



Aviation Investigation Final Report

Location:	Southern Pines, North Carolina	Accident Number:	MIA02LA021
Date & Time:	November 18, 2001, 13:24 Local	Registration:	N99236
Aircraft:	Ercoupe (Eng & Research Corp.) 415-C	Aircraft Damage:	Substantial
Defining Event:		Injuries:	2 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot stated that prior to takeoff he added 1.2 quarts of oil to fill the engine oil tank and then did a short test flight over his home airport. After the test flight he found no evidence of engine oil leakage from the engine. At 1250 he departed Parkton for Southern Pines. When about 10 miles from the Southern Pines Airport, the engine began to run rough. He continued toward the airport. The engine oil temperature began to climb and the engine oil pressure began to drop. The engine lost power and they could not make it to the airport. While making a forced landing on a golf course, the left wing collided with a tree and the airplane descended and collided with the ground. Postcrash examination of the airplane by an FAA Inspector showed the propeller had damage consistent with very slow rotational speed at ground impact. The engine cowling and bottom side of the engine had oil spray on it. The engine oil tank contained no oil. Examination of the engine by an FAA Inspector at an engine overhaul facility showed the front crankshaft seal was dislodged and allowed oil to escape from the engine at a substantial rate when the engine oil system was pressurized. No obstructions in the engine case vent system were found that would have caused over pressurization of the engine case. The reason for the dislodge crankshaft seal was not determined.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The dislodging of the front crankshaft oil seal for undetermined reasons resulting in loss of engine oil, loss of engine power, and collision with a tree and then the ground during a forced landing.

Findings

Occurrence #1: LOSS OF ENGINE POWER(PARTIAL) - MECH FAILURE/MALF

Phase of Operation: CRUISE - NORMAL

Findings

1. LUBRICATING SYSTEM,OIL SEAL - LOSS,PARTIAL
2. (C) REASON FOR OCCURRENCE UNDETERMINED
3. FLUID,OIL - EXHAUSTION

Occurrence #2: FORCED LANDING

Phase of Operation: EMERGENCY DESCENT/LANDING

Occurrence #3: IN FLIGHT COLLISION WITH OBJECT

Phase of Operation: EMERGENCY DESCENT/LANDING

Findings

4. OBJECT - TREE(S)

Occurrence #4: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: DESCENT - UNCONTROLLED

Factual Information

On November 18, 2001, about 1324 eastern standard time, a Ercoupe 415-C, N99236, registered to an individual, collided with a tree and the ground while making a forced landing following loss of engine power near Southern Pines, North Carolina, while on a 14 CFR Part 91 personal flight. Visual meteorological conditions prevailed at the time and no flight plan was filed. The airplane received substantial damage, and the airline transport-rated pilot and 1 passenger were not injured. The flight originated from Parkton, North Carolina, the same day, about 1245.

The pilot stated that prior to takeoff he added 1.2 quarts of oil to fill the engine oil tank and then did a short test flight over his home airport. After the test flight he found no evidence of engine oil leakage from the engine. At 1250, he departed Parkton for Southern Pines. When about 10 miles from the Southern Pines Airport, the engine began to run rough. He continued toward the airport. The engine oil temperature began to climb and the engine oil pressure began to drop. The engine lost power and they could not make it to the airport. While making a forced landing on a golf course, the left wing collided with a tree and the airplane descended and collided with the ground.

Postcrash examination of the airplane by an FAA Inspector showed the propeller had damage consistent with very slow rotational speed at ground impact. The engine cowling and bottom side of the engine had oil spray on it. The engine oil tank contained no oil. Examination of the engine by an FAA Inspector at an engine overhaul facility showed the front crankshaft seal was dislodged and allowed oil to escape from the engine at a substantial rate when the engine oil system was pressurized. No obstructions in the engine case vent system were found that would have caused over pressurization of the engine case. The reason for the dislodge crankshaft seal was not determined. (See FAA Inspector Statements.)

Pilot Information

Certificate:	Airline transport	Age:	60, Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	Helicopter	Restraint Used:	
Instrument Rating(s):	Airplane; Helicopter	Second Pilot Present:	No
Instructor Rating(s):	Airplane multi-engine; Airplane single-engine; Instrument airplane	Toxicology Performed:	No
Medical Certification:	Class 2 Valid Medical-w/ waivers/lim	Last FAA Medical Exam:	July 16, 2001
Occupational Pilot:	UNK	Last Flight Review or Equivalent:	August 20, 2000
Flight Time:	5216 hours (Total, all aircraft), 63 hours (Total, this make and model), 4263 hours (Pilot In Command, all aircraft), 3 hours (Last 90 days, all aircraft), 1 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Ercoupe (Eng & Research Corp.)	Registration:	N99236
Model/Series:	415-C	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	1859
Landing Gear Type:	Tricycle	Seats:	2
Date/Type of Last Inspection:	May 1, 2001 Annual	Certified Max Gross Wt.:	1400 lbs
Time Since Last Inspection:	63 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	2826 Hrs at time of accident	Engine Manufacturer:	Continental
ELT:	Installed, not activated	Engine Model/Series:	C-85-12
Registered Owner:	Benjamin E. Lefever	Rated Power:	85 Horsepower
Operator:	William K. Johnson	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	SOP,461 ft msl	Distance from Accident Site:	3 Nautical Miles
Observation Time:	13:15 Local	Direction from Accident Site:	270°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	4 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	50°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.36 inches Hg	Temperature/Dew Point:	17°C / 6°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Parkton, NC (35W)	Type of Flight Plan Filed:	None
Destination:	Sothern Pines, NC (SOP)	Type of Clearance:	None
Departure Time:	12:50 Local	Type of Airspace:	Class G

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:	35.236946,-79.391387

Administrative Information

Investigator In Charge (IIC):	Kennedy, Jeff
Additional Participating Persons:	Richard E O'Donnell; FAA FSDO; Greensboro, NC
Original Publish Date:	February 20, 2002
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=53788

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 [here](#).