



National Transportation Safety Board Aviation Accident Data Summary

Location:	ENGLEWOOD, CO	Accident Number:	DEN88DTE06
Date & Time:	07/01/1988, 1235 MDT	Registration:	N250TH
Aircraft:	HELFRICH-LEONARD BD-5B	Injuries:	1 None
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

THIS EXPERIMENTAL ACFT IS POWERED BY A MODIFIED HONDA 1250 CC, WATERCOOLED ENG. THE PLT REPORTED THAT AFTER TAKEOFF THE ENG TEMP REACHED THE REDLINE AND THE ENG LOST POWER. DURING THE FORCED LANDING THE MAIN LANDING GEAR COLLAPSED. EXAMINATION OF THE ENG AFTER THE ACFT REVEALED THAT A HOLE WAS BURNED IN THE #4 PISTON AND A PORTION OF THE HEAD GASKET BETWEEN THE #3 AND #4 CYL WAS MISSING. THE OWNER AND TECHNICIANS FAMILIAR WITH THE ENG SUGGEST A LARGER RADIATOR, RETIMING OF THE IGNITION, AND/OR A RICHER MIXTURE MAY PRECLUDE RECURRENCE OF THE PROBLEM.

Probable Cause

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

Findings

Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - MECH FAILURE/MALF
Phase of Operation: TAKEOFF - INITIAL CLIMB

Findings

1. (C) POWERPLANT - OVERTEMPERATURE
2. (C) ENGINE ASSEMBLY,PISTON - BURNED
3. (C) ACFT/EQUIP,INADEQUATE DESIGN - MANUFACTURER

Occurrence #2: FORCED LANDING

Phase of Operation: DESCENT - EMERGENCY

Occurrence #3: MAIN GEAR COLLAPSED

Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings

4. (F) TERRAIN CONDITION - ROUGH/UNEVEN
5. LANDING GEAR,NOSE GEAR - OVERLOAD
6. LANDING GEAR,NOSE GEAR - COLLAPSED

Pilot Information

Certificate:	Commercial	Age:	39
Airplane Rating(s):	Single-engine Land	Instrument Rating(s):	None
Other Aircraft Rating(s):	None	Instructor Rating(s):	None
Flight Time:	1272 hours (Total, all aircraft), 20 hours (Total, this make and model), 1145 hours (Pilot In Command, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	HELFRICH-LEONARD	Registration:	N250TH
Model/Series:	BD-5B BD-5B	Engines:	1 Reciprocating
Operator:	FOSTER MARK E.	Engine Manufacturer:	HONDA
Operating Certificate(s) Held:	None	Engine Model/Series:	1250
Flight Conducted Under:	Part 91: General Aviation - Personal		

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	APA, 0 ft msl	Weather Information Source:	Weather Observation Facility
Lowest Ceiling:	None / 0 ft agl	Wind Speed/Gusts, Direction:	5 knots / , 20°
Temperature:	26° C	Visibility	50 Miles
Precipitation and Obscuration:			
Departure Point:	(APA)	Destination:	(APA)

Airport Information

Airport:	CENTENNIAL (APA)	Runway Surface Type:	Asphalt
Runway Used:	0	Runway Surface Condition:	Dry
Runway Length/Width:	10000 ft / 100 ft		

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Latitude, Longitude:			

Administrative Information

Investigator In Charge (IIC): BENJAMIN J BURTON JR.

Adopted Date: 07/10/1989

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 pubinq@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.