Mark V (Model 500) Lower Saw Guard Retrofit Kit 555294

Installation

This Lower Saw Guard Retrofit Kit will greatly improve the dust collecting capabilities of your Shopsmith Mark V Model 500. During the retrofit procedures you'll drill holes in the lower saw guard in order to mount the deflectors, cut off a portion of the tie bar assembly, and replace the tie bar shield and parts of the lower saw guard.

Tools Required: medium Phillips screwdriver, medium slot screwdriver, hand-held electric drill, 3/32" drill bit, silicone spray, scratch awl, hacksaw, coarse double-cut metal file, light-colored grease pencil.

WARNING

Turn off and unplug the Mark V.

1. Remove the upper and lower saw guards from your Mark V.

2. Disassemble the lower saw guard and tie bar. (See Figure 1.)

a. Remove four screws (B) and the outer guard (A) from the inner guard (C). **Discard** outer guard (A).

b. Remove screws (D) and shields (E, F) from the inside of the tie bar (J). **Discard** screws (D) and shields (E, F).

c. Turn the tie bar shield thumbscrews (G) horizontal. Remove and **discard** the tie bar shield (H).

3. Modify the lower saw guard. (See Figure 2.)

a. Insert the plug (2) into the slot in the new outer guard (1). Then mount the outer guard (1) to the inner guard (C) using four screws (B).

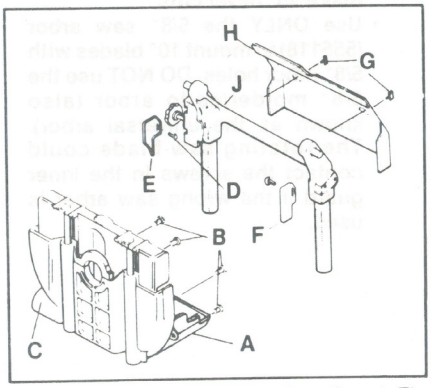

Figure 1. Your Mark V Lower Saw Guard, Tie Bar and Tie Bar Shields.

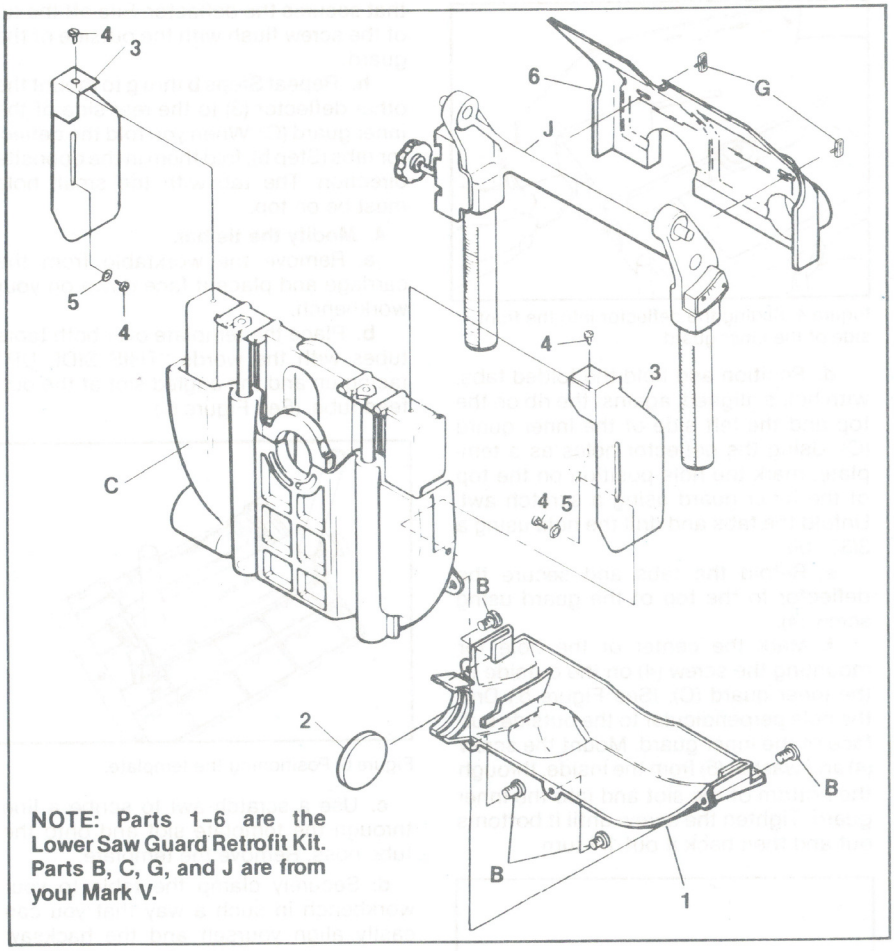

Figure 2.

NOTE

Be sure the deflectors are at room temperature before folding tabs.

b. Mark the tabs of one of the deflectors (3) with a grease pencil. (See Figure 3.) Bend the tabs back and forth a couple of times on the dotted line. Do not overbend. Then fold tabs (X) and (Y) up, fold (X) to the left, and fold (Z) up against (X). The small hole must be on top.

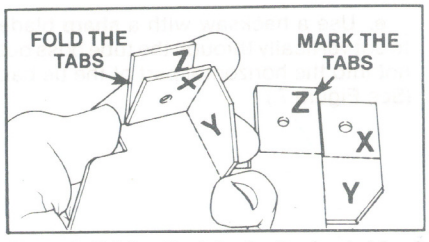

Figure 3. Folding the tabs for the front side of the inner guard.

c. Slide the folded deflector (3) into the front side of the inner guard (C). (See Figure 4.)

Parts List

Ref. No.	Part Number	Description	Qty.
Lower Saw Guard Retrofit Kit			
1	514877	Outer Guard	1
2	515263	Plug	1
3	515370	Deflector	2
4	514881	Self-Tapping Screw, #6-20 × 3/8"	4
5	513633	Flat Washer, #6	2
6	515288	Tie Bar Shield	1
—	514521	Elbow, 2-1/2" Dia.	2
—	PL-5198	Template	1

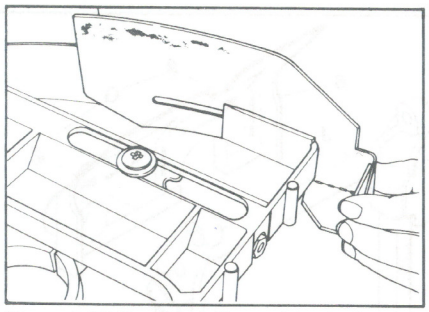

Figure 4. Sliding the deflector into the front side of the inner guard.

d. Position and hold the folded tabs, with holes aligned, against the rib on the top and the left side of the inner guard (C). Using the deflector holes as a template, mark the hole position on the top of the inner guard using a scratch awl. Unfold the tabs and drill the hole using a 3/32″ bit.

e. Refold the tabs and secure the deflector to the top of the guard using screw (4).

f. Mark the center of the hole for mounting the screw (4) on the outside of the inner guard (C). (See Figure 5.) Drill the hole perpendicular to the outside surface of the inner guard. Mount the screw (4) and washer (5) from the inside, through the bottom of the slot and into the inner guard. Tighten the screw until it bottoms out and then back it out 1/4 turn.

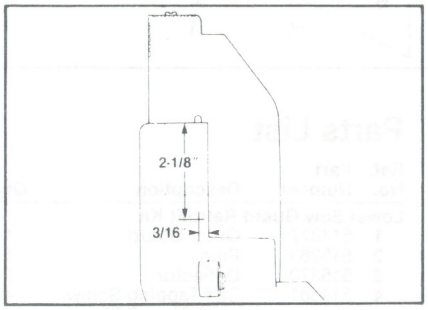

Figure 5. Marking the position for the screw hole.

g. Depress the sliding side and check that it moves freely. If it doesn't, lightly spray the surfaces with silicone. If side still binds, loosen (1/4 turn) the screw (4) that secures the deflector. File off the tip of the screw flush with the outside of the guard.

h. Repeat Steps **b** thru **g** to mount the other deflector (3) to the rear side of the inner guard (C). When you fold the deflector tabs (Step **b**), fold them in the opposite direction. The tab with the small hole must be on top.

4. Modify the tie bar.

a. Remove the worktable from the carriage and place it face down on your workbench.

b. Place the template over both table tubes with the words "THIS SIDE UP" facing up and the angled slot at the outfeed tube. (See Figure 6.)

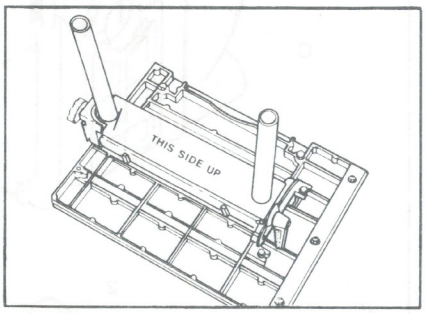

Figure 6. Positioning the template.

c. Use a scratch awl to scribe a line through the template slot and onto the tube boss. Remove the template.

d. Securely clamp the table to your workbench in such a way that you can easily align yourself and the hacksaw with the scribed line. Be sure that the frame of the hacksaw will not interfere with any part of the table or tie bar.

CAUTION

The cut must be vertical and not taper in toward the tube. If the cut is tapered, the tie bar will be weakened.

e. Use a hacksaw with a **sharp** blade to cut vertically through the tube boss but not into the horizontal part of the tie bar. (See Figure 7.)

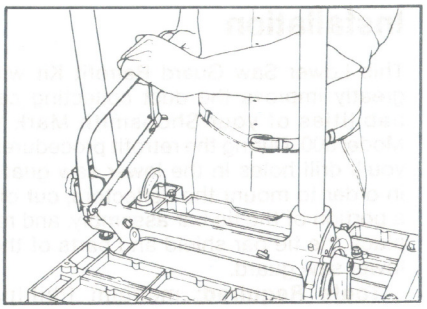

Figure 7. Cutting the tube boss.

f. After the cut is made, file the sawn surface with a coarse, double-cut, metal file. Use Shopsmith touch-up paint to cover the raw metal (optional).

5. Mount the new tie bar shield (6) over the thumbscrews (G). (See Figure 2.) Tighten the thumbscrews.

6. Mount the upper and lower saw guards on the Mark V. Then attach the two elbows to the outer guard (1) and the tie bar shield (6). Then connect the dust collection hose(s).

For high efficiency dust collection connect one 2-1/2″ dia. hose from the Shopsmith Dust Collector or a dust collection system to the elbow on the outer guard. Connect a second hose to the elbow on the tie bar shield. If your dust collection system has only one hose, connect it to the outer guard elbow. You'll still get improved dust collecting capabilities using just one hose.

WARNING

- **Position the elbows so that the stock will not hit them or the hoses when the table is tilted to make 45° bevel cuts.**
- **Use ONLY the 5/8″ saw arbor (555118) to mount 10″ blades with 5/8″ arbor holes. DO NOT use the 5/8″ molder/dado arbor (also known as the universal arbor). The rotating saw blade could contact the screws in the inner guard if the wrong saw arbor is used.**

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