



National Transportation Safety Board Aviation Accident Final Report

Location:	Hastings, NY	Accident Number:	IAD05LA071
Date & Time:	06/02/2005, 1930 EDT	Registration:	N2122
Aircraft:	Piper E2	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 None

Flight Conducted Under: Part 91: General Aviation - Personal

Analysis

The pilot/mechanic/owner explained that he had purchased the airplane 1 month prior to the accident and had been flying it for 8 days since its reassembly. The airplane had accrued about 6 hours of flight time during that span, and was flown for about one hour earlier on the day of the accident, with no deficiencies noted. The pilot started the engine and performed a ground run to bring the engine up to normal operating temperature. The takeoff and initial climb at maximum power proceeded without incident. When the airplane reached about 150 feet above ground level, the pilot adjusted the throttle for climb power, and the engine "completely cut off." The airplane collided with trees and terrain during the subsequent forced landing. Following the accident, the engine ran on the airframe without interruption. Examination of the fuel system revealed that the 90-degree fitting installed between the fuel tank and the fuel selector was completely occluded with rust, sediment, and debris. Examination of the fuel tank revealed it was comprised of two compartments, separated by a baffle. The area forward of the baffle contained a large quantity of "sludge," rust, and debris. According to the pilot/owner, he examined the interior of the fuel tank with a bore scope prior to purchase, but he did not examine the tank forward of the baffle.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: Fuel starvation due to a blocked fuel line, which resulted in a loss of engine power.

Findings

Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - NONMECHANICAL
Phase of Operation: TAKEOFF - INITIAL CLIMB

Findings

1. (C) FLUID,FUEL - STARVATION
2. (C) FUEL SYSTEM,LINE FITTING - BLOCKED(TOTAL)

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

Occurrence #3: IN FLIGHT COLLISION WITH OBJECT
Phase of Operation: DESCENT - EMERGENCY

Findings

3. OBJECT - TREE(S)

Factual Information

On June 2, 2005, at 1930 eastern daylight time, a 1934 Piper E2, N2122, was substantially damaged during a collision with trees following a forced landing after takeoff near, Hastings, New York. The certificated private pilot/mechanic/owner was not injured. Visual meteorological conditions prevailed for the local personal flight that originated at the pilot/owner's private airstrip, at 1928. No flight plan was filed for the flight conducted under 14 CFR Part 91.

In a telephone interview, the pilot explained that he had purchased the airplane 1 month prior to the accident. The airplane was partially disassembled for transport after its purchase, and had been flying for 8 days since its reassembly. The airplane had accrued about 6 hours of flight time during that time span.

Earlier on the day of the accident, the pilot flew the airplane for about 1 hour with no deficiencies noted. Later that evening, he decided to fly the airplane for 10 to 15 minutes before securing it for the evening.

The pilot started the engine and performed a ground run to bring the engine up to normal operating temperature. He then taxied for departure from the north/south strip. The takeoff and initial climb at maximum power proceeded without incident. When the airplane reached about 150 feet above ground level, the pilot adjusted the throttle for climb power, and the engine "completely cut off." He said there was no sputter or decrease in power before the complete power loss.

The pilot maneuvered the airplane back toward the airport for a landing on the east/west runway. During the turn, he determined that the trees in his path could not be cleared, and he leveled the wings prior to striking the trees. The airplane remained suspended in the trees for a few moments, and then settled to the ground.

The airplane was examined at the scene by Federal Aviation Administration (FAA) aviation safety inspectors on the day of the accident, and on June 6, 2005.

Examination of the airplane revealed that all major components were accounted for at the scene. Control continuity was established from the cockpit to all flight control surfaces. The airplane was then moved from the site to the owner's hangar.

The engine was started, and it ran on the airframe. The engine was stopped, and the fuel system was examined. The carburetor was intact, and the gascolator contained fuel. A fuel sample from the gascolator contained small amounts of sediment. The fuel line from the fuel selector to the gascolator was absent of debris.

A 90-degree fitting was installed between the fuel tank and the fuel selector. The fitting was removed, and examination revealed that the fitting was completely occluded with rust, sediment, and debris.

The fuel tank was removed, and the top was cut open to examine the contents. Examination of the tank revealed it was comprised of two compartments, separated by a baffle. The area forward of the baffle contained a large quantity of "sludge," rust, and debris.

According to the pilot owner, he examined the interior of the fuel tank with a bore scope prior to purchase, but he did not examine the tank forward of the baffle.

The airplane had accrued about 1,380 total hours of flight time. The airplane was rebuilt in 1989, and had accrued 84 total hours since then. It's most recent annual inspection was completed in March 2005, just prior to the owner's purchase.

The pilot held a private pilot certificate with a rating for airplane single engine land. His most recent FAA third class medical certificate was issued in May 2002. The pilot reported 700 total hours of flight experience. He flew 25 hours in the 90 days prior to the accident, 6 hours of which were in the accident airplane.

At 1954, the weather reported at Syracuse International Airport (SYR), Syracuse, New York, about 20 miles north, included a broken ceiling at 8,500 feet with wind from 300 degrees at 5 knots.

Pilot Information

Certificate:	Private	Age:	36, Male
Airplane Rating(s):	Single-engine Land	Seat Occupied:	Rear
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 3 With Waivers/Limitations	Last FAA Medical Exam:	05/01/2002
Occupational Pilot:		Last Flight Review or Equivalent:	05/01/2004
Flight Time:	680 hours (Total, all aircraft), 6 hours (Total, this make and model), 25 hours (Last 90 days, all aircraft), 14 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	Registration:	N2122
Model/Series:	E2	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	84
Landing Gear Type:	Tailwheel	Seats:	2
Date/Type of Last Inspection:	03/01/2005, Annual	Certified Max Gross Wt.:	932 lbs
Time Since Last Inspection:	6 Hours	Engines:	1 Reciprocating
Airframe Total Time:	1397 Hours at time of accident	Engine Manufacturer:	Continental
ELT:	Installed, not activated	Engine Model/Series:	A-40-4
Registered Owner:	Scott Revoir	Rated Power:	40 hp
Operator:	Scott Revoir	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	SYR, 421 ft msl	Distance from Accident Site:	20 Nautical Miles
Observation Time:	1954 EDT	Direction from Accident Site:	360°
Lowest Cloud Condition:		Visibility	10 Miles
Lowest Ceiling:	Broken / 8500 ft agl	Visibility (RVR):	
Wind Speed/Gusts:	9 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	360°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.07 inches Hg	Temperature/Dew Point:	24° C / 13° C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Hastings, NY (NONE)	Type of Flight Plan Filed:	None
Destination:	(NONE)	Type of Clearance:	None
Departure Time:	1928 EDT	Type of Airspace:	

Airport Information

Airport:	Hastings (NONE)	Runway Surface Type:	Grass/turf
Airport Elevation:	375 ft	Runway Surface Condition:	Dry
Runway Used:	36	IFR Approach:	None
Runway Length/Width:	1700 ft / 50 ft	VFR Approach/Landing:	Forced Landing

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 None	Latitude, Longitude:	43.366667, -76.235556

Administrative Information

Investigator In Charge (IIC):	Brian C Rayner	Report Date:	04/25/2006
Additional Participating Persons:	Tom Williams; FAA/FSDO; Rochester, NY		
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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