

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

A26CE Revision 7 BEECH T-34C (T-34C-1) (34C) April 15, 1996

TYPE CERTIFICATE DATA SHEET A26CE

This data sheet which is a part of Type Certificate No. A26CE prescribes conditions and limitations under which the product for which the Type Certificate was issued meets the airworthiness requirements of the Civil Air Regulations.

Type Certificate Holder	Raytheon Aircraft Company 9709 E. Central Wichita, KS 67201
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I - Model T-34C, Turbine-Mentor, (Foreign Government T-34C-1), 2-PCLM (Acrobatic Category), Approved December 17, 1976
Model T-34C, Turbine-Mentor, (Foreign Government 34C), 2-PCLM (Acrobatic Category), Approved August 25, 1978

Engine Pratt & Whitney Aircraft of Canada, LTD., of United Technologies Corp., Pratt & Whitney Division PT6A-25 (turboprop) per Beech Specification BS 22599 (T-34C) GL-1 & after or BS 22814 (T-34C-1) effective GM-1 through GM-71, GM-78 through GM-98 and (34C) effective GP-1 through GP-6.

Pratt & Whitney Aircraft of Canada, Ltd., of United Technologies Corp., Pratt & Whitney Division PT6A-25A (turboprop) per Beech Specification BS 23784 (T-34C-1) effective GM-143 and after and (34C) effective GP-7 and after.

Fuel JP-4, JP-5, JP-8, commercial kerosene, Jet A, Jet A-1, Jet B, and fuels conforming to P&W Specification 522, or ASTM Spec. No. ES2-74. (Fuels shall conform to the specifications as listed or to subsequent revisions thereto.) Fuels must contain anti-icing additives conforming to PFA 55MB (MIL-I-27686).

Oil (Engine & Gearbox) UACL PT6 Engine Service Bulletin No. 1001 lists approved brand oils.

Engine Limits

	Shaft Horsepower	N ₁ Gas Generator Speed (%)	Prop Shaft Speed (R.P.M.)	Maximum Permissible Turbine Interstage Temperature (Deg. C.)
Takeoff	425	101.5	2,200	695
Max. Continuous	425	101.5	2,200	695
Starting Transient (two seconds)	-	-	-	1,090

R.P.M. overspeed limits - see NOTE 4

Oil temperatures: Minus 40° C. minimum starting
Minus 40° C. to 99° C. idle
10° C. to 99° C. max. continuous

Inverted flight limits - See NOTE 6

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Propeller and propeller limits	Hartzell HC-B3TN-3H hubs with Hartzell T10173-11R blades Diameter: 90.5 in. (maximum), minimum allowable for repair: 88.0 in. No further reduction permitted. Pitch settings at: (measure at 30 inch station) Flight idle stop - See NOTE 5 Max. low pitch (ground) - Minus $5^{\circ} \pm .4^{\circ}$ Feathered - $87.0^{\circ} \pm .5^{\circ}$ Propeller blade life limit - 9,634 hours Spinner: Hartzell C 3065-6			
Airspeed Limits (CAS)	Max. operating speed	195 knots (224 m.p.h.) up to 20,000 ft.		
	Max. operating Mach No.	.43		
	Maneuvering speed	172 knots (198 m.p.h.)		
	Max. flap extension speed	120 knots (138 m.p.h.)		
	100% position 30°			
	Max. landing gear extended and extension speed	150 knots (173 m.p.h.)		
	Max. landing gear retraction speed	120 knots (138 m.p.h.)		
C.G. range (Landing Gear Extended)	(+86.0) to (+89.5) at 4,300 lb. (+84.8) to (+89.5) at 4,000 lb. or less Straight line variation between points given Moment change due to retracting landing gear +831 in.-lb.			
Empty weight C.G. range	(+85.5) to (+85.9) When empty weight C.G. falls within the range given, complete computations of critical fore and aft C.G. positions are unnecessary. Range is not valid for nonstandard arrangements.			
Maximum weight	Ramp	4,325 lb.		
	Takeoff	4,300 lb.		
	Landing	4,300 lb.		
	Zero fuel	3,580 lb. (See NOTE 1)		
Minimum Crew	One pilot			
Number of seats	One crew (+86.1) One crew (+137.1)			
Maximum baggage	None			
Fuel Capacity	<u>Tank</u>	<u>Cap. Gal.</u>	<u>Usable Gal.</u>	<u>Arm</u>
	Main	134.7	130	87.5
	See NOTE 1(a) for data on unusable fuel			
Oil capacity	16 qt. total at +31.6 See NOTE 1(b) for data on undrainable oil			
Maximum Operating Altitude	25,000 ft. For FAR 91 Operations: As limited by FAR 91.211			
Control Surface Movements	Wing flap	Maximum 30°		
	Aileron tabs	Up 10°	Down 10°	
	*Aileron	Up 20°	Down 21°	
	Elevator tabs	Up 10°	Down 20°	
	Elevator	Up 20°	Down 15°	
	Rudder tab	Right $11\frac{1}{2}^{\circ}$	Left $11\frac{1}{2}^{\circ}$	
	Rudder	Right 28°	Left 28°	
	*Neutral is defined as 2° down with respect to travel board zero reference.			

Serial Nos. eligible	GL-1 and up (T-34C) GM-1 and up (T-34C-1) GP-1 and up (34C)
Datum	Located 88.0 inches forward of the wing main (forward) spar centerline.
Leveling Means	Two external screws located on left side of fuselage at station 186.7.
Certification Basis	FAR 23, effective February 1, 1965, as amended by 23-1 through 23-13 and FAA Special Conditions 23-56-CE-7 issued June 27, 1974. FAR 36 dated December 1, 1969, as amended by 36-1 through 3-5. Equivalent Safety Findings: FAR 23.621, 23.689(b), 23.777(d)(1), 23.777(e). Application for type certificate dated March 28, 1973. Type Certificate No. A26CE issued December 17, 1976, obtained by the manufacturer under delegation option procedures.
Production basis	Production Certificate No. 8. Delegation Option Manufacturer No. CE-2 authorized to issue airworthiness certificates under delegation option provisions of Part 21 of the Federal Aviation Regulations.
Equipment	The basic required equipment as prescribed in the applicable regulations (see Certification basis) must be installed in the aircraft for certification. In addition, the following items of equipment are required: 1. Pre-stall warning system consisting of: a. P/N 12K (Rosemount) sensor b. P/N 20U-1 (Rosemount) computer c. P/N C-04002 (Safe-Flight) shaker 2. Maximum allowable airspeed indicator, P/N 104-384056-3, front and rear cockpits.

NOTE 1. Current weight and balance data, loading information and a list of equipment included in empty weight must be provided for each aircraft at the time of original certification.

- (a) Basic empty weight includes unusable fuel of 31 lb. at (+91.3 in.) with 2.2 lb. being undrainable.
- (b) Basic empty weight includes engine oil of 32 lb. at (+31.6 in.) with 6.3 lb. being undrainable.

NOTE 2. All placards required in the Approved Airplane Flight Manual must be installed in the appropriate location.

NOTE 3. Mandatory retirement times for all structural components are contained in the Airplane Flight Manual Limitation Section (P/N 104-590024). These limitations may not be changed without FAA Engineering approval.

NOTE 4. One hundred percent propeller shaft speed is defined as 2,204 r.p.m., and is the normal steady state operating limit. Gas generator speeds up to 102.7 percent are permissible for 10 seconds and to 101.6 percent for unlimited periods, subject to applicable temperature and other limits. One hundred percent gas generator speed is defined as 37,468 r.p.m.

NOTE 5. Flight idle propeller low pitch is set so that at 2,000 r.p.m., there shall be an indicated 300 ± 25 ft.-lb. torque corrected to sea level standard day.

NOTE 6. Inverted flight (less than "0" g) limited to a maximum of 15 seconds.

NOTE 7. Prior to issue of a Standard Airworthiness Certificate, the T-34C must be modified in accordance with Beech Drawing 104-005000. Prior to issue of a Standard Airworthiness Certificate, the T-34C-1 and 34C must be modified in accordance with Beech Drawing 104-005001.

Contact Beech Aircraft Corporation as necessary to obtain availability information concerning the drawings and kits which are referenced by this publication.

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