

Team Minimax 91, G-MYTA

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Category: 1.4

Aircraft Type and Registration:	Team Minimax 91, G-MYTA	
No & Type of Engines:	1 Rotax 447 piston engine	
Year of Manufacture:	1995	
Date & Time (UTC):	7 June 2002 at 2020 hrs	
Location:	Headon, Notts	
Type of Flight:	Private	
Persons on Board:	Crew - 1	Passengers - None
Injuries:	Crew - Minor	Passengers - N/A
Nature of Damage:	Aircraft destroyed	
Commander's Licence:	Private Pilots Licence	
Commander's Age:	40 years	
Commander's Flying Experience:	323 hours (of which 87 were on type)	
	Last 90 days - 7 hours	
	Last 28 days - 5 hours	
Information Source:	Aircraft Accident Report Form submitted by the pilot and subsequent AAIB enquiries	

The aircraft had undergone a protracted period of maintenance which included the fitting of a new engine and exhaust system. Whilst running-in the engine, it was noted that exhaust fumes were entering the cockpit, although this was partially remedied by sealing various gaps in the cockpit area. On the day of the accident, the pilot had, in addition, sealed the joint between the wing root and fuselage with PVC tape which seemed to prevent any further fumes entering the cockpit.

In order to check this further the pilot decided to carry out some fast taxi runs, intending just to raise the tail wheel off the ground. On one such run, however, the aircraft became unexpectedly airborne. At this point the canopy, which had not been properly secured, opened until it was held by the secondary safety catch mechanism.

The pilot considered that he had insufficient runway remaining in which to land safely and so he commenced a climb at full power. He then tried to close the canopy using his left hand, but in so doing released the secondary catch mechanism allowing the canopy to fly open. Instinctively he used his right hand to try to close the canopy, at the same time releasing the control column. The aircraft pitched down and despite the pilot subsequently pulling back on the control column with his left hand, the aircraft hit the ground about 15 feet before the end of the runway. The aircraft was destroyed by the impact and the pilot, having sustained an ankle injury, managed to crawl free of the wreckage.

The pilot reported that he had changed the type of exhaust fitted during the recent maintenance to the aircraft. The previous exhaust ended close to the engine whilst the new exhaust extended back along the fuselage before ending under the wing. He attributed the presence of the fumes in the cockpit to this change. Since the aircraft was destroyed in the accident, it was not possible to evaluate why fumes were still entering the cockpit but subsequent enquiries indicate that where gaps in the fuselage exist, it is possible that some fumes may on occasion enter the cockpit with either type of exhaust. It is also likely that as both the engine and exhaust were new, there would, initially, be additional odours as the various coatings were heated. These odours would be more noticeable than the normal exhaust fumes.

Carbon monoxide indicators are readily available and in their simplest forms are relatively cheap. It makes good sense for them to be fitted to any light aircraft, but especially where there is an increase in the perceived risk of fumes entering the cockpit. Pilots should also exercise caution when carrying out unfamiliar procedures, and when operating close to take-off speed, they should be prepared for the consequences should the aircraft become subsequently airborne. To that effect, fast taxi tests should be made with the aircraft fully configured for flight, including the canopy fully and properly secured.