Aviation Investigation Final Report

Location:	Grass Valley, California	**Accident Number:**	WPR24LA078
Date & Time:	January 18, 2024, 12:40 Local	**Registration:**	N7250Q
Aircraft:	Cessna 172L	**Aircraft Damage:**	Substantial
Defining Event:	Loss of control on ground	**Injuries:**	1 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot reported that during the landing roll, he applied the brakes to slow down; however, the left brake did not function properly, and the airplane veered to the right of the runway. The pilot attempted aerodynamic braking and used full left rudder in an attempt to return the airplane to the runway centerline. The airplane continued to the right down an embankment, nosed over, and came to rest inverted.

Review of accident site photographs showed impressions from all three-landing gear in the dirt adjacent to the runway, with the right landing gear showing a more pronounced indentation in the dirt. due to heavy braking on the right side it is likely the right brake locked up.

A postaccident examination of the brakes revealed improper retaining bolts securing the brake calipers; however, both brakes functioned normally. No other mechanical anomalies were found 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:

Loss of control during the landing roll due to a malfunctioning brake for undetermined reasons.

Findings

Aircraft	Brake - Unknown/Not determined
Aircraft	Directional control - Not attained/maintained

Factual Information

History of Flight

Landing	Loss of control on ground (Defining event)
Landing-landing roll	Runway excursion

On January 18, 2024, about 1240 Pacific standard time, a Cessna 172L, N7250Q, was substantially damaged when it was involved in an accident near Grass Valley, California. The pilot was not injured. The airplane was operated as a Title 14 *Code of Federal Regulations* Part 91 personal flight.

The pilot reported that his flight to Nevada County Airport (GOO), Grass Valley, and the subsequent approach and touchdown were normal. During the landing roll on runway 25, as he applied the brakes to slow down and exit the runway, the airplane veered to the right. The pilot stated that the left brake did not function. The airplane slowed to less than 35 mph as it traveled past the taxiway turn . The pilot stated that the engine was at an idle power setting, and he attempted the use of aerodynamic braking to stop the airplane, which he believed would stop before the end of the runway. The pilot stated that he “got off the brakes,” and attempted to correct back to runway centerline with the application of full left rudder pedal. The airplane continued to veer to the right, exited the right side of the runway, traveled over an embankment, and came to rest inverted.

The airplane sustained substantial damage to the wings, vertical stabilizer, rudder, and propeller.

A review of photographs provided by the Federal Aviation Administration, showed that all three-landing gear had left impressions in the soft dirt adjacent to the runway. The right main landing gear impression exhibited a more pronounced indention mark in the dirt than the left main and nose landing gears.

A postaccident examination of the brake system revealed improper retaining hardware bolts securing the backplates of the left and right brake calipers. Both brakes were manipulated by the rudder pedals and when activated were “firm” and functioned normally. Examination of the nose landing gear oleo strut showed the torque links were not contacting the centering block on the strut housing. The left and right steer rods were attached and had continuity with the left and right rudder pedals.

Pilot Information

Certificate:	Private	**Age:**	74,Male
Airplane Rating(s):	Single-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:**	
Medical Certification:	BasicMed With waivers/limitations	**Last FAA Medical Exam:**	December 19, 2023
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	March 26, 2023
Flight Time:	(Estimated) 1988 hours (Total, all aircraft), 1480 hours (Total, this make and model), 1970 hours (Pilot In Command, all aircraft), 16 hours (Last 90 days, all aircraft), 11 hours (Last 30 days, all aircraft), 0 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	**Registration:**	N7250Q
Model/Series:	172L	**Aircraft Category:**	Airplane
Year of Manufacture:	1972	**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	17260550
Landing Gear Type:	Tricycle	**Seats:**	4
Date/Type of Last Inspection:	February 18, 2023 Annual	**Certified Max Gross Wt.:**	2300 lbs
Time Since Last Inspection:		**Engines:**	1 Reciprocating
Airframe Total Time:	14218 Hrs at time of accident	**Engine Manufacturer:**	Lycoming
ELT:	Installed, activated, did not aid in locating accident	**Engine Model/Series:**	O-320-E2D
Registered Owner:	On file	**Rated Power:**	150 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:	KGOO,3153 ft msl	**Distance from Accident Site:**	0 Nautical Miles
Observation Time:	12:35 Local	**Direction from Accident Site:**	261°
Lowest Cloud Condition:	Clear	**Visibility**	10 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	/	**Turbulence Type Forecast/Actual:**	None / None
Wind Direction:		**Turbulence Severity Forecast/Actual:**	N/A / N/A
Altimeter Setting:	30.07 inches Hg	**Temperature/Dew Point:**	11°C / 0°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Sacramento, CA (MCC)	**Type of Flight Plan Filed:**	None
Destination:	Grass Valley, CA	**Type of Clearance:**	None
Departure Time:	12:15 Local	**Type of Airspace:**	Class E

Airport Information

Airport:	NEVADA COUNTY GOO	**Runway Surface Type:**	Asphalt
Airport Elevation:	3157 ft msl	**Runway Surface Condition:**	Dry
Runway Used:	25	**IFR Approach:**	None
Runway Length/Width:	4657 ft / 75 ft	**VFR Approach/Landing:**	Full stop;Traffic pattern

Wreckage and Impact Information

Crew Injuries:	1 None	**Aircraft Damage:**	Substantial
Passenger Injuries:	N/A	**Aircraft Fire:**	None
Ground Injuries:		**Aircraft Explosion:**	None
Total Injuries:	1 None	**Latitude, Longitude:**	39.224056,-121.00255

Administrative Information

Investigator In Charge (IIC):	Cornejo, Tealeye
Additional Participating Persons:	Tim Snyder; Federal Aviation Administration; Sacramento, CA
Original Publish Date:	March 5, 2025
Last Revision Date:	
Investigation Class:	Class 3
Note:	The NTSB did not travel to the scene of this accident.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=193693