Aviation Investigation Final Report

Location:	Brooksville, Florida	**Accident Number:**	ERA15LA306
Date & Time:	August 10, 2015, 10:33 Local	**Registration:**	N9288
Aircraft:	WRIGHT DANIEL J Volksplane VP-1	**Aircraft Damage:**	Destroyed
Defining Event:	Loss of engine power (partial)	**Injuries:**	1 Serious
Flight Conducted Under:	Part 91: General aviation - Flight test		

Analysis

The sport pilot, who was also the builder of the single-seat, experimental, amateur-built airplane, stated that he had "some issues" during assembly of the experimental engine kit, but was finally able to achieve the desired engine rpm during static tests. Subsequently, during the airplane's takeoff roll on its first flight with the new engine, the pilot noted that the airplane was able to gain airspeed, but struggled to become airborne. The pilot stated that he should have aborted the takeoff at that point. The airplane reached a maximum altitude about 100 ft, the engine lost power, and the airplane descended into trees and was destroyed by a postimpact fire. The extent of the fire precluded detailed documentation of the engine and its associated systems; therefore, the reason for the loss of power could not be determined.

Probable Cause and Findings

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

The pilot's failure to abort the takeoff after determining that the engine was not producing adequate power. Contributing to the accident was the engine's inability to produce adequate power for reasons that could not be determined due to extensive postimpact fire damage.

Findings

Personnel issues	Decision making/judgment - Pilot
Aircraft	(general) - Not specified
Not determined	(general) - Unknown/Not determined

Factual Information

History of Flight

Takeoff	Loss of engine power (partial) (Defining event)
Initial climb	Loss of engine power (partial)
Approach-VFR pattern downwind	Collision with terr/obj (non-CFIT)

On August 10, 2015, at 1033 eastern daylight time, an experimental amateur-built Volksplane VP-1, N9288, was destroyed when it impacted trees and terrain during the initial climb after takeoff from Brooksville-Tampa Bay Regional Airport (BKV), Brooksville, Florida. The sport pilot, who was also the builder of the airplane, was seriously injured. Visual meteorological conditions prevailed, and no flight plan had been filed for the local test flight which was operating under the provisions of 14 *Code of Federal Regulations* Part 91.

According to information obtained from the Federal Aviation Administration (FAA), the airplane departed from runway 9 and appeared to climb no higher than 100 feet. It made a left turn beyond the departure end of the runway and eventually descended into a wooded area about 1/2 mile north of the approach end of runway 27.

According to the pilot, he purchased the preowned fuselage and wings in late 2012, and after assembling those, purchased landing gear, some instrumentation and a Sonex Aerovee 2180 engine kit. He also noted that he had "no experience building an aircraft engine or any engine for that matter." The pilot further stated that there were initially "some issues" with the engine's performance, but that it finally achieved [desired] static rpm on the ground.

The accident flight was the pilot's first in the single-seat airplane. During the takeoff roll, the airplane "gained speed but struggled to get off the ground at which time I should have aborted the takeoff. Trying to overcome the first flight anxiety and not knowing how this aircraft should behave," the pilot continued the takeoff. After being cleared for a left turn, the pilot continued the climb, but realized that the engine, "did not develop enough power to climb sufficiently." As the airplane began to turn downwind, the engine lost more power, and the airplane descended into trees. Hitting the trees, the airplane burst into flames, and the pilot passed out. When he awoke, the pilot was in the fuselage and his legs were on fire. After unbuckling the four-point safety harness, he climbed out of the fuselage and crawled away from the fire.

Photographs of the scene showed the airplane in multiple parts and mostly consumed by the fire. The responding FAA inspector noted that the extent of the fire precluded detailed examination of the engine and systems.

Pilot Information

Certificate:	Sport Pilot	**Age:**	63,Male
Airplane Rating(s):	Single-engine land	**Seat Occupied:**	Single
Other Aircraft Rating(s):	None	**Restraint Used:**	4-point
Instrument Rating(s):	None	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	No
Medical Certification:	Sport pilot	**Last FAA Medical Exam:**	
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	
Flight Time:	148 hours (Total, all aircraft), 0.1 hours (Total, this make and model), 25 hours (Pilot In Command, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	WRIGHT DANIEL J	**Registration:**	N9288
Model/Series:	Volksplane VP-1	**Aircraft Category:**	Airplane
Year of Manufacture:	2010	**Amateur Built:**	Yes
Airworthiness Certificate:	Experimental (Special)	**Serial Number:**	42010
Landing Gear Type:	Tailwheel	**Seats:**	1
Date/Type of Last Inspection:	Unknown	**Certified Max Gross Wt.:**	824 lbs
Time Since Last Inspection:		**Engines:**	1 Reciprocating
Airframe Total Time:	120 Hrs at time of accident	**Engine Manufacturer:**	AEROVEE
ELT:	Not installed	**Engine Model/Series:**	2180
Registered Owner:	On file	**Rated Power:**	80 Horsepower
Operator:	On file	**Operating Certificate(s) Held:**	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	BKV,75 ft msl	**Distance from Accident Site:**	
Observation Time:	10:37 Local	**Direction from Accident Site:**	
Lowest Cloud Condition:	Few / 1300 ft AGL	**Visibility**	10 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	7 knots /	**Turbulence Type Forecast/Actual:**	/ None
Wind Direction:	40°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	29.98 inches Hg	**Temperature/Dew Point:**	29°C / 24°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Brooksville, FL (BKV)	**Type of Flight Plan Filed:**	None
Destination:	Brooksville, FL (BKV)	**Type of Clearance:**	VFR
Departure Time:	10:32 Local	**Type of Airspace:**	Class D

Airport Information

Airport:	BROOKSVILLE-TAMPA BAY RGNL BKV	**Runway Surface Type:**	Concrete
Airport Elevation:	75 ft msl	**Runway Surface Condition:**	Dry
Runway Used:	09	**IFR Approach:**	None
Runway Length/Width:	7002 ft / 150 ft	**VFR Approach/Landing:**	Unknown

Wreckage and Impact Information

Crew Injuries:	1 Serious	**Aircraft Damage:**	Destroyed
Passenger Injuries:		**Aircraft Fire:**	On-ground
Ground Injuries:	N/A	**Aircraft Explosion:**	Unknown
Total Injuries:	1 Serious	**Latitude, Longitude:**	28.473611,-82.455558(est)

Administrative Information

Investigator In Charge (IIC):	Cox, Paul
Additional Participating Persons:	Linda M Nevin; FAA/FSDO; Tampa, 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=91744