



Aviation Investigation Final Report

Location:	Maricopa, Arizona	Accident Number:	WPR13LA161
Date & Time:	March 25, 2013, 13:00 Local	Registration:	N33SV
Aircraft:	OWENS VELOCITY 173	Aircraft Damage:	Substantial
Defining Event:	Loss of engine power (total)	Injuries:	3 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot reported that, after about 30 minutes in cruise flight, the engine began to run roughly, followed by a loss of power. The pilot attempted to restart the engine twice but was unsuccessful. He then initiated an emergency landing on a dirt road. During the landing roll, the left wing struck an irrigation pipe, which resulted in the airplane departing the road and coming to rest in a field.

A postaccident engine examination revealed that the engine was modified with an Ellison throttle body under an experimental, amateur-built airworthiness certificate. Attempts to run the engine with the Ellison throttle body installed were unsuccessful. Once the throttle body was removed, the engine successfully started. An examination and teardown of the throttle body did not reveal any anomalies that would have caused the throttle body to malfunction.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

A loss of engine power for reasons that could not be determined because postaccident examination of the throttle body revealed no anomalies that would have precluded normal operation.

Findings

Not determined

(general) - Unknown/Not determined

Factual Information

History of Flight

Enroute-cruise	Loss of engine power (total) (Defining event)
Landing-landing roll	Collision with terr/obj (non-CFIT)

On March 25, 2013, about 1300 mountain standard time, an experimental Owens Velocity 173 airplane, N33SV, experienced a loss of engine power during cruise flight and the pilot made a forced landing on a dirt road near Maricopa, Arizona. The pilot/owner operated the airplane under the provisions of 14 Code of Federal Regulations Part 91 as a personal flight. The pilot and two passengers were not injured; the airplane sustained substantial damage to the wings and fuselage. Visual meteorological conditions prevailed for the local area flight that departed the Pegasus Airpark, Queen Creek, Arizona, about 1230. No flight plan had been filed.

The pilot reported that the airplane was airborne for about 30 minutes when the engine began to run rough followed by a loss power. He attempted twice to restart the engine, but was unsuccessful. The pilot identified a dirt road as a landing spot and performed an emergency landing. During the landing rollout the airplane struck an irrigation pipe, departed the road, and came to rest in an open field.

Postaccident examination revealed that the fuel tanks contained 20 gallons of fuel; additionally, the engine controls and fuel selector continuity were established. The ignition system, primary fuel system, and drive train were examined and found to be functioning normally. After several unsuccessful attempts were made to start the engine with the modified Ellison throttle body attached, the throttle body was then removed and the engine started successfully. An examination of the throttle body revealed no anomalies that would have precluded normal operation.

Pilot Information

Certificate:	Airline transport	Age:	53
Airplane Rating(s):	Single-engine land; Single-engine sea; Multi-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Unknown
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	Airplane single-engine	Toxicology Performed:	No
Medical Certification:	Class 1 Without waivers/limitations	Last FAA Medical Exam:	November 20, 2012
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	October 31, 2012
Flight Time:	(Estimated) 23000 hours (Total, all aircraft), 210 hours (Total, this make and model), 11000 hours (Pilot In Command, all aircraft), 135 hours (Last 90 days, all aircraft), 45 hours (Last 30 days, all aircraft), 0.5 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	OWENS	Registration:	N33SV
Model/Series:	VELOCITY 173	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	Yes
Airworthiness Certificate:	Experimental (Special)	Serial Number:	DMO 209
Landing Gear Type:	Retractable - Tricycle	Seats:	4
Date/Type of Last Inspection:	June 26, 2012 Condition	Certified Max Gross Wt.:	2400 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	450 Hrs at time of accident	Engine Manufacturer:	Lycoming
ELT:	Installed, not activated	Engine Model/Series:	O-360-EXP
Registered Owner:	Christopher D Mager	Rated Power:	200 Horsepower
Operator:	Christopher D Mager	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	CGZ,1464 ft msl	Distance from Accident Site:	21 Nautical Miles
Observation Time:	13:15 Local	Direction from Accident Site:	125°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	/ None	Turbulence Type Forecast/Actual:	/ Unknown
Wind Direction:		Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29.96 inches Hg	Temperature/Dew Point:	25°C / -7°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Queen Creek, AZ (5AZ3)	Type of Flight Plan Filed:	None
Destination:	Queen Creek, AZ (5AZ3)	Type of Clearance:	None
Departure Time:	12:30 Local	Type of Airspace:	Unknown

Airport Information

Airport:	Pegasus Airpark 5AZ3	Runway Surface Type:	
Airport Elevation:	1450 ft msl	Runway Surface Condition:	Dry
Runway Used:		IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	Forced landing

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	2 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	3 None	Latitude, Longitude:	33.044166,-111.983612

Administrative Information

Investigator In Charge (IIC):	Cornejo, Tealeye
Additional Participating Persons:	Eric J Hasslacher; Federal Aviation Administration; Scottsdale, AZ
Original Publish Date:	October 19, 2015
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=86501

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