

# Rust treatment (2 articles)

## Rust inhibition

J.C. Whitney ([www.jcwhitneyusa.com](http://www.jcwhitneyusa.com)) sells what they call a "MIRACLE" Paint. This stuff is expensive at \$31.99 a quart.... They claim that it is a PERMANENT rust and corrosion inhibitor.

I am very careful with J.C. Whitney "MIRACLE" claims..... (They also sell a magnetic gasoline charging unit which claims to increase the gas mileage by "aligning" gasoline monocules. What a B.S.!!!!!!)

I bought this paint couple of years ago and coated a small rusty "L" bracket. I cleaned one side from rust while leaving a light rusty coating on the other side. Both sides were painted with a single coat of paint specially leaving few areas exposed. I left the bracket outside on my deck for over a year of.... the Chicago weather!... equivalent to at least 10 California years....

The paint resisted weather elements wonderfully and really stopped the rust. The un-coated spots did develop rust layer, but the rust DID STOP at the edge of painted area.

There was no paint lift-off due to the rust getting under the paint... like it usually happens with regular spray-on "rust resistant" paints.

I used the paint also on battery tray and paint DOES resist acid environment like Whitney claims it would....

I conducted this test because I was planning, and I AM using it as a primer layer on my modified Europa frame....

Couple of words of CAUTION:

1. Paint is highly hygroscopic, i.e. it dries faster and harder in moist environment!....
2. DO EXACTLY as instruction suggests - use latex gloves when painting! I made a mistake once, when I was painting a small piece, thinking that I will be able to wash my hands in Acetone before the paint sets... The weather was dry so I was expecting slow drying times....

The paint pulled the moisture from my skin and DID SET very fast. I HAD TO WEAR black coating on my hands for over 2 weeks! It did look embarrassing having so much "dirt" around finger nails and in every wrinkle!.....

....Instructions do state that once the paint sets it is impervious to gasoline, grease, oil, battery acid, anti-freeze, brake fluid and paint solvents. They state that the only way to remove is by sand blasting.....

I tried sand blasting on my hands... It did work... That is why I had the paint residue only in the areas where the sand could not get in....

I never knew that I could be such a MASOCHIST!!!!

3. Instructions also state that the paint is ultra-violet sensitive and should be top coated with a regular paint.

I did not see any chemical breakdown on the sample I left outside, but would consider coating the parts just in case.... I decided to listen to the instructions ....only after my sandblasting experience....

(Instructions also states that the paint meets some kind of MIL specs... just to satisfy the military types!.....)

Whitney has 3 colors listed:

1. Black part #: 12KN1079R
2. Silver part #: 12KN1080X
3. Clear part #: 12KN1081N

I used both Silver and Black, but did not try the Clear one. They state that Clear will turn slightly yellowish with time. Because I will be using this paint as a primer and coating over it I do not see any advantages in using Clear. Clear is also photo sensitive like Black and Silver, so you cannot use a clear top coating!

I really like the Black paint a lot. You end up with a high gloss hard surface looking Onyx like. It is sad that you are required to paint it over....

Whitney also sells a good Gas Tank Sealer. I always use Alcohol Resistant Gas Tank Sealer, part #: 12KN8316Y, \$ 22.99 a quart. One quart is enough for two Europa tanks.... (They also sell a kit which is called "Tank Liner Kit". .... I never used it....)

## **Rust inhibition 2**

. The time to do rustproofing is when everything is bone dry. That is \*hard\* to arrange, in fact you have the only chance you'll ever have. The car's been off the road for ages, and we're in a longish dry spell. So I'd suggest you get the box section at the rear treated. Yes, it's a ballache; do it well now, with everything dry, and I'd say you'll extend the life of the chassis by 10 years.

It's the box section that goes across above the diff and out to the spring/damper mounts that needs doing. First drill drain holes approx 10mm in the lower face, one each side, and plug them with bits of rag. Jack up one side, drill a hole in the end of the box section facing you.

Buy a bottle of axle oil with a spout ... mix the oil with half a gallon of waxoil and white spirit if necessary. Use the bottle to fill the box section right up via the above mentioned hole. Plug that hole with rag, lower that side, jack up the other side. next drain out via the drain holes into a bucket.

Then paint the stuff over the external surfaces. Leave some of it in open pots and it'll go to an almost putty consistency - or like margarine. Work this into and over the join between the top of the box and the body. Yes it's a horrible job. Yes it's much nicer to \*drive\* the thing. But if you do it, you'll be able to drive it for a good many more years (or avoid the 2k plus labour cost of a new chassis).

## Rust inhibition 3

Serious rust starts from 'inside' and has 2 causes:

- . box sections which rust where water collects (incl doors which I consider a big box)
- . 'damp mud poultices'

The drawing pin test: be aware if buying a s/h car. What looks like a tiny stone chip may be the first stage of rusting through. Put the point of a drawing pin on it, finger pressure will push it through if it's serious. That's for normal cars (steel) of course - worth knowing if buying s/h!!!!

Mud poultices typically form in joints and angles within wheelarches, e.g. round the haedlamps in Mini's, also below the A pillar in Minis, at the top of McPherson struts from underneath in several cars. Simply removing the mud by \*forceful\* hosing is a v good start. Also good is to replace the mud poultice with a bitumen one! Bitumen mastic roofing compound is a good start, bung it in, smooth it off. Or, let some waxoil harden off a bit in a tray and mix it with dust (sweep the garage floor) to give a putty. Marvellous stuff, never sets. Ram lots of that into the above mentioned kind of angle after removing the muck.

Box sections: even if they don't leak, moisture gets in by condensation and once in, it's reluctant to come out. A little drop of water and lots of air is great for corrosion. Paint doesn't work, a bit of rust and off it comes, so a greasy non setting coat is necessary - hence waxoil. I find normal waxoil a bit too thick so I mix in some oil usually. Don't mess about with the spray guns and probes, IMO they are not much use, hard to use and not very effective. Instead, just fill up the box to be done (perhaps drive round the block to slosh it around) and drain it out. All our Minis got done, none of them died of rust; 2 got sold and we still have the 3rd one; 27 years old and \*original\*, no welding, original subframe. And I'm \*sure\* it'll last another 10 with no corrosion of any consequence. (the 2 that got sold were both over 20 years old). On the Lotus, we're only concerned with the chassis of course. But on other cars, note that waxoil is no use in the wheelarches - it just gets washed off. However, the good news: flat panels don't rust (on the whole). Rust in wheelarch areas starts in crevices (the good old mud poultice); a normal waxoil paint coat does not stay on, but the wax putty poultice usually does stay on!

OK, here's a fairly simple way to do your box section. You've ramps? drive the 2 rear wheels on the ramps, drill a drain hole in the bottom of the box section, 8mm dia, one each side. Plug one side (say the RHS) hole with a bit of rag.

Now drive both LHS wheels onto the ramps so the car leans. Use a gear oil bottle with a spout. Fill it right up with a mix of waxoil and gear oil well mixed. stick the spout up the drain hole and squeeze - you can get half a bottle in at a time. Refill the bottle and repeat, get a few pints in there! Then plug that drain hole, and you'll like the next bit. Take the car for a drive and \*throw it around\* ! Nice to have an excuse! :- ) as if we need one. All combinations of cornering with acceleration and braking, to slosh the stuff around.

Then the even messier bit: on the ramps, bucket under, pull out the rag plugs. Have plenty of rags around! Note: it will drip for about 3 days, and drip more if it's parked at a different angle, and drip yet more on v hot days at first. So park over rags to start with for a few days. But it will not rust ... small price to pay IMO. Repeat every 5 years and -as far as you can ever guarantee anything - IT WILL NOT RUST . No rust. In your lifetime.

Note: the main rear susp arms are boxes, and can rust, so it's worth doing those as well. I did mine off the car by sloshing the stuff around - easy. You may need to \*really\* throw the car around to do it. An awful job but someone has to do it :-).

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