ACCIDENT

Aircraft Type and Registration:	Rotorsport UK MTOSport, G-CGGW	
No & Type of Engines:	1 Rotax 912 ULS piston engine	
Year of Manufacture:	2009	
Date & Time (UTC):	1 November 2010 at 1230 hrs	
Location:	Chiltern Park Aerodrome, Oxfordshire	
Type of Flight:	Private	
Persons on Board:	Crew - 1	Passengers - 1
Injuries:	Crew - None	Passengers - None
Nature of Damage:	Rotor and rudder	
Commander's Licence:	Private Pilot's Licence	
Commander's Age:	51 years	
Commander's Flying Experience:	205 hours (of which 205 were on type) Last 90 days - 18 hours Last 28 days - 10 hours	
Information Source:	Aircraft Accident Report Form submitted by the pilot	

Synopsis

The pilot was unable to accelerate the fully loaded gyroplane to climb speed after becoming airborne at too low an airspeed. The aircraft landed heavily in a field beyond a row of trees at the end of the runway.

History of the flight

The pilot had already completed two solo circuits when he was joined by a friend who he intended to take on a local flight. He satisfactorily completed the pre-takeoff checks and pre-rotated the rotor to 200 rpm before taking off on Runway 04. After becoming airborne, he levelled the aircraft at about 10 ft above the runway to allow it to accelerate to climb speed (55 mph) before climbing away. On this occasion he was not able to accelerate above 45 mph by the time he reached the end of the runway. He climbed to clear a row of trees beyond the end of the runway, but this resulted in the aircraft having insufficient airspeed to maintain level flight and it landed heavily in a field beyond the trees. Both occupants, who were wearing full harnesses and protective helmets, were uninjured.

Discussion

The pilot candidly commented that he had little experience of operating the aircraft at close to its maximum weight and he thought that this, combined with the calm conditions, contributed to him getting the aircraft airborne at too low an airspeed. Once airborne, he was unable to accelerate the heavy aircraft out of this high drag condition. He also reported that it had become normal practice at the airfield for him and pilots of other similar aircraft to start their takeoff roll from just beyond a hump on the runway, rather than using the full length available.

The CAA Safety Sense Leaflets No 7 'Aeroplane Performance' and No 12 'Strip Sense' contain useful information on subjects relevant to this report.