



Aviation Investigation Final Report

Location:	Lee's Summit, Missouri	Accident Number:	CEN17LA280
Date & Time:	July 21, 2017, 11:00 Local	Registration:	N8954K
Aircraft:	Stinson 108	Aircraft Damage:	Substantial
Defining Event:	Sys/Comp malf/fail (non-power)	Injuries:	2 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

During a cross-country flight, the airline transport pilot chose an en route stop to refuel. During the landing roll, the airplane started to drift left, so the pilot applied the right brake and rudder to correct the turn; however, the brake "went to the floor." The pilot was unable to correct the turn, and the airplane continued off the edge of the runway.

An examination of the braking system confirmed that the right brake was not functional, likely due to a failed seal.

Probable Cause and Findings

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

The pilot's loss of directional control during landing due to the failure of the right brake seal.

Findings

Aircraft	Brake - Malfunction
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Factual Information

History of Flight

Landing	Sys/Comp malf/fail (non-power) (Defining event)
Landing	Loss of control on ground
Landing	Runway excursion
Landing	Landing gear collapse

On July 21, 2017, about 1100 central daylight time, a Stinson 108 airplane, N8954K, departed the runway surface while landing at the Lee's Summit Municipal Airport (KLXT), Lee's Summit, Missouri. The pilot and passenger were not injured, and the airplane was substantially damaged during the landing. The airplane was registered to and operated by a private individual under the provisions of 14 *Code of Federal Regulations Part 91* as a cross-country flight. Visual meteorological conditions prevailed at the time. The local flight departed Newton, Kansas, about 0900.

The pilot reported that he planned to stop at KLXT to refuel and elected to land on runway 29. After touchdown, the airplane started to drift left, so he applied the right brake and rudder; however, the brake "went to the floor." The pilot was unable to correct the turn and the airplane continued off the edge of the runway. The airplane came to rest in an up-right position.

An examination of the airplane by the responding Federal Aviation Administration (FAA) inspector noted that the propeller was bent, the airplane's right landing gear had collapsed, and there was substantial damage to the wing spar and fuselage. The examination also confirmed that the right brake was not functional. The exam noted that the brake system malfunction was likely due to a failure of a seal

Pilot Information

Certificate:	Airline transport; Flight instructor	Age:	59
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	3-point
Instrument Rating(s):	Airplane	Second Pilot Present:	
Instructor Rating(s):	Airplane single-engine	Toxicology Performed:	No
Medical Certification:	Class 1 With waivers/limitations	Last FAA Medical Exam:	July 13, 2017
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	April 20, 2017
Flight Time:	9374 hours (Total, all aircraft), 68.5 hours (Total, this make and model), 7969 hours (Pilot In Command, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Stinson	Registration:	N8954K
Model/Series:	108	Aircraft Category:	Airplane
Year of Manufacture:	1947	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	108-1954
Landing Gear Type:	Tailwheel	Seats:	
Date/Type of Last Inspection:	April 7, 2017 Annual	Certified Max Gross Wt.:	2150 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:		Engine Manufacturer:	FRANKLIN
ELT:	Installed, not activated	Engine Model/Series:	6A4-165-B3
Registered Owner:	On file	Rated Power:	165 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:		Distance from Accident Site:	
Observation Time:	10:53 Local	Direction from Accident Site:	
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:		Visibility (RVR):	
Wind Speed/Gusts:	12 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	212°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29.95 inches Hg	Temperature/Dew Point:	33°C / 23°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Newton, KS (KEWK)	Type of Flight Plan Filed:	VFR
Destination:	Lee's Summit, MO (KLXT)	Type of Clearance:	VFR flight following
Departure Time:	09:00 Local	Type of Airspace:	

Airport Information

Airport:	Lee's Summit KLXT	Runway Surface Type:	Asphalt
Airport Elevation:	1004 ft msl	Runway Surface Condition:	Dry
Runway Used:	29	IFR Approach:	None
Runway Length/Width:	4000 ft / 75 ft	VFR Approach/Landing:	Full stop

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	1 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 None	Latitude, Longitude:	38.960556,-94.374725

Administrative Information

Investigator In Charge (IIC):	Hatch, Craig
Additional Participating Persons:	David Wood; FAA FSDO; Kansas City, MO
Original Publish Date:	April 9, 2018
Last Revision Date:	
Investigation Class:	Class
Note:	The NTSB did not travel to the scene of this accident.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=95641

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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](#).