



Continental Motors

ENGINE FIELD INSPECTION REPORT

ENGINE MODEL	O-470-R25A, FAT Supercharger
ENGINE SERIAL NUMBER	459326
AIRCRAFT MAKE & MODEL	Cessna-182J
AIRCRAFT SERIAL NUMBER	18256744
AIRCRAFT REGISTRATION	N2644F
FILE NUMBER	16-036

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NAME	SIGNATURE	DATE
John T. Kent		11/08/2016

GENERAL INFORMATION

EXAMINATION		ACCIDENT DATA	
DATE	07/28/2016 11/03/2016	NTSB ACCIDENT #	
FACILITY	Air Salvage of Dallas	NTSB INVESTIGATOR	
ADDRESS	1361 Ferris Road, Lancaster, Texas 75146	FAA INVESTIGATOR	
		ACCIDENT DATE	
		ACCIDENT LOCATION	

ENGINE INFORMATION

ENGINE POSITION	Front
TOTAL TIME	3,601.6
TIME SOH	1,896.3
TYPE & TIME SLI	15.48
BUILD DATE	04/05/1974
IN SERVICE DATE	Unknown

Significant logbook information: The last annual inspection was performed on 06/20/2016 at a tachometer time of 2245.3. On 06/16/2016 the belt for the supercharger was adjusted.

Report Summary:

Search Code(s):

The engine was run to full power several times during the investigation and the STC Supercharger operated according to the specifications in the operating manual.

Disposition of engine following exam: The engine was released to the insurance company.

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NAME	John T. Kent	NAME	Darren Pittacora
ADDRESS	██████████ Mobile, Alabama 36615	ADDRESS	Dallas, Texas
ORGANIZATION	Continental Motors	ORGANIZATION	FAA/FSDO
PHONE	██████████	PHONE	██████████
NAME	Joshua Lindberg	NAME	Rod Sage
ADDRESS	Dallas, Texas	ADDRESS	Englewood, Colorado
ORGANIZATION	NTSB	ORGANIZATION	Forced Aeromotive
PHONE	██████████	PHONE	██████████
NAME	Paul Yoos	NAME	Alfred "Lucky" Louque
ADDRESS	Wichita, Kansas	ADDRESS	Lancaster, Texas
ORGANIZATION	Textron Aviation	ORGANIZATION	Air Salvage of Dallas
PHONE	██████████	PHONE	██████████

EXTERNAL INSPECTION OF ENGINE

07/28/2016

The engine was intact with no external damage. It was equipped with a Forced Aeromotive Technologies belt driven supercharger, that included two fuel boost pumps. The engine had chromed cylinders.

The top spark plugs and rocker covers were removed and the crankshaft was rotated. Continuity was confirmed to all of the cylinders and to the rear of the engine. The cylinders were examined using a lighted boroscope. All of the cylinder domes and pistons had normal combustion deposits. All of the valves were in place and free to move. A differential compression check was performed with the following results: 1. 60/80 2. 62/80 3. 50/80 4. 78/80 5. 65/80 6. 70/80

The mufflers were examined and the cones were burned out, but the heat muffs were not compromised. The air intake filter was clean and clear. The magneto timing was checked and both magnetos were found to be timed at 22 degrees before top dead center.

Spark Plugs: Champion RHM-40E

The top spark plugs were removed and examined. They had normal wear and dark deposits in the electrode areas.

Oil Filter: Tempest AA48110-2

The oil filter was in place and not damaged. The filter was opened and no metal deposits were found in the filter element.

Propeller: McCauley 2A34C66-NO, SN-767688

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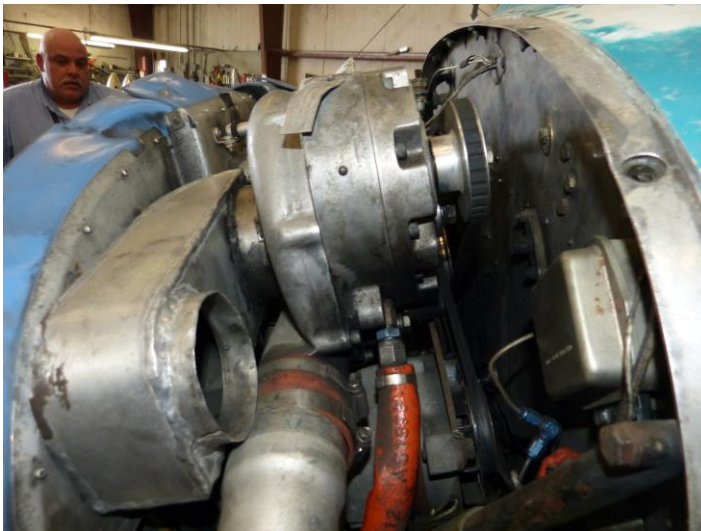
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The propeller remained attached to the crankshaft. Both propeller blades were curled near the tip. At that point in the examination the NTSB Investigator in Charge made the decision to conduct an engine run, and the examination was terminated.



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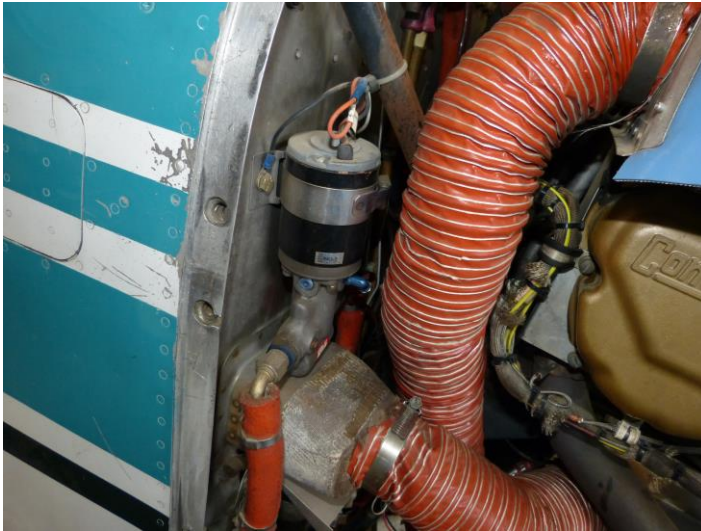
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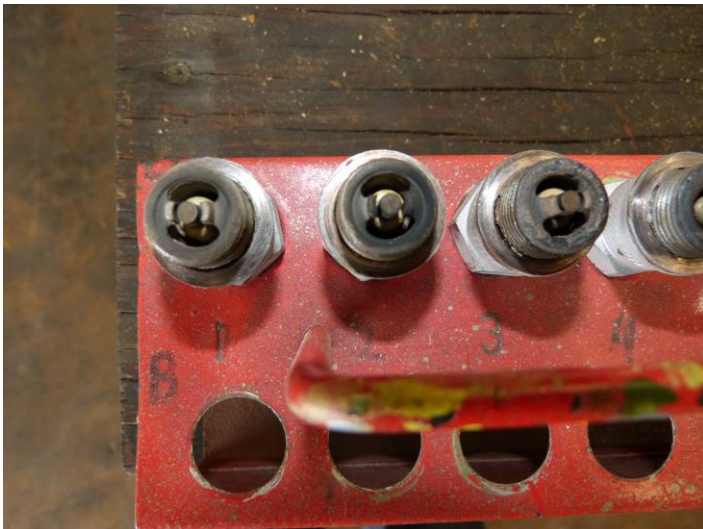
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11/03/2016

The examination was re-convened on November 3, 2016 for an engine test run.

The gascolator screen was removed and found to be clean and clear.

The fuel inlet screen was removed from the carburetor and found to be partly blocked with some type of organic material, possibly leaves.

It was noted that the supercharger drive belt was improperly installed on top of the idler gear.

The engine was started and run several times and in every case it ran to full power and performed according to the STC operating specifications.

After the runs were completed the carburetor was removed and examined.

Marvel Schebler MA-4-5, PN-10-48931, SN-BD-16-4932

The carburetor was in place and not damaged. The throttle and mixture controls were hooked up and were free to move. The unit was disassembled and the bowl was clean and clear. The floats and needle valve were attached and were free to move. The needle valve seat was clean and clear.

At this point the flap motor was tested and it operated normally. The flaps were found in the 10 degrees down position.

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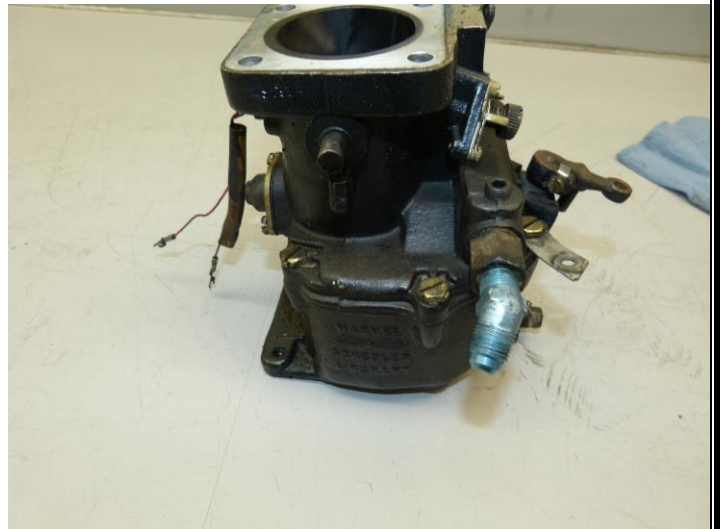
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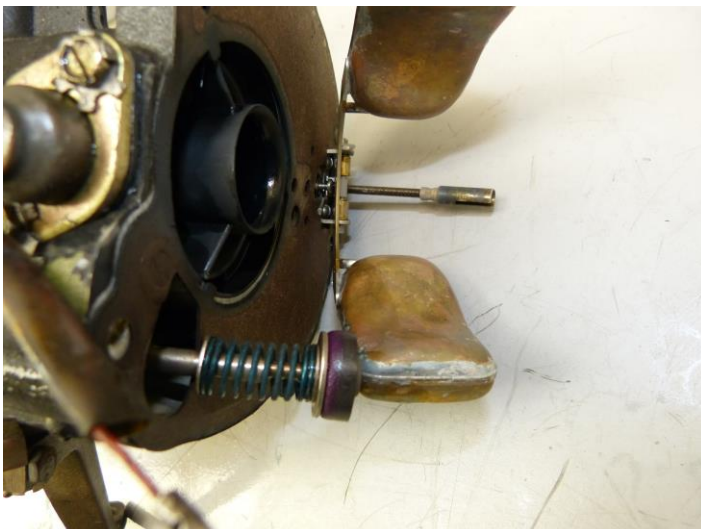
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