



Aviation Investigation Final Report

Location:	CHINO, California	Accident Number:	LAX94LA178
Date & Time:	April 4, 1994, 17:49 Local	Registration:	N1451D
Aircraft:	NORTH AMERICAN P-51D	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	2 Minor
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot departed with the intention of circling the airport several times to check the aircraft prior to departing on a cross-country to Prescott, Arizona. The airplane was undergoing a major rebuilding and restoration after a previous accident and had not flown for several years. Postcrash examination revealed that two oil cooler lines had been inadvertently crossed. One of the oil cooler lines failed as a result of the incorrect line installation and the engine oil was pumped overboard. The engine subsequently sustained a catastrophic internal failure. The last logbook entry and documented annual inspection for the airplane was dated 1987. The pilot's last flight physical was dated 1981. Ground witnesses stated that the pilot did not go through the normal preflight ground power checks prior to flight.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: the pilot's decision to fly an unairworthy and uncertificated airplane, his failure to perform an adequate preflight, and the improper installation of the oil cooler lines.

Findings

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

Findings

1. (C) AIRCRAFT PREFLIGHT - INADEQUATE - PILOT IN COMMAND

2. (C) LUBRICATING SYSTEM,OIL HOSE - DISCONNECTED
3. (C) MAINTENANCE,INSTALLATION - IMPROPER - OTHER MAINTENANCE PERSONNEL
4. (C) FLUID,OIL - EXHAUSTION

Occurrence #2: FORCED LANDING

Phase of Operation: DESCENT - EMERGENCY

Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: LANDING - FLARE/TOUCHDOWN

Factual Information

On April 4, 1994, at 1749 hours Pacific daylight time, a North American P-51D, N1451D, was substantially damaged during a forced landing at Chino, California. The forced landing was precipitated by a loss of engine power. Visual meteorological conditions prevailed for the personal cross-country flight and no flight plan was filed. The pilot and passenger received minor injuries. The flight originated at Chino at 1745 hours as a local test flight with a planned continuation to Prescott, Arizona.

This was the first flight since completion of a major rebuild and restoration. The pilot planned to circle the airport area several times to check the operation of the aircraft prior to departing for Prescott. Ground witnesses stated that they do not recall seeing the airplane go through normal ground power checks prior to flight.

While maneuvering in the airport area, the pilot reported that he experienced an oil mist in the cockpit. The pilot declared an emergency and the Chino Air Traffic Control Tower cleared the aircraft to land on runway 21. The aircraft collided with terrain in a cow pasture about 1/4 mile north of the airport.

During the postcrash examination of the engine and the oil system, it was observed that the inlet and outlet oil lines to the oil cooler had been inadvertently crossed. An aluminum beaded oil line with a rubber hose and clamp was found disconnected from the cooler on the inlet side. According to a mechanic familiar with the aircraft and engine types, the crossing of these oil lines will cause a pressure build up and can force the hose to uncouple.

Examination of the airplane fuselage revealed a trail of engine oil from the oil cooler aft along the belly to the tail.

PERSONNEL INFORMATION

Review of the Federal Aviation Administration (FAA) airman record and medical files revealed that the pilot's last flight physical of record was dated March 23, 1981. At the time of that examination, he reported a total flight time of 8,000 hours with 200 in the last 6 months.

AIRCRAFT INFORMATION

According to the airframe logbook, the last documented aircraft maintenance was performed on April 12, 1987, at a total airframe time of 1,751.3 hours. According to an engine logbook, the engine installed at the time of the accident had been overhauled on May 3, 1983, and had accrued 456.3 hours of operation. The last documented annual inspection was dated April 12, 1987.

The airplane was being rebuilt at Chino after a previous accident. The work had been in progress for several years. No inspection, repair, or overhaul data was recovered regarding the restoration or rebuilding of the airplane.

Pilot Information

Certificate:	Commercial; Flight engineer	Age:	50, Male
Airplane Rating(s):	Single-engine land; Single-engine sea; Multi-engine land	Seat Occupied:	Front
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	None None	Last FAA Medical Exam:	March 23, 1981
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	8000 hours (Total, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	NORTH AMERICAN	Registration:	N1451D
Model/Series:	P-51D P-51D	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Limited (Special)	Serial Number:	44-74446-A
Landing Gear Type:	Retractable - Tailwheel	Seats:	2
Date/Type of Last Inspection:	April 12, 1987 Annual	Certified Max Gross Wt.:	10500 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:		Engine Manufacturer:	ROLLS-ROYCE
ELT:		Engine Model/Series:	V-1650-7
Registered Owner:		Rated Power:	1490 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:	CNO ,650 ft msl	Distance from Accident Site:	210 Nautical Miles
Observation Time:	17:49 Local	Direction from Accident Site:	1°
Lowest Cloud Condition:	Clear	Visibility	5 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	19 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	240°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29 inches Hg	Temperature/Dew Point:	
Precipitation and Obscuration:	N/A - None - Haze		
Departure Point:		Type of Flight Plan Filed:	None
Destination:	PRESCOTT , AZ (PRC)	Type of Clearance:	VFR
Departure Time:	17:45 Local	Type of Airspace:	Class D;Class E

Airport Information

Airport:	CHINO MUNI CNO	Runway Surface Type:	Asphalt
Airport Elevation:	650 ft msl	Runway Surface Condition:	Dry
Runway Used:	21	IFR Approach:	None
Runway Length/Width:	6032 ft / 150 ft	VFR Approach/Landing:	Forced landing

Wreckage and Impact Information

Crew Injuries:	1 Minor	Aircraft Damage:	Destroyed
Passenger Injuries:	1 Minor	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 Minor	Latitude, Longitude:	34.000785,-117.679771(est)

Administrative Information

Investigator In Charge (IIC): Petterson, George

Additional Participating Persons: CARL CHRISTOPHER; RIVERSIDE , CA

Original Publish Date: December 7, 1994

Note:

Investigation Docket: <https://data.nts.gov/Docket?ProjectID=28709>

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The Independent Safety Board Act, as codified at 49 U.S.C. Section 1154(b), precludes the admission into evidence or use of any part of an NTSB report related to an incident or accident in a civil action for damages resulting from a matter mentioned in the report. A factual report that may be admissible under 49 U.S.C. § 1154(b) is available [here](#).