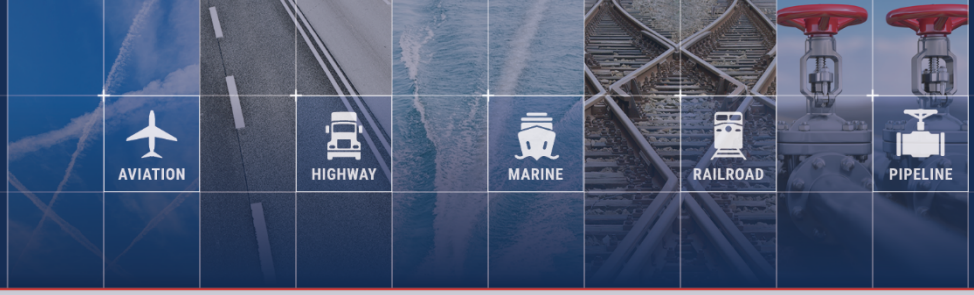

Aviation Investigation Final Report

Location:	Hastings, Michigan	**Accident Number:**	CEN21LA303
Date & Time:	June 30, 2021, 18:00 Local	**Registration:**	N1175H
Aircraft:	Aeronca 15AC	**Aircraft Damage:**	Substantial
Defining Event:	Unknown or undetermined	**Injuries:**	2 None
Flight Conducted Under:	Part 91: General aviation - Instructional		

Analysis

The pilot receiving instruction and flight instructor were conducting a flight review. About 45 minutes into the flight, the engine “sputtered” and lost power following a practice go-around. The flight instructor took control of the airplane and performed a forced landing, during which the airplane sustained substantial damage. The pilot reported that they departed on the flight with 8 gallons of fuel in the left-wing tank and 7 gallons of fuel in the right-wing tank. The flight instructor recalled that, shortly before the loss of engine power, the left and right tanks contained about 8 gallons and 2 gallons, respectively. The mechanic who recovered the airplane reported that about 6 gallons remained in the left fuel tank and 2 gallons in the right fuel tank. The fuel caps were secure, and the accident site did not exhibit any evidence of a fuel spill.

A postaccident examination and engine test run did not reveal any anomalies consistent with a preimpact failure or malfunction. Continuity of the airframe fuel system was confirmed. The reason that fuel was being drawn predominantly from the right fuel tank could not be determined. The reason for the loss of engine power could not be determined based on the available information.

Probable Cause and Findings

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

A total loss of engine power for reasons that could not be determined based on the available

information.

Findings

Not determined	(general) - Unknown/Not determined

Factual Information

History of Flight

Approach-VFR go-around	Loss of engine power (total)
Approach-VFR go-around	Unknown or undetermined (Defining event)
Emergency descent	Off-field or emergency landing

On June 30, 2021, about 1800 eastern daylight time, an Aeronca 15AC airplane, N1175H, was substantially damaged when it was involved in an accident near Hastings, Michigan. The pilot receiving instruction and flight instructor were not injured. The airplane was operated as a Title 14 *Code of Federal Regulations* Part 91 instructional flight.

The flight instructor reported that, about 45 minutes into a flight review, the engine lost power following a practice go-around. The pilot noted that the engine was “good and strong” during the initial portion of the go-around. About 400 ft above ground level, the engine “sputtered” and lost power. When the pilot leveled the wings, engine power was restored. The flight instructor took control of the airplane, and the engine subsequently lost power again, after which the flight instructor performed a forced landing to a grass area on airport property. During the landing, the airplane nosed over and came to rest inverted near the perimeter fence, resulting in substantial damage to the left-wing strut and rudder.

The pilot reported that they departed on the flight with about 15 total gallons of fuel; 8 gallons in the left wing fuel tank and 7 gallons in the right wing fuel tank. The airplane was equipped with sight gauges at each wing root to indicate fuel quantity. The flight instructor recalled that, shortly before the loss of engine power, about 8 gallons and 2 gallons of fuel remained in the left and right fuel tanks, respectively. The mechanic who recovered the airplane reported that about 6 gallons remained in the left fuel tank and 2 gallons remained in the right fuel tank. The fuel caps were secure, and the accident site did not exhibit any evidence of a fuel spill.

A postaccident examination and engine test run did not reveal any anomalies consistent with a preimpact failure or malfunction. Continuity of the airframe fuel system was confirmed.

Pilot Information

Certificate:	Private	**Age:**	69,Male
Airplane Rating(s):	Single-engine land; Single-engine sea	**Seat Occupied:**	Left
Other Aircraft Rating(s):	None	**Restraint Used:**	Lap only
Instrument Rating(s):	None	**Second Pilot Present:**	Yes
Instructor Rating(s):	None	**Toxicology Performed:**	
Medical Certification:	None	**Last FAA Medical Exam:**	
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	March 15, 2018
Flight Time:	525 hours (Total, all aircraft), 241 hours (Total, this make and model), 2 hours (Last 30 days, all aircraft)		

Flight instructor Information

Certificate:	Commercial; Flight instructor	**Age:**	61,Male
Airplane Rating(s):	Single-engine land; Single-engine sea	**Seat Occupied:**	Right
Other Aircraft Rating(s):	None	**Restraint Used:**	Lap only
Instrument Rating(s):	Airplane	**Second Pilot Present:**	Yes
Instructor Rating(s):	Airplane single-engine; Instrument airplane	**Toxicology Performed:**	
Medical Certification:	Class 3 With waivers/limitations	**Last FAA Medical Exam:**	November 3, 2020
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	December 7, 2019
Flight Time:	2454 hours (Total, all aircraft), 10 hours (Total, this make and model), 2363 hours (Pilot In Command, all aircraft), 20 hours (Last 90 days, all aircraft), 10 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Aeronca	**Registration:**	N1175H
Model/Series:	15AC	**Aircraft Category:**	Airplane
Year of Manufacture:	1948	**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	15AC-188
Landing Gear Type:	Tailwheel	**Seats:**	4
Date/Type of Last Inspection:	May 8, 2021 Annual	**Certified Max Gross Wt.:**	2050 lbs
Time Since Last Inspection:		**Engines:**	1 Reciprocating
Airframe Total Time:	2875 Hrs as of last inspection	**Engine Manufacturer:**	Continental
ELT:	Installed, not activated	**Engine Model/Series:**	O-300
Registered Owner:	On file	**Rated Power:**	145 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:	GRR,794 ft msl	**Distance from Accident Site:**	15 Nautical Miles
Observation Time:	17:53 Local	**Direction from Accident Site:**	330°
Lowest Cloud Condition:	Scattered / 4400 ft AGL	**Visibility**	10 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	13 knots / None	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	270°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	30.03 inches Hg	**Temperature/Dew Point:**	27°C / 18°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Hastings, MI (9D9)	**Type of Flight Plan Filed:**	None
Destination:	Hastings, MI (9D9)	**Type of Clearance:**	None
Departure Time:	17:16 Local	**Type of Airspace:**	Class G

Airport Information

Airport:	Hastings 9D9	**Runway Surface Type:**	
Airport Elevation:	800 ft msl	**Runway Surface Condition:**	Dry;Vegetation
Runway Used:		**IFR Approach:**	None
Runway Length/Width:		**VFR Approach/Landing:**	Forced landing

Wreckage and Impact Information

Crew Injuries:	2 None	**Aircraft Damage:**	Substantial
Passenger Injuries:	N/A	**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	2 None	**Latitude, Longitude:**	42.66739,-85.35251

Administrative Information

Investigator In Charge (IIC):	Sorensen, Timothy
Additional Participating Persons:	Michael W. Matthews; FAA Flight Standards; Grand Rapids, MI
Original Publish Date:	January 19, 2023
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=103405