

General Aviation Modifications, Inc.

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Installation Procedure, No. IP-2001-02

GAMI Kit No. TIGT550-19B

Revision None

Date: May 25, 2001

S/N _____

***turboGAMIjector*® Installation Procedure for Turbocharged Continental Engines With “Tuned” Induction**

1. Remove existing TCM fuel injector nozzles by disconnecting fuel and air lines at the top with an appropriate wrench. Remove the air lines surrounding each nozzle. Remove the nozzles with a 7/16 or 1/2 inch deep socket.
2. Refer to the number code (1-4 or 1-6 for 4 or 6 cylinder engines accordingly) stamped on each nozzle for placement in corresponding cylinder number. (Note: Nozzles are stamped with both number and letter codes.) Cylinders are numbered from rear to front with odd numbered cylinders on the right side.
3. Apply a small amount of “anti-seize” compound to the threads on the injectors and install appropriate *turboGAMIjector*® in each cylinder with a deep socket and tighten to a torque value of 55 in-lb. Check to see that the O-rings are properly installed in the grooves in the nozzles.
4. Reconnect and tighten the fuel and air lines at the top of the *turboGAMIjector*® nozzles.
5. Check installation for crimped lines, loose fittings, etc.
6. Leak check the *turboGAMIjector*® nozzles and associated fuel lines by use of the electric fuel pump prior to starting the engine. Perform a ground engine run-up and recheck for fuel leaks before flight.
7. Clean a flat 1.5” X 2” area on each cylinder rocker arm cover with acetone or isopropyl alcohol. Apply the correct *turboGAMIjector*® label to the cleaned area with high temperature RTV silicone, such as Permatex “Ultra Copper” P/N101B or equivalent. Allow to cure thoroughly prior to operation of the engine. Remove the fuel line label from its backing. Locate the middle of the tag against the fuel line approximately 5” from the injector nozzle and wrap the correct label (according to its cylinder number identification) around each fuel line going to the appropriate injector, doubling it over onto itself as a tag.
8. Check to insure that the *turboGAMIjectors*® labels and tags have been installed on the proper cylinder and the *turboGAMIjector*® part number in each cylinder corresponds with part number called out on the labels affixed to its respective cylinder head rocker arm cover and fuel line.
9. This STC does not require alteration of the fuel system metered or un-metered fuel pressures or the recalibration of the fuel system. In connection with this STC, no further alteration of the fuel system, other than to comply with appropriate Teledyne Continental Service Bulletins, airworthiness

directives, or compatible STC's is authorized. See the following Teledyne Continental Service Bulletins for further information: M78-11 Fuel Injection System Inspection, M85-19 Fuel Injection System Application Guide, M987-12 Rev. 1 Recommended Fuel and Oil Grades, M89-10 Fuel System Adjustment, and M890-18 EGT Recommendations. A copy of each of those service bulletins should be found in the shipping box containing the *turboGAMIjectors*®. If not, contact GAMI.

10. Complete and submit an FAA Form 337 for the aircraft, referencing installation of the General Aviation Modifications, Inc. Kit Number and this STC No. SExxxxxSC. There is no change in weight and balance.

Instructions for Continued Airworthiness and Overhaul & Maintenance Procedure:

- 1) On condition. When there is an abnormal EGT indication, the nozzle from the affected cylinder should be investigated to determine if it is plugged. A visual examination of the small nozzle orifice by holding the nozzle to a bright light should be performed. Any indication of any irregularity in the orifice or plugging should be corrected as described in 2), below.
- 2) At 100 hour or annual, as is otherwise performed, the nozzles should be cleaned (soaked, one hour) with Gunk carburetor cleaner or Hoppe's #9 Gun Solvent followed by blowing off with shop air. Perform a visual inspection as in 1), above. Do NOT insert any object in the nozzle for any reason. If any visible obstruction persists or the nozzle does not perform correctly, after this inspection, the affected nozzle and all other nozzles in the set of nozzles, must be returned to GAMI for service, or to a service facility approved by GAMI.
- 3) Overhaul or Major Engine Work: Inspect O-rings on nozzles and replace if necessary with GAMI P/N GV75-010 or Continental P/N 630979-9 O-rings. Within 25 hours after overhaul or major engine work in which one or more cylinders are replaced, or during which the induction system is dismantled, and subsequent return to service of the engine, new data should be obtained in accordance with the GAMI lean test for engines that have nozzles that have been specified based on EGT data. In the event the "spread" in total engine fuel flow (TEFF) measured during the new GAMI lean test (comparing the TEFF when the first cylinder reaches peak EGT and when the last cylinder reaches peak EGT) exceeds 0.6gph, then the nozzles along with the lean test results should be returned to GAMI (or a service facility authorized by GAMI) for service and recalibration and then re-installed in the engine in accordance with this installation procedure.