

Beagle B121 Series 2, G-AXDU

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Aircraft Type and Registration:	Beagle B121 Series 2, G-AXDU
No & Type of Engines:	1 Lycoming O-320-A2B piston engine
Year of Manufacture:	1969
Date & Time (UTC):	20 September 1997 at 1345 hrs
Location:	North Weald Airfield, Essex
Type of Flight:	Private
Persons on Board:	Crew - 2 - Passengers - None
Injuries:	Crew - 1 Minor - Passengers - N/A
Nature of Damage:	Substantial damage to landing gear, wings and fuselage
Commander's Licence:	Commercial Pilot's Licence and FI Rating
Commander's Age:	53 years
Commander's Flying Experience:	1,847 hours (of which 1,550 were on type) Last 90 days - 93 hours Last 28 days - 35 hours
Information Source:	Aircraft Accident Report Form submitted by the pilot

The purpose of the flight was to check out a qualified pilot on the aircraft. The take off on Runway 13 was normal, but as the aircraft rotated into the climb attitude the crew became aware of a burning smell. The instructor then observed that the oil pressure gauge was indicating zero and anticipating an imminent engine failure, took control of the aircraft. The area beyond the end of the runway was crowded with people attending a nearby Saturday market and so the instructor turned the aircraft to the left in order to look for a suitable landing area. The maximum height achieved was around 500 ft agl and the aircraft was turned through 270° in order to attempt a landing in the area to the west of Runway 20. The engine continued to run during this time although it was clear that power output was falling, with full throttle application failing to increase the speed of the aircraft. The instructor levelled the wings with the aircraft in a steep descent prior to the landing flare. However the nose did not rise sufficiently and the aircraft struck the ground in a nose down attitude, causing detachment of the landing gear. The instructor sustained a minor back injury during the accident, but the other pilot escaped injury.

Following the accident the instructor, who was also the owner of the aircraft, assessed that there appeared to be a reasonable amount of oil in the engine. The wreckage was then recovered to a hangar at North Weald, where the engine was eventually removed and subsequently taken to AAIB's facility at Farnborough for a strip examination. No defects were found during the examination, which paid particular attention to the oil pump and accessory gearbox. The oil was normal in appearance and it was evident that there had been no lubrication problems.

Consideration was therefore given to the possibility of a loose union at the connection between the engine oil pressure pipe and the instrument panel oil pressure gauge, since this may have given rise to a small escape of oil, thus accounting for the smell in the cockpit with an associated loss of indicated oil pressure. However, the maintenance organisation that recovered the aircraft reported that there were no obvious signs of associated oil leakage. The wreckage has subsequently been further dismantled and removed to another location, thus diminishing the possibility of a meaningful investigation of the instrumentation. Nevertheless the owner has undertaken to have the oil pressure gauge and its associated pipework examined. Any significant findings will be reported in a future issue of the AAIB Bulletin.