



## **NATIONAL TRANSPORTATION SAFETY BOARD**

Office of Aviation Safety  
Western Pacific Region

November 29, 2012

# **AIRFRAME AND ENGINE EXAMINATION**

**CEN13LA056**

## **A. ACCIDENT**

Location: La Grange, TX  
Date: Nov 09, 2012  
Aircraft: Cessna 210L N732BL  
NTSB IIC: Thomas Latson

## **B. EXAMINATION PARTICIPANT:**

Albert Nixon  
Aviation Accident Investigator  
National Transportation Safety Board  
505 South 336th Street  
Federal Way, WA 98003

## **C. SUMMARY**

A documentation of the recovered airframe and engine was conducted on November 29, 2012 at the facilities of Air Transport in Phoenix, Arizona, prior to packaging the engine for shipment to the manufacturer.

## **D. DETAILS OF THE INVESTIGATION**

### **1.0 Airframe Observation**

During the recovery process, the wings and tail were disassembled. Dirt and debris was observed in the nose wheel area.

Flight continuity was established from the control column to the rudder and elevators. The elevator trim control tab rod end bolt was out about 1.5 inches. Aileron continuity was established to the fuselage attach point.

The JPI EDM 800, 700/800 instrument (Serial Number 14563) was removed. Two memory chips from the Garmin GNS 530 unit were removed. Both will be shipped to the NTSB for analysis.

### **1.1 Engine Observation and Packaging**

The engine, a Continental Motors, Inc., model IO-520L(3), Serial Number 554710-H, remained attached to the airframe. The propeller assembly remained attached to the crankshaft flange and had blades that were bent in the aft direction. A hole in the crankcase was observed above the #4 cylinder, and was about 1.5 inch in diameter. The #4 connecting rod crankshaft journal had thermal discoloration and mechanical damage. The adjacent crankshaft cheeks had mechanical damage. The #4 connecting rod was partially visible and appeared to be attached to its piston. The yoke-end of the connecting rod was not visible. No engine parts were found in the lower cowling area.

Engine baffling was slightly bent on the upper right side which was consistent with the cowling damage. Engine control cable continuity was established. The throttle and mixture controls exhibited a slight barrier near the full in position due to the aft engine displacement. Engine accessories were attached and appeared intact. Fuel lines were unremarkable. The air induction box had a small hole on the lower inboard side. . A loose band clamp was observed on the left induction elbow to riser tube rubber coupling. The exhaust system was unremarkable with the exception of the left side muffler which exhibited internal cone damage.

The propeller was removed. Lead sediment was observed in the crankshaft propeller flange end.

The engine, broken engine mounts, exhaust system, induction system and oil breather line were observed packaged for shipment.

## **1.2 Engine Exam Photos**

Sent separately.

Submitted by: Albert Nixon