

# MANDATORY SERVICE BULLETIN

The Subject Matter Of The Service Bulletin Is Incorporated In Whole Or In Part In An FAA Issued Airworthiness Directive

**MSB11-4**  
 TECHNICAL PORTIONS  
 FAA APPROVED

**SUBJECT: STARTER ADAPTER INSPECTION**

**PURPOSE:** To advise owners, operators and FBO's of mandatory replacement of certain starter adapter part numbers 642085A17, 642085A19, 642085A20, 642085-1A1 and R-642085A17 due to possible fracture of the starter adapter shaft gear.

**EFFECTIVITY:** For new and rebuilt engines and aftermarket new and rebuilt starter adapters supplied by Continental Motors between January 1, 2011 and November 20, 2011.

**COMPLIANCE:** Affected Engines and aftermarket starter adapters with less than 75 hours total time must comply with this Mandatory Service Bulletin prior to further flight. Affected engines and aftermarket starter adapters with between 75 and 100 hours total time must comply with this Mandatory Service Bulletin within the next 10 hours of engine operation. Affected engine and aftermarket starter adapters with more than 100 hours total time are not affected and compliance with this Mandatory Service Bulletin is not required.

**MODELS AFFECTED:** TSIO-520- B, BB, D, DB, E, EB, J, JB, K, KB, N, NB, UB, VB; TSIO-550-K; TSIOF-550K; IO-550-N (Turbo-normalized only); that utilize starter adapter part numbers 642085A17, 642085A19, 642085A20, 642085-1A1 and R-642085A17.

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**GENERAL INFORMATION:**

Continental Motors (CMI) has verified fractures of 5 part number 639389 starter adapter shaft gears utilized in the assembly of the affected starter adapter. The fractures originate in the machined snap ring groove forward of the scavenge pump shaft gear in the scavenge pump housing. Analysis of the fracture area indicates initiation resulted from misalignment of the scavenge pump housing to the starter adapter cover.

**WARNING**

**Compliance Of This Bulletin Is Required To Prevent Possible Fracture Of The Starter Adapter Shaft Gear Resulting In Loss Of Engine Lubrication And Subsequent Engine Failure.**

ISSUED			REVISED			PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		
11	23	2011				1 of 6 MSB11-4	~



## WARNING

To Prevent The Possibility Of Serious Bodily Injury Or Death, Before Performing Any Inspection, Repair Or Moving The Propeller Accomplish The Following:

- a. Verify Aircraft Master And Magneto Switches Are In The OFF Position.
- b. Throttle Position CLOSED
- c. Mixture Control To IDLE CUT-OFF
- d. Set Brakes And Block Aircraft Wheels.
- e. Insure That Aircraft Tie-Downs Are Installed And Verify That The Cabin Door Latch Is Open.
- f. Do Not Stand Within Arc Of The Propeller Blades While Turning The Propeller.

## INSPECTION:

Determine applicability by inspection of the engine and / or aircraft logbook and by visual inspection of the engine data plate and starter adapter part number.

Engines manufactured by Continental Motors, Inc. between January 1, 2011 and November 20, 2011 or replacement new or rebuilt spare starter adapters *purchased* from Continental Motors, Inc. between January 1, 2011 and November 20, 2011 are affected.

If you require assistance in determining affectivity contact Continental Motors, Inc. Customer Service at 1-888-826-5465. Please be prepared to provide the engine model and serial number during the contact.

Replacement compliant starter adapters are identified by a vibro-peened manufacturer code below the ink stamped starter adapter part number as depicted below. See Figure 1 on page 5.

## COMPLIANCE:

For affected engines and / or starter adapters with 75 hours total time or less; replacement of the starter adapter is required prior to further flight.

For affected engines and / or starter adapters with between 75 and 100 hours total time, replacement of the starter adapter is required within the next 10 hours of engine operation.

Engines and / or starter adapters with more than 100 hours total time are not affected and compliance with this Mandatory Service Bulletin is not required. However, the Compliance Form on page 6 of this bulletin must be completed and submitted to Continental Motors, Inc.

## WARNING

**Starter adapters manufactured and supplied by Continental Motors, Inc may be used to comply with this Mandatory Service Bulletin. If necessary, Continental Motors, Inc. may approve the use of a repaired or overhauled starter adapter that has been provided by a facility that is FAA approved to perform such repairs and overhaul. However, in no case may an affected starter adapter be repaired or overhauled to meet compliance with this bulletin.**

ISSUED			REVISED			 <b>Continental Motors, Inc.</b> P.O. Box 90 Mobile Alabama • 251-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		2 of 6 MSB11-4	~
11	23	2011						

**All affected starter adapters must be returned to Continental Motors, Inc as directed in this bulletin. Failure to return starter adapters as directed will delay processing of warranty claims.**

**STARTER ADAPTER REPLACEMENT:**

Refer to the airframe manufactures instructions to gain access to the starter adapter.

Starter adapter replacement must be accomplished in accordance with the applicable engine maintenance or overhaul manual and applicable service bulletins.

Replacement starter adapters that incorporate assembly corrective action are identified by a vibro-peened manufacturer code below the ink stamped starter adapter part number as depicted below. See Figure 1 on page 5.

**WARRANTY:**

The actions required to comply with this bulletin are covered by the applicable engine or spare parts warranty policy in effect at the time the engine or service spare part was purchased. Continental Motors reserves the right to request copies of invoices and maintenance records to verify warranty applicability.

Compliance with the bulletin must be completed no later that March 1, 2012.

NOTE: Visit Continental Motors Inc.'s web-site [www.genuinecontinental.aero](http://www.genuinecontinental.aero) to obtain copies of CMI Warranty Policies.

If manufacture date of the engine or purchase date of a new or rebuilt spare starter adapter can not be determined from the aircraft/engine logbooks, CMI will allow 1 hour labor to inspect and identify the engine serial number or determine the purchase date of a new or rebuilt spare starter adapter, contact CMI for affectivity, and complete the required 2 copies of the compliance form. Compliance forms must be submitted immediately upon completion with one copy accompanying parts and the second copy sent separately. Compliance forms should only be completed for engines that have the affected starter adapters including those engines that are affected and have accumulated more than 100 hours time on the starter adapter.

Completed compliance form must be mailed or faxed to the following:

Continental Motors Inc.  
 c/o MSB 11-4  
 P.O. Box 90  
 Mobile, AL 36601  
 Or  
 Fax to 251-436-8270

ISSUED			REVISED			 <b>Continental Motors, Inc.</b> P.O. Box 90 Mobile Alabama • 251-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		3 of 6 MSB11-4	~
11	23	2011						

Visual Inspection Labor Allowance:

0.5 man-hours at published shop labor rate

Starter Adapter Replacement Labor Allowance:

Labor allowance for compliance with this bulletin will be in accordance with the CMI published labor allowance for the specific engine.

Replacement parts required to comply with this bulletin must be ordered through direct contact with Continental Motors Inc. at 888-826-5465. When placing your order be sure to specify that the items are being ordered to comply with this bulletin, specifying bulletin number and revision level. Continental Motors will issue a return code which must be included in the upper right hand corner of the compliance form on page 6. This bulletin is your authorization to perform the required inspection and if necessary replacement of the affect part(s). Continental Motors will process warranty upon receipt of the affect parts and completed compliance form. All affected parts that are removed for compliance with this bulletin should be returned to the following address with a completed copy of the compliance form located in appendix A of this document:

**Continental Motors Factory Service Center  
410 Airway Drive  
Mattituck, Long Island, NY 11952**

Do not return any parts to Continental Motors without the compliance form completed in full. Failure to return the bulletin compliance form will delay processing of applicable warranty credit. Parts returned without proper documentation will result in delays in processing your warranty reimbursement.

ISSUED			REVISED			 <b>Continental Motors, Inc.</b> P.O. Box 90 Mobile Alabama • 251-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		4 of 6 MSB11-4	~
11	23	2011						



FIGURE 1 – Example of vibro-peened manufacturer code

New and rebuilt compliant starter adapters supplied by Continental Motors Inc (CMI) are identifiable by a vibro-peened manufacturer code below the ink stamped assembly part number, example of 4 digit code is shown in Figure 1.

ISSUED			REVISED			 <b>Continental Motors, Inc.</b> P.O. Box 90 Mobile Alabama • 251-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		5 of 6 MSB11-4	~
11	23	2011						

# COMPLIANCE FORM

## MSB11-4

Complete one form for each affected engine or new or rebuilt spare starter adapter

Owner Name:			Phone:			Date:			Return Code:		
Address:											
City:				State/Country:				Zip Code:			
FBO Name:				Phone:				FAX:			
Address:											
City:				State/Country:				Zip Code:			
FBO Posted Labor Rate:				Labor Hours Applied:				Total Cost:			
<b>Send Reimbursement Payment to above address (or complete below)</b>											
Name:				Phone:				FAX:			
Address:											
City:				State/Country:				Zip Code:			
Aircraft Registration #:				Airframe Make/Model:				Airframe S/N:			
Engine Model:				Serial Number:				Position:			
Engine Total Time:				Date Engine Placed in Service:							
Starter Adapter P/N:				Starter Adapter T.T.:							
* Purchase Date of Starter Adapter:				* Starter Adapter T.T.:							
<p>* Complete this line for <b>new or rebuilt spare starter adapter only</b>.</p> <p><b>COMMENTS:</b> All affected parts that are removed for compliance with this bulletin should be returned to the following address with a completed copy of this compliance form:</p> <p style="padding-left: 40px;">Continental Motors Factory Service Center 410 Airway Drive Mattituck, Long Island, NY 11952</p> <p>Mark Shipping Label: "Warranty Engine Parts"                      UPS Account Number 161609</p>											

Note: Two copies of the form are required. One is to be mailed or faxed to Continental Motors, Inc, the other is to be included with the removed starter adapter when shipped to the Continental Motors Factory Service Center. Continental Motors, Inc. Fax number is 251-436-8270.

**Signature of Repair Agent:** \_\_\_\_\_

ISSUED			REVISED			 <b>Continental Motors, Inc.</b> P.O. Box 90 Mobile Alabama • 251-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		6 of 6	~
11	23	2011				MSB11-4		