

Brief of Accident

Adopted 07/23/2003

NYC02LA184
File No. 13719 09/07/2002 Renfrew, PA Aircraft Reg No. N373TG Time (Local): 14:00 EDT

Make/Model: Graham / Mini-500
Engine Make/Model:
Aircraft Damage: Substantial
Number of Engines: 1
Operating Certificate(s): None
Type of Flight Operation: Personal
Reg. Flight Conducted Under: Part 91: General Aviation

	Fatal	Serious	Minor/None
Crew	1	0	0
Pass	0	0	0

Last Depart. Point: Butler, PA
Destination: Zelenople, PA
Airport Proximity: Off Airport/Airstrip

Condition of Light: Day
Weather Info Src: Weather Observation Facility
Basic Weather: Visual Conditions
Lowest Ceiling: 4000 Ft. AGL, Broken
Visibility: 10.00 SM
Wind Dir/Speed: 360 / 008 Kts
Temperature (°C): 23
Precip/Obscuration:

Pilot-in-Command Age: 51

Flight Time (Hours)

Certificate(s)/Rating(s)
Private; Single-engine Land; Helicopter

Total All Aircraft: 520
Last 90 Days: Unk/Nr
Total Make/Model: Unk/Nr
Total Instrument Time: Unk/Nr

Instrument Ratings
None

The amateur built helicopter was reported missing, and then located the following day. No information regarding the en route portion of the flight was available. No witnesses reported seeing the accident, and the pilot was not in radio contact with any air traffic control facilities, or automated flight service stations. The helicopter had a total of 25.6 hours of operation since construction. Examination of the wreckage revealed minor damage to both main rotor blades. Flight control continuity was confirmed from the cockpit to the main rotor and tailrotor. The transmission chip detector had metal fragments on it, the transmission oil contained suspended metal particles, and small pieces of metal were retrieved, with a magnet, from within the transmission. Examination of the engine revealed no preimpact failures or malfunctions.

Brief of Accident (Continued)

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Occurrence #1: AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation: CRUISE

Findings

1. (C) ROTOR DRIVE SYSTEM,MAIN GEARBOX/TRANSMISSION - FAILURE
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Occurrence #2: LOSS OF CONTROL - IN FLIGHT
Phase of Operation: DESCENT - UNCONTROLLED

Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: DESCENT - UNCONTROLLED

Findings

2. TERRAIN CONDITION - GRASS

Findings Legend: (C) = Cause, (F) = Factor

The National Transportation Safety Board determines the probable cause(s) of this accident as follows.
Failure of the main transmission.