Aviation Investigation Final Report

Location:	Yelm, Washington	**Accident Number:**	SEA05CA197
Date & Time:	September 21, 2005, 18:00 Local	**Registration:**	N1037V
Aircraft:	Cessna 180H	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	1 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot reported that he had a hard time starting the engine. Thinking that it was still hot from the previous flight, he pulled the mixture to lean and the engine eventually started. The pilot then put the mixture control to the rich position. The engine run-up was accomplished prior to takeoff with no abnormalities noted. The pilot stated that after takeoff, at about 200 feet above ground level, the engine lost power. The pilot initiated a turn to an open field and pumped the throttle, then the mixture control. The engine started momentarily before losing power again. The pilot then landed the aircraft in an open field. During the landing roll, the aircraft collided with several fences. Post accident inspection of the engine by a local Inspection Authorization mechanic found that the retaining nut and washer on the mixture cable attach bolt was missing. The mechanic operated the mixture cable and found that the lever on the carburetor did not move stop-to-stop. When operating the mixture stop-to-stop from the pilot's seat, the lever on the carburetor slipped and would not stay in preset position in relation to the mixture cable. Further inspection of the engine did not find any other mechanical failures or malfunctions that would preclude the engine from running. An annual inspection had been accomplished about 27 hours prior to the accident.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The mixture control linkage separation as a result of a missing retaining nut and washer on the mixture cable attach bolt. Inadequate maintenance inspection and fences were factors.

Findings

Occurrence #1: LOSS OF ENGINE POWER
Phase of Operation: TAKEOFF - INITIAL CLIMB

Findings
1. (C) MIXTURE CONTROL,LINKAGE - SEPARATION
2. (F) MAINTENANCE,INSPECTION - INADEQUATE - OTHER MAINTENANCE PERSONNEL
3. (C) MISCELLANEOUS,BOLT/NUT/FASTENER/CLAMP/SPRING - MISSING

Occurrence #2: FORCED LANDING
Phase of Operation: EMERGENCY LANDING AFTER TAKEOFF

Occurrence #3: ON GROUND/WATER COLLISION WITH OBJECT
Phase of Operation: EMERGENCY LANDING

Findings
4. (F) OBJECT - FENCE

Factual Information

On September 21, 2005, about 1800 Pacific daylight time, a Cessna 180H, N1037V, registered to and operated by the pilot as a 14 CFR Part 91 flight, experienced a loss of engine power shortly after takeoff from the Flying B airstrip located near Yelm, Washington. The pilot initiated an off airport emergency landing to an open field where during the landing roll, the aircraft collided with several fences. The aircraft was substantially damage and the private helicopter pilot was not injured. Visual meteorological conditions prevailed at the time and no flight plan was filed. The aircraft was departing at the time with an intended destination to Spanaway, Washington.

The pilot reported in a written statement that he had a hard time starting the engine. Thinking that it was still hot from the previous flight, he pulled the mixture to lean and the engine eventually started. The pilot then put the mixture control to the rich position. The engine run-up was accomplished prior to takeoff with no abnormalities noted. The pilot stated that after takeoff, at about 200 feet above ground level, the engine quit. The pilot initiated a turn to an open field and pumped the throttle, then the mixture control. The engine started momentarily before losing power again. The pilot then landed the aircraft in an open field. During the landing roll, the aircraft collided with several fences.

Post accident inspection of the engine by a local Inspection Authorization mechanic found that the retaining nut and washer on the mixture cable attach bolt was missing. The mechanic operated the mixture cable and found that the lever on the carburetor did not move stop-to-stop. When operating the mixture stop-to-stop from the pilot's seat, the lever on the carburetor slipped and would not stay in preset position in relation to the mixture cable. Further inspection of the engine did not find any other mechanical failures or malfunctions that would preclude the engine from running.

The pilot had recently purchased this aircraft and was taking instruction for the single-engine land rating. The pilot stated that the last annual inspection on the aircraft and engine was approximately 27 hours prior to the accident.

Pilot Information

Certificate:	Private	**Age:**	45,Male
Airplane Rating(s):	None	**Seat Occupied:**	
Other Aircraft Rating(s):	Helicopter	**Restraint Used:**	
Instrument Rating(s):	None	**Second Pilot Present:**	
Instructor Rating(s):		**Toxicology Performed:**	No
Medical Certification:	Class 3	**Last FAA Medical Exam:**	January 1, 2003
Occupational Pilot:		**Last Flight Review or Equivalent:**	
Flight Time:	1000 hours (Total, all aircraft), 20 hours (Total, this make and model), 75 hours (Last 90 days, all aircraft), 10 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	**Registration:**	N1037V
Model/Series:	180H	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	18051989
Landing Gear Type:	Tailwheel	**Seats:**	
Date/Type of Last Inspection:		**Certified Max Gross Wt.:**	
Time Since Last Inspection:		**Engines:**	1 Reciprocating
Airframe Total Time:		**Engine Manufacturer:**	Continental
ELT:		**Engine Model/Series:**	O-470-R
Registered Owner:	Donald R. Taylor	**Rated Power:**	
Operator:		**Operating Certificate(s) Held:**	None

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:		**Visibility**	
Lowest Ceiling:		**Visibility (RVR):**	
Wind Speed/Gusts:	/	**Turbulence Type Forecast/Actual:**	/
Wind Direction:		**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:		**Temperature/Dew Point:**	
Precipitation and Obscuration:			
Departure Point:	Yelm, WA	**Type of Flight Plan Filed:**	None
Destination:	Spanaway, WA (S44)	**Type of Clearance:**	None
Departure Time:		**Type of Airspace:**	

Airport Information

Airport:	Flying B NONE	**Runway Surface Type:**	
Airport Elevation:		**Runway Surface Condition:**	
Runway Used:		**IFR Approach:**	None
Runway Length/Width:		**VFR Approach/Landing:**	

Wreckage and Impact Information

Crew Injuries:	1 None	**Aircraft Damage:**	Substantial
Passenger Injuries:		**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	
Total Injuries:	1 None	**Latitude, Longitude:**	46.882778,-122.583335

Administrative Information

Investigator In Charge (IIC):	Eckrote, Debra
Additional Participating Persons:	
Original Publish Date:	January 31, 2006
Last Revision Date:	
Investigation Class:	Class
Note:	This accident report documents the factual circumstances of this accident as described to the NTSB.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=62533