### National Transportation Safety Board Washington, DC 20594

#### **Brief of Accident**

#### Adopted 05/08/2014

ERA13FA105 File No. 32595	01/04/2013	Palm Coast ,FL	Aircraft Reg No.	N375B	Tim	ne (Local): 14:19 EST
	1 None Personal		Crew Pass	Fatal 1 2	Serious 0 0	Minor/None 0 0
Last Depart. Point: St.Lucie County, FL Destination: Knoxville, TN Airport Proximity: Off Airport/Airstrip			Condition of Light: Day Weather Info Src: Weather Observation Facility Basic Weather: Instrument Conditions Lowest Ceiling: 900 Ft. AGL, Broken Visibility: 3.00 SM Wind Dir/Speed: 260 / 007 kts Temperature (°C): 15 Precip/Obscuration: Mist; No Obscuration			
Ũ	e: 58			-	me (Hours)	
Certificate(s)/Rating(s) Private; Single-engine Land Instrument Ratings Airplane			Total All Aircraft: 1300 Last 90 Days: Unk/Nr Total Make/Model: Unk/Nr Total Instrument Time: UnK/Nr			

\*\*\* Note: NTSB investigators either traveled in support of this investigation or conducted a significant amount of investigative work without any travel, and used data obtained from various sources to prepare this aircraft accident report. \*\*\*

The airplane departed under visual flight rules and was at an altitude of about 7,500 feet when the pilot reported vibrations and an "oil pressure problem." Airports in the area were under instrument meteorological conditions with cloud ceilings of 900 to 1,000 feet above ground level (agl). An air traffic controller provided the pilot with radar vectors for an airport surveillance radar (ASR) approach to a nearby airport that did not have a published ASR procedure. The airplane was about 2.5 miles northwest of the airport, at an altitude of about 5,300 feet agl, when the pilot reported that the engine oil pressure was "zero" with "cool cylinders." The controller did not obtain nor did the pilot provide any additional information about the engine's power status. During the next approximately 7 minutes, the airplane continued past the airport to a point about 6.5 miles northeast before the controller vectored the airplane to the south and then west to the final approach course. The airplane subsequently struck trees and a residence about 3/4 mile from the approach end of the runway. A postcrash fire destroyed the airframe and engine.

Postaccident examination of the airplane revealed that the engine sustained a fractured No. 4 connecting rod due to oil starvation. The connecting rod punctured the crankcase, which resulted in a total loss of engine power. The crankshaft oil transfer passage at the No. 4 journal sustained mechanical damage during the accident sequence and contained displaced journal material. All other oil passages were unrestricted. The airplane's maintenance logbooks were destroyed during the accident.

#### Brief of Accident (Continued)

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Maintenance performed on the airplane about 1 month before the accident included the replacement of the Nos. 1 and 4 cylinders; however, it could not be determined if this maintenance played a role in the accident. The reason for the oil starvation could not be determined. Review of the air traffic control transcripts and interviews with the controllers revealed that they vectored the airplane such that it was unable to reach the airport. This was likely due to the weather conditions and the controllers' incomplete understanding of the airplane's mechanical condition (complete loss of power), which the pilot did not provide.

At the time of the accident, the pilot was using medication for hypertension and had well-controlled diabetes. It was unlikely that either condition significantly affected the pilot's performance at the time of the accident.

Updated at May 8 2014 10:42AM

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# OCCURRENCES

Enroute - Powerplant sys/comp malf/fail Approach - Loss of engine power (total) Emergency descent - Collision with terr/obj (non-CFIT)

## FINDINGS

Aircraft-Aircraft power plant-Engine (reciprocating)-Recip eng cyl section-Not specified - C Aircraft-Aircraft oper/perf/capability-Performance/control parameters-Altitude-Attain/maintain not possible - C Personnel issues-Task performance-Communication (personnel)-(general)-Pilot - F Personnel issues-Task performance-Communication (personnel)-Interpretation/understanding-ATC personnel - F Environmental issues-Conditions/weather/phenomena-Ceiling/visibility/precip-Low ceiling-Contributed to outcome

Findings Legend: (C) = Cause, (F) = Factor

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

A total loss of engine power after the failure of the No. 4 connecting rod due to oil starvation, which resulted in a subsequent forced landing. Contributing to the accident was the pilot's failure to clearly state that the aircraft had lost all power and the air traffic controllers' incomplete understanding of the emergency, which resulted in the controllers vectoring the airplane too far from the airport to reach the runway.