



WHEN ALL WENT QUIET

There I was, with nothing on the clock... Steve Slater recalls the lessons learned when his engine quit

> Well it happened. I suffered one of those sudden silences that they talk about in the textbooks. It was sudden, too. There was no warning when a broken crankshaft necessitated parking Topsy Trainer G-AISA on a suitable piece of pasture.

I hasten to add that initially I was a bit reluctant to write this. I am well aware that among the talent pool that exists within the LAA, there are plenty of more skilled hands that have successfully pulled off forced landings in far more arduous circumstances. I fear I might be shooting a bit of a line.

Various LAA and VAC members had other ideas - they reckoned there were lessons to be learned from the experience. OK then, so there was I, enjoying a pleasant summer evening aloft and heading back to Bicester, about 40 minutes into a planned hour-long local flight. I'd (thankfully) just cleared the Chilterns ridge and was about 1,200ft over the Vale of Aylesbury when I got the first hint of a problem.

Lesson number one. How often have you found a small town on your course and thought, "A thousand feet will be plenty to glide clear?"

Well, both I and the residents of Princes Risborough can be pretty thankful that I decided to pass abeam. Had I not elected to fly around the edge of the town, I reckon the Topsy and I might have found ourselves in a little bit of a predicament!

There is also a general wisdom that most

"It was not so much I chose the field, it chose me!"

piston engines, particularly traditional designs, will give you lots of warning before they progressively fail. Don't bet on it.

I reckon I had five to ten seconds of a slightly unnatural 'feeling' of something wrong. Then there were four or five hammer-blows of heavy vibration and the engine seized.

My first thought as I looked at the (very) stationary propeller-tip ahead of me was, "This is for real then," by which time I was already passing through 1,000ft.

Lesson 2: things happen very quickly! I guess that planning a circuit is fine if an emergency happens at a higher level. However, I knew I was already pretty well nose-on into any wind and frankly, any field more than half-a-mile away or more than 30° off the nose would have been out of the question. I also know I lose about 650ft in a gliding 180° turn, so anything other than some S-turns to position me on a base leg was also not an option.

Lesson 3: it is easy to think that 'flat areas' like the Vale of Aylesbury are one big forced-landing area. Actually, when it comes to putting the theory into practice, one's choices are a bit more limited.

I rapidly applied the five 'S' check: Surface, Size, Shape, Surroundings and Slope, to three potential fields within comfortable gliding distance. The first I rejected because it had standing crop, almost certain to turn the aircraft over. The second had a couple of trees on the approach and looked newly planted. The surface again looked unfriendly. I rejected that too. The third field was smaller than the other two, but had a clear approach over a low hedge and a good grass surface, plus a road and some bungalows along one side, so help might be forthcoming if the worst happened. It was not so much I chose the field, it chose me!

KNOWLEDGE - AND LUCK!

By this time, as far as I can remember, I was flying the aeroplane by feel and instinct, with only the very briefest of glances at the airspeed. Obviously an open cockpit helps, but another lesson, how well do you really know your aeroplane?

I have not flown a huge number of hours in the Topsy, maybe 150 over five years, but on many of those flights I have practised manoeuvring at low speeds, sideslipping and glide approaches. That, along with the Topsy's responsive handling and a healthy dose of luck, found me sitting in an intact aeroplane, in the last 100 yards of a 350-yard meadow. I guess it was less than a minute after the emergency began.

Looking back, I consider myself very lucky. I did some things that could have been



Friends gather to dismantle 'SA



The fuselage ready to return to Bicester

dangerous. For a start, I committed the sin, not uncommon I understand in novice glider pilots when landing out, of getting too close and too high in relation to the selected field. That necessitated some increasingly desperate S-turning and sideslipping in the final stages of the approach, which could easily have made me a stall/spin statistic. Knowing my aeroplane helped, but maybe the luck of a fool played a part too.

So saying, a little bit of surplus airspeed or height is far better than the alternative, right down to the landing. Compared with a conventional approach with idle power, the aircraft needed a significant flare to arrest the sink. With a low-inertia or high-drag aeroplane, it is very easy to lose that ability to arrest the descent.

I was also well aware that even if I landed long, I wasn't just committed to running in a straight line. I landed slightly offset down the length of the field, with the idea of turning away from the far hedge to extend the run into an L-shape.

What I hadn't appreciated from the air though, was that the direction I turned across was in fact slightly downhill. Luckily I came to a stop anyway.

Also, I have to admit, that although I tightened my belts and turned off the switches, I didn't get to turn off the fuel tap until after I came to a halt. Had it all gone wrong, that could have produced a very different outcome. My excuse is I was too busy flying the aeroplane at the time.

I have also been asked about a Mayday call. Well, I was non-radio, so I didn't have the option, but even if I had I think it would have been a dangerous distraction. Sadly, a recent AAIB report highlighted exactly this, with a fatal stall/spin following engine failure as the pilot was intent on transmitting his Mayday. Trust me, there is nothing anyone on the ground can do to help if you have a low-level engine failure - fly the darned aeroplane!

My final lesson learned, is that an 'off piste' landing shows who your friends are. I owe a big thank you for the help of Terry, Roger and Dave from Bicester Gliding Centre and VAC stalwart Arthur Mason in helping dismantle and recover the aeroplane from the field by road.

The Topsy is now on the mend back at Bicester, where we are repairing some fabric and ply fairings, which were damaged while removing the one-piece wing. That in itself posed an interesting 31ft transportation challenge!

Fortunately, my spares stock has gleaned a rare, spare, Walter Mikron crankshaft and crankcase, which thanks to the engineering skills of David Beale has formed the basis of the engine rebuild. Meanwhile we are investigating the cause of the crank failure, just eight years after it was crack-tested and inspected during a previous overhaul.

The Topsy I hope will be back in the air before the end of the year. In the meantime, I hope my recollections might just help anyone else in a similar predicament. ■



The broken crankshaft – investigations continue