Aviation Investigation Final Report

Location:	CHULA VISTA, California	**Accident Number:**	LAX99LA075
Date & Time:	January 16, 1999, 09:50 Local	**Registration:**	N8188
Aircraft:	Hanson HANSON TAILWIND W-8	**Aircraft Damage:**	Destroyed
Defining Event:		**Injuries:**	2 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot reported no abnormalities during the takeoff and climbout from the airport. After climbing to 4,500 feet msl to fly a northerly heading through a VFR terminal control area corridor, the pilot turned to a northeast heading and descended to 3,500 feet msl and noted that the oil temperature was at redline. He continued his descent to 3,000 feet msl and observed that the oil temperature had slightly decreased. He did note that all other instruments were indicating normal. Approximately 15 minutes after takeoff the engine stopped. The pilot made an emergency landing in an open field; the main landing gear dug into soft dirt and the aircraft vaulted vertically onto its tail and continued in a 360-degree turn before coming to rest upright on its landing gear. Examination of the engine revealed that the number 3 bearing had melted, and the associated connecting rod had separated puncturing the engine case. The engine showed evidence of a lack of lubrication. According to the engine manufacturer representative this engine was manufactured in the 1940's as a ground power unit only and was never intended for aircraft use.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The loss of lubrication to the number 3 rod bearing and the resulting failure of the number 3 connecting rod. A contributing factor to the accident was the soft terrain at the accident location.

Findings

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

Findings
1. (C) FLUID,OIL - STARVATION
2. ENGINE ASSEMBLY,CONNECTING ROD - SEPARATION

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

Occurrence #3: NOSE OVER
Phase of Operation: LANDING - ROLL

Findings
3. TERRAIN CONDITION - OPEN FIELD
4. (F) TERRAIN CONDITION - SOFT

Factual Information

On January 16, 1999, at 0950 hours Pacific standard time, an amateur built experimental Hanson Tailwind W-8, N8188, experienced a loss of engine power and impacted terrain near Brown Field, San Diego, California. The aircraft, operated under 14 CFR Part 91, was destroyed. The private pilot/owner/builder and one passenger were not injured. Visual meteorological conditions existed for the local area personal flight and no flight plan was filed.

The pilot reported that no abnormalities were experienced with the takeoff and climbout from Brown Field. He stated that they flew through the San Diego Bay visual flight rules (VFR) corridor at 4,500 feet mean sea level (msl) on a 330-degree heading. The pilot reported that they then flew over the east end of Lindbergh field and made a turn to a heading of 085 degrees and descended to 3,500 feet msl. He stated that at this point he noted the oil temperature was above redline. As the descent continued to 3,000 feet msl, the oil temperature decreased slightly. However, the pilot noted that the cylinder head temperature, exhaust temperature, and the pressure "were in the green."

At 0945, the engine "clattered to a stop," and the pilot setup for an emergency landing. The propeller was wind milling until he started the landing flare. After landing, the aircraft traveled approximately 20 feet before the main landing gear dug into the soft ground. The aircraft came up on its nose and then vaulted vertically onto its tail, continuing over in a 360-degree turn before coming to rest upright on its landing gear. The pilot stated that both he and his passenger were able to exit the aircraft unaided.

The Federal Aviation Administration inspector who examined the engine reported that the number 3 bearing was melted, the number 3 connecting rod had separated, and the engine case was punctured. He further reported that the engine logbook was in compliance with the required condition inspection. The engine had accrued approximately 605 total hours, with the last condition inspection on February 2, 1998.

A Lycoming representative stated that this model engine was last manufactured in the 1940's as a ground power unit only and was not intended for aircraft use.

Pilot Information

Certificate:	Private	**Age:**	71,Male
Airplane Rating(s):	Single-engine land	**Seat Occupied:**	Left
Other Aircraft Rating(s):	None	**Restraint Used:**	
Instrument Rating(s):	None	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	No
Medical Certification:	Class 3 Valid Medical--w/ waivers/lim	**Last FAA Medical Exam:**	April 1, 1997
Occupational Pilot:	UNK	**Last Flight Review or Equivalent:**	
Flight Time:	1597 hours (Total, all aircraft), 1379 hours (Total, this make and model), 1550 hours (Pilot In Command, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Hanson	**Registration:**	N8188
Model/Series:	HANSON TAILWIND W-8 HANSON TAI	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	Yes
Airworthiness Certificate:	Experimental (Special)	**Serial Number:**	PCH-1
Landing Gear Type:	Tailwheel	**Seats:**	2
Date/Type of Last Inspection:	March 3, 1998 Annual	**Certified Max Gross Wt.:**	1382 lbs
Time Since Last Inspection:		**Engines:**	1 Reciprocating
Airframe Total Time:	605 Hrs	**Engine Manufacturer:**	Lycoming
ELT:	Installed, activated, aided in locating accident	**Engine Model/Series:**	O-290-GPU
Registered Owner:	PAUL C. HANSON	**Rated Power:**	125 Horsepower
Operator:		**Operating Certificate(s) Held:**	None
Operator Does Business As:		**Operator Designator Code:**	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	SDM ,524 ft msl	**Distance from Accident Site:**	5 Nautical Miles
Observation Time:	09:56 Local	**Direction from Accident Site:**	180°
Lowest Cloud Condition:	Clear	**Visibility**	8 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	4 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	0°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	30 inches Hg	**Temperature/Dew Point:**	16°C / 5°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	(SDM)	**Type of Flight Plan Filed:**	None
Destination:		**Type of Clearance:**	None
Departure Time:	09:30 Local	**Type of Airspace:**	Class E

Airport Information

Airport:		**Runway Surface Type:**	
Airport Elevation:		**Runway Surface Condition:**	
Runway Used:	0	**IFR Approach:**	None
Runway Length/Width:		**VFR Approach/Landing:**	Forced landing

Wreckage and Impact Information

Crew Injuries:	1 None	**Aircraft Damage:**	Destroyed
Passenger Injuries:	1 None	**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	2 None	**Latitude, Longitude:**	

Administrative Information

Investigator In Charge (IIC):	Cornejo, Tealeye
Additional Participating Persons:	JERRY PENSICK; SAN DIEGO , CA
Original Publish Date:	June 21, 2000
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=45666