



National Transportation Safety Board Aviation Accident Final Report

Location:	FORT PIERCE, FL	Accident Number:	MIA98LA117
Date & Time:	04/02/1998, 1400 EST	Registration:	DECTB
Aircraft:	Beech F33A	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	1 None

Flight Conducted Under: Part 91: General Aviation - Personal

Analysis

The flight had departed runway 14, and had reached an altitude of about 200 feet, when the pilot reported a loss of engine power. The pilot elected to make a forced landing straight ahead into trees. After impact, the pilot closed off the fuel valve. Examination of the wreckage after the accident revealed that the fuel tanks had fuel. The pilot said the fuel selector was on the left tank when the loss of power occurred. Observation of the engine at the crash site did not reveal any obvious discrepancies. The engine was removed from the airframe and examined at the NTSB's request, and under the supervision of the FAA, on June 24, 1998. The engine examination revealed that the fuel control system exhibited fluid leakage at the fuel pump and throttle shaft. Detailed examination of the fuel pump showed that the pump leaked fluid at the rear high speed adjusting needle at the seal to the pump body. There was no evidence of impact damage observed on the fuel pump. In addition, the throttle/metering unit leaked fluid at the throttle shaft into the metering unit. The leak at the throttle shaft was severe enough that no flow test was possible. The throttle arm displayed impact damage. The throttle shaft was removed from the unit, and the 'O' ring seal was found flat from wear. The 'O' ring was replaced and the leakage stopped. The unit was then flow tested to manufacturer's standards. No other discrepancies were found during the engine examination

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: a loss of engine power due to fuel leakage at the fuel control, resulting in a forced landing, and subsequent impact with trees.

Findings

Occurrence #1: LOSS OF ENGINE POWER

Phase of Operation: CLIMB

Findings

1. (C) FUEL SYSTEM,FUEL CONTROL - LEAK

Occurrence #2: FORCED LANDING

Phase of Operation: EMERGENCY DESCENT/LANDING

Occurrence #3: IN FLIGHT COLLISION WITH OBJECT

Phase of Operation: EMERGENCY DESCENT/LANDING

Findings

2. OBJECT - TREE(S)

Factual Information

On April 2, 1998, about 1400 eastern standard time, a Beech F33A, D-ECTB (German), registered to a private individual, operating as a Title 14 CFR Part 91 local personal flight, impacted with trees during a forced landing near Fort Pierce, Florida. Visual meteorological conditions prevailed, and no flight plan was filed. The airplane was destroyed. The private-rated pilot was not injured. The flight was originating from the Fort Pierce Airport at the time.

The flight had departed runway 14, and had reached an altitude of about 200 feet, when the pilot reported a loss of engine power. The pilot elected to make a forced landing straight ahead into trees. After impact, the pilot closed off the fuel valve. Examination of the wreckage after the accident revealed that the fuel tanks had fuel. The pilot said the fuel selector was on the left tank when the loss of power occurred.

Observation of the engine at the crash site did not reveal any obvious discrepancies. The engine was removed from the airframe and shipped to Continental Motor's facilities, Mobile, Alabama, and examined at the NTSB's request, and under the supervision of the FAA, on June 24, 1998. The engine examination revealed that the fuel control system exhibited fluid leakage at the fuel pump and throttle shaft. Detailed examination of the fuel pump showed that the pump leaked fluid at the rear high speed adjusting needle at the seal to the pump body. There was no evidence of impact damage observed on the fuel pump. In addition, the throttle/metering unit leaked fluid at the throttle shaft into the metering unit. The leak at the throttle shaft was severe enough that no flow test was possible. The throttle arm displayed impact damage. The throttle shaft was removed from the unit, and the "O" ring seal was found flat from wear. The ring was replaced and the leakage stopped. The unit was then flow tested to manufacturer's standards. No other discrepancies were found during the engine examination (see TCM Analytical report Page 3).

At the airplane owner's request, the engine was shipped to Fort Pierce, Florida, on July 23, 1998, directly from TCM, Mobile, Alabama.

Pilot Information

Certificate:	Private	Age:	60, Male
Airplane Rating(s):	Single-engine Land; Single-engine Sea	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt, Shoulder harness
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 3 Valid Medical--w/ waivers/lim.	Last FAA Medical Exam:	04/01/1998
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:	1100 hours (Total, all aircraft), 23 hours (Total, this make and model), 1100 hours (Pilot In Command, all aircraft), 45 hours (Last 90 days, all aircraft), 21 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Beech	Registration:	DECTB
Model/Series:	F33A F33A	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	375
Landing Gear Type:	Retractable - Tricycle	Seats:	4
Date/Type of Last Inspection:	Annual	Certified Max Gross Wt.:	3400 lbs
Time Since Last Inspection:	43 Hours	Engines:	1 Reciprocating
Airframe Total Time:	1257 Hours	Engine Manufacturer:	Continental
ELT:	Installed, not activated	Engine Model/Series:	IO-520BA
Registered Owner:	DIETER H. KNOPPLE	Rated Power:	285 hp
Operator:	DIETER H. KNOPPLE	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	FPR, 25 ft msl	Distance from Accident Site:	1 Nautical Miles
Observation Time:	1404 EST	Direction from Accident Site:	220°
Lowest Cloud Condition:	Scattered / 4000 ft agl	Visibility	12 Miles
Lowest Ceiling:	None / 0 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	12 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	130°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29 inches Hg	Temperature/Dew Point:	27° C
Precipitation and Obscuration:			
Departure Point:	(FPR)	Type of Flight Plan Filed:	None
Destination:	PALM BEACH, FL (F45)	Type of Clearance:	None
Departure Time:	1400 EST	Type of Airspace:	

Airport Information

Airport:	ST. LUCIE INTERNATIONAL (FPR)	Runway Surface Type:	Asphalt
Airport Elevation:	25 ft	Runway Surface Condition:	Dry
Runway Used:	14	IFR Approach:	None
Runway Length/Width:	4756 ft / 100 ft	VFR Approach/Landing:	Forced Landing

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Destroyed
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 None	Latitude, Longitude:	

Administrative Information

Investigator In Charge (IIC):	ALAN J YURMAN	Report Date:	02/11/2000
Additional Participating Persons:	WILLIAM G PHILLIPS; ORLANDO, FL		
Publish Date:			
Investigation Docket:	NTSB accident and incident dockets serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at pubinquiry@ntsb.gov , or at 800-877-6799. Dockets released after this date are available at http://dms.ntsbt.gov/pubdms/ .		

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](#).