

Learning From Experience #4

A real stress raiser! – A personal account

The aftermath of this incident, in which a nose gear axle snapped on landing, was an experience I would not recommend to anyone, however, it is one that I would personally like to pass on as a reminder to what can happen given the right set of circumstances.

It all started on a Sunday in January and it was my day off. At the time I was an airline maintenance control engineer. I also have a PPL and that lunchtime I spoke to my flying partner as it happened to be a great flying day for January. We rigged the micro-light and flew to a nearby airfield, lunching on a bacon bap. Returned, de-rigged and returned home, tired and satisfied to a roast dinner. The dinner was half way through cooking so I phoned Maintrol just to confirm that I was still required on overtime the next day, relaxing with the first glass of wine poured and a sip taken. They took the opportunity whilst I was on the phone to was asked if I fancied a trip to Malaga, sooner rather than later!

So, 50 minutes later I'm in the flight deck en route to Southern Europe. I've left behind one very (very!) irate wife, one delicious roast dinner and two disappointed children. I've driven in and leapt on board the held flight with minimum tools and a hastily produced maintenance manual reference for a wheel change, with very little prior knowledge of what awaited me. On arrival I hadn't even reached the bottom of the steps when the agent asked how long the job would be!! I had heard over the HF radio on the way that it was a bearing failure of the right hand nose wheel ; the wheel had been removed and stowed in the forward hold. Some difficulty had apparently been experienced removing the inner wheel bearing race from the axle.

The damage to the axle was noted and verbal details passed to Maintrol, which was manned that night by an avionics engineer. He was struggling to find any information whatsoever regarding damaged wheel axles and any limitations to be observed during inspection. I suggested that he should keep delving and I would call back later.

It was at that point I was contacted by the pilot who brought me. He said he was having difficulty refuelling his aircraft. I advised what to do and went over to assist him for a few minutes. It seemed to be going OK so I left it to him and went back to the axle. By this time a gathering of crew, dispatchers and loaders had crowded around the axle! I was trying to buy some time for Maintrol to come back to me with information but this was becoming increasingly difficult.

Now, it was at this point, with 20/20 hindsight, I should have told the whole lot to clear off, leave me to my inspections and to come back later when I'd come to some sane and safe conclusion. However, for reasons I still cannot answer to this day I gave the graze on the axle a quick dressing, peered into the axle chamber with a torch and decided there and then that it would be OK! Unbelievable, I know, but there you are.

Also at this point, the captain of the second aircraft wanted help with refuelling. So I went over again. This time a tank needed to be dripped due to incorrect calculations. So, this I did teetering on the top of a pair of inadequate steps, did the calculations and left him to it. That I certainly didn't need either!

On returning to the axle I do remember thinking "Right, lets get these nose wheels changed and get the hell out of here 'cos I've had enough of this."

So I did just that! Started to change the wheels and told the dispatcher and pilot '30 minutes'. Whilst pumping up the wheels I thought I'd try to look at the U/S wheel that had been removed

earlier no good it was buried under baggage in the forward hold. It had been that way ever since my arrival! When I eventually got to see the wheel much later in UK it was a right mess! But to say it might have changed my mind if I had seen it that night is pure speculation.....

So, there is the end of a sorry tale. I jumped on board and was praised by a number of passengers who had found out that it was I who had got them home from their holidays! Take off was smooth, and retraction ok.

The rest is history. It was side loads at only 10-15 kts as we turned off the runway on arrival that broke the camels back. Looking back, wouldn't it have been a mess had the axle failed on retraction braking?? My blood runs cold to this day thinking of that scenario!

In conclusion, I heard little alarm bells several times that evening.....

Firstly, a recognition regarding the total lack of technical data available for guidance. There is always (ALWAYS) information available about any piece of equipment on our aircraft and if we can't find it, find someone who can- but at 11pm on a Sunday night that can be a hard task, especially when the terminal is full with 200 passengers waiting on your technical dithering!

Secondly, I do remember thinking that the other pilot was being an unnecessary distraction to my already frazzled concentration (no offence to him, he had a legitimate problem).

Finally, when I did commit pen to paper I called Maintrol for a last time to pronounce the aircraft serviceable. He still had no info for me. By that time the aircraft was half boarded and I had written up the Tech Log anyway. I put the phone down.... Hmmmm, maybe I should have waited?

I expect that on reading this many other engineers will find other glaring errors and omissions, "why did he do that?", "what on earth was he doing" etc. Don't think I have not asked myself all these questions and more. The main point is to put yourself in that situation. Yes, I messed up, I was tired (knackered!), I was hungry, I was distracted, I was under immense pressure, and I had inadequate tooling and information. All excuses I know but!!???

Sound familiar? Should you ever end up in a similar spot please feel free to think of me. Put your hand up and have the courage to say, Stop!

And the AAIB final recommendation:

"It is recommended that the CAA requires the operator to review their procedures for maintenance away from base with the object of making them more robust and removing some of the pressure from the LAEs sent to rectify aircraft down route."