



Aviation Investigation Final Report

Location:	Dalton, Ohio	Accident Number:	CEN13LA467
Date & Time:	July 16, 2013, 19:40 Local	Registration:	N519ZB
Aircraft:	CHRISTEN INDUSTRIES INC PITTS S-2B	Aircraft Damage:	Substantial
Defining Event:	Loss of engine power (total)	Injuries:	2 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot was performing aerobatic maneuvers when the engine stopped producing power. He was unable to restart the engine and made a forced landing to a grass runway. The pilot landed the airplane half-way down the runway, but he was unable to stop it before it overran the runway and struck a utility pole. A postaccident test run of the engine and examinations of the engine and airplane did not reveal any preaccident malfunctions or failures that would have precluded normal operation.

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 engine did not reveal any mechanical malfunctions or failures that would have precluded normal operation.

Findings

Not determined	(general) - Unknown/Not determined
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Factual Information

History of Flight

Maneuvering-aerobatics	Loss of engine power (total) (Defining event)
Emergency descent	Loss of engine power (total)

On July 16, 2013, at 1940 eastern daylight time, N519ZB, a Christen Industries INC Pitts S2-B, sustained substantial damage when it made a forced landing to a private grass runway after a total loss of engine power near Dalton, Ohio. The commercial pilot and the passenger were not injured. The airplane was registered to and operated by the pilot. No flight plan was filed for the local flight that departed the Akron/Canton Regional Airport (CAK), Akron, Ohio, at 1915. Visual meteorological conditions prevailed for the flight conducted under 14 Code of Federal Regulations Part 91 flight.

In a written statement, the pilot stated that he departed CAK and flew to his designated "aerobic box" to perform aerobatics. He said that during an upright, normal spin to the left, the engine stopped producing power. At that time, the airplane was about 3,300 feet above the ground and he prepared to make a forced landing to a short and narrow private grass runway. The pilot tried to re-start the engine several times during the emergency descent, but to no avail. The pilot landed half-way down the runway but was unable to stop. The airplane overran the runway and struck a utility pole, which resulted in substantial damage to the left, upper and lower wings.

A Federal Aviation Administration (FAA) airworthiness inspector performed an examination of the airplane and engine and no preaccident anomalies were identified that would have caused the engine to stop producing power. He then performed a test run of the engine on the airframe. The engine started immediately and ran through its full power range without interruptions.

Pilot Information

Certificate:	Commercial; Flight instructor	Age:	43
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Rear
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	Airplane single-engine	Toxicology Performed:	No
Medical Certification:	Class 2 Without waivers/limitations	Last FAA Medical Exam:	June 28, 2010
Occupational Pilot:	No	Last Flight Review or Equivalent:	October 21, 2012
Flight Time:	444 hours (Total, all aircraft), 125 hours (Total, this make and model), 395 hours (Pilot In Command, all aircraft), 24 hours (Last 90 days, all aircraft), 17 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	CHRISTEN INDUSTRIES INC	Registration:	N519ZB
Model/Series:	PITTS S-2B	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Aerobatic; Normal	Serial Number:	5142
Landing Gear Type:	Tailwheel	Seats:	2
Date/Type of Last Inspection:	May 3, 2013 100 hour	Certified Max Gross Wt.:	1700 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	1077 Hrs at time of accident	Engine Manufacturer:	LYCOMING
ELT:	Installed, not activated	Engine Model/Series:	AEIO-540 SER
Registered Owner:	PITTSBIRD LLC	Rated Power:	260 Horsepower
Operator:	PITTSBIRD LLC	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	CAK,1136 ft msl	Distance from Accident Site:	14 Nautical Miles
Observation Time:	19:53 Local	Direction from Accident Site:	5°
Lowest Cloud Condition:	Few / 3000 ft AGL	Visibility	8 miles
Lowest Ceiling:	Broken	Visibility (RVR):	
Wind Speed/Gusts:	4 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	300°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.29 inches Hg	Temperature/Dew Point:	29°C / 24°C
Precipitation and Obscuration:			
Departure Point:	Akron, OH (CAK)	Type of Flight Plan Filed:	None
Destination:	Akron, OH (CAK)	Type of Clearance:	VFR
Departure Time:	19:15 Local	Type of Airspace:	

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	1 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 None	Latitude, Longitude:	40.871387,-81.886108(est)

Administrative Information

Investigator In Charge (IIC): Yeager, Leah

Additional Participating Persons:

Original Publish Date: March 24, 2014

Last Revision Date:

Investigation Class: [Class](#)

Note:

Investigation Docket: <https://data.ntsb.gov/Docket?ProjectID=87705>

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The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, “accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person” (Title 49 *Code of Federal Regulations* section 831.4). Assignment of fault or legal liability is not relevant to the NTSB’s statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 *United States Code* section 1154(b)). A factual report that may be admissible under 49 *United States Code* section 1154(b) is available [here](#).