



National Transportation Safety Board Aviation Incident Data Summary

Location:	Northport, FL	Incident Number:	ERA09FA228
Date & Time:	04/03/2009, 1853 EDT	Registration:	N509SR
Aircraft:	CIRRUS DESIGN CORP SR22	Injuries:	3 None
Flight Conducted Under:	Part 135: Air Taxi & Commuter - Non-scheduled		

Analysis

About 10 minutes after takeoff, when the airplane was in level cruise flight, the engine lost power. The pilot performed a forced landing to a road, which resulted in minor damage to the airplane when the right wing impacted a road sign. An initial examination of the engine revealed a hole in the upper deck in the vicinity of the Nos. 5 and 6 pistons. Further examination revealed that both of the No. 6 connecting rod bolts were fractured. One bolt was missing the self-locking nut, and fretting adjacent to the bolt hole on the split-line face of the connecting rod indicates that the bolt was probably not tightened with sufficient torque and backed off the bolt. The bolt then likely backed out of its hole on the connecting rod, enabling the cap to hinge open, and the loading of the other bolt in tension and bending to the point of overstress. The connecting rod then separated from the crankshaft and punched a hole in the crankcase.

Flight Events

Enroute-cruise - Loss of engine power (total)
Emergency descent - Off-field or emergency landing
Landing-landing roll - Collision with terr/obj (non-CFIT)

Probable Cause

The National Transportation Safety Board determines the probable cause(s) of this incident to be: Inadequate torque on one of the No. 6 connecting rod bolt retaining nuts, which resulted in the connecting rod's separation from the crankshaft and a subsequent total loss of engine power.

Findings

Aircraft-Aircraft power plant-Engine (reciprocating)-Recip engine power section-Incorrect service/maintenance - C
Personnel issues-Task performance-Maintenance-Fabrication-Owner/builder - C

Pilot Information

Certificate:	Commercial	Age:	37
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Instrument Rating(s):	Airplane
Other Aircraft Rating(s):	None	Instructor Rating(s):	Airplane Multi-engine; Airplane Single-engine
Flight Time:	5077 hours (Total, all aircraft), 1355 hours (Total, this make and model), 4526 hours (Pilot In Command, all aircraft), 148 hours (Last 90 days, all aircraft), 60 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Manufacturer:	CIRRUS DESIGN CORP	Registration:	N509SR
Model/Series:	SR22	Engines:	1 Reciprocating
Operator:	SATSAIR LLC	Engine Manufacturer:	CONT MOTOR
Air Carrier Operating Certificate:	On-demand Air Taxi (135)	Engine Model/Series:	IO-550-N
Flight Conducted Under:	Part 135: Air Taxi & Commuter - Non-scheduled		

Meteorological Information and Flight Plan

Observation Facility, Elevation:	PGD, 26 ft msl	Weather Information Source:	Weather Observation Facility
Conditions at Accident Site:	Visual Conditions	Lowest Ceiling:	Overcast / 2300 ft agl
Condition of Light:	Day	Wind Speed/Gusts, Direction:	4 knots, 220°
Temperature:	23°C / 21°C	Visibility	8 Miles
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Fort Myers, FL (FMY)	Destination:	St. Petersburg, FL (PIE)

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Minor
Passenger Injuries:	2 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None

Administrative Information

Investigator In Charge (IIC):	Paul R Cox	Adopted Date:	03/16/2011
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 pubin@ntsb.gov , or at 800-877-6799. Dockets released after this date are available at http://dms.nts.gov/pubdms/ .		

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