



OK:HH October 2021

Helpful Hints for a Successful Starter Adapter Overhaul VERY IMPORTANT INFORMATION

Always overhaul as per Continental's overhaul manual.

The following applies to the classic style starter adapter only.

While inspecting the friction sleeve, if it appears to have been knurled, replace it with another satisfactory part or a new CAM friction sleeve. We have found that knurled friction sleeves don't work as well as non knurled ones.

After assembling the starter adapter, secure the gear end of the main gear shaft in a vise with soft jaws. Use a wide screwdriver to wind up the adapter. There is usually an arrow stamped on the adapter housing to show direction of rotation. Twist the adapter unit hard in a counter clockwise direction (clockwise for LTSIO units). Release the screwdriver quickly (pull straight out). *The adapter MUST unwind smoothly and completely release the main gear shaft or you must disassemble the unit for further inspection.* The slightest burr or defect on the brass gear or worm will prevent proper operation.

Be VERY VERY careful to ensure that the magnetos are grounded (off) before turning the prop in either direction.

After the adapter is installed on the engine, use a screwdriver to wind the clutch as in the previous step until the propeller moves. Release the screwdriver quickly (pull straight out) and make sure the adapter unwinds. Check for free movement of the propeller.

Misalignment of the adapter can occur due to a bad pilot bearing or improper bearing location in the crankcase.

The starter motor must always be serviced or overhauled when a newly overhauled adapter is installed. The starter motor armature must actually turn backwards several turns to release. A starter motor that will not turn freely using only your fingers will not allow the starter adapter spring to fully release. At best, a faulty starter motor will cause premature wear, at worst, catastrophic failure.

New style, permanent magnet, geared starter motors are to be avoided as some will not allow the adapter spring to release completely or reliably and some have slower cranking speeds than Continental's original starters. Some have a high enough current draw that it can damage the airframe's electrical system.

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Limited Replacement Part Warranty on CAM539800 OR CAM539601 Series Starter Adapter Springs

Canadian Aero Manufacturing [CAM] offers the initial purchaser a 30 day limited replacement warranty if the CAM539800 OR CAM539601 series spring is found, by CAM, to be defective in material or workmanship. This warranty does not apply to any spring which CAM determines has been subject to misuse, neglect, improper installation, corrosion, or accident, including foreign object damage. This warranty does not apply if the starter adapter into which the spring is installed has been modified, repaired, overhauled or operated other than as directed in the Continental overhaul manual or the CAM installation instructions.

Use of a chrome plated main gear shaft will automatically void any and all warranty consideration. The use of hard chrome will cause accelerated premature spring wear.

CAM's warranty does not cover resultant damage to other parts or any expenses incurred for transportation, accommodations or meals. Cam's warranty does not cover engine or starter adapter removal or installation. A warranty claim requires that the complete starter adapter, along with a complete record of the repair / overhaul, be shipped to CAM's head office address within 30 days of making a claim. All shipping costs are the responsibility of the purchaser, except when the part is found, to CAM's satisfaction, to be defective in material or workmanship. In such case, CAM will reimburse the purchaser for full return ground transportation costs of the starter adapter.

CAM's warranty does not cover incidental, consequential or other damages, including without limitation, replacement costs, economic loss, lost revenue, lost profits or loss of use or damage to an engine, aircraft or other property.

The purchaser consents and agrees that any lawsuit, arising out of, or resulting from the condition of the starter adapter spring, shall be in Orillia, Ontario Canada. Furthermore, the purchaser agrees that, if he should file suit or commence legal proceedings against CAM arising out of the condition of the spring sold by CAM, the purchaser will pay CAM's cost of defending such suit or legal proceedings, including reasonable attorney's fees, in the event that [a] CAM prevails in the suit or legal proceedings, or [b] the value of the recovery awarded to the purchaser is equal to or less than any settlement proposal made by CAM prior to the award made in the suit or legal proceeding.

The purchaser agrees that any dispute arising out of or resulting from the condition of the spring sold by CAM shall, on the written request of CAM, be submitted to arbitration under rules as CAM and the purchaser shall agree or failing agreement, shall be governed by the Commercial Arbitration Rules of the American Arbitration Association.

By accepting delivery of this part, Purchaser agrees to the terms of this warranty agreement and agrees to be bound by it whether he uses, distributes or resells the part covered by this warranty agreement.

Canadian Aero Manufacturing's Limited Replacement Part Warranty and the remedies thereunder are exclusive and given in place of [a] all other warranties, express, implied or statutory, whether written or oral, including, but not limited to, any warranty of merchantability, fitness for particular purpose, or implied warranty arising from performance, course of dealing or usage of trade, and [b] all other obligations, liabilities, rights, claims or remedies, including any right in contract tort, strict liability or any right arising from CAM's negligence, actual or imputed.

No agreement varying this warranty agreement or CAM's obligations under it will be binding upon CAM unless made in writing by a duly authorized representative of CAM.

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