Miles M3A Falcon, G-AEEG, 18 September 1997

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Aircraft Type and Registration:	Miles M3A Falcon, G-AEEG
No & Type of Engines:	1 De Havilland Gipsy Major 10 Mk 2 piston engine
Year of Manufacture:	1936
Date & Time (UTC):	18 September 1997 at 1635 hrs
Location:	Thorncote Green, Bedfordshire
Type of Flight:	Private
Persons on Board:	Crew - 1 - Passengers - None
Injuries:	Crew - None - Passengers - N/A
Nature of Damage:	Propeller broken and engine shock loaded. Damage to left wing tip and right gear leg
Commander's Licence:	Private Pilot's Licence with Night Rating
Commander's Age:	49 years
Commander's Flying Experience:	302 hours (of which 2 were on type)
	Last 90 days - 5 hours
	Last 28 days - 2 hours
Information Source:	Aircraft Accident Report Form submitted by the pilot

The pilot was undergoing a conversion to the Miles Falcon. Asthe type only has one pilot's seat, but two passenger seats inthe rear of the cockpit, the content of the conversion had beencarefully considered. Following a comprehensive briefing on theaircraft, the pilot being converted flew a familiarisation flight,as a passenger, with his briefing pilot who was current on type. Following this, the pilot being converted was confident thathe had been properly prepared for his first solo flight. However,as the aircraft was kept at a private airstrip, it was agreedthat this solo should take place at a more suitable location. Accordingly, a few days later, the same two pilots flew to Henlowwhere there was a suitable runway and a large expanse of grass. During the transit, which was flown by the pilot current on type,the pilot being converted was again thoroughly briefed on theoperation of the aircraft. At Henlow, he completed his firstsolo which involved one touch-and-

go followed by a series of fullstop landings. Subsequently, after another flight as a passengerback to the private airstrip, the converting pilot was debriefedand then cleared to operate from the airstrip.

His first flight from Thorncote Green was made on 14 Septemberand involved a take off from Runway 24, transit to Henlow fora landing and then a return flight to Thorncote Green to landon Runway 24. The pilot was content with his performance andplanned his next flight to cover upper air work. This next flightwas scheduled for 18 September and the weather on the day wasgood. The surface wind was calm and the pilot decided to useRunway 24 for take off; the airstrip is 708 metres long with shortsurface grass which was dry at the time. All the pre-flight checkswere completed and the pilot set the elevator trim lever to neutraland tightened the trim friction nut.

Initially, the take-off run was normal but, when the pilot attemptedto raise the tail off the ground he experienced much greater resistancethan normal. He was concerned that, if he pushed too hard, thepropeller could strike the ground. With an increasing groundspeed and the tail still on the ground, the pilot could not seestraight ahead. He sensed that G-AEEG was getting airborne butat too slow a speed for safe flight, and was also aware that hewas drifting to the left of the runway. Deciding to abort thetake off, the pilot retarded the throttle and applied right rudder;the aircraft swung to the right and ran off the runway into arecently ploughed field. In the subsequent abrupt stop, the leftwing tip and the propeller momentarily struck the ground beforethe aircraft came to rest.

The pilot considered that the cause of the accident was his incorrectsetting of the elevator trim lever friction nut. The elevatortrim lever is located just forward of the control column and controlsa bias spring which is connected to the control column. Undernormal operation, the trim lever moves in sympathy with the controlcolumn but can be adjusted in flight to reduce air loads on thecontrol column. However, if the friction nut is tightened toomuch, the movement of the trim lever is restricted and resultsin increased resistance on control column movement. On the previousflights, the friction nut had been looser and the nut is not accessibleby the pilot once he is strapped in. With the situation the pilotfound himself in, he considers that his decision to abort thetake off was correct; unfortunately, his inexperience on typemeant that he was not able to control the subsequent swing resultingfrom throttle closure and simultaneous rudder input.