

SERVICE INFORMATION LETTER

Contains Useful Information Pertaining to Your Aircraft Engine

Supersedes SIL001A

SUBJECT: Replacement PMA Cylinder Assemblies for Angle Valve Lycoming® Engines

PURPOSE: To identify appropriate cylinder applicability and service data authorized under FAA Parts Manufacturer Approval (PMA) manufactured by Continental Motors.

COMPLIANCE: During engine assembly, repair, at overhaul or cylinder replacement.

MODELS

AFFECTED: Lycoming® engines (listed in Table 1) fitted with Continental Motors, Inc. (CMI) replacement parts manufactured under PMA

I. GENERAL INFORMATION

Continental Motors, Inc. has obtained FAA Engineering Design approval for new cylinders eligible for installation on Lycoming®¹ 360, 480 and 540 series engines with angle valves. This Service Instruction provides installation eligibility for PMA parts and assemblies and provides documentation required by the FAA under Title 14, Code of Federal Regulations (CFR) Part 33, §33.4 and Appendix A, as the Instructions for Continued Airworthiness (ICA) for Standard Practices. If a specific procedure is not addressed in this Service Instruction, the applicable procedure in the OEM's current Overhaul and Maintenance Manuals, Instructions for Continued Airworthiness (ICAs), and Service Documents applies (see Table 2).

II. CYLINDER IDENTIFICATION

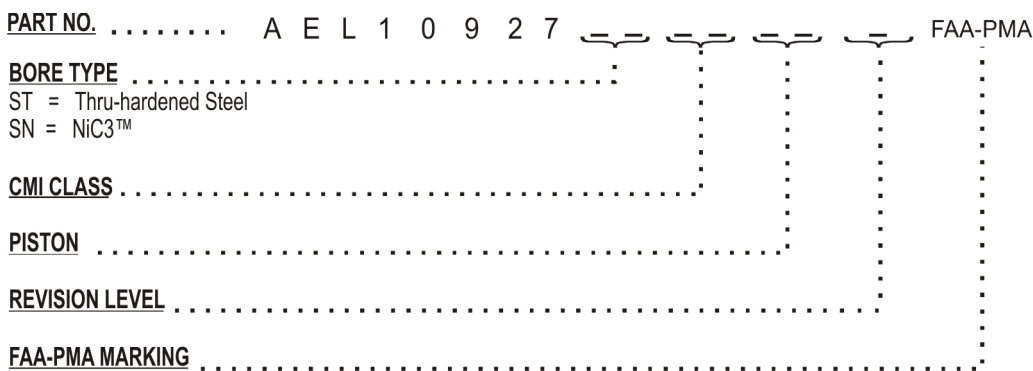


Figure 1. Cylinder Part Marking, typical

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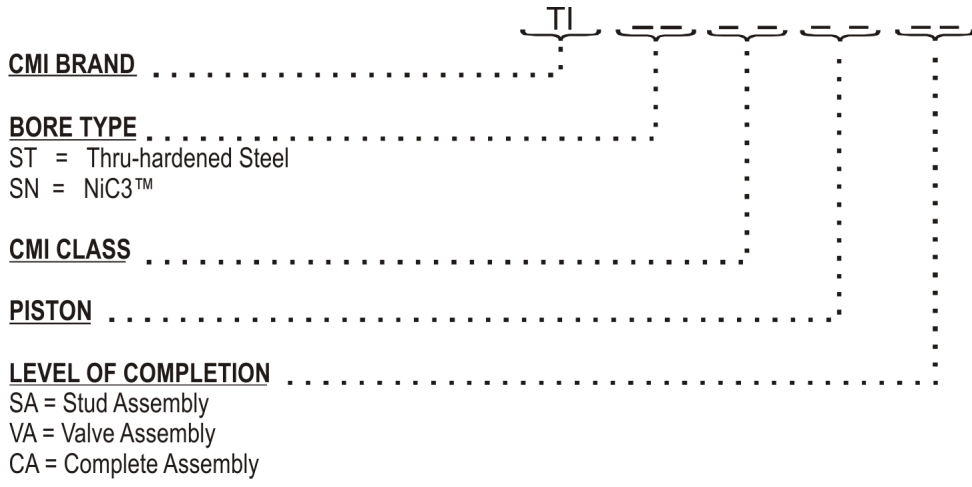


Figure 2. Assembly Level Designation, typical

III. CYLINDER MARKING

All Continental Motors, Inc. (CMI) angle valve Lycoming® cylinders will be serialized and identified as indicated in Figure 3. Additionally, the barrel PMA and cylinder part numbers are marked on the barrel flange.

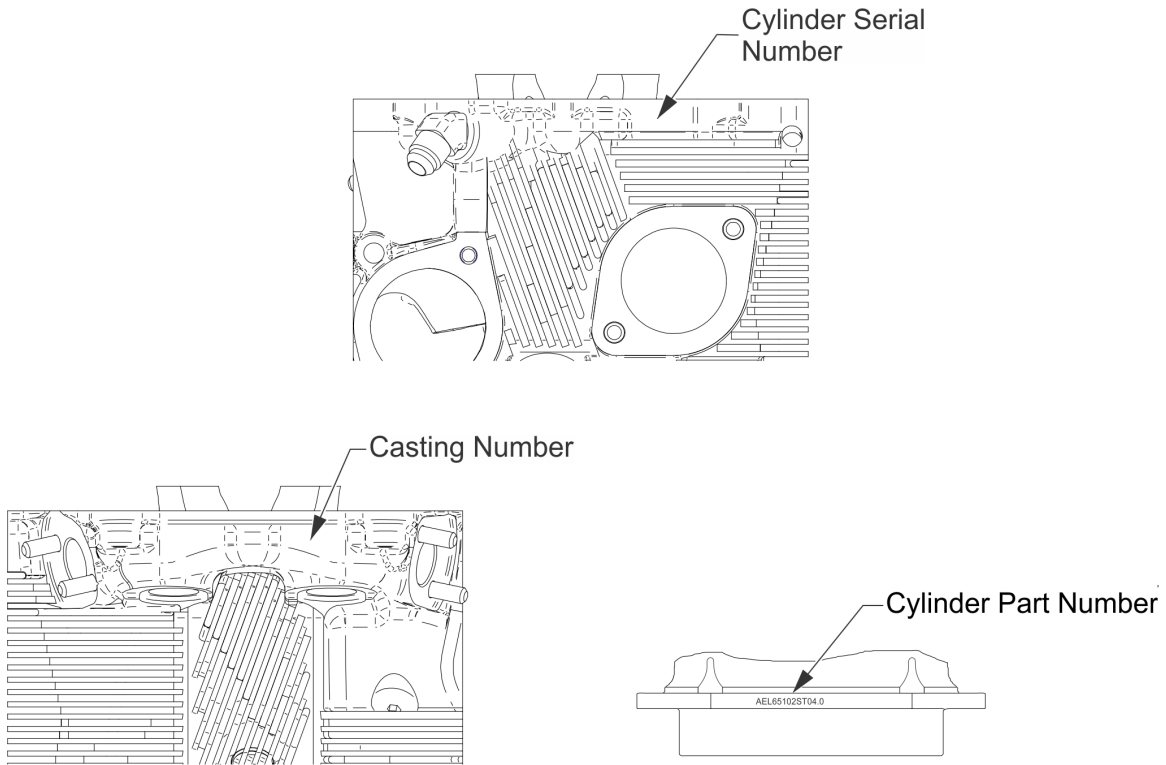


Figure 3. Cylinder Marking

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IV. APPLICATION

Table 1. Models Affected

Complete Assy. Cyl. Class	Bore Type	Ring Set	Complete Assy. Part Number	Piston	C. R ¹ .	Installation Applicability
TIST11.0CA	Steel	ST203	AEL10927ST11.0	AEL10207	8.7:1	O-360-A1A IO-540-A1A5, G1A5, G1B5, G1C5, G1D5, G1E5, G1F5, K1A5, K1B5, K1B5D, K1D5, K1F5, K2A5, L1A5
TISN11.0CA	NiC3	CN203	AEL10927SN11.0			HIO-540-A1A AEIO-540-L1B5, L1B5D IO-720-A1A, A1B, A1BD, D1B, D1BD
TIST11.1CA	Steel	ST203	AEL10927ST11.1	AEL10207	8.7:1	HIO-360-A1A
TISN11.1CA	NiC3	CN203	AEL10927SN11.1			
TIST13.0CA	Steel	ST203	AEL10927ST13.0	AEL10207	8.7:1	IO-360-A1A, A1B, A1B6, A1B6D, A1C, A1C6, A1D, A1D6, A1D6D, A2A, A2B, A2C, A3B6, A3B6D, A3D6D, C1A, C1B, C1C, C1C6, C1D6, C1E6, C1E6D, C1G6, D1A, J1AD, J1A6D, K2A AIO-360-A1A, A1B, A2A, A2B, B1B LIO-360-C1E, C1E6, C1E6D AEIO-360-A1A, A1B, A1B6, A1B6D, A1C, A1D, A1D6, A1E, A1E6, A2A, A2B, A2C, A2E, A3B6D IO-540-K1A5, K1A5D, K1B5, K1B5D, K1D5, K1F5, K1F5D, K1G5, K1G5D, K1H5, K1J5, K1J5D, K1K5, K2A5, L1A5D, L1B5D, L1C5, AE1A5 HIO-540-A1A AEIO-540-L1B5, L1B5D, L1D5
TISN13.0CA	NiC3	CN203	AEL10927SN13.0			
TIST13.2CA	Steel	ST203	AEL10927ST13.2	AEL10207	8.7:1	HIO-360-A1A, A1B, C1A, C1B LHIO-360-C1A, C1B
TISN13.2CA	NiC3	CN203	AEL10927SN13.2			
TIST14.0CA	Steel	ST203	AEL10927ST14.0	AEL10207	8.7:1	IO-360-A3B6D, C1F IO-540-G1D5, K1B5, K1B5D, K1C5, K1E5, K1E5D, S1A5
TISN14.0CA	NiC3	CN203	AEL10927SN14.0			
TIST14.3ACA	Steel	ST203	AEL10927ST14.3A	AEL10545	7.3:1	IO-540- AA1A5, AA1B5 TIO-540-U2A, AE2A, AH1A LTIO-540-U2A
TISN14.3ACA	NiC3	CN203	AEL10927SN14.3A			
TIST14.4CA	Steel	ST203	AEL10927ST14.4	AEL10545	7.3:1	TIO-360-A1A, A1B, A3B6
TISN14.4CA	NiC3	CN203	AEL10927SN14.4			
TIST14.5CA	Steel	ST203	AEL10927ST14.5	AEL10207	8.7:1	IO-360-C1F
TISN14.5CA	NiC3	CN203	AEL10927SN14.5			
TIST25.0CA	Steel	ST203	AEL10927ST25.0	AEL10207	8.7:1	IO-540-G1A5, G1B5, G1C5, G1D5, G1E5, G1F5, K1B5, K1B5D, B1C5, K1E5, K1E5D, P1A5, S1A5
TISN25.0CA	NiC3	CN203	AEL10927SN25.0			
TIST25.1CA	Steel	ST203	AEL10927ST25.1	AEL10207	8.7:1	IO-720-A1B, A1BD
TISN25.1CA	NiC3	CN203	AEL10927SN25.1			

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Table 1. Models Affected

Complete Assy. Cyl. Class	Bore Type	Ring Set	Complete Assy. Part Number	Piston	C. R ¹ .	Installation Applicability
TIST30.0CA	Steel	ST203	AEL10927ST30.0	AEL10207	8.7:1	IGO-540-A1A, A1B, A1C
TISN30.0CA	NiC3	CN203	AEL10927SN30.0			
TIST31.0CA	Steel	ST203	AEL10927ST31.0	AEL10208	7.3:1	IGSO-540-A1A, A1C, A1D, A1E, A1F, A1H
TISN31.0CA	NiC3	CN203	AEL10927SN31.0			
TIST31.1CA	Steel	ST203	AEL10927ST31.1	AEL10207	8.7:1	IGO-540-A1A, A1B, A1C
TISN31.1CA	NiC3	CN203	AEL10927SN31.1			

1. Compression Ratio (C. R.)
Gasket sets are available under P/N AEL12039SC.

V. PLATING

Reference the latest revision of CMI PMA Service Information Letter instructions available at <http://continentalmotors.aero/titan/documentation.aspx> for cylinder bore honing.

VI. PISTON RINGS

Reference the latest revision of CMI PMA Service Information Letter instructions available at <http://continentalmotors.aero/titan/documentation.aspx> for the proper fitting of piston rings.

VII. CYLINDER REMOVAL AND INSTALLATION

Reference the latest revision of the OEM’s ICAs (see Table 2).

VIII. COLOR CODES ON CYLINDERS

Reference the latest revision of CMI PMA Service Information Letter instructions available at <http://continentalmotors.aero/titan/documentation.aspx> for color coding schemes for cylinder identification.

IX. INSTRUCTIONS FOR CONTINUED AIRWORTHINESS (ICA), REFERENCES

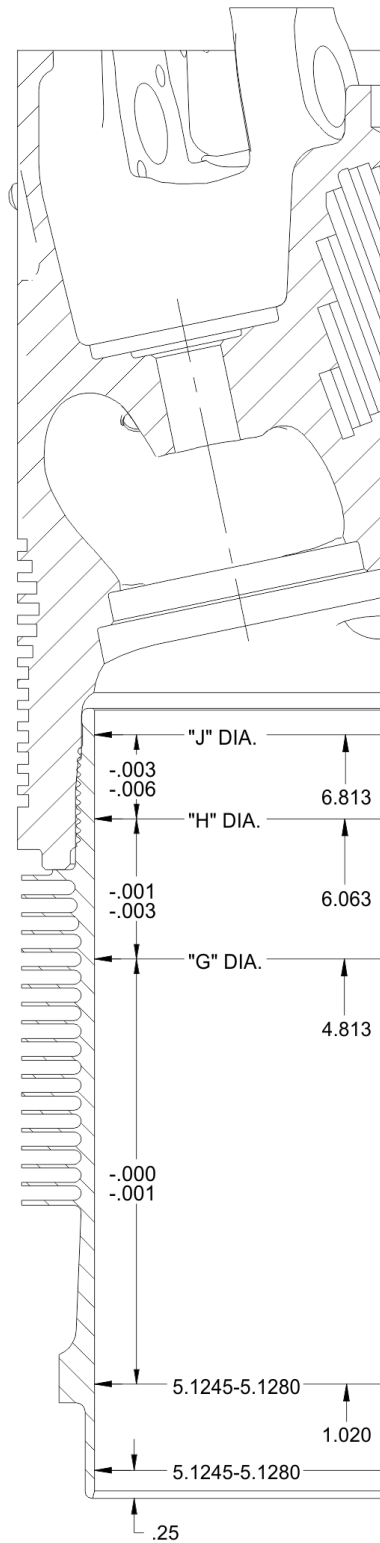
Table 2 is provided to serve as a reference to all service and maintenance personnel engaged in the repair and overhaul of Lycoming® Aircraft Engines. The documents referenced in Table 2 are subject to revision or supersession. Always use the most current version of the referenced ICA.

Table 2. Reference ICAs

ICA	Lycoming® Reference ICAs ¹
60294-7	Lycoming® Direct Drive Overhaul Manual
60294-5	Lycoming® Gear Engine Overhaul Manual

1. Any copyright associated with the referenced ICAs is not connected to, affiliated with, sponsored by, or endorsed by Continental Motors or any of their related or affiliate companies.

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TYPICAL CROSS-SECTION
OF 360/480/540
CYLINDER ASSEMBLY

Figure 4. Cylinder Dimensions and Tolerances

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