

Viking-Era Padlock Webinar

Beth Holmberg, 2021-24

MATERIALS, SUPPLIES, AND TOOLS NEEDED

Item	Purpose/Use	Amount	Possible Source/Notes
16 ga. Cold Rolled sheet steel	Lock body, plates, button	6" x 12" is great	Your metal store- 16 gauge is 1/16" or 1.5 mm.
~3/16" round mild steel	Rivet pins	2 ft., min.	Your metal store, or use scavenged heavy tie wire
3/8" rnd. mild steel, or similar	Lock shackle and key	15-24"	Can use 1/8" x 5/8" for a quick key.
1/8" sq. 1095 steel or other tiny high-C steel	Leaf springs	12" is plenty	McMaster-Carr has 1095 Spring Steel Machine Key Stock
5/16" sq. 1095 or old hay rake tine	Hand tools	16"	McMaster-Carr 1095 Spring Steel Machine Key Stock
Brass or bronze, pref. sheet	Brazing	1" sq is plenty	Metal store, craft supply, or use an old key.
Sharpie- ultra fine	Layout	1	Use a color you can see on shiny metal
Rubber bands	Assembly	20, min.	
Sandpaper- about 120 grit	Brazing and tool making	1/2 sheet, min.	
Card stock/index card	Layout	2-3	
Masking tape	Filing rivet pins	2-3 ft.	
Clay (water-based- any kind) and Sand	Brazing	handful or two	Super helpful! Tie wire is an inferior substitute
Quench Oil	Tool hardening	1 quart will do	Any vegetable oil will work well. Have a lid for fires!
Soap and water	Oil clean-up		
Soapstone/white charcoal pencil	Layout/markings	1	
Borax	Brazing flux	a pinch?	Laundry supplies- 20 Mule Team

Item	Purpose/Use	Size/amt.	Possible Source/ Notes
Tools: REQUIRED			
Hammer	Forging and tool striking		
Narrow cross-peen or fuller	Rivet heads		You can make a hand fuller with the 5/16" sq. 1095
File: mill bastard w/ one safe edge	So much- buy a new sharp one!	8-10" long	Nicholson 8 in. Handy File 06601 is easy to find
Needle file set	Details/ fitting	6-12 or so	Get a set with handles. Flat, square, and round are needed
File card	Cleaning files		Hardware store (with the files)
Hacksaw	Rivet pins		
Tongs: flat stock and small rnd/ sq			
Measuring stick			Metric can be useful...
Wire brush	Brazing prep.		
Magnification, worn on your head	Detail work		An optivisor (or strong reading glasses) needed unless you are near-sighted <i>and</i> under 40
Forge and fuel			Whatever you've got-
Anvil			You need a good edge, but not a very big anvil.
Wood- endgrain	Punching holes		Top of a stump, or a 2x4 in a vise will do.
Vise	Filing, filing...		Bench or post vice works. You may want jaw covers, too
Tools: RECOMMENDED			
Hot cut			
Mallet (hide/ wood)	Lock body		
Anvil hold-down	Lock plates, key		
Hand vise or filing vise	Filing		If you have one
Scissors	Layout		
Pliers	Rivet rotation		Helpful in assembly.
Tin stakes or round mandrels	Adjusting lock body		Random round stock/ tools might be usable as mandrels
Gloves	Filing		Can make hours of filing more comfortable.
Headlamp/ spot lighting			Helps you see all the fiddly work you're doing!
Scrap wood	Holding pins in vise for filing		Some 1"x bits with a groove added can make work easier.

Item	Purpose/Use	Size/amt.	Possible Source/ Notes
Tools: OPTIONAL			
Sheet metal shears	Cutting sheet to shape		Beverly shears or heavy tin/aviation snips are cool
Filing guide or jig	Filing tenons		Jewelers' miter filing jig or knife makers' filing guide are hardened steel for filing to precise depths.
Drill press and bits	Lock plates and key		Might not actually be faster...
Angle grinder			"Power filer"
Belt sander			"Other power filer"
Dremel Tool			"Other other power filer"
Oxy/fuel or MAPP gas torch	Tweaks, temper, brazing		
Other hand files	Filing tenons		You may find other files helpful- longer/coarser for faster cutting; square with one safe edge for more precision. Sharp is usually better than free~