



Aviation Investigation Final Report

Location:	HOLLAND, Michigan	Accident Number:	CHI92DEM05
Date & Time:	August 22, 1992, 10:15 Local	Registration:	N15672
Aircraft:	Taylorcraft H-2	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 Serious
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

THE ANTIQUE AIRPLANE HAD ITS ENGINE CHANGED TO A THREE CYLINDER RADIAL UNIT. SHORTLY AFTER TAKEOFF, DURING ITS INITIAL CLIMB, THE ENGINE EXPERIENCED A PARTIAL POWER LOSS AT APPROXIMATELY 200 FEET ABOVE THE GROUND. THE PILOT ATTEMPTED TO RETURN TO THE DEPARTURE RUNWAY BY REVERSING HIS FLIGHT PATH. DURING THE TURN TOWARD THE RUNWAY THE AIRPLANE ENTERED A STALL AND SUBSEQUENT SPIN. THE AIRPLANE COLLIDED WITH THE GROUND SHORTLY THEREAFTER. THE ON-SCENE INVESTIGATION REVEALED THE ENGINE'S NUMBER THREE CYLINDER HAD A FRACTURED INTAKE ROCKER ARM. METALLURGICAL EXAM REVEALED THE FRACTURE RESULTED FROM FATIGUE.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: NOT MAINTAINING A SUFFICIENT AIRSPEED DURING THE REVERSAL TURN AND ENCOUNTERING A STALL/SPIN MANEUVER.

Findings

Occurrence #1: LOSS OF ENGINE POWER(PARTIAL) - MECH FAILURE/MALF
Phase of Operation: TAKEOFF - INITIAL CLIMB

Findings

1. (F) ENGINE ASSEMBLY,ROCKER ARM/TAPPET - FATIGUE

2. (F) ENGINE ASSEMBLY,ROCKER ARM/TAPPET - FAILURE,TOTAL

Occurrence #2: LOSS OF CONTROL - IN FLIGHT

Phase of Operation: MANEUVERING - TURN TO LANDING AREA (EMERGENCY)

Findings

3. (C) AIRSPEED - NOT MAINTAINED - PILOT IN COMMAND

4. (C) STALL/SPIN - ENCOUNTERED - PILOT IN COMMAND

Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: DESCENT - UNCONTROLLED

Findings

5. TERRAIN CONDITION - GROUND

Factual Information

Pilot Information

Certificate:	Commercial	Age:	58, Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Rear
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 2 Valid Medical-w/ waivers/lim	Last FAA Medical Exam:	February 8, 1992
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	2500 hours (Total, all aircraft), 8 hours (Total, this make and model), 2300 hours (Pilot In Command, all aircraft), 2 hours (Last 90 days, all aircraft), 1 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Taylorcraft	Registration:	N15672
Model/Series:	H-2 H-2	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Experimental (Special)	Serial Number:	
Landing Gear Type:	Tailwheel	Seats:	2
Date/Type of Last Inspection:	Annual	Certified Max Gross Wt.:	1220 lbs
Time Since Last Inspection:	6 Hrs	Engines:	1 Reciprocating
Airframe Total Time:		Engine Manufacturer:	SZEKELY
ELT:	Not installed	Engine Model/Series:	SR-3-0
Registered Owner:	PHILIP J. MICHMERHUIZEN	Rated Power:	35 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:	MKG ,628 ft msl	Distance from Accident Site:	22 Nautical Miles
Observation Time:	10:00 Local	Direction from Accident Site:	175°
Lowest Cloud Condition:	Scattered / 15000 ft AGL	Visibility	7 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	5 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	130°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	19°C / 13°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:		Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	10:15 Local	Type of Airspace:	Class G

Airport Information

Airport:	PARK TOWNSHIP HLM	Runway Surface Type:	Asphalt
Airport Elevation:	0 ft msl	Runway Surface Condition:	Dry
Runway Used:	23	IFR Approach:	
Runway Length/Width:	3075 ft / 50 ft	VFR Approach/Landing:	

Wreckage and Impact Information

Crew Injuries:	1 Serious	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Serious	Latitude, Longitude:	42.839607,-86.129638(est)

Administrative Information

Investigator In Charge (IIC): Bowerman, Bruce

Additional Participating Persons: B BOWERMAN;
P GUICHELAAR;

Original Publish Date: August 31, 1993

Last Revision Date:

Investigation Class: [Class](#)

Note:

Investigation Docket: <https://data.nts.gov/Docket?ProjectID=15241>

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