

Tips and Tricks

## Very Easy & Safe De-rusting – Citric Acid

This method may be known to a lot of restorers, but for those who use molasses, as I have done, it is a better quicker and easier way.....

For those who need to de-rust any iron / steel metal parts, both sheet metal or solid pressings / castings I have been using the following method for some years with great results.

This process works on rusted sections of metal but does not harm non rusted areas

Obtain some citric acid crystals from your local chemical supplier, here in WA it is a firm called Big Bubble.

If you can get some 20ltr plastic screw on lid jerry can containers, dissolve the crystals in water at the rate of 1kg of crystals to 15 litres of water, this will give you a citric acid solution that is more or less the same as lemon juice, and can be used without any problems. The acid solution is weak enough and harmless enough to handle. If you need stronger solution just add more crystals

To use the acid, find a plastic container big enough to hold the parts you want to de-rust, and immerse the parts totally in the acid. Depending on the amount of rust and how badly they are rusted, will govern the time in the solution.

Generally for most cases 12-24 hrs will be more than enough, small sheet metal parts can be done in 2-3 hrs, depending on how badly rusted.

The parts will be covered in black film, which washes off and leaves a nice clean metal surface. If rust is heavy, more time is needed, or you can increase strength of solution by adding more crystals.

Once you have a "clean" part, you can then prepare it for painting as per your own methods.

As the solution is clear, you can see the de-rusting process take place by the deposits on the bottom of the container.

Once you have finished, you can let the residue settle on the bottom of the container and recover the acid solution to another container [so you keep a fresh solution and a "used" solution.

The mix can be used for several de rusting session, and will go a darker colour over time.

The two photos are of a rear diff cover that had been outside in the weather for several years.

It was half dipped in a solution that was used and is approx 12 months old, for 24 hrs. [Top]

Cover was washed and half of the de rusted part, put under a wire wheel to "polish" it, - the other half is "stained" with rust as cover dries, (dark brown section is wet rust).

I have used this method on some large parts by making a "bath" from heavy duty plastic sheet and a frame...

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