



National Transportation Safety Board Aviation Accident Final Report

Location:	De Leon Springs, FL	Accident Number:	ERA14LA034
Date & Time:	11/01/2013, 1020 EDT	Registration:	N1927B
Aircraft:	TEAL HARRY H SONERAI II STRETCH	Aircraft Damage:	Substantial
Defining Event:	Loss of engine power (total)	Injuries:	1 Minor
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

The pilot reported that, about 40 minutes into the local flight, the engine lost total power. He was unable to restart the engine, so he conducted a forced landing. The airplane collided with trees and terrain and came to rest inverted. The pilot reported that he began the flight with 9 gallons of fuel on board and used about 3 gallons during the flight. Although only evidence of residual fuel was found in the fuel system, the impact breached the fuel system, and rain was present at the wreckage site after the accident. A postaccident examination of the airframe and engine revealed no evidence of preexisting mechanical anomalies or failures that would have precluded normal operation. The reason for the engine power loss could not be determined.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: A total loss of engine power for reasons that could not be determined because postaccident examination of the airframe and engine revealed no evidence of preexisting mechanical anomalies or failures that would have precluded normal operation.

Findings

Not determined	Not determined - Unknown/Not determined (Cause)
----------------	-------------------------------------------------

Factual Information

On November 1, 2013, about 1020 eastern daylight time, a Teal Sonerai II Stretch, N1927B, was substantially damaged following a total loss of engine power and collision with trees near De Leon Springs, Florida. The sport pilot received minor injuries. The experimental, amateur-built airplane was operated by the pilot under the provisions of 14 Code of Federal Regulations Part 91 as a personal flight. Day, visual meteorological conditions prevailed, and no flight plan was filed. The flight originated from Deland, Florida (DED), about 0930.

The pilot reported that he had been airborne for about 40 minutes when, at 3,000 feet above mean sea level, the engine lost power and stopped running. He attempted to restart the engine without success. He attempted a forced landing and the airplane collided with trees and terrain before coming rest, inverted.

An inspector with the Federal Aviation Administration (FAA) responded to the accident site and inspected the wreckage. The airplane came to rest, inverted, positioned against trees in a wooded area. Only evidence of residual fuel was found in the fuel system; however, the impact with trees breached the fuel system and there was rain at the wreckage site after the accident. There was no fire. The fuselage, both wings, and the horizontal stabilizer received structural damage. The cockpit canopy was shattered by a tree. The throttle and mixture cables remained attached to the carburetor. The mixture control was found in the full forward position and the throttle was retarded more than half way. The fuel selector was in the main position. The fuel gascolator screen was free of debris.

After the wreckage was recovered, the FAA inspector performed a detailed examination of the engine and related systems. The following observations were noted. The engine case was undamaged and was free of oil or fuel leaks. Compression was observed on all cylinders when the propeller was rotated manually. The spark plugs were removed and several of the top plugs had oil and water residue on the electrodes; otherwise the plugs were normal in appearance. Rotation of the engine showed continuity to all engine accessories. The fuel selector, carburetor, fuel pressure regulator, and associated hoses showed no evidence of obstructions or pre-existing anomalies. The fuel gascolator mount was loose; however, there was no evidence of impact damage in that area.

The pilot reported that he began the flight with 9 gallons of fuel on board and he verified that amount with a sight gauge. He estimated that he used about 3 gallons of fuel during the flight and had 6 gallons on board at the time of the engine power loss. The engine was not equipped with carburetor heat and the carburetor was not susceptible to icing due to its design.

History of Flight

Enroute-cruise	Loss of engine power (total) (Defining event)
Emergency descent	Off-field or emergency landing Collision with terr/obj (non-CFIT)

Pilot Information

Certificate:	Sport Pilot	Age:	83
Airplane Rating(s):	None	Seat Occupied:	Single
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Sport Pilot	Last Medical Exam:	
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	333 hours (Total, all aircraft), 115 hours (Total, this make and model)		

Aircraft and Owner/Operator Information

Aircraft Manufacturer:	TEAL HARRY H	Registration:	N1927B
Model/Series:	SONERAI II STRETCH	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	Yes
Airworthiness Certificate:	Experimental	Serial Number:	071604-0693
Landing Gear Type:	Tailwheel	Seats:	1
Date/Type of Last Inspection:	02/09/2013, Conditional	Certified Max Gross Wt.:	1150 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	98 Hours	Engine Manufacturer:	Volkswagen
ELT:	Not installed	Engine Model/Series:	2180
Registered Owner:	TEAL HARRY H	Rated Power:	100 hp
Operator:	TEAL HARRY H	Air Carrier Operating Certificate:	None

Meteorological Information and Flight Plan

Observation Facility, Elevation:	DED, 79 ft msl	Observation Time:	1015 EDT
Distance from Accident Site:	5 Nautical Miles	Condition of Light:	Day
Direction from Accident Site:	170°	Conditions at Accident Site:	Visual Conditions
Lowest Cloud Condition:	Clear	Temperature/Dew Point:	26° C / 21° C
Lowest Ceiling:	None	Visibility	10 Miles
Wind Speed/Gusts, Direction:	8 knots, 190°	Visibility (RVR):	
Altimeter Setting:	29.99 inches Hg	Visibility (RVV):	
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Deland, FL (DED)	Type of Flight Plan Filed:	None
Destination:	Deland, FL (DED)	Type of Clearance:	None
Departure Time:	0930 EDT	Type of Airspace:	

Wreckage and Impact Information

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

Administrative Information

Investigator In Charge (IIC):	Ralph E Hicks	Adopted Date:	09/29/2014
Additional Participating Persons:			
Publish Date:	09/29/2014		
Investigation Docket:	http://dms.nts.gov/pubdms/search/dockList.cfm?mKey=88376		

The National Transportation Safety Board (NTSB), established in 1967, is an independent federal agency mandated by Congress through the Independent Safety Board Act of 1974 to investigate transportation accidents, determine the probable causes of the accidents, issue safety recommendations, study transportation safety issues, and evaluate the safety effectiveness of government agencies involved in transportation. The NTSB makes public its actions and decisions through accident reports, safety studies, special investigation reports, safety recommendations, and statistical reviews.

The Independent Safety Board Act, as codified at 49 U.S.C. Section 1154(b), precludes the admission into evidence or use of any part of an NTSB report related to an incident or accident in a civil action for damages resulting from a matter mentioned in the report.