



National Transportation Safety Board Aviation Accident Final Report

Location:	Decatur, TX	Accident Number:	CEN16LA219
Date & Time:	06/06/2016, 1730 CDT	Registration:	N8CX
Aircraft:	FLOHR DAVID J R 80 TIGER MOTH	Aircraft Damage:	Substantial
Defining Event:	Loss of engine power (total)	Injuries:	1 None
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

The airline transport pilot reported that he was flying his experimental, amateur-built airplane about 500 ft above ground level over his ranch when he smelled something burning. About 15 seconds later, the engine experienced a total loss of power, and the propeller stopped spinning. The airplane impacted a ditch and nosed over during the subsequent forced landing. A postaccident examination of the engine revealed that the inline electric boost pump had overheated and burned, which resulted in a loss of fuel supply to the engine.

Probable Cause and Findings

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

A failure of the electric fuel boost pump, which resulted in fuel starvation and a subsequent total loss of engine power.

Findings

Aircraft	Fuel pumps - Failure (Cause)
Environmental issues	Sloped/uneven terrain - Contributed to outcome

Factual Information

On June 6, 2016, about 1730 central daylight time, an amateur built Flohr David J R-80 Tiger Moth airplane, N8CX, nosed down during an off airport forced landing in Decatur, Texas, following a loss of engine power. The airline transport rated pilot was not injured. The airplane was substantially damaged. The airplane was registered to a private individual and was operated under the provisions of 14 Code of Federal Regulations Part 91 as a personal flight. Visual meteorological conditions prevailed for the flight and no flight plan was filed. The local flight originated from the Lazy G Bar Ranch Airport (90T), Decatur, Texas.

The pilot reported he was flying at an altitude of about 500 ft above the ground over his ranch when the accident occurred. He stated he smelled something burning and about 15 seconds later, the engine lost all power and the propeller stopped spinning. The airplane hit a ditch and nosed over during the forced landing resulting in substantial damage to both lower wings.

The pilot reported the previous owner of the airplane had installed a Facet 150 electric boost pump to increase the fuel flow. The pilot examined the engine after the accident and stated the inline electric boost pump overheated, burned, and shut down the fuel supply to the engine.

History of Flight

Maneuvering-low-alt flying	Loss of engine power (total) (Defining event)
Landing-landing roll	Landing gear collapse Nose over/nose down

Pilot Information

Certificate:	Airline Transport; Commercial	Age:	73, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land; Single-engine Sea	Seat Occupied:	Rear
Other Aircraft Rating(s):	None	Restraint Used:	4-point
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 3 Without Waivers/Limitations	Last FAA Medical Exam:	02/24/2016
Occupational Pilot:	No	Last Flight Review or Equivalent:	05/24/2016
Flight Time:	19000 hours (Total, all aircraft), 56 hours (Total, this make and model), 15000 hours (Pilot In Command, all aircraft), 120 hours (Last 90 days, all aircraft), 60 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	FLOHR DAVID J	Registration:	N8CX
Model/Series:	R 80 TIGER MOTH NO SERIES	Aircraft Category:	Airplane
Year of Manufacture:	2005	Amateur Built:	Yes
Airworthiness Certificate:	Experimental	Serial Number:	TM36
Landing Gear Type:	Tailwheel	Seats:	2
Date/Type of Last Inspection:	11/29/2015, Annual	Certified Max Gross Wt.:	1150 lbs
Time Since Last Inspection:	15 Hours	Engines:	1 Reciprocating
Airframe Total Time:	2983 Hours at time of accident	Engine Manufacturer:	CONT MOTOR
ELT:	Installed, activated, did not aid in locating accident	Engine Model/Series:	C90-14F
Registered Owner:	On file	Rated Power:	90 hp
Operator:	On file	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	LUD, 1047 ft msl	Distance from Accident Site:	5 Nautical Miles
Observation Time:	2235 UTC	Direction from Accident Site:	248°
Lowest Cloud Condition:	Clear	Visibility	10 Miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	3 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	350°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29.89 inches Hg	Temperature/Dew Point:	29° C / 13° C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Decatur, TX (90T)	Type of Flight Plan Filed:	None
Destination:	Decatur, TX (90T)	Type of Clearance:	None
Departure Time:	1720 CDT	Type of Airspace:	Class G

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 None	Latitude, Longitude:	33.264167, -97.466111

Administrative Information

Investigator In Charge (IIC):	Pamela S Sullivan	Report Date:	07/20/2017
Additional Participating Persons:	Chuck Kuykendall; FAA; Dallas, TX		
Publish Date:	07/20/2017		
Note:	The NTSB did not travel to the scene of this accident.		
Investigation Docket:	http://dms.nts.gov/pubdms/search/dockList.cfm?mKey=93389		

The National Transportation Safety Board (NTSB), established in 1967, is an independent federal agency mandated by Congress through the Independent Safety Board Act of 1974 to investigate transportation accidents, determine the probable causes of the accidents, issue safety recommendations, study transportation safety issues, and evaluate the safety effectiveness of government agencies involved in transportation. The NTSB makes public its actions and decisions through accident reports, safety studies, special investigation reports, safety recommendations, and statistical reviews.

The Independent Safety Board Act, as codified at 49 U.S.C. Section 1154(b), precludes the admission into evidence or use of any part of an NTSB report related to an incident or accident in a civil action for damages resulting from a matter mentioned in the report. A factual report that may be admissible under 49 U.S.C. § 1154(b) is available [here](#).