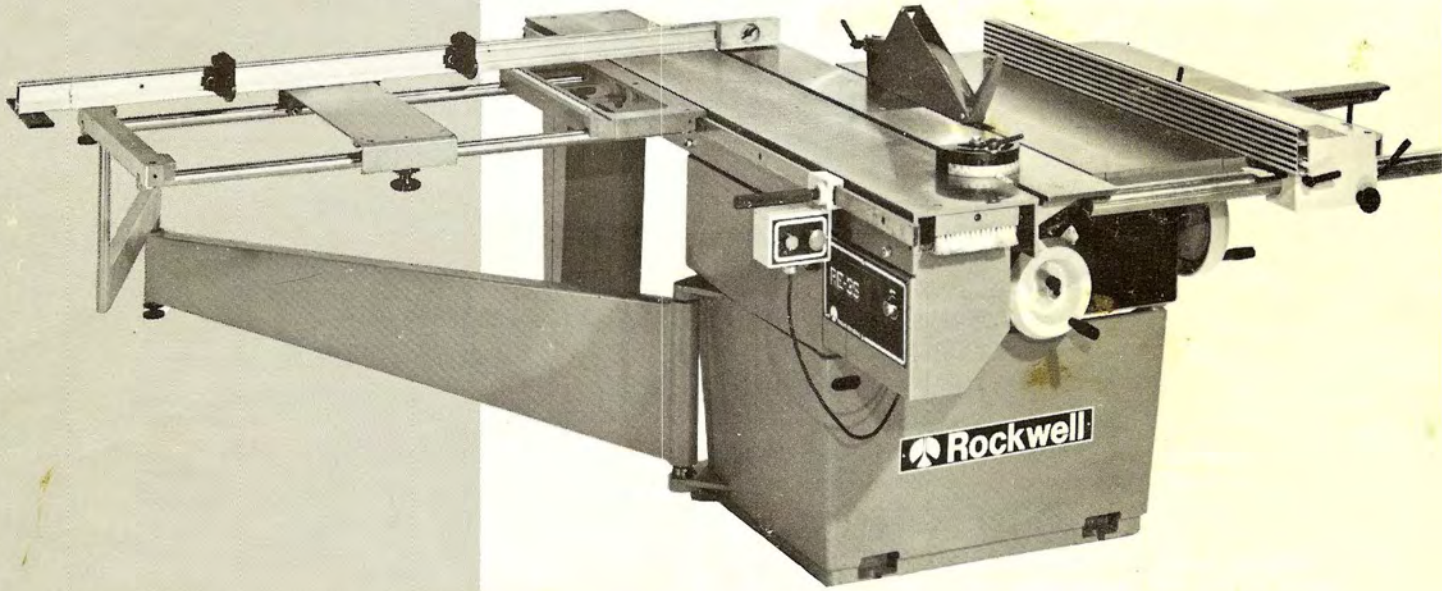
Instruction manual

14" Panel Scoring Saw With Sliding Table



Rockwell

Model RE-35

Part No. 422-30-651-0001

Dated 5-1-84

IMPORTANT

As with all power tools there is a certain amount of hazard involved with the operator and his use of the tool. Using the tool with the respect and caution demanded as far as safety precautions are concerned will considerably lessen the possibility of personal injury. However, if normal safety precautions are overlooked or completely ignored, personal injury to the operator can develop.

There are also certain applications for which this tool was designed. Rockwell strongly recommends that this tool NOT be modified and/or used for any application other than for which it was designed. If you have any questions relative to its application DO NOT use the tool until you have written Rockwell and we have advised you.

ROCKWELL INTERNATIONAL
MANAGER OF PRODUCT SAFETY
POWER TOOL DIVISION
400 NORTH LEXINGTON AVENUE
PITTSBURGH, PENNSYLVANIA 15208

SAFETY RULES

1. READ THE INSTRUCTION MANUAL BEFORE OPERATING YOUR MACHINE.

2. IF YOU ARE NOT THOROUGHLY FAMILIAR WITH THE OPERATION OF CIRCULAR SAWS, OBTAIN ADVISE FROM YOUR SUPERVISOR, INSTRUCTOR OR OTHER QUALIFIED PERSON.

3. REMOVE TIE, RINGS, WATCH, AND OTHER JEWELRY, AND ROLL UP SLEEVES.

4. ALWAYS WEAR SAFETY GLASSES OR A FACE SHIELD.

5. MAKE SURE WIRING CODES AND RECOMMENDED ELECTRICAL CONNECTIONS ARE FOLLOWED AND THAT THE MACHINE IS PROPERLY GROUNDED.

6. MAKE ALL ADJUSTMENTS WITH THE POWER OFF.

7. KEEP SAW BLADE SHARP AND FREE OF ALL RUST AND PITCH.

8. GUARDS SHOULD BE IN PLACE AND USED AT ALL TIMES.

9. ALWAYS HOLD THE WORK FIRMLY AGAINST THE MITER GAGE OR FENCE.

10. ALWAYS USE A PUSH STICK FOR RIPPING NARROW STOCK.

11. STAND TO ONE SIDE, NOT IN LINE WITH THE SAW CUT WHEN RIPPING.

12. DISCONNECT SAW FROM POWER SOURCE WHEN MAKING REPAIRS.

13. SHUT OFF POWER AND CLEAN THE MACHINE BEFORE YOU LEAVE IT.

UNPACKING

Upon receipt of your machine you should check the following:

1. Check over the machine to be sure it has not been damaged in transit.

2. Make sure all loose items such as table extension, guide rail, rip fence and other unassembled parts and accessories have been delivered with the machine. Figs. 2 and 3, show all loose parts shipped with the machine.

CLEANING THE MACHINE

Remove the protective coating which has been applied to all unpainted surfaces of the machine. This coating can be removed by using a cloth and/or a stiff brush moistened with kerosene or mineral spirits (Do not use acetone, gasoline or lacquer thinner for this purpose.).

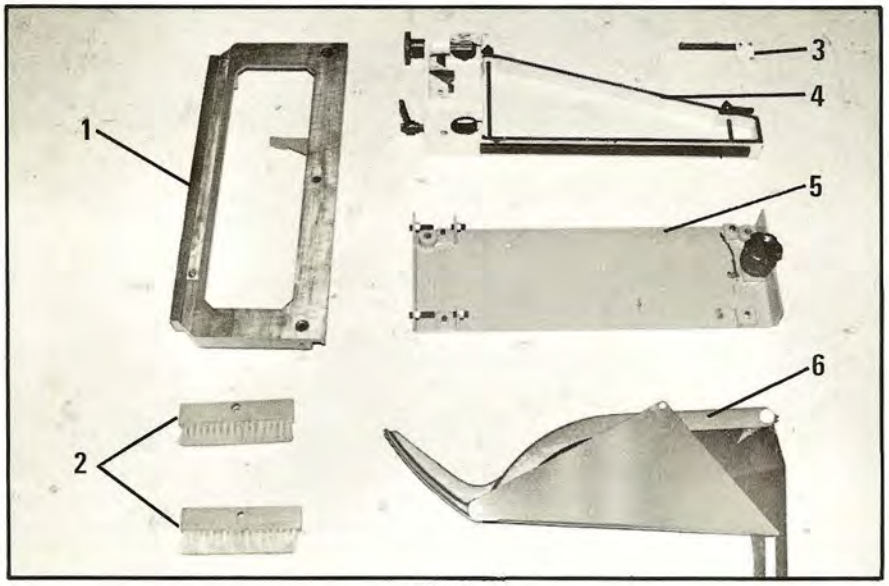


Fig. 2

REF. NO.	PART
1	SLIDING TABLE
2	WIPERS
3	POINTER
4	RIP FENCE BODY
5	SUPPORT
6	BLADE GUARD

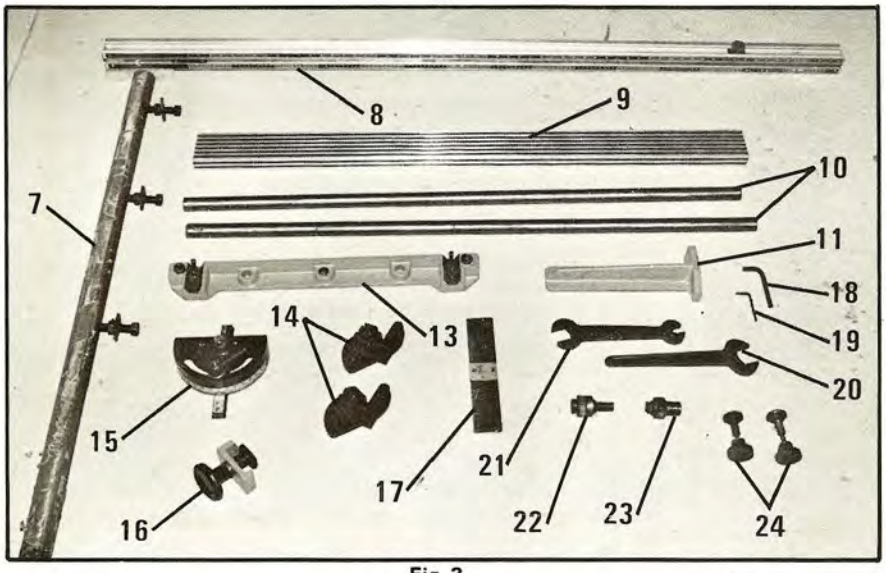


Fig. 3

REF. NO.	PART
7	GUIDE RAIL
8	CROSS-CUT FENCE
9	RIP FENCE
10	RAILS
11	FENCE SUPPORT
13	SUPPORT
14	STOP ASSEMBLY
15	MITER GAGE
16	CLAMP
17	WOOD SUPPORT
18	8mm ALLEN WRENCH
19	4mm ALLEN WRENCH
20	WRENCH
21	WRENCH
22	ARBOR EXT. (SAW BLADE)
23	ARBOR EXT. (SCORING BLADE)
24	CLAMPS

REMOVING SHIPPING BRACKETS

1 Remove and discard two hexhead screws (A) Fig. 4, and red shipping bracket (B).

2. Remove and discard four hex head screws (A) Fig. 5, and two red shipping brackets (B). Also, remove and discard two slotted screws (C) Fig. 5, and red shipping bracket (D).

3. Remove and discard four hex head screws (A) Fig. 6, and two red shipping brackets (B).

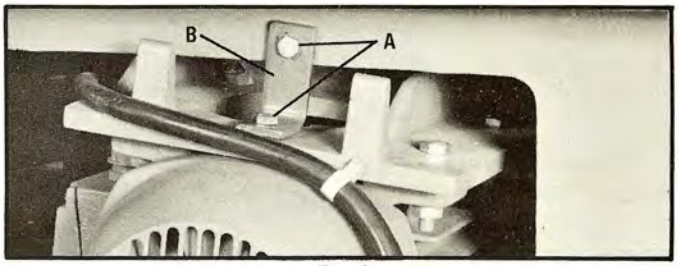


Fig. 4

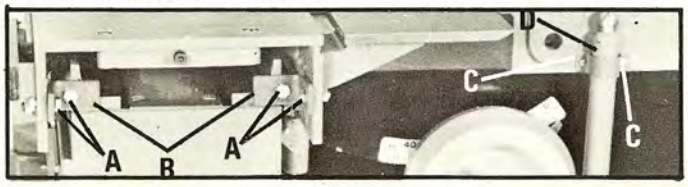


Fig. 5

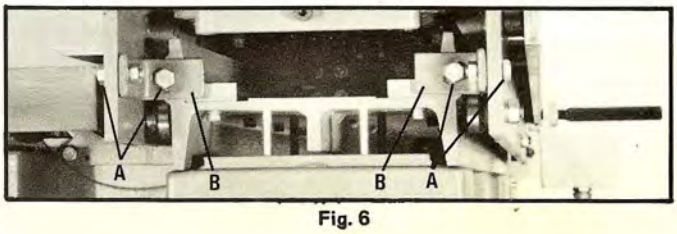


Fig. 6

ASSEMBLING REMOTE START/STOP STATION

Slide the remote Start/Stop station (A) Fig. 7, onto the sliding table guide (B) and tighten clamp handle (C).

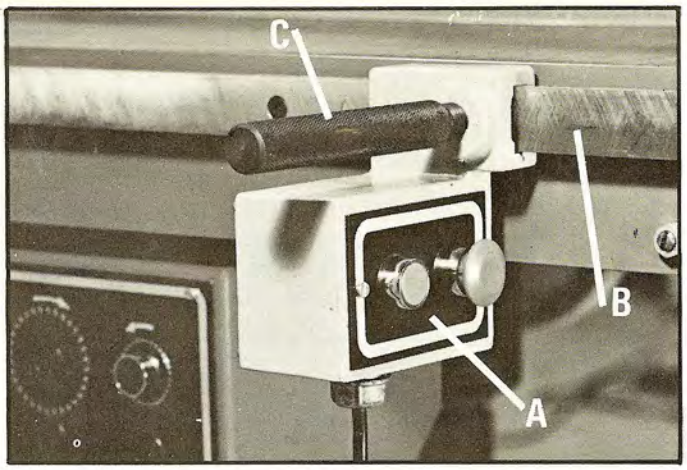


Fig. 7

ASSEMBLING TABLE EXTENSION

Assemble the table extension (A) Fig. 8, to the saw table using three M10 x 35mm hex head cap screws (B) and "square" washers.

Place a straight edge across the top surface of the saw table and extension and make certain the table extension is adjusted level with the saw table.

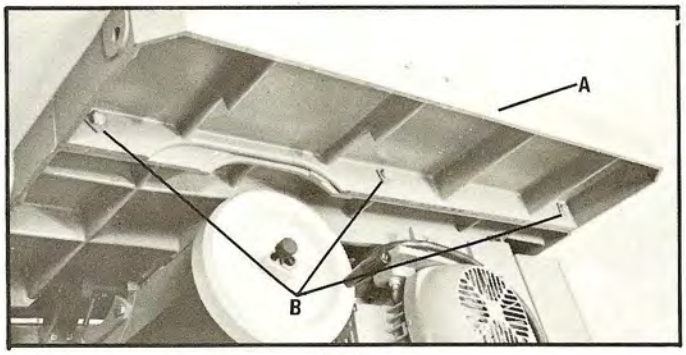


Fig. 8

ASSEMBLING RIP FENCE SUPPORT

Assemble the rip fence support (A) Fig. 9, to the table extension using two M10 x 30mm hex head cap screws (B) and 10mm flat washers.

Adjust the rip fence support level with the top surface of the table extension.

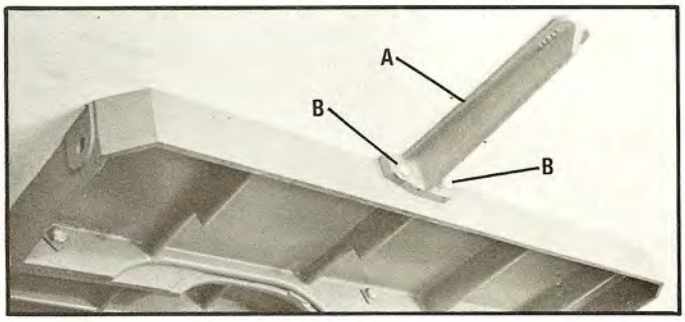


Fig. 9

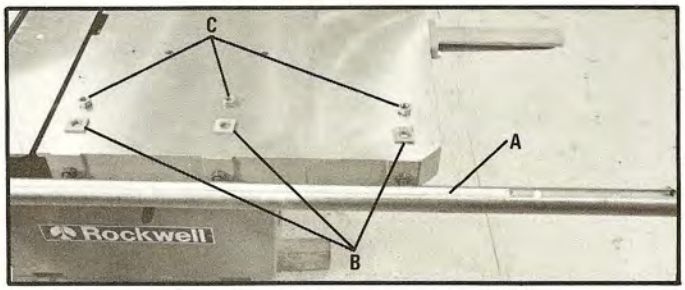


Fig. 10

ASSEMBLING GUIDE RAIL

Assemble the guide rail (A) to the saw table and table extension as shown in Fig. 10. Assemble "square" washers (B) and M16 hex nuts (C) from the underside of the table. Fig. 11, shows the guide rail (A) assembled to the saw.

NOTE: The hex nuts (D) Fig. 11, are factory adjusted and should not be moved.

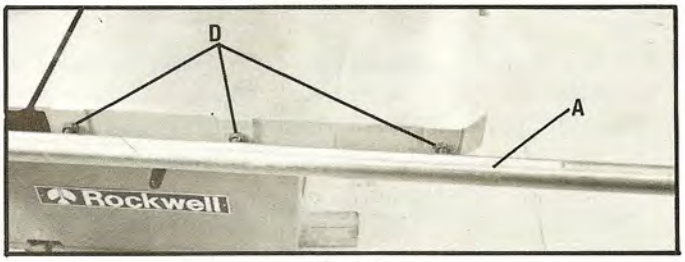


Fig. 11

ASSEMBLING RIP FENCE

1. Remove stop screw (B) Fig. 12.

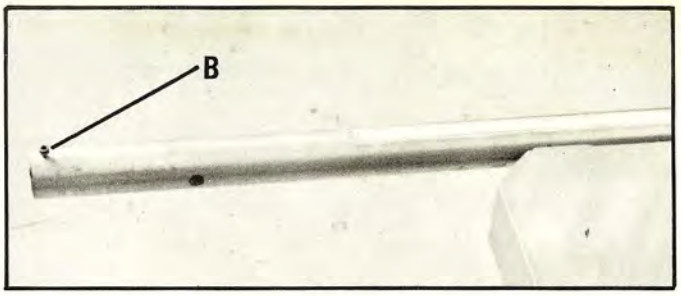


Fig. 12

2. Be sure clamp handle (C) Figs. 13 and 14, is loose and slide fence body (A) onto guide rail.

3. Replace stop screw (B) Fig. 13.

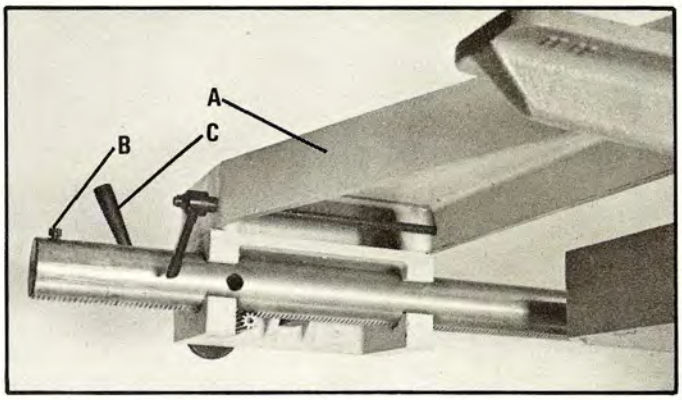


Fig. 13

4. Loosen clamp handles (D) Fig. 14, and slide rip fence (E) onto clamp bar (F) Fig. 15. Position rip fence as desired and tighten clamp handles (D) Fig. 14. The rip fence can also be assembled in the horizontal position. NOTE: Clamp handles (D) Fig. 14, can be reset for best clamping action by pulling out on spring loaded handles (D) and positioned as desired.

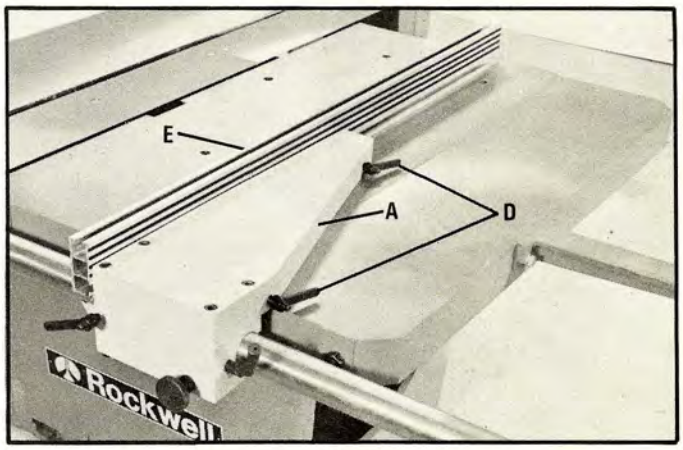


Fig. 14

5. Loosen clamp handle (H) Fig. 15, and assemble rip scale pointer (G) as shown.

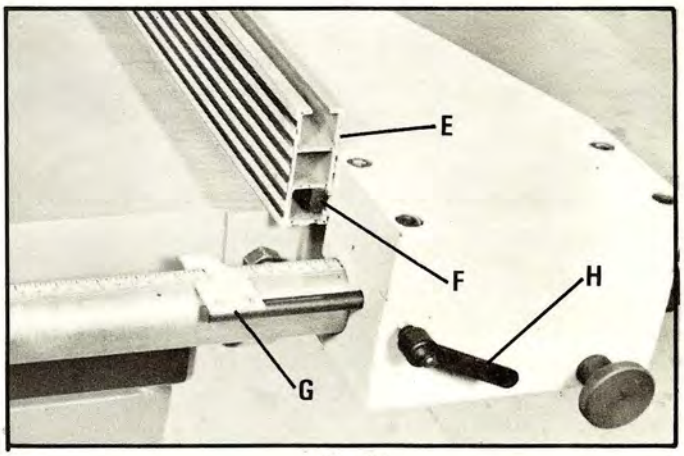


Fig. 15

ASSEMBLING SLIDING TABLE EXTENSION AND CROSS-CUT FENCE

1. Assemble wiper (A) Fig. 16, to the end of the sliding table. Assemble remaining wiper (not shown) to the opposite end of the sliding table.

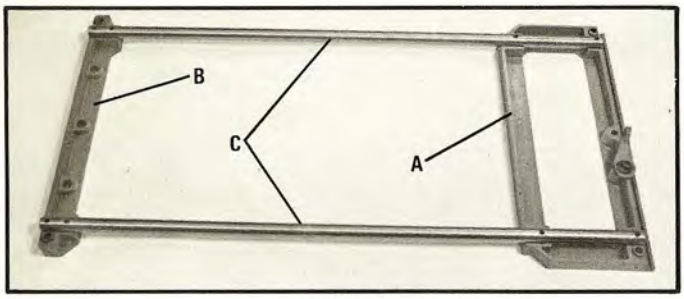


Fig. 17

3. Position sliding table extension assembly (D) Fig. 18, onto table guide (E) and place top end of post (F) into one of the holes on the underside of support (C). Knob (G) is used to adjust the height of extension assembly (D) so that the extension assembly is level with the sliding table. The extension assembly (D) can be locked to the sliding table by tightening lever (H) Fig. 18.

4. Assemble support (J) Fig. 19, to the sliding table extension and tighten knob (K). Screws (L) Fig. 19, can be adjusted to correctly position support (J).

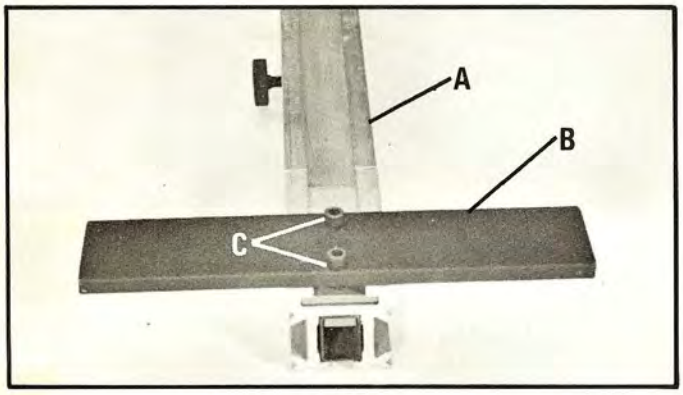


Fig. 20

6. Slide two clamp shoes (D) Fig. 21, into bottom slot of cross-cut fence (A).

7. Assemble cross-cut fence (A) Fig. 22, to the sliding table extension as shown, and clamp in position using the two clamp knobs (E).

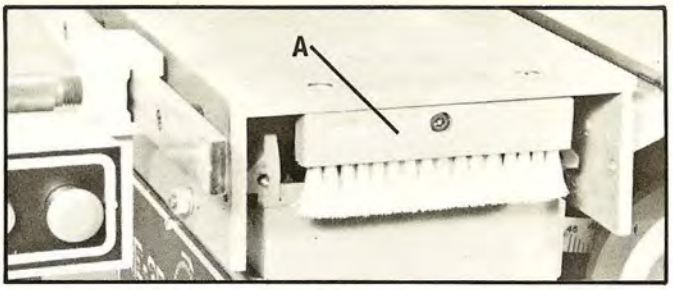


Fig. 16

2. Assemble table (A) Fig. 17, support (B) and rails (C) as shown.

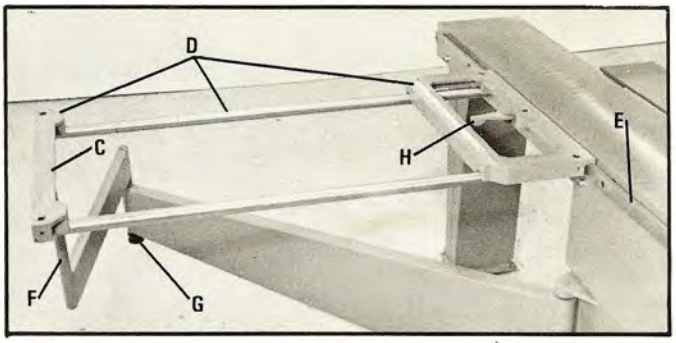


Fig. 18

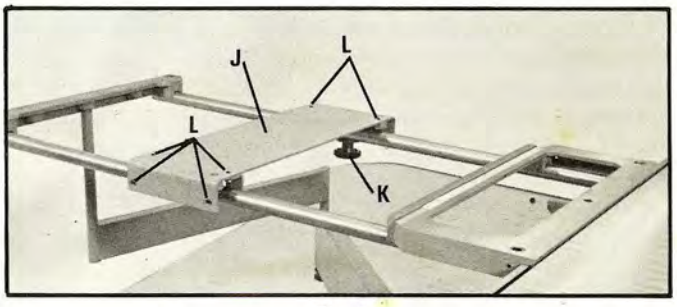


Fig. 19

5. Assemble wood support assembly (B) to cross-cut fence (A) Fig. 20, and tighten two socket head cap screws (C).

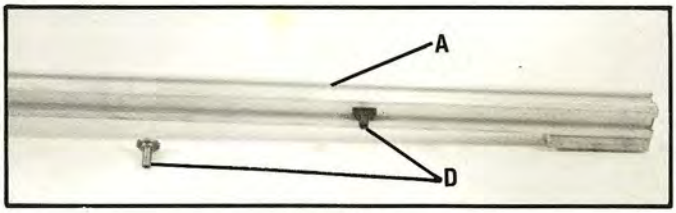


Fig. 21

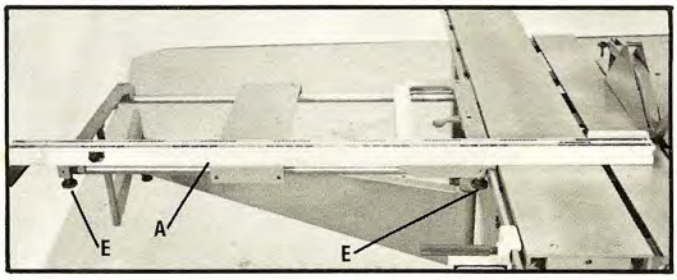


Fig. 22

ADJUSTING SLIDING TABLE BEARINGS

If, after years of service, the sliding table develops "play", this can be compensated for by adjusting the six lower track bearings.

1. Loosen hex nut (A) Fig. 22A.
2. Turn slotted eccentric bearing shaft (B) Fig. 22A, until bearing just contacts sliding table track.
3. Hold eccentric bearing shaft (B) Fig. 22A, at this position with a screwdriver and tighten hex nut (A).
4. Repeat this procedure with each of the remaining five track bearings.

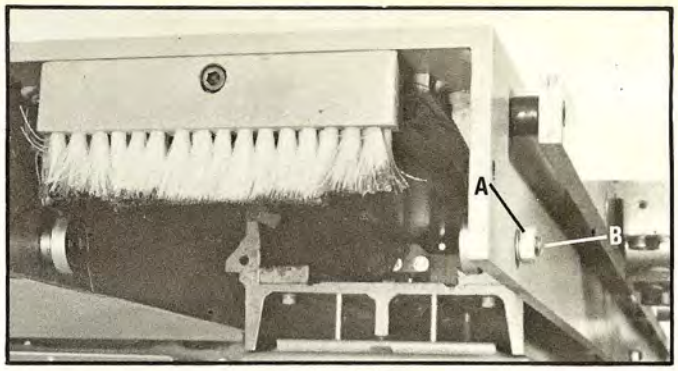


Fig. 22A

INSTALLING SAW BLADE

1. Disconnect the machine from the power supply.
2. Place inner flange (C) Fig. 23, on arbor (A).
3. Assemble saw blade (B) Fig. 23, onto arbor (A). NOTE: Teeth of the saw blade must point down towards the scoring blade arbor (S) Fig. 23. (Saw blade not supplied with machine.)
4. Assemble outer flange (D) Fig. 23, washer (E) and screw (F).
5. Depress arbor lock button at (L) Fig. 24, and tighten arbor screw using wrench (W).

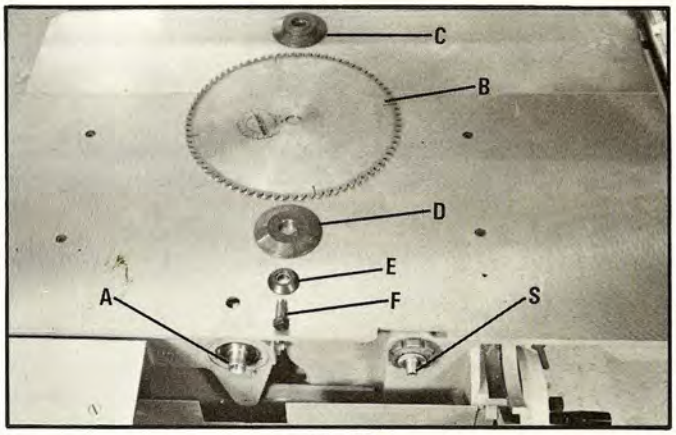


Fig. 23

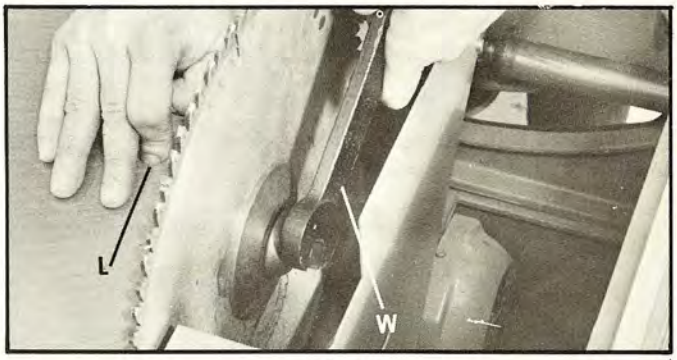


Fig. 24

INSTALLING SCORING BLADE

1. Disconnect the machine from the power supply.
2. Assemble scoring blade (B) Fig. 25, onto arbor (S). NOTE: Teeth of the scoring blade must point down towards the saw blade (A) Fig. 25. (Scoring blade not supplied with the machine.)
3. Assemble collar (C) Fig. 25, and nut (D) to arbor (S).
4. Insert Allen wrench (E) Fig. 26, in end of arbor and tighten arbor nut using wrench (W).

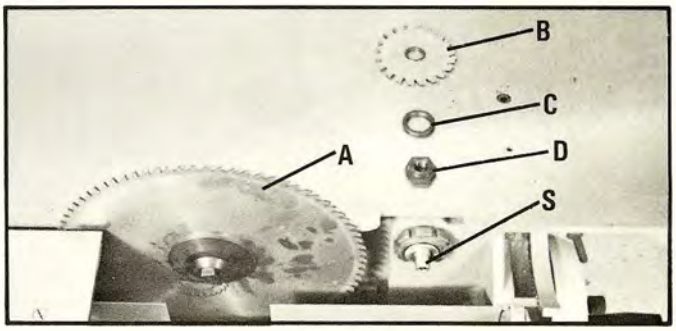


Fig. 25

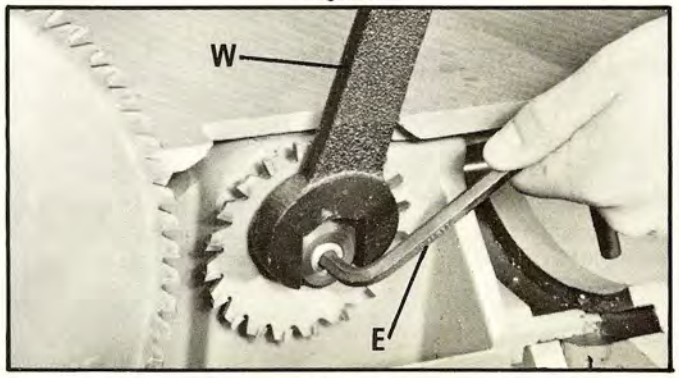


Fig. 26

ADJUSTING SCORING BLADE

1. The scoring blade (A) Fig. 27, must be exactly in line with the saw blade. To move the scoring blade right or left, first loosen clamp handle (B) Fig. 27, and then turn knob (C) until scoring blade lines up with saw blade.

2. To adjust the height of the scoring blade (A) Fig. 28, first loosen clamp handle (B), then insert Allen wrench (E) in the notched eccentric as shown and turn it to the desired height.

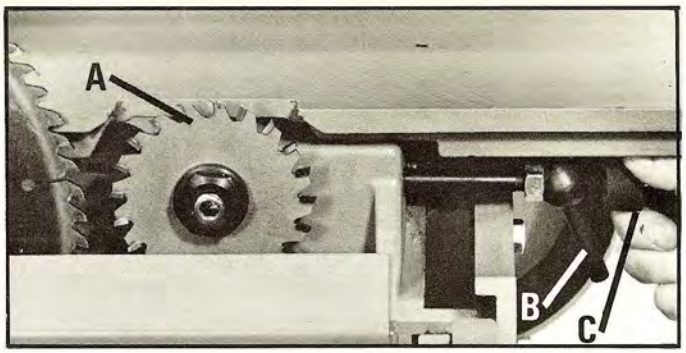


Fig. 27

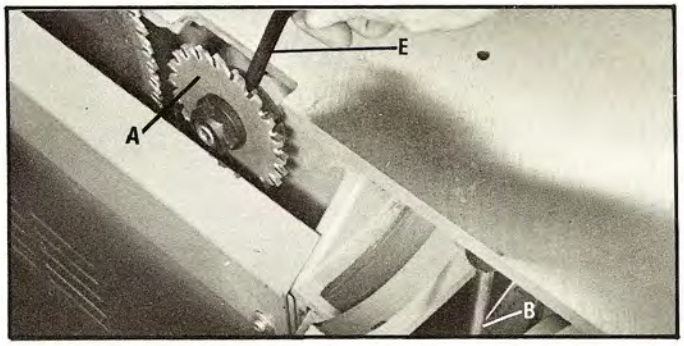


Fig. 28

ASSEMBLING ARBOR EXTENSIONS

Arbor extensions (A) and (B) Fig. 29, supplied with the saw, can be threaded into the existing arbor shafts to accommodate dado cutting.

Arbor nut (L) Fig. 29, has a left hand thread. Arbor nut (R) has a right hand thread. Wrench (W) Fig. 29, is used to tighten both arbor extension nuts.

Spacer (S) Fig. 29, can be used to space out two scoring blades for a dado cutting operation.

NOTE: When performing a dado cutting operation, the blade should not be tilted.

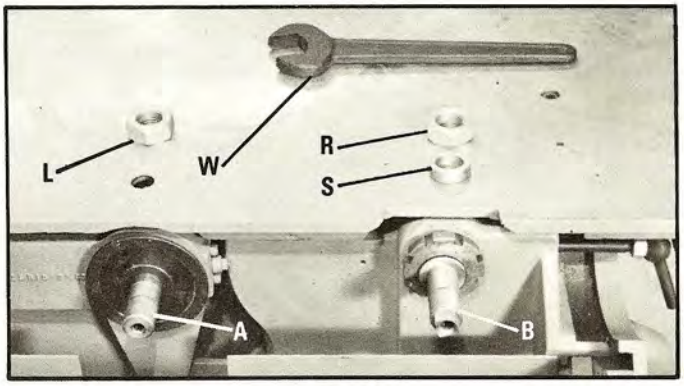


Fig. 29

ASSEMBLING SAW-DUST SHROUD

Loosen two screws (A) Fig. 30, and slide sawdust shroud (B) into place as shown. Tighten two screws (A).

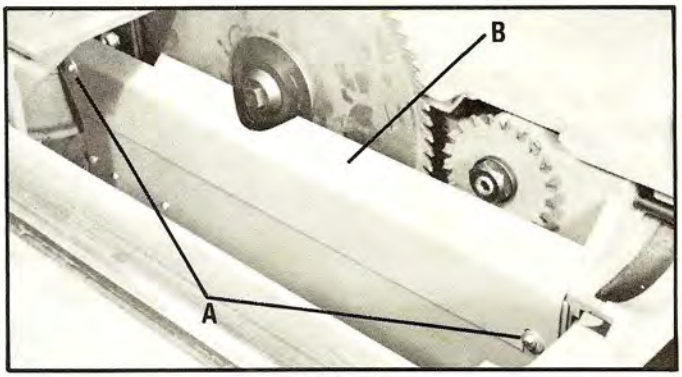


Fig. 30

ASSEMBLING SPLITTER AND BLADE GUARD

Assemble the splitter and blade guard (A) Fig. 31, to the saw by sliding the splitter under plate (B) and tightening two hex nuts (C). The splitter should be positioned so that the gap between the saw blade and the leading edge of the splitter is as even as possible

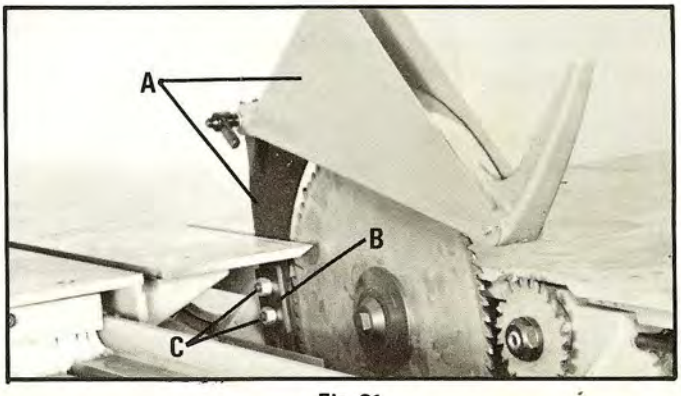


Fig. 31

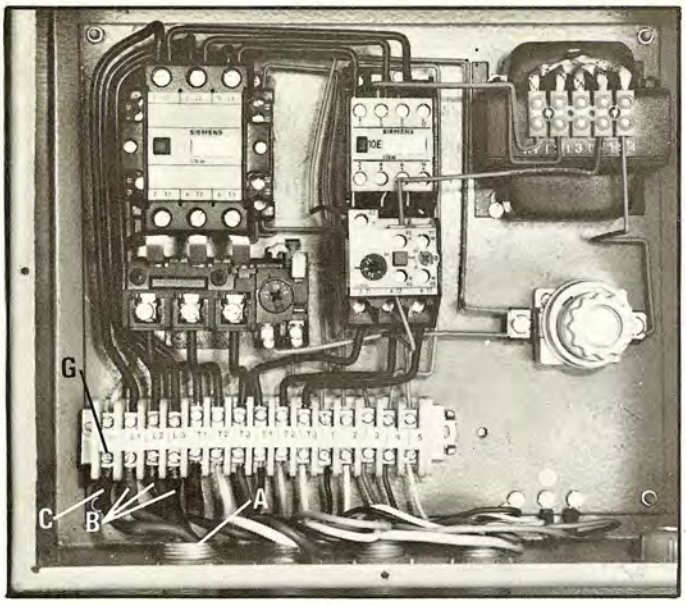


Fig. 32

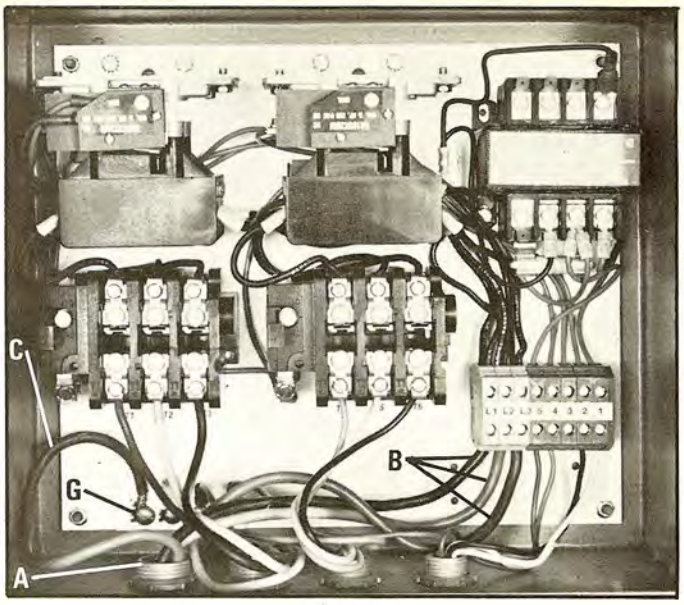


Fig. 33

ELECTRICAL CONNECTIONS

Before connecting the machine to an electrical power system, make sure the motor rating agrees with the electrical system to which it is to be connected. The saw is shipped wired for operation from either a 230 or 460 volt, three phase power supply.

Remove the cover from the electrical control box which is mounted on the back of the saw cabinet. The electrical control box will look like that shown in either Fig. 32 or Fig. 33. Refer to Fig. 32 or 33, whichever agrees with your machine and bring the power cable into the control box at (A). Connect the three power leads (B) Fig. 32 or 33, to terminals L1, L2 and L3 Connect the green grounding lead (C) to the ground terminal (G) Fig. 32 or 33. Replace the cover on the control box.

IMPORTANT: If after the machine is in operation, the blade rotates in the wrong direction, interchange any two of the three power leads (B) Fig. 32 or 33, that are connected to terminals L1, L2 or L3.

ELECTRICAL CONTROLS AND OVERLOAD PROTECTION

The saw is started by pressing start button (A) Fig. 34. The scoring blade is started by pressing button (B). Pressing button (B) a second time will stop the scoring blade. Pressing stop button (C) will stop both the saw blade and the scoring blade.

If both blades have been stopped by pressing stop button (C) Fig. 34, then pressing start button (A) will restart both blades.

The main motor and the scoring blade motor are both equipped with automatic reset overload protection. If repeated overload tripping occurs, the cause of the problem should be corrected.

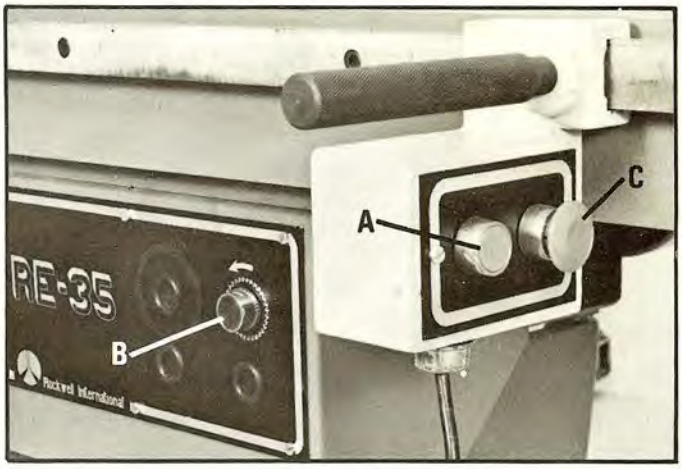


Fig. 34

SLIDING TABLE LOCK OPERATION

The sliding table can be locked in place by pulling down on plunger (A) Fig. 35, and turning it 90° so that pin (B) engages slot (C) and plunger engages notch (D) in the sliding table.

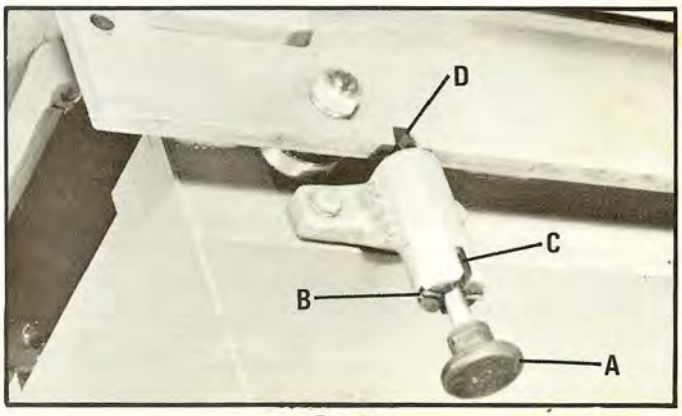


Fig. 35

SAW BLADE RAISING AND TILTING MECHANISMS

To raise or lower the saw blade, loosen lock knob (B) Fig. 36, and turn handwheel (A). When the saw blade is at the desired height, tighten lock knob (B).

To tilt the saw blade, loosen lock knob (D) Fig. 36, and turn handwheel (C). The saw blade can be tilted to any position up to 45 degrees. When the saw blade is at the desired angle, tighten lock knob (D).

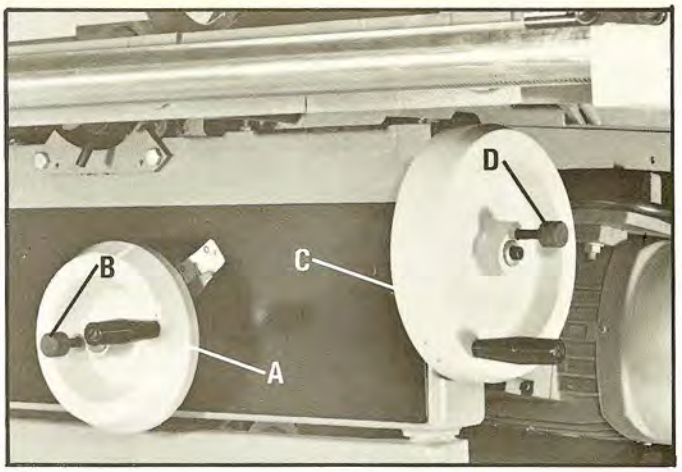


Fig. 36

ADJUSTING 90 AND 45 DEGREE POSITIVE STOPS

Positive stops are provided to insure that the blade can rapidly be set at 90 or 45 degrees to the table. To adjust the positive stops, proceed as follows:

1. Remove blade guard.

2. Set the blade at 90 degrees to the table by turning the blade tilting handwheel clockwise as far as it will go. Place a square on the table with one end of the square against the blade, as shown in Fig. 37. Check to see if the blade is at a perfect 90 degree angle to the table.

3. If the blade is not at 90 degrees to the table, back off set screw (A) Fig. 37, and turn blade tilting handwheel until you are certain the blade is at 90 degrees to the table. Then tighten set screw (A) until it bottoms.

4. Turn the blade tilting handwheel counterclockwise as far as it will go and check with a combination square to see if the blade is at a perfect 45 degree angle to the table.

5. If the blade is not at 45 degrees to the table, loosen lock nut (B) Fig. 38, and back off set screw (C). Turn blade tilting handwheel until you are certain the blade is at 45 degrees to the table. Then turn set screw (C) in until it bottoms and tighten lock nut (B).

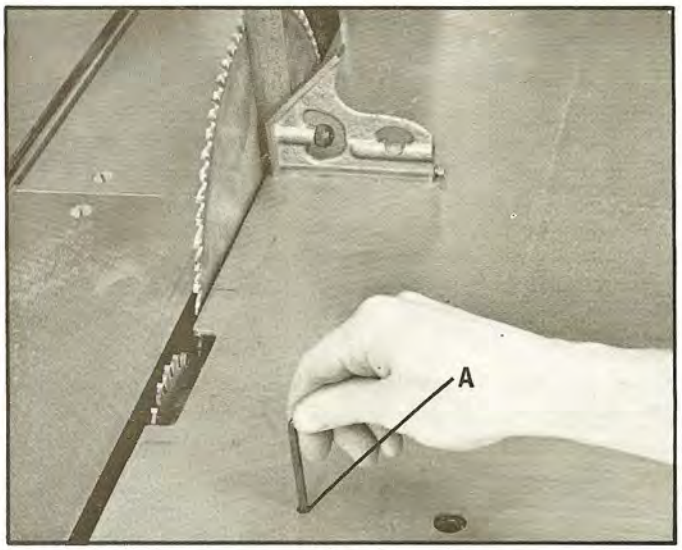


Fig. 37

Fig. 38

CHANGING SPEEDS AND ADJUSTING BELT TENSION

1. Disconnect machine from power source.

2. Loosen hex head screws (A) and (B) Fig. 39.

3. Push motor and bracket up against hex head screw (B) Fig. 39, and tighten screw (B). NOTE: If additional adjustment is needed, move hex head screw (B) Fig. 39, to hole (C).

4. Position belts (D) Fig. 39, on the desired arbor pulley and motor pulley.

5. Loosen hex head screw (B) Fig. 39 and push motor down to apply tension to the drive belts. Tighten screw (B)

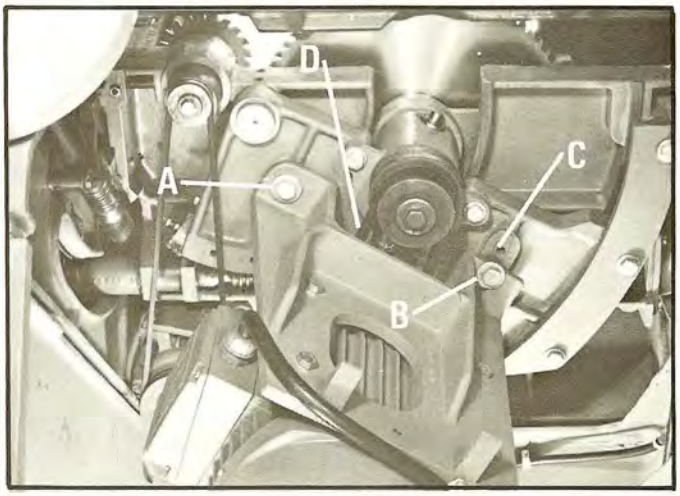


Fig. 39

MITER GAGE

The miter gage (A) Fig. 40, can be positioned anywhere along slot (B) and is clamped to the sliding table by tightening hex head screw (C).

The miter gage body (A) Fig. 40, can be adjusted right or left up to 45 degrees by loosening locking lever (D).

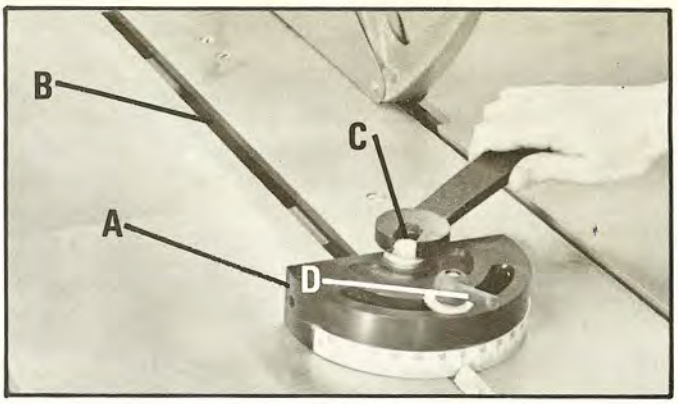


Fig. 40

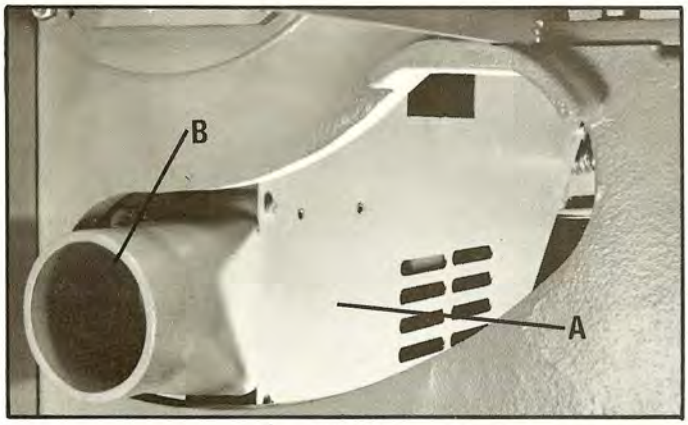


Fig. 41

CHIP EXHAUST CHUTE

The lower half of the saw blade is completely shrouded by a chip exhaust chute (A) Fig. 41. The exhaust chute moves with the saw arbor when the blade is tilted. The open end (B) of the exhaust chute is 4" O.D. and can be connected to a central dust collection system.

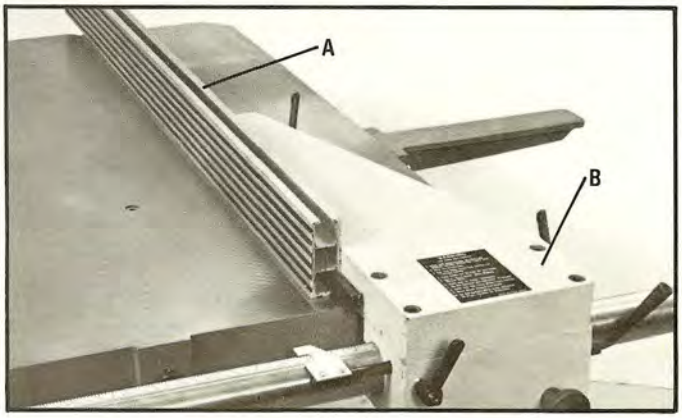


Fig. 42

RIP FENCE OPERATION

The aluminum rip fence (A), can be positioned in the vertical position as shown in Fig. 42, or in the horizontal position as shown in Fig. 43. The fence (A) Figs. 42 and 43, can be positioned lengthwise along the fence body (B) for various types of operations, by loosening clamp levers (C) Fig. 43, sliding fence to desired position and tightening levers (C).

The width of cut can be read at indicator (D) Fig. 43. Indicator (D) must be adjusted when using different types of blades or when the rip fence is changed from the horizontal to vertical or vertical to horizontal position. Loosen clamp lever (E) Fig. 43, adjust indicator to the correct position and tighten clamp lever (E).

The rip fence is locked in position when the locking lever (F) Fig. 43, is pushed down. For coarse adjustment of the fence, loosen locking lever (F) and push the fence along the guide rail. For fine adjustment of the fence, turn knob (G) right or left to position the fence exactly as desired. Tighten locking lever (F) after positioning the rip fence.

The rip fence (A) can also be used as a cut-off gage when cross-cutting a number of pieces to the same length, as shown in Fig. 44. It is very important that the fence (A) be positioned in front of the saw blade, as shown.

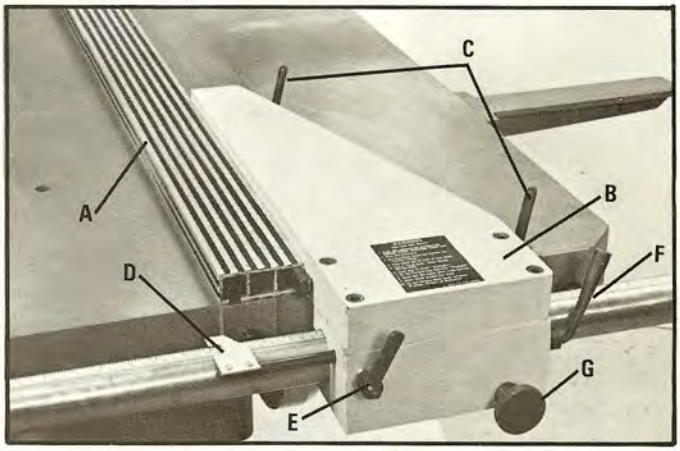


Fig. 43

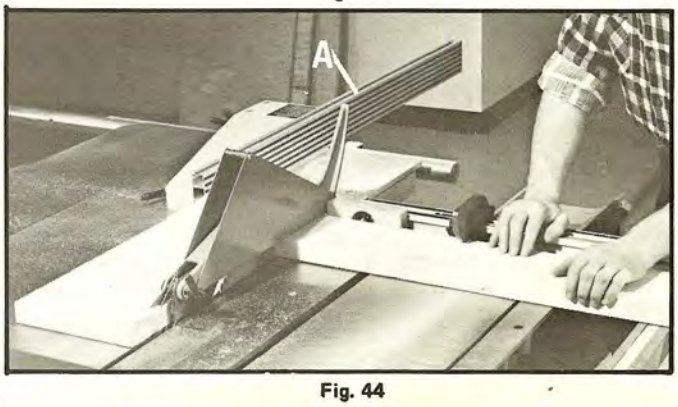


Fig. 44

USING THE SLIDING TABLE, TABLE EXTENSION AND CROSS-CUT FENCE

The complete sliding table extension assembly (A) Figs. 45 and 46, can be positioned anywhere along the length of sliding table guide (E). Loosen lock lever (C) Figs. 45 and 46, slide table extension (A) to the desired position on guide (E) and tighten lock lever (C).

For right angle cross-cutting operations, the cross-cut fence (D) can be assembled in either the rear position of the table extension as shown in Fig. 45 or the forward position as shown in Fig. 46. See also ASSEMBLING SLIDING TABLE EXTENSION AND CROSS-CUT FENCE.

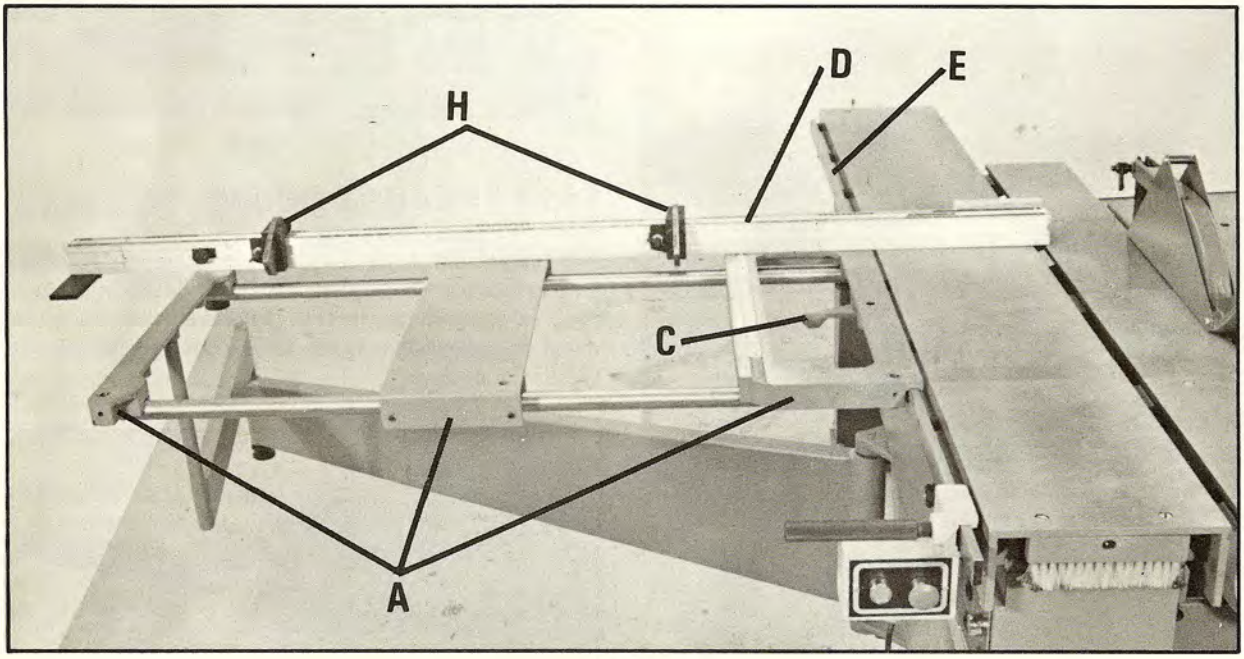


Fig. 45

When the cross-cut fence (D) is assembled in the rear position of the table extension as shown in Fig. 45, the table extension (A) should be clamped to the rear portion of table guide (E). The adjustable stops (H) Fig. 45, should be facing the front of the machine as shown. Maximum cross-cut capacity is obtained when the fence (D) is assembled in the rear position as shown in Fig. 45.

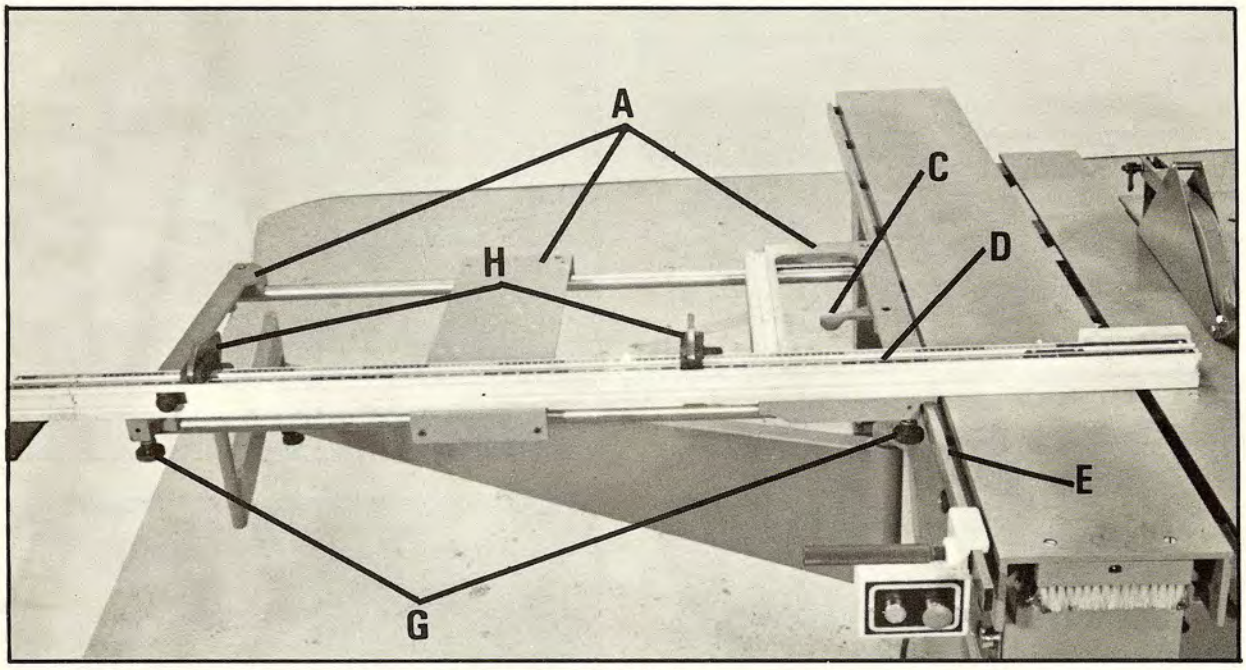


Fig. 46

When the cross-cut fence (D) is assembled in the forward position of the table extension as shown in Fig. 46, the table extension (A) should be clamped to the forward position of table guide (E). The adjustable stops (H) Fig. 46, should be facing the rear of the machine as shown.

Whether using the cross-cut fence in the rear position or the forward position, it should be positioned the desired distance from the saw blade and securely clamped by tightening the two knobs (G) Fig. 46.

If the cross-cut fence does not produce accurate right angle cuts in either the rear position or the forward position, four eccentrics (2-forward, 2-rear) are provided for adjustment.

1. Loosen set screw (J) Fig. 47, at the left end of the sliding table extension.

2. Turn eccentric (K) Fig. 47, using an open end wrench on the wrench flats, until cross-cut fence is square with the saw blade. If additional adjustment is necessary, adjust the eccentric at the right end of the table extension in the same manner.

3. Tighten set screw (J).

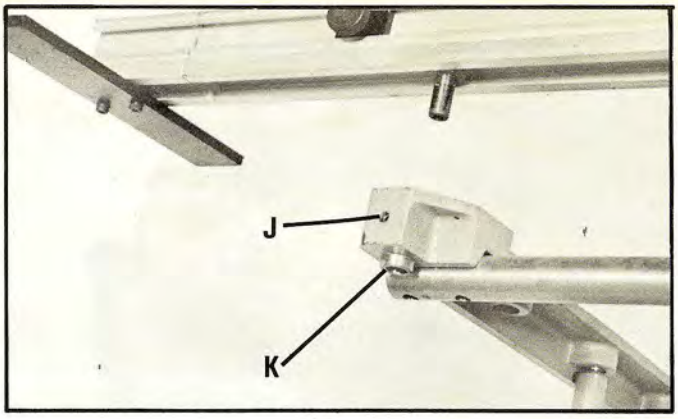


Fig. 47

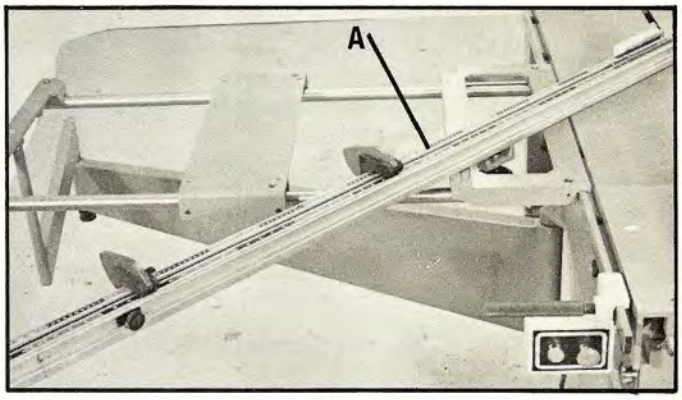


Fig. 48

The cross-cut fence (A) can be used to make angle cuts as shown in Fig. 48, up to 45 degrees right or left.

1. Insert clamp shoe (B) Fig. 49, in hole (C) and fasten with one of the clamp knobs.

2. Position the fence (A) Fig. 49, at the desired angle on the scale (D).

3. Thread clamp knob (E) Fig. 49, with clamp (F) into special clamp shoe (G) and clamp cross-cut fence to the sliding table extension (H).

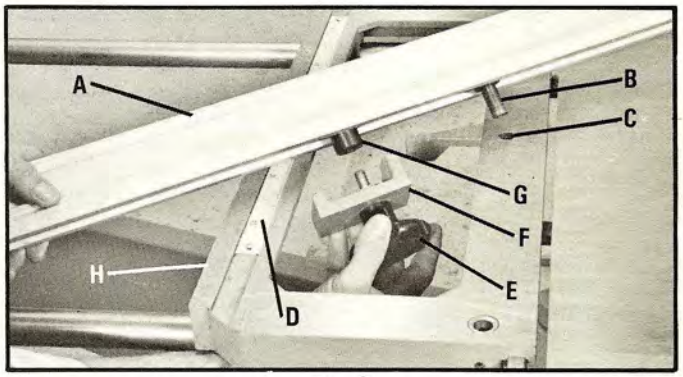


Fig. 49

One of the most important operations that can be performed with the sliding table, table extension and cross-cut fence is the squaring of large panels without changing any controls or lifting the workpiece off the machine. The following is an example of this operation:

1. Set stop (A) Fig. 50, to the desired width of the finished panel. Set stop (B) to the desired length of finished panel.

2. With edge (C) Fig. 50, against fence, make the cut on edge (D), as shown, to square edge (D) to edge (C). Note that the fingers on stops (A) and (B) are both depressed, and that the cut being made is longer than the finished length desired.

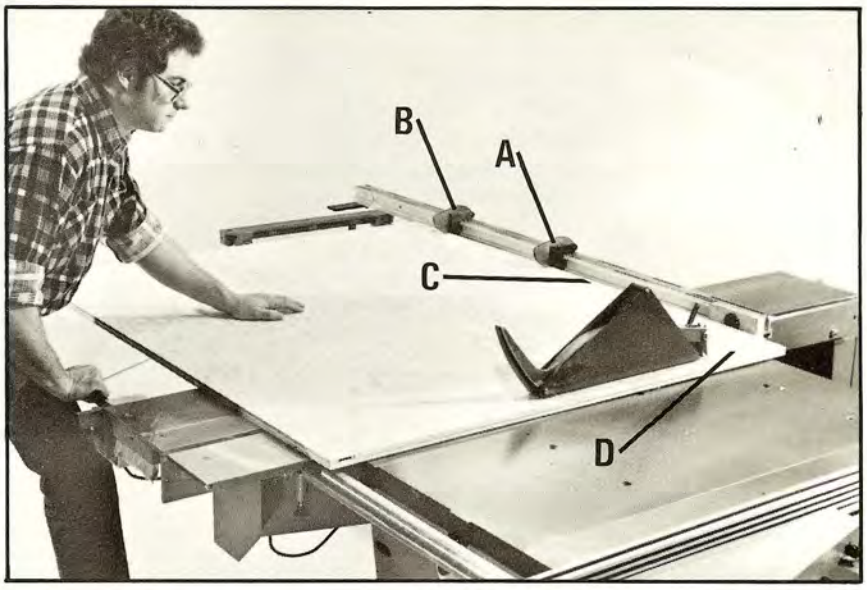


Fig. 50

3. With edge (C) Fig. 51, against stop finger (A) and edge (D) which was cut in STEP 2, against fence, cut the finished width on edge (E) as shown.

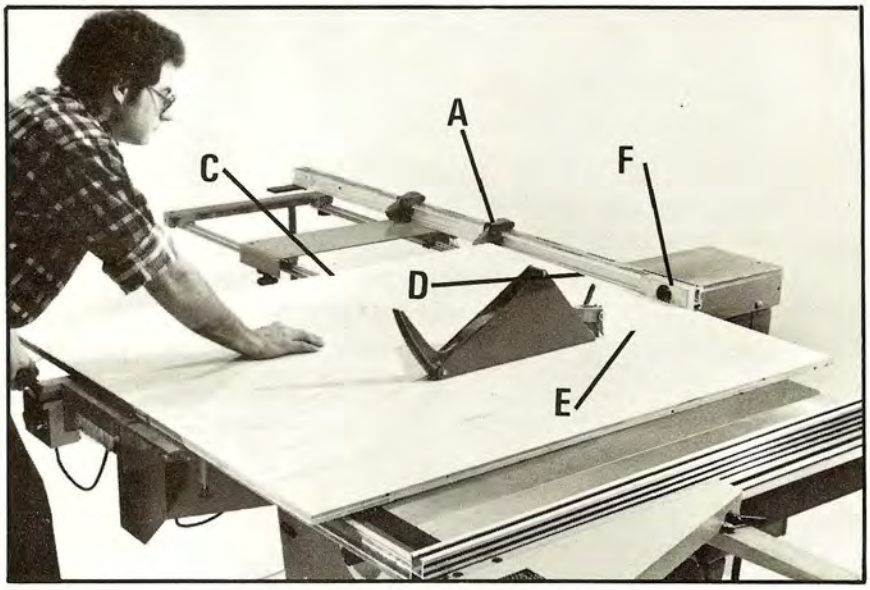


Fig. 51

4. Now cut the finished length by placing edge (D) which was cut in STEP 2 against stop finger (B) fig. 52, and edge (E) which was cut in STEP 3 against fence. Note that stop finger (A) Fig. 52, is depressed.

5. You now have a finished panel cut to length and width with all four sides perfectly square.

REPLACING CHIPBREAKER

When the chipbreaker (F) Fig. 51, needs replacing, care must be taken that the replacement chipbreaker is the same thickness as the used one.

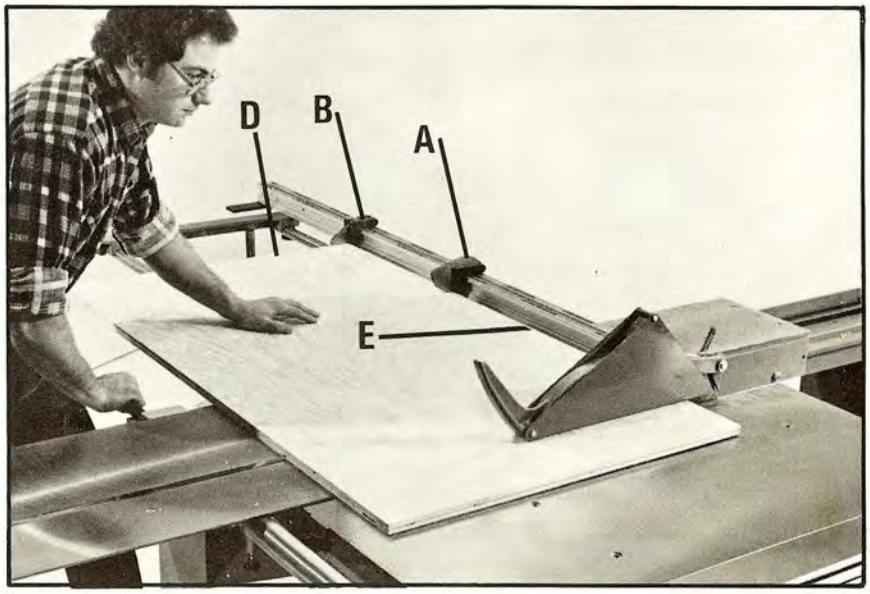
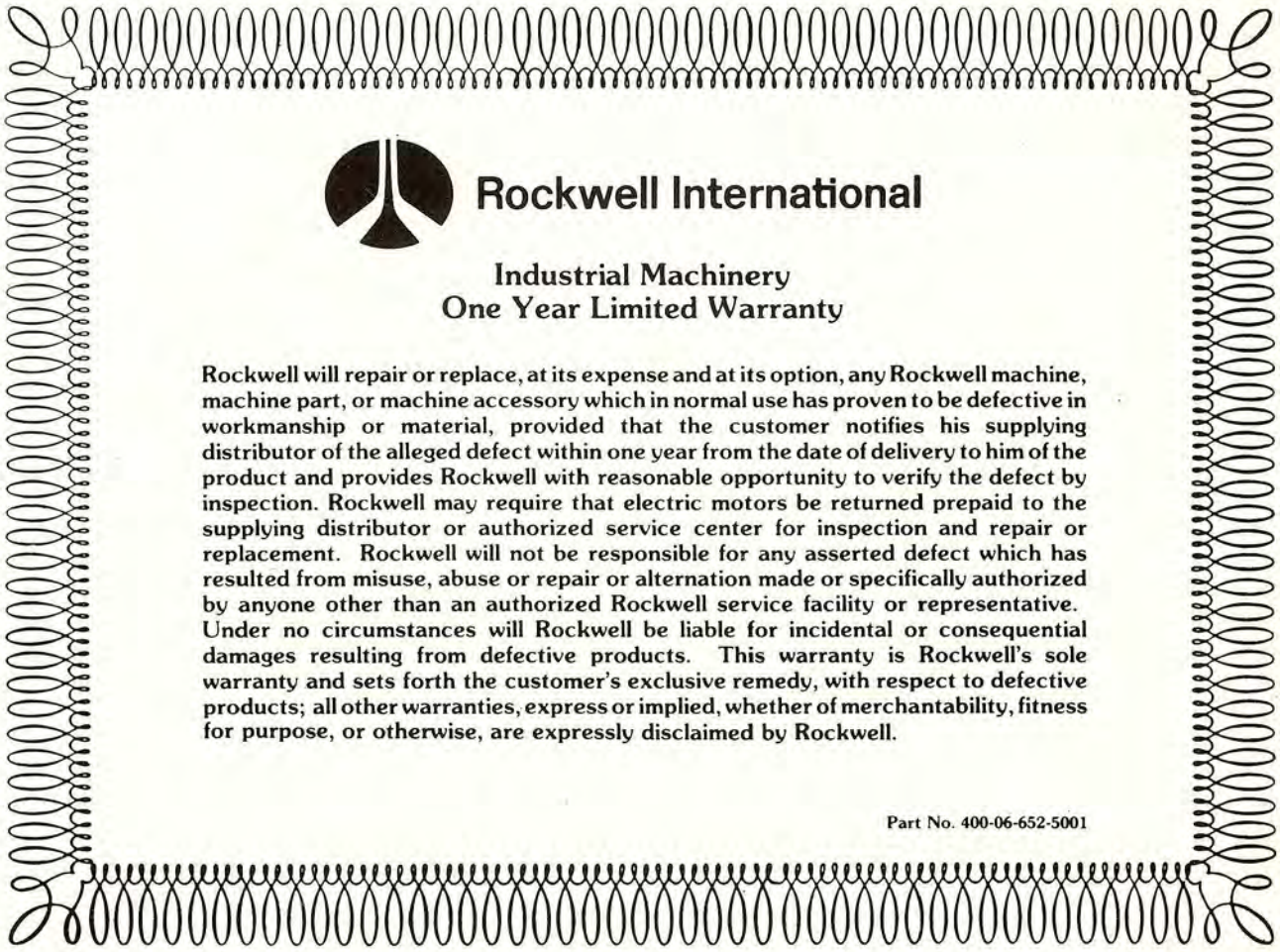


Fig. 52



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