

United States of America  
Department of Transportation — Federal Aviation Administration  
**Supplemental Type Certificate**

*Number* SA421CE

*This certificate, issued to* Barbara or Bob Williams  
Box 431  
Udall, Kansas 67146

*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 3 of the Civil Air Regulations.*

*Original Product — Type Certificate Number:* A-799  
*Make:* Cessna  
*Model:* 170A & 170B (Land planes Only)

*Description of Type Design Change:* Installation of a Lycoming O-360 A1A or O-360-A1D 180 h.p. engine or O-360-B1B 168 h.p. engine and constant speed propeller as indicated on continuation sheets 2 through 4. O-320-E2D 150 h.p. engine installed in airplane S/N20753 only.  
*Data Required:* (1) A copy of this Certificate. (2) Mid-America STOL Aircraft, Inc., Drawing List No. 17000, dated November 29, 1976, or later revision stamped FAA Approved or approved copy of Doyn Drawing List No. SA421CE. (3) Flight Manual Supplement as specified on the continuation sheets 2 through 4.

*Limitations and Conditions:* This approval should not be extended to other specific airplanes of this model on which other previously approved modifications are incorporated, unless it is determined that the interrelationship between this change and any of these other previously approved modifications will introduce no adverse effect upon the airworthiness of that airplane. See page 4 for airplane S/N20753

*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:* January 28, 1966

*Date issued:* July 1, 1975; September 5, 1979

*Date of issuance:* April 21, 1966

*Date amended:* March 11, 1971  
July 20, 1993

*By direction of the Administrator*



ORIGINAL SIGNED BY  
EVERETT W. PITTMAN  
*(Signature)*

Everett W. Pittmann, Manager  
Wichita 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.*

United States of America  
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**Supplemental Type Certificate**  
(Continuation Sheet)

*Number* SA421CE

Aircraft specification No. A-799 applies except as follows:

Note: Required Equipment, Propellers and Propeller Accessories, Engine and Engine Accessories-Fuel and Oil System, Landing Gear, Electrical Equipment, Interior Equipment, and Miscellaneous items that conflict with items installed by the STC are superseded by the STC items. Installation of other such items on the Data Sheet in conjunction with this STC must be evaluated to determine that they will introduce no adverse effect upon the airworthiness of the airplane.

II & III- Model 170A and 170B

Engine	Lycoming O-360-A1A, A1D, or B1B
Fuel (A1A or A1D)	91/96 Minimum Octane Aviation Gasoline
Fuel (B1B)	80 Minimum Octane Aviation Gasoline
Engine Limits (A1A or A1D)	For all operations 2700 r.p.m. (180 h.p.)
Engine Limits (B1B)	For all operations 2700 r.p.m. (168 h.p.)
Oil Capacity	2-Gallons (-22)

Propellers and Propeller Accessories:

Hartzell HC-C2YK-1A/7666A-2 or Hartzell HC-C2YK-1B/7666A-2

Diameter: Not over 74 in.  
Not under 72 in.

Pitch Settings: At 30 in. station - Low 14° ±1°  
- High 29° ±1°

Governor: Hartzell F-3-1 or F-3-1A

Spinner: (Hartzell P/N 835-21P or 835-7 or 835-4) Required

MacCauley 2D36C14/78KM-4.

Diameter: Not over 74 in.  
Not under 72 in.

Pitch Settings: At 30 in. station - Low 12.7° +1°-0°  
High 27.5° ±1°

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FAA FORM 8110-2-1 (10-89)

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**(Continuation Sheet)**

*Number* SA421CE

Governor: McCauley C290D2/T6 or C290D3/XX or Woodward 210080

Spinner: (Hartzell P/N 835-21P or 835-7 or 835-4) Required.

Instruments: Manifold Pressure Gage Required.

Instrument Markings:

Tachometer - Hartzell Propeller - 2700 r.p.m. (red line)  
Red Arc 2000 - 2250 r.p.m.

McCauley Propeller - 2700 r.p.m. (red line)

Oil Temperature Gage - 245° (red line)

Oil Pressure Gage - Minimum 25 p.s.i. (red line)  
Maximum 100 p.s.i. (red line)  
Normal - 60 to 90 p.s.i. (green arc)

Fuel Pressure Gage Minimum .5 p.s.i. (red line)  
Maximum 8 p.s.i. (red line)  
Normal 3 to 5 p.s.i. (green arc)

Placards:

Above the Fuel Pump Switch: "Fuel Pump - Pull On"

On the Dome Light Fuse Placard: "Fuel Pump"

On the Nav Light Fuse Placard: "Nav and Starter"

In close proximity to the Tachometer:

Hartzell HC C2YK 1A/7666A-2 -or Hartzell HC-C2YK-1B/76666A-2  
propeller - "Avoid continuous operation between 2000 and  
2250 r.p.m.

McCauley 2D36C14/78KM-4 propeller - "Avoid continuous operation  
while descending between 2000 and 2550 r.p.m. with manifold  
pressure settings below 15 inches mercury.

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FAA FORM 8110-2-1 (10-69)

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(Continuation Sheet)

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Adjacent to Fuel Filler Caps (on aircraft equipped with 0-360-A1A or 0-360-A1D engines). "91/96 minimum octane"

Interior Equipment:

FAA Approved Airplane Flight Supplement, dated December 20, 1976, prepared by Mid-America STOL Aircraft, Inc. (MASA), or later FAA Approved revisions pertinent to Lycoming 0-360-A1A and 0-360-A1D engine installation.

FAA Approved Airplane Flight Manual Supplement dated October 20, 1965, prepared by Doyn Aircraft pertinent to Lycoming 0-360-A1A and 0-360-A1D engine installation.

FAA Approved Airplane Flight Manual Supplement dated July 14, 1961, prepared by Doyn Aircraft pertinent to Lycoming 0-360-A1A engine installation.

FAA Approved Airplane Flight Manual Supplement dated June 28, 1963, prepared by Doyn Aircraft, pertinent to Lycoming 0-360-B1B engine installation.

FAA Approved Airplane Flight Manual Supplement dated July 20, 1993, prepared by Bush Conversions pertinent to Lycoming 0-320-E2D Engine and McCauley Model 1C172TM7653 propeller installed in Cessna Model 170B airplane Serial Number 20753 only.

Note: With the described engine and propeller installation performance will be at least equal to or better than that demonstrated during original certification of the Cessna 170A and 170B airplanes.

Data for S/N20753 is in FAA Approved Airplane Flight Manual Supplement only.

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FAA FORM 8110-2-1 (10-88)

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

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July 20, 1993

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