Aviation Investigation Final Report

Location:	Clatskanie, Oregon	**Accident Number:**	WPR18LA111
Date & Time:	March 20, 2018, 13:15 Local	**Registration:**	N925DP
Aircraft:	PFLUGRADT Kitfox	**Aircraft Damage:**	Substantial
Defining Event:	Loss of engine power (partial)	**Injuries:**	1 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The airline transport pilot of the experimental, amateur-built airplane reported that, while flying about 800 ft above a river during a personal flight, he advanced the throttle to climb then the engine started to lose power. He elected to land on a nearby island, during which the airplane nosed over.

Postaccident examination of the airplane revealed that the throttle cable set screw on the aft side of the throttle body arm had backed out of its original position and was no longer securing the throttle cable. As a result, the cable moved freely with no corresponding motion on the throttle body arm. This would have also resulted in the pilot's inability to adjust the engine power from the cockpit throttle control. Maintenance records revealed that the pilot built and installed the throttle body arm about 7 months and 204 flight hours before the accident. In addition, a vernier-style throttle cable was installed about 6 months and 159 flight hours before the accident. It is likely that the set screw was improperly secured during one of the previous maintenance events and came loose during operation, which released its hold on the throttle cable.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

A partial loss of engine power due to an improperly secured throttle cable set screw.

Findings

Aircraft	Power lever - Malfunction
Personnel issues	Modification/alteration - Owner/builder

Factual Information

History of Flight

Enroute-cruise	Loss of engine power (partial) (Defining event)
Enroute-cruise	Off-field or emergency landing
Landing-landing roll	Nose over/nose down

On March 20, 2018, about 1315 Pacific daylight time, an experimental Pflugradt Kitfox Super Sport airplane, N925DP, experienced a partial loss of engine power and collided with terrain near Clatskanie, Oregon. The airline transport pilot was not injured and the airplane sustained substantial damage to the right wing. The airplane was registered to and operated by the pilot as a Title 14 *Code of Federal Regulations* Part 91 personal flight. Visual meteorological conditions prevailed, and no flight plan was filed. The flight originated from Pacific City State Airport (PFC), Pacific City, Oregon at 1200 and was destined for Pearson Field Airport (VUO), Vancouver, Washington

The pilot reported that he departed from PFC and he followed the coast and Columbia river en route to VUO. About 800 ft above the Columbia river, he advanced the throttle to climb when the engine started to lose power. The pilot elected to land on a nearby treeless island in the river. The airplane landed uneventfully, and during the landing roll, the main wheels sunk into the ground and the airplane nosed over and came to rest on its back.

Postaccident examination of the airplane by a Federal Aviation Administration Inspector revealed that the throttle cable was loose at the throttle body attachment arm. When manipulated, the cable moved freely with no corresponding motion on the throttle body arm. The cable set screw on the aft side of the throttle body arm backed slightly out of its original position and was no longer securing the throttle cable.

Review of the maintenance logbooks revealed the the throttle body arm was built by the owner and was installed on the airplane on July 30, 2017, at 1,092.5 hours, which is about 204 hours prior to the accident. In addition, a vernier style throttle cable was installed on August 30, 2017 at 1,137 hours, about 159 hours prior to the accident.

Pilot Information

Certificate:	Airline transport; Commercial	**Age:**	67,Male
Airplane Rating(s):	Single-engine land; Multi-engine land	**Seat Occupied:**	Left
Other Aircraft Rating(s):	None	**Restraint Used:**	3-point
Instrument Rating(s):	Airplane	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	No
Medical Certification:	Sport pilot	**Last FAA Medical Exam:**	
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	May 8, 2016
Flight Time:	11873 hours (Total, all aircraft), 1296 hours (Total, this make and model), 9901 hours (Pilot In Command, all aircraft), 74 hours (Last 90 days, all aircraft), 23 hours (Last 30 days, all aircraft), 0 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	PFLUGRADT	**Registration:**	N925DP
Model/Series:	Kitfox Super Spor	**Aircraft Category:**	Airplane
Year of Manufacture:	2014	**Amateur Built:**	Yes
Airworthiness Certificate:	Experimental light sport (Special)	**Serial Number:**	KA13063258
Landing Gear Type:	Tailwheel	**Seats:**	2
Date/Type of Last Inspection:	May 10, 2017 Continuous airworthiness	**Certified Max Gross Wt.:**	1320 lbs
Time Since Last Inspection:	42 Hrs	**Engines:**	1 Reciprocating
Airframe Total Time:	1296 Hrs at time of accident	**Engine Manufacturer:**	Rotax
ELT:	Installed, not activated	**Engine Model/Series:**	912ULS
Registered Owner:	On file	**Rated Power:**	100 Horsepower
Operator:	On file	**Operating Certificate(s) Held:**	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	KLS,20 ft msl	**Distance from Accident Site:**	20 Nautical Miles
Observation Time:	12:56 Local	**Direction from Accident Site:**	95°
Lowest Cloud Condition:	Clear	**Visibility**	10 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	3 knots /	**Turbulence Type Forecast/Actual:**	/ None
Wind Direction:		**Turbulence Severity Forecast/Actual:**	/ N/A
Altimeter Setting:	30.05 inches Hg	**Temperature/Dew Point:**	12°C / 3°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Pacific City, OR (PFC)	**Type of Flight Plan Filed:**	None
Destination:	Vancouver, WA (VUO)	**Type of Clearance:**	None
Departure Time:	12:00 Local	**Type of Airspace:**	Unknown

Wreckage and Impact Information

Crew Injuries:	1 None	**Aircraft Damage:**	Substantial
Passenger Injuries:		**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	1 None	**Latitude, Longitude:**	46.059791,-123.270965(est)

Administrative Information

Investigator In Charge (IIC):	Link, Samantha
Additional Participating Persons:	Charles Wright; Federal Aviation Administration; Hillsboro, OR
Original Publish Date:	May 29, 2019
Last Revision Date:	
Investigation Class:	Class
Note:	The NTSB did not travel to the scene of this accident.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=96921