

No: 5/91

Ref: EW/G91/01/08

Category: 1c

Aircraft Type and Registration: Piper PA-32-260, G-ATRW

No & Type of Engines: 1 Lycoming O-540-E4B5 piston engine

Year of Manufacture: 1966

Date and Time (UTC): 22 January 1991 at 1150 hrs

Location: 10 nm South of Crewe, Cheshire

Type of Flight: Private

Persons on Board: Crew - 1 Passengers - 2

Injuries: Crew - None Passengers - None

Nature of Damage: Loss of engine cowling, windscreen damage and superficial paint scratching.

Commander's Licence: Private Pilot's Licence with IMC and Night ratings

Commander's Age: 40 years

Commander's Total Flying Experience: 519 hours (of which 140 were on type)

Information Source: Aircraft Accident Report Form submitted by the pilot

The pilot reported that whilst flying at 2500 ft in the area of Crewe, tracking towards Birmingham, the front starboard cowling clip appeared to come undone. The cowling began to vibrate and a Pan call was broadcast. This was received by the Birmingham Radar Controller. Speed was reduced and two stages of flap selected. Nonetheless the rear starboard cowling clip failed shortly afterwards. This was followed by separation of the cowling, which after inflicting damage to the windscreen, passed over the top and down one side of the cabin before falling away.

The radar Controller at Birmingham was informed that the pilot wished to divert to Shawbury and that the cowling had now completely separated. The aircraft was at this time losing height at approximately 300 ft/minute. The controller contacted Shawbury by telephone and was informed that the airfield was fogbound with a reported Runway Visual Range of 100M. This information was relayed to the aircraft which was then vectored towards Cosford.

By this time the pilot had managed to stabilise the aircraft and to establish it in a climb. After considering the available options he elected to attempt a return to Barton, his point of departure. The controller passed details of the situation to the Manchester Controller by telephone and the aircraft was

transferred to their control, Manchester clearing the aircraft direct to Barton where a successful landing was carried out.

After landing, an examination of the forward starboard cowling clip confirmed that it had broken. The fastener was still secured to the lower cowling, the pivot pin remained in position and the failed upper section was attached to it. The upper section of the clip is secured to the edge member of the top cowling by means of bolts with vertical axes. A right angle bend in the upper section enables the bolts to pass vertically through bolt holes into corresponding holes in the edge member. The fracture is reported to have occurred at this right-angle bend in the upper section. The top cowling (and hence the upper fracture face) was not recovered.

It is understood that the clip in question was fitted new at the last Maintenance inspection. It was therefore forwarded to the main UK agent for the aircraft type to enable further examination to take place.

Information Source:	Aircraft Accident Report Form submitted by the pilot
Commander's Total Flying Experience:	219 hours (of which 148 were on type)
Commander's Age:	40 years
Commander's Licence:	Private Pilot's Licence with IMC and Night ratings
Nature of Damage:	Loss of engine cowling, windscreen damage and superficial paint scratches.
Injuries:	Crew - None Passengers - None

The pilot reported that whilst flying at 2500 ft in the area of Crewe, tracking towards Birmingham, the front starboard cowling clip appeared to come undone. The cowling began to vibrate and a fan call was produced. This was received by the Birmingham Radar Controller. Speed was reduced and two stages of flap selected. Nonetheless the rear starboard cowling clip failed shortly afterwards. This was followed by separation of the cowling, which after inflicting damage to the windscreen, passed over the top and down one side of the cabin before falling away.

The Radar Controller at Birmingham was informed that the pilot wished to divert to Shawbury and that the cowling had now completely separated. The aircraft was at this time losing height at approximately 100 ft/min. The controller contacted Shawbury by telephone and was informed that the airfield was found with a reported Runway Visual Range of 100M. This information was relayed to the aircraft which was then vectored towards Cosford.

By this time the pilot had managed to stabilise the aircraft and to establish it in a climb. After considering the available options he elected to attempt a return to Barton, his point of departure. The controller passed details of the situation to the Manchester Controller by telephone and the aircraft was