Aviation Investigation Final Report

Location:	Shelby, Montana	**Accident Number:**	GAA18CA220
Date & Time:	April 19, 2018, 09:00 Local	**Registration:**	N1283C
Aircraft:	Piper PA 22	**Aircraft Damage:**	Substantial
Defining Event:	Loss of engine power (total)	**Injuries:**	1 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot reported that, while flying over the destination airport, the airplane's engine lost power. He initiated a glide, applied mixture full rich, and restarted the engine, but during the approach the engine lost power again. He checked the fuel gauges and the right gauge read between ¼ and ½ tank, and he switched to the left fuel tank which he knew was full. The engine restarted briefly, but then lost power. He added that, he "must not have put the selector in the [correct] position because [he] had plenty of fuel in the left tank."

During the forced landing, the airplane landed off of the runway, rolled for about 20 to 25 ft., the left main landing gear collapsed, and the airplane came to rest on its nose.

The airplane sustained substantial damage to the left wing.

The pilot reported that there were no preaccident mechanical failures or malfunctions with the airplane that would have precluded normal operation.

Probable Cause and Findings

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

The pilot's improper use of the fuel selector, which resulted in fuel starvation to the engine and an off-runway landing.

Findings

Aircraft	Fuel selector/shutoff valve - Incorrect use/operation
Aircraft	Fuel - Fluid management
Personnel issues	Aircraft control - Pilot
Environmental issues	Rough terrain - Effect on equipment
Personnel issues	Incorrect action performance - Pilot

Factual Information

History of Flight

Approach	Loss of engine power (total) (Defining event)
Emergency descent	Off-field or emergency landing
Landing	Landing gear collapse
Landing	Nose over/nose down

Pilot Information

Certificate:	Private	**Age:**	65,Male
Airplane Rating(s):	Single-engine land	**Seat Occupied:**	Left
Other Aircraft Rating(s):	None	**Restraint Used:**	Lap only
Instrument Rating(s):	None	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	No
Medical Certification:	Class 3 Without waivers/limitations	**Last FAA Medical Exam:**	October 29, 2017
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	
Flight Time:	(Estimated) 200 hours (Total, all aircraft), 3 hours (Total, this make and model), 200 hours (Pilot In Command, all aircraft), 1 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	**Registration:**	N1283C
Model/Series:	PA 22 135	**Aircraft Category:**	Airplane
Year of Manufacture:	1953	**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	22-1079
Landing Gear Type:	Tricycle	**Seats:**	4
Date/Type of Last Inspection:	October 12, 2017 Annual	**Certified Max Gross Wt.:**	1950 lbs
Time Since Last Inspection:		**Engines:**	1 Reciprocating
Airframe Total Time:	2790 Hrs at time of accident	**Engine Manufacturer:**	LYCOMING
ELT:	C91 installed, not activated	**Engine Model/Series:**	O-290-D2
Registered Owner:	On file	**Rated Power:**	135 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:	KCTB,3838 ft msl	**Distance from Accident Site:**	20 Nautical Miles
Observation Time:	14:56 Local	**Direction from Accident Site:**	281°
Lowest Cloud Condition:	Clear	**Visibility**	10 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	/	**Turbulence Type Forecast/Actual:**	/ None
Wind Direction:		**Turbulence Severity Forecast/Actual:**	/ N/A
Altimeter Setting:	30.15 inches Hg	**Temperature/Dew Point:**	2°C / -2°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Shelby, MT (SBX)	**Type of Flight Plan Filed:**	None
Destination:	Shelby, MT (SBX)	**Type of Clearance:**	None
Departure Time:	07:20 Local	**Type of Airspace:**	Class G

Airport Information

Airport:	SHELBY SBX	**Runway Surface Type:**	Asphalt
Airport Elevation:	3442 ft msl	**Runway Surface Condition:**	Holes;Rough;Soft;Vegetation
Runway Used:	23	**IFR Approach:**	None
Runway Length/Width:	5005 ft / 75 ft	**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:**	48.540832,-111.871109(est)

Administrative Information

Investigator In Charge (IIC):	Swenson, Eric
Additional Participating Persons:	Bryan Hanson; FAA; Helena, MT
Original Publish Date:	August 27, 2018
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=97069