



## MEMORANDUM FOR RECORD

**Ralph Hicks**  
**Senior Air Safety Investigator**  
**Eastern Region Aviation**

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### **Engine Exam**

**Location: Continental Motors, Inc. - Mobile, AL**

**Date & Time: June 9, 2015 @ 0700 CDT**

**NTSB Accident Number: ERA15LA092 (N246JT, Beech V35B)**

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The engine parts were uncased at the CMI examination facility at Mobile, AL.

The engine was disassembled at Atlanta Air Recovery, Griffin, Georgia on January 29, 2015. The number two cylinder, crankshaft, and camshaft remained attached to the case half due to rotational damage that occurred during the engine failure.

The remaining components were removed and the damaged components were examined. The rear, bottom counterweight was broken free from the crankshaft and was in three main sections. The other three counterweights remained attached to the crankshaft. All broken counterweight sections displayed significant impact damage and were deformed. The four retaining clips from the broken counterweight were located loose; one clip was broken in half. Three counterweight retaining plates were located; the fourth was not found.

The number two connecting rod was broken free at the rod cap and the cap was separated. A smooth witness mark (dent) was found on the side of the rod, adjacent to the location of the counterweight pin. The witness mark was at a position that correlated with counterweight pin contact as the pin was sliding out of the counterweight.

Two retaining clips that were still in place on the opposite (upper) counterweight were examined for proper fit. According to the manufacturer, the minimum width between the retaining clip ears must be 0.179 inch or more; a smaller width is indicative of a clip that is not properly seated in its groove. A 0.179 in gap gauge could not be inserted between the clip ears on one of the clips.

The clip that was not fully seated was removed and its groove was cleaned with a wire brush. After re-insertion, the clip seated in place and the 0.179 gap gauge fit easily between the clip ears.