

Cutting a Saddle Notch with a Chainsaw

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robert@LogConstructionManual.com

This file describes how to cut a saddle notch with a chainsaw, but it is not a complete description of cutting notches — you will find that in my book, the [Log Construction Manual](#) (LCM), on pages 118 to 124, along with plenty of photos and diagrams to help.

This video shows how the professional log builders at Natural Log Homes cut saddle notches (www.NaturalLogHomes.com). This technique differs in one important way from the way I describe in my book and the way I teach in my hands-on workshops, namely, these pros do not use the “carving” method to create a concave notch. I feel that carving is the best way for beginners to create a concave notch. In this video you will see that instead of carving, the log builders make 4 “cuts” that each only go to the middle of the notch, and each cut is slightly angled to produce the desired concave shape for the inside of the notch.

SAFETY Use a chainsaw only after you have been trained in how to use it safely. Wear kevlar cutting chaps, use eye, ear, and face protection, and wear steel-toed boots. Professionals use eye protection plus they use a full-face screen. Obey the chainsaw manufacturer’s safety and operation instructions.

Cutting

- 1) The entire notch perimeter scribeline has been scored 1/4”(6mm) to 1/2” (12mm) deep with a chisel (see the video file on “How to Score a Notch”).
- 2) Four cuts are made—one cut along each quarter of the notch’s perimeter. Each cut extends to the middle of the notch, not beyond ([LCM](#) page 120, Figure 10), and each angled slightly to help produce a concave notch shape.
- 3) It is essential to get the chainsaw bar at the correct angle so that each of these 4 cuts is a straight cut, not a curved cut. A chainsaw will cut straight easily, but not cut curves well at all. The video shows how you can move your head into a position where the cut becomes a straight line. Sight down the side of the bar and adjust the position and angle to match the scored scribeline. In the video watch how each builder moves his head into the best place to see exactly what he is cutting and what he is leaving uncut! You must carefully watch what you are cutting.
- 4) Use fairly high chain-speed and cut down the notch edge. Never cut the scribeline off the log or you will make a gap that cannot be closed. Professionals cut about 1/8 inch (2mm) or so away from the scored line.
- 5) Make a cut through the center bottom of the notch to help release the side pieces.
- 6) Break out the chunks of notch with the chainsaw bar, or with a crowbar.

Brushing

- 1) Never brush the 1/4” to 1/2” notch perimeter that is already chisel-scored. That scored edge is already cut as perfectly as is possible with the chisel, and if you remove more wood by brushing then you have removed too much wood. The purpose of scoring deeply with a chisel is, in part, that you can stay a comfortable distance away from the scribelines with the chainsaw. It’s simple: a chisel is a precise tool, a chainsaw is not as precise.
- 2) Brace the chainsaw on your thigh, and hold firmly with both hands. Do not push the saw into the wood, instead, let it run over the surface— brush, not cut.
- 3) Move the chainsaw slowly, brush one very small area (3” by 3”) and do not leave that area until you have finished it. Do not madly wiggle the chainsaw. Maintain firm and tight control, and move slowly.
- 4) Use medium chain-speed. Keep the bar at about 90 degrees to the surface that you are brushing (which means slightly rotating the chainsaw depending upon which part of a notch you are brushing).

- 5) Since the notch is already concave enough, do not brush the inside middle of the notch—it is finished. You are brushing an area about 2” or 3” wide around the perimeter. See the [Log Construction Manual](#), Figure 12, on page 122.

Concave

- 1) Use a straightedge to make sure the notch is slightly concave. Mark any spots that are too high, and then brush them all, and re-check with a straightedge. As you get better you will be able to get down, sight across the notch, and see high spots.
- 2) Each notch touches the saddle of the log below only on the chisel-scored perimeter edges. A typical saddle notch should not touch the log below anywhere inside the notch—that’s called a “hang-up,” and is a mistake.

Straight or Curved?

Do saddle notches have straight or curved edges? If you get your eyes into the plane of the saddle below, then a saddle notch edge is definitely a straight cut. This is the plane of reference for making your first 4 cuts in “Cutting” Step 3 above.

**TO PLAY THE VIDEO, MOVE THE CURSOR (HAND) ON TOP OF THE PHOTO BELOW,
THEN CLICK ONCE. THE VIDEO WILL START PLAYING.**