



# National Transportation Safety Board Aviation Accident Final Report

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<b>Location:</b>	Allentown, PA	<b>Accident Number:</b>	ERA15LA311
<b>Date &amp; Time:</b>	08/14/2015, 1110 EDT	<b>Registration:</b>	N1750Z
<b>Aircraft:</b>	THOMAS A SIMINSKI ZENITH CH 750	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>	Loss of engine power (partial)	<b>Injuries:</b>	1 Serious
<b>Flight Conducted Under:</b>	Part 91: General Aviation - Personal		

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## Analysis

The pilot reported that, after takeoff, the airplane's engine lost partial power about 100 ft above ground level and that he then attempted to return to the airport. The pilot further stated that "the engine would not keep me flying and the airplane just fell into the forest."

During the on-scene examination, the No. 1 spark plug was found missing from the cylinder head but still attached to the ignition lead. The threads were stripped out of the cylinder head. It is likely that the No. 1 spark plug was liberated from the cylinder head due to the stripped threads, which led to the partial loss of engine power.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: A partial loss of engine power due to the No. 1 spark plug being liberated from the cylinder head due to the stripped threads in the cylinder head. Contributing to the accident was the pilot's decision to attempt to return to the airport while at a low altitude.

## Findings

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<b>Aircraft</b>	Recip engine power section - Malfunction (Cause) Spark plugs/igniters - Not specified (Cause)
<b>Personnel issues</b>	Decision making/judgment - Pilot (Factor)

## Factual Information

On August 14, 2015, about 1110 eastern daylight time, an experimental, amateur-built Zenith CH750, N1750Z, was substantially damaged when it impacted trees and terrain shortly after takeoff at Queen City Airport (XLL), Allentown, Pennsylvania. The private pilot was seriously injured. Visual meteorological conditions prevailed, and no flight plan was filed for the personal flight, which was operated under the provisions of Title 14 Code of Federal Regulations Part 91. The flight was originating at the time of the accident.

The pilot reported that after takeoff from runway 25, the engine lost partial power about 100 feet above ground level. The pilot further stated that the engine would not keep him flying. He attempted to return back to runway 7, but the airplane impacted trees and a creek bed, resulting in substantial damage to the airframe.

According to the pilot and Federal Aviation Administration (FAA) records, he held a private pilot certificate with a rating for airplane single-engine land. The pilot reported 328 hours of total flight experience.

The wreckage was examined at the scene by a FAA inspector. The inspector reported that the airplane was submerged, nose down, in about 2 feet of water. About 10 gallons of fuel were recovered from the airplane's fuel tanks. The airplane's airworthiness certificate was issued in 2012, and since that time it had accumulated 75 total flight hours. The inspector found the number 1 spark plug missing from the cylinder head but still attached to the ignition lead.

The pilot's son took several pictures of the spark plug, ignition lead and cylinder head. He verified that the threads were stripped out of the cylinder head, and the threads on the spark plug looked to be in good condition.

## History of Flight

Initial climb	Powerplant sys/comp malf/fail Loss of engine power (partial) (Defining event)
Emergency descent	Abrupt maneuver Aerodynamic stall/spin
Uncontrolled descent	Collision with terr/obj (non-CFIT)

## Pilot Information

Certificate:	Sport Pilot	Age:	68
Airplane Rating(s):	Single-engine Land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	None Unknown	Last FAA Medical Exam:	07/29/2003
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	327.7 hours (Total, all aircraft), 74 hours (Total, this make and model)		

## Aircraft and Owner/Operator Information

Aircraft Make:	THOMAS A SIMINSKI	Registration:	N1750Z
Model/Series:	ZENITH CH 750	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	Yes
Airworthiness Certificate:		Serial Number:	75-7859
Landing Gear Type:	Tricycle	Seats:	2
Date/Type of Last Inspection:	09/03/2014, Annual	Certified Max Gross Wt.:	1320 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	72 Hours as of last inspection	Engine Manufacturer:	Chevrolet
ELT:	C91A installed, activated, did not aid in locating accident	Engine Model/Series:	GO-140
Registered Owner:	SIMINSKI THOMAS A	Rated Power:	100 hp
Operator:	SIMINSKI THOMAS A	Operating Certificate(s) Held:	None

## Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	KABE, 385 ft msl	Distance from Accident Site:	5 Nautical Miles
Observation Time:	1651 UTC	Direction from Accident Site:	20°
Lowest Cloud Condition:	Clear	Visibility	10 Miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	6 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	250°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.18 inches Hg	Temperature/Dew Point:	28° C / 17° C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	ALLENTOWN, PA (XLL)	Type of Flight Plan Filed:	None
Destination:	ALLENTOWN, PA (XLL)	Type of Clearance:	None
Departure Time:	1105 EDT	Type of Airspace:	Class G

## Airport Information

Airport:	ALLENTOWN QUEEN CITY MUNI (XLL)	Runway Surface Type:	Asphalt
Airport Elevation:	399 ft	Runway Surface Condition:	
Runway Used:	25	IFR Approach:	None
Runway Length/Width:	3949 ft / 75 ft	VFR Approach/Landing:	Forced Landing

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 Serious	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>	N/A	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	1 Serious	<b>Latitude, Longitude:</b>	40.570278, -75.488333 (est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Daniel P Boggs	<b>Report Date:</b>	11/19/2015
<b>Additional Participating Persons:</b>	Tom Gilbert; FAA/FSDO; Allentown, PA		
<b>Publish Date:</b>	11/19/2015		
<b>Note:</b>	The NTSB did not travel to the scene of this accident.		
<b>Investigation Docket:</b>	<a href="http://dms.nts.gov/pubdms/search/dockList.cfm?mKey=91785">http://dms.nts.gov/pubdms/search/dockList.cfm?mKey=91785</a>		

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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. A factual report that may be admissible under 49 U.S.C. § 1154(b) is available [here](#).