



Aviation Investigation Final Report

Location:	Bessemer, Alabama	Accident Number:	ATL02LA087
Date & Time:	April 17, 2002, 11:45 Local	Registration:	N727BD
Aircraft:	Greg Grouleff BD-5B	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

After a visual approach to runway 5 at 110 to 120 mph with gear down and the flaps half extended, the pilot executed a touchdown on the left main first in a light crosswind. Upon touchdown, the airplane immediately dropped left and veered left, and the pilot had no directional control. The airplane veered off the runway, over an embankment, and into trees. Examination of the wreckage revealed the left main wheel was separated from the gear leg, the left stabilator was bent, and the right wing displayed leading edge damage. The aluminum casting of the left main landing gear, part number LG93, was fractured and showed no evidence of previous damage or cracks.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's improper landing flare that resulted in a hard landing and the fracture of the left main landing gear casting.

Findings

Occurrence #1: HARD LANDING
Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings

1. (C) FLARE - IMPROPER - PILOT IN COMMAND

Occurrence #2: AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION

Phase of Operation: LANDING

Findings

2. LANDING GEAR,MAIN GEAR ATTACHMENT - OVERLOAD

Occurrence #3: LOSS OF CONTROL - ON GROUND/WATER

Phase of Operation: LANDING - ROLL

Occurrence #4: ON GROUND/WATER COLLISION WITH OBJECT

Phase of Operation: LANDING - ROLL

Findings

3. OBJECT - TREE(S)

Factual Information

On April 17, 2002, at 1145 central daylight time, a Greg Grouleff BD-5B, experimental airplane, N727BD, registered to, owned, and operated by the commercial pilot, veered off the runway into trees after a fracture of the left main landing gear during touchdown at Bessemer Airport in Bessemer, Alabama. The personal flight was operated under the provisions of Title 14 CFR Part 91 with no flight plan filed. Visual meteorological conditions prevailed at the time of the accident. The commercial pilot, the sole occupant, was not injured, and the airplane sustained substantial damage. The local flight departed Bessemer, Alabama, at 1115.

After conducting maneuvers in the local area, the pilot returned to the airport and entered the airport traffic pattern. The pilot flew a visual approach to runway 5 at 110 to 120 mph with gear down and flaps half-extended. The pilot stated a light crosswind condition was present, and he executed a touchdown on the left main landing gear first. Upon touchdown, the left wing immediately dropped left, the airplane veered left, and the pilot had no directional control. The airplane continued to veer left off the runway at high speed and, after about 300 feet, it went over an embankment into trees.

Examination of the wreckage revealed the left main wheel was separated from the gear leg and found near the touchdown point. The left stabilator was bent, and the right wing displayed leading edge damage. The aluminum casting of the left main landing gear, part number LG93, was fractured and showed no evidence of previous damage or cracks.

The BD-5B is a home-built airplane with no published operating manual. BD Micro Technologies, which manufactures a kit version of the BD-5B, lists the stall speed for an unmodified, kit-built aircraft as 59 mph.

Pilot Information

Certificate:	Commercial; Flight instructor	Age:	57, Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Single
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	Airplane single-engine	Toxicology Performed:	No
Medical Certification:	Class 2 Valid Medical-w/ waivers/lim	Last FAA Medical Exam:	August 22, 2001
Occupational Pilot:		Last Flight Review or Equivalent:	September 20, 2000
Flight Time:	4760 hours (Total, all aircraft), 550 hours (Total, this make and model), 4700 hours (Pilot In Command, all aircraft), 6 hours (Last 90 days, all aircraft), 2 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Greg Grouleff	Registration:	N727BD
Model/Series:	BD-5B	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	Yes
Airworthiness Certificate:	Experimental (Special)	Serial Number:	984
Landing Gear Type:	Retractable - Tricycle	Seats:	1
Date/Type of Last Inspection:	October 6, 2001 Annual	Certified Max Gross Wt.:	
Time Since Last Inspection:	10 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	600 Hrs at time of accident	Engine Manufacturer:	Honda
ELT:	Not installed	Engine Model/Series:	EB-3
Registered Owner:	R. David Harcourt	Rated Power:	100 Horsepower
Operator:		Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	BHM,644 ft msl	Distance from Accident Site:	17 Nautical Miles
Observation Time:	11:53 Local	Direction from Accident Site:	32°
Lowest Cloud Condition:	Scattered / 4000 ft AGL	Visibility	10 miles
Lowest Ceiling:	Broken / 25000 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	3 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	999°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.25 inches Hg	Temperature/Dew Point:	27°C / 16°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Bessemer, AL (EKY)	Type of Flight Plan Filed:	None
Destination:	Bessemer, AL (EKY)	Type of Clearance:	VFR
Departure Time:	11:15 Local	Type of Airspace:	Class E

Airport Information

Airport:	Bessemer Alabama EKY	Runway Surface Type:	Asphalt
Airport Elevation:	700 ft msl	Runway Surface Condition:	Dry
Runway Used:	5	IFR Approach:	Practice
Runway Length/Width:	5700 ft / 100 ft	VFR Approach/Landing:	Traffic pattern

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:	33.312778,-86.926109

Administrative Information

Investigator In Charge (IIC):	Smith, Carrol A.
Additional Participating Persons:	Thomas L Miller; FAA - Birmingham FSDO - 09; Birmingham, AL
Original Publish Date:	January 16, 2003
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=54542

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The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, “accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person” (Title 49 *Code of Federal Regulations* section 831.4). Assignment of fault or legal liability is not relevant to the NTSB’s statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 *United States Code* section 1154(b)). A factual report that may be admissible under 49 *United States Code* section 1154(b) is available [here](#).