Aviation Safety Investigation Report 199602489

de Havilland Aircraft Tiger Moth

07 August 1996

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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.

The Bureau did not conduct an on scene investigation of this occurrence. The information presented below was obtained from information supplied to the Bureau.

Occurrence Number: 199602489 Occurrence Type: Accident

Location: Archerfield, Aerodrome

State: QLD Inv Category: 4

Date: Wednesday 07 August 1996

Time: 1420 hours **Time Zone** EST

Highest Injury Level: None

Aircraft Manufacturer: de Havilland Aircraft

Aircraft Model: DH-82A

Aircraft Registration: VH-FSS Serial Number: 1072

Type of Operation: Instructional Dual

Damage to Aircraft: Substantial

Departure Point: Archerfield QLD

Departure Time:

Destination: Archerfield QLD

Crew Details:

	Hours on		
Role	Class of Licence	Type Ho	urs Total
Pilot-In-Command	Commercial	50.9	1415
Student Pilot	Commercial		236

Approved for Release: Tuesday, September 17, 1996

A group of pilots were undertaking endorsement training on the aircraft. They had been briefed on ground handling and starting procedures for the aircraft. The starting procedure involved turning the propeller through with full throttle and ignition off, in order to pass fuel mixture to the cylinders. After that process the throttle was set to be set to 1/4 inch open and the ignition switches turned on for hand starting.

On this occasion the instructor was outside the aircraft to hand swing the propeller and the pilot undergoing the endorsement was in the cockpit. The throttle had been set full open for the priming procedure and the instructor had asked for it to be set to 1/4 inch open. At this time the throttle was moved to a position which the trainee assumed was the appropriate setting. When the engine started it went quickly to a high rpm condition, the tail rose and the propeller was destroyed by contact with the ground.

The trainee had not closed the throttle initially in order to obtain the correct datum from which to set the throttle for start. He later found that the throttle control movement was much greater than had been expected. In his previous experience, with nose-wheeled aircraft, a high rpm after start was of no concern from an aircraft attitude aspect, however with a tail-wheeled aircraft the tail can rise unexpectedly.

Factors:

- 1. The trainee pilot was unfamiliar with the engine control movement;
- 2. The starting throttle position was not set from the closed throttle position;
- 3. The throttle was set too far open for start;
- 4. The flight controls were not set to help keep the tail low;
- 5. Timely action to reduce engine rpm was not taken;
- 6. The instructor did not check that the throttle and flight controls were properly set for start.