

Service Bulletin

S.B. No: 178

Title: LYCOMING S.B. NO. 554 CRANKSHAFT GEAR RETAINING BOLT REPLACEMENT

Classification: This Service Bulletin has been classified by SAL as Highly Recommended

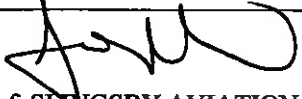
Compliance: Compliance as required by Textron Lycoming Service Bulletin 554

Applicability: T67M260 and T67M260-T3A

Attached are Supplement Nos. 4 and 5 to Textron Lycoming Mandatory Service Bulletin No. 554.

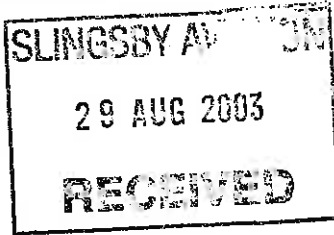
Issue 2 of SAL Service Bulletin No. 178 does not supersede Issue No. 1 of SAL Service Bulletin No. 178.

Any further information or components required to comply with this Service Bulletin should be obtained from Textron Lycoming.

Approved by: 	Date: 23/12/03	Issue 2
For and on behalf of SLINGSBY AVIATION LIMITED	Page 1 of 1	
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www.lycoming.textron.com**MANDATORY****SERVICE BULLETIN**

August 15, 2003



Supplement No. 5

To

Service Bulletin No. 554

Supplement No. 5 to Service Bulletin No. 554 does not supersede Supplement No. 3 to Service Bulletin No. 554 or Supplement No. 4 to Service Bulletin No. 554.

After extensive and thorough search of all engine and gear bolt records, Lycoming has determined that there are an additional 161 engines that could possibly have one of the suspect bolts. This Supplement No. 5 to Service Bulletin No. 554 is issued to ensure that these bolts are replaced.

Supplement No. 5 to Service Bulletin No. 554 adds engine models and engine serial numbers to Service Bulletin No. 554 that require the same compliance as Service Bulletin No. 554 and Supplement No. 3 and Supplement No. 4.

NOTE

Lycoming has superseded crankshaft gear bolt P/N STD-2209 with P/N STD-2247. This bolt can be identified by the number 2247 on the bolt head. Installation of this bolt satisfies the requirements of Service Bulletin No. 554. This bolt is now supplied with all Lycoming kits.

Following are the added rebuilt/overhaul engine models with serial numbers:

MODEL	ENGINE S/N	MODEL	ENGINE S/N	MODEL	ENGINE S/N
AEIO-540-D4A5	26538-48A	IO-540-E1B5	1559-48	IO-540-K1G5	13303-48A
AEIO-540-L1B5	24663-48A	IO-540-E1B5	5256-48	IO-540-K1G5	14921-48A
IO-540-C4B5	325-48	IO-540-E1B5	5322-48	IO-540-K1G5	15594-48A
IO-540-C4B5	5641-48	IO-540-E1B5	10548-48	IO-540-K1G5	15837-48A
IO-540-C4B5	5756-48	IO-540-K1A5	5459-48	IO-540-K1G5	16404-48A
IO-540-C4B5	6028-48	IO-540-K1A5	6493-48	IO-540-K1G5	19140-48A
IO-540-C4B5	12273-48	IO-540-K1A5	10778-48	IO-540-K1G5	20281-48A
IO-540-C4B5	13170-48	IO-540-K1A5	12459-48	IO-540-S1A5	13308-48A
IO-540-C4B5	17632-48A	IO-540-K1A5	16420-48A	IO-540-S1A5	14646-48A
IO-540-C4B5	17987-48A	IO-540-K1A5	18541-48A	LTIO-540-J2B	244-68A
IO-540-C4B5	19424-48A	IO-540-K1A5	19145-48A	LTIO-540-J2B	874-68A
IO-540-C4B5	20339-48A	IO-540-K1A5	22248-48A	LTIO-540-J2B	921-68A
IO-540-C4B5	21184-48A	IO-540-K1A5	22497-48A	LTIO-540-J2B	988-68A
IO-540-C4B5	21430-48A	IO-540-K1A5	23097-48A	LTIO-540-J2B	1100-68A
IO-540-C4B5	24907-48A	IO-540-K1B5	12879-48A	LTIO-540-J2B	1169-68A
IO-540-D4A5	5529-48	IO-540-K1B5	14543-48A	LTIO-540-J2B	1298-68A
IO-540-D4A5	10833-48	IO-540-K1B5	18861-48A	LTIO-540-J2B	1466-68A
IO-540-E1A5	1826-48	IO-540-K1B5	19319-48A	LTIO-540-J2B	1930-68A
IO-540-E1A5	1987-48	IO-540-K1B5	20544-48A	O-540-A1D5	6899-40
IO-540-E1A5	2196-48	IO-540-K1B5	24104-48A	O-540-A1D5	16494-40
IO-540-E1A5	5901-48	IO-540-K1B5	24168-48A	O-540-A1D5	20565-40
IO-540-E1A5	6473-48	IO-540-K1E5	5037-48	O-540-A1D5	21429-40

Rebuilt/overhaul engine models continued:

MODEL	ENGINE S/N	MODEL	ENGINE S/N	MODEL	ENGINE S/N
O-540-B2B5	17117-40	O-540-E4C5	25338-40A	TIO-540-A2C	9363-61A
O-540-B2B5	22704-40A	O-540-F1B5	21450-40A	TIO-540-AE2A	5682-61A
O-540-B2C5	6506-40	O-540-F1B5	21522-40A	TIO-540-AE2A	9744-61A
O-540-B2C5	6608-40	O-540-F1B5	22149-40A	TIO-540-C1A	1899-61A
O-540-B2C5	21355-40	O-540-G1A5	10443-40	TIO-540-C1A	4326-61A
O-540-E4A5	18476-40A	TIO-540-A2B	767-61	TIO-540-C1A	8710-61A
O-540-E4A5	22244-40A	TIO-540-A2B	792-61	TIO-540-J2B	170-61A
O-540-E4A5	22509-40A	TIO-540-A2B	1685-61	TIO-540-J2B	2887-61A
O-540-E4B5	6133-40	TIO-540-A2B	5616-61A	TIO-540-J2B	3562-61A
O-540-E4B5	6699-40	TIO-540-A2B	9465-61A	TIO-540-J2B	3628-61A
O-540-E4B5	10441-40	TIO-540-A2C	2228-61A	TIO-540-J2B	4009-61A
O-540-E4B5	10442-40	TIO-540-A2C	2960-61A	TIO-540-J2B	4293-61A
O-540-E4B5	11152-40	TIO-540-A2C	3353-61A	TIO-540-J2B	4567-61A
O-540-E4B5	12658-40	TIO-540-A2C	4557-61A	TIO-540-J2B	4968-61A
O-540-E4B5	23863-40	TIO-540-A2C	4575-61A	TIO-540-J2B	5033-61A
O-540-E4C5	1055-40	TIO-540-A2C	4634-61A	TIO-540-J2B	6303-61A
O-540-E4C5	7155-40A	TIO-540-A2C	5442-61A	TIO-540-J2B	6387-61A
O-540-E4C5	15860-40A	TIO-540-A2C	5586-61A	TIO-540-J2B	6638-61A
O-540-E4C5	19394-40A	TIO-540-A2C	6299-61A	TIO-540-J2B	8047-61A
O-540-E4C5	19511-40A	TIO-540-A2C	6914-61A	TIO-540-J2B	8629-61A
O-540-E4C5	19665-40A	TIO-540-A2C	7307-61A	TIO-540-J2B	8953-61A
O-540-E4C5	20077-40A	TIO-540-A2C	7715-61A	TIO-540-J2B	9002-61A
O-540-E4C5	20353-40A	TIO-540-A2C	7916-61A	TIO-540-U2A	5476-61A
O-540-E4C5	23239-40A	TIO-540-A2C	8363-61A	TIO-540-U2A	6215-61A
O-540-E4C5	23533-40A	TIO-540-A2C	8571-61A	TIO-540-U2A	7717-61A
O-540-E4C5	25317-40A	TIO-540-A2C	8982-61A	TIO-540-U2A	7806-61A

Following are the added new engine models with serial numbers:

MODEL	ENGINE S/N	MODEL	ENGINE S/N	MODEL	ENGINE S/N
AEIO-540-D4A5	26362-48A	IO-540-AB1A5	26533-48A	O-540-F1B5	25273-40A
AEIO-540-D4A5	26428-48A	IO-540-AB1A5	26534-48A	O-540-F1B5	25323-40A
IO-540-AB1A5	26520-48A	IO-540-AB1A5	26542-48A	TIO-540-AE2A	10033-61A
IO-540-AB1A5	26526-48A	IO-540-AB1A5	26543-48A	TIO-540-AH1A	10030-61A
IO-540-AB1A5	26528-48A	IO-540-AB1A5	26823-48A	TIO-540-AH1A	10032-61A
IO-540-AB1A5	26530-48A	O-540-F1B5	25209-40A		

WARRANTY:

Lycoming warranty participants for Service Bulletin No. 554 remains in effect until June 30, 2004.

LYCOMING

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MANDATORY

SERVICE BULLETIN

April 2, 2003

Supplement No. 4

To

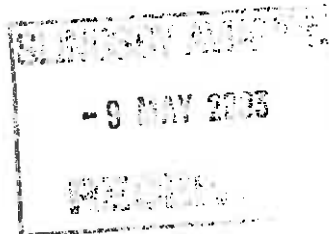
Service Bulletin No. 554

Supplement No. 4 to Service Bulletin No. 554 provides an FAA Approved Alternate Method of Compliance (AMOC).

The AMOC (see attached) accepts the following Lycoming kits for compliance with AD #2002-23-06:

05K23325 – TIO/LTIO-540-J2B
05K23326 – TIO-540-A2B, -A2C
05K23327 – TIO-540-AJ1A
05K23335 – TIO-540-AE2A
05K23336 – TIO-540-AH1A

Check the engine logbook. If the logbook states that Service Bulletin No. 554 was complied with at Lycoming, then an improved cadmium-plated crankshaft gear bolt has been installed and is not affected by AD #2002-23-06.



General Aviation
Manufacturers Association

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U.S. Department
of Transportation
**Federal Aviation
Administration**

New York Aircraft Certification Office

10 Fifth Street
Third Floor
Valley Stream, NY 11581-1200

FEB 25 2003

Mr. Richard Moffett
Vice President, Engineering
Lycoming Engines
652 Oliver Street
Williamsport, PA 17701

Dear Mr. Moffett:

This is in response to your February 12, 2003 email to the New York Aircraft Certification Office (NYACO) requesting an Alternate Method Of Compliance (AMOC) to the current Airworthiness Directive (AD) concerning the crankshaft bolts. This AD, 2002-23-06, paragraphs (a), (b), (c), (d), (e), (f) and (g) requires the replacement of Lycoming bolt part number (PN) STD-2209 with another PN STD-2209 bolt known to be cadmium plated or a superseding bolt PN (also known to be cadmium plated) that are contained in Lycoming Kit PN 05K19987. Your request is to approve six additional Lycoming Kits as an AMOC to AD 2002-23-06.

As a part of the crankshaft replacement program, Lycoming prepared six kits to provide engine maintenance facilities with the parts required to complete the rebuild of various engine models. These additional kits contain a Lycoming bolt PN STD-2209 known to be cadmium plated or a superseding bolt PN also known to be cadmium plated that are from the same lots that were used in the PN 05K19987 kits.

The FAA has reviewed this request and found it to be acceptable. The following Lycoming Kits, for the engine models specified, are an Alternate Method Of Compliance to AD 2002-23-06, paragraphs (a), (b), (c), (d), (e), (f) and (g):


05K23324 - TIO/LTIO-540-J2BD, F2BD
05K23325 - TIO/LTIO-540-J2B
05K23326 - TIO-540-A2B, A2C
05K23327 - TIO-540-AJ1A
05K23335 - TIO-540-AE2A
05K23336 - TIO-540-AH1A

The following is not part of your request for an AMOC but should be included in the vehicle used by Lycoming to transmit this AMOC to the field. Engines with STD-2209 bolts installed at Lycoming after November 10, 1998 are not listed in Service Bulletin

(SB) 554 because these bolts are cadmium plated and therefore not affected by AD 2002-23-06. The Lycoming practice of listing "Additional service bulletins....", "554 (2002-23-06)" in the Engine Maintenance Log Book after Lycoming has performed engine maintenance, has raised questions by the field because it implies that SB 554 was used to terminate AD 2002-23-06. The COMPLIANCE section of SB 554 specifies the use of a new STD-2209 bolt, not Lycoming Kit 05K19987, as required by AD 2002-23-06 (the WARRANTY section only requires Kit 05K19987 for warranty). Therefore, SB 554 cannot be used to terminate AD 2002-23-06 in the field. However, whether an engine is affected by AD 2002-23-06 or not, any STD-2209 bolt installed by Lycoming after November 10, 1998 is cadmium plated and not affected by AD 2002-23-06. This includes STD-2209 bolts installed in accordance with SB 554, in production, or for any other reason.

If you have any questions, please call Norm Perenson at (516) 256-7537.

Sincerely,


For Vito Pulera
Manager, New York Aircraft Certification
Office