



Continental Motors

ENGINE FIELD RUN REPORT

ENGINE MODEL	TSIO-360-LB1B
ENGINE SERIAL NUMBER	316039H
AIRCRAFT MAKE & MODEL	Mooney M20K
AIRCRAFT SERIAL NUMBER	25-0662
AIRCRAFT REGISTRATION	N1159G
FILE NUMBER	16-352

NAME	SIGNATURE	DATE
John T. Kent		01/20/2017

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GENERAL INFORMATION

EXAMINATION		ACCIDENT DATA	
DATE	01/12/2017	NTSB ACCIDENT #	CEN17LA068
FACILITY	Air Salvage of Dallas	NTSB INVESTIGATOR	Jason Aguilera
ADDRESS	1361 Ferris Road, Lancaster, Texas 75146	FAA INVESTIGATOR	Robert McGee
		ACCIDENT DATE	01/04/2017
		ACCIDENT LOCATION	Nacogdoches, Texas

ENGINE INFORMATION

ENGINE POSITION	Front
TOTAL TIME	Unknown
TIME SOH	Unknown
TYPE & TIME SLI	1.1 Hours
BUILD DATE	09/13/1991
IN SERVICE DATE	Unknown

Significant logbook information: The log books have not been observed by this investigator, but it is understood that the airframe fuel selector was removed during the annual inspection, and the "O" rings were replaced. The fuel selector was then reinstalled in the aircraft.

Report Summary:

Search Code(s):

The engine ran to full power when fuel was supplied from the right side fuel system. When the fuel selector was moved to the left side fuel system, which had not been purged of air, the engine stopped running after about five seconds.

Disposition of engine following exam:

The aircraft was released to the insurance company.

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NAME	John T. Kent	NAME	
ADDRESS	2039 South Broad Street, Mobile, Alabama 36615	ADDRESS	
ORGANIZATION	Continental Motors	ORGANIZATION	
PHONE	██████████	PHONE	
NAME	Graig Hatch	NAME	
ADDRESS	Dallas, Texas	ADDRESS	
ORGANIZATION	NTSB	ORGANIZATION	
PHONE	██████████	PHONE	
NAME	Alfred "Lucky" Louque	NAME	
ADDRESS	Lancaster, Texas	ADDRESS	
ORGANIZATION	Air Salvage of Dallas	ORGANIZATION	
PHONE	██████████	PHONE	

EXTERNAL INSPECTION OF ENGINE

The engine was intact with minor impact damage. The throttle, mixture, and propeller governor controls were hooked up and free to move. The oil cooler had impact damage and was pushed to the rear. The number four exhaust rocker cover was dented, and the number four bottom spark plug lead was damaged. A reference line to the Merlyn Controller was separated.

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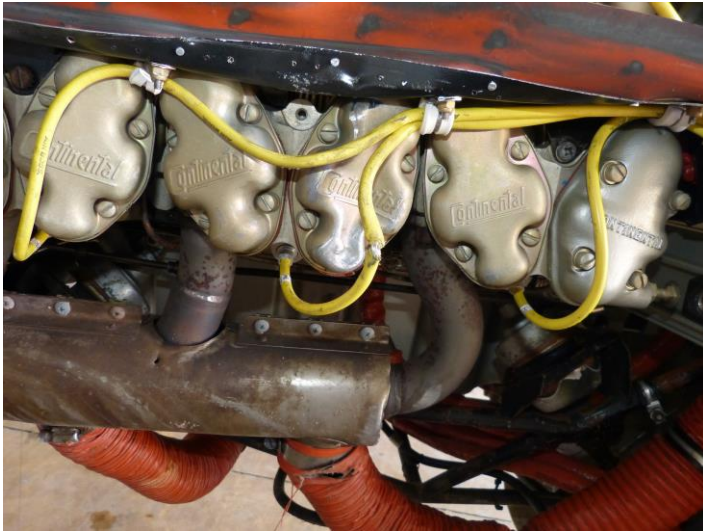
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ENGINE PREPARATION PRIOR TO RUN

The number four exhaust rocker cover was replaced and the number four bottom ignition lead was replaced. The oil cooler was not leaking, so it was not replaced. A club propeller was used for the run. Fuel containers were attached to both the left and right aircraft fuel systems at the wing root, and vapor return lines were attached to the fuel containers. A reference line to the controller was repaired.

DESCRIPTION OF RUN

The engine was test run by attaching fuel containers to the left and right airframe fuel systems. The right fuel system was purged of air in the lines, and the left side fuel system was not purged of air. The engine was started and run to full power on the right side fuel system.

The engine was started on the right wing fuel system, and the magnetos were checked at 1700 RPM, and both magnetos had a 100 RPM drop. On all three runs the maximum RPM was 2600 and the manifold pressure was 37 inches, oil pressure was 80 PSI. When the fuel selector was switched to the left side fuel system on the first run, the engine began to lose power, but the operator activated the electric fuel pump to high and the engine continued to run.

On the second and third runs the left system was drained of fuel, but the full fuel container remained attached to the left wing system, and when the fuel selector was switched to the left side fuel system the engine quit running. The Air Salvage of Dallas Test Run Sheet is attached to this report.



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The engine ran to full power when it was supplied with fuel.