" Rd. Hd. Self Tapping Scr.
6	TAB-510-A	Cabinet
7	TAB-108	Bearing Bracket
8	SP-1300	5/16"-18 Hex Nut
9	SP-1604	5/16 x 3/4 x 1/16" Washer
10	SP-707	5/16-18 x 1" Fil Hd. Scr.
11	SP-1604	5/16 x 3/4 x 1/16" Washer
12	SP-606	5/16-18 x 5/8" Hex. Hd. Scr.
13	MS-62	5/16-24 x 1" Hex. Hd. Scr.
14	SP-1750	5/16" Internal Teeth Lock Washer
15	SP-1206	5/16"-24 Hex. Nut
** 16	Cat. #49-331	Switch
17	SP-4934	Insulating Cover
18	MG-169	Switch Plate
*	1086096	Rip Fence Complete, consisting of:
19	NCS-272	Kurled Knob
20	1085963	1/4 x 9/16 x 3/64" Washer
*	422-16-310-0004	Front Clamp Block Assy. consisting of:
21	422-16-010-0001	Front Clamp Block
22	422-16-411-0002	Knob with Stud
23	904-15-012-1553	Retaing Ring
24	422-16-010-0003	Clamp Block
25	904-01-031-7720	21/64 x 1/2 x .032 Washer
26	1085966	#10-32 x 1/4" Rd. Hd. Mach. Scr.
27	422-16-075-0003	Pointer
28	1085965	3/8-24 x 1/2" Hex. Hd. Cap Scr.
29	1085967	35/64 x 11/16 x 1/16" Washer
* 30	1086083	Rip Fence, consisting of:
30	1086074	Fence
31	1085959	5/16-18 x 1/2" Hex. Hd. Cap Scr.
32	1085960	5/16 x 3/4 x .065 Washer
33	TCS-261	Rear Clamp Block
34	TCS-265	1/4 x 51/64" Pin
35	LTA-850	Rear Clamp Hook
36	LTA-465	Spring
37	1086084	Rod
38	TCS-264	Lever
39	1086071	Rear Guide Rail
40	TAM-144	5/16"-18 Spec. Scr.
41	422-16-104-0001	Spacer
42	1086070	Front Guide Rail
43	TAM-144	5/16"-18 Spec. Scr.
44	422-16-104-0001	Spacer
47	Cat. #34-601	Table Extension, consisting of:
45	SP-648	3/8-16 x 1" Hex. Hd. Cap Scr.
46	SP-1704	3/8" Split Lockwasher
48	SP-1026	3/8" Sq. Nut
*	Cat. #50-864	Miter Gage, Consisting of:
49	NCS-160-A	Miter Gage Body
50	NCS-177	1/4-28 x 1/4" Headless Set Scr.
51	NCS-173	Special Hex. Nut
52	SP-723	#8-32 x 1/2" Fil Hd. Scr.
53	NCS-164	Handknob
54	DSS-179	Fiber Washer
55	NCS-168	Pivot Scr.
56	NCS-162-S	Guide Bar, including:
57	NCS-177	1/4-28 x 1/4" Headless Set Scr.
58	NCS-171	Steel Pin
59	NCS-170	Stop Link
60	NCS-174	Pointer
61	NCS-166	Stud

* Not shown assembled.

** These parts are not included with basic machine.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Replacement Parts

Ref. No.	Part No.	Description
62	TAB-160	Handknob
63	1085837	Handwheel
64	HSS-535	25/64 x 3/4 x 1/16" Fiber Washer
65	TAB-523-S	Pointer, including:
66	SP-286	8-32 x 1/4" Hex. Soc. Set Scr.
67	TAB-160	Handknob
68	1085837	Handwheel
69	HSS-535	25/64 x 3/4 x 1/16" Fiber Washer
70	SDP-34-S	Set Collar, including:
71	SP-208	1/4-20 x 1/4" Soc. Set Scr.
72	SP-2711	1/8 x 5/8" Roll Pin
73	TAB-167	Fiber Washer
74	1085841	Tilting Worm Shaft w/worm, including:
75	TAB-146	Fiber Washer
76	SP-649	5/16-18 x 1" Hex. Hd. Scr.
77	TAB-179	21/64 x 11/16 x 1/8" Washer
78	TAB-502	Front Trunnion Bracket
79	TBS-4	Special Nut
80	SP-108	1/4-20 x 3/4" Headless Set Scr.
81	SP-1029	1/4"-20 Hex. Nut
82	SP-612	1/4-20 x 5/8" Hex. Hd. Scr.
83	SP-1603	1/4 x 9/16 x 3/64" Washer
84	TAB-159	Stop Block
85	TAB-504-S	Front Trunnion, including:
86	SP-2710	3/16 x 7/8" Roll Pin
87	SP-301	1/4-20 x 1/2" Sq. Hd. Set Scr.
88	TAM-184	Spring Washer
89	TAB-558	Eccentric
90	1085840	Raising Worm w/worm
91	SP-2711	1/8 x 5/8" Roll Pin
92	TAB-146	Fiber Washer
93	TAB-506-R	Arbor Bracket, including:
94	SP-2710	3/16 x 7/8" Roll Pin
95	TAB-125	Arbor Bracket Shaft
96	BG-23	5/8"-12 L. H. Hex Arbor Nut
97	LCS-8	Flange
98	Cat. #34-708	9" Combination Blade
99	SP-5335	Bearing
100	422-02-104-0002	Spacer
101	SP-2655	3/16 x 3/16 x 7/8" Straight Key
102	422-02-303-0005	Arbor w/Flange
103	LTA-516	Loading Spring
104	BG-12	Spanner Nut
105	BM-23	Special Nut
106	Cat. #41-013	5/8" Bore Arbor Pulley, including:
107	SP-206	5/16-18 x 5/16" Soc. Set Scr.
108	TAB-130	Tie Rod
109	TAB-505	Rear Trunnion
110	SP-649	5/16-18 x 1" Hex. Hd. Scr.
111	TAB-179	21/64 x 11/16 x 1/8" Washer
112	TAB-103	Rear Trunnion Bracket
113	TAB-109	Motor Bracket
114	SP-301	1/4-20 x 1/2" Sq. Hd. Set Scr.
** 115	438-01-002-0001	Motor Cord
116	SP-834	5/16-18 x 3/4" Carriage Bolt
117	SP-1604	5/16 x 3/4 x 1/16" Washer
118	SP-1303	5/16"-18 Sq. Nut
119	TAB-117	Motor Mounting Plate
120	TAB-131	1/2 x 4 11/16" Motor Plate Rod
121	Cat. #34-525	7/8" Open, 5/8" Hex. Box Wrench
122	J-40	Wrench
123	Cat. #194	5/32" Hex Wrench
**	50-810	Open Steel Stand
**	50-139	Enclosed Steel Stand

** Not included with basic machine.

YOUR ROCKWELL WARRANTY

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