

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

Number SA3734NM

This certificate, issued to Rebuilt Aircraft and Salvage

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: 3A15

Make: Beech

Model: 35-B33, 35-C33 and 35-E33 (normal category only)

Description of Type Design Change: Installation of a Continental IO-470-N engine and McCauley 2A36C23/84B-0 propeller in accordance with FAA Approved Rebuilt Aircraft and Salvage Report No. RAS 33/260, Revision 2, dated November 13, 1989, or later FAA approved revision.

Limitations and Conditions: The approval of this change in type design applies to the basic aircraft of the specified models that are otherwise unmodified. 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 interrelationship between this change and any of those other previously approved modifications will introduce no adverse effect on the airworthiness of this aircraft.

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: April 16, 1987

Date issued:

Date of issuance: October 29, 1987

Date amended: July 18, 1990

By direction of the Administrator

Frederick Lee
(Signature)

Manager, Los Angeles 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.

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I - Model Beech 35-B33, 35-C33 and 35-E33 (Normal Category) as modified by STC SA3734NM.

Engine: Continental IO-470-N

Fuel: 100 Minimum Grade Aviation Gasoline

Engine Limits: Takeoff (5 Min.): 240 HP - 2600 RPM/26.9" Hg. at S.L.
240 HP - 2600 RPM/26.2" Hg. at
3000 ft.

Maximum Continuous: 225 HP - 2600 RPM/25.5" Hg. at S.L.
225 HP - 2600 RPM/24.4" Hg. at
5200 ft.

Straight line manifold pressure
variation with altitude between
points given.

Oil Capacity: 10 qt. (+26)

Propeller and
Propeller Accessories: 1. McCauley constant speed
(a) 2A36C23 hub with 84B-0 blades
Diameter: Not over 84 in.
Not under 82 in.
Pitch Settings at 30 in. sta.: Low 13.3°
High 29.2°
Minimum
(b) Woodward governor 210452 or A210680 or
Flottorp IF1 (34-825 Garwin governor)
(c) McCauley D3290A Spinner Assembly

2. Beech Constant Speed
(a) Beech 278-100-11 or 278-100-13 hub with
278-214-82 blades.
Diameter: 82 in., no cutoff permitted
Pitch settings at 33 in. sta.: Low 13.5°
high not under 30°
(b) Woodward hydraulic governor (210235 or
210350)

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Propeller and
Propeller Accessories (cont.):

3. Flottorp constant speed
 - (a) Flottorp F12A-3 with 8400-2 blades
Diameter: Not over 82 in., Not under 82 in.
Pitch settings at 33 in. sta: Low 13.5
 - (b) Woodward governor (210452)
 - (c) Flottorp FS-200-1 spinner assembly

Powerplant Inst.
Markings:

Tachometer: 2600 RPM Maximum (Red radial)
1750 - 2600 RPM Normal Operating (Green Arc)

Manifold Pressure:

26.9 in. Hg. Maximum at S.L. (Red Radial)
25.5 - 26.9 in. Hg. Caution (Yellow Arc)
15 - 25.5 in. Hg. Normal Operating (Green Arc)

Oil Temperature:

225 F Maximum (Red radial)
100 F Caution (Yellow radial)
100 - 225 F Normal Operating (Green Arc)

Oil Pressure:

80 psi Maximum (Red radial)
30 psi Minimum (Red radial)
30 - 60 psi Normal Operating (Green Arc)

Fuel Flow (Metered fuel pressure):

17.5 psi Maximum (Red radial)
1.5 psi Minimum (Red radial)
6.9 GPH to 21.6 GPH Normal Operating (Green Arc)

Cylinder Head Temperature:

460° F Maximum (Red radial)
200° - 460° Normal Operating (Green Arc)

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Required Equipment: The following Rebuilt Aircraft & Salvage FAA Approved Airplane Flight Manual Supplements are required as part of this STC Model 35-B33, dated October 29, 1987, Model 35-C33 and 35-E33, dated April 24, 1990.

Certification Basis: Part 3 of the Civil Air Regulations as amended to May 15, 1956 and FAR 23.955(c), dated August 13, 1969. (See Note 3)

NOTE 1. Current weight and balance report including list of equipment included in certificated empty weight, and loading instructions when necessary must be in aircraft.

NOTE 2. The following information shall be provided to the pilot in the form of placards or markings:

- a. At the oil filler cap:
"OIL 10 QTS."
- b. At the fuel tank filler openings:
"Fuel -100 Min. Grade Av. Gas"
- c. At the Cowl Flap control:
"COWL FLAPS PULL TO OPEN"
- d. On the instrument panel: Remove existing utility category placard and install the following placard:

"NORMAL CATEGORY AIRPLANE, OPERATE IN ACCORDANCE WITH FAA APPROVED AIRPLANE FLIGHT MANUAL. INTENTIONAL SPINS PROHIBITED. NO ACROBATIC MANEUVERS ARE APPROVED."
- e. On the instrument panel near the manifold pressure gauge:

"ENGINE POWER LIMITS"

Takeoff 240 hp, 2600 rpm, 26.9" Hg @ Sea Level
240 hp, 2600 rpm, 26.2" Hg @ 3000 Ft.

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NOTE 2 (cont.):

- e. On the instrument panel near the manifold pressure gauge (cont.):

Maximum continuous 225 hp, 2600 rpm, 25.5" Hg @ Sea level
225 hp, 2600 rpm, 24.4" Hg @ 5200 Ft.

Straight line variation of manifold pressure with altitude between points given.

- f. Near the master switch if alternator is installed:

"DO NOT TURN OFF ALTERNATOR IN FLIGHT EXCEPT IN CASE OF EMERGENCY"

NOTE 3.

Noise characteristics: No acoustical change was shown under the provisions of FAR Paragraph 21.93(b) amendment 21-63.

- END -

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