

Piper PA-28-140 Cherokee, G-BOSU, 24 April 2002

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Category: 1.3

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| Aircraft Type and Registration: | Piper PA-28-140 Cherokee, G-BOSU | |
| No & Type of Engines: | 1 Lycoming O-320-E3D piston engine | |
| Year of Manufacture: | 1973 | |
| Date & Time (UTC): | 24 April 2002 at 1230 hrs | |
| Location: | Rutters Airstrip, Teesside, County Durham | |
| Type of Flight: | Private | |
| Persons on Board: | Crew - 1 | Passengers - 1 |
| Injuries: | Crew - None | Passengers - None |
| Nature of Damage: | Both wing leading edges and horizontal stabilator dented | |
| Commander's Licence: | Private Pilots Licence | |
| Commander's Age: | 35 years | |
| Commander's Flying Experience: | 92 hours (of which 49 were on type) | |
| | Last 90 days - not reported | |
| | Last 28 days - not reported | |
| Information Source: | Aircraft Accident Report Form submitted by the pilot and further enquiries by the AAIB | |

The pilot planned a flight from Oxford to Fishburn Airfield, Teesside. There was fog at Oxford early in the morning, but by 1000 hrs it had cleared and the aircraft departed on the planned flight. On arrival in the Fishburn area, the pilot had some difficulty initially in locating the airfield. Weather conditions in the area were fine with sunshine and light winds. He saw a strip surrounded by fields that looked correct and so, as a double check, contacted Fishburn on the radio and asked if they could see him in the overhead. They confirmed that he was indeed overhead and he carried out a circuit and landed. After landing he called for taxi instructions at which time he was advised that they could not see his aircraft. It became apparent that he had in fact landed at a private strip with a similar runway orientation, which is located one mile to the north of Fishburn.

The pilot decided that his best course of action was to take off again and fly to Fishburn. He did not shutdown the aircraft, but carried out his usual power checks before takeoff. During the take-off run, just at the point of rotation, the engine 'coughed' and the pilot felt that the aircraft had suffered

a partial power loss. By now he could see a hedge ahead and did not think that there was sufficient room to stop. He continued the takeoff, planning to pass over the hedge and land immediately in the field beyond. The aircraft hit the hedge but continued to fly and achieved a slight climb. The pilot could now see that the field beyond the hedge was brown and thought that it might be a ploughed surface. He decided not to land in it, but kept the aircraft climbing. He crossed a line of telegraph poles, but was unable to climb above a line of pylons with power cables ahead, so he flew underneath them. Once clear of obstacles, he continued the climb and reached 1,000 feet. He then turned back towards Fishburn, identified the airfield successfully and landed there without further incident.

The pilot stated that throughout the flight the engine continued to run roughly and achieved a maximum of 2,000 to 2,100 rpm.

Engineering examination

An engineering examination was made of the aircraft following the flight. The exhaust gasket was found to be leaking and the exhaust pipe was loose. No other faults were found that could account for the reported rough running or power loss.

The engine had been run in another aircraft for six hours following overhaul, before being installed in this aircraft 20 flight hours prior to this accident. The plugs and exhaust gasket were not replaced when the engine was installed but were transferred, after inspection, from this aircraft's previous engine.

Some weeks later, following a temporary repair, the aircraft was flown back to Oxford without any reported problems. The engine was then stripped down and inspected but no evidence of any defect was found.

Discussion

The perception of rough running of the engine could have been a result of the increase in noise level caused by the loose exhaust pipe, but the reported loss of rpm could not be accounted for, except for the possibility of carburettor icing.

The criteria necessary for the licensing of an aerodrome; for example clear approaches and take-off paths, may not always be applied to the establishment of a private strip. The CAA General Aviation Safety Sense leaflet number 12A, entitled 'Strip Sense' gives guidance for pilots planning to use unlicensed strips. This advice includes measuring out the strip to enable an accurate calculation of landing and take-off performance, and reviewing the area to check for obstacles. Following an unplanned landing at an unfamiliar airstrip, a good visual inspection prior to takeoff is a wise precaution.