

AAIB Bulletin No: 9/93

Ref: EW/G93/07/33

Category: 2c

Aircraft Type and Registration: SA341G Gazelle 1, G-MANN

No & Type of Engines: 1 Turbomeca Astazou 3A turboshaft engine

Year of Manufacture: 1975

Date & Time (UTC): 25 July 1993 at 0810 hrs

Location: Near Thruxton airfield, Andover, Hampshire

Type of Flight: Private

Persons on Board: Crew - 1 Passengers - 2

Injuries: Crew - None Passengers - None

Nature of Damage: Tail rotor inclined drive-shaft severely abraded, gearbox cowlings worn and cracked, and rear hinge failed.

Commander's Licence: Private Pilot's Licence

Commander's Age: 33 years

Commander's Flying Experience: 650 hours (of which 100 were on type)
Last 90 days - 13 hours
Last 28 days - 11 hours

Information Source: Aircraft Accident Report Form submitted by the pilot and telephone inquiries by AAIB

After completion of the pre-flight checks and briefing the passengers, the aircraft was taken off for a flight from Islay to Carlisle. Immediately after take off, the pilot noticed a vibration which he believed to be blade tape becoming detached. He landed the aircraft immediately and found that the front catch on the right side of the gearbox cowling was undone and the aft cowling link hinge was broken. The pilot then fastened the forward catch, made sure the cowling was in its correct position and then continued the flight.

On completion of this flight, the aircraft was then flown to Thruxton, where it was routinely maintained.

Subsequent inspection by the maintenance organisation revealed that both sides of the cowling were cracked close to the rear fastening clip. It was also found that the rear end of both cowlings had been abraded at the sides of the cut-out for the tail rotor inclined drive and that the drive-shaft itself was

abraded. The damage to both the cowlings and the drive-shaft were sufficiently severe that all had to be replaced.

Although the rear link hinge was broken, the other hinge and all the clip fasteners were serviceable and in good adjustment. The loss of the rear link hinge considerably reduces the positive location of the aft end of the cowling, allowing it to drop down and move laterally.