

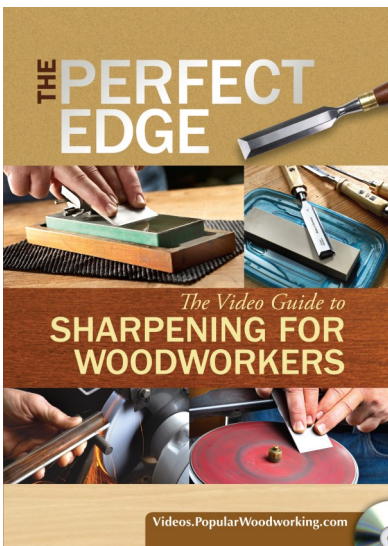
More about That Corrosion Article

11 Tips from Corrosion Conscious Woodworkers

From Sharp & to the Point

#3-2021

1st Things 1st



Ron dedicates a section to rust in *The Perfect Edge*, beginning on page 35. He includes discussions on rust chemistry, prevention, desiccation, occlusion, conversion, removal and products.

2nd Batch of Feedback: Tips from 11 Corrosion Conscious Woodworkers

1. From H.H. in Elkins Park, PA:

"I use paste wax. The spray can stuff like GlideCote help but are pretty light. Rockler has some products."



2. From Milford Brown*

For those who don't want to spend the time to make one of Rob's* wooden oilers, Hida Tool Co. has an inexpensive plastic version that has been available for many years. I have a different version, but unfortunately it's something that was used in chemistry laboratories ages ago, and doesn't seem to be available anymore. I have one for camellia oil and one for a light petroleum oil (3-in-1, etc.), each with a roll of some sort of fabric, distinguishable by their different colors. All of these (including mine) have a tight-fitting cap so that they can be stored safely in a tool box, etc.



3. From Kent “Cyclotronguy” English

“Starrett M1® is basically Stoddard solvent (a great metal cleaner) and anhydrous lanolin (hygroscopic waxy oil). In other words, it binds water to itself.



Decades ago my shop had kerosene heaters. They give off water and CO as a byproduct of combustion. The result is a mild acid that condenses out on cold metal. Instant overnight corrosion.

I went through every spray can of rust-be-gone you could find at the hardware and auto parts stores. A scrub with 0000 steel wool soaked with M1, followed up with a clean paper towel was the ticket.

4. John Johnson, Salem, OR

Another good rust inhibitor is SLIPIT Woodworker's Sliding Compound.

The woodworker's version of the compound does not have silicon. It is a white paste/gel that lubricates



working surfaces and inhibits rust. It has worked well on machined surfaces of cast iron parts and tools in an unheated woodshop in Oregon, where rust is an indigenous life form. It only takes a little to coat a surface and has not affected any of the wood that contacts the coated surfaces. Treated surfaces stay rust free for a long time and it helps reduce friction between the wood and cast iron. A quart can is enough to last for years.

5. Joe Newman, Loveland, OH*



You might also want to try Boeshield T-9®. It's a Boeing product, no silicone (per their webpage). I used it first on cast iron like my table saw and jointer, but now I use it whenever I'm putting a tool up for an unknown period.

Normally I used Paul Sellers' "oil can" approach on my planes, but we're moving from Ohio to Washington in the next few months, with unknown storage time at the Washington end. So, every plane surface, every steel tool and every cast iron surface got a spray and a wipe.

6. Michael Cain, Spokane, WA

When I set out to stabilize the badly corroded key to a sextant box, I had to be careful: the key was delicate and the box historic. A conservator I know at Spokane's Northwest Museum of Arts and Culture referred me to the metals restoration expert they turn to for similar jobs. She advised me to use that most delicate of abrasive tools, the glass bristle brush, backed up by CRC 3-36® (which also came out on top in the rust prevention study FWW published in its Jul/Aug 2012 issue [#227]). Perfect results. CRC 3-36® is what I use to keep the rust at bay on my hand tools. I use it in both liquid and spray forms, and it meets expectations. For bigger or more stubborn rust removal jobs, I soak the item a cola containing phosphoric acid followed by thorough rinsing in water and immediate drying with



towels and a hair dryer or compressed air. If necessary, that can be followed by scrubbing with red Scotch-Brite pads in combination with 3-36.

7. Jim McCarthy, Peoria, AZ

I have the perfect solution for rust and have not been bothered by it for the past 30 years. It really is a simple solution and does not involve any harsh chemicals or abrasives. Simple go out into your garage, get in your car, and move to Phoenix, Arizona! You may have no more rust, but it isn't any fun to do woodworking when the temperature in your shop is 115 at 9PM.



8. Douglas, Adelaide, South Australia*

I was interested in the comments from SH on the south coast of Florida - it sounds like an environment from hell for corrosion. I live about one kilometer inland from Gulf St. Vincent and the average relative humidity is 46% - ranging from 31% in mid-summer to 64% in mid-winter - so humidity is not much of a problem for me. As for salt, occasionally I can see salt deposits on the wind-screen of my car when the wind has been blowing in from the south west but, apart from a few sensitive plants in the garden, salty air isn't really an issue for me.



My main corrosion problem is because I have the condition: rusty fingers. For example, on one occasion I was working in a metrology laboratory and forgot to wipe around the outer edges of the cast iron surface plate with WD-40. The next morning, when I went into the lab, I heard the technician cursing roundly at engineers who misuse his equipment - I had left a perfect set of fingerprints around the edge of the surface plate.

Handling planes and chisels is a high-risk area for me, and I started out using WD-40, 3-in-1 oil, camellia oil and Vaseline but there was a problem. The other feature of rusty fingers is my skin readily picks up any free oil on the surface of the tool and deposits it on the surface of the wood, leaving

obvious fingerprints. As a preventive measure I did try using disposable plastic gloves but a run of days where the ambient temperature was in the high 30s and low 40s (Celsius) killed my enthusiasm for wearing plastic gloves.

I now have a two-path approach to controlling corrosion on my tools. The first is that all tools are scrupulously cleaned of any sawdust before they are put away. This is to remove any potential sites for initiation of corrosion. The second is that the bare metal surfaces of planes are always given a light rubbing with Renaissance Wax[™] before putting them away. I don't use the wax on my chisels, just as precaution against accidentally transferring any wax onto the surface of the diamond plates I use for sharpening, and there doesn't seem to be any corrosion problems. I suspect this probably due the type of alloy used for the chisels.

9. Bob Jackson, Margaritaville, Florida*

I am at present at my southwest Florida residence, being a good 'condo commando' and escaping all that 'Pure Michigan' offers for the winter months. Back in my engineering days at Ford Motor Co. (in the 1970s) I had an assignment to a corrosion task force. Living in the so-called 'Rust Belt', automotive corrosion was nearly out of control. Ford had passenger car frames cor-



rode away totally in only two years in places like Cleveland. The worst, however, was in coastal Nova Scotia, where the combination of salt air, road salt, and Calcium Chloride on the dirt roads would rot out an unprotected vehicle in just over a year. Suffice to say, a Ziebart business there provided a great living!

In my present place, as I have mentioned, I have set up a 'garage wood shop' both to occupy my time here as well as keep me away from the refrigerator. I recently acquired a nice Stanley Bedrock #605C plane and built up a #606C Bedrock plane from components purchased on eBay. Of course, both have Hock blades and cap irons. The #606C body that I purchased had a 'lovely patina' and a lightly scored sole. I spent about six hours with a slab of granite and 220 grit/adhesive-backed sandpaper flattening the sole.

I also did the sides, being careful to maintain 'square' with the sole. As a result, both planes now have fresh iron exposed. I am about 5 miles from the ocean, so while the salt air isn't as bad as when I had a place right on the water (where I had a reloading die begin to corrode overnight!) it's still a problem.

My solution: I know from experience that a light coating of Briwax furniture wax will significantly slow down corrosion that comes from the salt/sweat



from handling the planes. At the end of the day, when I've used them, I always wipe them down with a clean cotton cloth and if necessary, put a light coat of wax on. I sharpen the blades on a Tormek system and finish with water stones. When I'm done, I carefully dry them and use a paper towel with Boeshield T-9 corrosion preventative to wipe them down before assembly. I prefer Boeshield to Corrosion-X because it's thinner and will leave little to no resi-

due on the wood when used. I also wipe the frog surfaces with the Boeshield towel. I took the #605C apart for this and did the #606C when I assembled the components.

This works well in the shop while I'm here. When I leave to go back north, after I've cleaned and treated any of my tools that corrosion could be a problem, I bring those (like planes and chisels) inside to a climate-controlled environment for the summer.

I have several other tools, such as some less-than 'stainless' squares and two Lie-Nielsen planes that I treat in this same manner, as well as making sure that they are wrapped in the 'corrosion preventative paper' they were shipped with.

I used to have a boat here, and believe me, even marine-grade stainless and chrome will eventually 'corrode' in a high salt environment. Interestingly, so will titanium, as I happen to know that jet engine fan and turbine engines which are frequently operated in 'high salt air environments' require 'rinsing' with fresh water daily.



My planes in Michigan never leave my climate-controlled basement and wiping after use/occasional coating of wax keeps them looking like new. Well, except for the brass, which over time tarnishes no matter what! Besides all this, I make sure there is no wood dust or shavings on them, as those will absorb moisture and cause corrosion. For the same reason, I also make sure to use compressed air to 'blow off' the power tools. Those stay in the garage.

10. Richard Stiers, Bremerton WA

For years I've kept a camphor block (still in the packet but slit open) within any toolbox and/or pouch holding any metal tools. The gas-off of the camphor keeps metal from rusting by coating the metal with microfilm. Many gun owners will keep the same block within a gun cabinet to preserve the metal. I also wipe my tool with Camellia Oil. I soak a lintless cloth kept in a Ziplock and wipe metal soles and blade of planes and chisels. It smells nice when I open a toolbox and get a whiff of the camphor.

11. W.L, El Dorado Hills, CA

Small feedback on rust removal. I've had really good luck with a liquid product called Evapo-Rust®. It's really safe, and all I do is put the part (blade or whatever) in some of the stuff overnight and in the morning the rust has gone somewhere, but I'm not quite sure where. The stuff is reusable, so I just pour it back into a contained marked "Used Evapo-Rust® and it can be used again.



NOTES

**Note 1—from #2 Milton Brown:*



In case you did not read the first set of tips from woodworkers about managing corrosion, Rob Porcaro's included his New Shop-Made Camellia Oil Holder, left. Rob included for us a link to one of his Heartwood blogs where he provides step-by-step instructions on how to make the shop-made tool (left) he uses when applying camellia oil.

***Note 2—from #2 Milton Brown:**

Hida Tool & Hardware Company's Camellia Oil with Spray will be abundant on the shelves and online by the end of April. It's been selling like crazy lately and sold out as of this writing.



***Note 3—from #5 Joe Newman**



Among other stores online and brick & mortar, Boeshield T-9® is carried by Rockler, Highland Woodworking, Woodcraft, Peachtree Woodworking Supply, and Lee Valley.

***Note 4—from #8 Douglas, Adelaide, South Australia**

Find Renaissance Wax Polish at Woodcraft, Packard Woodworks, Inc., Highland Woodworking, and other outlets.



***Note 5—from #9 Bob Jackson, Margaritaville, FL**



Briwax is available through Kingspor's Woodworking Shop, Woodcraft, Rockler, Highland Woodworking.



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