



SHOPSMITH MOLDING HEAD

556213

INTRODUCTION

The molding head is a practical easy-to-use saw accessory that enables you to add a professional touch to almost any project. With it, you can form table edges, cut cabinet door lips, make your own sash, machine strong glue joints and do many other standard operations. It also enables you to create virtually unlimited standard or original molding designs.



SAFETY

WARNING

READ, UNDERSTAND AND FOLLOW ALL THE INFORMATION IN THIS OWNER'S MANUAL.

The meanings of **WARNINGS, CAUTIONS, AND NOTES** are:

WARNING

A **WARNING** is given when failure to follow the directions could result in injury, loss of limb, or life.



A **CAUTION** is given when failure to follow the directions could result in temporary or permanent damage to the equipment.

NOTE

A **NOTE** is used to highlight an important procedure, practice or condition.

NOTE

It is important to provide adequate lighting in your shop area.

Eye Protection

- Always wear eye protection when you use power equipment. Use goggles, safety glasses or a face shield to protect your eyes.
- Goggles completely surround and protect your eyes. Many goggles will also fit over regular glasses. Be sure your goggles fit closely, but comfortably.
- Safety glasses don't fog as easily as goggles and can be worn all the time. Regular eyeglasses normally have only impact resistant lenses. They are not safety glasses.
- A face shield protects your entire face. And you can flip it up out of the way when you don't need it. A face shield can be used with regular glasses.

Ear Protection

- Prolonged exposure to high noise levels from high speed power equipment can damage your hearing.
- Hearing protectors screen out noise that can damage your ears. Wear hearing protection when you are exposed to high intensity power equipment noise.

WARNING

- ◆ Read, understand and follow the Mark V/7 Owner's Manual and the manual for every power tool you use.
- ◆ Additional warnings, cautions and instructions and operating techniques are provided in the Shopsmith book, *Power Tool Woodworking for Everyone*. (A copy is included with your new Mark V/7, and is also available from Shopsmith.)
- ◆ Wear proper eye and ear protection. Also, wear a dust mask.
- ◆ Plan every operation before you begin. If you are in doubt about how to perform an operation safely, do not attempt it. Consult your Owners Manuals and *Power Tool Woodworking for Everyone* textbook for proper, safe technique. If you are still unsure about performing the operation, contact a Shopsmith Customer Service associate.

MOLDING HEAD SAFETY

- ◆ The Shopsmith Molder is a fine precision tool and must be used properly for the most satisfactory operation. Observe these safety precautions in all your shop practice.
1. Always turn the molding head by hand to be sure the knives are free to turn without

striking table. Double check to see that all 3 screws securing knives are tight.

2. Slowly and smoothly, feed the material toward the molding head to avoid rough or uneven cuts.
3. Do not cut too deep or too fast. Make deep cuts in several stages, using shallow cuts.
4. Always keep knives clean and sharp for safe, even cuts.
5. Be sure switch is off and plug removed from outlet before making any major adjustments or changing molding knives.

INSERTING THE KNIVES

Make certain that knives and the slots in the molding head are clean. Loosen the blade-retaining screws, then slide knife in slot. Sharp edge of knife should be on side toward retaining screw. Hold knife in slot and tighten screw. The ball beneath the screw should seat on the bottom edge of the hole in the knife. As the screw is tightened, the knife will be driven to the bottom of the slot and locked in place. All three knives must be flush with the right side of the molder head, as shown in figure 1.

NOTE

When starting a new job, make certain that knives are properly seated and tighten blade retaining set screw securely.



Figure 1

TABLE INSERT – SHOPSMITH

Most molding-head knives are about 1" wide and call for use of a molding insert, Part number 505622 for Mark V 500's and Part number 555122 for Mark V 505, 510, 520 & Mark 7's. Always turn the molding head by hand before turning on the power to be sure the knives clear the insert.

MOUNTING THE MOLDING HEAD

The molding head (522840) must be mounted on a 5/8" arbor (505506). Then the arbor is mounted to the headstock quill spindle, see figure 2.



Figure 2

When mounting on the arbor, place the head between thin washers with their undercut sides against the head and the tongue against the outer washer then secure it with the arbor nut.

AUXILIARY RIP FENCE FACING –TABLE SAW

An auxiliary fence can be made and used for many of the operations done with the molding head by adding a wooden facing to your rip fence.

To make the semi-circular cutout, bolt the facing to the rip fence. With a any blade set mounted and turning, lower the table slowly until the cutout is as deep as needed. The bolt

holes are equal distance from both end so it may be used on either side of the rip fence, putting it to either left or right of the molding head. See figure 3, also see attachment A.

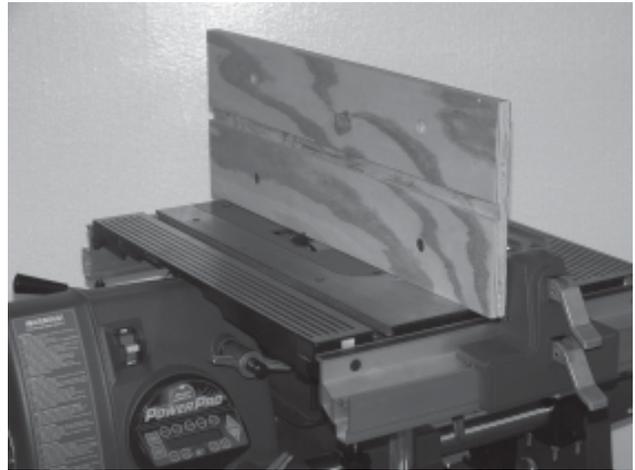


Figure 3

USING THE MOLDING HEAD

Variation in cuts



Generally make cuts in two (2) passes. First Pass cuts away 80% of cut. Second pass cuts away final 20% in a finishing cut.

Do not cut too deep or too fast when using the molder. If very deep cuts are required, make them in stages, lowering the table after each pass until full depth of cut is reached. If the molding head should slow up or if the work chatters, you are cutting too deep or too fast. Move the work back, let the molding head attain full speed, then resume cutting at a slower rate of feed.

Cuts made with the grain are always easier and smoother than cross-grain cuts. Cuts made with the grain, whether they are at the edge or somewhere along the width of the work, are made like rip cuts --with the work riding the wooden facing on the rip fence. Cross-grain cuts are made by advancing the work with the miter gauge.

In molding adjacent edges or all four edges of a workpiece, always make the cross-grain

cuts first. The final with-the-grain cuts will remove the slight imperfections that are inevitable when work cross-grain.

USING THE MOLDING KNIVES

In addition to cutting full profile shapes, the knives can be used for partial cuts or they can be used in combination to produce almost any original molding design.

WARNING

- ◆ Always use push block and push stick to move the wood over the cutter, see figure 4.



Figure 4

- ◆ Always use the featherboard to hold the wood down on the table whenever the stock is less than 3" wide.

Partial-Profile and Combination Cuts:

Knives, like the cabinet-door lip, sash cutters, glue joint, four-bead molding, are designed to do a specific job; they are usually set to do the full profile cut. Other knives, like the 1/4" and 1/2" quarter-round, may be described as combination cutters; they usually are set to shape a portion of the profile. This partial cut may constitute the entire operation, or it may be just one part of an edge to be completed by several passes with different blades.

STRIP MOLDING

When 2" to 4" wide molding is needed in quantity, strips should be pre-cut to size on the table saw, then fed through the featherboards. The fence extension is the same one shown earlier. To cut strips less than 2" wide, start with wide boards, mold the edges then cut them to size.

HOLD DOWNS

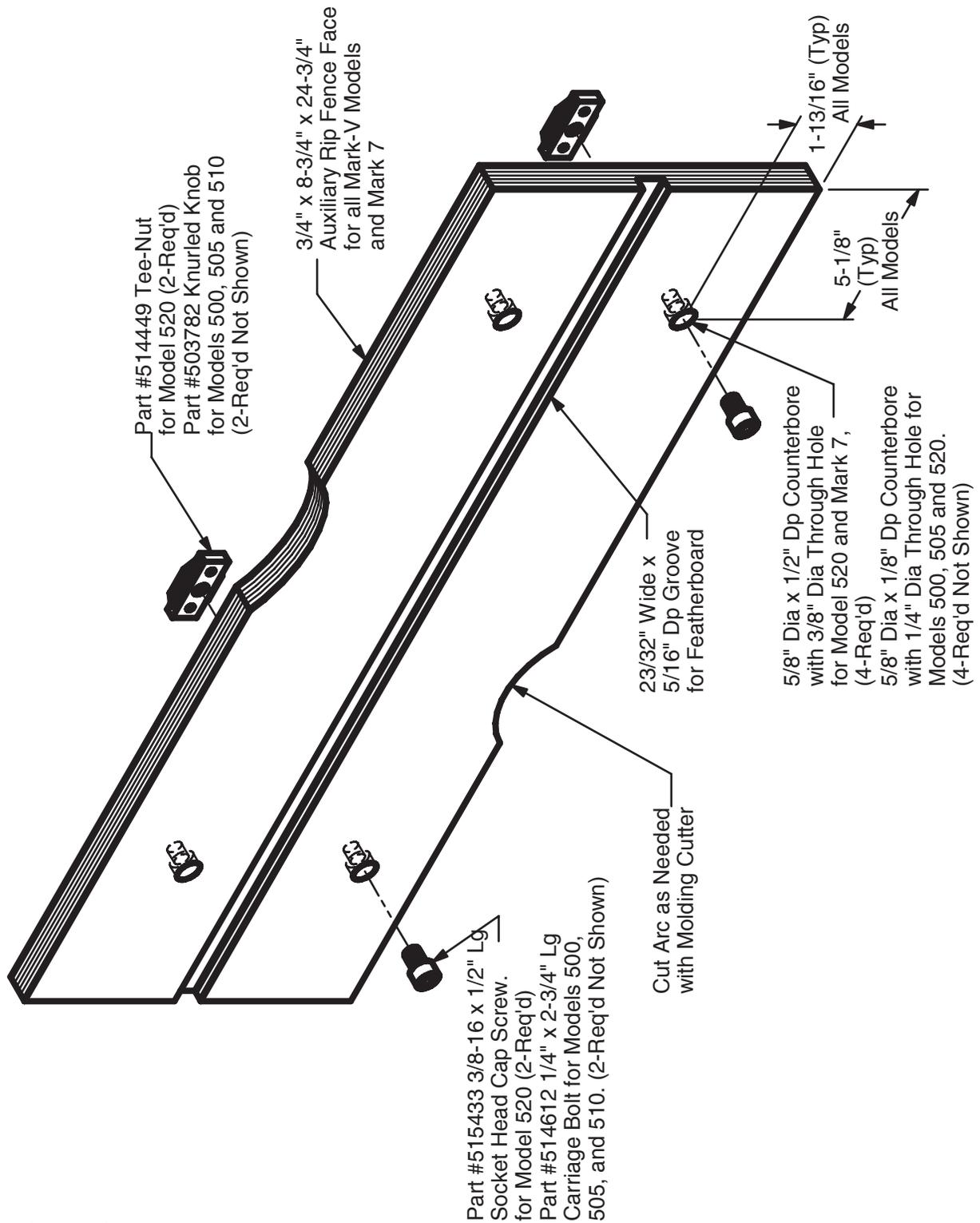
Featherboards on fence extension may be used to hold the material down on the table and firmly against the fence and to minimize cutter impact.

WARNING

- ◆ Always position the featherboards in front of and in back of the molder head. Never directly above or next to the molder head. Positioning the featherboard directly above or next to the molder knives could result in the fingers of the featherboard contacting the knives at the end of the cut.

SHARPENING THE KNIVES

Shopsmith molding knives will remain sharp and accurate for long periods of sustained cutting. When sharpening does become necessary, the cutting edges can be returned by honing on an oil stone. Place the knife flat on the stone, cutting edge down, and move it back and forth or use a circular motion until the cutting edges are restored. Never attempt to sharpen the knives by grinding or honing the profile. Always place them on the flat side, cutting edge down.



Attachment A

SHOPSMITH MOLDER PARTS LIST

Part No.	Description	Qty.
556213	Shopsmith Molder	1
522840	. Molder Head Assembly	1
*	.. Molder Head	1
503595	.. Screw- blade retaining	3
503596	.. Ball- blade retaining	3
502925	.. 3/16" Allen Wrench	1
845635	. Literature - Owner's Manual	1
*	Not available as a service part	



NOTE

If you have further questions or need additional assistance, please contact Customer Service Toll Free 800/762-7555. Or visit our website: www.shopsmith.com

