

DepartmentofTransportation_FederalAviationAdministration

Supplemental Type Certificate

Number SA00487SE

This certificate, issued to **Aeronautical Testing Service**
18820 59th Drive NE
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 23 of the Federal Aviation Regulations.

Original Product—Type Certificate Number: A28CE

Make: Cessna

Model: 441

Description of the Type Design Change: Fabrication of a vortex generator system and main landing gear modification in accordance with Aeronautical Testing Service (ATS) Drawing List No. ATS-441, Revision "E," dated November 28, 2001, or later FAA approved revision, for installation on these aircraft in accordance with ATS Installation Manual No. IM97-2, Revision "B," dated November 4, 1997, or later FAA approved revision and IM98-02, Revision "A," dated November 28, 2001, or later FAA approved revision as appropriate.

NOTE: Several modification options are provided. These may include changes to the airplane stall speed, and maximum ramp weight, takeoff weight, landing weight and zero fuel weight. For specific information regarding each option, including Airplane Flight Manual Supplement (AFMS) requirement, please refer to Continuation Sheet Pages 3 through 5.

Limitations and Conditions: Approval of this change in type design applies to the above model aircraft only. This approval should not be extended to other aircraft of these models on which other previously approved modifications are incorporated unless it is determined by the installer that the relationship between this change and any of those other previously approved modifications, including changes in type design, will introduce no adverse effect upon the airworthiness of that aircraft. Please refer to this certificate's Continuation Sheet Pages 3 through 5 for specific limitations.

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: May 29, 1997

Date reissued:

Date of issuance: December 15, 1997

Date amended: November 28, 2001, March 31, 2006

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.

Supplemental Type Certificate

(Continuation Sheet)

Number SA00487SE

Aeronautical Testing Service

Reissued:

Amended: November 28, 2001, March 31, 2006

Description of Type Design Change: (continued)

Description of Modification Options Each of these options incorporate the vortex generator kit.

- Option 1: Basic Cessna 441 airplanes; revised stall speeds; increased ramp, takeoff and zero fuel weights; revised performance information; AFMS required.
- Option 2: Cessna 441 airplanes equipped with Garrett TPE331-10N engines per STC No. SA5682NM; all other information the same as for Option 1, above.
- Option 3: Cessna 441 airplanes equipped with landing gear metering pin 1C0234001-01; revised stall speeds; increased ramp, takeoff, landing and zero fuel weights; revised performance information; AFMS required.
- Option 4: Cessna 441 airplanes equipped with engines per Option 2; all other information the same as for Option 3, above.

Limitations and Conditions: (continued)

The following aircraft limitations apply to both Options 1 and 2:

Weight Limits:

Maximum Ramp Weight	10,240 lbs.
Maximum Takeoff Weight	10,165 lbs.
Maximum Landing Weight	9,360 lbs.
Maximum Zero Fuel Weight	8,815 lbs.

Flight Center of Gravity Limits (Landing Gear Extended) - retract moment change + 1,113 in-lbs.

- a. Aft Limit: 178.07 inches aft of reference datum (28.50% MAC) at 10,165 pounds or less.
- b. Forward Limit:
175.44 inches aft of reference datum (24.50% MAC) at 10,165 pounds to
173.35 inches aft of the reference datum (21.04% MAC) at 9,850 pounds with straight line
variation between these points. At 6,800 pounds or less, the limit is 167.63 inches aft of
reference datum (12.00% MAC).

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Supplemental Type Certificate

(Continuation Sheet)

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Reissued:

Amended: November 28, 2001, March 31, 2006

Limitations and Conditions: (continued)

The following aircraft limitations apply to both Options 3 and 4:

Weight Limits:

Maximum Ramp Weight	10,415 lbs.
Maximum Takeoff Weight	10,340 lbs.
Maximum Landing Weight	9,600 lbs.
Maximum Zero Fuel Weight	8,815 lbs.

Flight Center of Gravity Limits (Landing Gear Extended) - retract moment change + 1,113 in-lbs.

- a. Aft Limit: 178.07 inches aft of reference datum (28.50% MAC) at 10,340 pounds or less.
- b. Forward Limit:
176.55 inches aft of reference datum (26.10% MAC) at 10,340 pounds to
173.35 inches aft of the reference datum (21.04% MAC) at 9850 pounds to
167.63 inches aft of reference datum (12.00% MAC) at 6800 pounds with straight line
variation between these points. At 6,800 pounds or less, the limit is 167.63 inches aft of
reference datum (12.00% MAC).

Airplane Flight Manual Supplement (AFMS): Aircraft modified per this STC must be operated in accordance with the following Aeronautical Testing Service, Inc. AFMS's, or later FAA approved revisions.

- Option 1: ATS AFMS Report No. ATS 97-05a, dated October 29, 1999.
- Option 2: ATS AFMS Report No. ATS 97-05b, dated October 29, 1999.
- Option 3: ATS AFMS Report No. ATS 97-05c, dated November 28, 2001.
- Option 4: ATS AFMS Report No. ATS 97-05d, dated November 28, 2001.

Records: The following must be maintained as part of the permanent records for the modified aircraft for all options:

A copy of this Certificate, Continuation Sheets and the appropriate FAA approved AFMS.

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Aeronautical Testing Service

Reissued:

Amended: November 28, 2001, March 31, 2006

Limitations and Conditions: (continued)

Other Limitations: All Options

Refer to the appropriate AFMS for specified Operating Limits and performance information.

The ATS modification consists of 24 vortex generators which constitute the minimum requirement. If less than 20 vortex generators are in place, or if any are damaged, the aircraft must be operated in accordance with the original Pilot's Operating Handbook and FAA Approved Airplane Flight Manual.

Noise: The certified noise level at maximum weight is 76.8 dB(A). No determination has been made by the FAA that the noise levels of this airplane are or should be acceptable or unacceptable for operation at, into, or out of any airport.

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.

- END -

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