



National Transportation Safety Board Aviation Accident Final Report

Location:	Verdel, Nebraska	Accident Number:	CEN09LA444
Date & Time:	July 18, 2009, 19:05 Local	Registration:	N6688
Aircraft:	Beech TC-45J	Aircraft Damage:	Destroyed
Defining Event:	Loss of engine power (total)	Injuries:	1 Fatal, 1 Serious
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The private pilot/owner and a passenger were transporting the pilot's multi-engine airplane to another airport so it could undergo an annual inspection. Shortly after departure, the right engine began to vibrate violently and the pilot elected to make a forced landing to a pasture. The airplane caught on fire and both radial engines separated from the airframe and sustained impact damage. The pilot was not rated by the FAA to operate multi-engine airplanes and he had not received any formal training in the airplane. The accident flight was his first time flying the airplane by himself. The airplane had not received an annual inspection in approximately 8 years prior to the accident. Examination of the right engine revealed extensive mechanical damage possibly due to a connecting rod failure.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's improper decision to fly an airplane that was not airworthy and for which he was not properly rated to operate, and his failure to maintain control of the airplane during a forced landing to a field following an engine failure. Contributing to the accident was the failed cylinder connecting rod.

Findings

Personnel issues	Qualification/certification - Pilot
Personnel issues	Decision making/judgment - Pilot
Aircraft	Time limits - Not inspected
Aircraft	Recip eng cyl section - Failure
Aircraft	(general) - Not attained/maintained
Personnel issues	Aircraft control - Pilot

Factual Information

On July 18, 2009, approximately 1905 central daylight time, a 1944 Beech TC-45J, N6688, was destroyed during a forced landing after a loss of engine power near Verdel, Nebraska. The pilot sustained serious injuries and the passenger was fatally injured. The airplane was registered to and operated by the pilot. Visual meteorological conditions prevailed and no flight plan was filed for the personal flight conducted under 14 Code of Federal Regulations Part 91. The flight originated from the pilot's private airstrip in Lynch, Nebraska, approximately 1855.

The pilot reported that he and his passenger (who had helped him restore the airplane) departed from his private airstrip en route to O'Neil, Nebraska, where the airplane was going to be dropped off for an annual inspection. He did not obtain an FAA issued ferry permit for this flight. Approximately 5-10 minutes after departure, at an altitude of approximately 500 feet above ground level, the right engine "started vibrating." The pilot said the engine started to shake so badly he thought it was going to come off the airplane. Due to the low altitude, he elected to land in a field but "something went wrong during the landing."

An on-scene examination of the airplane was performed by two Federal Aviation Administration (FAA) inspectors. According to an inspector, the airplane came to rest in a pasture and a post-impact fire consumed the fuselage. Both of the radial engines had separated from the airframe and sustained impact damage.

The pilot reported that he had topped off the airplane's fuel tanks 2-3 days prior to the accident from his fuel storage tank based at his private airstrip. He stated that he had owned the airplane for several years and refurbished the interior and exterior before registering it with the FAA in February 2009.

A review of FAA airman records revealed that the pilot held a private pilot certificate for airplane single-engine land and was not certified to operate multi-engine airplanes. His last FAA third class medical was issued on June 30, 2008. At that time, he reported a total of 1,000 flight hours.

The pilot reported that he "could have done things differently...and accepts full responsibility for what happened." He stated that he had never flown this airplane by himself prior to this flight or had received any training in the airplane. However, he did have some flight experience in a Cessna 310 and an Aero Commander. He could not recall how much multi-engine time he had accrued because his logbook was on board the airplane and was destroyed by the post-impact fire.

According to the previous owner of the airplane, the airplane had been out of annual inspection for approximately 8 years. The recorded airframe total time was approximately 21,218 hours at the time the avionics upgrade was performed.

According to the pilot, the right engine was sent to a facility in Oklahoma for a post-accident examination. He stated that the damage was extensive and most likely the result of a connecting rod failure.

History of Flight

Maneuvering-low-alt flying	Loss of engine power (total) (Defining event)
Emergency descent	Loss of engine power (total)
Landing	Loss of control on ground

Pilot Information

Certificate:	Age:	Male
Airplane Rating(s):	Seat Occupied:	Left
Other Aircraft Rating(s):	Restraint Used:	
Instrument Rating(s):	Second Pilot Present:	
Instructor Rating(s):	Toxicology Performed:	No
Medical Certification:	Last FAA Medical Exam:	
Occupational Pilot:	No	Last Flight Review or Equivalent:
Flight Time:		

Aircraft and Owner/Operator Information

Aircraft Make:	Beech	Registration:	N6688
Model/Series:	TC-45J	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	29651
Landing Gear Type:	Tailwheel	Seats:	10
Date/Type of Last Inspection:		Certified Max Gross Wt.:	
Time Since Last Inspection:		Engines:	2 Reciprocating
Airframe Total Time:		Engine Manufacturer:	P&W
ELT:	Installed	Engine Model/Series:	R-985 SERIES
Registered Owner:		Rated Power:	450 Horsepower
Operator:		Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:		Condition of Light:	
Observation Facility, Elevation:		Distance from Accident Site:	
Observation Time:		Direction from Accident Site:	
Lowest Cloud Condition:		Visibility	
Lowest Ceiling:		Visibility (RVR):	
Wind Speed/Gusts:	/	Turbulence Type Forecast/Actual:	/
Wind Direction:		Turbulence Severity Forecast/Actual:	/
Altimeter Setting:		Temperature/Dew Point:	
Precipitation and Obscuration:			
Departure Point:	Lynch, NE	Type of Flight Plan Filed:	None
Destination:	Lynch, NE	Type of Clearance:	None
Departure Time:		Type of Airspace:	

Airport Information

Airport:	None	Runway Surface Type:	
Airport Elevation:		Runway Surface Condition:	
Runway Used:		IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	Forced landing

Wreckage and Impact Information

Crew Injuries:	1 Serious	Aircraft Damage:	Destroyed
Passenger Injuries:	1 Fatal	Aircraft Fire:	On-ground
Ground Injuries:	N/A	Aircraft Explosion:	
Total Injuries:	1 Fatal, 1 Serious	Latitude, Longitude:	42.806945, -98.189445(est)

Administrative Information

Investigator In Charge (IIC):	Yeager, Leah
Additional Participating Persons:	Al Fowler; FAA/FSDO; Lincoln, NE
Original Publish Date:	April 22, 2010
Note:	
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=74319

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