



National Transportation Safety Board Aviation Accident Data Summary

Location:	Sparta, TN	Accident Number:	ATL05TA055
Date & Time:	03/03/2005, 1615 CST	Registration:	N14449
Aircraft:	Cessna T-41B	Injuries:	1 Serious
Flight Conducted Under:	Part 91: General Aviation - Public Aircraft		

Analysis

The pilot stated the flight was cruising at 3,500 feet mean sea level when the engine began to run rough. Moments later, engine oil sprayed on the windscreen and the cockpit filled with smoke. Several hundred yards short of runway 4, the engine lost power completely, and the propeller stopped. The pilot maneuvered the airplane to avoid trees and landed in a field. The pilot stated when the nose wheel touched down, it sank into the soft ground, and the airplane nosed over. Examination of the airplane revealed the empennage was nearly separated aft of the baggage compartment, the fuselage was buckled aft of the firewall, and damage was observed on the engine crankcase. The post-accident examination of the engine revealed the timing reference plug was missing from the crankcase. The timing reference plug threads in the crankcase were not stripped. The crankshaft did not reveal any signs of movement or rotation, and the pistons, rings, and pins in all six cylinders revealed discoloration and mechanical damage.

Probable Cause

The National Transportation Safety Board determines the probable cause(s) of this accident to be: Improper installation of the timing reference plug by other maintenance personnel, which resulted in oil starvation, and the loss of engine power.

Findings

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

Findings

1. (C) FLUID,OIL - STARVATION
2. (C) MAINTENANCE,INSTALLATION - IMPROPER - OTHER MAINTENANCE PERSONNEL
3. (C) MISCELLANEOUS,BOLT/NUT/FASTENER/CLAMP/SPRING - MISSING

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

Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: EMERGENCY LANDING

Findings

4. (F) TERRAIN CONDITION - GRASS

Pilot Information

Certificate:	Private	Age:	51
Airplane Rating(s):	Single-engine Land	Instrument Rating(s):	None
Other Aircraft Rating(s):	None	Instructor Rating(s):	None
Flight Time:	407 hours (Total, all aircraft), 298 hours (Total, this make and model), 1 hours (Last 90 days, all aircraft), 1 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Manufacturer:	Cessna	Registration:	N14449
Model/Series:	T-41B	Engines:	1 Reciprocating
Operator:	State of Tennessee, Division of Forestry	Engine Manufacturer:	Continental
Air Carrier Operating Certificate:	None	Engine Model/Series:	IO 360-D
Flight Conducted Under:	Part 91: General Aviation - Public Aircraft		

Meteorological Information and Flight Plan

Observation Facility, Elevation:	KBNA, 599 ft msl	Weather Information Source:	Weather Observation Facility
Conditions at Accident Site:	Visual Conditions	Lowest Ceiling:	None
Condition of Light:	Day	Wind Speed/Gusts, Direction:	6 knots, 110°
Temperature:	12° C / -6° C	Visibility:	10 Miles
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Nashville, TN (KBNA)	Destination:	Sparta, TN (KSRB)

Wreckage and Impact Information

Crew Injuries:	1 Serious	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None

Administrative Information

Investigator In Charge (IIC):	Catherine E Gagne	Adopted Date:	02/28/2006
Investigation Docket:	NTSB accident and incident docket 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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