



Annabelle Burroughes has enjoyed the delights of her Jungsmann for eight years but a tricky crosswind caught her out. *Light Aviation* will be following her rebuild of the aeroplane over the coming months as she sets out to have it flying again by next spring.

When it went wrong it was over in seconds. It was a lovely sunny day with a gentle 10kt across the runway and I pulled the Jungsmann out of the hangar to go and practice my aerobatic display for the weekend. I had a lovely trip and came back to the airfield 15 minutes later. The wind was swinging between across the runway and favouring 07 and the landing was uneventful – until the end of the roll out with the engine on tick over. I still had the stick back when the wind swung to the tail

of the Jungsmann and a gust picked up the tail and stuck her ignominiously onto her nose. She teetered, balanced on her spinner and right upper wing tip before deciding not to go right over. It was very peaceful sitting looking at the ground. Switches and fuel off I wondered how to get out without breaking myself. I have no recollection of getting out, it can't have been difficult, but once out I stood back, looked at her and stamped my feet in frustration. As usual my aeroplane had looked after me; I didn't have a scratch. I didn't have long to look at the aeroplane on

my own before everyone came to help. The immediate problem was how to get her off her nose and right lower wing tip without causing more damage.

Justin walked around and around deep in thought. The problem was the right undercarriage had bent under the aeroplane and the rear of the leg fairing was through the floor. The worry was that if we just pulled the tail down, the right leg might collapse completely and damage her wing even more.

The answer was rolling towards us, a heavy fork lift piece of kit. I had visions of it just



Happier times. Annabelle's hair trails in the breeze as she takes off for an aerobatic sortie in her beloved Jungsmann, affectionately called *Cabbage*. (Photo: Neil Wilson)

sticking its forks into the top wing, but it was much less damaging. We put a strop through the tie down on her strut and lifted, slowly, very slowly. Justin pulled the bent right leg out into a more normal position, the tail resolutely stayed in the air, more lift and three of us nervously peering up at the tail. It started to move and we eased the tail down and onto its wheel. The Jungsmann looked pretty good then, much more her old self if you ignored the forklift playing undercarriage. I unlocked the tail wheel and under Justin's precise direction we pushed at the tail and took her back into her hanger, the forklift just taking the weight of the right side. The forklift lowered the left side down onto the sofa – apparently I would be too busy with the rebuild to need it! She looked so forlorn sitting one side low as we closed the doors.

I got in touch with my insurance brokers, Alan and Thomas, to let them know what had



Oh dear! The result of an awkward crosswind that swung round to a quartering tailwind and caused the Jungsmann to tip onto its nose.

happened and within two hours an insurance assessor was on the phone. I soon realised that bending the aeroplane was the easy bit. I was sent a nine page form to fill in, and had to provide copies of all my documents, and the aeroplane's. The documents were easy, I keep them in a folder with clear plastic pouches, mine are in the same place and log books were up to date. The nine pages of form were onerous but not difficult. I also had to inform the CAA and settled on a mandatory

occurrence report form for that because it seemed the shortest. Luckily I was able to email everything so it was all done by the middle of the night.

Two days later, keen to keep things moving, I asked the assessor if I could uncover the aeroplane to see what damage I had done so that I could get some quotes. Astonishingly I got an answer on a Sunday to go ahead.

I wasn't sure if there was a logical place to start so stuck the knife through the

JUNGMANN REBUILD

fabric at the left wing tip and started slicing. It was harder than I thought, the leading and trailing edges were firmly glued and because the fabric was hard with paint, the stitching was a veritable nightmare. As the wing was unpeeled it got easier to do, the weight of the fabric falling off the leading edge exposed the stitches. The second side was much quicker, just easing a blade between the edges of the wing and the fabric, it just dropped off. Kevin, our local prolific restorer of Tiger Moths, was insistent that it was cut, not pulled. He said that pulling at the fabric could cause more damage, so cut it was.

It was quite exciting seeing the delicate ribs, the beautifully crafted spars and the dainty wood moulding where the leading edge of the aileron connects. It was a shame that the wing tip was so deformed. The aluminium tube was worn away on the underside where the wing had scraped along the runway and buckled where it had hit the ground. The ribs were in very good condition. The two nearest the wing tip had a few fractures and joints that need gluing but the spar, on first inspection seemed perfect.

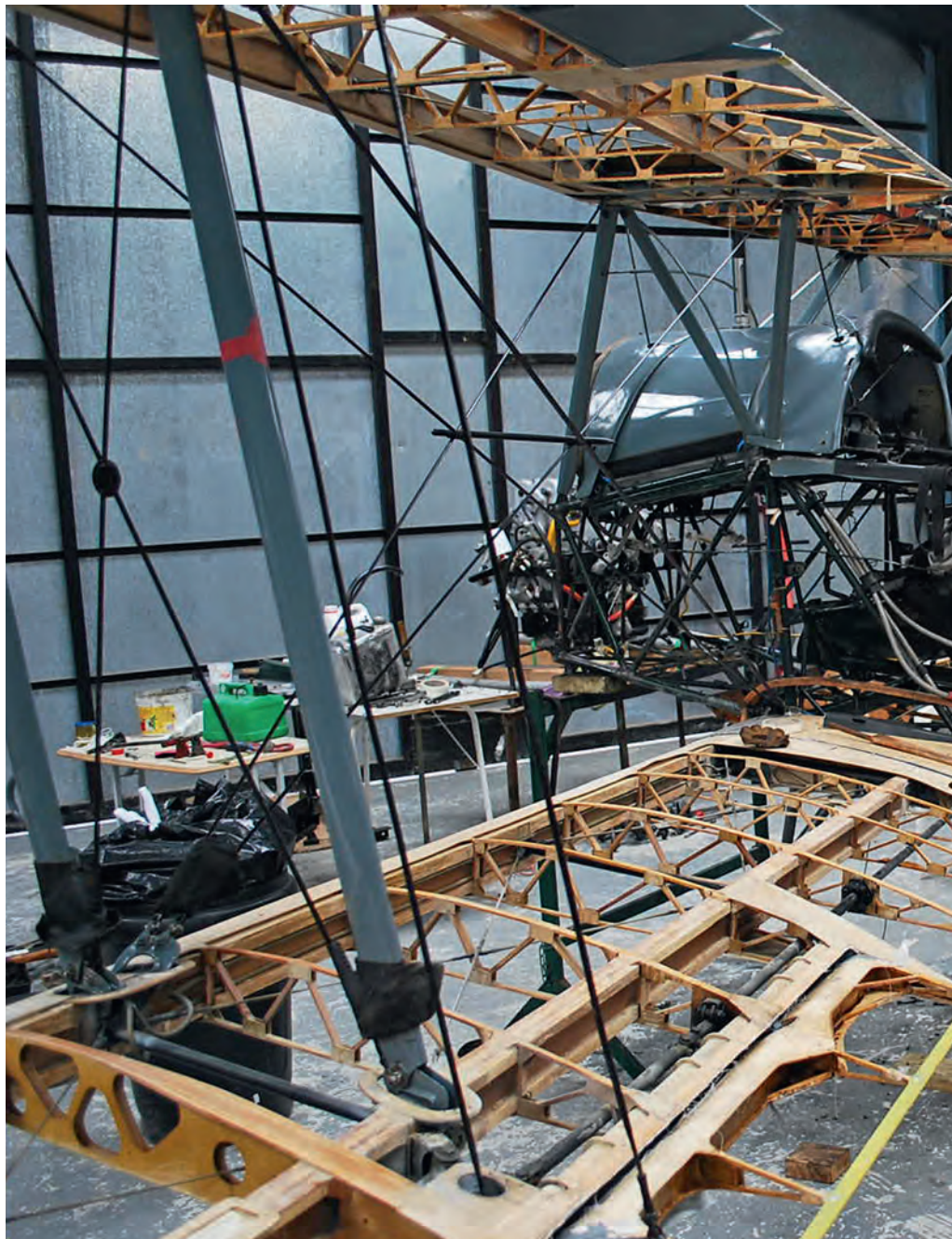
The biggest problem with the wing was the old varnish which was dark brown and crazed, which Kevin told me would need to remove to inspect it properly. I picked up a large ferocious domestic scraper but it left my hand quicker than I can empty an ice-cream tub and was replaced with a scalpel. I thought he was joking but when he explained that if I dug into the spar I would have to replace it. I was also allowed a sharp Stanley blade to use at right angles to the wood, treasures indeed. Before getting started on the varnish stripping – I have been scraping carefully on and off now for weeks, amongst other jobs – the other three wings were next for fabric stripping. The top wings were only a problem because I had to work off a step ladder but once I had four bare wings it was time to call it a day.

Monday morning and the airfield was busy with people so it was time to get her onto trestles. I borrowed an engine hoist, but the Jungmann's nose is always too high for them, and the bent undercarriage was going to cause a problem with symmetrical lifting. I was taking no chances and had her all braced, then I got help to lift the tail onto a trestle.

Next I had to lift the front a little more to get the undercarriage off the ground; it wasn't going too badly until I noticed that for some reason the tail had started to lift, I had a strop too far back and had I continued would have shoved the poor thing onto its nose again. A cup of tea, a rethink and more help solved the problem and we had her sitting safely on trestles by the afternoon. To calm the nerves, more varnish removal proved a perfect tonic.

ANOTHER DAY, ANOTHER TASK

A new day needed a new task, engine removal. I thought I would have it nailed by lunchtime. The back of it was broken by the end of the day but it took much longer than I expected to photograph all the connections, drain the oil, and undo hoses and sleeve their ends so that it was ready to lift the engine off the front. The engine mounts used to be straight, business-like tubes jutting forwards to hold the power plant. My mishap has turned them into gently curving pieces of tube and I also have a flattened spinner and battered cowlings, and the nose bowl has very nasty gravel rash and has moulded itself around the front rocker cover. I think the most unusual looking



part is the reformed oil tank. It has a splendid indentation from the rear exhaust stub. If you didn't know better, you'd think it had been factory formed. However, the exhaust stub wasn't happy about being used for forming and has split down its seam. The engine did, eventually, come off easily with the engine mounts, and went onto the engine stand.

I was beginning to get an idea of what was going to be needed and the range of people I was going to need to give me quotes to get everything sorted. The list was getting longer. My favourite has been an offer to overhaul the prop – I suggested that they might need a lot of araldite. I was told that they never glued propellers, they were always done properly to which I replied that that might be tricky as mine was little more than a pile of matchsticks! They did laugh, luckily.

My next job was decided for me. I was in the hangar when a pair of chaps wandered through with cameras. I asked them if I could help and they replied that they were just taking pictures. I didn't want pictures of the

Jungmann to get onto the Internet like this, so I asked them not to take pictures of her. They looked at me sympathetically and said they understood, was the man who owned her very strange? I said yep, he was the strangest, most bad tempered man I had ever met and thanked them for their cooperation! It is very useful being overlooked at times; I decided it was time to remove the fuselage fabric so that she was unidentifiable to anyone passing by.

The fabric took no time to remove and it was the first time I have been horrified by the task ahead of me as she sat bare and seemingly vulnerable. It didn't take long to spot fractures in the forward fin lugs and a bent tube where the back of the undercarriage faring had come up through the floor and knocked off the wooden foot plate. This was just on a first casual inspection. The dark green paint on the tubes had cracked and lifted in places and flaked off with a light scrape – more old protective layers to remove before she can be put back together. I used the best paint stripper but I think they must have changed



The wings devoid of fabric and about to be removed. The engine has already been removed. (Photo: Neil Wilson)



The damaged prop and 'gravel-rashed' nosebowl. Note cabbage paint scheme on crushed spinner.



The fuselage tubing will need all the paint stripping from it and a new dope-proof anti-corrosion finish applied.

the recipe, it didn't make any difference and made a filthy mess.

The tail section was quick to strip. The ribs made from narrow metal tube were in good condition, the red oxide paint was only in poor condition where the fabric that had been stuck to the leading edge had been peeled off. There were a couple of snapped rib ends in the rudder and the fin seemed to have a small length of a rib missing. My boyfriend Clive offered to strip the rudder, he wanted to take the fabric off in two sheets. He finally understood why my fabric removal had been a little higgledy piggledy, but did a very neat job.

The only obviously broken part of the airframe was the undercarriage. The rear tube on the left had snapped through and the ribs of the fairing were very broken and the trailing metal edge was bent in half. It was much harder to remove than usual because a couple of the bolts were bent. The central leg brace attachment was torn from its mounting on the right hand side of the tripod and the phosphor bronze bush had pulled clean

through. Once the wheels were off I stripped the legs to check for fractures but thankfully with the paint stripped, the weld lines – where cracks are known to form – seemed perfect. I am not yet sure where to start mending the fairing ribs; they are attached with a type of jubilee clip, a thin metal band that wraps round and round and is fastened with a bolt that is turned to tighten the fastening. I am not sure where to get more, or if it is necessary to remove them. The oil filled legs have been emptied, cleaned and wiped with oil so that there will be no corrosion by the time they need to be assembled.

So by the end of the first month I have broken, stripped and disassembled a beautiful flying machine, drunk a lot of tea, and been helped, commiserated with and advised by countless wonderful friends. You could say August 2013 started badly but has got progressively better. I am determined to have the Jungmann back in the air for next season and intend to catalogue the progress in the pages of *Light Aviation*. ■



The offending starboard undercarriage leg that gave up in protest.