

# AIB Bulletin

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No: 5/84

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**Aircraft type and registration:** BAC 1-11 400 G-AXOX (twin jet public transport aircraft)

**Year of manufacture:** 1968

**Date and time (GMT):** 19 July 1983 at 0849 hrs

**Location:** Gatwick Airport

**Type of flight:** Public Transport

**Persons on board:** Crew — 5                      Passengers — 28

**Injuries:** Crew — Nil                      Passengers — Nil

**Nature of damage:** Main wheel rim and brake hydraulic lines

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

**Commander's Age:** 53 years

**Commander's total flying experience:** 18800 hours (of which 1239 hours were on type)

The aircraft was on a scheduled passenger flight from Gatwick to Amsterdam. Shortly before lift off a vibration was felt throughout the aircraft. A runway debris check was requested, but results were negative and the climb was continued. However, by the top of the climb some decrease in the indicated hydraulic fluid contents was noted. The slow decrease continued after operation of the No 2 hydraulic cut off lever, but stopped when the No 2 engine-driven hydraulic pump was switched off.

It was then reported that wheel debris had been found on the runway, and it was decided to return to Gatwick. The co-pilot and cabin crew were briefed in preparation for possible tyre failure on landing.

After a flyby, which did not reveal any signs of wheel damage, a normal approach and landing were made. Runway surface was dry. Normal reverse thrust was used. Initial indications were that braking was satisfactory, but as speed reduced below 50 kt the brakes appeared to be failing. Handbrake application (with No 2 AC pump selected ON) further slowed the aircraft. Shortly before coming to a stop the aircraft was intentionally steered off the right side of the runway onto the grass. Passengers were then evacuated using forward and aft airstairs.

This Bulletin contains facts relating to the accidents which have been determined up to the time of issue. This information is published to inform the public and the aviation industry of the general circumstances of the accidents at the preliminary/stage and must necessarily be regarded as tentative and subject to alteration or correction if additional evidence becomes available.

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It was found that part of the No 4 wheel rim (right wheel of right main landing gear) had failed. After becoming detached from the wheel the rim portion struck and dislodged the main oleo walking beam, resulting in the severance of a brake hydraulic pipe with the consequent loss of brakes Nos 3 and 4.

Examination of the failed wheel showed that a 58 cm length of its flange had detached as a result of fatigue cracking possibly associated with intergranular corrosion.