

Aviation Investigation Final Report

Location:	ENID, Oklahoma		Accident Number:	FTW96LA094
Date & Time:	January 12, 1996, 1	6:50 Local	Registration:	N4744Q
Aircraft:	Cessna	A188B	Aircraft Damage:	Substantial
Defining Event:			Injuries:	1 None
Flight Conducted Under:	Part 137: Agricultur	al		

Analysis

The pilot reported that the airplane was on its first flight since completion of maintenance. The aerial application flight had flown less than a mile from its takeoff point, when the engine lost power and the pilot executed a forced landing to a flat soft wheat field. It was also reported to the FAA inspector, that the pilot did not jettison the hopper load, which is part of the emergency landing without engine power procedures for that airplane. The pilot stated that 'when I attempted to flare to land, I lacked enough airspeed to fully stop the descent.' The airplane was structurally damaged during the hard bounced landing. Post impact inspection of the power plant revealed that the fuel line was disconnected from the flow divider.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's failure to maintain sufficient airspeed during the forced landing and to jettison the aircraft's load for a forced landing. A factor was the engine's failure due to a disconnected fuel line which was the result of improper maintenance.

Findings

Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - MECH FAILURE/MALF Phase of Operation: CRUISE

Findings 1. (F) MAINTENANCE, REPLACEMENT - IMPROPER - UNKNOWN 2. (F) FUEL SYSTEM, LINE FITTING - DISCONNECTED

Occurrence #2: FORCED LANDING Phase of Operation: CRUISE

Findings

3. (C) LOAD JETTISON - NOT PERFORMED - PILOT IN COMMAND

Occurrence #3: HARD LANDING Phase of Operation: DESCENT - EMERGENCY

Findings

4. (C) AIRSPEED - NOT MAINTAINED - PILOT IN COMMAND

- 5. RECOVERY FROM BOUNCED LANDING NOT POSSIBLE PILOT IN COMMAND
- 6. TERRAIN CONDITION SOFT

Factual Information

On January 12, 1996, at 1650 central standard time, a Cessna A188B, N4744Q, sustained substantial damage during a forced landing near Enid, Oklahoma. The commercial pilot was not injured. The aircraft was being operated by the Carson Flying Service, Inc., under Title 14 CFR Part 137. The flight originated from a private airstrip approximately 5 minutes before the accident. Visual meteorological conditions prevailed for the local aerial application flight and no flight plan was filed.

According to the pilot, the airplane was on it's first flight since completion of maintenance. The aerial application flight had flown less than a mile from it's takeoff point at approximately 150' AGL, when the engine lost power and the pilot executed a forced landing to a wheat field that "was flat but somewhat soft." The pilot reported to the FAA inspector, that he did not jettison the hopper load, which is part of the emergency landing without engine power procedures for that airplane. The pilot stated that "when I attempted to flare to land, I lacked enough airspeed to fully stop the descent." The airplane bounced twice before coming to rest on its third impact. The left main landing gear separated from the aircraft, both wing tips were damaged, and the engine fire wall was damaged.

The pilot stated that, "after exiting the aircraft, I found the fuel line from the fuel control unit to the flow divider had come off at the flow divider end." According to the engine logbook, the starter adapter had been replaced and the fuel line was disconnected to facilitate the installation. The pilot further stated that the fuel line "had apparently been inadequately torqued during maintenance performed earlier in the day."

Pilot Information

Certificate:	Commercial	Age:	48,Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Center
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 2 Valid Medicalw/ waivers/lim	Last FAA Medical Exam:	June 27, 1995
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	
Flight Time:	6847 hours (Total, all aircraft), 4365 hours (Total, this make and model), 6766 hours (Pilot In Command, all aircraft), 25 hours (Last 90 days, all aircraft), 5 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N4744Q
Model/Series:	A188B A188B	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Restricted (Special)	Serial Number:	18802506T
Landing Gear Type:	Tailwheel	Seats:	1
Date/Type of Last Inspection:	April 18, 1995 Annual	Certified Max Gross Wt.:	4200 lbs
Time Since Last Inspection:	30 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	4128 Hrs	Engine Manufacturer:	Continental
ELT:		Engine Model/Series:	IO-520-D
Registered Owner:	JOHN D. CARSON	Rated Power:	300 Horsepower
Operator:	CARSON FLYING SERVICE, INC	Operating Certificate(s) Held:	
Operator Does Business As:		Operator Designator Code:	SNYG

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	WDG ,1167 ft msl	Distance from Accident Site:	15 Nautical Miles
Observation Time:	15:48 Local	Direction from Accident Site:	270°
Lowest Cloud Condition:	Clear	Visibility	15 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	8 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	270°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	20°C / -2°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	(NONE)	Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	16:47 Local	Type of Airspace:	Class G

Airport Information

Airport:		Runway Surface Type:	
Airport Elevation:		Runway Surface Condition:	
Runway Used:	0	IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	Forced landing

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:	

Administrative Information

Investigator In Charge (IIC):	Struhsaker, James
Additional Participating Persons:	JAMES B COCKRAN;
Original Publish Date:	July 17, 1996
Last Revision Date:	
Investigation Class:	<u>Class</u>
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=19741

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 <u>here</u>.