

AAIB Bulletin No: 11/93

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Category: 2.3

Aircraft Type and Registration: Bensen B8MR gyrocopter, G-BKHX

No & Type of Engines: 1 Rotax 532 piston engine

Year of Manufacture: 1981

Date & Time (UTC): 28 August 1993 at 1450 hrs

Location: Burton Constable Airstrip, Humberside

Type of Flight: Private (Training)

Persons on Board: Crew:- 1 Passengers:- None

Injuries: Crew:- Minor Passengers:- N/A

Nature of Damage: Landing gear axle, mainframe keel and rotor blades damaged; propeller destroyed

Commander's Licence: Private Pilot's Licence

Commander's Age: 34 years

Commander's Flying Experience: 400 hours (of which 10 were on type)
Last 90 days - 12 hours
Last 28 days - 6 hours

Information Source: Aircraft Accident Report Form submitted by the pilot

As part of the gyroplane training syllabus, the pilot was carrying out a 'land away' cross country flight from Melbourne to Burton Constable Airstrip and return. The flight to Burton Constable was uneventful and, after a short stopover, the pilot lined up the aircraft in a southerly direction, to take off for the return journey. The wind was south westerly at about 5 kt.

He applied the pre-rotator to the rotor and accelerated the aircraft to about 25 kt with the rotor still accelerating. The aircraft then hit a bump in the runway surface and the control column was snatched out of the his hand, firstly hitting the back stop and then moving forward again. This forward tilt of the rotor prevented the airflow from accelerating the rotor RPM further and the consequently reduced drag allowed the aircraft to accelerate rapidly to about 40 kt.

The pilot states that, whilst he was concentrating on not letting the control column rest on the back stop, he maintained too low a rotor disc angle to allow the rotor to accelerate to an RPM commensurate with either flight or centrifugal stability. The aircraft, however, accelerated to its normal flying speed of about 50 kt and, at this point, struck another bump in the surface. This caused the retreating rotor blade to strike the ground and turn the aircraft over.