



Aviation Investigation Final Report

Location:	Lyman, Mississippi	Accident Number:	ERA12CA079
Date & Time:	November 19, 2011, 11:30 Local	Registration:	N75Q
Aircraft:	Beech C-45G	Aircraft Damage:	Substantial
Defining Event:	Landing gear collapse	Injuries:	7 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot stated that, during landing, the main landing gear wheels touched down on the turf runway at an indicated speed of 90 mph. During the landing roll, the right main landing gear encountered a soft spot on the runway and collapsed. The right propeller contacted the ground, the airplane slid forward on its nose, and ground looped toward the right, incurring substantial damage to the wing and fuselage, before coming to a stop opposite the direction of landing. The pilot attributed the collapse of the right main landing gear to the failure of the right main gear torque knee link. An examination of the right main gear torque knee link revealed that the link fractured in overload, which allowed the lower portion of the right landing gear, including the wheel assembly, to twist and separate.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The collapse of the right main landing gear during landing due to an encounter with soft terrain.

Findings

Environmental issues	Runway/landing area condition - Effect on equipment
Environmental issues	Soft surface - Effect on equipment
Aircraft	Main gear strut/axle/truck - Capability exceeded

Factual Information

History of Flight

Landing-landing roll	Landing gear collapse (Defining event)
-----------------------------	--

Pilot Information

Certificate:	Commercial	Age:	42, Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	Helicopter	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 2 Without waivers/limitations	Last FAA Medical Exam:	May 2, 2011
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	October 29, 2011
Flight Time:	14811 hours (Total, all aircraft), 16 hours (Total, this make and model), 11 hours (Last 90 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Beech	Registration:	N75Q
Model/Series:	C-45G	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	AF-423
Landing Gear Type:	Retractable - Tailwheel	Seats:	8
Date/Type of Last Inspection:	March 15, 2011 Annual	Certified Max Gross Wt.:	10100 lbs
Time Since Last Inspection:		Engines:	2 Reciprocating
Airframe Total Time:	5567 Hrs at time of accident	Engine Manufacturer:	P&W
ELT:	C91A installed, not activated	Engine Model/Series:	R-985 SERIES
Registered Owner:	On file	Rated Power:	450 Horsepower
Operator:	On file	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	GPT,28 ft msl	Distance from Accident Site:	7 Nautical Miles
Observation Time:	10:00 Local	Direction from Accident Site:	150°
Lowest Cloud Condition:	Few / 5000 ft AGL	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	5 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	100°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.1 inches Hg	Temperature/Dew Point:	24°C / 21°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Lyman, MS (MS82)	Type of Flight Plan Filed:	None
Destination:	Lyman, MS (MS82)	Type of Clearance:	None
Departure Time:	11:00 Local	Type of Airspace:	

Airport Information

Airport:	Shade Tree Field MS82	Runway Surface Type:	Grass/turf
Airport Elevation:		Runway Surface Condition:	Dry
Runway Used:	17	IFR Approach:	Visual
Runway Length/Width:	2800 ft / 100 ft	VFR Approach/Landing:	Full stop

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	6 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	7 None	Latitude, Longitude:	30.510278,-89.147224(est)

Administrative Information

Investigator In Charge (IIC):	Obregon, Jose
Additional Participating Persons:	ALbert Van Lengen; FAA/FSDO; Jackson, MS
Original Publish Date:	February 6, 2012
Last Revision Date:	
Investigation Class:	Class
Note:	This accident report documents the factual circumstances of this accident as described to the NTSB.
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=82348

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](#).