



National Transportation Safety Board Aviation Accident Data Summary

Location:	TRINITY CENTER, CA	Accident Number:	LAX94LA233
Date & Time:	06/01/1994, 0640 PDT	Registration:	N36025
Aircraft:	PIPER PA-28R-201T	Injuries:	1 Minor, 1 None
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

The pilot said that he heard a grinding noise in the engine followed by a prop overspeed. Then the engine suddenly lost all power. ARTCC provided radar vectors to nearest airport and the pilot set up for a dead stick approach; however, he was unable to make the runway. The aircraft touched down gear up in a ditch, bounced out and onto parking lot, then crashed into a parked aircraft. Disassembly of the engine revealed fretting on the parting surfaces of the number 1 main bearing saddle. The crankshaft was found fatigue fractured across the number 1 crankpin at the interface with the number 2 long cheek. One rod end cap nut was found without a cotter pin installed. The second rod end cap nut was found with a shorter than normal cotter pin installed. The number 1 connecting rod bearing was found partially swaged out of the rod, with fretting observed on the bearing surfaces. The side faces of connecting rod number 1 were scored. The engine records revealed that cylinders number 1 and 4 were replaced on May 9, 1994, 29 hours prior to the accident.

Probable Cause

The National Transportation Safety Board determines the probable cause(s) of this accident to be: the fatigue fracture of the crankshaft due to improper maintenance installation of the number 1 cylinder and the inadequate torquing of the case through bolts at that location.

Findings

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

Findings

1. (C) ENGINE ASSEMBLY,CRANKSHAFT - FATIGUE
2. (C) MAINTENANCE,INSTALLATION - IMPROPER - COMPANY MAINTENANCE PERSONNEL
3. (C) ENGINE ASSEMBLY,CRANKSHAFT - FAILURE,TOTAL

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

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

Findings

4. TERRAIN CONDITION - DITCH
5. OBJECT - AIRCRAFT PARKED/STANDING

Pilot Information

Certificate:	Private	Age:	31
Airplane Rating(s):	Single-engine Land	Instrument Rating(s):	Airplane
Other Aircraft Rating(s):	None	Instructor Rating(s):	None
Flight Time:	159 hours (Total, all aircraft), 28 hours (Total, this make and model), 84 hours (Pilot In Command, all aircraft), 49 hours (Last 90 days, all aircraft), 9 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	PIPER	Registration:	N36025
Model/Series:	PA-28R-201T PA-28R-201	Engines:	1 Reciprocating
Operator:	RAINBOW AIR	Engine Manufacturer:	CONTINENTAL
Operating Certificate(s) Held:	None	Engine Model/Series:	TSIO-360-FB1
Flight Conducted Under:	Part 91: General Aviation - Personal		

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Dawn
Observation Facility, Elevation:	, 0 ft msl	Weather Information Source:	Pilot
Lowest Ceiling:	None / 0 ft agl	Wind Speed/Gusts, Direction:	Calm / ,
Temperature:	20° C	Visibility	30 Miles
Precipitation and Obscuration:			
Departure Point:	MEDFORD, OR (MFR)	Destination:	LONG BEACH, CA (LGB)

Airport Information

Airport:	TRINITY CENTER (O86)	Runway Surface Type:	Asphalt
Runway Used:	32	Runway Surface Condition:	Dry
Runway Length/Width:	3200 ft / 50 ft		

Wreckage and Impact Information

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

Administrative Information

Investigator In Charge (IIC): JEFF RICH, Adopted Date: 12/07/1994

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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