



National Transportation Safety Board Aviation Accident Data Summary

Location:	Peachtree City, GA	Accident Number:	MIA08LA156
Date & Time:	08/01/2008, 1450 EDT	Registration:	N227RD
Aircraft:	DIAMOND DA-20-C1	Injuries:	2 Minor
Flight Conducted Under:	Part 91: General Aviation - Flight Test		

Analysis

Maintenance was performed to the airplane's rudder system and the operator requested a test flight. During the test flight the pilot noted no discrepancies with the airplane until the downwind to base turn; the engine would not produce full power. The pilot elected to perform a forced landing in an open field prior to the runway to avoid impacting trees that were in the flight path to the threshold. The terrain was full of debris, resulting in substantial damage to the airplane. The wreckage examination revealed no discrepancies with the airplane's flight control systems. The examination discovered that a check valve from the engine mechanical fuel pump return hose line back to the fuel tank was installed incorrectly (backwards). The engine was test run with the check valve installed both correctly and incorrectly. During both test phases, the engine accelerated normally without any hesitation or interruption in power. No discrepancies were noted that would have prevented the engine from producing power for normal flight operations.

Flight Events

Approach-VFR pattern base - Loss of engine power (partial)
Emergency descent - Off-field or emergency landing
Landing-landing roll - Collision with terr/obj (non-CFIT)

Probable Cause

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

Findings

Environmental issues-Physical environment-Terrain-Rough terrain-Contributed to outcome
Not determined-Not determined-(general)-(general)-Unknown/Not determined - C

Pilot Information

Certificate:	Private	Age:	25
Airplane Rating(s):	Single-engine Land	Instrument Rating(s):	None
Other Aircraft Rating(s):	None	Instructor Rating(s):	None
Flight Time:	238 hours (Total, all aircraft), 59 hours (Total, this make and model)		

Aircraft and Owner/Operator Information

Aircraft Manufacturer:	DIAMOND	Registration:	N227RD
Model/Series:	DA-20-C1	Engines:	1 Reciprocating
Operator:	Falcon Aviation Academy	Engine Manufacturer:	Teledyne Continental Motors
Air Carrier Operating Certificate:	None	Engine Model/Series:	IO-240-B
Flight Conducted Under:	Part 91: General Aviation - Flight Test		

Meteorological Information and Flight Plan

Observation Facility, Elevation:	FFC, 808 ft msl	Weather Information Source:	Weather Observation Facility
Conditions at Accident Site:	Visual Conditions	Lowest Ceiling:	Broken / 3100 ft agl
Condition of Light:	Day	Wind Speed/Gusts, Direction:	Light and Variable, 290°
Temperature:	28°C / 22°C	Visibility	10 Miles
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Peachtree City, GA (FFC)	Destination:	Peachtree City, GA (FFC)

Wreckage and Impact Information

Crew Injuries:	1 Minor	Aircraft Damage:	Substantial
Passenger Injuries:	1 Minor	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None

Administrative Information

Investigator In Charge (IIC):	Jose Obregon	Adopted Date:	05/06/2010
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 pubinquiry@ntsb.gov , or at 800-877-6799. Dockets released after this date are available at http://dms.nts.gov/pubdms/ .		

The National Transportation Safety Board (NTSB), established in 1967, is an independent federal agency mandated by Congress through the Independent Safety Board Act of 1974 to investigate transportation accidents, determine the probable causes of the accidents, issue safety recommendations, study transportation safety issues, and evaluate the safety effectiveness of government agencies involved in transportation. The NTSB makes public its actions and decisions through accident reports, safety studies, special investigation reports, safety recommendations, and statistical reviews.

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.