



National Transportation Safety Board Aviation Accident Data Summary

Location:	Sedona, AZ	Accident Number:	LAX05LA002
Date & Time:	10/02/2004, 1025 MST	Registration:	N43064
Aircraft:	Classic Aircraft Corp WACO YMF	Injuries:	3 None
Flight Conducted Under:	Part 91: General Aviation - Other Work Use - Sightseeing		

Analysis

The engine lost partial power during flight, and the airplane collided with a vehicle during a forced landing on a road. The pilot was performing a local for hire sightseeing flight for two passengers. Approximately 15 minutes into the flight, a loud "popping" noise was heard coming from the engine. The pilot was unable to maintain altitude and force landed on a city street. During the landing roll, the right wing impacted a car on the road. Post accident examination of the engine revealed that the number 7 cylinder exhaust valve rocker arm had failed in fatigue. The surface fracture initiation marks were consistent with a grinding operation during manufacture. The grinding operation is performed to remove any flash remaining at the mold parting line, after the casting operation, and is normally carried out by holding the part by hand and guiding it on a large grinding wheel.

Probable Cause

The National Transportation Safety Board determines the probable cause(s) of this accident to be: a loss of engine power due to the fatigue fracture of the number 7 cylinder exhaust rocker arm as a result of a grinding operation during manufacture.

Findings

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

Findings

1. (C) ENGINE ASSEMBLY,ROCKER ARM/TAPPET - FATIGUE
2. (C) PROCEDURE INADEQUATE - MANUFACTURER
3. (C) ENGINE ASSEMBLY,ROCKER ARM/TAPPET - FRACTURED

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

Occurrence #3: ON GROUND/WATER COLLISION WITH OBJECT
Phase of Operation: EMERGENCY LANDING

Findings

4. OBJECT - VEHICLE

Pilot Information

Certificate:	Airline Transport; Commercial	Age:	51
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Instrument Rating(s):	Airplane
Other Aircraft Rating(s):	Glider	Instructor Rating(s):	None
Flight Time:	3500 hours (Total, all aircraft), 1300 hours (Total, this make and model), 3300 hours (Pilot In Command, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Classic Aircraft Corp	Registration:	N43064
Model/Series:	WACO YMF	Engines:	1 Reciprocating
Operator:	Solid Edge Aviation dba Red Rock Biplane Tours	Engine Manufacturer:	Jacobs
Operating Certificate(s) Held:	None	Engine Model/Series:	R755-B2M
Flight Conducted Under:	Part 91: General Aviation - Other Work Use - Sightseeing		

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	PRC, 5045 ft msl	Weather Information Source:	Weather Observation Facility
Lowest Ceiling:	None	Wind Speed/Gusts, Direction:	3 knots / , Variable
Temperature:	22° C	Visibility	10 Miles
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Sedona, AZ (SEZ)	Destination:	

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	2 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Latitude, Longitude:	34.852222, -111.795556		

Administrative Information

Investigator In Charge (IIC):	Kristi L Dunks	Adopted Date:	02/28/2006
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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