



Mandatory Service Bulletin

ENGINE COMPONENTS, INC.

M.S.B. No.: 05-8

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Title: REPLACEMENT OF CLASSIC CAST CYLINDERS IN COMPLIANCE WITH AIRWORTHINESS DIRECTIVE 2006-12-07

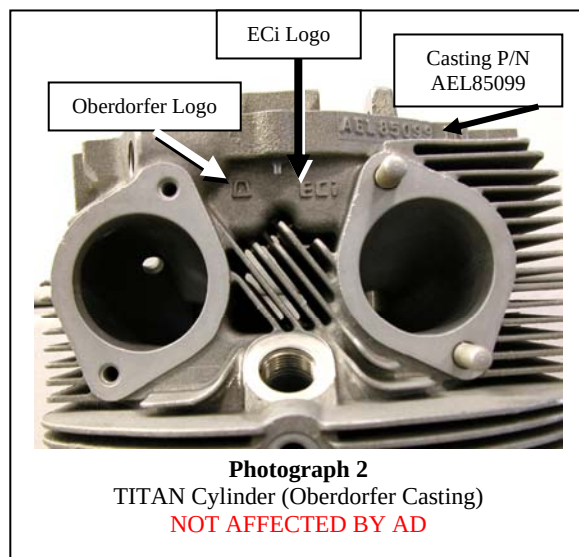
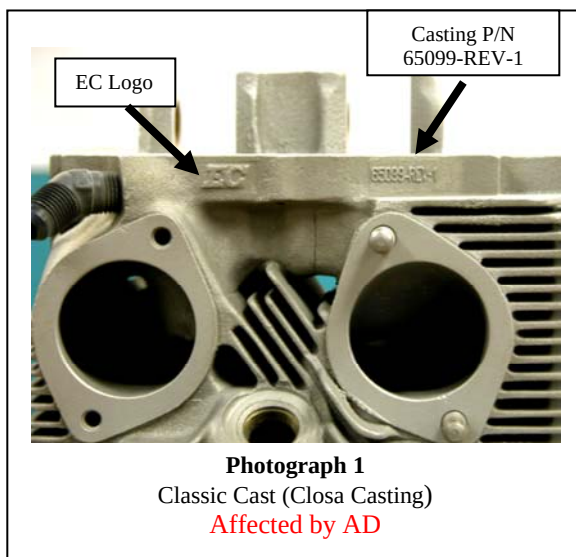
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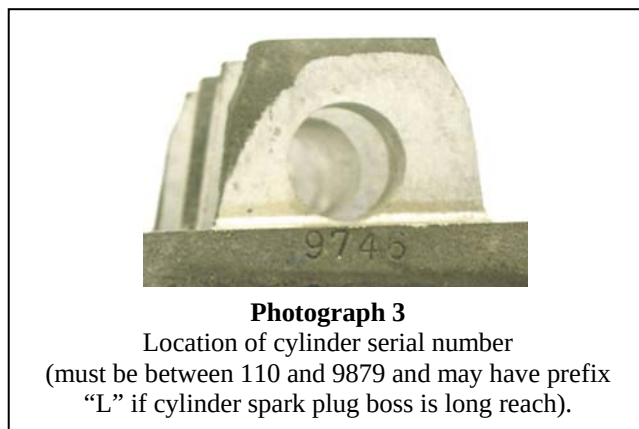
NOTE: The Subject Matter of This Service Bulletin Is Incorporated In Whole Or In Part in an FAA Airworthiness Directive. Technical Portions are FAA DER Approved.

- 1.0 PURPOSE:** To announce a replacement program for Engine Components, Inc. (ECi®) Classic Cast™ cylinders (P/N AEL65102) manufactured using Closa Foundry head castings for Lycoming parallel valve engines, in accordance with the FAA's Airworthiness Directive (AD) 2006-12-07 which became effective July 11, 2006.
- 2.0 BACKGROUND:** ECi produced and sold Classic Cast cylinders addressed in this Mandatory Service Bulletin and FAA's Airworthiness Directive beginning in January 1997 through September 2001. These cylinders were the subject of a Special Airworthiness Information Bulletin No. NE-01-32 issued July 18, 2001. Subsequent to the issuance of the SAIB, the FAA and ECi have continued to receive reports of cracks in these cylinders.
- 3.0 TIME OF COMPLIANCE:** If the cylinder assemblies are identified as being affected by this AD per sections 4.0 and 5.0 of this Mandatory Service Bulletin, then:
- 3.1 If the cylinder assembly has fewer than 800 operating hours-in-service (HIS) on the effective date of the AD, replace the cylinder at no later than 800 operating hours-in-service. No action is required until the affected cylinders reach 800 operating HIS.
- 3.2 If, on the effective date of this AD, the cylinder assembly has 800 operating HIS or more, replace the cylinder assembly within 60 operating HIS after the effective date of the AD.
- 4.0 MODELS AFFECTED:** The Classic Cast replacement cylinders to be replaced are eligible for installation on the following engines:
- O-320-A1A, A1B, A2A, A2B, A2C, A2D, A3A, A3B, A3C, B1A, B1B, B2A, B2B, B2C, B3A, B3B, B3C, C1A, C1B, C2A, C2B, C2C, C3A, C3B, C3C, D1A, D1AD, D1B, D1C, D1D, D1F, D2A, D2B, D2C, D2F, D2G, D2H, D2J, D3G, E1A, E1B, E1C, E1F, E1J, E2A, E2B, E2C, E2D, E2E, E2F, E2G, E2H, E3D, E3H; IO-320-A1A, A2A, B1A, B1B, B1C, B1D, B1E, B2A, C1A, C1B, C1F, D1A, D1AD, D1B, D1C, E1A, E1B, E2A, E2B, F1A; AIO-320-A1A, A1B, A2A, A2B, B1B, C1B; AEIO-320-D1B, D2B, E1A, E1B, E2A, E2B; LIO-320-B1A, C1A; O-360-A1A, A1AD, A1C, A1D, A1F, A1F6, A1F6D, A1G, A1G6, A1G6D, A1H, A1H6, A1J, A1LD, A2A, A2D, A2E, A2F, A2G, A2H, A3A, A3AD, A3D, A4A, A4AD, A4D, A4G, A4J, A4JD, A4K, A4M, A4N, A5AD, B1A, B2A, B2B, C1A, C1C, C1E, C1F, C1G, C2A, C2B, C2C, C2D, C2E, D1A, D2A, D2B, F1A6, G1A6; LO-360-A1G6D, A1H6; IO-360-B1A, B1B, B1BD, B1C, B1D, B1E, B1F, B1F6, B2E, B2F, B2F6, B4A, E1A; TO-360-A1G6D; LTO-360-A1G6D; HO-360-A1A, B1A, B1B, C1A; O-540-A1A, A1A5, A1B5, A1C5, A1D, A1D5, A2B, A3D5, A4A5, A4B5, A4C5, A4D5, B1A5, B1B5, B1D5, B2A5, B2B5, B2C5, B2C5D, B4A5, B4B5, B4B5D, D1A5, E1A, E4A5, E4B5, E4B5D, E4C5, F1A5, F1B5, G1A5, G1A5D, G2A5, H1A5, H1A5D, H1B5, H1B5D, H2A5, H2A5D, H2B5D, J1A5D, J1B5D, J1C5D, J1D5D, J3A5, J3A5D, J3C5D; IO-540- A1A, C1B5, C1C5, C2C, C4A5, C4B5, C4B5D, C4C5, C4D5D, D4A5, D4B5, D4C5, J4A5, N1A5, N1A5D, R1A5, T4A5, T4A5D, T4B5D, T4C5D, V4A5D, W1A5D, W3A5D; LTIO-540-K1AD**
- 5.0 CYLINDER IDENTIFICATION:** The ECi Classic Cast cylinders that are affected by this AD are identified through several unique features. The primary identification feature is the casting part number, **65099-REV-1**, which is cast into the cylinder rocker flange above the exhaust port as shown in Photograph 1 (next page.) Classic Cast replacement cylinders for Lycoming parallel valve engines have this unique number while the TITAN® brand cylinders, which are **NOT** the subject of this Mandatory Service Bulletin, have casting number AEL**8**5099 (See photograph 2 next page.)

The “EC” logo on the Classic Cast heads is also on the rocker flange toward the intake port side of the cylinder head (Photograph 1), whereas the TITAN cylinder has the Oberdorfer logo as well as the ECi logo, instead of just “ECi” (Photograph 2.)



The cylinder serial number is marked on the side of the cylinder below the rocker cover flange on the intake side. Cylinders with part number 65099-REV-1 as described in Photograph 1 (above) **AND** with serial numbers that are between 110 and 9879 (and may have prefix “L” if cylinder spark plug boss is long reach) are affected by this service bulletin and AD 2006-12-07. Photograph 3 (below) describes the location of the serial number which must be 9879 or lower. **Cylinders with serial numbers 9880 or higher are not affected.**



6.0 REPLACEMENT PROGRAM: ECi will exchange each Classic Cast cylinder returned under this program with a new TITAN cylinder complete assembly at a special lower exchange price. The discount will be based on the higher of either 800 HIS or actual hours in service for the cylinder(s). ECi will also provide pro-rated labor reimbursement for removal and installation. Owners or operators that wish to exchange their cylinders should contact ECi Customer Service to obtain a Returned Material Authorization (RMA) number and a completed Warranty Application (Form T800.1a). The customer can then ship the Classic Cast cylinders to ECi (freight pre-paid), and then ECi will ship the new replacement cylinders ground-freight prepaid. **NOTE: To receive proper discount and labor credit, cylinders MUST be in an “as-removed” condition. Do not send piston pins or rocker arms.**

ⁱ Classic Cast and TITAN brand cylinders are trademarks of Engine Components, Inc.