

United States Of America  
Department of Transportation - Federal Aviation Administration

# Supplemental Type Certificate

Project Number SA8168SC-E, PWH

*Number* SE7734SW

*This Certificate issued to* Dr. Maxwell E. Shauck, Jr.  
700 S. University Parks Dr.  
Suite 240  
Waco, TX 76706

*certifies that the change in the type design for the following product with the limitations and conditions therefor as specified hereon meets the airworthiness requirements of Part 13 of the Civil Air Regulations.*

*Original Product Type Certificate Number :* \* See FAA Approved Model List (AML)

*Make :* \*

*Model :* \*

*Description of Type Design Change:* Modification of engine for operation with ethanol fuel in accordance with Airmotive Engineering Report No. 9003-8, Revision 2, dated March 12, 1990, and Drawing. No. AE077, "Engine Modification Data", Revision 3, dated March 8, 1990, for the Lycoming IO-540 series engines; or Report No. AVS O-540-001, dated September 15, 1997, for the Lycoming O-540 series engines, or later FAA approved revisions.

*Limitations and Conditions:* Approved fuels are as follows: (1) Ethanol, ASTM D-4806, (2) Ethanol, Brazil National Department of Fuels, Technical Regulation DNC-01/91, Specification for Anhydrous Fuel Ethanol ("AEAC") or Hydrous Fuel Ethanol ("AEHC"), (3) Aviation Gasoline 100LL, ASTM D-910, (4) Mixtures of anhydrous ethanol or hydrous ethanol and aviation gasoline are authorized. Mixtures of ethanol and aviation gasoline are limited to a maximum of 25% aviation gasoline by volume.

(See continuation sheet)

*This certificate and the supporting data which is the basis for approval shall remain in effect until surrendered, suspended, revoked or a termination date is otherwise established by the Administrator of the Federal Aviation Administration.*

*Date of application :* March 24, 1989

*Date reissued :*

*Date of issuance* March 12, 1990

*Date amended:* 11/24/97; 6/9/00; 6/8/05, Rev. 3



*By direction of the Administrator*

(Signature)

Fred Stellar  
Acting Manager,  
Special Certification Office

(Title)

Any alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 3 years, or both.

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(Continuation Sheet)

Project Number SA8168SC-E

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Date of Issuance: March 12, 1990

Date Amended: June 8, 2005

*Limitations and Conditions* (Continued): Compatibility of this design change with previously approved modifications must be determined by the installer. If the holder agrees to permit another person to use this certificate to alter the product, the holder shall give the other person written evidence of that permission.

## FAA APPROVED MODEL LIST (AML)

STC No. SE7734SW

Date Of Issuance: March 12, 1990

Date Amended: June 6, 2005

Dr. Maxwell E. Shauck, Jr.

700 S. University Parks Dr.

Suite 240

Waco, Texas 76706

Item	Aircraft Make	Aircraft Model	Original Type Certificate Number	Regulation/Part
1.	Textron Lycoming	IO-540-C, -D, -J, -N, -R, -T, series and AEIO-540-D series	1E4	CAR 13
2.	Textron Lycoming	O-540-A, -B, -E, -F, -G, -H, -J, and -L series	E-295	CAR 13

FAA Approved: \_\_\_\_\_

Fred Stellar  
Acting Manager,  
Special Certification Office

Date: \_\_\_\_\_