

YGC EUROFOX PROJECT NOTES

INTRODUCTION

These notes are presented chronologically from the start of our tow plane project and finishing with our first experiences with the aircraft as a gliding club tug.

WHY EUROFOX?

Despite (unfounded) doubts about the EuroFox's capabilities as a tug, and spurious rumours about Rotax engine reliability in the tugging role, YGC trial flew both the nose wheel and tail wheel EuroFox glider tugs. This flying revealed the true facts about EuroFox (as an aircraft), and Rotax 912 ULS power plant; after the 3rd demonstration (2nd with the tail dragger) YGC decided to order a tail wheel glider tug with a retract winch which was seen as a significant safety enhancement in the Sutton Bank flying environment.

Using flying and financial statistics from the previous 3 years, annual cost savings using the EuroFox of £15 – 20K were identified. Maintenance under the LAA engineering regime offers considerable savings, and the 51% amateur build reduces the initial outlay for a new aircraft considerably. The “no commercial profit” rules (CAA/LAA) for glider towing in both private and club operations are respected by reductions in tow charges across the tug fleet, and the introduction of training tows to 1000 feet for the price of a winch launch. Winching opportunities at Sutton Bank are restricted to days when the ridge is working, and concentrated ‘circuits and landings’ training has been carried out in the MG.

BUILDING EUROFOX

EuroFox UK organise the assisted build process from day one. The visit to the Aeropro factory at Nitra is invaluable; not only does the builder get hands on build experience and get guidance on the LAA's build paperwork (work sign-off begins at Nitra), but also deep insight into the aircraft's structure and design. The factory team are hugely enthusiastic people who go ‘all-out’ to help you get your project off to good start. Investment in the Rotax Owners Course at Turweston (LAA) is well worth the outlay, and the course dispels the Rotax myths that abound (I will say no more on that one!)

Once you have the EuroFox kit in your hands the actual build is time-consuming but straightforward. EuroFox UK reckon on 300 – 500 hours of work, and not counting the work at Nitra we have logged over 500 at Sutton Bank; if we build another 300 hours would probably be nearer the mark! This would still satisfy the 51% rule, and our amateur build time was split between a small team of 4 to people in order facilitate control and checking of our work. The LAA are involved from the start through the LAA Inspector system, and it is vital to team up with an Inspector from ‘day 1’.

The EuroFox build manual is comprehensive, and leads you through the build process fairly logically. The manual is being continuously updated, and EuroFox UK publicises this when new ideas emerge from the factory or other builders – we are doing the first (25 hour) engine check at the moment, and taking the opportunity to carry out improvements that have come in since our original build.

Roger Cornwell and Adrian Lloyd at EuroFox UK are always available for help and advice, and their technical support is excellent. Our LAA Inspector kept an unobtrusive eye on our amateur engineering 'fun and games', and remained hands-off throughout the build unless asked to assist. The LAA maintenance and inspection regime is very much in tune with the requirements of light aircraft operations, and EuroFox joins aircraft such as Chipmunk, Piper Cub, Tiger Moth and Auster on the Annex 2 tow-plane list.

OPERATING EUROFOX

With my 'name in the frame' as the YGC EuroFox builder (and some previous experience), I was approved by the LAA as test pilot for our EuroFox shake-down flying and test flight profile. Together with the Permit to Test paperwork the LAA provide excellent advice and checklists (prior to first flight) that I found most useful while preparing all the check flying profiles. LAA also extended our original Permit to include some aerotowing (4 tows) to test the Tost retract winch.

EuroFox UK allowed 5 YGC tug pilots to fly their demonstration aircraft, and this kick started our conversion programme nicely. So far we have checked out 10 of our 'tuggies' and done over 50 aerotows with the new tug. Looking back, the weather and airfield conditions experienced since our first flight have been far from easy, and the aircraft has not been treated with 'kid-gloves'. The towing performance of EuroFox is similar to that of the Chipmunk and Super Cub, and feedback from both ends of the rope has been positive. The most noticeable 'procedural' difference, particularly with our heavy 2-seaters (DG500 and DG1000) is that the tug lifts off before the glider; this does not require any change to normal glider aerotowing technique.

SUMMARY

The EuroFox 'does exactly what it says on the tin'. The whole project has been educational and fun, and we are already delighted with the outcome at Sutton Bank.

Richard Cole
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