Aviation Investigation Final Report

Location:	MARYSVILLE, Washington	**Accident Number:**	SEA92LA007
Date & Time:	October 14, 1991, 15:30 Local	**Registration:**	N7759P
Aircraft:	PIPER PA24-180	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	3 Minor
Flight Conducted Under:	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

Certificate:	Private	**Age:**	69,Male
Airplane Rating(s):	Single-engine land	**Seat Occupied:**	Left
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 3 Valid Medical--w/ waivers/lim	**Last FAA Medical Exam:**	September 12, 1991
Occupational Pilot:	UNK	**Last Flight Review or Equivalent:**	
Flight Time:	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

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

Airport Information

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

Wreckage and Impact Information

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

Administrative Information

Investigator In Charge (IIC):	Anderson, Orrin
Additional Participating Persons:	LOU LERDA; RENTON , WA
Original Publish Date:	April 27, 1993
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=41601