

No: 3/90

Ref: EW/G89/11/08

Category: 1c

Aircraft Type and Registration: Piper PA-38-112, G-BMXL

No & Type of Engines: 1 Lycoming O-235-L2A piston engine

Year of Manufacture: 1980

Date and Time (UTC): 25 November 1989 at 1535 hrs

Location: Wycombe Air Park, Bucks

Type of Flight: Training

Persons on Board: Crew - 2 Passengers - None

Injuries: Crew - None Passengers - N/A

Nature of Damage: Damage to underside of starboard wing, starboard undercarriage and flap.

Commander's Licence: Private Pilot's Licence with IMC and Assistant Instructor Ratings

Commander's Age: 32 years

Commander's Total Flying Experience: 684 hours (of which 530 were on type)

Information Source: Aircraft Accident Report Form submitted by the pilot

The aircraft was taxiing to take-off on runway 07L at Wycombe Air Park. As it taxied onto the grass, the starboard undercarriage collapsed. The engine was shut-down and no further damage ensued.

Subsequent examination revealed that a bolt, Piper part No 401 511 had failed allowing the starboard leg to collapse. Clear evidence of fatigue was seen over at least 80% of the fracture face. This, and the two other bolts securing each undercarriage leg, was the subject of an FAA Airworthiness Directive No 83-05-04 and associated Piper Mandatory Service Bulletin 673B. These required that the bolts be changed on a once-off basis together with revised torquing procedures. The maintenance organisation responsible for G-BMXL advised that they pursue a policy of changing the bolts annually on their PA38 aircraft because loose, worn or cracked bolts are still often found on inspection. The subject aircraft had apparently only some seven days to run to its Certificate of Airworthiness renewal inspection.

A recommendation has been made to the Civil Aviation Authority that they re-examine Airworthiness Directive 83-05-04 with a view to introducing a repetitive inspection and/or mandatory scrap life for these bolts.