

'This is for real, then'



*There I was, nothing on the clock...
Steve Slater got away with it, and shares the experience*

Well, it happened. I suffered one of those sudden silences that they talk about in the text books, when a broken crankshaft necessitated parking my Topsy Trainer G-AISA in 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 AOPA, there are plenty of more skilled hands who have successfully pulled off forced landings in far more arduous circumstances than I. Your editor had other ideas. He reckoned there would be lessons to be learned from the experience. OK then, so there was I...

...enjoying a pleasant summer's 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 at about 1,500 feet on the QNH, therefore about 1,200 feet 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, "yeah, a thousand feet will be plenty to glide clear...?"

**Above: author Steve Slater with his Topsy Trainer in good working order
Right: friends to the rescue – the Topsy is dismantled for overland transport**

Well, both I and the residents of Princes Risborough can be pretty thankful that I had 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 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 then I was already passing through 1,000 feet. 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 degrees off the nose would have been out of the question.

I know I lose about 650 feet in a gliding 180-degree turn, so anything other than some S-turns to position me on a base leg was also out of the question.

Another lesson. It is easy to think that

the flat Vale of Aylesbury is one big forced landing area. Actually, when it comes to putting theory into practice, the options are a bit more limited. I rapidly applied the Five Ss: 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. I



rejected this too, as the surface again looked unfriendly.

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!

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 there's another lesson – how well do you really know your aeroplane?

I have not flown a huge number of hours in the Tipsy, maybe 150 hours over a five year period, but on many of those flights I have practiced manoeuvring at low speeds, side-slipping and glide approaches. That, along with the Tipsy's responsive handling and a healthy dose of luck, found me sitting in the last 100 yards of a 350 yard meadow, I guess less than a minute after the emergency began.

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

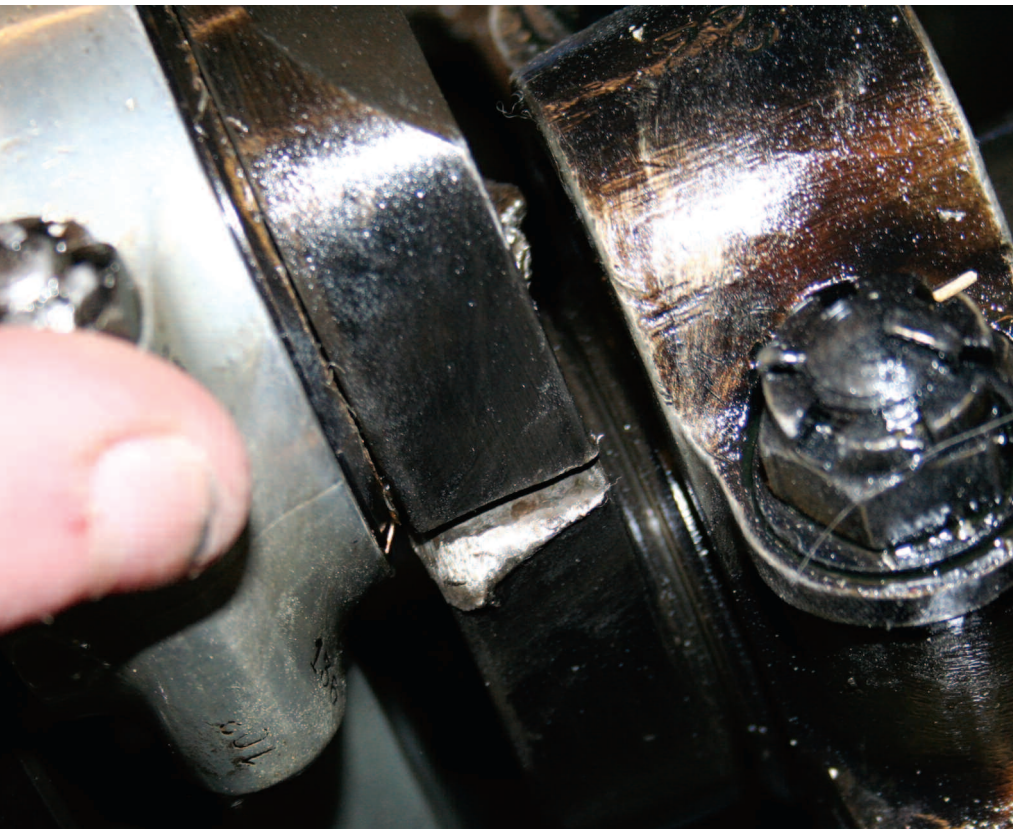
That necessitated some increasingly desperate S-turning and side-slipping in the final stages of the approach, which could easily have made me a stall/spin statistic. Knowing my aeroplane helped, but maybe the luck of a fool played a part too.

So saying, a little bit of surplus airspeed or height is far better than the other 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.

**Left, from the top: an ignominious ride home for a proud flying machine
Easy does it... Sierra Alpha is manoeuvred under a bridge
The Tipsy's 31-foot one-piece wing raised transport difficulties**

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 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, which itself posed an interesting 31-foot 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 will form the basis of the engine rebuild. Meanwhile the investigation continues into 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 summer and meanwhile, I hope my recollections might just help anyone else in the same predicament! ■

Above: I think I can see the trouble, sir... Topsy's two-piece crankshaft
Above right: 'Five hammer blows and the engine seized'
Below: 'We can rebuild him... we can make him stronger...'

