



# Aviation Investigation Final Report

<b>Location:</b>	CHESTERFIELD, Virginia	<b>Accident Number:</b>	BF091LA074
<b>Date &amp; Time:</b>	August 6, 1991, 10:00 Local	<b>Registration:</b>	N256PW
<b>Aircraft:</b>	CLIFTON DIXON POLLIWAGEN	<b>Aircraft Damage:</b>	Destroyed
<b>Defining Event:</b>		<b>Injuries:</b>	1 Minor
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

THE PILOT WAS CONDUCTING ONE OF A SERIES OF FLIGHT TESTS OF HIS NEW HOMEBUILT AIRCRAFT. AFTER PERFORMING HIS PRETAKEOFF ENGINE RUN-UP, HE STARTED HIS TAKE-OFF ROLL. THE ENGINE PERFORMANCE SEEMED BETTER THAN USUAL UP TO AN ALTITUDE OF 200 FEET. THE ENGINE THEN STARTED TO LOSE POWER AND THE AIRCRAFT BEGAN TO DESCEND. THE AIRCRAFT STRUCK SOME TREE TOPS AND CRASHED TO THE GROUND, COMING TO REST, INVERTED. A POSTFLIGHT INVESTIGATION OF THE ENGINE REVEALED THAT THE NUMBER THREE EXHAUST VALVE SPRING HAD SLIPPED FROM ITS POSITION CAUSING A PARTIAL REDUCTION OF POWER.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: THE PARTIAL LOSS OF ENGINE POWER CAUSED BY A MISALIGNED ROCKER ARM SPRING RESULTING IN A REDUCTION OF EXHAUST VALVE OPENING.

### 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 - JAMMED

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

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Occurrence #3: IN FLIGHT COLLISION WITH OBJECT  
Phase of Operation: LANDING

Findings

2. OBJECT - TREE(S)

## Factual Information

### Pilot Information

<b>Certificate:</b>	Commercial	<b>Age:</b>	59, Male
<b>Airplane Rating(s):</b>	Single-engine land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 2 Valid Medical--w/ waivers/lim	<b>Last FAA Medical Exam:</b>	April 11, 1991
<b>Occupational Pilot:</b>	UNK	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	479 hours (Total, all aircraft), 8 hours (Total, this make and model), 414 hours (Pilot In Command, all aircraft), 2 hours (Last 90 days, all aircraft), 1 hours (Last 30 days, all aircraft)		

### Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	CLIFTON DIXON	<b>Registration:</b>	N256PW
<b>Model/Series:</b>	POLLIWAGEN POLLIWAGEN	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	Yes
<b>Airworthiness Certificate:</b>	Experimental (Special)	<b>Serial Number:</b>	1
<b>Landing Gear Type:</b>	Tricycle	<b>Seats:</b>	1
<b>Date/Type of Last Inspection:</b>	October 17, 1990 Annual	<b>Certified Max Gross Wt.:</b>	1450 lbs
<b>Time Since Last Inspection:</b>	9 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	3 Hrs	<b>Engine Manufacturer:</b>	Volkswagen
<b>ELT:</b>	Installed, activated, did not aid in locating accident	<b>Engine Model/Series:</b>	411/914
<b>Registered Owner:</b>	CLIFTON E. DIXON	<b>Rated Power:</b>	65 Horsepower
<b>Operator:</b>	CLIFTON E. DIXON	<b>Operating Certificate(s) Held:</b>	None
<b>Operator Does Business As:</b>		<b>Operator Designator Code:</b>	

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	RIC ,237 ft msl	<b>Distance from Accident Site:</b>	15 Nautical Miles
<b>Observation Time:</b>	15:50 Local	<b>Direction from Accident Site:</b>	45°
<b>Lowest Cloud Condition:</b>	Scattered / 6000 ft AGL	<b>Visibility</b>	8 miles
<b>Lowest Ceiling:</b>	None	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	8 knots /	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	70°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	30 inches Hg	<b>Temperature/Dew Point:</b>	26°C / 18°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>		<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>		<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	09:56 Local	<b>Type of Airspace:</b>	

## Airport Information

<b>Airport:</b>	CHESTERFIELD CITY W98	<b>Runway Surface Type:</b>	Dirt
<b>Airport Elevation:</b>	0 ft msl	<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>	0	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>	0 ft / 0 ft	<b>VFR Approach/Landing:</b>	Forced landing

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 Minor	<b>Aircraft Damage:</b>	Destroyed
<b>Passenger Injuries:</b>		<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	1 Minor	<b>Latitude, Longitude:</b>	37.38985,-77.589286(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Reitan, Albert
<b>Additional Participating Persons:</b>	J. WAGER; RICHMOND , VA
<b>Original Publish Date:</b>	May 5, 1993
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class</a>
<b>Note:</b>	
<b>Investigation Docket:</b>	<a href="https://data.nts.gov/Docket?ProjectID=11698">https://data.nts.gov/Docket?ProjectID=11698</a>

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