Aviation Investigation Final Report

Location:	LONETREE, Wyoming	**Accident Number:**	SEA95LA027
Date & Time:	December 8, 1994, 15:00 Local	**Registration:**	N1594C
Aircraft:	CESSNA 180	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	1 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

WHILE IN CRUISE FLIGHT, THE PILOT REPORTED THAT THE ENGINE SUDDENLY LOST POWER. A FORCED LANDING WAS INITIATED TO AN OPEN AREA WHERE DURING THE LANDING ROLL, THE AIRPLANE COLLIDED WITH ROUGH TERRAIN. DURING THE ENGINE TEST RUN, IT WAS FOUND THAT FUEL OVERFLOWED FROM THE CARB. THE CARB WAS INSPECTED AND FOUND THAT THE FLOATS WERE SLIGHTLY OFF CENTER AND ONE FLOAT DISPLAYED SIGNS OF LIGHT SCORING MARKS FROM RUBBING ON THE BOWL WALL. THERE WAS NO EVIDENCE OF ANY OTHER MECHANICAL FAILURE OR MALFUNCTION.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: THE RESTRICTED MOVEMENT OF THE CARBUREBOR FLOAT.

Findings

Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - MECH FAILURE/MALF
Phase of Operation: CRUISE

Findings
1. (C) FUEL SYSTEM,CARBURETOR FLOAT - MOVEMENT RESTRICTED

Occurrence #2: FORCED LANDING
Phase of Operation: DESCENT - EMERGENCY

Occurrence #3: ON GROUND/WATER ENCOUNTER WITH TERRAIN/WATER
Phase of Operation: LANDING - ROLL

Findings
2. TERRAIN CONDITION - ROUGH/UNEVEN

Factual Information

On December 8, 1994, at 1500 mountain standard time, a Cessna 180, N1594C, experienced a loss of engine power while in cruise flight. The pilot initiated a forced landing to an open area near Lonetree, Wyoming, where during the landing roll, the airplane collided with the rough terrain. Visual meteorological conditions prevailed at the time and no flight plan was filed. The airplane was substantially damaged and the airline transport pilot, the sole occupant, was not injured. The flight had departed from Lander, Wyoming, on December 8, 1994, at 1330, and was destined for Salt Lake City, Utah, on a personal flight.

During an interview and subsequent written statement, the pilot reported that he was in cruise flight at 10,000 feet mean sea level with the throttle set at 13 inches and the propeller set at 2,400 rpm. The pilot stated that he made no power adjustments for some time prior to the engine suddenly losing power. The pilot was unable to regain power to the engine and a forced landing was initiated to an open field where during the landing roll, the airplane collided with the rough terrain.

The airplane was moved to a secured location and the engine was prepared on a stand for a test run. The mechanic performing the test run stated that the engine would start up immediately but would not remain running for long and lose power. When the engine lost power, fuel was noted to overflow from the carburetor.

The carburetor was removed from the engine to be bench tested. It was noted that the Marvel Schebler carburetor had been overhauled on June 14, 1993. On March 10, 1994, the logbook entry states that the engine O-470-J was removed and a modified O-470-50 (520 Cu in) with the P. Ponk converted carburetor was installed. At the time of the accident, the engine had accumulated a total time of 136.9 hours since the overhaul, and 62 hours since the last annual inspection.

During the carburetor bench test, another P. Ponk converted carburetor was used as a master to compare the two. The accident carburetor was found to operate within five pounds of the master carburetor in all ranges of power from idle to 1,300 rpm. After the bench test, the carburetor was visually inspected. All areas checked were found within normal operating specifications. During the inspection of the floats, it was noted that an area on the inside of one of the floats exhibited a light scoring on the brass. It was also noted that a light scoring mark was visible on the inside of the bowl that was located one and three-eights inch down from the top of the bowl, and approximately one-half inch long. The floats positioned in the bowl were slightly off center. The bracket that attaches the floats appeared to be tight and secured.

After the bench test of the carburetor, another carburetor was placed on the engine. It was

reported that the engine started immediately and ran without complications.

The P. Ponk conversion consists of a larger venturi and main fuel discharge nozzle.

Pilot Information

Certificate:	Airline transport; Commercial; Flight instructor	**Age:**	54,Male
Airplane Rating(s):	Single-engine land; Single-engine sea; Multi-engine land	**Seat Occupied:**	Left
Other Aircraft Rating(s):	None	**Restraint Used:**	
Instrument Rating(s):	Airplane	**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:**	February 18, 1994
Occupational Pilot:	Yes	**Last Flight Review or Equivalent:**	
Flight Time:	10000 hours (Total, all aircraft), 140 hours (Total, this make and model), 9500 hours (Pilot In Command, all aircraft), 180 hours (Last 90 days, all aircraft), 45 hours (Last 30 days, all aircraft), 5 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	CESSNA	**Registration:**	N1594C
Model/Series:	180 180	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	30294
Landing Gear Type:	Tailwheel	**Seats:**	4
Date/Type of Last Inspection:	September 9, 1994 Annual	**Certified Max Gross Wt.:**	2550 lbs
Time Since Last Inspection:	62 Hrs	**Engines:**	1 Reciprocating
Airframe Total Time:	4914 Hrs	**Engine Manufacturer:**	CONTINENTAL
ELT:	Installed, activated, did not aid in locating accident	**Engine Model/Series:**	O-470-50
Registered Owner:	SANDLIN, STEVE L.	**Rated Power:**	230 Horsepower
Operator:	DEBOER, PAUL M.	**Operating Certificate(s) Held:**	None
Operator Does Business As:		**Operator Designator Code:**	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	RKS ,6760 ft msl	**Distance from Accident Site:**	60 Nautical Miles
Observation Time:	14:48 Local	**Direction from Accident Site:**	42°
Lowest Cloud Condition:	Scattered / 2400 ft AGL	**Visibility**	90 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	16 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	260°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	30 inches Hg	**Temperature/Dew Point:**	-9°C / -15°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	LANDER , WY (LND)	**Type of Flight Plan Filed:**	None
Destination:	SALT LAKE CITY , UT (SLC)	**Type of Clearance:**	None
Departure Time:	13:30 Local	**Type of Airspace:**	Class D;Class G

Airport Information

Airport:		**Runway Surface Type:**	
Airport Elevation:		**Runway Surface Condition:**	
Runway Used:	0	**IFR Approach:**	None
Runway Length/Width:		**VFR Approach/Landing:**	Forced landing

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:**	41.029567,-110.140632(est)

Administrative Information

Investigator In Charge (IIC):	Eckrote, Debra
Additional Participating Persons:	JAY MOONEY; SALT LAKE CITY , UT PAUL M DEBOER; LAYTON , UT STEVE KNOPP; CAMANO ISLAND , WA
Original Publish Date:	May 9, 1995
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=42092