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.