



Aviation Investigation Final Report

Location:	Paso Robles, California	Accident Number:	WPR18LA101
Date & Time:	March 6, 2018, 22:26 Local	Registration:	N33807
Aircraft:	Piper PA28R	Aircraft Damage:	Substantial
Defining Event:	Loss of engine power (total)	Injuries:	2 None
Flight Conducted Under:	Part 91: General aviation - Instructional		

Analysis

The flight instructor and private pilot receiving instruction completed a touch-and-go landing in night visual meteorological conditions. During the initial climb, they heard a "loud tick" noise, then the low vacuum annunciator light illuminated. About 350 to 400 ft above ground level, the engine lost all power, and the propeller came to a complete stop. The flight instructor took control of the airplane and performed a forced landing to a nearby field, during which the airplane sustained substantial damage to the wings and aft fuselage.

Examination revealed that the oil filler cap was not secured, and that the engine contained about 1 quart of oil. In addition, oil was splattered on the inside of the engine compartment. It is likely that the pilots failed to secure the oil filler cap during the preflight inspection, which resulted in the loss of engine oil inflight, eventual oil starvation, and the total loss of engine power.

Probable Cause and Findings

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

The pilots' inadequate preflight inspection, which failed to ensure that the oil filler cap was secured and resulted in oil starvation and a total loss of engine power.

Findings

Personnel issues	Preflight inspection - Pilot
Personnel issues	Preflight inspection - Student/instructed pilot
Aircraft	Recip eng oil sys - Incorrect use/operation

Factual Information

History of Flight

Initial climb	Loss of engine power (total) (Defining event)
Landing-landing roll	Collision with terr/obj (non-CFIT)

On March 6, 2018, about 2226 Pacific standard time, a Piper PA-28R-200 airplane, N33807, was substantially damaged when it was involved in an accident near Paso Robles, California. The flight instructor and private pilot receiving instruction were not injured. The airplane was operated as a Title 14 *Code of Federal Regulations* Part 91 instructional flight.

The instructor reported that, before the flight, he watched as the airplane was fueled to capacity and he checked the engine oil level, which was 6 quarts. He then asked the pilot receiving instruction to conduct a preflight inspection while he went inside. Upon returning to the airplane, he verbally confirmed the fuel and engine oil levels with the pilot and they subsequently departed. The flight was uneventful, and they performed a touch-and-go landing at the destination airport. During takeoff following the touch-and-go, the pilots heard a "loud tick" noise, followed by the illumination of the low vacuum annunciator light. The instructor took control of the airplane, retracted the landing gear, and instructed the pilot to retract the wing flaps; about 350 to 400 ft above ground level, the airplane stopped climbing, the engine lost all power, and the propeller came to a complete stop. The instructor performed a forced landing to a nearby field. During the landing roll, the wings and aft fuselage were substantially damaged.

The following day, a Federal Aviation Administration inspector examined the wreckage and noted that the oil filler cap was not secured, and that the engine contained about 1 quart of oil. In addition, oil was splattered inside the engine compartment. (see Figure 1.)



Figure 1. Loose oil cap visible through the access panel on the engine cowling

Pilot Information

Certificate:	Private	Age:	47, 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:	
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 3 Without waivers/limitations	Last FAA Medical Exam:	December 12, 2017
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	(Estimated) 411 hours (Total, all aircraft), 14 hours (Total, this make and model), 49 hours (Last 90 days, all aircraft)		

Flight instructor Information

Certificate:	Flight instructor	Age:	23,Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Right
Other Aircraft Rating(s):	None	Restraint Used:	3-point
Instrument Rating(s):	Airplane	Second Pilot Present:	
Instructor Rating(s):	Airplane single-engine	Toxicology Performed:	No
Medical Certification:	Class 1 Without waivers/limitations	Last FAA Medical Exam:	March 7, 2014
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	
Flight Time:	(Estimated) 961 hours (Total, all aircraft), 211 hours (Total, this make and model), 879 hours (Pilot In Command, all aircraft), 109 hours (Last 90 days, all aircraft), 45 hours (Last 30 days, all aircraft), 0 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	Registration:	N33807
Model/Series:	PA28R 200	Aircraft Category:	Airplane
Year of Manufacture:	1969	Amateur Built:	
Airworthiness Certificate:	Utility	Serial Number:	28R-7535198
Landing Gear Type:	Retractable - Tricycle	Seats:	4
Date/Type of Last Inspection:	February 2, 2018 Annual	Certified Max Gross Wt.:	
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	11933.5 Hrs as of last inspection	Engine Manufacturer:	LYCOMING
ELT:	Installed, not activated	Engine Model/Series:	IO-360-C1C
Registered Owner:		Rated Power:	
Operator:	On file	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Night
Observation Facility, Elevation:	KPRB,817 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	05:50 Local	Direction from Accident Site:	197°
Lowest Cloud Condition:	Scattered / 16000 ft AGL	Visibility	10 miles
Lowest Ceiling:		Visibility (RVR):	
Wind Speed/Gusts:	/	Turbulence Type Forecast/Actual:	/
Wind Direction:		Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.03 inches Hg	Temperature/Dew Point:	12°C / 6°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	San Jose, CA (RHV)	Type of Flight Plan Filed:	None
Destination:	Paso Robles, CA (PRB)	Type of Clearance:	None
Departure Time:	19:00 Local	Type of Airspace:	Class E

Airport Information

Airport:	PASO ROBLES MUNI PRB	Runway Surface Type:	Asphalt
Airport Elevation:	839 ft msl	Runway Surface Condition:	Dry
Runway Used:	13	IFR Approach:	None
Runway Length/Width:	4701 ft / 100 ft	VFR Approach/Landing:	Touch and go

Wreckage and Impact Information

Crew Injuries:	2 None	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 None	Latitude, Longitude:	35.672779,-120.62694(est)

Administrative Information

Investigator In Charge (IIC):	Smith, Maja		
Additional Participating Persons:	Jeffrey E Ebey; FSDO; San Jose, CA		
Original Publish Date:	May 20, 2021	Investigation Class:	3
Note:	The NTSB did not travel to the scene of this accident.		
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=96834		

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The Independent Safety Board Act, as codified at 49 U.S.C. Section 1154(b), precludes the admission into evidence or use of any part of an NTSB report related to an incident or accident in a civil action for damages resulting from a matter mentioned in the report. A factual report that may be admissible under 49 U.S.C. § 1154(b) is available [here](#).