



Aviation Investigation Final Report

Location:	Delta, Colorado	Accident Number:	CEN17LA091
Date & Time:	January 18, 2017, 16:30 Local	Registration:	N303QB
Aircraft:	Beech 95-C55	Aircraft Damage:	Substantial
Defining Event:	Landing gear not configured	Injuries:	1 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The airplane experienced a gear-up landing after the private pilot was unable to extend the landing gear. Postaccident examination of the landing gear motor revealed that the sector gear teeth were partially sheared and were bound with the worm gear teeth, resulting in interference. Once the gear was turned past the sheared area, the assembly functioned with no anomalies. Review of maintenance logs revealed that the most recent annual inspection, which included the landing gear system, was completed about 6 months before the accident with no anomalies noted.

Probable Cause and Findings

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

The failure of the landing gear to extend during landing approach due to the interference between the landing gear motor's sector and worm gears.

Findings

Aircraft	Gear extension and retract sys - Malfunction
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Factual Information

History of Flight

Approach	Sys/Comp malf/fail (non-power)
Landing	Landing gear not configured (Defining event)

On January 18, 2017, at 1630 mountain standard time, a Beech 95-C55, N303QB, experienced a gear-up landing at Blake Field Airport, Delta, Colorado, after the pilot was unable to extend the landing gear using normal and emergency procedures. The airplane sustained substantial damage on impact with the runway surface. The pilot was uninjured. The airplane was registered to and operated by the pilot under 14 Code of Federal Regulations Part 91 as a personal flight that was not operating on a flight plan. Visual meteorological conditions prevailed at the time of the accident. The flight originated from an unknown location.

A National Transportation Safety Board (NTSB) Pilot Operator Aircraft Accident/Incident Report, Form 6120.1 was not received from the pilot, who was required to complete and submit the form following email and phone requests by the NTSB Investigator-In-Charge. The pilot was also requested to provide his pilot logbook but that request was not complied with.

A post-accident disassembly examination, by a maintenance facility, of the airplane landing gearbox showed that there were three labels attached to the gearbox exterior: a "Beech Aircraft Corporation", part number "95-810017-23 ECH," serial number "94-B-479," a Beechcraft Rebuilt Part," part number "95-810017-23 ECH," serial number "94-B-479," and a "Cruiseair Aviation, Inc." with no part or serial number annotated. The examination revealed that the sector gear was against the stop "so hard" that the bolt for the stop could not be removed until the assembly half screws were removed. The sector gear teeth were partially sheared and were bound with worm gear teeth resulting in interference. Once the gear was turned past the sheared area, the assembly worked "fine."

An airplane logbook entry dated November 22, 2014 stated that at a tachometer time of 5,211.40 hours and unknown total time, the landing gear failed to electrically extend and the emergency gear handle was hard to turn for the first two turns. The landing gearbox was sent to "Cruiseair" for "repair/inspection." Gearbox, part number "95-810017-25," serial number "94-13-479," was overhauled and reinstalled. The entry states that there were no defects found when the landing gear was cycled three times, and an emergency landing gear extension was performed.

An airplane logbook entry dated July 19, 2016 stated that an airplane total time of 5,239.7 hours, the "landing gear, motor, and actuating linkage" were inspected during an annual inspection. The airplane was placed on jacks and the landing gear was cycled and an emergency landing gear extension was performed with "satisfactory results."

Pilot Information

Certificate:	Private	Age:	78, Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Unknown
Other Aircraft Rating(s):	None	Restraint Used:	Unknown
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Unknown	Last FAA Medical Exam:	
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:			

Aircraft and Owner/Operator Information

Aircraft Make:	Beech	Registration:	N303QB
Model/Series:	95-C55	Aircraft Category:	Airplane
Year of Manufacture:	1966	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	TE-53
Landing Gear Type:	Retractable - Tricycle	Seats:	
Date/Type of Last Inspection:	July 19, 2016 Annual	Certified Max Gross Wt.:	
Time Since Last Inspection:		Engines:	2 Reciprocating
Airframe Total Time:	5239.7 Hrs as of last inspection	Engine Manufacturer:	Continental
ELT:		Engine Model/Series:	IO-520
Registered Owner:	Pilot	Rated Power:	
Operator:	Pilot	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	AJZ	Distance from Accident Site:	0 Nautical Miles
Observation Time:	16:35 Local	Direction from Accident Site:	
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	/	Turbulence Type Forecast/Actual:	/ None
Wind Direction:		Turbulence Severity Forecast/Actual:	/ N/A
Altimeter Setting:	30.01 inches Hg	Temperature/Dew Point:	8°C / -3°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:		Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	Unknown
Departure Time:		Type of Airspace:	

Airport Information

Airport:	Blake Field Airport AJZ	Runway Surface Type:	Asphalt
Airport Elevation:	5193 ft msl	Runway Surface Condition:	
Runway Used:	3	IFR Approach:	None
Runway Length/Width:	5598 ft / 75 ft	VFR Approach/Landing:	Full stop

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:	38.786388,-108.063613(est)

Administrative Information

Investigator In Charge (IIC):	Gallo, Mitchell
Additional Participating Persons:	John Cosenza; Federal Aviation Administration; SLC FSDO; Salt Lake City, UT
Original Publish Date:	November 6, 2018
Last Revision Date:	
Investigation Class:	Class
Note:	The NTSB did not travel to the scene of this accident.
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=94669

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

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](#).