



# Aviation Investigation Final Report

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<b>Location:</b>	Easton, Missouri	<b>Accident Number:</b>	CEN12LA012
<b>Date &amp; Time:</b>	October 8, 2011, 18:10 Local	<b>Registration:</b>	N27492
<b>Aircraft:</b>	Taylorcraft BL-65	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>	Loss of engine power (total)	<b>Injuries:</b>	1 Minor
<b>Flight Conducted Under:</b>	Part 91: General aviation - Ferry		

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## Analysis

The engine began to lose power during the initial climb after takeoff. The pilot elected to remain in the traffic pattern and return for landing; however, the engine subsequently lost power completely. The pilot prepared for a forced landing, but the airplane stalled about 20 feet above the ground and impacted a field. A postaccident examination revealed sufficient debris in the fuel system to restrict fuel flow to the carburetor. In addition, debris was observed in the individual gas containers used to fuel the airplane. The pilot reported that he used automotive gasoline and fueled the airplane from individual cans stored on site. Airplane maintenance records indicated that the most recent annual inspection was completed in June 2005. Regulations require an inspection to be completed within the preceding 12 calendar months.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: Debris in the fuel system, which resulted in a loss of engine power due to fuel starvation. Also causal was the pilot not maintaining sufficient airspeed, which resulted in an aerodynamic stall.

## Findings

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<b>Aircraft</b>	Fuel distribution - Damaged/degraded
<b>Aircraft</b>	Fuel - Fluid condition
<b>Aircraft</b>	Airspeed - Not attained/maintained
<b>Personnel issues</b>	Aircraft control - Pilot
<b>Personnel issues</b>	Scheduled/routine inspection - Owner/builder
<b>Personnel issues</b>	Recurrent instruct/training - Pilot

## Factual Information

### History of Flight

<b>Initial climb</b>	Loss of engine power (total) (Defining event)
<b>Emergency descent</b>	Aerodynamic stall/spin
<b>Emergency descent</b>	Loss of control in flight
<b>Uncontrolled descent</b>	Collision with terr/obj (non-CFIT)

On October 8, 2011, about 1810 central daylight time, a Taylorcraft BL-65 airplane, N27492, impacted terrain following a loss of engine power after takeoff from a private airstrip near Easton, Missouri. The airplane sustained substantial damage to the right wing. The pilot sustained minor injuries. The airplane was registered to and operated by the pilot under the provisions of 14 Code of Federal Regulations Part 91. Visual meteorological conditions prevailed for the flight, which was not operated on a flight plan. The ferry flight was originating at the time of the accident. The intended destination was Rosecrans Memorial Airport (STJ), St. Joseph, Missouri.

The pilot stated that he was planning to ferry the airplane to STJ in order to complete the annual inspection. He noted that the airplane had been inactive for some time. The inspection had been partially completed in June; however, potential flooding at that airport prompted him to use his private airstrip for safe storage. He commented that the airplane fuel system had been serviced. The annual inspection was incomplete and, therefore, not signed off at that time.

The pilot reported that all preflight checks including the engine run-up were normal. He stated that he departed his private north-south oriented turf runway to the south, and initiated a right turn when the engine began to lose power. He elected to return for landing and continued the right turn to a north heading. As he initiated a turn from downwind to base leg in the traffic pattern, the engine lost power completely. He prepared for a forced landing to a soybean field; however, the airplane inadvertently stalled about 20 feet above ground level. The right wing and nose dropped, and the airplane impacted the field. The airplane came to rest approximately 700 feet north of the runway.

Postaccident examination revealed sufficient debris in the fuel system to restrict fuel flow to the carburetor. Specifically, when the fuel line into the carburetor was disconnected, fuel did not flow through the line. Debris was present in the carburetor bowl. In addition, debris was observed in the individual gas containers used to fuel the airplane. The pilot reported that he used automotive gasoline and fueled the airplane from individual cans stored on site.

Airplane maintenance records indicated that the most recent annual inspection was completed in June 2005. Regulations require an inspection to be completed within the

preceding 12 calendar months. The pilot stated that he was uninformed of the proper procedure to obtain a ferry permit from the Federal Aviation Administration (FAA). The FAA inspector assigned to the accident reported that a ferry permit had not been issued for the accident flight.

According to the pilot's logbook, his most recent flight review was completed in June 2006. Regulations require that a flight review be completed within the preceding 24 calendar months in order to act as pilot-in-command.

### Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	48, Male
<b>Airplane Rating(s):</b>	Single-engine land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	None	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 3 Without waivers/limitations	<b>Last FAA Medical Exam:</b>	August 27, 2010
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	June 18, 2006
<b>Flight Time:</b>	669 hours (Total, all aircraft), 503 hours (Total, this make and model), 623 hours (Pilot In Command, all aircraft), 2 hours (Last 90 days, all aircraft)		

### Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Taylorcraft	<b>Registration:</b>	N27492
<b>Model/Series:</b>	BL-65	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	2134
<b>Landing Gear Type:</b>	Tailwheel	<b>Seats:</b>	2
<b>Date/Type of Last Inspection:</b>	June 1, 2005 Annual	<b>Certified Max Gross Wt.:</b>	1100 lbs
<b>Time Since Last Inspection:</b>	471 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	4000 Hrs at time of accident	<b>Engine Manufacturer:</b>	LYCOMING
<b>ELT:</b>	Installed, not activated	<b>Engine Model/Series:</b>	O-145B SERIES
<b>Registered Owner:</b>	On file	<b>Rated Power:</b>	65 Horsepower
<b>Operator:</b>	On file	<b>Operating Certificate(s) Held:</b>	None

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	STJ,826 ft msl	<b>Distance from Accident Site:</b>	13 Nautical Miles
<b>Observation Time:</b>	17:53 Local	<b>Direction from Accident Site:</b>	270°
<b>Lowest Cloud Condition:</b>	Scattered / 7000 ft AGL	<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>	Broken / 9000 ft AGL	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	14 knots / 19 knots	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	160°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	30.04 inches Hg	<b>Temperature/Dew Point:</b>	26°C / 14°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	Easton, MO (PVT )	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	St Joseph, MO (STJ )	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	18:10 Local	<b>Type of Airspace:</b>	

## Airport Information

<b>Airport:</b>	Private PVT	<b>Runway Surface Type:</b>	Grass/turf
<b>Airport Elevation:</b>	920 ft msl	<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>	18	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>	1500 ft / 60 ft	<b>VFR Approach/Landing:</b>	None

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 Minor	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>		<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	1 Minor	<b>Latitude, Longitude:</b>	39.719177,-94.629837(est)

## Administrative Information

**Investigator In Charge (IIC):** Sorensen, Timothy

**Additional Participating Persons:** Tom Bartels; FAA – Kansas City Flight Standards; Kansas City, MO

**Original Publish Date:** March 20, 2012

**Last Revision Date:**

**Investigation Class:** [Class](#)

**Note:**

**Investigation Docket:** <https://data.nts.gov/Docket?ProjectID=82034>

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