

No: 2/91

Ref: EW/G90/09/19

Category: 1a

**Aircraft Type and Registration:** British Aerospace ATP, G-BTPJ

**No & Type of Engines:** 2 Pratt & Whitney 126A turboprop engines

**Year of Manufacture:** 1989

**Date and Time (UTC):** 10 September 1990 at 1507 hrs

**Location:** Glasgow Airport

**Type of Flight:** Public Transport

**Persons on Board:** Crew - 4 Passengers - 21

**Injuries:** Crew - None Passengers - None

**Nature of Damage:** Left-hand inboard wheel detached

**Commander's Licence:** Airline Transport Pilot's Licence

**Commander's Age:** 38 years

**Commander's Total Flying Experience:** 7,920 hours (of which 705 were on type)

**Information Source:** Aircraft Accident Report Form submitted by the pilot

The aircraft was taxiing clear of runway 23 at Glasgow Airport after landing, when ATC asked the crew to 'hold' as it appeared that the aircraft had lost one of its mainwheels. The flight deck crew had not felt or seen anything unusual but shut down both engines as a precaution in case a rapid evacuation became necessary. When the Fire Service confirmed that the left-hand inboard wheel had indeed detached, but that there was no fire, smoke or further damage, the passengers were disembarked using the integral airstairs and were taken to the airport terminal by bus.

Examination of the left-hand inboard wheel and axle showed that the outer bearing had broken up and that the wheel had then detached from the axle by passing over the retaining washer and axle nut. The cause of the bearing break-up is the subject of a continuing investigation by the manufacturer but, as an interim measure, the design has been modified so that the washer inboard of the retaining axle nut now has a shoulder. This prevents the wheel departing from the axle in the event of a bearing failure and the change has been implemented by means of a Mandatory Service Bulletin. The modification also introduces a larger number of locking positions on the retaining nut so as to improve control of the maximum preload applied to the bearing assembly.