

A few notes on the design and making of a Beverage Cooler from a whiskey barrel

By
Lord Rhys, Capten gen y Arian Lloer
Midrealm



My Good Friends,

Upon gaining a number of stainless steel “coke syrup” kegs for brewing my meads, I decided to devise a way to use the tanks at an event while hiding the modern look. For those unfamiliar with these tanks, they were once widely used in fountain soda machines. The syrup was mixed with water and CO₂ and became Coca Cola, Pepsi or another fine soft drink. The tanks are stainless steel therefore safe for brewing and long term storage. Seals and fittings are available thru brewers supply houses as brewers are the only users of these tanks anymore. Using a small CO₂ tank and a couple of hoses allows one to deliver beer, mead or another beverage to a tap for filling cups. My mission was to hide the whole delivery system in a period looking manner. A normal cooler was useless as the tank needed to stay upright and was about 30 inches tall.

Cost of this project:

About \$75 depending on what you can get a barrel for.

Materials List:

50 gallon used whiskey barrel. I bought mine at a local apple cider mill. It was missing one of 6 rings and had a small crack so I saved \$15. Most bad ones are cut in half for planters.

Some oak scrap wood for the lid.

Black rustproofing paint.

Marine Spar Varnish

Plastic trash can that fits into your barrel.

6 to 8 cans of TRIPLE-EXPANDING foam insulation.

(optional) an old beat up Styrofoam cooler or two.

Tools you will need:

Hand Planer (preferably electric)

Jig Saw

Router

3/8th inch rabbeting bit for router

Hammer

Punch

Some small finishing nails or brads

Drill

1-1/8th inch Drill Bit

(also to make life easier, but not required)

3 or 4 ratcheting tie down straps

Drill Press

Bisket Cutter

Trammel Set

The Dirty Work:

Step One: Refinishing the Barrel.



Okay now mistake number one, never ever take the barrel completely apart unless you know how to get it back together... I don't, enough said. Use the hammer and punch to work off one ring at a time, plane that area and reinstall the ring before removing the next one. I decided to cut down to 4 rings as I was already missing the 6th and I liked the look of 4. An electric hand planer (in picture on the right above) can save you hours of hard labor. Keep in mind your using a flat planer on a round barrel. It is necessary to not take too deep a cut and shape it gently with the planer. I choose to keep the finish a little rough and not do any sanding, just the planer. After planning an area you need to reinstall the ring. First remove the rust off of the ring and paint it with a rustproofing paint such as Rustoleum. I used a regular palm sander and so 90 grit paper, worked great. Put the ring back on the barrel and using the hammer and punch put it back until it is tight and you are happy with the location. I used several ratchet type tie-down straps to help put rings off and on by squeezing the barrel. Up to three straps may be necessary and it can make replacing the rings a matter of a few minutes work rather then a few hours. Mistake number two, when removing the end ring the top and bottom will fall into the barrel. These barrels are directly from a whiskey bottling plant and when the top falls in a cloud of 100+ proof air is pushed out. Taking a deep breath in surprise is... not recommended. Especially if you are going to be using power tools with sharp edges. Use your planer on the top and bottom as well as the sides. The inside of the barrels has been burned, it is not necessary to clean it up.

Step Two: Inserting the Liner.

When you have the bottom out measure the dimensions and go buy your trashcan to fit inside. Get a trash can with a lid, Rubbermaid makes some good ones. Make sure you have the barrel completely refinished and only one ring left to put on, the bottom one. With the barrel turned upside down, start the last ring just enough so it keeps the wood from expanding to far. Put the lid on the trash can and put it in the barrel from the bottom upside down. Use a can of triple -

expanding spray foam to start filling around the trashcan. You can also save a few dollars by breaking up an old Styrofoam cooler or two and sprinkling the bits into the spray foam for bulk. Keep filling around the trashcan until about 1 inch from where the bottom will set. Put the bottom in place and set the ring down into place with your hammer and punch. Allow 24 hours before step four.

Step Three: Cutting Out a Lid.



In order to make a lid for your cooler, you must first decide what wood you would like to use. I happened to have an extra barrel top handy (see mistake one). Otherwise I would use scrap oak in strips of random widths to approximate the top of the barrel. Assuming you did not make my mistakes, use a biscuit cutter if possible to glue up the lengths until you have a board of the necessary size. Draw a circle of about 14 inches diameter on your lid. A trammel set is a nifty little circle drawing thingy (yes, thingy is a technical term) that fits on a yard stick to make circles of any size, and can make this easier. Using a jig saw, cut out your lid. Use your rabbeting bit in your router and route a $3/8^{\text{th}}$ inch lip around the entire edge. The smaller diameter side is the bottom of your lid.

Using other scraps make cleats for the underside of the lid as shown in the above picture. This keeps the lid from warping. Be sure to screw each cleat into every board in your lid. Use your $1-1/8^{\text{th}}$ inch drill to cut a hole about an inch from one edge as shown in the picture. This is to put your finger through to open the lid. Or you can buy a wood spigot to glue into the hole for a handle.

Step Four: Cutting the Barrel for the Lid.



In order to make the lid fit the barrel the hole must be 14 inches minus 3/8th on both sides, or 13-5/8th inches diameter. Draw a circle on the barrel and cut it out using the jig saw. Cut right thru the lid of the barrel, any foam, and the top of the trash can. Make sure the bottom of the lid fits in your hole. If it does not, use your jig saw to adjust the hole slightly until it does fit. If it doesn't fit at this point, it won't fit later. Once you are satisfied, use the router to rabbet a lip on the barrel. The lid will slip nicely into the hole.

Use the brads or finishing nails to secure the boards of the barrel top together where it is cut. Then use some more spray foam to fill in any areas to the top that were missed in the foaming of the trash can. Let sit over night and trim excess foam.

Step Five: Finishing Your Cooler.

Check the rings and touch up the black paint as needed from placing the rings back. Marine Spar Varnish makes a beautiful finish on you whole project. One or two coats is enough considering the rough exterior and a little aging is desirable. Fill with ice and kegs, or bottles of your favorite beverage. When done just dump the barrel over and let it dry. I tried a couple of finishes, but you will leave this barrel out in the rain a few times at Pennsic. Ice melts and becomes water. Drinks spill on it. Spar varnish will stand up to just about anything.

Notes from a few years down the road:

Well let's see, I made the barrel cooler about 4 years ago. It is good for a lot of oohs and ahhs at events. It will hold ice for about three days at Pennsic even on the Serengeti. It has been at parties at our Baronial encampment as well as Midrealm Royal at Pennsic, a couple of weddings and some backyard barbeques. It has held up really well. I have considered putting a tower on top for a tap. But, that would take away from the look a bit. There are a couple of downsides. One, leave the top off of it during storage or it will smell like whiskey. Two, it is heavy and bulky, very heavy, and very bulky. It can be a pain to move around and you have to have the space to take it to events. It is not going to fit in a Geo Metro. Other than that it has been a delightful project and has seen a lot of use over the years.

I hope you enjoy making this as much as I did.

A handwritten signature in black ink that reads "Rhys". The letters are bold and slightly slanted, with a long vertical stroke for the 'y'.

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LordRhys@gmail.com