



National Transportation Safety Board Aviation Accident Data Summary

Location:	MYERSTOWN, PA	Accident Number:	NYC97LA024
Date & Time:	12/02/1996, 1521 EST	Registration:	N394PM
Aircraft:	Piper PA-46-350P	Injuries:	1 Serious
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

During the climb after takeoff, between 3,500 and 4,000 feet, the pilot noticed the engine oil pressure decreasing and the oil temperature increasing. The pilot advised the controller that he was experiencing a problem, and he was provided radar vectors to the nearest airport. During vectors, the engine failed, and oil covered the windshield and pilot's side window. Unable to see the airport, the pilot completed a forced landing to an open field, where the airplane impacted the ground. The engine had accumulated about 440 hrs of flight time, since it was last overhauled (by the manufacturer). Investigation revealed that remanufactured connecting rods had been installed. Examination of the engine revealed four of the six connecting rod bearings had melted at the crankshaft, and fatigue cracks were found on the number four connecting rod and end cap. When the connecting rod end cap retaining nuts were removed, rings of moderate wear and fretting were found in the nut recesses where the nuts contacted the rods.

Probable Cause

The National Transportation Safety Board determines the probable cause(s) of this accident to be: fatigue failure of the connecting rod to crankshaft attachments, due to inadequate overhaul of the engine by the manufacturer, which resulted in a loss of engine power and a forced landing. Factors relating to the accident included the discharge of oil from the ruptured engine, which subsequently obstructed the pilot's view through the windshield and side window, preventing him from having an unobstructed view of the emergency landing area.

Findings

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

Findings

1. (C) ENGINE ASSEMBLY,CONNECTING ROD BOLT - LOOSE
 2. (C) MAINTENANCE,REBUILD/REMANUFACTURE - INADEQUATE - MANUFACTURER
 3. (C) ENGINE ASSEMBLY,CONNECTING ROD - FATIGUE
 4. (C) ENGINE ASSEMBLY,CONNECTING ROD CAP - FATIGUE
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Occurrence #2: FORCED LANDING
Phase of Operation: EMERGENCY DESCENT/LANDING

Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: EMERGENCY LANDING

Findings

5. (F) FLUID,OIL - DISCHARGED
6. (F) WINDOW,FLIGHT COMPARTMENT WINDOW/WINDSHIELD - OBSTRUCTED
7. (F) VISUAL/AURAL DETECTION - PILOT IN COMMAND

Pilot Information

Certificate:	Private	Age:	70
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Instrument Rating(s):	Airplane
Other Aircraft Rating(s):	None	Instructor Rating(s):	None
Flight Time:	1924 hours (Total, all aircraft), 300 hours (Total, this make and model), 1707 hours (Pilot In Command, all aircraft), 64 hours (Last 90 days, all aircraft), 20 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	Registration:	N394PM
Model/Series:	PA-46-350P PA-46-350P	Engines:	1 Reciprocating
Operator:	MARK J. ANTON	Engine Manufacturer:	Lycoming
Operating Certificate(s) Held:	None	Engine Model/Series:	TIO-540-AE2A
Flight Conducted Under:	Part 91: General Aviation - Personal		

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	RDG, 344 ft msl	Weather Information Source:	Weather Observation Facility
Lowest Ceiling:	None / 0 ft agl	Wind Speed/Gusts, Direction:	10 knots / , 300°
Temperature:	7° C	Visibility	20 Miles
Precipitation and Obscuration:			
Departure Point:	HARRISBURG INTL, PA (MDT)	Destination:	SOMERSET, NJ (N52)

Wreckage and Impact Information

Crew Injuries:	1 Serious	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Latitude, Longitude:			

Administrative Information

Investigator In Charge (IIC): ROBERT L PEARCE

Adopted Date: 04/15/1998

Investigation Docket: NTSB accident and incident dockets serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at pubinq@ntsb.gov, or at 800-877-6799. Dockets released after this date are available at <http://dms.nts.gov/pubdms/>.

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