

FN82 Turret update September 20

At the end of the August update the turret had been reduced to the condition shown below and I had hoped that this was as far as I needed to strip out.



I was, however, mistaken and problems with the torque shaft and sight shaft ensured that they both needed to come out. Worse still, there was significant corrosion on both the fixed and the rotating turret rings. This corrosion is going to have to be dealt with at an early stage and may require an amount of re-manufacture.

The corrosion pictured below is typical pitting found on magnesium alloy components. There are four such areas around the ring which provide the ideal stress raiser from which cracks can develop.

So, out came the fixed and rotating turret rings along with dozens of special bolts and the horizontal and vertical bearing assemblies which can now be cleaned and re-greased.

Furthermore, the outer support frames had to be removed in order to replace several anchor nuts that had gone missing over time.

Once this was done, the next task was to begin to remove the years of paint that built up. The original finish was a simple dusting of matt black, over the anodised aluminium finish, which was easy to remove. However, in other areas a thick chromated primer had been applied and then a semi matt black over that. I assume that this had been applied whilst NX611 was on display at RAF Scampton



Many hours of paint stripping resulted in an accommodation plate and inner support frame structure with an almost perfectly intact anodised finish. At this point any remaining bolts were removed, checked, greased and refitted.



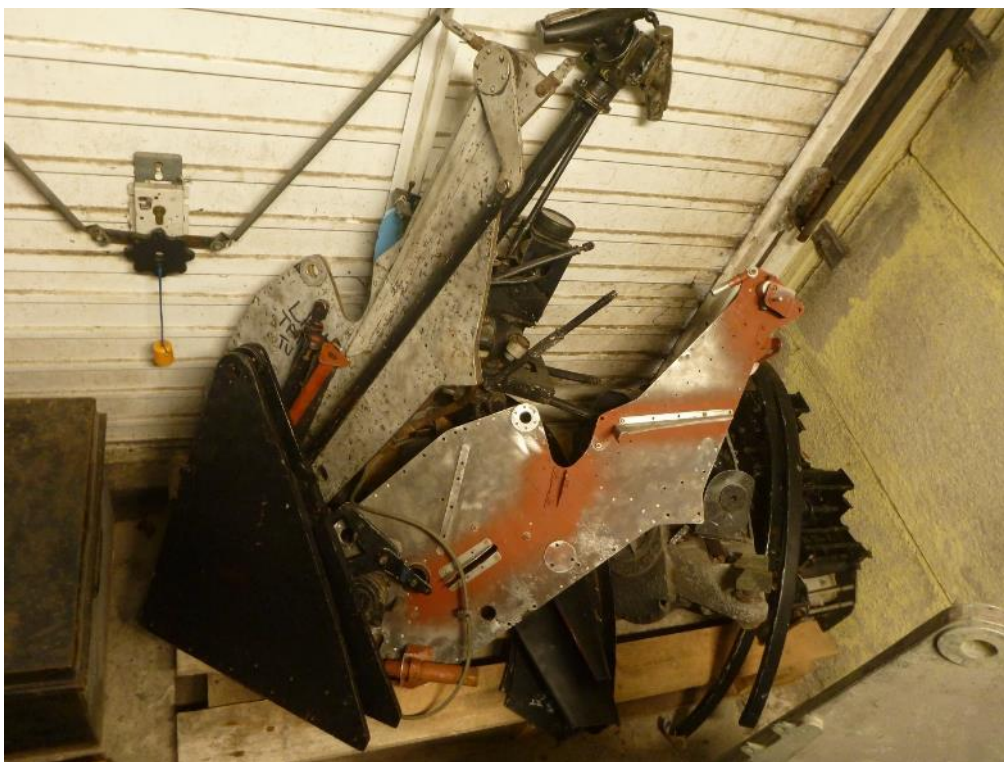
At last, turning the corner, the outer side supports could be refitted which means the rebuild has begun. There are several more fittings and brackets to be refitted before any paint can be applied. This is all being done with jointing compound which wasn't the case during the original construction but seems a wise precaution at this point.



Above is the partly stripped out cupola which I am planning to rebuild alongside the main assembly of the turret. It seemed to wise to make a marine ply copy of the accommodation plate to support the cupola during the built. This plywood copy will then come in very useful for another project that has developed out of this one.

Pictured below is a very large percentage of a second FN82 turret. Whilst it definitely doesn't have all the parts we need for the first turret, it does have a large number of very handy parts to swap across.

The current plan is to build a display FN82 turret using the plywood accommodation plate mentioned above and all of the the second best parts that are left over from the first turret. This more than doubles the work but it seems to good a chance to miss for copying across the details and making a display turret out of a box of bits.



More parts below, including most of the electrical components and a CRT collimator which should sit next to the Gyro Gun Sight.



With the threat of further lockdowns on the horizon, it seemed like a good idea to get the badly corroded parts back to East Kirkby to discuss repair or re-manufacture options. Here can be seen the drum and floor assembly being discussed and, next to that, the turret rings.



This image is the aviation equivalent of three road builders looking into a hole, I assume. It would also make a reasonably good caption contest.

October will be filled with further cleaning of components for inspection and repair when needed. I also hope to get some paint onto the main structure as then some of the larger assemblies can go back in.