



National Transportation Safety Board Aviation Accident Final Report

Location:	Elberon, VA	Accident Number:	NYC02LA001
Date & Time:	10/02/2001, 1828 EDT	Registration:	N673KD
Aircraft:	Clark T Bird II	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 Serious, 1 Minor
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

The engine start, taxi, and run-up seemed normal. The pilot then tookoff on runway 09, a 1,800-foot long, 50-foot wide turf runway. About 50 feet above the ground, the engine lost partial power, and the pilot lowered the nose of the airplane. He then turned right to avoid tree stumps, and the airplane impacted in a soybean field, located off the right side of the runway. The pilot added that within the 60-day period prior to the accident, on two occasions, he had difficulty priming the engine. However, after each occurrence, the fittings and primer hose appeared normal. The airport manager examined the airplane after the accident. He observed that the primer hose, which connected the fuel primer to both carburetors, was loose. The manager could not be certain if it was loose before the impact, or if the impact loosened the hose. A Federal Aviation Administration inspector examined the engine. He was able to rotate the propeller by hand, and attain thumb compression on both cylinders. The inspector observed fuel in the fuel bowl, it appeared similar to automotive gasoline, and was absent of contamination. Due to safety concerns, the inspector did not attempt to check the spark plugs.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: A partial power loss for undetermined reasons.

Findings

Occurrence #1: LOSS OF ENGINE POWER
Phase of Operation: TAKEOFF - INITIAL CLIMB

Findings

1. (C) REASON FOR OCCURRENCE UNDETERMINED

Occurrence #2: FORCED LANDING
Phase of Operation: DESCENT - EMERGENCY

Occurrence #3: ON GROUND/WATER ENCOUNTER WITH TERRAIN/WATER
Phase of Operation: EMERGENCY LANDING

Findings

2. TERRAIN CONDITION - CROP

Factual Information

On October 2, 2001, about 1828 eastern daylight time, a T Bird II amateur built airplane, N673KD, was substantially damaged during a forced landing after takeoff from a private airstrip near Elberon, Virginia. The certificated private pilot sustained minor injuries, and the passenger sustained serious injuries. Visual meteorological conditions prevailed, and no flight plan was filed for the local personal flight conducted under 14 CFR Part 91.

The pilot stated that the engine start, taxi, and run-up seemed normal. He tookoff on runway 09, a 1,800-foot long, 50-foot wide turf runway. About 50 feet above the ground, the engine lost partial power, and the pilot lowered the nose of the airplane. As the airplane descended, he then turned right to avoid tree stumps, and the airplane impacted in a soybean field, located off the right side of the runway. The pilot added that within the 60-day period prior to the accident, on two occasions, he "had trouble getting the primer bulb to prime." However, after each occurrence, the fittings and hose appeared normal.

The airport manager examined the airplane after the accident. He observed fuel leaking from the fuel tank onto the ground, and a strong fuel odor was present. Further examination by the manager revealed that the primer hose, which connected the fuel primer to both carburetors, was loose. The manager could not be certain if it was loose before the impact, or if the impact loosened the hose.

The airplane was equipped with a Rotax 582 engine. A Federal Aviation Administration inspector examined the engine. He was able to rotate the propeller by hand, and attain thumb compression on both cylinders. Although the fuel tank was empty when the inspector arrived at the scene, he did observe fuel in the fuel bowl. It appeared similar to automotive gasoline, and was absent of contamination. The inspector added that the fuselage was substantially damaged. Due to safety concerns, he did not attempt to check the spark plugs.

An excerpt from the manufacturer's make and model engine manual revealed:

"Danger! This engine, by its design, is subject to sudden stoppage! Engine stoppage can result in crash landings. Such crash landings can lead to serious bodily injury or death.

Never fly the aircraft equipped with this engine at locations, airspeeds, altitudes, or other circumstances from which a successful no-power landing cannot be made, after sudden engine stoppage.

Warning! Although these engine types have undergone considerable durability testing, this engine is not a certified aircraft engine. It has not received any individual safety or durability testing and conforms to no aircraft standards. It is for use in experimental and ultralight uncertified aircraft and vehicles only, in which an engine failure will not compromise safety.

User assumes all risk of use and acknowledges by his use that he knows this engine is subject to sudden stoppage."

Pilot Information

Certificate:	Private	Age:	51, Male
Airplane Rating(s):	Single-engine Land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt, Shoulder harness
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 3 Valid Medical--w/ waivers/lim.	Last FAA Medical Exam:	04/26/2001
Occupational Pilot:		Last Flight Review or Equivalent:	04/26/2000
Flight Time:	509 hours (Total, all aircraft), 49 hours (Total, this make and model), 509 hours (Pilot In Command, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Clark	Registration:	N673KD
Model/Series:	T Bird II	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	Yes
Airworthiness Certificate:	Experimental	Serial Number:	900110
Landing Gear Type:	Tailwheel	Seats:	2
Date/Type of Last Inspection:	05/16/2001, Annual	Certified Max Gross Wt.:	1000 lbs
Time Since Last Inspection:	49 Hours	Engines:	1 Reciprocating
Airframe Total Time:	49 Hours at time of accident	Engine Manufacturer:	Rotax
ELT:	Installed, activated, did not aid in locating accident	Engine Model/Series:	582
Registered Owner:	Richard B. Clark	Rated Power:	66 hp
Operator:	Richard B. Clark	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	PHF, 43 ft msl	Distance from Accident Site:	12 Nautical Miles
Observation Time:	1854 EDT	Direction from Accident Site:	60°
Lowest Cloud Condition:	Clear	Visibility	10 Miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	Calm /	Turbulence Type Forecast/Actual:	/
Wind Direction:		Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.03 inches Hg	Temperature/Dew Point:	19° C / 14° C
Precipitation and Obscuration:			
Departure Point:	Elberon, VA (NONE)	Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	1828 EDT	Type of Airspace:	Class G

Airport Information

Airport:	Private (NONE)	Runway Surface Type:	Grass/turf
Airport Elevation:		Runway Surface Condition:	Dry
Runway Used:	090	IFR Approach:	None
Runway Length/Width:	1800 ft / 50 ft	VFR Approach/Landing:	Forced Landing

Wreckage and Impact Information

Crew Injuries:	1 Minor	Aircraft Damage:	Substantial
Passenger Injuries:	1 Serious	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Serious, 1 Minor	Latitude, Longitude:	

Administrative Information

Investigator In Charge (IIC):	Robert J Gretz	Report Date:	05/01/2003
Additional Participating Persons:	David Burke; FAA FSDO-21; Richmond, VA		
Publish Date:			
Investigation Docket:	NTSB accident and incident dockets serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at pubinq@ntsb.gov , or at 800-877-6799. Dockets released after this date are available at http://dms.nts.gov/pubdms/ .		

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