



Aviation Investigation Final Report

Location:	ADAMS, Nebraska	Accident Number:	CHI97LA223
Date & Time:	July 23, 1997, 11:15 Local	Registration:	N4926R
Aircraft:	Cessna 188B	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 None
Flight Conducted Under:	Part 137: Agricultural		

Analysis

During a landing, the airplane exited the runway and impacted trees. The pilot said that the right brake failed to work. A postaccident inspection revealed the right brake master cylinder was devoid of any hydraulic fluid. There was no indication of a leak from the brake system. The airplane had been flown about 32 hours since the last annual inspection.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: inadequate maintenance/annual inspection, and subsequent exhaustion of hydraulic (brake) fluid, which resulted in loss of braking action (right brake) and impact with a tree. The proximity of tree(s) was a related factor.

Findings

Occurrence #1: LOSS OF CONTROL - ON GROUND/WATER
Phase of Operation: LANDING - ROLL

Findings

1. (C) MAINTENANCE, ANNUAL INSPECTION - INADEQUATE - OTHER MAINTENANCE PERSONNEL
 2. (C) FLUID, HYDRAULIC - EXHAUSTION
 3. (C) LANDING GEAR, NORMAL BRAKE SYSTEM - INOPERATIVE
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Occurrence #2: ON GROUND/WATER COLLISION WITH OBJECT

Phase of Operation: LANDING - ROLL

Findings

4. (F) OBJECT - TREE(S)

Factual Information

On July 23, 1997, at 1115 central daylight time, a Cessna 188B, N4926R, sustained substantial damage when directional control was lost while landing on a private strip, three miles east of Adams, Nebraska. The airplane exited the runway and impacted trees. The pilot reported no injuries. The right brake master cylinder was found to be empty on examination. The 14 CFR Part 137 flight was operating in visual meteorological conditions. No flight plan was on file for the local flight. The flight departed for an aerial application at 0900.

The pilot said that on rollout after landing, the right brake did not work and the airplane exited the runway and ran into trees. He said that on previous flights the brakes had operated normally. He said that he had not had to service the brakes and did not know of any leaks which could be attributed to the brake system.

A post accident examination of the airplane found the right brake master cylinder empty of hydraulic fluid. The last inspection of the airplane was an annual inspection on June 1, 1997. The airplane had operated 32 hours since the inspection. There was no indication of a preexisting hydraulic fluid leak in the brake system.

Pilot Information

Certificate:	Commercial	Age:	46, Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Center
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 2 Unknown	Last FAA Medical Exam:	March 18, 1997
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	
Flight Time:	5400 hours (Total, all aircraft), 1500 hours (Total, this make and model)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N4926R
Model/Series:	188B 188B	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Restricted (Special)	Serial Number:	18802443T
Landing Gear Type:	Tailwheel	Seats:	1
Date/Type of Last Inspection:	June 1, 1997 Annual	Certified Max Gross Wt.:	4200 lbs
Time Since Last Inspection:	32 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	4384 Hrs	Engine Manufacturer:	Continental
ELT:	Not installed	Engine Model/Series:	IO-520-D
Registered Owner:	JAMES C. YOUNG	Rated Power:	300 Horsepower
Operator:		Operating Certificate(s) Held:	
Operator Does Business As:	JIM'S AERIAL SPRAYING	Operator Designator Code:	PSQG

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	KBI ,1323 ft msl	Distance from Accident Site:	56 Nautical Miles
Observation Time:	12:01 Local	Direction from Accident Site:	290°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	10 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	120°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	32°C / 23°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	(NONE)	Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	09:00 Local	Type of Airspace:	Class G

Airport Information

Airport:	PRIVATE AIRSTRIP NONE	Runway Surface Type:	Grass/turf
Airport Elevation:		Runway Surface Condition:	Dry
Runway Used:	18	IFR Approach:	
Runway Length/Width:		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:	40.449623,-96.510429(est)

Administrative Information

Investigator In Charge (IIC):	Wilson, Stephen
Additional Participating Persons:	RICHARD E JOHNSON; LINCOLN , NE
Original Publish Date:	May 29, 1998
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=10639

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