No: 8/86 **Ref: 1b**

Aircraft type and registration:	Grumman AA5A Cheetah G-HASL
No & Type of engines:	1 Lycoming 0-320-E2G piston engine
Year of Manufacture:	1978
Date and time (UTC):	25 June 1986 at 1213 hrs
Location:	½ nm south of Staverton aerodrome, Gloucestershire
Type of flight:	Training
Persons on board:	Crew — 1 Passengers — Nil
Injuries:	Crew — 1 (minor) Passengers — N/A
Nature of damage:	Damaged beyond economic repair
Commander's Licence:	Student Pilot's Licence
Commander's Age:	28 years
Commander's Total Flying Experience:	45 hours (of which 43 were on type)
Information Source:	AIB Field Investigation.

The pilot was executing a go-around, having landed from a normal approach close to the landing threshold of runway 18. He retracted the flaps to 2/3rds and applied full power, checking as he did so that the carburettor air control was selected to cold air. He had checked that the mixture control was fully rich when downwind to land. The engine began to misfire soon after power was applied and, between 100 and 200 feet agl, it failed completely. The pilot saw a house immediately ahead and turned sharply to the right along a field of young barley. He attempted to level the wings before reaching the ground but the right wingtip struck the crop. The aircraft yawed to the right and, as it slid along the ground, the nosewheel and left main gear leg were torn from the aircraft before it came to rest, having turned through 180°. The pilot escaped from the aircraft unaided and was flown to hospital in a helicopter that was operating in the area.

One eyewitness stated that the aircraft appeared to be leaving a faint black trail behind it as it climbed away from the runway. Investigation revealed that the rubber bellows type duct from the airbox to the carburettor intake had split around 45% of its periphery and, as found, the bellows section had been displaced inwards, partially occluding the intake. It was found that it was possible for the split segment to move easily towards the carburettor intake and almost totally obstruct it.

The aircraft had flown 75 hours since the last scheduled maintenance check and 170 since the intake duct had been replaced. It is not known whether the replacement item was new or a serviceable used part. The maintenance schedule used calls for inspection of all flexible ducts at each 100 hour period. The carburettor intake duct is difficult to inspect without removal of the lower cowling which was not scheduled at the last check.

A similar failure was the subject of a Civil Aviation Authority General Aviation Safety Information Leaflet report in August 1983. At the time of publishing this earlier report the failure was believed to be associated with the use of Mogas. The subject aircraft had been fuelled exclusively with 80/87 Avgas for a long period before this accident.