



## MEMORANDUM FOR RECORD

**Dennis Diaz**  
**Air Safety Investigator**  
**National Transportation Safety Board**  
**Office of Aviation Safety - Eastern Region**

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**Date: November 20, 2013**  
**Subject: Summary of Email Correspondence with FAA Inspector**  
**NTSB Case Number: ERA13LA428**

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**David Avery, FAA Inspector, oversaw a test run of the accident airplane's engine. He provided the following summary of his findings in an email message dated November 20, 2013. He also provided a handwritten chart, which was prepared by the facility that conducted the test run. It is included with this memorandum. According to the email:**

*Inspector Mark Reed and I observed the engine run for N40KG at Certified Engines Unlimited. Continental IO-550, Serial Number 1003118, was test run as received with the following items installed:*

*Magnetos*  
*Alternator*  
*Standby Alternator*  
*Vacuum Pump*  
*Starter*  
*Engine Driven Fuel Pump*  
*Fuel Servo*  
*Exhaust Manifolds*

*Certified engines installed the standard club propeller for the ground run.*

*Continental Engine IO-550, Serial Number 1003118 started easily and operated as required by continental engine run specs with the exception of maximum RPM 2300 RPM due to the club prop.*  
*Oil Pressure was good.*  
*Fuel pressure was good.*  
*Both mag drops was good.*

*After the run I asked the technician to simulate loss of fuel and shutdown.*  
*After the engine shut down it would not restart without engaging the Test cell boost pump.*

*An official report will be forthcoming from Certified Engines.*

Work Order # <u>41927</u>	Date <u>11-20-13</u>
Engine Model # <u>T0550B(12?)</u>	Customer Name <u>Avery - FAA</u>
Engine Serial # <u>1003118</u>	Page Completed By <u>BSR</u>

Fuel Grade: 100LL Oil Grade: Shell 50w Total Time Run: 25 min

**Test Run Log**

Elapsed Time (minutes)	RPM	Manifold Pressure (inches)	Oil Pressure (lbs)	Unmetered	<i>Flow divider</i>	Oil Temperature (°F)	Cylinder Head Temperature left/right (°F)	REMARKS
				Fuel Pressure (lbs)	Metered Fuel Pressure (lbs)			
5	1000	17.5	32		2.0			
<del>5</del>	1400	19.5	40		4.0			
<del>5</del>	1800	22.0	42		6.0			
<del>5</del>	1500	20.0	38		4.5			
<del>5</del>	2000	21.5	48		13.0			Full throttle - End Run
15	1400	X	X		X			
10	1900	X	X		X			
20	1400	X	X		X			

**!!!! STOP !!!! Check Oil Screen & Oil Leaks**

CHECKED BY: 

5	1000							
15	1500							
10	2500							
20	1300							
10	1800							
5	2700							
20	1300							
5	1000							

Magneto Drop: (left) 70 (right) 70 Oil Pressure Idle-Hot 28 psi @ 750 RPM

INSPECTED BY: 