Aviation Investigation Final Report

Location:	Melbourne, Florida	**Accident Number:**	ERA14LA344
Date & Time:	July 10, 2014, 09:40 Local	**Registration:**	N128LS
Aircraft:	COSTRUZIONI AERONAUTICHE TECNA P2004 BRAVO	**Aircraft Damage:**	Substantial
Defining Event:	Loss of engine power (total)	**Injuries:**	1 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The private pilot departed on a cross-country flight in the light sport airplane. After leveling off at a cruise altitude about 2,500 ft, the pilot turned off the electric fuel pump and saw an initial decrease in fuel pressure followed by a return to the normal range. About 5-10 minutes later, the engine began to run rough, and the pilot turned on the electric fuel pump. The engine ran smoothly for a short time then experienced a total loss of power, and the pilot conducted a forced landing to a dirt road.

A postaccident test run of the engine revealed no anomalies when the engine was operated at low rpm. The engine could not be run at full power due to the damage sustained to its mounts during the forced landing. Based on the available information, the reason for the loss of engine power 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 during cruise flight for reasons that could not be determined based on the available information.

Findings

Not determined	(general) - Unknown/Not determined

Factual Information

History of Flight

Enroute-cruise	Loss of engine power (total) (Defining event)
Emergency descent	Off-field or emergency landing
Landing	Hard landing

On July 10, 2014, about 0940 eastern daylight time, a Costruzioni Aeronautiche Tecna P2004 Bravo, N128LS, was substantially damaged during a forced landing following a total loss of engine power near Melbourne, Florida. The private pilot was not injured. Visual meteorological conditions prevailed, and no flight plan was filed for the flight, which departed Orlando Apopka Airport (X04), Apopka, Florida, and was destined for Merritt Island Airport (COI), Merritt Island, Florida. The personal flight was operated under the provisions of Title 14 Code of Federal Regulations Part 91.

The pilot stated that a preflight inspection and engine run-up check revealed no anomalies. The takeoff was normal, and he climbed the airplane to a cruise altitude of 2,500 feet. Upon establishing the airplane in cruise flight, the pilot turned off the electric fuel pump and observed the fuel pressure gauge indicate an initial decrease, followed by an increase to the normal range. About five to ten minutes later, the engine began to run rough, and the pilot turned on the electric fuel pump. The engine ran smoothly for a short time, then experienced a total loss of power. The pilot subsequently conducted a forced landing to a dirt road.

The airplane was examined at the accident site by a Federal Aviation Administration inspector. The inspector stated that the wing fuel tanks each contained about 3 gallons of fuel, and that the engine firewall had sustained substantial damage. The airplane was then moved to X04 to facilitate further examination. Electrical power was applied to the airplane, and the operation of the electric fuel pump was verified. Fuel was plumbed to the engine, and the engine started and ran smoothly at low rpm with no anomalies observed. The engine could not be run at full power due to damage sustained to the engine mounts during the forced landing.

The 0953 weather observation at Melbourne International Airport (MLB), about 14 nautical miles southeast of the accident site, included clear skies, 10 miles visibility, wind from 190 degrees at 5 knots, temperature 28 degrees C, dew point 23 degrees C, and an altimeter setting of 30.14 inches of mercury.

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 January 2012. His total flight experience, as well as flight experience in the accident airplane make and model, was not determined.

The airplane was manufactured in 2006, and was equipped with a Rotax 912ULS, 100hp, reciprocating engine. The airplane's maintenance history was not determined. At the time of the accident, the airplane had accumulated 1,451.4 total hours.

Pilot Information

Certificate:	Private	**Age:**	20,Male
Airplane Rating(s):	Single-engine land	**Seat Occupied:**	Left
Other Aircraft Rating(s):	None	**Restraint Used:**	Unknown
Instrument Rating(s):	None	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	No
Medical Certification:	Class 3 None	**Last FAA Medical Exam:**	January 4, 2012
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	March 8, 2013
Flight Time:	(Estimated) 0 hours (Total, all aircraft), 0 hours (Total, this make and model)		

Aircraft and Owner/Operator Information

Aircraft Make:	COSTRUZIONI AERONAUTICHE TECNA	**Registration:**	N128LS
Model/Series:	P2004 BRAVO	**Aircraft Category:**	Airplane
Year of Manufacture:	2006	**Amateur Built:**	
Airworthiness Certificate:	Special light-sport (Special)	**Serial Number:**	076
Landing Gear Type:	Tricycle	**Seats:**	2
Date/Type of Last Inspection:	Unknown	**Certified Max Gross Wt.:**	1320 lbs
Time Since Last Inspection:		**Engines:**	1 Reciprocating
Airframe Total Time:		**Engine Manufacturer:**	Rotax
ELT:	Installed, activated, did not aid in locating accident	**Engine Model/Series:**	912ULS
Registered Owner:	VALENCIC ADAM J	**Rated Power:**	100 Horsepower
Operator:	First Landings Aviation	**Operating Certificate(s) Held:**	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	KMLB,27 ft msl	**Distance from Accident Site:**	14 Nautical Miles
Observation Time:	09:53 Local	**Direction from Accident Site:**	116°
Lowest Cloud Condition:	Clear	**Visibility**	10 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	5 knots /	**Turbulence Type Forecast/Actual:**	/ None
Wind Direction:	190°	**Turbulence Severity Forecast/Actual:**	/ N/A
Altimeter Setting:	30.13 inches Hg	**Temperature/Dew Point:**	28°C / 23°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Apopka, FL (X04)	**Type of Flight Plan Filed:**	None
Destination:	Merritt Island, FL (COI)	**Type of Clearance:**	Unknown
Departure Time:	09:20 Local	**Type of Airspace:**	

Wreckage and Impact Information

Crew Injuries:	1 None	**Aircraft Damage:**	Substantial
Passenger Injuries:		**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	1 None	**Latitude, Longitude:**	28.205278,-80.886108(est)

Administrative Information

Investigator In Charge (IIC):	Diaz, Allison
Additional Participating Persons:	Antonio Gonzalez; FAA/FSDO; Orlando, FL
Original Publish Date:	May 1, 2017
Last Revision Date:	
Investigation Class:	Class
Note:	The NTSB did not travel to the scene of this accident.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=89687