National Transportation Safety Board
Aviation Accident Factual Report

Location:	Port Lavaca, TX	**Accident Number:**	CEN16LA249
Date & Time:	06/14/2016, 0945 CDT	**Registration:**	N3718X
Aircraft:	AERO COMMANDER 100 180	**Aircraft Damage:**	Substantial
Defining Event:	Loss of engine power (total)	**Injuries:**	1 None
Flight Conducted Under:	Part 91: General Aviation - Personal		

On June 14, 2016, about 0945 central daylight time, an Aero Commander model 100-180 airplane, N3718X, was substantially damage during a forced landing following a loss of engine power near Port Lavaca, Texas. The pilot was not injured. The airplane was registered to and operated by the pilot under the provisions of Title 14 *Code of Federal Regulations* Part 91 as a personal flight.

The pilot reported that he felt a vibration and heard a "bang" about 15 minutes after takeoff when the airplane was at 1,100 ft above ground level. The engine subsequently began to lose power. The oil pressure dropped to zero as the pilot heard another "bang" and then the propeller stopped turning. He executed a forced landing to a pasture, and the nose landing gear collapsed due to the soft ground.

A postaccident airplane examination revealed that the engine mount was damaged. An engine examination determined that the No. 4 connecting rod had separated from the crankshaft. The connecting rod mating flanges common to the rod cap were fractured. A fragment of the bearing was partially extruded around the connecting rod. The rod cap was deformed. A mating portion of one connecting rod flange remained secured to the rod cap by the attachment bolt and nut. The opposite connecting rod flange was fragmented and deformed. The attachment bolt was fractured. The bolt shank exhibited necking adjacent to the fracture surface; the mating portion of the bolt and the nut were not recovered. Three bearing fragments were recovered; each fragment was deformed and appeared worn. All fracture surfaces sustained secondary mechanical damage which precluded further examination.

A review of the airplane maintenance records by a Federal Aviation Administration inspector revealed that the most recent engine overhaul was accomplished about 25 years before the accident flight. The engine manufacturer recommended that all engine models be overhauled within 12 years of the "date they first entered service or of last overhaul" in order to "mitigate engine deterioration that occurs with age." However, an aircraft owner is not required comply with the engine manufacturer's recommended overhaul interval when operating under Part 91 unless the engine does not meet the requirements of an annual inspection.

Pilot Information

Certificate:	Private	**Age:**	76, Male
Airplane Rating(s):	Single-engine Land; Single-engine Sea	**Seat Occupied:**	Left
Other Aircraft Rating(s):	None	**Restraint Used:**	
Instrument Rating(s):	Airplane	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	No
Medical Certification:	Class 3 With Waivers/Limitations	**Last FAA Medical Exam:**	09/17/2012
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	07/16/2014
Flight Time:	4000 hours (Total, all aircraft), 475 hours (Total, this make and model), 4000 hours (Pilot In Command, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	AERO COMMANDER	**Registration:**	N3718X
Model/Series:	100 180 180	**Aircraft Category:**	Airplane
Year of Manufacture:	1968	**Amateur Built:**	No
Airworthiness Certificate:	Normal	**Serial Number:**	5022
Landing Gear Type:	Tricycle	**Seats:**	4
Date/Type of Last Inspection:	02/19/2016, 100 Hour	**Certified Max Gross Wt.:**	2450 lbs
Time Since Last Inspection:	13 Hours	**Engines:**	1 Reciprocating
Airframe Total Time:	2374 Hours as of last inspection	**Engine Manufacturer:**	Lycoming
ELT:	Installed, not activated	**Engine Model/Series:**	O-360-A2F
Registered Owner:	On file	**Rated Power:**	180 hp
Operator:	On file	**Operating Certificate(s) Held:**	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	**Condition of Light:**	Day
Observation Facility, Elevation:	PKV, 32 ft msl	**Distance from Accident Site:**	13 Nautical Miles
Observation Time:	0935 CDT	**Direction from Accident Site:**	268°
Lowest Cloud Condition:	Scattered / 2000 ft agl	**Visibility**	7 Miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	8 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	180°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	29.91 inches Hg	**Temperature/Dew Point:**	29°C / 26°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Port Lavaca, TX (PKV)	**Type of Flight Plan Filed:**	None
Destination:	Port Lavaca, TX (PKV)	**Type of Clearance:**	None
Departure Time:	0930 CDT	**Type of Airspace:**	Class G

Airport Information

Airport:	Calhoun County (PKV)	**Runway Surface Type:**	Grass/turf
Airport Elevation:	32 ft	**Runway Surface Condition:**	Soft; Vegetation
Runway Used:	N/A	**IFR Approach:**	None
Runway Length/Width:		**VFR Approach/Landing:**	Forced Landing

Wreckage and Impact Information

Crew Injuries:	1 None	**Aircraft Damage:**	Substantial
Passenger Injuries:	N/A	**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	1 None	**Latitude, Longitude:**	28.659722, -96.435278 (est)

Administrative Information

Investigator In Charge (IIC):	Timothy Sorensen
Additional Participating Persons:	Arnold Turner; FAA Flight Standards; San Antonio, TX
Note:	The NTSB did not travel to the scene of this accident.
Investigation Docket:	http://dms.ntsb.gov/pubdms/search/dockList.cfm?mKey=93554