

No: 9/92

Ref: EW/G92/07/19

Category: 1c

Aircraft Type and Registration: De Havilland DH82A Tiger Moth, G-BSTJ

No & Type of Engines: 1 De Havilland Gipsy Major I piston engine

Year of Manufacture: 1939

Date & Time (UTC): 24 July 1992 at 1845 hrs

Location: Northampton (Sywell) Aerodrome

Type of Flight: Private

Persons on Board: Crew - None Passengers - None

Injuries: Crew - None Passengers - N/A

Nature of Damage: Broken propeller, shockloaded engine,
starboard lower wing tip

Commander's Licence: Private Pilot's Licence

Commander's Age: 29 years

Commander's Flying Experience: 465 hours (Of which 212 were on type)
Last 90 days - 23 hours
Last 28 days - 9 hours

Information Source: Aircraft Accident Report Form submitted by the pilot

The pilot was starting the Tiger Moth without assistance and without chocks as he had done many times before. The aircraft was fitted with drum wheel-brakes operated by cables and a lever. The parking brake facility was engaged by twisting the top of the lever which then engaged a ratchet mechanism.

The pilot set the aircraft's parking brake, throttle and magneto switches before hand-swinging the propeller. The engine was warm and did not start so he carried out the "blowing out" procedure (to lean the mixture in the cylinders) and then set the throttle a little further forward than normal before attempting another start. When the engine fired, it ran roughly at first and then at a much higher RPM than he had intended. Before he could get to the cockpit to close the throttle, the aircraft lurched forward as the brakes released. He attempted to stop the aircraft by holding on to its left wing tip but this spun it to the left. The tail then lifted sufficiently for the propeller to strike the ground and shock-load the engine; the resulting torque reaction tipped the aircraft onto its right wing and nose.

The brakes and parking brake ratchet were later checked and found to be fully serviceable. The unwanted release of the ratchet mechanism was attributed to heavy engine vibration during the start. The pilot attributed the accident to his failure to employ chocks as a back-up for the parking brake.

Item	Value
Manufacturer	Boeing
Date & Time (UTC)	24 July 1992 at 1218Z
Location	Merhampton (Zurich) Aerodrome
Type of Flight	Private
Number of Board	Crew - None Passengers - None
Occupancy	Crew - None Passengers - N/A
Nature of Damage	Broken propeller shockstrut engine, sheared lower wing tip
Commander's License	Event Pilot License
Crew member's Age	39 years
Commander's Flying Experience	465 hours (Of which 212 were on type) Last 90 days - 231 hours Last 28 days - 9 hours
Initial cause of accident	Aircraft Accident Report Form submitted by the pilot

The pilot was starting the Tiggy Moth without assistance and without chocks as he had done many times before. The aircraft was fitted with three heel brakes operated by cables and a lever. The landing gear strut was engaged by twisting the top of the lever which then engaged a ratchet mechanism.

As the aircraft was started, the pilot set the parking brake, checked the engine and magnetos switches before hand-swinging the propeller. The engine was warm and did not start so he carried out the "blowing out" procedure (to clear the cylinders of the cylinders) and then set the throttle a little further forward than normal before starting another start. When the engine fired, it ran roughly at first and then at a much higher RPM than the pilot intended. Before he could get to the cockpit to close the throttle, the aircraft lurched forward as the brakes released. He attempted to stop the aircraft by holding on to its left wing tip but this was not sufficient to stop the aircraft. The propeller was the propeller to strike the ground and shock-loads on the fuselage, the resulting torque reaction tipped the aircraft onto its right wing and nose.