

No: 7/91

Ref: EW/C91/6/1

Category: 1a

Aircraft Type and Registration: Boeing 747-236B, G-BDXO
No & Type of Engines: 4 Rolls-Royce RB211-524D4-19 turbofan engines
Year of Manufacture: 1987
Date & Time (UTC): 6 June 1991 at 1315 hrs
Location: Terminal 4, London Heathrow Airport
Type of Flight: Public Transport
Persons on Board: Crew - 20 Passengers - 318
Injuries: Crew - None Passengers - None
Nature of Damage: Minor damage to front left side entry door (L1)
Commander's Licence: Airline Transport Pilot's Licence
Commander's Age: 50 years
Commander's Flying Experience: 15,000 hours (of which 5,000 were on type)
Information Source: AAIB Field Investigation

The aircraft, which was loaded and ready for departure on a scheduled public transport flight from London Heathrow to San Francisco, was parked at Terminal 4 Stand 7. All doors were shut and the air jetty had been removed. During the start sequence No 4 engine failed to rotate due to a suspected fault in the start valve. The commander requested that the fault be rectified before departure. A replacement valve was ordered from Technical Control, who also requested that the air jetty be repositioned at the aircraft to allow engineers access to the flight deck, in order to complete the aircraft's technical log after rectification had been carried out. Neither the flight deck crew (of four) nor the ground engineer on headset were aware that this latter request to reposition the jetty had been made.

In preparation for rectification the No 4 engine panels were opened and it was found that the start valve control connector was detached. This was reconnected and the ground engineer on headset was asked to inform the commander that the problem appeared to be resolved and request that he start the engine. At this stage the air jetty had not been repositioned and all aircraft doors were shut. The engine start checks were re-completed, door lights were checked to be out and No 4 engine started normally. Ground electrics were removed and pushback clearance obtained whilst No 1 engine was started. At some stage during this sequence the air jetty was repositioned and the left forward entry door (L1)

opened by the air jetty operator, who then left to carry out other duties. Nobody entered the aircraft or flight deck since, in the event, technical log action had not been necessary.

On being informed that the aircraft was cleared for pushback the ground engineer on headset, who had positioned herself on the right side of the aircraft, checked that all ground equipment was clear of No 4 engine and that the area behind the aircraft was clear. She was not aware that the air jetty had been repositioned and asked for brake release and, after this was confirmed, signalled the tug driver to begin push back. Almost immediately she noticed debris falling on the left side of the aircraft and, having signalled the tug driver to stop the pushback, asked the commander to re-apply the aircraft's brakes. At the same time the second flight engineer noticed that the door light was on but too late to warn the commander to stop the pushback.

Initial examination revealed that the aircraft had moved rearwards about one metre from the parking spot, and that minor damage had been caused to the front L1 door trim and air jetty operating mechanism. The crew and passengers disembarked and the aircraft was withdrawn from service for repair. There were no injuries.