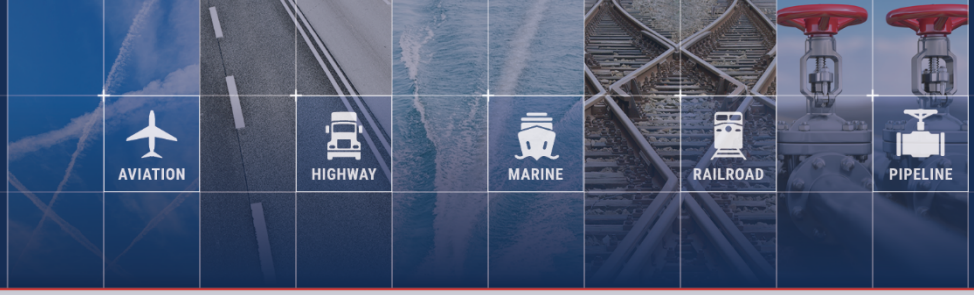

Aviation Investigation Final Report

Location:	Arcadia, Florida	**Accident Number:**	ERA21LA174
Date & Time:	April 6, 2021, 11:30 Local	**Registration:**	N18394
Aircraft:	Beech A36	**Aircraft Damage:**	Substantial
Defining Event:	Loss of engine power (total)	**Injuries:**	1 Serious
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

Shortly after takeoff, the pilot noticed the engine rpm had increased and oil pressure was zero. While returning to the airport the engine lost all power and the pilot performed a forced landing to a field.

About 8 months prior to the accident, all six cylinders were replaced. Examination of the engine revealed the engine was seized and would not rotate. The reason for the loss of power was not determined.

The engine was not made available for an NTSB postaccident examination.

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 underdetermined reasons.

Findings

Aircraft	(general) - Unknown/Not determined

Factual Information

History of Flight

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

On April 6, 2021, about 1130 eastern daylight time, a Beech A36, N18394, was substantially damaged when it was involved in an accident near Arcadia, Florida. The pilot was seriously injured. The airplane was operated as a Title 14 *Code of Federal Regulations* Part 91 personal flight.

According to the pilot, after takeoff he reduced engine speed to 2,300 rpm at an altitude about 800 ft mean sea level (msl). Several minutes later, he noticed that the engine rpm had risen to 2,500 and the oil pressure was zero. The pilot attempted to return to the airport; however, the engine "locked and the propeller stopped turning." The airplane was at an altitude of 1,700 ft msl and the pilot subsequently performed a forced landing to a field.

According to the Federal Aviation Administration inspector who responded to the accident site, the airplane's right wing and cowling were substantially damaged. There was oil streaking present on the left side of the fuselage.

According to the engine logbook, all six cylinders were replaced about 8 months before the accident. The airplane accumulated about 61 hours between the maintenance performed and the accident.

Examination of the engine revealed the engine was seized; no holes were found in the crankcase and the oil filter remained attached to the engine. The No. 4 spark plug was oily, the others were in normal wear condition when compared to a Champion Spark Aviation Check-A-Plug chart AV-27. Both magnetos were removed, actuated with an electric drill, and spark was produced at all terminal leads. The valve covers were removed, and valve movement was not observed on Nos. 2, 3, and 6. The propeller movement was limited. The Nos. 5 and 6 cylinders would not move.

The engine was not made available for an additional, follow up examination.

Pilot Information

Certificate:	Private	**Age:**	68,Male
Airplane Rating(s):	Single-engine land	**Seat Occupied:**	Left
Other Aircraft Rating(s):	None	**Restraint Used:**	None
Instrument Rating(s):	None	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	
Medical Certification:	BasicMed With waivers/limitations	**Last FAA Medical Exam:**	September 27, 2020
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	November 1, 2020
Flight Time:	1240 hours (Total, all aircraft), 61 hours (Total, this make and model), 61 hours (Last 90 days, all aircraft), 30 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Beech	**Registration:**	N18394
Model/Series:	A36	**Aircraft Category:**	Airplane
Year of Manufacture:	1977	**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	E-1121
Landing Gear Type:	Retractable - Tricycle	**Seats:**	6
Date/Type of Last Inspection:	August 8, 2022 Annual	**Certified Max Gross Wt.:**	3600 lbs
Time Since Last Inspection:	61 Hrs	**Engines:**	1 Reciprocating
Airframe Total Time:	5443 Hrs as of last inspection	**Engine Manufacturer:**	Continental
ELT:	Installed	**Engine Model/Series:**	IO520BA
Registered Owner:	On file	**Rated Power:**	285 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:	PGD,25 ft msl	**Distance from Accident Site:**	18 Nautical Miles
Observation Time:	10:53 Local	**Direction from Accident Site:**	209°
Lowest Cloud Condition:	Clear	**Visibility**	10 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	5 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	150°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	30.2 inches Hg	**Temperature/Dew Point:**	24°C / 12°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Arcadia, FL	**Type of Flight Plan Filed:**	None
Destination:	Venice, FL (KVNC)	**Type of Clearance:**	None
Departure Time:		**Type of Airspace:**	Class E

Airport Information

Airport:	ARCADIA MUNI X06	**Runway Surface Type:**	
Airport Elevation:	63 ft msl	**Runway Surface Condition:**	Vegetation
Runway Used:		**IFR Approach:**	None
Runway Length/Width:		**VFR Approach/Landing:**	Forced landing

Wreckage and Impact Information

Crew Injuries:	1 Serious	**Aircraft Damage:**	Substantial
Passenger Injuries:	N/A	**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	1 Serious	**Latitude, Longitude:**	27.176616,-81.826713(est)

Administrative Information

Investigator In Charge (IIC):	Hill, Millicent
Additional Participating Persons:	Ismael Reyes; FAA/FSDO; Tampa, FL
Original Publish Date:	May 24, 2023
Last Revision Date:	
Investigation Class:	Class 3
Note:	The NTSB did not travel to the scene of this accident.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=102884