

Restoring Cast Iron Cookware

by Wayne Liffick

There is something satisfying about cooking with cast iron. It provides more even heating across the cooking surface than most other cookware. It's massive and holds heat longer. Although not ideal on the trail due to its weight, I remember reading a few years ago in the *Backwoodsman* about a backpacker who brought along his favorite cast iron griddle and was willing to deal with the weight penalty on this one item.

Cast iron has been in use for cooking for centuries and some would say that no one has improved upon it. If you are cooking in the wilderness, it is likely that you will not always have the use of a stove. Many of these wares are designed to be suspended above the fire or right in the coals. One arrangement is to have legs cast onto the bottom of the piece so that it can be placed right in the coals. Some Dutch ovens are designed with a ridge all the way around the lid so that hot coals can be placed on top of the oven.

As many already be aware of, cast iron cookware is porous. For this reason, the use of a lot of cleaning soap is not recommended; some would say to never use even soapy water. We will not go into all aspects of cleaning and cooking here but will concentrate on restoration and seasoning. The seasoning process fills the pores with oil and forms a smooth surface film. This coating protects the metal from rust and helps in keeping foods from sticking.

During the past few years I have acquired a number of neglected cast iron implements and have had some success in restoring them. Many of these items were on a yard sale table. Once I showed interest, the owner threw in more for no extra charge. Besides the job satisfaction achieved by

restoring these pieces, some have now been used during camping outings. Also, I have given away several and have seen them put to productive use.

While experimenting with restoring these wares, I have been fascinated with the variety of brand names and countries of origin. Some are well-known brands; some items have little to no markings. I have not spent the time to research the history of these pieces, but some are very old. A few of these have become favorites due to factors such as surface finish, size, or weight.

Most of the pieces that I have worked on have been neglected and left out in the weather. Some have pitting, but that is not typical. We are dealing mostly with surface rust and cooking residue that can be removed using wire brushes and sandpaper.



*Here is a "Before" view of a
12-inch Skillet*

I use a six-inch wire brush wheel on a bench grinder to remove most of the rust from the outside, bottom, and handles. For the inside, the work

is accomplished using a cup type wire brush driven by a hand drill. If you are a purist and like to do all hand-powered scouring, that is fine. However, I recently spent a difficult hour-and-a-half on one skillet using power tools; never succeeded in removing all of the baked-on crust from the bottom. Thankfully, the inside was very smooth and had only surface rust.

Also, I use 80 grit sandpaper but be aware that some cookware has a smooth surface, especially on the inside. Use your own judgment here. Perhaps, one could utilize sandblasting equipment in order to do a faster and more thorough job. I do not plan to invest in such equipment. While wire brushing and sanding, I wear a face mask to minimize the amount of dust that I breathe.

On some pieces, I have used a small hand-held power sander to dress irregular places or to improve on the original factory grinding of edges. Note: Please wear eye protection and/or full-face shield when operating power wire brushes and other power tools. This is very basic, but I have been shocked during the past several years to work with people operating power tools on volunteer construction job sites using zero protection.

I do not always remove 100% of the hard crust. Most of this, especially on the outside, causes no harm. If you are a perfectionist, use sandblasting. After removing all the material that is going to be removed (last step is usually with sandpaper), I use a damp cloth to remove residual rust and dust; use several cloths or paper towels, cleaning several times.

After the rust and baked-on material has been removed, the piece is subject to new surface rust if left uncoated. If you are not prepared to heat the piece at this time, at least clean, dry, and coat with the seasoning oil. I usually coat the

piece with oil and now I'm prepared to go directly to the heating step. One idea is to warm the item for a few minutes to remove any cleaning water prior to applying the oil.

Some people have a favorite oil to use when seasoning cast iron cookware. Many cooking oils are acceptable. However, some work better than others. Particular oils will leave a splotchy surface and require a second effort. You may want to consider an oil that has a high "smoke point."

Typical smoke points (all in degrees F):

Corn oil (unrefined) 352 degrees

Flaxseed oil 225 degrees

Grapeseed oil 420 degrees

Canola oil (refined) 400 degrees

There are a lot of people out there that consider flaxseed oil and grapeseed oil to be among the best. Olive oil is not recommended under any circumstances. While acceptable for low-heat cooking, it's not a good idea for this application. Some oils (such as flaxseed) are more subject than others to going rancid during storage.

I have tried a few different oils but have experienced best results using grapeseed oil. Before applying the oil, I get the oven started with a setting of 410 degrees F. I place the item on top of newspaper on the kitchen counter and pour plenty of oil inside the piece; then spread a generous layer inside and out using a paper towel.

A few years ago, I seasoned some pieces by heating them in the flame of a gas-fired stovetop. This was unsatisfactory for large items; I could never get the entire piece hot enough. When finished, some areas still felt oily. Also, I determined that it is best to orient the piece inside the oven so that excess oil can run off (skillets upside down). Otherwise, oil can pool in some areas, leaving an uneven coating. You may choose to place a cookie cutter or a pan on a lower shelf to catch drips.



Here is an "After" view of a 12-inch Skillet

I once removed a seasoned item from the oven to realize that the entire surface had not been coated; it was re-coated and placed back into the oven. My method does result in noticeable smoking. This does not bother me, but you may want to provide more ventilation for your kitchen during this process.

A number of manufacturers sell their wares "pre-seasoned." Warnings are sometimes included that even with pre-seasoning you should use extra oil the first few times of use. This helps to fill in more low spots and minimizes food sticking to the surface.

You may develop your own method of heating to season cast iron. The half hour in the oven at 410 degrees F using grapeseed oil works well for me. Recently, I found cast into the outside of an old Wagner Ware skillet:

Seasoning Instructions;

- Scour thoroughly**
- Coat with cooking oil**
- Heat in 300 deg. F oven for one hour**
- Remove excess oil**

Again, you will develop your own favorite seasoning method. Periodic "re-seasoning" of cast iron ware is needed. I recently came back from a camping trip and noticed that the griddle



"Before" and "After" views of a 10-inch Skillet

(used exclusively for making pancakes) had a thick film on the inside that I could scrape using a fingernail; time to remove old layers. I used power wire brushes and sandpaper, which was easier than alternate scouring methods.

I have gifted most of the recently refurbished wares to my daughter and son-in-law. With seven children to feed, they are happy to use the 12-inch skillets, a Dutch oven, as well as items for outside cookouts and on their wood burning heating stove. Have fun and experiment; find out what works well for you.