

TELEDYNE CONTINENTAL[®] AIRCRAFT ENGINE SERVICE INFORMATION LETTER

CATEGORY 5

SIL99-1

Technical Portions FAA
Approved
Supersedes M91-5

**CONTAINS USEFUL INFORMATION PERTAINING TO THE
CONTINENTAL AIRCRAFT ENGINE**

**SUBJECT: ENGINE PRESERVATION FOR ACTIVE AND STORED
AIRCRAFT**

PURPOSE: Provide current engine preservation information

COMPLIANCE: During periods as specified by this document

MODELS

AFFECTED: All Continental Engine Models

GENERAL

There is no practical procedure that will insure corrosion prevention on installed aircraft engines. Susceptibility to corrosion is influenced by geographical location, season and usage. The owner/operator is responsible to recognize the conditions that are conducive to corrosion and take appropriate precautions.

ENGINE PRESERVATION

Corrosive attack can occur in engines that are flown only occasionally regardless of geographical location. In coastal areas and areas of high humidity, corrosive attack can occur in as little as two days. The best method of reducing the likelihood of corrosive attack is to fly the aircraft at least once every week for a minimum of one hour.

NOTE...

Corrosive attack may reduce engine service life. Of primary concern are cylinders, piston rings, valves, valve guides, camshaft and lifters.

TEMPORARY STORAGE (Aircraft that are not flown for 30 to 90 days)

Preparation for storage.

1. Remove oil sump drain plug and drain oil. Replace drain plug, torque and safety. Remove oil filter. Install new oil filter, torque and safety. Service engine to proper sump capacity with oil conforming to MIL-C-6529 Type II.

2. Perform a ground run-up. Perform a pre-flight inspection and correct any discrepancies. Fly the aircraft for one hour at normal operation temperatures.

WARNING

To prevent possibility of serious bodily injury or death, before moving the propeller accomplish the following:

- a. Disconnect all spark plug leads.
- b. Verify magneto switches are connected to magnetos, that they are in the "OFF" Position and "P" leads are grounded.
- c. Throttle position "CLOSED."
- d. Mixture control "IDLE-CUT-OFF."
- e. Set brakes and block aircraft wheels. Insure that aircraft tie-downs are installed and verify that the cabin door latch is open.
- f. Do not stand within the arc of the propeller blades while turning the propeller.

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3. After flight remove all spark plug leads and remove the top spark plugs. Protect the ignition lead ends with AN-4060 Protectors. Using a common garden sprayer or equivalent, spray atomized preservative oil that meets MIL-P - 46002, Grade 1, at room temperature through upper spark plug hole of each cylinder with the piston at bottom dead center position. Rotate crankshaft as opposite cylinders are sprayed. Stop crankshaft with none of the pistons at top dead center.
4. Re-spray each cylinder. To thoroughly cover all surfaces of the cylinder interior move the nozzle or spray gun from the top to the bottom of the cylinder.
5. Install top spark plugs but do not install spark plug leads.
6. Seal all engine openings exposed to the atmosphere using suitable plugs and covers. Attach a red "REMOVE BEFORE FLIGHT" streamer at each location.
7. Tag each propeller in a conspicuous place with the following notation on the tag: DO NOT TURN PROPELLER - ENGINE PRESERVED - PRESERVATION DATE _____.

NOTE...

If the engine is not returned to flyable status on or before the 90-day expiration, it must be preserved in accordance with "Indefinite Storage" procedures in this document.

INDEFINITE STORAGE (Aircraft that are not flown for 90 days)

PREPARATION FOR STORAGE

1. Remove oil sump drain plug and drain oil. Replace drain plug, torque and safety. Remove oil filter Install new oil filter torque and safety. Service engine to proper sump capacity with oil conforming to MIL-C-6529 Type II.
2. Perform a ground run-up. Perform a pre-flight inspection and correct any discrepancies. Fly the aircraft for one hour at normal operation temperatures.

WARNING

To prevent possibility of serious bodily injury or death, before moving the propeller accomplish the following:

- a. **Disconnect all spark plug leads.**
 - b. **Verify magneto switches are connected to magnetos, that they are in the "OFF" Position and "P" leads are grounded.**
 - c. **Throttle position "CLOSED."**
 - d. **Mixture control "IDLE-CUT-OFF."**
 - e. **Set brakes and block aircraft wheels. Insure that aircraft tie-downs are installed and verify that the cabin door latch is open.**
 - f. **Do not stand within the arc of the propeller blades while turning the propeller.**
3. After flight remove all spark plug leads and remove the spark plugs. Protect the ignition lead ends with AN-4060 Protectors. Install protective plugs P/N 22671 in bottom spark plug holes. Using a common garden sprayer or equivalent, spray atomized preservative oil that meets MIL-P-46002, Grade 1, at room temperature through upper spark plug hole of each cylinder with the piston at bottom dead center position. Rotate crankshaft as opposite cylinders are sprayed. Stop crankshaft with none of the pistons at top dead center.
 4. Re-spray each cylinder. To thoroughly cover all surfaces of the cylinder interior move the nozzle or spray gun from the top to the bottom of the cylinder.
 5. Install dehydrator plugs MS27215-1 or -2 in each of the upper spark plug holes. Make sure each plug is blue in color when installed.

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6. Attach a red "REMOVE BEFORE FLIGHT" streamer to each bag of desiccant. Place a bag of desiccant in the exhaust pipes and seal the openings.
7. Seal all engine openings exposed to the atmosphere using suitable plugs and covers.
8. Tag propeller in a conspicuous place with the following notation on the tag: DO NOT TURN PROPELLER - ENGINE PRESERVED - PRESERVATION DATE _____.

INDEFINITE STORAGE INSPECTION PROCEDURES

1. Aircraft prepared for indefinite storage must have the cylinder dehydrator plugs visually inspected every 15 days. The plugs must be changed as soon as they indicate other than a dark blue color. If the dehydrator plugs have changed color in one-half or more of the cylinders, all desiccant material on the engine must be replaced.
2. The cylinder bores of all engines prepared for indefinite storage must be re-sprayed with corrosion preventive mixture every 90 days.

RETURNING AN ENGINE TO SERVICE AFTER STORAGE

1. Remove seals and all desiccant bags.
2. Remove cylinder dehydrators and plugs or spark plugs from upper and lower spark plug holes.
3. Remove oil sump drain plug and drain the corrosion preventive mixture. Replace drain plug, torque and safety. Remove oil filter. Install new oil filter torque and safety. Service the engine with oil in accordance with the manufacturer's instructions.

WARNING

To prevent possibility of serious bodily injury or death, before moving the propeller accomplish the following:

- a. **Disconnect all spark plug leads.**
 - b. **Verify magneto switches are connected to magnetos, that they are in the "OFF" Position and "P" leads are grounded.**
 - c. **Throttle position "CLOSED."**
 - d. **Mixture control "IDLE-CUT-OFF."**
 - e. **Set brakes and block aircraft wheels. Insure that aircraft tie-downs are installed and verify that the cabin door latch is open.**
 - f. **Do not stand within the arc of the propeller blades while turning the propeller.**
4. Rotate propeller by hand several revolutions to remove preservative oil.
 5. Service and install spark plugs and ignition leads in accordance with the manufacturer's instructions.
 6. Service engine and aircraft in accordance with the manufacturer's instructions.
 7. Thoroughly clean the aircraft and engine. Perform visual inspection.
 8. Correct any discrepancies.
 9. Conduct a normal engine start.
 10. Perform operational test in accordance with "Operational Inspection," of the applicable Maintenance Manual.
 11. Correct any discrepancies.
 12. Perform a test flight in accordance with airframe manufacturer's instructions.
 13. Correct any discrepancies prior to returning aircraft to service.
 14. Change oil and filter after 25 hours of operation.

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CONTINENTAL MOTORS

NEW ENGINE WARRANTY

Each new aircraft engine shipped from Teledyne Continental Motors' plant on or after August 1, 1999 is warranted as follows:

1. (a) For a period of twelve (12) months or one thousand (1000) hours of operation, whichever occurs first, after the warranty activation date Teledyne Continental Motors (TCM) will at its option repair or replace on an exchange basis any engine, component or part manufactured or supplied by it which within the applicable twelve (12) month or one thousand (1000) hour period is returned to a TCM representative authorized to handle the engine covered by this warranty and which upon examination is found to the satisfaction of TCM to be defective in material or workmanship. The warranty activation date is the date the engine is first operated for any use or the 180th day after TCM's invoice date, whichever occurs first.

(b) TCM will pay for reasonable labor costs associated with repairs or replacements under paragraph 1(a) of this warranty and for "troubleshooting" costs associated with identifying the need for such repairs or replacements, when coordinated through an authorized TCM representative. The amount of repair and replacement labor costs allowed will be in accordance with the latest revision of the warranty labor allowance schedule, Form X30552, published by TCM. The amount of "troubleshooting" costs allowed will be the reasonable costs under the circumstances of identifying the need for such repairs or replacements, but in no event will the "troubleshooting" costs allowed exceed fifteen percent (15%) of the labor costs associated with such repairs or replacements allowed by TCM. No "troubleshooting" cost allowance will be made where the need for repairs or replacements is identified in the course of overhaul, routine maintenance or on the basis of an obvious defect.

(c) TCM will pay transportation costs in connection with the repair or replacement of any engine, component or part found to the satisfaction of TCM to be defective in material or workmanship under paragraph 1(a) of this warranty. The engine, component or part must be shipped prepaid to the repair facility designated by TCM. Transportation cost reimbursement for engines will be the actual surface freight charge or \$500.00, whichever is less. Engines must be described on the bill of lading as follows: "Internal combustion engine, other than Radial Cyl RVNX \$5.00". Transportation cost reimbursement for components or parts will be the actual surface freight charge for shipment of the component or part or the currently published UPS surface rate schedule, whichever is less.
2. (a) After the expiration of the applicable twelve (12) month period described above and before the expiration of an additional twenty-four (24) month period or expiration of one thousand (1000) hours of operation, whichever occurs first, TCM will, except as excluded below, at its option repair or replace on an exchange basis any component or part manufactured or supplied by it which is found to the satisfaction of TCM to be defective in material or workmanship. During this period TCM reserves the right at its option to replace the defective component or part with either a new or rebuilt component or part. During this period TCM will not assume any responsibility for the repair or replacement of engine accessories, i.e. parts which have been purchased by TCM from a manufacturer as a complete and finished unit and included in the assembly of an engine without altering the unit, including, but not limited to, Unison® magnetos and harnesses, Precision Airmotive Corporation® carburetors and fuel controls, Electrosystems® starters and alternators and Alliedsignal® and Consolidated Fuel Systems® turbochargers. During this period accessories will be subject to such warranty coverage as may be provided by their manufacturer.

(b) In the event that TCM elects to repair in the field, rather than replace, any component or part under paragraph 2(a) of this warranty, TCM will pay labor costs for the repair of the component or part only. The amount of repair labor costs allowed will be in accordance with the latest revision of the warranty labor allowance schedule, Form X30552, published by TCM. TCM will not assume any responsibility for labor costs for the removal and / or re-installation of the component or part, costs associated with "troubleshooting" or any other labor costs associated with repairs or replacements under paragraph 2(a) of this warranty.

- (c) TCM will not assume any responsibility for transportation costs associated with repairs or replacements under paragraph 2(a) of this warranty.
3. The coverage under this warranty applicable to cylinder assemblies and related parts shall be subject to the terms, conditions and limitations set forth in the applicable TCM TopCareSM Cylinder Warranty.
 4. Repair or replacement of any engine or part under this warranty will not extend the period of warranty coverage set forth above.
 5. This warranty applies only to engines in which parts manufactured or supplied by TCM or parts manufactured pursuant to an FAA Parts Manufacturer Approval have been used and nothing contained herein should be construed as a warranty by TCM of any engine or part not manufactured or supplied by TCM. TCM accepts no responsibility for the failure of any engine or part which it does not manufacture or supply or damage resulting from such failure.
 6. This warranty applies only to engines which have been installed, inspected and maintained in accordance with the instructions for continued airworthiness, including compliance with all applicable service bulletins issued by TCM, the aircraft manufacturer or any accessory or component manufacturer. Performance of recommended inspections and maintenance must be documented by appropriate logbook entries and the logbook must accompany any engine being returned for warranty consideration.
 7. This warranty does not apply to any engine, component or part manufactured or supplied by TCM which (1) has been subject to misuse, neglect or accident; (2) has been installed, repaired, maintained or altered in any way that in the judgment of TCM has adversely affected the condition of the engine; (3) has been operated inconsistent with TCM and aircraft manufacturer recommendations and limitations (such as, but not limited to engine RPM, temperature, manifold pressure, fuel flow and proper system adjustment) or (4) has been changed from its original FAA certificated configuration.
 8. TCM will not be responsible for repair or replacement of any engine, component or part damaged or worn as a result of corrosion, pre-ignition/detonation, operation with non-calibrated engine gauges, improper fuel system adjustment, non-TCM approved fuel and oil grades or additives or installation of parts, components or accessories that alter the engine's original type design.
 9. The provisions of this warranty do not apply to normal maintenance service (such as engine tune-ups, adjustments, inspections, engine or component overhaul resulting from time between overhaul (TBO) recommendations, etc.) or to the replacement of normal service items (such as spark plugs, filters, hoses, belts, etc.).
 10. TCM reserves the right to change any engine or part specifications or prices without incurring any responsibility with regard to engines or parts previously sold or replaced.
 11. THIS WARRANTY IS A WARRANTY TO REPAIR OR REPLACE AND NOT A WARRANTY OF THE CONDITION OR FUTURE PERFORMANCE OF THE PRODUCTS WHICH IT COVERS. THERE ARE NO OTHER WARRANTIES, EXPRESSED OR IMPLIED, SPECIFICALLY, BUT WITHOUT LIMITATION, THERE ARE NO IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT WILL TCM BE RESPONSIBLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF ANY DEFECT IN ANY ENGINE OR PART, ARISING OUT OF THE FAILURE OF ANY ENGINE OR PART TO OPERATE PROPERLY, OR ARISING OUT OF ANY BREACH OF THE WARRANTY MADE HEREIN. No person is authorized to give any other warranty or to assume any additional obligation or liability on behalf of TCM.



CONTINENTAL MOTORS

Mobile, Alabama 36601



CONTINENTAL MOTORS TOP CARESM CYLINDER WARRANTY

This TopCare Cylinder Warranty provides special warranty coverage for cylinders and related parts shipped from Teledyne Continental Motors' plant on or after August 1, 1999 provided certain eligibility requirements are met. In the event that the eligibility requirements for this TopCare Cylinder Warranty are not met, the terms and conditions of the Teledyne Continental Motors (TCM) Aircraft Engine Part, Component & Accessory Warranty will apply.

- 1. Engines Eligible for TopCare Cylinder Warranty Coverage:** Any TCM aircraft engine meeting the eligibility requirements of Paragraph 2 of this warranty is eligible for coverage.
- 2. Eligibility Requirements:** This Top Care Cylinder Warranty applies only to cylinders and related parts shipped from TCM's plant on or after August 1, 1999. For purposes of this warranty, the cylinder and related parts are defined as the cylinder, cylinder intake and exhaust valves, valve inserts, valve guides, valve springs and their retaining parts, pistons, piston rings and related O-rings and gaskets. To be eligible for TopCare Cylinder Warranty coverage these parts must be installed together and used in combination with each other.

Required TopCare Health Check Inspections

To be eligible for coverage under this TopCare Cylinder Warranty and to maintain that coverage the aircraft must be inspected at a Fixed Base Operator (FBO) facility in accordance with the TopCare Health Check Inspection set forth in the latest revision of TCM Service Information Directive 97-2 (SID 97-2) as follows:

- (A) For new aircraft:** Each new aircraft powered by a TCM engine shipped from TCM's plant on or after August 1, 1999 is covered by this TopCare Cylinder Warranty. To maintain coverage the aircraft must be inspected at least once per year in accordance with the TopCare Health Check inspection set forth in the latest revision of SID 97-2 and any discrepancies corrected at that time.
- (B) For aircraft in service:** For an aircraft in service in which a new or rebuilt aftermarket TCM engine shipped from TCM's plant on or after August 1, 1999 or for an aircraft having an engine in which a new cylinder supplied by TCM on or after August 1, 1999 is installed, the TopCare Health Check Inspection must be performed at time of installation and at least once per year thereafter in accordance with the TopCare Health Check Inspection set forth in the latest revision of SID97-2 and any discrepancies corrected at that time.

Enrollment and Documentation Requirements

Each new aircraft powered by an engine that incorporates cylinders and related parts shipped from TCM's plant on or after August 1, 1999 is covered and no enrollment is required. For other than new aircraft, enrollment under the TopCare Cylinder Warranty must be accomplished by performing the initial TopCare Health Check Inspection at time of engine (or cylinder) installation and correcting any discrepancies at that time. The TopCare Health Checklist Form attached to the latest revision of SID97-2 must be completed, signed by the inspecting mechanic and a copy returned along with the TopCare Cylinder Warranty Enrollment Form attached to the latest revision of SID97-2 to:

Teledyne Continental Motors
Attn: Warranty Services
P.O. Box 90
Mobile, Alabama 36601-0090

To maintain coverage under the TopCare Cylinder Warranty, the TopCare Health Check Inspection must be performed at least once per year and any discrepancies corrected at that time. The TopCare Health Checklist Form must be completed for each inspection, signed by the inspecting mechanic and retained by the owner for submittal to TCM with any claim under the TopCare Cylinder Warranty. Each required

TopCare Health Check Inspection must have been properly performed and documented on the TopCare Health Checklist Form. The TopCare Health Checklist Form for each inspection must be submitted to TCM with any claim under this TopCare Cylinder Warranty. Copies of work orders documenting the performance of the required TopCare Health Inspection and correction of any discrepancies must also be submitted to TCM upon request.

3. TopCare Cylinder Warranty Coverage:

- (A) For a period of twelve (12) months or one thousand (1000) hours of operation, whichever occurs first, after the warranty activation date, TCM will at its option repair or replace on an exchange basis any cylinder component or related part manufactured or supplied by it which within the applicable twelve (12) month or one thousand (1000) hour period is returned to a representative of TCM authorized to handle the engine in which the cylinder component or related part covered by this warranty is installed and which upon examination by TCM is found to be defective in material or workmanship. For cylinders installed in new or rebuilt engines, the warranty activation date is the date the engine is first operated for any use or the 180th day after TCM's invoice date, whichever occurs first. For cylinder components purchased as aftermarket replacement components, the warranty activation date is the date the cylinder is first operated for any use. TCM will pay for reasonable labor costs associated with repairs or replacements under paragraph 3(A) of this warranty and for "troubleshooting" costs associated with identifying the need for such repairs or replacements when coordinated through an authorized TCM representative. The amount of repair or replacement labor costs allowed will be in accordance with the latest revision of the warranty labor allowance schedule, Form X30552, published by TCM. The amount of "troubleshooting" costs allowed will be the reasonable costs under the circumstance of identifying the need for such repairs or replacements, but in no event will the "troubleshooting" costs allowed exceed fifteen percent (15%) of the labor costs associated with such repairs or replacements allowed by TCM. No "troubleshooting" cost allowance will be made where the need for repairs or replacements is identified in the course of overhaul, routine maintenance or on the basis of an obvious defect.
- (B) After the expiration of the twelve (12) month period described in paragraph 3(A) and before the expiration of an additional twenty-four (24) month period or expiration of one thousand (1000) hours of operation, whichever occurs first, TCM will at its option repair or replace on an exchange basis any cylinder component or related part manufactured and supplied by it which is found to the satisfaction of TCM to be defective in material or workmanship.
- (C) In the event that TCM elects to repair in the field, rather than replace any cylinder component or related part under paragraph 3(B) of this warranty, TCM will pay labor costs for the repair of the cylinder component or related part only. The amount of repair labor costs allowed will be in accordance with the latest revision of the warranty labor allowance schedule, Form X30522, published by TCM. TCM will not assume any responsibility for labor costs for the removal and/or re-installation of the cylinder component or related part, costs for "troubleshooting" or any other labor costs associated with repairs or replacements under paragraph 3(B) of this warranty.
- (D) TCM reserves the right at its option to replace any defective cylinder component or related part with either a new or rebuilt cylinder component or related part.
- (E) Repair or replacement of any cylinder component or related part under this warranty will not extend the period of warranty coverage set forth above.
- (F) TCM will not assume any responsibility for transportation costs in connection with the repair or replacement of any cylinder component or related part under this warranty, except when such transportation has been expressly authorized by TCM. When authorized, transportation cost reimbursement for cylinder components will be the actual surface freight cost or the currently published UPS surface rate schedule, whichever is less.
- (G) This warranty applies only to cylinders in which parts manufactured or supplied by TCM or parts manufactured pursuant to an FAA Parts Manufacturer Approval have been used and nothing contained herein should be construed as a warranty by TCM of any cylinder or related part not manufactured or supplied by TCM. TCM accepts no responsibility for the failure of any cylinder or related part which it does not manufacture or supply or damage resulting from such failure.

- (H) This warranty also applies only to cylinders and related parts on which the installation, inspection, maintenance and operating instructions and recommendations contained in the appropriate operator's manual, overhaul manual and applicable service bulletins have been complied with. Performance of recommended inspections and maintenance must be documented by appropriate logbook entries and a copy of the logbook must accompany any cylinder and related part being returned for warranty consideration.
- (I) This warranty does not apply to any cylinder or related part manufactured or supplied by TCM which has been subject to misuse, neglect or accident or which has been installed, repaired, maintained or altered in any way that in the judgment of TCM has adversely affected the condition of the engine or which has been operated beyond factory recommendations (such as, but not limited to RPM, temperature, manifold pressure, fuel flow and proper system adjustment).
- (J) TCM will not be responsible for repair or replacement of cylinder components or parts damaged or worn as a result of corrosion, pre-ignition/detonation, operation with non-calibrated engine gauges, improper fuel system adjustment, non-TCM approved fuel and oil grades or additives and installation of parts, components or accessories that alter the engines' original type design.
- (K) The provisions of this warranty do not apply to normal maintenance service or to the replacement of normal service items. This warranty does not cover any costs related to the performance of the TopCare Health Check Inspection.
- (L) TCM reserves the right to change any part specifications or prices without incurring any responsibility with regard to engines or parts previously sold or replaced.
- (M) THIS WARRANTY IS A WARRANTY TO REPAIR OR REPLACE AND NOT A WARRANTY OF THE CONDITION OR FUTURE PERFORMANCE OF THE PRODUCTS WHICH IT COVERS. THERE ARE NO OTHER WARRANTIES, EXPRESSED OR IMPLIED, SPECIFICALLY, BUT WITHOUT LIMITATION, THERE ARE NO IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT WILL TCM BE RESPONSIBLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF ANY DEFECT IN ANY CYLINDER OR RELATED PART, ARISING OUT OF THE FAILURE OF ANY CYLINDER OR RELATED PART TO OPERATE PROPERLY, OR ARISING OUT OF ANY BREACH OF THE WARRANTY MADE HEREIN. No person is authorized to give any other warranty or to assume any additional obligation or liability on behalf of TCM.



CONTINENTAL MOTORS

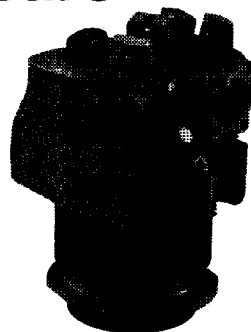
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IMPORTANT - Comply with the TopCareSM Cylinder Program requirements to be eligible for:



- ***Industry leading warranty***
 - 3 Year / 1000 Hours*
- ***Improved Cylinder Service Life***

How to Comply:

- 1-Have the TopCare Health CheckSM performed as prescribed in the latest revision of TCM Service Information Directive SID97-2.
- 2-Register by submitting the TopCare Cylinder Warranty Enrollment Form & initial TopCare Health Check form to TCM in accordance with the latest revision of SID97-2.
- 3-Perform the TopCare Health Check on an annual basis to maintain coverage and optimum cylinder service life.

For complete TopCare Program information, go to <http://www.tcmink.com/topcare/index.html> and download a free copy of the latest revision of TCM Service Information Directive SID97-2. Go to <http://www.tcmink.com/warranty.html> to obtain a free copy of the TopCare Cylinder Warranty. You can also request this information be mailed to you by contacting the Aviator Services Desk at 1-888-826-5465.

NOTICE: Failure to register in, or failure to meet the eligibility requirements of, the TopCare program will render your cylinder warranty coverage to be the same as the Teledyne Continental Motors (TCM) Aircraft Engine Part, Component & Accessory Warranty which provides 12 Months/500 hours (No Labor).

*3 Year/1000 Hour Warranty Consists of 1 Year Parts & Labor Coverage. 2nd & 3rd Year Parts Only Coverage.



Teledyne Continental Motors, Inc.
A Teledyne Technologies Company

TCM NO: CYL0401

The points of the TopCare Health Check are:

- ☐ **Cylinder Differential Compression Check And Trend Monitoring** – When made and recorded for trend monitoring purposes you can identify cylinder leakage rates and the source of the leakage. This test can also be used as a gauge to determine wearing of cylinder walls, ring surfaces and valve seats throughout the life of the engine.
- ☐ **Cylinder Borescope Inspection, As Required** – Your technician must examine the cylinder for the presence of rust and overall condition of the cylinder bore and the valve area.
- ☐ **Oil Consumption Trend Monitoring** – A good diagnostic tool that provides the indication of wear, or indication of the need for inspection or service.
- ☐ **Oil Analysis Trend Monitoring** – A tool used to monitor wear material and contaminants in the engine. For those engines with an established oil analysis profile, changes in iron, copper and other tracked materials can alert you to unusual wear trends and contaminants.
- ☐ **Baffle Condition Inspection** – Incorrect and improperly fitting baffles and baffle seals can contribute to premature cylinder removal caused by high cylinder and oil temperatures.
- ☐ **Induction System Examination** – Breathing in unfiltered air contains particulates which are abrasive to the engine, especially to the cylinder walls and ring faces.
- ☐ **Cowling Inspection and Cowl Flap Operational Check** – In addition to baffle conditions, other components that affect airflow through the cowling must be examined.
- ☐ **Ignition System Inspection** – Advanced magneto to engine timing can cause high cylinder head temperatures. Maintain magneto in accordance with published requirements
- ☐ **Fuel System Setup** – Engine operation and cooling are directly related to the correct set-up of the fuel system. Airflow is not enough to cool the engine during high-power operation and additional fuel is required to provide supplemental cooling.
- ☐ **Verification Of Accuracy Of Engine Instrument Gauges** – Use of inaccurate gauges can result in possible cylinder wear due to lean operation, pre-ignition, detonation, loss of power and sever engine damage or sudden engine stoppage
- ☐ **Flight Test** – Test fly the aircraft with your mechanic after annual inspection. Your knowledge and increased awareness of correct engine operation can significantly influence the service life of your engine's cylinders and other components.