

ACCIDENT

Aircraft Type and Registration:	Robinson R44 Raven II, G-LAVH	
No & Type of Engines:	1 Lycoming IO-540-AE1A5 piston engine	
Year of Manufacture:	2008	
Date & Time (UTC):	15 May 2008 at 1350 hrs	
Location:	Private landing site at Bury, Lancashire	
Type of Flight:	Private	
Persons on Board:	Crew - 1	Passengers - None
Injuries:	Crew - 1 (Minor)	Passengers - N/A
Nature of Damage:	Helicopter destroyed by fire	
Commander's Licence:	Private Pilot's Licence	
Commander's Age:	50 years	
Commander's Flying Experience:	100 hours (of which 16 were on type) Last 90 days - 32 hours Last 28 days - 10 hours	
Information Source:	Aircraft Accident Report Form submitted by the pilot	

Synopsis

The pilot had been carrying out solo hovering exercises in a newly acquired helicopter. After landing to change the frequency on the helicopter's radio, he lifted the helicopter back into the hover but realised that the cyclic control was now 'very heavy'. The helicopter began to oscillate from left to right so he descended back onto the ground from a height of 6 to 8 ft, possibly touching down on the front of its skids in a nose down attitude. During this manoeuvre it is possible that the rotors made contact with the ground and the resultant vibration caused the windscreen to detach. The helicopter was subsequently destroyed by fire but the pilot escaped with minor bruising.

History of the flight

The pilot was carrying out solo hovering and hover taxiing exercises in a newly acquired helicopter at a private landing site. The weather conditions were described as good, with a light wind of about 5 kt, good visibility and broken cloud at 4,000 ft. After ten to fifteen minutes of hovering exercises, the pilot landed the helicopter to select a different radio frequency before departing on a flight to Liverpool. When he took off again he realised that the cyclic control was 'very heavy', but could not recall if the collective was similarly affected. He managed to maintain directional control but the helicopter began to oscillate from left to right and move rearwards as he attempted to control the helicopter through the cyclic. From a height of 6 to 8 ft the pilot lowered the collective, the helicopter

descended, in a nose-down attitude touching down on the front of its skids and possibly allowing the rotors to make contact with the ground. The subsequent vibration caused and the windscreen to detach. The pilot cannot recollect the events that followed until he became aware that he was of standing in the field looking back at the helicopter, which by now had caught fire.

Following the accident, flames were seen emanating from the area of the main rotor mast and around the auxiliary fuel tank. The pilot, who escaped with 'minor' bruising but could not remember how he exited the aircraft, vacated the area. Onlookers reported the accident to the three emergency services, who all attended the scene. The fire was extinguished but the helicopter, apart from the tail boom and tail rotor, was destroyed.

The pilot considered that the accident was the result of three possible causes; a mechanical failure; inadvertent selection of the hydraulics switch, located on the cyclic control, to OFF or the cyclic friction remaining on having been applied after he had landed to change the radio frequency. The previous week, during preparation for and completion of his type rating skill test, the pilot had received training in flying with the main rotor flight controls' hydraulically boosted servo assistance selected 'OFF'. However, he was unable to compare the cyclic forces he had experienced then, in forward flight for a run-on landing, with those encountered during the accident.