



Aviation Investigation Final Report

Location:	MT. PLEASANT, Michigan	Accident Number:	CHI88DEM04
Date & Time:	April 10, 1988, 11:45 Local	Registration:	N528MS
Aircraft:	ANDERSON PITTS S-1S	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

THE PILOT WAS PERFORMING SOME INVERTED MANEUVERS WHEN THE ENGINE QUIT. THE PILOT STATED HE ATTEMPTED TO RESTART THE ENGINE BUT WAS UNABLE TO. HE THEN EXECUTED AN EMERGENCY LANDING IN A FARM FIELD. DURING THE LANDING ROLL THE PILOT WAS UNABLE TO MAINTAIN DIRECTIONAL CONTROL AND STRUCK A FURROW IN THE CULTIVATED SOIL CAUSING IT TO FLIP OVER ONTO ITS BACK, SUBSTANTIALLY DAMAGING THE AIRCRAFT. ACCORDING TO A MECHANIC, THE ENGINE QUIT AS A RESULT OF AN INCORRECT FLOP TUBE INSTALLED IN THE INVERTED FUEL SYSTEM WHEN THE HOMEBUILT AIRCRAFT WAS CONSTRUCTED. THE INCORRECT PART WAS CONSTRUCTED OF GARDEN HOSE MATERIAL AND WAS INCAPABLE OF SUPPLYING FUEL TO THE AIRCRAFT INVERTED AND WHEN THE FUEL QUANTITY WAS LOW.

Probable Cause and Findings

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

Findings

Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - MECH FAILURE/MALF
Phase of Operation: MANEUVERING

Findings

1. (C) MAINTENANCE, DESIGN CHANGE - IMPROPER - MANUFACTURER

2. (C) FUEL SYSTEM,LINE - INADEQUATE
3. (C) FLUID,FUEL - STARVATION
4. EMERGENCY PROCEDURE - ATTEMPTED - PILOT IN COMMAND

Occurrence #2: FORCED LANDING
Phase of Operation: DESCENT - EMERGENCY

Occurrence #3: NOSE OVER
Phase of Operation: LANDING - ROLL

Findings

5. TERRAIN CONDITION - SOFT

Factual Information

Pilot Information

Certificate:	Airline transport; Commercial; Flight instructor	Age:	41, Male
Airplane Rating(s):	Single-engine land; Single-engine sea; Multi-engine land	Seat Occupied:	Center
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	Airplane multi-engine; Airplane single-engine	Toxicology Performed:	No
Medical Certification:	Class 1 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	January 18, 1988
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	
Flight Time:	11591 hours (Total, all aircraft), 75 hours (Total, this make and model), 9600 hours (Pilot In Command, all aircraft), 71 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:	ANDERSON PITTS	Registration:	N528MS
Model/Series:	S-1S S-1S	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	Yes
Airworthiness Certificate:	Experimental (Special)	Serial Number:	EGA-1
Landing Gear Type:	Tailwheel	Seats:	1
Date/Type of Last Inspection:	June 11, 1987 Annual	Certified Max Gross Wt.:	
Time Since Last Inspection:	19 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	295 Hrs	Engine Manufacturer:	LYCOMING
ELT:	Not installed	Engine Model/Series:	O-320-A
Registered Owner:	MURRAY C. SHAVER	Rated Power:	150 Horsepower
Operator:		Operating Certificate(s) Held:	None
Operator Does Business As:		Operator Designator Code:	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:		Distance from Accident Site:	
Observation Time:		Direction from Accident Site:	
Lowest Cloud Condition:	Clear	Visibility	20 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	/	Turbulence Type Forecast/Actual:	/
Wind Direction:	230°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	14°C / 2°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:		Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	11:30 Local	Type of Airspace:	Class G

Airport Information

Airport:		Runway Surface Type:	Dirt
Airport Elevation:	0 ft msl	Runway Surface Condition:	Dry
Runway Used:	0	IFR Approach:	None
Runway Length/Width:	0 ft / 0 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:	43.590408,-84.769569(est)

Administrative Information

Investigator In Charge (IIC):	Standring, Roland
Additional Participating Persons:	WILLIAM NAYMICK; GRAND RAPIDS , MI
Original Publish Date:	March 13, 1989
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=13866

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The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, “accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person” (Title 49 *Code of Federal Regulations* section 831.4). Assignment of fault or legal liability is not relevant to the NTSB’s statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 *United States Code* section 1154(b)). A factual report that may be admissible under 49 *United States Code* section 1154(b) is available [here](#).