Continental Motors, Inc.

ENGINE FIELD RUN REPORT

FINAL

ENGINE MODEL: O-300-A

ENGINE SERIAL: 11772-D-6-A

AIRCRAFT MODEL: Cessna 172

SERIAL NUMBER: 28381

REGISTRATION: N5781A

Examiner	Signature	Date
Christopher Lang	[redacted]	June 28, 2012

GENERAL INFORMATION	
DATE OF RUN:	June 26, 2012
FACILITY:	AvTech Services, LLC
ADDRESS:	[redacted] Auburn, Washington 98002
TELEPHONE:	253-639-1212

AIRCRAFT INFORMATION			
ACCIDENT DATE:	June 23, 2012	**LOCATION:**	Veneta, Oregon
MANUFACTURER:	Cessna	**YEAR:**	1956
MODEL:	172	**SERIAL NUMBER:**	28381

ENGINE INFORMATION			
MAKE:	Continental Motors		
MODEL:	O-300-A		
SERIAL NUMBER:	11772-D-6-A		
SHIP DATE:	May 31, 1956		
TIME SINCE TOP OVERHAUL:		**TOH DATE:**	
TIME SINCE MAJOR OVERHAUL:	1,184.62	**MOH DATE:**	April 2, 1978
TOTAL TIME:	6177.18		
REMARKS:	Times calculated from log book entries and tachometer.		

INSPECTION WITNESSES			
NAME:	Joshua Cawthra	**NAME:**	Ricardo Asencio
ORGANIZATION:	NTSB	**ORGANIZATION:**	Cessna Aircraft
ADDRESS:	[redacted] Federal Way, Washington 98003	**ADDRESS:**	[redacted] Wichita, Kansas 67209
PHONE NUMBER:	[redacted]	**PHONE NUMBER:**	[redacted]3
NAME:	Christopher Lang	**NAME:**	Jeff Poschwatta
ORGANIZATION:	Continental Motors, Inc	**ORGANIZATION:**	AvTech Services, LLC
ADDRESS:	[redacted] Mobile, AL 36615	**ADDRESS:**	[redacted] Kent, WA 98042
PHONE NUMBER:	[redacted]	**PHONE NUMBER:**	[redacted]

ENGINE HISTORY

The engine was shipped new to Cessna on May 31, 1956. The first entry in the engine log book is dated 2-5-65 stating “This remanufactured engine installed in N7970B” by T. W. Smith Aircraft at a tachometer time of 2130. The engine was overhauled by Mattituck Airbase in 1973 at a total time of 4345 hours. The engine was again overhauled in 1978 by an A&P mechanic. Cylinders 3 and 5 were replaced with new chrome cylinders by an A&P mechanic in 1989. The engine was put into storage on July 13, 1991 and removed from storage and installed on the accident aircraft on June 1, 1997 at a engine total time of 5745.5 hours. Cylinder 5 was replaced with an overhauled cylinder on 8/10/2009. The last annual inspection was completed on August 1, 2011 at a total time of 6162.56 hours, 1170.0 hours since major overhaul, and 1562.06 tachometer time. The tachometer time at the time of the accident was 1576.88 hours

EXTERNAL INSPECTION

Three of the four engine mount legs were fractured. The upper spark plug leads exhibited damage consistent with impact damage. The carburetor mounting flange was fractured at one corner. One of the carburetor mounting studs was pulled from the induction manifold. The rest of the engine accessories remained attached to the engine and exhibited no visible damage. The top spark plugs were removed and exhibited dark colored combustion deposits. The spark plug electrodes exhibited normal wear when compared with the Champion Check a Plug chart. The cylinder combustion chambers were inspected using a lighted bore scope. The combustion chambers, intake and exhaust valves, cylinder walls and piston faces were unremarkable. The propeller was rotated by hand and continuity to the accessory gears and valve train was established.

ENGINE PREPARATION PRIOR TO RUN

The engine was strapped to a forklift in order to provide stability during the engine run. The carburetor mounting flange was repaired using JB Weld, duct tape and plumbers putty to facilitate the engine run. The carburetor fuel screen and fuel supply line to the carburetor were removed and an external fuel source was connected directly to the carburetor fuel inlet port. The carburetor fuel screen was clear of debris.

DESCRIPTION OF RUN

Battery power was applied to the airplane and it was determined that the starter was inoperative. The starter was replaced and the engine was started using the aircrafts starter button. The engine operated normally at various power settings between idle and approximately 1700 RPM. Due to the three fractured engine mounts, power higher than 1700 RPM was not attempted. A magneto check was performed at 1200 RPM with no anomalies noted. The engine was shut down normally by moving the aircraft mixture control lever to idle/cut-off.

ENGINE RUN CONCLUSION

The engine run did not reveal any anomalies that would have prevented normal operation and production of horsepower.