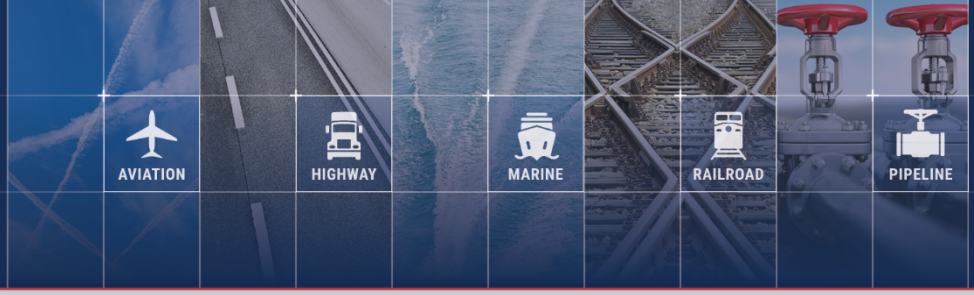

Aviation Investigation Final Report

Location:	Stanwood, Iowa	**Accident Number:**	CEN23LA009
Date & Time:	October 9, 2022, 11:20 Local	**Registration:**	N181MY
Aircraft:	YATES MIKE E ROARING EAGLE	**Aircraft Damage:**	Substantial
Defining Event:	Loss of engine power (partial)	**Injuries:**	1 Minor
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot reported that he was performing a test flight in the experimental airplane after completing a modification to the pitch control system. While on downwind to land at the private airstrip, the engine lost partial power. During the base to final turn, about 300 ft above ground level, the airplane exceeded its critical angle of attack, which resulted in an aerodynamic stall and loss of airplane control at an altitude too low to allow for recovery. The airplane impacted a cornfield short of the private airstrip and sustained substantial damage to the fuselage and both wings. The pilot reported that there were no preimpact mechanical malfunctions or failures that would have precluded normal operation. The pilot stated that the partial loss of engine power was due to an excessive fuel pressure to the carburetor because he forgot to open a valve that bypassed fuel around the fuel pump that is used for engine priming and starting.

Probable Cause and Findings

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

The pilot's exceedance of the airplane's critical angle of attack in the traffic pattern, which resulted in an aerodynamic stall and loss of airplane control at too low of an altitude to recover. Contributing to the accident was the partial loss of engine power due to improper management of the fuel system.

Findings

Aircraft	Fuel pressure - Incorrect use/operation
Personnel issues	Lack of action - Pilot
Personnel issues	Aircraft control - Pilot
Aircraft	Angle of attack - Capability exceeded
Aircraft	Airspeed - Not attained/maintained

Factual Information

History of Flight

Maneuvering	Loss of engine power (partial) (Defining event)
Uncontrolled descent	Collision with terr/obj (non-CFIT)

Pilot Information

Certificate:	Private	**Age:**	67,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:**	
Medical Certification:	Class 3 With waivers/limitations	**Last FAA Medical Exam:**	October 13, 2020
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	August 22, 2022
Flight Time:	515 hours (Total, all aircraft), 11 hours (Total, this make and model), 450 hours (Pilot In Command, all aircraft), 1 hours (Last 90 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	YATES MIKE E	**Registration:**	N181MY
Model/Series:	ROARING EAGLE	**Aircraft Category:**	Airplane
Year of Manufacture:	2020	**Amateur Built:**	Yes
Airworthiness Certificate:	Experimental (Special)	**Serial Number:**	MB5137
Landing Gear Type:	Tricycle	**Seats:**	2
Date/Type of Last Inspection:	May 20, 2022 Condition	**Certified Max Gross Wt.:**	1490 lbs
Time Since Last Inspection:		**Engines:**	1 Reciprocating
Airframe Total Time:	11.5 Hrs at time of accident	**Engine Manufacturer:**	Lycoming
ELT:	C91A installed, not activated	**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:	KCID,840 ft msl	**Distance from Accident Site:**	26 Nautical Miles
Observation Time:	11:52 Local	**Direction from Accident Site:**	269°
Lowest Cloud Condition:	Clear	**Visibility**	10 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	7 knots / None	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	230°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	30.12 inches Hg	**Temperature/Dew Point:**	19°C / 3°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Stanwood, IA	**Type of Flight Plan Filed:**	None
Destination:	Stanwood, IA	**Type of Clearance:**	None
Departure Time:		**Type of Airspace:**	Class G

Airport Information

Airport:	PVT PVT	**Runway Surface Type:**	
Airport Elevation:	0 ft msl	**Runway Surface Condition:**	
Runway Used:		**IFR Approach:**	None
Runway Length/Width:		**VFR Approach/Landing:**	Traffic pattern

Wreckage and Impact Information

Crew Injuries:	1 Minor	**Aircraft Damage:**	Substantial
Passenger Injuries:		**Aircraft Fire:**	None
Ground Injuries:		**Aircraft Explosion:**	None
Total Injuries:	1 Minor	**Latitude, Longitude:**	41.888757,-91.152133(est)

Administrative Information

Investigator In Charge (IIC):	Sauer, Aaron
Additional Participating Persons:	Michael D Massell; FAA; Des Moines, IA
Original Publish Date:	June 6, 2023
Last Revision Date:	
Investigation Class:	Class 4
Note:	The NTSB did not travel to the scene of this accident.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=106093