

Piper PA-34-200T, D-GMCW

AAIB Bulletin No: 10/2000 **Ref: EW/G2000/06/19** **Category: 1.3**

Aircraft Type and Registration: Piper PA-34-200T, D-GMCW

No & Type of Engines: 2 Continental TSIO-360-EB3 piston engines

Year of Manufacture: 1977

Date & Time (UTC): 25 June 2000 at 1802 hrs

Location: Teeside Airport

Type of Flight: Private

Persons on Board: Crew - 1 - Passengers - 1

Injuries: Crew - None - Passengers - None

Nature of Damage: Landing gear, propeller and underside damaged

Commander's Licence: Commercial Pilot's Licence

Commander's Age: 46 years

Commander's Flying Experience: 1,400 hours (of which 500 were on type)
Last 90 days - 100 hours
Last 28 days - 50 hours

Information Source: Aircraft Accident Report Form and exchange with the German LBA

The aircraft had been chartered in Germany for a pleasure trip to Teeside, which included a planned stop at Cambridge. The aircraft departed Cambridge at 1700 hrs. On approaching Teeside, the airport Air Traffic Control (ATC) asked the pilot to join a right hand circuit for a landing on Runway 05 and report when on base leg. Teeside ATC observed the aircraft positioning downwind on a left hand circuit for Runway 23. ATC then instructed the pilot to turn left and re-position downwind on a right hand circuit for Runway 05. The aircraft was observed to reposition on a tight right hand base leg for Runway 05 with a short final approach. ATC observed the landing gear being lowered on short finals. The pilot reported that the landing gear was locked down and indicating three greens prior to landing and that the landing, although slightly hard, was otherwise normal. On landing the left main landing gear was seen to collapse and the aircraft slewed to the right through 180° and came to rest blocking the runway. Teeside Airport fire service quickly arrived at the scene but there was no fire and the pilot and passenger were uninjured. The pilot completed the shutdown checks and he and the passenger exited the aircraft without assistance. Both main landing gears, the left propeller and underside of the aircraft were damaged. Weather

conditions at Teeside at 1750 hrs were dry with surface wind 040°/08 kt and visibility in excess of 10 km.

It was possible to determine from tyre and fuselage ground contact marks in photographs of the accident site, provided by Teeside Airport Operations, that the aircraft had landed slightly to the left of the runway centreline and that the left main landing gear had collapsed inboard. This caused the aircraft to drop onto its left wing, allowing the left propeller to come into contact with the runway surface, creating approximately half a dozen propeller strike marks on the tarmac surface. The tips of the left propeller were curled forwards, suggesting that the engine had been developing power when the left gear collapsed. The aircraft veered and skidded to the right, crossing the runway centreline and finally coming to rest on the right hand side of the runway pointing backwards in the direction from which it had landed. The right main landing gear side brace had failed in tension due to the side loads experienced during the ground slide, allowing the gear to fold outboard slightly but not collapse fully. Teeside Airport Operations organised for the aircraft to be recovered from the runway and moved to a hangar for storage and repair.

The aircraft was examined by an engineer representing the German Air Accident Investigation Bureau (Bundesstelle fuer Luftunfalluntersuchung). He reported that the left-hand side brace had buckled due to overload in compression and some of the bolts were observed to have been bent due to the excessive loading. The right-hand side brace had reportedly failed in tension due to overload. No evidence of fatigue or other pre-existing defects was noted. The aircraft was repaired at Teeside and flown back to Germany some weeks later.

From the evidence available it is thought that the pilot may have landed with too high a descent rate which resulted in the left main landing gear collapsing and the right main landing gear failing in the ensuing ground slide.