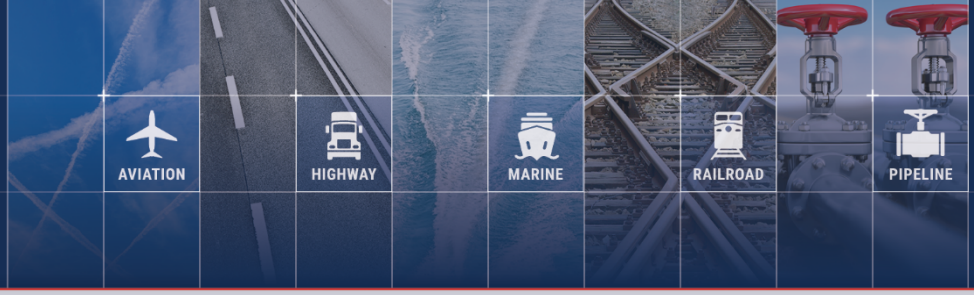

Aviation Investigation Final Report

Location:	BLAKESBURG, Iowa	**Accident Number:**	CHI97LA275
Date & Time:	September 1, 1997, 10:35 Local	**Registration:**	N131G
Aircraft:	Bucker Flugzeugbau JUNGMANN	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	1 Minor
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot reported the '...engine suffered [a] dramatic loss of power...' about 10 minutes after takeoff. He said he could not restart the engine and made a forced landing in the '...best available field... .' The airplane collided with a power line during its final approach and nosed onto the ground. The on-site examination revealed no mechanical anomalies with the airframe or engine that would prevent flight. Fuel was found in the engine s fuel lines and fuel injection pump. About a teaspoon of water was found in the gascolator. Water was not found in the fuel lines or injector manifold. Attempts to have the fuel injection pump examined at the manufacturer in the Czech Republic, with the Federal Aviation Administration's assistance was made. The FAA was unable to participate because the engine is not certificated under the FAA's regulations. The Czech Civil Aviation Authority and engine manufacturer examined the fuel injection pump. The examination revealed the pump operated within the manufacturer's specifications.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: Loss of engine power for undetermined reasons.

Findings

Occurrence #1: LOSS OF ENGINE POWER
Phase of Operation: CRUISE

Findings
1. POWERPLANT - FAILURE,TOTAL
2. (C) REASON FOR OCCURRENCE UNDETERMINED

Occurrence #2: FORCED LANDING
Phase of Operation: DESCENT - EMERGENCY

Occurrence #3: IN FLIGHT COLLISION WITH OBJECT
Phase of Operation: EMERGENCY LANDING

Findings
3. OBJECT - WIRE,TRANSMISSION

Occurrence #4: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: DESCENT - UNCONTROLLED

Findings
4. TERRAIN CONDITION - GROUND

Factual Information

On September 1, 1997, at 1035 central daylight time (cdt), a Bucker Jungmann, N131G, piloted by a commercially certificated pilot, was substantially damaged during a collision with power lines and the ground during a forced landing approach. The pilot reported a total loss of power while cruising at 2,000 feet mean sea level. Visual meteorological conditions prevailed at the time of the accident. The 14 CFR Part 91 personal flight was not operating on a flight plan. The pilot reported minor injuries. The flight departed Blakesburg, Iowa, at 1025 cdt.

According to the pilot, the "...engine suffered [a] dramatic loss of power..." about 10 minutes after takeoff. He said the engine could not be restarted following the failure. The pilot said he selected the "...best available field..." for the forced landing. He said the airplane struck a power line during the landing approach and nosed down onto the ground.

The North American representative for the engine manufacturer, Letecke Oprauny Maleske (LOM), stated the manager at N131G's departure airport said N131G had aborted a takeoff due to "...engine difficulties... ." The representative's statement continues, "...[the] fuel pumps [were] drained, and the engine ran at high RPM, and all seemed to be working fine." A mechanic from the departure airport examined N131G at the accident site. He stated the "...fuel was not contaminated in any way." He said the gascolator had "...less than a teaspoon..." of water in it. His statement is appended to this report.

The on-scene investigation revealed mechanical continuity within the LOM M332AK engine. One magneto was removed and sparked when rotated. The fuselage fuel tank had sustained collision damage and was ruptured. About 1-cup of residual fuel having an odor and color similar to 100LL was found in the tank. Fuel was found in all 4 injector lines. The fuel lines were removed from the fuel injection pump. Fuel drained from the fuel pump at all 4 fuel line attach points. The gascolator contained fuel and about 1-teaspoon of water when examined. The throttle, mixture, and supercharger controls sustained crash damage and were not able to be moved. The throttle was found in the full forward position.

The fuel injection pump could not be properly inspected by facilities in the United States. The Federal Aviation Administration's AAI-100 in Washington, D.C. was asked to have one of the Agency's Belgium inspectors observe the manufacturer's testing of the pump. The FAA was unable to assit because the engine was not an FAA certified engine. The fuel injection pump was examined at the manufacturer's facility in Malesice, Czech Republic, with the cooperation of the Czech Republic Aviation Authority.

The examination revealed that "The injection pump was securing reliable engine regulation...," according to the Quality Director for the engine manufacturer. A copy of this report is appended to this report.

Pilot Information

Certificate:	Commercial	**Age:**	47,U
Airplane Rating(s):	Single-engine land	**Seat Occupied:**	Rear
Other Aircraft Rating(s):	Glider	**Restraint Used:**	
Instrument Rating(s):	None	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	No
Medical Certification:	Class 2 Valid Medical--w/ waivers/lim	**Last FAA Medical Exam:**	November 25, 1996
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	
Flight Time:	1206 hours (Total, all aircraft), 180 hours (Total, this make and model), 1136 hours (Pilot In Command, all aircraft), 13 hours (Last 90 days, all aircraft), 10 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Bucker Flugzeugbau	**Registration:**	N131G
Model/Series:	JUNGMANN JUNGMANN	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Experimental (Special)	**Serial Number:**	E3B-391
Landing Gear Type:	Tailwheel	**Seats:**	2
Date/Type of Last Inspection:	October 1, 1996 Annual	**Certified Max Gross Wt.:**	1600 lbs
Time Since Last Inspection:	33 Hrs	**Engines:**	1 Reciprocating
Airframe Total Time:	98 Hrs	**Engine Manufacturer:**	LOM
ELT:	Installed, not activated	**Engine Model/Series:**	M332AK
Registered Owner:	EUGENE S. SPAINHOUR	**Rated Power:**	140 Horsepower
Operator:		**Operating Certificate(s) Held:**	None
Operator Does Business As:		**Operator Designator Code:**	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	OTM ,845 ft msl	**Distance from Accident Site:**	10 Nautical Miles
Observation Time:	10:35 Local	**Direction from Accident Site:**	40°
Lowest Cloud Condition:	Unknown	**Visibility**	3 miles
Lowest Ceiling:	Broken / 1000 ft AGL	**Visibility (RVR):**	
Wind Speed/Gusts:	6 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	170°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	30 inches Hg	**Temperature/Dew Point:**	
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	(5C2)	**Type of Flight Plan Filed:**	None
Destination:	(5C2)	**Type of Clearance:**	None
Departure Time:	10:25 Local	**Type of Airspace:**	Class G

Airport Information

Airport:		**Runway Surface Type:**	
Airport Elevation:		**Runway Surface Condition:**	Dry
Runway Used:	0	**IFR Approach:**	
Runway Length/Width:		**VFR Approach/Landing:**	Forced landing

Wreckage and Impact Information

Crew Injuries:	1 Minor	**Aircraft Damage:**	Substantial
Passenger Injuries:		**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	1 Minor	**Latitude, Longitude:**	41.009548,-92.41082(est)

Administrative Information

Investigator In Charge (IIC):	Gattolin, Frank
Additional Participating Persons:	BOB ANDERLIK; DES MOINES , IA
Original Publish Date:	April 15, 1999
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=10686