Aviation Investigation Final Report

Location:	Longmont, Colorado	**Accident Number:**	CEN14LA267
Date & Time:	June 1, 2014, 09:15 Local	**Registration:**	N206ND
Aircraft:	DIAMOND AIRCRAFT IND INC DA20-C1	**Aircraft Damage:**	Substantial
Defining Event:	Loss of engine power (total)	**Injuries:**	1 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot reported that the engine lost all power after the airplane took off and climbed to about 400 feet. He then made a forced landing to a field adjacent to the airport. The airplane struck the ground nose first and skidded about 150 feet before coming to a stop; the nose gear was sheared off. During a postaccident examination of the airplane, only a few drops of fuel were recovered from the wing and gascolator fuel drains; no fuel could be seen in either tank. The pilot noted that fuel had been leaking from the tanks for three days before the examination. However, even if minimal fuel had been present during the accident flight, more than a few drops should have drained out of the gascolator drain. Had the pilot done a thorough preflight inspection, he should have noted the lack of fuel in the tanks.

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 exhaustion. Contributing to the accident was the pilot's inadequate preflight inspection.

Findings

Personnel issues	Preflight inspection - Pilot
Aircraft	Fuel - Fluid level

Factual Information

History of Flight

Initial climb	Loss of engine power (total) (Defining event)
Emergency descent	Off-field or emergency landing
Landing	Collision with terr/obj (non-CFIT)
Prior to flight	Aircraft servicing event

On June 1, 2014, about 0915 mountain daylight time, a Diamond DA 20-C1, N206ND, collided with terrain after the engine lost power near Longmont, Colorado. The commercial pilot, the sole occupant on board, was not injured. The airplane was substantially damaged. The airplane was registered to and operated by the pilot under the provisions of 14 Code of Federal Regulations Part 91 as a personal flight. Visual meteorological conditions prevailed at the time of the accident, and no flight plan had been filed. The local flight was originating when the accident occurred.

In a telephone interview, the pilot said the airplane had just come out of an annual inspection and his mechanic had performed a post-maintenance engine functional test up to full power. All systems operated normally and the engine performed well. The accident flight was a test flight after the annual inspection. The pilot said prior to takeoff, he also ran the engine up to full power. No anomalies were noted. The pilot took off and after climbing to about 400 feet, the engine lost power. The pilot made a forced landing in a field adjacent to the airport. The airplane struck the ground nose first, shearing off the nose gear, and skidded about 150 feet before coming to a stop. The empennage was separated from the fuselage.

On June 4, three Federal Aviation Administration inspectors examined the airplane in the presence of the pilot. According to the lead inspector, the airplane was equipped with two fuel drains --- one for the fuel tank and one for the gascolator. Only a few drops of fuel were recovered from each drain. No fuel could be seen in the fuel tank. The pilot said fuel had been leaking from the fuel tank for three days before the FAA inspectors arrived. According to the FAA inspector's report, if there had been minimal fuel aboard the airplane, fuel greater than a few drops would have drained out of the gascolator drain during the examination.

Pilot Information

Certificate:	Commercial	**Age:**	73
Airplane Rating(s):	Single-engine land; Multi-engine land	**Seat Occupied:**	Left
Other Aircraft Rating(s):	None	**Restraint Used:**	3-point
Instrument Rating(s):	Airplane	**Second Pilot Present:**	No
Instructor Rating(s):	Airplane single-engine	**Toxicology Performed:**	No
Medical Certification:	Class 3 With waivers/limitations	**Last FAA Medical Exam:**	May 1, 2014
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	June 1, 2013
Flight Time:	(Estimated) 1400 hours (Total, all aircraft), 700 hours (Total, this make and model)		

Aircraft and Owner/Operator Information

Aircraft Make:	DIAMOND AIRCRAFT IND INC	**Registration:**	N206ND
Model/Series:	DA20-C1	**Aircraft Category:**	Airplane
Year of Manufacture:	1998	**Amateur Built:**	
Airworthiness Certificate:	Utility	**Serial Number:**	C0020
Landing Gear Type:	Tricycle	**Seats:**	2
Date/Type of Last Inspection:		**Certified Max Gross Wt.:**	1764 lbs
Time Since Last Inspection:		**Engines:**	1 Reciprocating
Airframe Total Time:		**Engine Manufacturer:**	Continental
ELT:		**Engine Model/Series:**	IO-240-B
Registered Owner:	KOSAIR INC	**Rated Power:**	125 Horsepower
Operator:	KOSAIR INC	**Operating Certificate(s) Held:**	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	KLMO,5055 ft msl	**Distance from Accident Site:**	
Observation Time:	09:14 Local	**Direction from Accident Site:**	
Lowest Cloud Condition:	Clear	**Visibility**	10 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	3 knots /	**Turbulence Type Forecast/Actual:**	/ None
Wind Direction:	160°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	29.93 inches Hg	**Temperature/Dew Point:**	23°C / 11°C
Precipitation and Obscuration:			
Departure Point:	Longmont, CO (KLMO)	**Type of Flight Plan Filed:**	
Destination:	Longmont, CO (KLMO)	**Type of Clearance:**	None
Departure Time:	09:00 Local	**Type of Airspace:**	Class G

Airport Information

Airport:	Vance Brand KLMO	**Runway Surface Type:**	Concrete
Airport Elevation:	5055 ft msl	**Runway Surface Condition:**	Dry
Runway Used:	29	**IFR Approach:**	None
Runway Length/Width:	4799 ft / 75 ft	**VFR Approach/Landing:**	Forced landing

Wreckage and Impact Information

Crew Injuries:	1 None	**Aircraft Damage:**	Substantial
Passenger Injuries:		**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	1 None	**Latitude, Longitude:**	40.16909,-105.209907(est)

Administrative Information

Investigator In Charge (IIC):	Scott, Arnold
Additional Participating Persons:	
Original Publish Date:	October 27, 2014
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=89327