Aviation Investigation Final Report

Location:	MISSOULA, Montana	**Accident Number:**	SEA98LA166
Date & Time:	August 15, 1998, 16:20 Local	**Registration:**	N8512X
Aircraft:	Cessna 175	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	2 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

While in cruise flight, the pilot smelled smoke and noticed a loss of oil pressure. He therefore found an open field in which he could make an emergency landing. After arriving over the field, the engine stopped running and the pilot made a forced landing. During the landing roll, the aircraft's nose gear was torn off when it hit a small pine tree. After the gear was torn off, the aircraft nosed over. A post-accident inspection of the engine revealed that the number three connecting rod had failed and passed through the crankcase. It was also noted that the oil filler tube was missing, and no oil was found in the crankcase.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: A complete loss of crankcase oil due to a missing oil filler tube followed by the failure of a connecting rod. Factors include encountering a small pine tree during the landing roll.

Findings

Occurrence #1: AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation: CRUISE

Findings
1. (C) FLUID,OIL - EXHAUSTION
2. (C) ENGINE ASSEMBLY,CONNECTING ROD - FRACTURED

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

Occurrence #3: NOSE OVER
Phase of Operation: LANDING - ROLL

Findings
3. (F) OBJECT - TREE(S)

Factual Information

On August 15, 1998, approximately 1620 mountain daylight time, a Cessna 175, N8512X, nosed over during a power-off forced landing about 15 miles southwest of Missoula, Montana. The private pilot and his passenger were not injured, but the aircraft, which was owned and operated by Hinkle Aviation, of Caldwell, Idaho, sustained substantial damage. The 14 CFR Part 91 personal pleasure flight, which departed Kalispell, Montana, about 50 minutes prior to the accident, was being operated in visual meteorological conditions. No flight plan had been filed, and there was no report of an ELT activation.

According to the pilot, while at cruise, smoke started accumulating in the cabin, so he started checking for abnormal instrument indications. Soon thereafter, he noticed that the oil pressure had dropped to zero. He then reversed course in order to return to an open field he had flown over a few minutes earlier. As he arrived over the field, the engine stopped running, and he attempted a forced landing. His touchdown was successful, but as the aircraft neared the edge of the field, the nose gear hit a small pine tree. When the gear hit the tree, the entire nose gear assembly was torn from the fuselage and the aircraft nosed over.

A post accident inspection of the engine revealed that the oil filler tube had separated from the engine and was not found at the accident site. Almost all of the engine oil had drained from the crankcase, and the number three connecting rod had failed and come through the side of the case.

Pilot Information

Certificate:	Private	**Age:**	48,Male
Airplane Rating(s):	Single-engine land	**Seat Occupied:**	Left
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 3 Valid Medical--w/ waivers/lim	**Last FAA Medical Exam:**	February 23, 1998
Occupational Pilot:	UNK	**Last Flight Review or Equivalent:**	
Flight Time:	77 hours (Total, all aircraft), 7 hours (Total, this make and model), 35 hours (Pilot In Command, all aircraft), 7 hours (Last 90 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	**Registration:**	N8512X
Model/Series:	175 175	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	17557112
Landing Gear Type:	Tricycle	**Seats:**	4
Date/Type of Last Inspection:	July 25, 1998 100 hour	**Certified Max Gross Wt.:**	2450 lbs
Time Since Last Inspection:	20 Hrs	**Engines:**	1 Reciprocating
Airframe Total Time:	1999 Hrs	**Engine Manufacturer:**	Continental
ELT:	Installed, not activated	**Engine Model/Series:**	GO300-E
Registered Owner:	HINKLE AVIATION	**Rated Power:**	175 Horsepower
Operator:	BILL HINKLE	**Operating Certificate(s) Held:**	None
Operator Does Business As:	HINKLE AVIATION	**Operator Designator Code:**	

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**	10 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	5 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	45°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:		**Temperature/Dew Point:**	29°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	KALISPELL , MT (S27)	**Type of Flight Plan Filed:**	None
Destination:	CALDWELL , ID (EUL)	**Type of Clearance:**	None
Departure Time:	05:30 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:	1 None	**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	2 None	**Latitude, Longitude:**	46.84959,-113.989448(est)

Administrative Information

Investigator In Charge (IIC):	Anderson, Orrin
Additional Participating Persons:	BOB SPEICHER;
Original Publish Date:	February 15, 2001
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=43739