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| **Safety Recommendation Number:** | IRLD2015010 |
| **AAIU Event Reference:** | IRL00914045 |
| **AAIU Report Number:** | 2015-017 |
| **Date of Publication of Safety Recommendation:** | 21/09/2015 |
| **Safety Recommendation Status:** | Implemented, closed |

**Safety Recommendation:**

The United States Federal Aviation Administration should consider issuing a Special Airworthiness Information Bulletin highlighting the importance of using the correct sealant/process on the crankcase parting surfaces of engines manufactured by Teledyne Continental Motors.

**Response:**

November 2015: The FAA advised the AAIU by letter dated 16 November 2015 that they have assigned the recommendation to their "Small Airplane Directorate" and are currently reviewing it with the Engine Manufacturer.

May 2016: The FAA responded further to the AAIU by email dated 03 May 2016 advising as follows:

The FAA has reviewed this incident and notes that engine failures on Continental Motors Incorporated (CMI) engines have increased in recent years. This increase in engine failures is due to the unapproved use of Room-Temperature Vulcanizing (RTV) type sealants. In response, CMI has attempted to alert maintenance personnel of the importance of using correct materials during engine assembly and cylinder replacement. CMI has taken the following actions:

- In 1996, CMI released Service Bulletin (SB) SB96-7, Torque Limits, which specified the correct torque specifications for fasteners on CMI engines. This SB was revised numerous times to include language that warned against the use of RTV or similar materials on the crankcase halves and cylinder mating surfaces. CMI has update this SB over recent years and released the latest version, SB96-7D, on August 11, 2015.

- In 1999, CMI released Service Information Letter (SIL) SIL99-2, Sealants, Lubricants, and Adhesives Authorized by CMI, which provided current applications of sealants, threading, lubricants, and adhesives. CMI has revised this SIL several times to further clarify the importance of using approved materials during maintenance and assembly. The latest revision, SIL99-2C, was released on September 16, 2014.

The FAA reviewed this incident and determined that, despite the release of the CMI service information, operators are still using unapproved sealants during engine assembly and cylinder replacement. Therefore, we concur with AAIU's recommendation to issue a Special Airworthiness Information Bulletin (SAIB) to alert maintenance personnel of the proper processes and materials to use during engine maintenance.

On March 8, 2016, we published SAIB NE-16-13, Powerplant – Prohibited Use of Sealant, to encourage owners, operators, and maintenance personnel to follow the above-mentioned documents when performing maintenance on CMI engines. Further, the SAIB warns operators that crankshaft failure and catastrophic engine damage may result from installing RTV-type sealants on the crankcase halves and cylinder bolts. SAIB NE-16-13 can be found at the following Website:

http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgSAIB.nsf/0/ecee9fba41b6348786257f70006c66c7/$FILE/NE-16-13.pdf

[We (the FAA)] believe the FAA has effectively addressed this Safety Recommendation and consider our [the FAA's] actions complete.

**AAIU Comment:**
The AAIU considers the status of this recommendation to be one of "Implemented, Closed".