



Aviation Investigation Final Report

Location: EASTOVER, South Carolina Accident Number: MIA96LA052

Date & Time: December 30, 1995, 10:25 Local Registration: N3750H

Aircraft: Mooney M20 Aircraft Damage: Substantial

Defining Event: 1 Minor

Flight Conducted Under: Part 91: General aviation - Personal

Analysis

The pilot noted a loss of oil pressure during flight followed by a loss of power. He executed a forced landing, and on final approach the airplane struck a guy wire. The engine oil pump was examined, and the oil pump driven gear had failed due to lack of lubrication. The #3 connecting rod and the camshaft then failed. The engine had been overhauled in the field previously, and a service instruction to increase lubrication of the oil pump driven gear had not been accomplished.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: inadequate overhaul procedures by maintenance personnel resulting in an oil pump failure and subsequent loss of engine power.

Findings

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

Phase of Operation: CRUISE - NORMAL

Findings

1. (C) LUBRICATING SYSTEM, OIL PRESSURE PUMP - SEIZED

2. (C) MAINTENANCE, OVERHAUL - INADEQUATE - OTHER MAINTENANCE PERSONNEL

Occurrence #2: FORCED LANDING

Phase of Operation: EMERGENCY DESCENT/LANDING

Occurrence #3: IN FLIGHT COLLISION WITH OBJECT Phase of Operation: EMERGENCY DESCENT/LANDING

Findings 3. OBJECT - GUY WIRE

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Factual Information

On December 30, 1995, about 1025 eastern standard time, N3750H, a Mooney MO20, crashed in Eastover, South Carolina, while on a 14 CFR Part 91 personal flight. Visual meteorological conditions prevailed at the time and no flight plan was filed for the flight. The airplane was substantially damaged and the private pilot received minor injuries. The flight had originated about 10 minutes earlier.

The pilot stated he noted a loss of oil pressure followed by a loss of power and he attempted a forced landing to a highway. On final approach the airplane struck a guy wire and came to rest in a ditch.

The engine was initially examined by an FAA inspector who removed the engine oil pump and shipped it to the manufacturer's facility for further examination. The oil pump was further examined and it was determined that the oil pump driven gear seized in the accessory housing. It was also noted that when the engine was overhauled in the field, about 1,167 hours earlier, Lycoming Service Instruction 1341 dated July 30, 1976, was not complied with. This service instruction directs that a hole be drilled in the housing to the driven gear, to allow better lubrication.

Pilot Information

Certificate:	Private	Age:	65,Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 3 Valid Medical–w/ waivers/lim	Last FAA Medical Exam:	May 31, 1994
Occupational Pilot:	UNK	Last Flight Review or Equivalent:	
Flight Time:	1831 hours (Total, all aircraft), 355 hours (Total, this make and model)		

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Aircraft and Owner/Operator Information

Aircraft Make:	Mooney	Registration:	N3750H
Model/Series:	M20 M20	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	240922
Landing Gear Type:	Retractable - Tricycle	Seats:	4
Date/Type of Last Inspection:	October 18, 1995 Annual	Certified Max Gross Wt.:	2740 lbs
Time Since Last Inspection:	15 Hrs	Engines:	1 Reciprocating
Airframe Total Time:		Engine Manufacturer:	Lycoming
ELT:	Installed, not activated	Engine Model/Series:	IO-360-A3BD6
Registered Owner:	THOMAS LAGATORE	Rated Power:	200 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:	CAE,135 ft msl	Distance from Accident Site:	15 Nautical Miles
Observation Time:	10:56 Local	Direction from Accident Site:	145°
Lowest Cloud Condition:	Scattered / 6500 ft AGL	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	5 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	100°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	6°C / -2°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	COLUMBIA , SC (CUB)	Type of Flight Plan Filed:	None
Destination:	MYRTLE BEACH , SC (CRE)	Type of Clearance:	None
Departure Time:	10:15 Local	Type of Airspace:	Class C

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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 Minor	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Minor	Latitude, Longitude:	33.869407,-80.690956(est)

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Administrative Information

Investigator In Charge (IIC):	Alston, Andrew	
Additional Participating Persons:	THOMAS DAMOUR; COLUMBIA , SC	
Original Publish Date:	November 25, 1996	
Last Revision Date:		
Investigation Class:	<u>Class</u>	
Note:		
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=37965	

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The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, "accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person" (Title 49 Code of Federal Regulations section 831.4). Assignment of fault or legal liability is not relevant to the NTSB's statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 United States Code section 1154(b)). A factual report that may be admissible under 49 United States Code section 1154(b) is available here.

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