Aviation Investigation Final Report

Location:	WYMORE, Nebraska	**Accident Number:**	CHI94LA240
Date & Time:	July 23, 1994, 08:15 Local	**Registration:**	N9140G
Aircraft:	CESSNA A188B	**Aircraft Damage:**	Destroyed
Defining Event:		**Injuries:**	1 Minor
Flight Conducted Under:	Part 137: Agricultural		

Analysis

The pilot reported he was about 100 feet AGL when the engine lost power. He made an emergency landing in a plowed field about one half mile from the departure end of the runway. Investigation revealed the fuel injector pump failed because a spring retaining plate was not installed.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: failure of the fuel injector pump due to improper assembly.

Findings

Occurrence #1: LOSS OF ENGINE POWER
Phase of Operation: TAKEOFF - INITIAL CLIMB

Findings
1. (C) FUEL SYSTEM,PUMP - FAILURE,PARTIAL
2. (C) MAINTENANCE,REBUILD/REMANUFACTURE - IMPROPER - UNKNOWN

Occurrence #2: FORCED LANDING
Phase of Operation: DESCENT - EMERGENCY

Occurrence #3: MAIN GEAR COLLAPSED

Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings
3. LANDING GEAR,MAIN GEAR - OVERLOAD

Factual Information

On July 23, 1994, at 0815 central daylight time, a Cessna A188B airplane, N9140G, operated by Harold Thomsen 4 Aerial Application of Wymore, Nebraska, was destroyed during a forced landing shortly after takeoff at Thomsen Field near Wymore, Nebraska. The commercial pilot sustained minor injuries. Visual meteorological conditions prevailed for the aerial application flight conducted under CFR 14 Part 137. No flight plan was filed.

The pilot reported he was about 100 feet AGL when the engine lost power. He made an emergency landing in a plowed field about one half mile from the departure end of the runway. He said the landing gear collapsed during the landing.

The wreckage was examined by an FAA airworthiness inspector who reported no evidence of preexisting aircraft malfunction. The engine was installed in a test cell by Central Cylinder Service Inc., of Omaha, Nebraska. The engine started uneventfully but lost power at 1600 rpm due to a loss of fuel pump pressure. A serviceable fuel injector pump was installed and the engine performed normally.

Inspection of the fuel injector pump revealed one spring retaining plate was not installed. The model and serial numbers on the faulty pump were different from those specified in the engine log book. Investigation failed to reveal the source of the faulty pump.

Pilot Information

Certificate:	Commercial	**Age:**	67,Male
Airplane Rating(s):	Single-engine land	**Seat Occupied:**	Center
Other Aircraft Rating(s):		**Restraint Used:**	
Instrument Rating(s):	None	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	No
Medical Certification:	Class 2 Valid Medical--w/ waivers/lim	**Last FAA Medical Exam:**	February 10, 1994
Occupational Pilot:	Yes	**Last Flight Review or Equivalent:**	
Flight Time:	4489 hours (Total, all aircraft), 586 hours (Total, this make and model), 4489 hours (Pilot In Command, all aircraft), 62 hours (Last 90 days, all aircraft), 32 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	CESSNA	**Registration:**	N9140G
Model/Series:	A188B A188B	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Restricted (Special)	**Serial Number:**	18801392T
Landing Gear Type:	Tailwheel	**Seats:**	1
Date/Type of Last Inspection:	April 24, 1994 Annual	**Certified Max Gross Wt.:**	3300 lbs
Time Since Last Inspection:	44 Hrs	**Engines:**	1 Reciprocating
Airframe Total Time:	3704 Hrs	**Engine Manufacturer:**	CONTINENTAL
ELT:	Not installed	**Engine Model/Series:**	IO-520-FCD
Registered Owner:	HAROLD L. THOMSEN	**Rated Power:**	300 Horsepower
Operator:	HAROLD L. THOMSEN	**Operating Certificate(s) Held:**	
Operator Does Business As:	HAROLD THOMSEN 4 AERIAL APPLIC	**Operator Designator Code:**	PPQG

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:		**Distance from Accident Site:**	
Observation Time:		**Direction from Accident Site:**	
Lowest Cloud Condition:	Clear	**Visibility**	
Lowest Ceiling:	Unknown	**Visibility (RVR):**	
Wind Speed/Gusts:	3 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	130°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:		**Temperature/Dew Point:**	21°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:		**Type of Flight Plan Filed:**	None
Destination:		**Type of Clearance:**	VFR
Departure Time:	00:00 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 Minor	**Aircraft Damage:**	Destroyed
Passenger Injuries:		**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	1 Minor	**Latitude, Longitude:**	40.119457,-96.659294(est)

Administrative Information

Investigator In Charge (IIC):	Robbins, Wesley
Additional Participating Persons:	WILLIAM R NEWBY; LINCOLN , NE
Original Publish Date:	January 25, 1995
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=9604