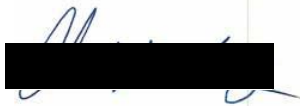




Continental Motors

ENGINE EXAMINATION REPORT

ENGINE MODEL	TSIO-550-E5B
ENGINE SERIAL NUMBER	803075
AIRCRAFT MAKE & MODEL	Lancair IVP
AIRCRAFT SERIAL NUMBER	LIV-482
AIRCRAFT REGISTRATION	N4YB
FILE NUMBER	16-244

NAME	SIGNATURE	DATE
Christopher Lang		February 22, 2017

ENGINE EXAMINATION REPORT

FILE NUMBER:

16-244

ENGINE S/N:

803075

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GENERAL INFORMATION

EXAMINATION		Accident Data	
DATE	February 21/22, 2017	NTSB ACCIDENT #	WPR17LA012
FACILITY	Continental Motors Inc.	NTSB INVESTIGATOR	Chris Shaver
ADDRESS	2039 S Broad St Mobile, AL 36615	FAA INVESTIGATOR	Jim Richardson
		ACCIDENT DATE	10/20/2016
		ACCIDENT LOCATION	Lovelock, Nevada

ENGINE INFORMATION

ENGINE POSITION	Single
TOTAL TIME	858 at last logbook entry dated 9/20/2016
TIME SOH	Unknown
TYPE & TIME SLI	Unknown
BUILD DATE	02/25/1999
SHIP DATE	02/28/1999

Significant logbook information: The engine was installed on the aircraft on 02/01/2003 at a recorded time in service of 0.0 hours. The engine logbooks from 10/18/2003 to 07/17/2015 have not been provided at the time this report was written. No significant maintenance was noted in the log books provided.

Report Summary:

Search Code(s):

59-01-03

The number three intake valve head was broken from the valve stem and not located with the engine. The number three piston was broken up and the number three connecting rod separated. All of the connecting rods exhibited signs of thermal distress.

Disposition of engine following exam: The engine was placed into CMI storage for owner to decide whether to use as a core engine on the purchase of a replacement.

ENGINE EXAMINATION REPORT**FILE NUMBER:**

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PAGE 3 of 6**INSPECTION WITNESSES**

NAME	Phillip Grice	NAME	Greg Eastburn
ADDRESS	Mobile, Alabama	ADDRESS	Mobile, Alabama
ORGANIZATION	Continental Motors	ORGANIZATION	Continental Motors
PHONE		PHONE	
NAME	Lisa Jersild	NAME	Chris Shaver
ADDRESS	Mobile, Alabama	ADDRESS	Denver, Colorado
ORGANIZATION	Continental Motors	ORGANIZATION	NTSB
PHONE		PHONE	
NAME	Christopher Lang	NAME	
ADDRESS	Mobile, Alabama	ADDRESS	
ORGANIZATION	Continental Motors	ORGANIZATION	
PHONE		PHONE	

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EXTERNAL INSPECTION OF ENGINE

The exhaust system had been removed from the engine to facilitate shipment of the engine, but the components were returned within the engine crate. The engine exhibited holes in the top of the crankcase above the number three and four connecting rod journals. A section of the camshaft was noted sticking out of the right side of the oil sump.



INTERNAL INSPECTION OF ENGINE

The engine was disassembled and a large amount of metal was located in the oil sump and throughout the engine. The number three and four pistons were fractured into several pieces that were located within the engine. The number three connecting rod had separated from the crankshaft. The connecting rods and crankshaft journals exhibited signs of thermal distress. The camshaft was fractured into four pieces. The top and bottom spark plugs from cylinder three exhibited debris damage and the electrodes were missing. The combustion chamber of cylinder number three exhibited impact marks from debris. The intake valve in cylinder three was broken at the bottom of the valve guide. The broken intake valve head was not located within the engine and the fracture surface of the valve stem was severely damage from debris. The number three intake valve guide was noted as being a Superior Airparts guide, PN: SA631496. A CMI metallurgist visually examined

ENGINE EXAMINATION REPORT

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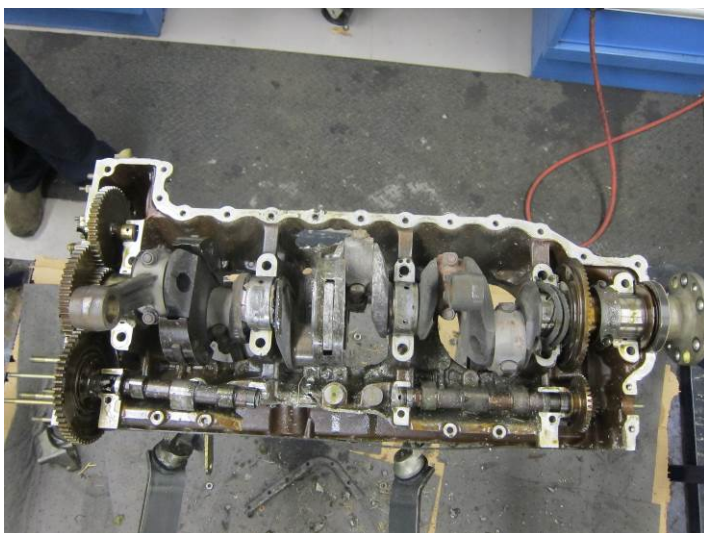
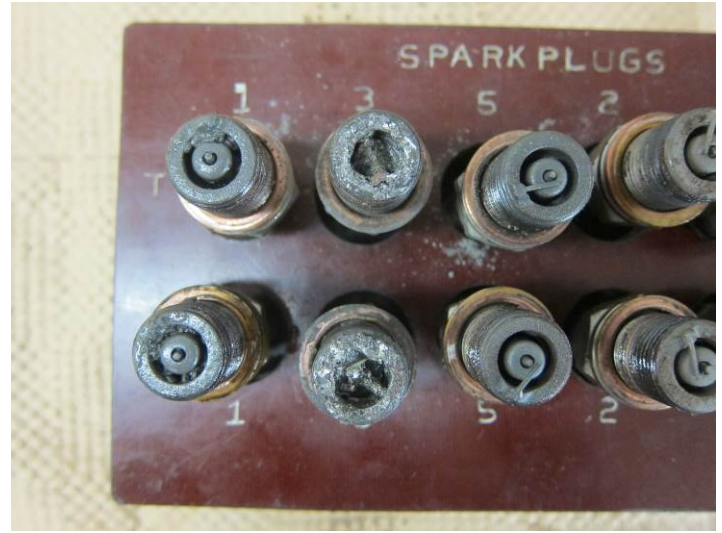
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the parts and determined that further examination would prove to be inconclusive due to the mechanical damage the parts sustained.



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