

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

Number SA876CE

This certificate issued to:

Beechcraft Corporation
10511 E. Central Ave
Wichita, KS 67206

certifies that the change in the type design for the following product with the limitations and conditions therefore as specified hereon meets the airworthiness requirements of Part 3 of the Civil Air Regulations.

Original Product - Type Certificate Number: 5A3
Make: Beech
Model: A-45 (Military T-34A, B-45)

Description of Type Design Change: Remove Continental 0-470-13 or 0-470-13A engine and propeller. Install Continental IO-470-N engine and Hartzell BHC-L2YF-4F/FC8468AR propeller in accordance with drawings listed in PDA 4479 drawing list dated October 6, 1972. United Beechcraft FAA approved Airplane Flight Manual Supplement dated October 5, 1972 is required.

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 those other previously approved modifications will introduce no adverse effect upon the airworthiness of that airplane. 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.

(See Continuation Sheets)

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 6, 1972

Date reissued: November 15, 1972; April 15, 1996;
March 26, 2007; April 12, 2013

Date of issuance: October 5, 1972

Date amended:

By direction of the Administrator

Original signed by Erik Brown



(Signature)

Erik W. Brown
Program 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.

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Date of Issuance: October 5, 1972
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April 12, 2013

Limitations and Conditions (continued):

The conditions and limitations of Aircraft Specification No. 5A3 apply except as follows:

A copy of this addendum and the STC are required to be maintained as part of the modified aircraft permanent records.

1. Model A45 (Military T-34A, B-45), approved October 5, 1972

Engine: Continental IO-470-N

*Fuel: 100/130 min. grade aviation gasoline

Engine Limits: For all operations 2625 rpm (260 hp)

Propeller and
Propeller Limits: Hartzell BHC-L2YF-4F/FC8468AR
Diameter: Not over 84 inches, not under 84 inches.
No cutoff allowed.
Pitch settings at 30 in. sta.: low 13.5°, high 30°

Powerplant Instrument Markings:

*Oil Temperature Gage:	107°C (225°F)	Red Radial	(Maximum)
	24°C to 107°C (75°F to 225°F)	Green Arc	(Normal)
	24°C (75°F)	Red Radial	(Minimum)
*Oil Pressure Gage:	100 PSI	Red Radial	(Maximum)
	30 to 60 PSI	Green Arc	(Normal)
	30 PSI	Red Radial	(Minimum)
*Fuel Pressure Gage:	19 PSI	Red Radial	(Maximum)
	6 to 22 GPH	Green Arc	(Normal)
	1.5 PSI	Red Radial	(Minimum)
*Fuel Capacity:	44 gal. (two 22-gal. wing tanks, 22 gal. usable in each tank at +80) 3 gal. unusable in each tank		
Oil Capacity:	12 qts. (10 qts. usable)		

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Limitations and Conditions (continued):

*Cylinder Head Temp:	107°C to 238°C (225°F to 460°F) 238°C (460°F)	Green Arc Red Radial	(Normal) (Maximum)
*Tachometer:	1500 to 2625 RPM 2625 RPM	Green Arc Red Radial	(Normal) (Maximum)
*Manifold Pressure:	15 to 29.6 in. Hg. 29.6 in. Hg.	Green Arc Red Radial	(Normal) (Maximum)

Maneuvers:

	<u>Recommended Entry Speeds</u>
1. Stalls (except whip stalls)	Use slow deceleration
2. Steep Turns	Maximum – 150 knots (CAS)
3. Spins	Use slow deceleration
4. Lazy Eights	115 knots (CAS)
5. Chandelle	130 knots (CAS)
6. Snap Rolls	95 knots (CAS)
7. Vertical Reversements	95 knots (CAS)
8. Loops, Cuban Eights & Immelmans	150 knots (CAS)
9. Slow Rolls	115 knots (CAS)

Placards:

On instrument panel, front and rear: “ACROBATIC CATEGORY AIRPLANE, OPERATE IN ACCORDANCE WITH CAA APPROVED FLIGHT MANUAL. Do not lower landing gear or flaps above 109 knots TIAS. For recommended entry speeds, see Approved Acrobatic Maneuvering Placard and Airplane Flight Manual.”

On right side panel, front and rear cockpit: “APPROVED ACROBATIC MANEUVERS (1) STALLS (EXCEPTS WHIP STALLS) – USE SLOW DECELERATION (2) STEEP TURNS – MAXIMUM 150 KNOTS (3) SPINS – USE SLOW DECELERATION (4) LAZY EIGHTS – 115 KNOTS (5) CHANDELLE – 130 KNOTS (6) SNAP ROLLS – 95 KNOTS (7) VERTICAL REVERSES – 95 KNOTS (8) LOOPS, CUBAN EIGHTS AND IMMELMANS – 150 KNOTS (9) SLOW ROLLS – 115 KNOTS”

On Fuel Selector: “22 GAL. L.H. – 22 GAL. R.H.”

On fuel filler caps: “22 US GAL. CAP – 100/130 OCTANE”

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Limitations and Conditions (continued):

Near fuel selector: "USE BOOST PUMP DURING RE-START AND AFTER SWITCHING TANKS". "USE LEFT TANK FOR TAKE-OFF AND FIRST 30 MINUTES OF FLIGHT".

On right hand front side panel: "ON
BATT ALTERNATOR"
OFF

"ALT FAIL LIGHT"

On right hand side of instrument panel: "ALTERNATOR MUST BE OFF WHEN USING GND POWER CART".

On left hand side of cockpit rail: "DO NOT TAKE-OFF IF FUEL GAGES INDICATE IN YELLOW BAND OR WITH LESS THAN 13 GAL. IN EACH MAIN TANK". "DO NOT PERFORM APPROVED MANEUVERS WITH LESS FUEL THAN REQUIRED FOR TAKE-OFF".

On upper left hand side of instrument panel: "INVERTED FLIGHT PROHIBITED".

On lower left hand side of instrument panel: "ALTERNATE INDUCTION AIR PULL AND RELEASE".

In addition to the placards specified above, the prescribed operating limitations indicated by an asterisk (*) in this addendum must be displayed by permanent markings.

Required Equipment: 201(b) or (c), 202, 205, 206, 301(b), 302(b), 303(b), 305 or 402(b), 601, all airplanes must be equipped with a United Beechcraft, Inc. FAA approved Airplane Flight Manual Supplement dated October 5, 1972.

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