



Making a cutlist

On the list of fun things a new woodworker might want to try, making a cutlist is probably near the bottom. Most of us, beginner or not, would rather be in the shop.

But an accurate cutlist helps prevent the inconvenience of not buying enough material and the expense of buying too much. Close attention to a cutlist also can help avoid mishaps like forgetting to allow extra length for tenons, which can turn valuable wood into miscut scraps.

Building a good list takes some work, but you'll thank yourself later. The chart-style cutlist described here contains all the information needed to estimate lumber costs and to guide selection of stock at the lumberyard. When you organize your list, make sure that it contains the finished and rough dimensions for each part in your project, and that it lays out the numbers logically for easy addition.

Work backward from finished dimensions

Start with a carefully made drawing of your project. I like to work with full-size layout drawings (see

FWW #161, pp. 68-74) for the greatest precision, but a smaller-scale drawing also can work for generating a list.

Take extra care when using purchased drawings or project plans from a magazine. Such drawings often leave out thicknesses, measurements for joinery, or other details, and missing them can lead to mistakes in buying and cutting stock.

I begin a list by filling in the names of the parts, the finished dimensions for each, and the number of parts needed (four table legs, for example).

When filling in the length, be careful to include the ends of any joinery—such as tenons—that are hidden in the finished piece. Overlooking joinery details is an easy mistake to make.

I also include special notes on my list for any curved parts that can be cut from the same board in a nested pattern. Typically, I make a separate drawing that shows how those parts can be laid out for cutting, and how large a board will be needed for this phase of the project.

Next, calculate the dimensions of the rough-cut pieces. Add 1 in. to all the lengths of the parts and

Note the details on a chart-style list

A good cutlist is basically an organized inventory and description of every piece needed to build a project. A complete and accurate list will help you to buy the right amount of lumber in the right sizes. It also will help to ensure you don't forget any parts when you're planning your work.

List the finished dimensions (length, width, thickness) from the layout drawing. Account for any material that might be hidden in the joinery.

To find the rough dimensions, add a set amount to the finished dimensions to account for waste in the milling process.

Calculate the board footage using the rough dimensions. Multiply the length by the width by the thickness in inches, then multiply that figure by the number of pieces. Divide the total by 144. To account for waste, add 15% to each part.

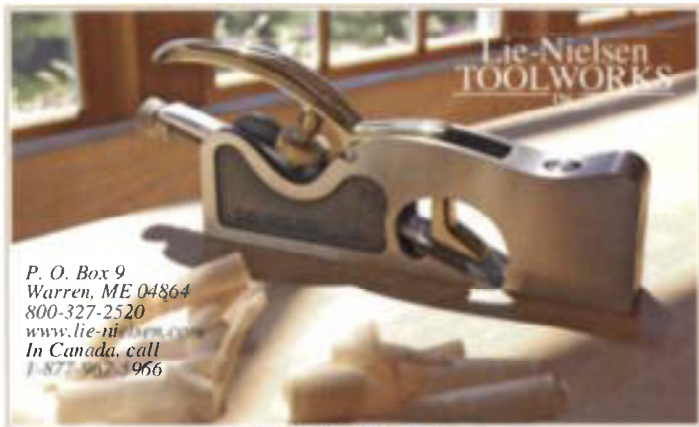
PARTS	FINISHED				ROUGH				WOOD	COMMENTS	BF
	No.	L	W	T	No.	L	W	T			
BOTTOM SIDE RAILS	4	36"	2½"	7/8	4	37"	3"	¾"	POPLAR		4.9
UPPER SIDE STILES	2	10"	4"	7/8	2	11"	4½"	¾"	"		1.0
BOTTOM SIDE PANELS	2	24"	10"	¼"	2	25"	10½"	¼"	BEACH PLY		
OUTER DOOR MOLDING	4	36"	1½"	7/16	1	37"	4"	1½"	CHERRY	MOLD & RIP	1.97

List the parts by name.

List the quantity of each part.

Note the wood species or material for each part.

List any special instructions. The notes here can refer to detailed cutting patterns, joinery, carving, or other issues.



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At the lumberyard

Take your list with you. First look for boards of appropriate width and thickness (right). Then refer to your cutlist to chalk out the parts on specific boards (below). On your cutlist, check off the pieces you've selected. Be sure to restack any unwanted boards neatly when you're done.



½ in. to the widths to ensure enough material in the rough-cut pieces to correct problems that arise during the milling process.

The standard thicknesses for roughsawn lumber are expressed in quarters of an inch. In determining the rough thickness you'll need, it's a good idea to allow at least ¼ in. of waste. This should provide enough material—even in cupped or twisted boards—for jointing and planing lumber to finished thickness. So if you have a finished thickness of ¾ in., you would record a rough dimension of 4/4, or 1 in. If the finished dimension is 7/8 in., you would mark down a rough dimension of 5/4, or 1¼ in.

Calculate board feet to estimate cost

Using the rough dimensions in your chart, you can calculate the board footage needed for each part (use the formula in the chart on p. 90). This calculation will help you to estimate your project's cost, but it won't tell you the length and width of the boards you should buy. For that you'll need to take your cutlist to the lumberyard.

To estimate your project's cost, multiply the various board-footage figures by the lumberyard's prices per board foot.

Take your list to the lumberyard

Even on small projects, having your list in hand as you shop is more reliable than trying to keep track of all the parts and dimensions in your head. Also, the rough dimensions on your list will help you to estimate the optimum lengths and widths for the boards you'll need to yield all of the parts.

At the yard, boards typically are sorted by thickness and wood type. When you find the stack you're looking for, put a ruler to the ends of the boards and look for stock wide enough to accommodate the parts you plan to cut.

After finding several candidates, dig through the pile and drag them out so you can scan the surfaces for color, grain, knots, and drying defects. Longer and wider boards are more likely to have some kind of defect. This is especially true for woods such as maple and birch, which tend to cup or twist as they dry.

When you find a board that looks good, lay out chalklines and, working around any defects, see how many parts you can get from the plank. As you lay out the rough dimensions of each part on the boards, put a check mark on the cutlist to indicate that you've found the stock for those parts.

In this way, work through the entire list—one thickness and species at a time—until you have enough stock to complete the job. □

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