

AAIB Bulletin No: 9/94

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Category: 1.1

Aircraft Type and Registration: Boeing 737-230, D-ABMC
No & Type of Engines: 2 JT8D-15 turbofan engines
Year of Manufacture: 1985
Date & Time (UTC): 4 July 1994 at 0937 hrs
Location: Stand E3, London Heathrow Airport
Type of Flight: Public Transport
Persons on Board: Crew - 6 Passengers - 86
Injuries: Crew - None Passengers - None
Nature of Damage: Structural damage to the leading edge of the left wing and the nose cowling of the No 1 engine
Commander's Licence: Airline Transport Pilot's Licence
Commander's Age: 54 years
Commander's Flying Experience: 15,000 hours (of which 9,300 were on type)
Last 90 days - 160 hours
Last 28 days - 70 hours
Information Source: AAIB Field Investigation

Sequence of events

After landing, the aircraft was taxied to park on Stand E3; the APU was not being used and the No 2 engine was shut down as it approached the stand. The commander brought the aircraft to a halt alongside the appropriate side marker board and checked, with the ramp agent operating the jetty, that the aircraft was correctly aligned; the agent confirmed that it was with a 'thumbs up' hand signal. The commander reported that he then set the parking brake; neither pilot had any doubt that the brake had been set, but neither could recall checking that the red parking brake warning light had illuminated. The first officer put the index finger of his left hand on the ground power switch and the commander put his right hand on the No 1 engine thrust lever; both were watching the ground power available light on the overhead panel so that, when it illuminated, the first officer could connect ground power to the aircraft system and, subsequently, the commander could shut down the No 1 engine. The commander's attention was drawn by a noise which he initially thought was the sound of the jetty hitting the side of the aircraft. In fact, the aircraft had moved forward some 5 metres and had come to a halt when the leading edge of the left wing, and the nose cowling of No 1 engine, hit the jetty

structure. The commander depressed both brake pedals and then reset the parking brake. The ramp assistant connected his headset to the external panel and advised the commander to shut down the No 1 engine; this he did. It was ascertained that the occupants were in no immediate danger and, in the course of time, steps were brought to the right rear door and the passengers and crew vacated the aircraft without injury.

Ramp personnel

The three ramp personnel present all confirmed that the aircraft had come to a halt in the normal position. The ramp assistant had moved forward to connect the external power. The jetty operator, having given the 'thumbs up' signal to the commander, had started to move the jetty forward. Before either could complete their aim, the aircraft started to move forward. The ramp assistant moved away with the ground connector. The jetty operator attempted to retract the jetty, however, she realised that the aircraft was going to hit it and so retreated from the immediate area.

Crew duty time

The flight crew had completed the third sector on the fourth day of early rotations; the duty period had started at 0330 hrs and the accident occurred at 0937 hrs.

The parking brake

The parking brake is set by depressing the brake pedals and pulling the parking brake lever. The parking brake latches the brake pedals in the depressed position and causes the red parking brake warning light to illuminate. The parking brake is released by further depressing the brake pedals, when the lever returns to the stowed position and the light goes out.

Technical examination

When the brakes were examined shortly after the accident, there was no evidence of any technical problem. There was no hydraulic leakage and there was ample wear remaining on all four wheelbrakes. The cockpit gauges showed 3,000 psi of hydraulic pressure in both brake systems some two hours after hydraulic power had been removed from the aircraft. In parallel with the airframe repairs, there was a full examination of the brake system which also showed no evidence of any malfunction.