Aviation Investigation Final Report

Location:	Mammoth, California	**Accident Number:**	SEA08LA084
Date & Time:	March 2, 2008, 16:20 Local	**Registration:**	N234MT
Aircraft:	RAYTHEON AIRCRAFT COMPANY B36TC	**Aircraft Damage:**	Substantial
Defining Event:	Loss of engine power (total)	**Injuries:**	1 Serious, 1 Minor
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

About three minutes after takeoff, the airplane's engine experienced a complete loss in power, but the propeller kept turning. Since the pilot could not get the engine restarted, he configured the airplane for a normal landing, and touched down in what appeared to him to be level snow-covered terrain. Upon touchdown, the airplane sank through about three feet of dense snow, which resulted in a rapid deceleration. Both the airplane's belly and the inboard portion of its wings suffered crushing damage. Inspection of the airplane's fuel storage and delivery systems, and the teardown inspection of the components of the turbocharger system did not reveal any evidence of an anomaly that would have kept the engine from producing full rated horsepower. The engine was successfully test run at various power settings up to a maximum of 2,400 rpm and 30 inches of manifold pressure.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: A loss of engine power for undetermined reasons. Contributing to the accident was dense snow covering the level terrain.

Findings

Aircraft	(general) - Not specified
Not determined	(general) - Unknown/Not determined
Environmental issues	Snowy/icy terrain - Contributed to outcome

Factual Information

History of Flight

Enroute-climb to cruise	Loss of engine power (total) (Defining event)
Emergency descent	Off-field or emergency landing
Landing-flare/touchdown	Collision with terr/obj (non-CFIT)

On March 2, 2008, about 1620 Pacific standard time, a Beechcraft B36TC, N234MT, collided with snow that was covering level terrain about three miles south of Mammoth Yosemite Airport, Mammoth Lakes, California. The private pilot received minor injuries, his passenger received serious injuries, and the airplane, which was owned and operated by the pilot, sustained substantial damage. The 14 Code of Federal Regulations (CFR) Part 91 personal cross-country flight, which departed Mammoth Yosemite Airport about five minutes prior to the accident, had a planned destination of Van Nuys, California. The pilot had not filed a flight plan.

According to the pilot, three or four minutes after takeoff, the engine experienced a "major loss in power." He therefore turned back toward the airport and began to take action to try to restore full power. During this process he switched fuel tanks, checked the magnetos, activated the fuel boost pump to the prime position, and switched to alternate induction air. Ultimately, although the propeller kept turning, the engine lost all power, and the pilot began to look for what he thought would be a safe place to land. He elected to execute a forced landing on level snow-covered terrain in what appeared to be an open field. He then configured the airplane for a normal landing, and touched down in about three feet of dense snow with the landing gear extended. Upon touchdown, the landing gear broke through the surface of the snow, and as the airplane sank into the snow it decelerate rapidly. The accident sequence resulted in crushing damage to the airplane's belly and to the inboard portion of both wings.

During the investigation it was determined that at the time of takeoff, the airplane contained about 65 gallons of aviation fuel, which was evenly distributed between the right and left fuel systems. The wreckage was recovered to the facilities of Air Transport, of Phoenix, Arizona, where an FAA-directed inspection of the airframe and engine was performed. That inspection did not reveal any anomalies in the airframe, its air induction system, or its fuel delivery system. After a visual inspection, the engine was successfully run at various power settings up to 2,400 rpm and 30 inches of manifold pressure.

As part of the investigation the turbocharger turbine/compressor assembly, pressure relief valve, variable absolute pressure controller, and exhaust bypass valve assembly were sent to Kelly Aerospace Power Systems, where an FAA-monitored teardown inspection was performed. That inspection did not reveal any evidence of anomalies or malfunctions that would have prevented these components from operating in accordance with field serviceable

standards.

Pilot Information

Certificate:	Private	**Age:**	48,Male
Airplane Rating(s):	Single-engine land	**Seat Occupied:**	Left
Other Aircraft Rating(s):	None	**Restraint Used:**	
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:**	June 25, 2007
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	March 14, 2007
Flight Time:	884 hours (Total, all aircraft), 724 hours (Total, this make and model), 37 hours (Last 90 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	RAYTHEON AIRCRAFT COMPANY	**Registration:**	N234MT
Model/Series:	B36TC	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	EA-656
Landing Gear Type:	Retractable - Tricycle	**Seats:**	6
Date/Type of Last Inspection:	November 9, 2007 Annual	**Certified Max Gross Wt.:**	3850 lbs
Time Since Last Inspection:		**Engines:**	1 Reciprocating
Airframe Total Time:	873 Hrs at time of accident	**Engine Manufacturer:**	CONT MOTOR
ELT:	Installed, activated, did not aid in locating accident	**Engine Model/Series:**	TSIO-520-UB
Registered Owner:	THESMAN ONE INVESTMENTS LLC	**Rated Power:**	300 Horsepower
Operator:	Michael S. Thesman	**Operating Certificate(s) Held:**	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:		**Distance from Accident Site:**	
Observation Time:		**Direction from Accident Site:**	
Lowest Cloud Condition:	Clear	**Visibility**	10 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	/	**Turbulence Type Forecast/Actual:**	/
Wind Direction:		**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:		**Temperature/Dew Point:**	4°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Mammoth, CA (KMMH)	**Type of Flight Plan Filed:**	None
Destination:	Van Nuys, CA (KVNY)	**Type of Clearance:**	None
Departure Time:	16:15 Local	**Type of Airspace:**	

Wreckage and Impact Information

Crew Injuries:	1 Minor	**Aircraft Damage:**	Substantial
Passenger Injuries:	1 Serious	**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	1 Serious, 1 Minor	**Latitude, Longitude:**	37.625556,-118.840835

Administrative Information

Investigator In Charge (IIC):	Anderson, Orrin
Additional Participating Persons:	Donald Morgan; Federal Aviation Administration; Reno, NV
Original Publish Date:	December 24, 2008
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=67609