

	SAAA CONTROLLED DOCUMENT	
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Information Paper

Can I buy and rebuild a GA aircraft into an Amateur-Built Experimental?

This information paper provides guidance to persons considering purchasing a standard GA aircraft to rebuild or modify into an amateur-built experimental.

1. INTRODUCTION

Every once in a while, someone appears on the scene with the idea that they can just go buy an old type-certified GA aeroplane (Cessna or whatever) as damaged, written-off, derelict or unloved, with the intention to rebuild, modify or re-engine it with a 350 Chev V8 and then operate it as an Experimental Amateur-Built aircraft. Can this be done? That is the question this information paper attempts to answer. The short answer is **no it can't**. Let's look at why.

2. CAN A GA AIRCRAFT BECOME AN EXPERIMENTAL?

An **Amateur-built Experimental** aircraft? – **no it can't**.

A whole aircraft that was once registered and operated as a **type certified** aircraft can never be reclassified as an **amateur-built** aircraft, no matter how much work is done to it. An Experimental **some-other-category** aircraft (maybe air racing, exhibition, Research & Development etc) – perhaps, but those categories have nothing to do with SAAA activities.

Amateur-built experimental regulations do allow the use of some **parts** of previously type-certified aircraft in their construction – but not the whole thing, or substantially the whole thing! Amateur-built experimental aircraft must have the major portion (ie, more than 51%) **fabricated and assembled** by the builder. Using a fuselage, wings and a tail (all those) off a type certified aircraft, you will never get anywhere near that 51% figure.

CASA AC 21.29 has a good checklist in the back to help builders determine that 51% figure.

3. REGISTERED VH- AIRCRAFT

If the aircraft (aeroplane or helicopter) is currently **and will remain** VH- registered, it will likely still have a Certificate of Airworthiness, so the answer is easy – **no** you cannot legally rebuild it unless you have a LAME licence. Any work on a **registered** VH- aircraft, whether it is dead or alive, is maintenance.

Let's examine the Civil Aviation Regulations (CAR 1988) a bit:



CAR 2 Interpretation

class B aircraft means an Australian aircraft that is not a class A aircraft.
(a Class A aircraft is used commercially, not a private aircraft)

CAR 42ZC (shortened here for clarity)

- (1) The holder of the certificate of registration for an Australian aircraft must not permit any maintenance to be carried out by a person if the person is not permitted by this regulation to carry out the maintenance.

- (4) A person may carry out maintenance on a class B aircraft if:
 - (a) the person holds an aircraft engineer licence that permits him or her to perform maintenance certification for the maintenance.

4. NOT REGISTERED AIRCRAFT

Surprisingly, an aircraft that is not registered in Australia is not technically an Australian Aircraft (for which all the regulations intend to apply) and so the question of who may work on it suddenly becomes very grey indeed.

Civil Aviation Act Part I 3 Interpretation

Australian aircraft means:

- (a) aircraft registered in Australia; and**
- (b) aircraft in Australian territory, other than foreign registered aircraft and state aircraft**

Now, we are not saying that all you have to do is de-register the aircraft and you are good to go, there's more to it. Read para 2 again. Can a GA aircraft become an amateur-built? **No it can't.**

5. CAN YOU GET A GA AIRCRAFT "OVER THE LINE" TO AMATEUR-BUILT?

Let's look briefly at AAT case 956 of 29 Nov 2016. You should be able to find it.

An aircraft that had a type certificate was obtained by a non-licensed person with the intention of rebuilding it, modifying it, and operating it as an amateur-built experimental. It was worked on to some unknown degree and modified, then wrecked during taxi trials, and thus came to CASA's attention. It had no Certificate of Airworthiness, no Special Certificate of Airworthiness, nothing. The owner believed he was qualified to do the work (AAT said no), the owner believed it qualified for amateur-built status (CASA and AAT said no).

The AAT report said in part:

The first problem, which should have been self-evident to Mr X, is that the aircraft is not an amateur-built aircraft. It was a production aircraft and it was issued with a type certification which was withdrawn, only because production ceased and it could no longer be supported by the manufacturer. It could never be described as an amateur-built aircraft. An amateur-built aircraft is defined in AC 21.4(2) in the following way (clause 5.1):

*An amateur-built aircraft is an aircraft, the major portion of which has been fabricated **and** assembled by a person or persons who undertook the construction projects solely for their own education or recreation. (Emphasis added)*



The important aspect of this definition is the fact that the major portion must be fabricated and assembled by the persons who undertook the project. The expression major portion is also defined term and in essence, it means more than 50% of the aircraft. While Mr X said that he had stripped the major portion of the aircraft and reassembled it, he had not done both, that is fabricated and assembled the aircraft. Use of the conjunctive “and” is significant although it appears to have been overlooked by Mr X.

Mr Z, a Standards Officer with CASA, said in a statement which was taken into evidence: It would always be a (production aircraft). If modified, it may have become subject to additional maintenance and flight manual requirements, but it would still remain a (production aircraft).”

Summary:

Amateur-built experimental aircraft must have the major portion (more than 50%) **fabricated and assembled** by the builder. Clearly, the use of an entire airframe as a starting point is never going to be acceptable.

CASA also has concerns about using parts or major components (eg a wing set) in the construction of amateur-built experimental aircraft. Yes, you can use those, CASA’s concern is that they do not want to see any of those parts or major components ever returned to a certified GA aircraft. Unlikely to ever happen, but a valid concern indeed.

6. WHAT DOES ALL THIS ULTIMATELY MEAN FOR SOMEONE CONSIDERING REBUILDING A TYPE CERTIFIED AIRCRAFT TO OPERATE AS AN EXPERIMENTAL?

Our advice would be to tread very carefully indeed. There have been cases of people just blindly purchasing an aircraft for rebuild, without delving in to the regulations.

Some persons embarking on this journey have claimed that they contacted CASA, and CASA said **yes, go ahead, you can do that**. When asked to show that correspondence, they come up empty. Even if they had it, that doesn’t mean the aircraft will be eligible for an **Amateur-Built Experimental** Certificate. An Experimental **something else** certificate maybe. But not amateur-built.

SAAA cannot give anyone the “go-ahead” for such a project. SAAA Authorised Persons who can issue an Amateur-Built Experimental certificate must receive sufficient proof that the builder fabricated and assembled the aircraft. Anything that is or was a production aircraft will not be accepted, no matter how much work has been done to it.

Even if you got an old Cessna 172, stripped it completely down to every last nut, bolt and rivet, then cleaned it up and put it back together, it’s still a Cessna 172. No amount of work done to it will ever change that.

Could you build your own “172”? Yes. I suppose so – if you found some plans, bought raw materials, and fabricated and assembled all of it, and had sufficient hard evidence that you did all that. Sure, you could use some genuine 172 components, landing gear, controls etc, you just can’t start with the whole thing. And at the end, it would be a “Jones 172” or whatever you wanted to call it.