>> The shipment arrives after spending a few weeks on the ocean from LA. In theory these 4 boxes and a tube (plus some basic tools) could be dropped into the middle of Australia, and around 100 man (or woman) hours later, after adding some oil and fuel, you could fly away.

Oh, for the *rag and tube* days

by Bert Moonan

THE Quicksilver GT400 has been around since 1991.

There are around 1500 of them flying (80 of them in Australia) all with an impeccable safety record.

The GT400 was originally designed to appeal to GA pilots, who for economic or medical reasons, could not continue with their flying (hence the flaps and the yoke).

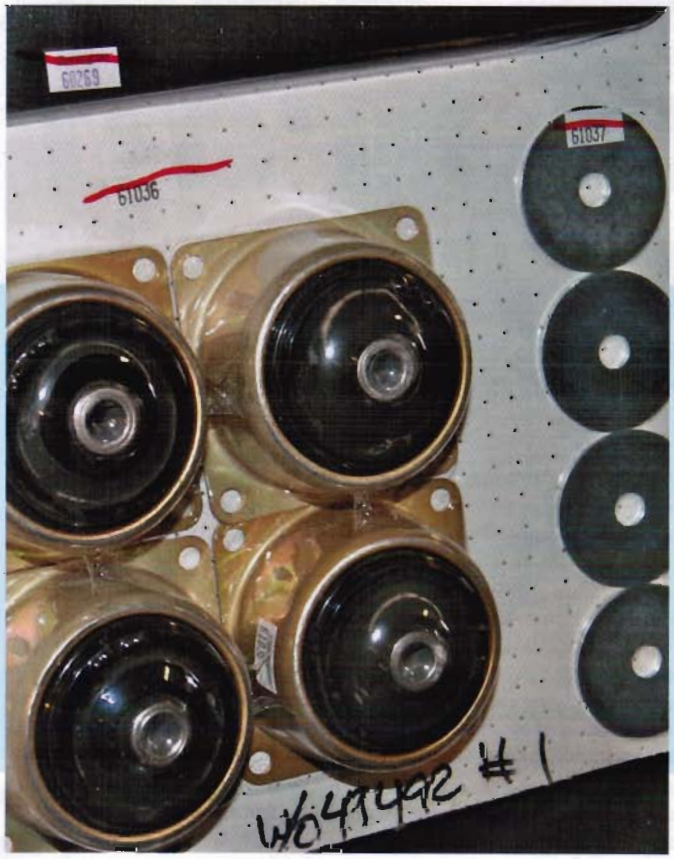
Quicksilver kits are ideal for the "average Joe".

You don't need an engineering degree. The assembly manual is easy to follow, and straight forward. It's not unlike the old Meccano set.

Some sections are already pre-assembled. In fact, the main tools are a 7/16 and a 3/8 socket and spanner and it should be around a 100 hour experience. With the help of a friend or a spouse it will get done quickly.

When you are finished, you will have the satisfaction of having built your own aircraft. And more importantly, you will know every last nut and bolt that keeps you in the air.

Here's one we prepared earlier.



>> Top These are the boxes all unpacked ready to start assembly.

>> Left Most of the parts are on blister packs and are all numbered, so you don't get lost. Most parts are pre-drilled.

STAGE 1 Assembly of the forward tube, axles, brake and wheel assembly. (This has the optional Black Max brake system and optional tundra tyres)

STAGE 2 Assembly of the seat and seat track, control wheel, extra fuel tank bracket, front wheel assembly and rudder pedals. (This has the optional Quicksilver GT500 front wheel assembly)

STAGE 3 Assembly of the root tube, aileron control and cabin frame.

STAGE 5 Attachment of the rear tube to the main body. Align, measure and check it is square to the front tube. Attach and adjust elevator controls. Also attach fuel tank straps and the flap handle controls, which will be on the main tube (like the GT500) instead of the root tube, due to the option of the wing tank.

STAGE 4 Assembly of the rear tube, rudder, elevators and associated hardware. This is probably one of the hardest bits to do because the Dacron has very tight tolerances (but it does fit), so it requires careful reading of the instructions and patience. This stage and the flaps and ailerons are the most challenging.

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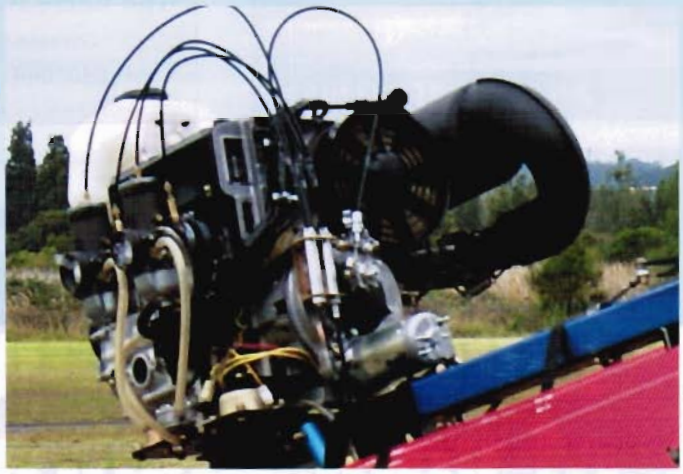
STAGE 6 The ailerons and flaps are just as difficult as the tail end, with very tight tolerances, but they do fit. I found by spraying some Inox lanolin spray liberally on the tubes before pulling the covers on, will make them slide more easily. Also make sure the tops of the rivets holding the cross pieces are smoothed with a fine file. You need to bunch up the fabric and pull down to get the top in place first, then pull down and smooth out the snag points, before slowly and carefully doing up the zips. The spray dries out in a few days.

STAGE 7 The internal wing structure is assembled, then dis-assembled and slid into the wing skin. Then the skin is stretched to the right shape on the wooden rack. Wing battens are slipped into place, and aileron and flap eyebolts are attached. Internal bits are then attached to LE and TE spars. The second wing takes half the time.

STAGE 8 The front pod and the backplate went to a motorcycle paint shop which did a great job with a 2 pack clear finish over red. He did a good match of the paint colour to the sails too.

STAGE 9 The flap handle and connecting rod installed. The pod and backplate are fitted. The Rotax 503 engine installed.



>> The Finished Product

STAGE 10 The GT500 style windscreen takes a bit of customising to fit the shorter aircraft. Also the fitting for the removable nose cone goes on. The instrument panel is also fitted to the pod, I have had to re-think the wiring for this one, as the basic GT400 had only a limited wiring loom, and normally only has an ASI, a tacho and a CHT and a pull start. I have had to virtually copy the GT500 loom.

By adding the VSI, EGT's, Altimeter, compass, circuit breakers, Hobbs Meter, electric start, battery etc, the aim is to basically have a single seat GT500 with all the GT500 inclusions (You can never have too many instruments). This panel is from the GT500-582, so I have had to work out an extra loom to handle all the extra bits.

Fitting the rear pilot enclosure is very tight, so cord had to be attached to the rivet holes to get it tensioned and placed right. This was a two man job, and patience was required to get the creases out. It is also an easier job with a pneumatic riveter.

STAGE 11 Finally at the "final assembly" stage. Wing washout, aileron and flaps adjustment done. checking that all the nuts, bolts and pins are in place, with two people going over a second and a third time, we still found things to do before taking the final step of getting the Quicksilver GT400 into the air. When you get to this stage, you realise that this is the most important part of the whole equation. Your bum is going to be in this seat when you're climbing out at 1400 ft a minute, so it has to be done right. Then you get to go flying.

This description is for information only. Any recreational aircraft you build should be registered, checked and test flown by the appropriate authorities before you try and fly the aircraft yourself. You should also have the appropriate licence.