

AIRCRAFT PROJECTS WITHOUT BUILD RECORDS

The build records on an amateur built aircraft are a critical part of the airworthiness assurance documentation. Without any form of proof that the aircraft was properly constructed it cannot be issued with a Permit to Fly.

In cases where the records of a part built project have become lost, the project almost always ends up being scrapped. However each case is treated on its merits and the following provides an outline of the issues and the steps necessary to propose LAA acceptance of such a project.

As a starting point, the builder has to engage the services of a LAA Inspector. It is his task to examine the project and submit a proposal to LAA Engineering if he believes that sufficient evidence is available to support the validity of the build. This proposal would need to address the following issues:

- **Whether the aircraft is built to the correct design standard and is free from unapproved mods and repairs.**
This would depend on factors such as how near complete the build is, whether the original plans are available and whether these can be validated against the LAA approved design standard. The Inspectors familiarity with the type would be significant in determining whether any unapproved mods or repairs are present. A side by side inspection with another example of the same type could be used to assist in determining this.
- **Whether the materials used are those specified and were of appropriate quality.**
Receipts for aircraft grade materials would be useful in providing confidence. In addition to an external inspection, critical areas may need to be dismantled to establish freedom from defects and wood grain discrepancies. Sample laboratory tests could also be used to validate the material specifications for critical components. Where composite components are built from scratch it is virtually impossible to verify quality retrospectively.
- **Whether the quality of workmanship is adequate.**
Thorough inspection is necessary. Dismantling and boroscope methods can be used to assist. It is helpful if the project has only had one builder. In this case, confidence in the quality of the areas that you cannot see can be derived from those areas which are visible.
- **Whether the project was amateur built**
Any photographs of the part built aircraft are valuable in supporting the amateur built status of the project. If the project is still with the original builder, he should be asked to submit a historic account of the build, which the inspector is entitled to quiz him on to ensure it is valid.

If larger components such as instruments, radios, and even an engine are included, these also need to be assessed to establish whether they are suitable for aircraft use and have been purchased or refurbished by a reputable source.

If the Inspector is satisfied that there are alternative means for validating the above, he should make a proposal in writing to LAA Engineering describing the history of the project and why he considers the above aspects to be adequately covered. However, even with a positive recommendation from a LAA Inspector, there is no guarantee that the build records can be substituted with this proposal and the project recommence.