

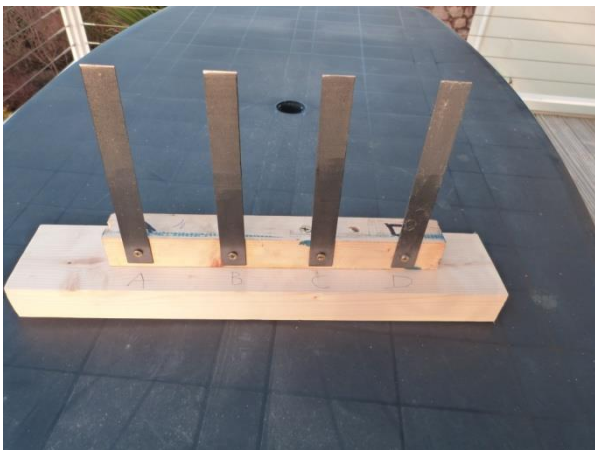
## ACF-50 Anti Corrosion Spray – Mike Brown

I have often wanted to protect items that I have made from rust. Living in a marine environment, if I leave a newly machined piece of steel lying about for more than 5 minutes (well, often as little as a couple of days) it is covered in a thin film of rust. I have tried WD40 and 3 in 1 oil, but I have never really been happy with the results. Over the last couple of years, in vintage motorcycle magazines, I have spotted the odd reports from people using a product called ACF-50 on their old bikes. These reports indicate that the stuff is sprayed all over the bikes - paint, bright work *and* aluminium. Comments always seem positive, so when I spotted a stand selling the stuff at the Classic Bike Show in Staffordshire I thought I would try a can. I then saw the price, 15 quid a time, and had second thoughts. Then again I thought about all my Hunslett bits slowly rotting away and I decided to take the plunge. Having got it home I proceeded to coat all sorts of bits and pieces with it. It is similar to apply to WD40 although a little thicker and oilier, but was it any better? I decided to try a real test for the stuff. I cut 4 strips of steel and ground them to a bright finish on a belt sander. I then chose another 3 finishes to compare the ACF-50 with. First was WD-40, second was 3 in 1 oil (which claims to prevent rust) and third was Vaseline.



I had a BSA Bantam as a youth (all credibility now gone!) and I always struggled to keep the chrome on the wheels from rusting. I read in an old motorcycle tips book that Vaseline would protect the chrome, so I smeared some on the wheels. Sure enough, when I cleaned off the Vaseline in the spring the chrome was bright with no trace of rust. Unfortunately all winter the wheel rims were filthy black. However it has left me convinced of the rust proofing effects of Vaseline.

I screwed the strips to a wooden block and stood it outside (much to Senior Management's bemusement!) to wait and see what happened.



What did happen? Well I have only just done it, but I can report that one strip is already showing distress after less than a week. For a more detailed report I am afraid that you will have to wait for the next Newsletter!

In the meantime I will pass on some of the advertising blurb for ACF-50, see what you think.

**ACF-50**, Anti-Corrosion Formula, is a state of the art, anti-corrosion/lubricant compound, that has been specifically designed for the Aero Space Industry. It can be described as an ultra thin fluid film compound which must be applied on an annual basis. **ACF-50** actively penetrates through the corrosion deposits to the base of the cell where it emulsifies and encapsulates the electrolyte, lifting it away from the metal surface. **ACF-50** then dispels this moisture and provides an atmospheric barrier which prevents any further moisture contact, thereby keeping the cell inactive. This compound continues to actively penetrate and "creep" into the tightest of seams, lap joints, micro cracks and

around rivet heads, dissipating the moisture, even salt water, in these corrosion prone areas. These unique abilities of **ACF-50** remain effective for 12 months, gradually disappearing as it is chemically consumed.

**ACF-50** is designed with the professional aerospace technician in mind.

**ACF-50**'s active Thin Fluid Film chemistry penetrates corrosion deposits where it chemically emulsifies and displaces the electrolyte. This isolation process keeps the corrosion cell deactivated.

On new metal **ACF-50** forms a self-healing barrier that prevents corrosion from starting. **ACF-50** remains physically and chemically effective for up to two years.

It is important to emphasize that **ACF-50** is also an excellent lubricant but does NOT contain any wax, resin, silicon or Teflon... compounds that can gum up mechanisms, block drain holes, or trap moisture to cause corrosion.

Hype or wonder product – time will tell.

### **ACF-50 Anti Corrosion Spray – The Verdict**

You may remember that in the last newsletter I set out to find out whether the anti corrosion spray AC- 50 lives up to its own advertising hype. Well the results are in. As you will recall I ground clean surfaces on four strips of mild steel coated one in WD 40, one in 3in1 oil, one in a thin coat of Vaseline and one in ACF-50. I then mounted the strips onto a block of wood and stood the whole lot outside to bear the brunt of rain and sea spray. Well, strip A is the WD40, strip B is the 3in1 oil, strip C is the ACF 50 and strip D is the Vaseline. The photo below shows the strips after about six weeks of exposure. And it is clear that the 3in1 oil is rubbish. In fact it was showing clear signs of rust after not much more than a week. Surprisingly (to me) the WD 40 did much better. Although rusty, it was nowhere near as bad as the 3in1.

The AFC 50 was doing well at this stage with only rust marks top and bottom (these may be due to handling by me when fixing them to the wood). Surprisingly the Vaseline was slightly behind the AFC 50, and was starting to show noticeable signs of rust forming



A

B

C

D

After a further 6 weeks the results are now as follows (see photo below). The WD 40 and 3in1 are very rusty and starting to pit. The ACF 50 has surface rust over most of the surface and the Vaseline is still about 50% rust free.



A

B

C

D

So, no surprises, the verdict is slightly unclear. Three in one oil is a waste of time, WD 40 is better than nothing and Vaseline gives good protection but is messy. ACF 50 does seem to work quite well up to a point. To be fair, the literature that comes with it suggest an annual application for Motorbikes, etc, as the active ingredients are “used up”. This agrees with my findings that it works well until it “runs out”. However the test of bare metal in salt spray is pretty severe. I suspect that the protection provided in a normal workshop environment will be pretty good as long as it is re-applied once in a blue moon. I have already coated all my Hunslet bits and I expect them still to be nice and shiny when assembly time comes round (if I live that long!)