



# Aviation Investigation Final Report

<b>Location:</b>	MARYSVILLE, Washington	<b>Accident Number:</b>	SEA92LA007
<b>Date &amp; Time:</b>	October 14, 1991, 15:30 Local	<b>Registration:</b>	N7759P
<b>Aircraft:</b>	PIPER PA24-180	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	3 Minor
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

A PIPER PA 24 IMPACTED THE TERRAIN DURING A FORCED LANDING, AFTER A TOTAL ENGINE FAILURE ON CLIMBOUT. INVESTIGATION REVEALED THAT THE ACCESSARY DRIVE GEAR WAS LOOSE ON THE END OF THE CRANKSHAFT, AND WAS THEREFORE NOT DRIVING THE ACCESSARY SECTION. THE AIRCRAFT HAD EXPERIENCED A PROPELLER STRIKE AT AN EARLIER DATE, AND THE INSTRUCTIONS IN THE TEXTRON LYCOMING SERVICE BULLETIN WERE NOT FOLLOWED WHEN THE REPAIRS WERE PERFORMED. THE BULLETIN CALLED FOR A NEW STYLE DRIVE GEAR AND GEAR RETAINING BOLT, BUT THE OLD STYLE PARTS WERE INSTALLED INSTEAD. ACCORDING TO LYCOMING, THE NEW PARTS MUST BE USED IN ORDER TO INSURE THAT THE GEAR SEATS ON THE CRANKSHAFT MOUNTING FACE, AND DOES NOT WORK LOOSE DURING ENGINE OPERATION.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: THE SLIPPAGE OF THE ACCESSARY DRIVE GEAR DUE TO IMPROPER MAINTENANCE BY OTHER MAINTENANCE PERSONNEL. FACTORS INCLUDE A FORCED LANDING IN UNSUITABLE TERRAIN.

## Findings

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

Findings

1. (C) ACCESSORY DRIVE ASSY,DRIVE GEAR - SLIPPED
2. MAINTENANCE,SERVICE BULLETIN/LETTER - NOT FOLLOWED - OTHER MAINTENANCE PERSONNEL

-----

Occurrence #2: FORCED LANDING

Phase of Operation: DESCENT - EMERGENCY

-----

Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: LANDING

Findings

3. (F) TERRAIN CONDITION - NONE SUITABLE

## Factual Information

### Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	69, 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>	None	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 3 Valid Medical-w/ waivers/lim	<b>Last FAA Medical Exam:</b>	September 12, 1991
<b>Occupational Pilot:</b>	UNK	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	1288 hours (Total, all aircraft), 1200 hours (Pilot In Command, all aircraft), 40 hours (Last 90 days, all aircraft), 7 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

### Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	PIPER	<b>Registration:</b>	N7759P
<b>Model/Series:</b>	PA24-180 PA24-180	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	2975
<b>Landing Gear Type:</b>	Retractable - Tricycle	<b>Seats:</b>	4
<b>Date/Type of Last Inspection:</b>	August 15, 1991 Annual	<b>Certified Max Gross Wt.:</b>	2950 lbs
<b>Time Since Last Inspection:</b>	33 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	2673 Hrs	<b>Engine Manufacturer:</b>	LYCOMING
<b>ELT:</b>	Installed, activated, did not aid in locating accident	<b>Engine Model/Series:</b>	O360A1D
<b>Registered Owner:</b>	JENKINS AIRCRAFT	<b>Rated Power:</b>	180 Horsepower
<b>Operator:</b>	JENKINS AIRCRAFT	<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>		<b>Distance from Accident Site:</b>	
<b>Observation Time:</b>		<b>Direction from Accident Site:</b>	
<b>Lowest Cloud Condition:</b>	Clear	<b>Visibility</b>	50 miles
<b>Lowest Ceiling:</b>	None	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	/	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	0°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>		<b>Temperature/Dew Point:</b>	
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	ARLINGTON , WA (S88 )	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	PORT TOWNSEND , WA (OS9 )	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	15:25 Local	<b>Type of Airspace:</b>	Class G

## Airport Information

<b>Airport:</b>		<b>Runway Surface Type:</b>	
<b>Airport Elevation:</b>		<b>Runway Surface Condition:</b>	
<b>Runway Used:</b>	0	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>		<b>VFR Approach/Landing:</b>	None

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 Minor	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>	2 Minor	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	3 Minor	<b>Latitude, Longitude:</b>	48.050468,-122.139762(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Anderson, Orrin
<b>Additional Participating Persons:</b>	LOU LERDA; RENTON , WA
<b>Original Publish Date:</b>	April 27, 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=41601">https://data.nts.gov/Docket?ProjectID=41601</a>

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

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](#).