



# Aviation Investigation Final Report

<b>Location:</b>	Dexter, Missouri	<b>Accident Number:</b>	CHI02LA282
<b>Date &amp; Time:</b>	September 9, 2002, 10:20 Local	<b>Registration:</b>	N4919Q
<b>Aircraft:</b>	Cessna A188B	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	1 None
<b>Flight Conducted Under:</b>	Part 137: Agricultural		

## Analysis

The agricultural airplane impacted a cotton field during a forced landing. Examination of the engine revealed that the number two connecting rod was fractured. The fracture surface was consistent with a fatigue fracture. The engine exceeded the manufacturer's time to be overhauled by 283 hours.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The fatigue fracture of the connecting rod, the recommended engine overhaul not performed by the company, and the low altitude flight.

## Findings

Occurrence #1: LOSS OF ENGINE POWER  
Phase of Operation: MANEUVERING - TURN TO REVERSE DIRECTION

### Findings

1. (C) ENGINE ASSEMBLY,CONNECTING ROD - FATIGUE
  2. (C) MAINTENANCE,OVERHAUL - NOT PERFORMED - COMPANY/OPERATOR MANAGEMENT
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Occurrence #2: FORCED LANDING  
Phase of Operation: EMERGENCY DESCENT/LANDING

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Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER  
Phase of Operation: EMERGENCY LANDING

Findings

3. TERRAIN CONDITION - OPEN FIELD

## Factual Information

On September 9, 2002, at 1020 central daylight time, a Cessna A188B, N4919Q, piloted by a commercial pilot, was substantially damaged on impact with terrain. The pilot performed a forced landing while applying pesticide on a cotton field near Dexter, Missouri. Visual meteorological conditions prevailed at the time of the accident. The 14 CFR Part 137 agricultural flight was not operating on a flight plan. The pilot was uninjured. The flight originated from Dexter Municipal Airport, Dexter, Missouri, at 0850.

The pilot reported that the engine experienced a total loss of engine power while turning to change course for another pass over the field.

The airplane was powered by a Teledyne Continental Motors (TCM) IO-520-D32B, serial number 282977-R, engine. The engine accumulated a total time of 1,983 hours. The manufacturer's recommended time to be overhauled for the engine was 1,700 hours.

The engine was removed from the airframe and shipped to TCM, Mobile, Alabama, for a disassembly examination under the supervision of the National Transportation Safety Board. The examination revealed that the number two connecting rod was fractured at the journal area. The fracture surface was noted to have beach marks.

The Federal Aviation Administration and TCM were parties to the investigation.

### Pilot Information

<b>Certificate:</b>	Commercial	<b>Age:</b>	29, Male
<b>Airplane Rating(s):</b>	Single-engine land	<b>Seat Occupied:</b>	Center
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	None	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 2	<b>Last FAA Medical Exam:</b>	
<b>Occupational Pilot:</b>	Yes	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	700 hours (Total, all aircraft), 400 hours (Total, this make and model)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Cessna	<b>Registration:</b>	N4919Q
<b>Model/Series:</b>	A188B	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Restricted (Special)	<b>Serial Number:</b>	18802654T
<b>Landing Gear Type:</b>		<b>Seats:</b>	1
<b>Date/Type of Last Inspection:</b>	May 25, 2002 Annual	<b>Certified Max Gross Wt.:</b>	3300 lbs
<b>Time Since Last Inspection:</b>		<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	6451.7 Hrs at time of accident	<b>Engine Manufacturer:</b>	Teledyne Continental
<b>ELT:</b>		<b>Engine Model/Series:</b>	IO-520-D32B
<b>Registered Owner:</b>	Douglass CO LLC	<b>Rated Power:</b>	300 Horsepower
<b>Operator:</b>	Randal Laverne Douglass	<b>Operating Certificate(s) Held:</b>	
<b>Operator Does Business As:</b>	Douglass Co LLC	<b>Operator Designator Code:</b>	R4DG

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	POF,331 ft msl	<b>Distance from Accident Site:</b>	26 Nautical Miles
<b>Observation Time:</b>	09:55 Local	<b>Direction from Accident Site:</b>	270°
<b>Lowest Cloud Condition:</b>	Clear	<b>Visibility</b>	8 miles
<b>Lowest Ceiling:</b>	None	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	0 knots / 0 knots	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	0°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	30.13 inches Hg	<b>Temperature/Dew Point:</b>	26°C / 21°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	DEXTER, MO (DXE )	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	(DXE )	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	08:50 Local	<b>Type of Airspace:</b>	Class G

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 None	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>		<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	1 None	<b>Latitude, Longitude:</b>	36.789764,-89.960838(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Gallo, Mitchell
<b>Additional Participating Persons:</b>	Gary Cooper; Federal Aviation Administration; St. Ann, MO Terry Horton; Teledyne Continental Motors; Mobile, AL
<b>Original Publish Date:</b>	February 5, 2004
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class</a>
<b>Note:</b>	
<b>Investigation Docket:</b>	<a href="https://data.ntsb.gov/Docket?ProjectID=55701">https://data.ntsb.gov/Docket?ProjectID=55701</a>

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