



Continental Motors

ENGINE EXAMINATION REPORT

ENGINE MODEL	IO550C
ENGINE SERIAL NUMBER	284354
AIRCRAFT MAKE & MODEL	Beech Craft 58 Baron
AIRCRAFT SERIAL NUMBER	TH-1939
AIRCRAFT REGISTRATION	N31EW
FILE NUMBER	14-241

NAME	SIGNATURE	DATE
Phillip Grice		03-31-2015

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EXAMINATION		ACCIDENT DATA	
DATE	03/31/2015	NTSB ACCIDENT #	CEN15FA009
FACILITY	Continental Motors Inc.	NTSB INVESTIGATOR	John Brannen
ADDRESS	2039 S Broad St Mobile, AL 36615	FAA INVESTIGATOR	Mike Machnik
		ACCIDENT DATE	10/12/2014
		ACCIDENT LOCATION	Palos Hills, IL.

ENGINE INFORMATION

ENGINE POSITION	Left
TOTAL TIME	1869.1 from last air frame log entry Dated 10/08/2014
TIME SOH	90.9 from last air frame log entry Dated 10/08/2014
TYPE & TIME SLI	Oil Change @1826.5 42.6 hours
BUILD DATE	11/17/1999
IN SERVICE DATE	06/17/2000

Significant logbook information:

Engine was overhauled and tested by Custom Airmotive October 1, 2013 @ 1776.1 Total time. Installed in aircraft May 12, 2014. Two oil changes were completed one at 18.4 Hours SMOH and one @ 48.3 hours SMOH. Hobbs time during a tire change on the airframe was 1869.1 dated 10/08/2014.

Report Summary:

Search Code(s):

15-12-68

The engine exhibited impact damage concentrated on the front lower half of the crankcase. The crankcase was fractured in the nose section and portions of the sump attachment rail were fractured away. The oil pick up tube was crushed upward from the impact damage to the oil sump. The crankshaft flange was impact damaged and remained attached to the crankshaft. The forward cylinders, numbers five and six were impact damaged and portions fractured away the number five cylinder head was fractured away from the barrel. The remaining cylinders exhibited varying degrees of impact damage and exhibited normal operating signatures. The pistons, piston pins and valves exhibited normal operating signatures. The connecting rods, rod bearings, and main bearing exhibited normal operating signatures. The camshaft, lifters and accessory gears exhibited normal operating signatures. Both magnetos exhibited impact damage and were fractured away from their mount surface to the engine. The alternator case was fractured away from the alternator. The fuel pump, manifold valve and throttle body were impact damaged and exhibited normal operating signatures. The propeller governor, vacuum pump exhibited normal operating signatures. The oil pump was intact and exhibited normal operating signatures. There were no pre-impact anomalies observed that would prevent the engine from producing rated power.

Disposition of engine following exam:

Engine was returned to Poplar Grove Airmotive .shipper request AD00786 on 04-01-2015

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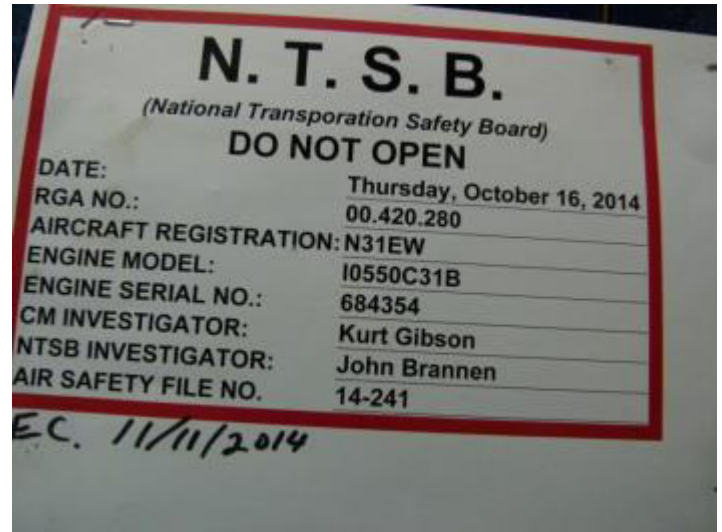
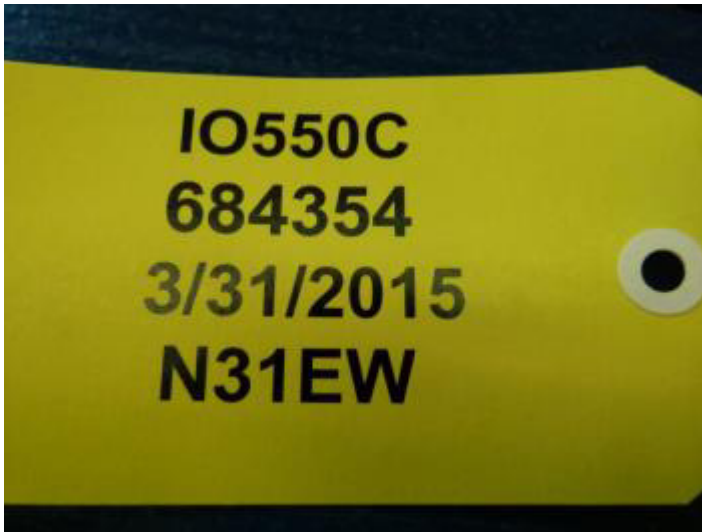
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EXTERNAL INSPECTION OF ENGINE



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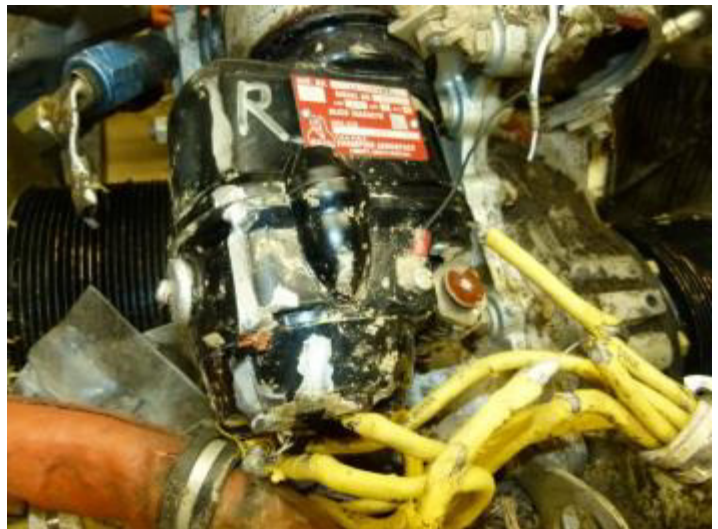
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INTERNAL INSPECTION OF ENGINE



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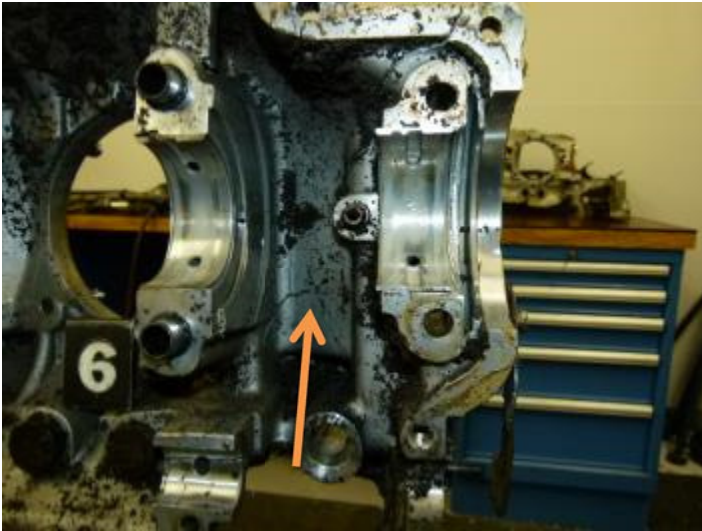
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