



National Transportation Safety Board Aviation Accident Factual Report

Location:	Switz City, IN	Accident Number:	CEN19LA163
Date & Time:	06/11/2019, 2100 EDT	Registration:	N582L
Aircraft:	GRIFF Challenger	Aircraft Damage:	Substantial
Defining Event:	Loss of engine power (total)	Injuries:	1 Serious
Flight Conducted Under:	Part 91: General Aviation - Personal		

On June 11, 2019, about 2100 eastern daylight time, an amateur-built Griff Challenger II airplane, N582L, was substantially damaged during a forced landing following a loss of engine power near Switz City, Indiana. The pilot sustained serious injuries. The airplane was registered to and operated by the pilot as a Title 14 Code of Federal Regulations Part 91 personal flight. Visual meteorological condition prevailed, and the flight was not operated on a flight plan. The local flight departed from Shawnee Field (1I3), Bloomfield, Indiana, about 1930.

The pilot reported that while returning to the airport at 2,000 ft mean sea level the engine speed "suddenly" decreased from about 5,000 rpm to 2,500 rpm. The engine water temperature began "rising fast." He trimmed the airplane for best glide airspeed and began looking for a forced landing site. About 30 seconds later, the engine lost power completely. The airplane touched down short of his intended landing point and nosed over.

An engine examination was conducted under oversight of a Federal Aviation Administration inspector, with the assist of a technical representative of the engine manufacturer. The examination revealed a lower connecting rod bearing had failed. Metallic debris consistent with fragmented bearing material was recovered from the cylinder. The cylinder head and the piston exhibited mechanical peening damage. The connecting rod exhibited surface corrosion but appeared otherwise intact. Excessive play was noted between the connecting rod and the crankshaft journal consistent with the failure of the bearing.

The airplane maintenance records noted that the engine was reinstalled after an overhaul on April 21, 2014 at 75.3 hours total airframe time. The most recent condition inspection was completed on August 15, 2018 at 130 hours total airframe time. The pilot reported the airframe time was 176 hours at the time of the accident.

The engine manufacturer's maintenance schedule specified that an engine overhaul be completed every 5 years or 300 hours, whichever comes first. At the time of the accident, the engine was about 7 weeks beyond the 5-year overhaul limit. About 100 hours time-in-service had elapsed since the overhaul in 2014. 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 a condition inspection.

Pilot Information

Certificate:	Student	Age:	52, Male
Airplane Rating(s):	None	Seat Occupied:	Front
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	None	Last FAA Medical Exam:	
Occupational Pilot:	No	Last Flight Review or Equivalent:	03/23/2019
Flight Time:	124 hours (Total, all aircraft), 76 hours (Total, this make and model), 11 hours (Last 90 days, all aircraft), 4 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	GRIFF	Registration:	N582L
Model/Series:	Challenger II	Aircraft Category:	Airplane
Year of Manufacture:	2010	Amateur Built:	Yes
Airworthiness Certificate:	Experimental	Serial Number:	CH2-0708-LSS-LW
Landing Gear Type:	Tricycle	Seats:	2
Date/Type of Last Inspection:	08/15/2018, Condition	Certified Max Gross Wt.:	1075 lbs
Time Since Last Inspection:	46 Hours	Engines:	1 Reciprocating
Airframe Total Time:	176 Hours at time of accident	Engine Manufacturer:	Rotax
ELT:	C91 installed, not activated	Engine Model/Series:	582
Registered Owner:	On file	Rated Power:	65 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:	BMG, 845 ft msl	Distance from Accident Site:	21 Nautical Miles
Observation Time:	2153 EST	Direction from Accident Site:	76°
Lowest Cloud Condition:		Visibility	10 Miles
Lowest Ceiling:		Visibility (RVR):	
Wind Speed/Gusts:	Calm /	Turbulence Type Forecast/Actual:	/
Wind Direction:		Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.11 inches Hg	Temperature/Dew Point:	16° C / 13° C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Bloomfield, IN (1I3)	Type of Flight Plan Filed:	None
Destination:	Bloomfield, IN (1I3)	Type of Clearance:	None
Departure Time:	1930 EDT	Type of Airspace:	Class G

Wreckage and Impact Information

Crew Injuries:	1 Serious	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Serious	Latitude, Longitude:	39.064722, -87.053333

Administrative Information

Investigator In Charge (IIC):	Timothy Sorensen
Additional Participating Persons:	Christopher House; FAA Flight Standards; Plainfield, IN Jordan Paskevich; Rotech Flight Safety, Inc.; Vernon, BC
Note:	The NTSB did not travel to the scene of this accident.
Investigation Docket:	http://dms.ntsb.gov/pubdms/search/dockList.cfm?mKey=99603