

DepartmentofTransportation\_FederalAviationAdministration

## Supplemental Type Certificate

*Number* SE3877NM*This certificate, issued to*

**Kai V. Nielsen**  
**19212 59<sup>th</sup> Dr. N.E. #10**  
**Arlington, WA 98223**

*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, dated June 15, 1956 as amended by 13-1, 13-2, and 13-3.*

*Original Product—Type Certificate Number:* E-223-16  
*Make:* Lycoming  
*Model:* O-235-L2C

*Description of the Type Design Change:* Modification of a Lycoming O-235-L2C engine to increase the horsepower rating from 115 HP @ 2700 RPM to a continuous 125 HP @ 2800 RPM in accordance with Maynard C. Crosby Installation Instructions MCC 1001.

NOTE: The modified engine shall be designated as O-235-L2C(M).

*Limitations and Conditions:* Approval of this change in type design applies basically to the above model engine only. This approval should not be extended to other engines of this model on which other previously approved modifications are incorporated unless it is determined that the interrelationship between this change and any other previously approved modifications, including changes in type design, will introduce no adverse effect upon the airworthiness of that engine. A copy of this certificate and continuation sheet shall be maintained as part of the permanent records for the modified engine.

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.

*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:* October 1, 1986      *Date reissued:* January 8, 2008

*Date of issuance:* July 24, 1987      *Date amended:* January 8, 2008



*By direction of the Administrator*

\_\_\_\_\_  
 (Signature)  
 Acting Manager, Seattle Aircraft  
 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.

This certificate may be transferred in accordance with FAR 21.47.

Department of Transportation Federal Aviation Administration

# Supplemental Type Certificate

(Continuation Sheet)

*Number* **SE3877NM**

**Kai V. Nielsen**

Reissued: January 8, 2008  
Amended: January 8, 2008

*Limitations and Conditions (continued):*

The conditions and limitations of Type Certificate Data Sheet E-223-16 apply except where superseded by the following:

This Supplemental Type Certificate Data Sheet, which is part of STC SE3877NM, prescribes the conditions and limitations under which the product for which the STC was issued meets the airworthiness requirements of the Civil Air Regulations:

SUPPLEMENTAL TYPE CERTIFICATE HOLDER: Kai V. Nielsen

Engine: Lycoming O-235-L2C(Modified)  
Fuel: 100/130 minimum grade aviation gasoline  
Engine Limits: For all operations, 2800 RPM (125 HP)  
Compression Ratio: 9.7:1  
Sparkplugs: Auburn SR-87 or Equivalent (see Lycoming engine manual for F or J series Engines)  
Placards: Placards and Operating Limitations on Type Certificate Data Sheet E-223-16 apply except as noted herein:

- a. Original Engine Data Plate:  
Add a "suffix" (M) and the STC number to the model designation  
As follows:

MODEL: O-235-L2C(M) STC SE3877NM

- b. Supplemental Engine Data Plate:  
Install a Supplemental Data Plate adjacent to the original  
Data Plate to read as follows:

AVCO LYCOMING ENGINE  
SUPPLEMENTAL DATA PLATE  
STC SE3877NM

TAKEOFF (5 MIN) 125 HP @ 2800 RPM  
NORMAL RATE 125 MP @ 2800 RPM

SPARK ADVANCE – 25 ° BTC

- END -

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

*This certificate may be transferred in accordance with FAR 21.47.*