

**Aviation Safety Investigation Report  
199500709**

**de Havilland Aircraft  
Dove**

**13 March 1995**

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**NOTE: All air safety occurrences reported to the ATSB are categorised and recorded. For a detailed explanation on Category definitions please refer to the ATSB website at [www.atsb.gov.au](http://www.atsb.gov.au).**

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**Occurrence Number:** 199500709                      **Occurrence Type:** Incident  
**Location:** Essendon  
**State:** VIC    **Inv Category:** 4  
**Date:** Monday 13 March 1995  
**Time:** 1215 hours                                      **Time Zone**                      ESuT  
**Highest Injury Level:** None

**Aircraft Manufacturer:** de Havilland Aircraft  
**Aircraft Model:** DH-104 SERIES 8  
**Aircraft Registration:** VH-DHQ                      **Serial Number:** 4533  
**Type of Operation:** Charter                      Passenger  
**Damage to Aircraft:** Minor  
**Departure Point:**  
**Departure Time:**  
**Destination:** King Island TAS

**Crew Details:**

Role	Class of Licence	Hours on	
		Type	Hours Total
Pilot-In-Command	ATPL	1750.0	18700

**Approved for Release:** Monday, April 3, 1995

The pneumatic system on this aircraft type operates the landing gear, flaps and brakes. The aircraft is equipped with a castoring nosewheel and steering is achieved by differential braking. The pneumatic system normal operating pressure is 450 to 600 psi. The minimum pressure for engine start is 90 psi. Prior to engine start, the pilot noted that the pneumatic pressure was about 250 psi. He anticipated the pressure would increase to normal operating pressure after engine start.

The engines were started and the aircraft commenced taxiing. Shortly afterwards the pilot noted that pneumatic pressure had not increased to normal operating pressure as anticipated. At about this time he recalled that he had activated the pneumatic system drain valves during a ground inspection of the aircraft. He suspected that he may not have tightened the valves and that this could be the reason for lack of pneumatic pressure. He therefore decided to return to the parking area and investigate.

As there was still over 100 psi pressure he considered it safe to taxi back to the hangar (bearing in mind that 90 psi is the minimum for start which infers that the brakes should work at that pressure). Approaching the hangar which involved taxiing on a downhill slope, he applied differential braking but there was no response. Realising that he would be unable to turn the aircraft he quickly shut the engines down. The aircraft rolled slowly towards a hangar where it collided with a scaffolding fence, incurring minor damage to the nosegear doors and skin areas of the nose and one wing.

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During a post incident inspection, the pilot noted that the pneumatic system drain valves had not been properly tightened. This explained the reason for the lack of normal system pressure build up after engine start. However, the pilot said he believed there should still have been enough pressure for differential braking/steering. Accordingly, he would have a complete check made of the pneumatic system after the damage sustained in the incident had been repaired.

