



National Transportation Safety Board Aviation Accident Final Report

Location:	SUGARLOAF KEY, FL	Accident Number:	MIA97LA032
Date & Time:	12/01/1996, 1200 EST	Registration:	N9545J
Aircraft:	Piper PA-28-180	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 Serious, 1 Minor
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

While in cruise flight the engine lost power, and the pilot elected to land on a road. As the airplane touched down the left wing struck the brush on the side of the road, veered left, and turned 180 degrees opposite the direction of travel. Witnesses reported seeing black smoke coming from the engine before impact. The airplane's engine was disassembled, and the examination revealed that the No. 3 connecting rod cap had become detached from the crankshaft assembly, resulting in external damage to the engine. In addition, the remaining connecting rod assemblies were found to be incorrectly installed, and the nuts were all found opposite end down. The No. 2 and No. 4 assemblies were found to be loose.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: a complete loss of engine power due to a disconnected connecting rod cap.

Findings

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

Findings

1. (C) ENGINE ASSEMBLY,CONNECTING ROD CAP - DISCONNECTED
2. MAINTENANCE,INSTALLATION - IMPROPER - OTHER MAINTENANCE PERSONNEL

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

Occurrence #3: IN FLIGHT COLLISION WITH OBJECT
Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings

3. TERRAIN CONDITION - HIGH VEGETATION

Factual Information

On December 1, 1996, about 1200 eastern standard time, a Piper PA-28-180, N9545J, registered to a private owner, operating as a Title 14 CFR Part 91, personal flight, crashed during a forced landing near Sugarloaf Key, Florida. Visual meteorological conditions prevailed and no flight plan was filed. The airplane was substantially damaged. The private pilot received serious injuries, and one passenger received minor injuries.

While in cruise flight the pilot noticed a fluctuation in engine rpm. The engine lost power, and the pilot elected to land on a road. As the airplane touched down the left wing struck the brush on the side of the road, veered left, and turned 180 degrees opposite the direction of travel. Witnesses reported seeing black smoke coming from the engine before impact.

The airplane's engine was disassembled under the supervision of the FAA, at Certified Engines Inc., Opa-Locka, Florida, on December 12, 1996. The engine examination revealed that the No. 3 connecting rod cap had become detached from the crankshaft assembly, resulting in external damage to the engine. In addition, the FAA inspector stated, the remaining connecting rod assemblies were found to be "incorrectly installed," and the nuts were "all found opposite end down." The No. 2 and No. 4 assemblies were found to be "loose."

Pilot Information

Certificate:	Private	Age:	35, Male
Airplane Rating(s):	None	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 3 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	08/01/1996
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:	330 hours (Total, all aircraft), 2 hours (Total, this make and model), 4 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	Registration:	N9545J
Model/Series:	PA-28-180 PA-28-180	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	28-3693
Landing Gear Type:	Tricycle	Seats:	0
Date/Type of Last Inspection:	11/23/1996, 100 Hour	Certified Max Gross Wt.:	2400 lbs
Time Since Last Inspection:	17 Hours	Engines:	1 Reciprocating
Airframe Total Time:	3923 Hours	Engine Manufacturer:	Lycoming
ELT:	Installed, not activated	Engine Model/Series:	O-360-A4A
Registered Owner:	PETER K. HENNIES	Rated Power:	180 lbs
Operator:	EDIG EXECUTIVE AIRCRAFT INC.	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Unknown	Condition of Light:	Day
Observation Facility, Elevation:	KEY, 5 ft msl	Distance from Accident Site:	11 Nautical Miles
Observation Time:	1153 EST	Direction from Accident Site:	80°
Lowest Cloud Condition:	Scattered / 3200 ft agl	Visibility	10 Miles
Lowest Ceiling:	Broken / 4800 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	5 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	Variable	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	27° C / 22° C
Precipitation and Obscuration:			
Departure Point:	KEY WEST, FL (EYW)	Type of Flight Plan Filed:	None
Destination:	FT LUADERDALE, FL (FXE)	Type of Clearance:	None
Departure Time:	1145 EST	Type of Airspace:	Class C

Wreckage and Impact Information

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

Administrative Information

Investigator In Charge (IIC): ALAN J YURMAN **Report Date:** 08/25/1997

Additional Participating Persons: FRED MARTIN; MIAMI, FL

Publish Date:

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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