National Transportation Safety Board
Aviation Accident Final Report

Location:	West Carrollton, OH	**Accident Number:**	NYC03FA001
Date & Time:	10/02/2002, 1540 EDT	**Registration:**	N72KB
Aircraft:	Beagle Aircraft B.206 Basset	**Aircraft Damage:**	Destroyed
Defining Event:		**Injuries:**	1 Fatal
Flight Conducted Under:	Part 91: General Aviation - Ferry		

Analysis

The airplane arrived at the departure airport about the middle of April 2002, and remained parked until the day of the accident. On the day of the accident, a mechanic was asked by the pilot to help him because he was having trouble starting the airplane. When the mechanic arrived at the airplane, he drained about 2-1/2 gallons of water from the center sump drain located under the main fuselage, and the engine subsequently started. The airplane was then fueled with 224.5 gallons of aviation gasoline, and the mechanic added that he did not sump the airplane after it was fueled, nor did he observe the pilot perform visual inspection of the fuel. A witness observed the accident airplane as it was departing. He stated that the airplane's engines sounded like they were running good, but did not sound like they were developing full power. As the airplane continued down the runway, it appeared to be traveling very slowly, and not gaining sufficient speed for takeoff. The airplane lifted abruptly into the air about 3/4 of the way down the runway, and the landing gear was retracted. The airplane settled towards the ground, clearing the levee located at the departure end of the runway by a few feet. The airplane then began a climb again, reaching a height of about 120 feet, and proceeded straight out from the airport. About 30 seconds later, the airplane banked gently to the left, where a faint puff of black smoke was observed coming from an engine. As the bank continued, the airplane descended into a near vertical dive. The witness observed the top portion of the airplane as it was in the vertical dive, before it descended out of sight. The airplane came to rest upright in a residential area about 1 mile southwest of I73, and a post crash fire ensued. The airplane's most recent annual inspection was completed on March 29, 2001. Examination of the left engine propeller assembly, which was imbedded in a dirt crater, exhibited rearward bending to all three blades. No chordwise scratching was observed on any of the blades. Examination of the right engine propeller assembly, which was imbedded in a cement sidewalk, exhibited s-bending and chordwise scratches to all three blades. The pilot had applied for, and was granted, a ferry permit to fly the airplane the day of the accident.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilots inadequate preflight inspection, his operation of the airplane with an overdue

annual inspection, and his failure to maintain airspeed after the failure of an engine which resulted in an inadvertent stall/spin. A factor related to the accident was the contaminated fuel.

Findings

Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - NONMECHANICAL
Phase of Operation: TAKEOFF - INITIAL CLIMB

Findings
1. 1 ENGINE - FAILURE,PARTIAL
2. (C) MAINTENANCE,ANNUAL INSPECTION - OVERDUE - PILOT IN COMMAND
3. (F) FLUID,FUEL - CONTAMINATION
4. (C) AIRCRAFT PREFLIGHT - INADEQUATE - PILOT IN COMMAND

Occurrence #2: LOSS OF CONTROL - IN FLIGHT
Phase of Operation: TAKEOFF - INITIAL CLIMB

Findings
5. (C) AIRSPEED(VMC) - NOT MAINTAINED - PILOT IN COMMAND
6. STALL/SPIN - INADVERTENT - PILOT IN COMMAND

Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: DESCENT - UNCONTROLLED

Findings
7. TERRAIN CONDITION - RESIDENTIAL AREA

Factual Information

HISTORY OF FLIGHT

On October 2, 2002, about 1540 eastern daylight time, a Beagle Aircraft B.206 Basset, N72KB, was destroyed after impacting terrain in West Carrollton, Ohio, after departing from the Moraine Airpark (I73), Moraine, Ohio. The certificated airline transport pilot was fatally injured. Visual meteorological conditions prevailed, and an instrument flight rules (IFR) flight plan was filed for the ferry flight destined for the Easton Airport (ESN), Easton, Maryland. The flight was conducted under 14 CFR Part 91.

According to a Federal Aviation Administration (FAA) inspector, the pilot had applied for, and was granted, a ferry permit to fly the airplane to ESN the day of the accident.

According to the operations manager of a fixed based operator at I73, the accident airplane arrived at the airport about the middle of April 2002, and was parked. The airplane remained at the airport until the day of the accident. The operations manager additionally stated that he did not observe the airplane fly at any time while at the airport.

On the day of the accident, a mechanic was asked by the pilot to help him because he was having trouble starting the airplane. When the mechanic arrived at the airplane, he drained about 2-1/2 gallons of water from the center sump drain located under the main fuselage. After draining the water, the pilot successfully started the left engine, and subsequently shut it down.

The airplane was then fueled at 1300, with 224.5 gallons of 100 low lead aviation gasoline.

The mechanic added that he did not sump the airplane after it was fueled, nor did he observe the pilot perform visual inspection of the fuel.

A witness, who was a pilot, observed the accident airplane as it was departing from runway 26, a 3,500-foot long asphalt runway. He stated that the airplane's engines sounded like they were running good, but did not sound like they were developing full power. As the airplane continued down the runway, it appeared to be traveling very slowly, and not gaining sufficient speed for takeoff. The airplane lifted abruptly into the air about 3/4 of the way down the runway, and the landing gear was retracted. The airplane settled towards the ground, clearing the levee located at the departure end of the runway by a few feet. The airplane then began a climb again, reaching a height of about 120 feet, and proceeded straight out from the airport. About 30 seconds later, the airplane banked gently to the left, where a faint puff of black smoke was observed coming from an engine. As the bank continued, the airplane descended into a near vertical dive. The witness observed the top portion of the airplane as it was in the vertical dive, before it descended out of sight. The witness also recalled that the propellers sounded like they were synched, and were not making any abnormal noises.

The airplane came to rest upright in a residential area about 1 mile southwest of I73, and a post crash fire ensued. The post crash fire also damaged two residential homes and a parked car.

The accident occurred during the hours of daylight, at 39 degrees, 40.39 minutes north longitude, 084 degrees, 15.21 minutes west latitude.

PILOT INFORMATION

The pilot held an airline transport pilot certificate with ratings for airplane multi-engine land.

He also held a commercial pilot certificate with ratings for airplane single-engine land. The pilot's most recent application for an FAA first class medical certificate was dated on August 1, 2001. The pilot reported a total of 27,560 hours of total flight experience on the application.

The pilot's logbook was not obtained during the investigation.

AIRCRAFT INFORMATION

The airplane's most recent annual inspection was completed on March 29, 2001.

While the airplane was parked at I73, maintenance was performed on the left engine to "trouble-shoot and resolve" a problem reported by the pilot. The pilot informed the mechanics that would work on the engine that "his experts" determined the problem was with the engine causing oil blow-by from the crankcase. After completing the maintenance, the mechanics determined that the engine was not the problem, it was the previous installation of an STC'd oil filter kit by another maintenance facility. The engine was then test ran, and "all systems appeared to function OK."

The airplane's logbooks were not obtained during the investigation.

The total fuel capacity for both wing tanks was 230 gallons.

METEOROLOGICAL INFORMATION

The weather reported at the James M. Cox Dayton International Airport, Dayton, Ohio, at 1554, included winds from 220 degrees at 14 knots; 10 statute miles of visibility; few clouds at 3,800 feet; temperature of 81 degrees Fahrenheit; a dew point of 64 degrees Fahrenheit; and an altimeter setting of 30.06 inches of mercury.

WRECKAGE INFORMATION

The accident site was disturbed prior to the arrival of Safety Board personnel due to emergency rescue procedures. In addition, the area was subject to water and firefighting agents to contain the post crash fire.

The first impact area was located in the front yard of one of the residential homes. It consisted of two craters, containing the left and right propeller assemblies, and two 5-inch wide, 3-inch deep impressions in the ground. The impressions were about 15 feet in length, and were orientated about a heading of 290 degrees magnetic.

About 24 feet beyond the edge of the left impression was a 3-foot section of the left outboard wingtip. About 75 feet beyond the right impression was a 3-foot section of the right outboard wingtip, which came to rest in a road.

The main wreckage came to rest on a 245-degree magnetic heading, on top of a concrete sidewalk, about 32 feet behind the first impact point. It was comprised of remnants from the cockpit, main cabin, empennage, left engine, left inboard wing section, horizontal stabilizer, elevator, vertical stabilizer, rudder, right engine, and right inboard wing section.

Impact forces and fire damage destroyed all engine instruments recovered in the wreckage. No intact flight instruments or navigational radios were recovered.

Both flight control yokes displayed impact and fire damage, and had separated from the airframe.

Due to impact and fire damage, the throttle levers, propeller control levers, mixture control

levers, landing gear selector handle, landing gear position indicators, elevator trim control, rudder trim control, aileron trim control, trim indicators, cowl flap switches, and cowl flap indicators, were not identified.

The left and right engines and propeller assemblies were examined on October 4, 2002, and no mechanical abnormalities were noted.

The left engine propeller assembly, which was imbedded in a dirt crater, exhibited rearward bending to all three blades. No chordwise scratching was observed on any of the blades. Red dyed oil was observed draining from the hub assembly. The propeller spinner cap remained attached to the assembly, and was crushed upward and inward.

The right engine propeller assembly, which was imbedded in a cement sidewalk crater, exhibited s-bending and chordwise scratches to all three blades. Red dyed oil was observed draining from the hub assembly. The propeller spinner cap remained attached to the assembly, and was crushed upward and inward.

MEDICAL AND PATHOLOGICAL INFORMATION

The Montgomery County, Office of the Chief Medical Examiner, Dayton, Ohio, performed an autopsy on the pilot, on October 3, 2002.

The FAA Toxicology and Accident Research Laboratory, Oklahoma City, Oklahoma conducted toxicological testing on the pilot.

ADDITIONAL INFORMATION

Fuel

An FAA inspector examined fuel sample reports from the airport fuel pump, and the fuel farm tank. No abnormalities were noted with the samples.

Wreckage Release

The airplane wreckage was released on October 4, 2002, to a representative of a recovery company.

Pilot Information

Certificate:	Airline Transport	**Age:**	65, Male
Airplane Rating(s):	Single-engine Land	**Seat Occupied:**	Left
Other Aircraft Rating(s):	None	**Restraint Used:**	Seatbelt
Instrument Rating(s):	Airplane	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	Yes
Medical Certification:	Class 1 With Waivers/Limitations	**Last FAA Medical Exam:**	08/01/2002
Occupational Pilot:		**Last Flight Review or Equivalent:**	
Flight Time:	27560 hours (Total, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Beagle Aircraft	**Registration:**	N72KB
Model/Series:	B.206 Basset	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	No
Airworthiness Certificate:	Normal	**Serial Number:**	064
Landing Gear Type:	Retractable - Tricycle	**Seats:**	8
Date/Type of Last Inspection:	03/29/2001, Annual	**Certified Max Gross Wt.:**	7499 lbs
Time Since Last Inspection:		**Engines:**	2 Reciprocating
Airframe Total Time:	1970 Hours as of last inspection	**Engine Manufacturer:**	Continental
ELT:	Installed, not activated	**Engine Model/Series:**	GTISO-520-C
Registered Owner:	Karl S. Bernardi	**Rated Power:**	340 hp
Operator:	Karl S. Bernardi	**Operating Certificate(s) Held:**	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	**Condition of Light:**	Day
Observation Facility, Elevation:	DAY, 1009 ft msl	**Distance from Accident Site:**	21 Nautical Miles
Observation Time:	1554 EDT	**Direction from Accident Site:**	340°
Lowest Cloud Condition:	Few / 3800 ft agl	**Visibility**	10 Miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	14 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	220°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	30.06 inches Hg	**Temperature/Dew Point:**	27°C / 18°C
Precipitation and Obscuration:			
Departure Point:	Moraine, OH (I73)	**Type of Flight Plan Filed:**	IFR
Destination:	Easton, MD (ESN)	**Type of Clearance:**	None
Departure Time:	1538 EDT	**Type of Airspace:**	Class G

Airport Information

Airport:	Moraine Airpark (I73)	**Runway Surface Type:**	Unknown
Airport Elevation:	720 ft	**Runway Surface Condition:**	Unknown
Runway Used:	NA	**IFR Approach:**	None
Runway Length/Width:		**VFR Approach/Landing:**	Unknown

Wreckage and Impact Information

Crew Injuries:	1 Fatal	**Aircraft Damage:**	Destroyed
Passenger Injuries:	N/A	**Aircraft Fire:**	On-Ground
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	1 Fatal	**Latitude, Longitude:**	39.676944, -84.256111

Administrative Information

Investigator In Charge (IIC):	Stephen M Demko	**Report Date:**	04/28/2004
Additional Participating Persons:	Corrine Brackett; FAA; Cincinnati, OH Al Butler; Continental Motors; Mobile, AL		
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 pubinq@ntsb.gov, or at 800-877-6799. Dockets released after this date are available at http://dms.ntsb.gov/pubdms/.		

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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.