# MINISTÉRIO DA AERONÁUTICA DEPARTAMENTO DE PESQUISAS E DESENVOLVIMENTO CENTRO TÉCNICO AEROESPACIAL

#### TYPE CERTIFICATE DATA SHEET No EA-9405

EA-9405

This data sheet, which is part of Type Certificate No. 9405, prescribes conditions and limitations under which the product for which the type certificate was issued meets the airworthiness requirements of the Brazilian Aeronautical Regulations.

BEECH AIRCRAFT CORPORATION

400 A

May 1995

Type Certificate Holder:

BEECH AIRCRAFT CORPORATION

9709 E. Central Wichita, Kansas 67201

# I - Model 400A, Beechjet, (Transport Category), Approved June 20, 1990

**ENGINES** 2-Pratt & Whitney Canada JT15D-5 turbofans

**FUEL** Commercial Kerosene Jet A, Jet A-1, Jet B, JP-4, JP-5, or JP-8.

Fuel not containing icing inhibitors must have MIL-I-27686 fuel system icing inhibitor added in amounts of not less than 0.10% or more than 0.15% by volume.

See Airplane Flight Manual for blending anti-icing additive to fuel.

Temperature:

Minimum -40° C. Maximum 50° C.

**ENGINE LIMITS** Static thrust standard day,sea level:

Takeoff (5 min.) 2,900 lb. Max. continuous 2,900 lb.

Max. permissible engine rotor operating speeds:

N<sub>1</sub> (Fan) 104%

16,540 r.p.m.

N<sub>2</sub> (Gas Gen.) 96%

31,450 r.p.m

Max. permissible interturbine gas temperature: Takeoff 700°C.

Max. continuous 680°C.

Starting Transient (2sec) 700°C.

AIRSPEED LIMITS (IAS) V<sub>MO</sub> (Maximum operating Speed)

264 knots Sea level to 8,000 ft 320 knots 11,000 ft. to 26,000 ft.

Note: Linear variation from 264 kt at 8,000 ft. to 320

kt at 11,000 ft.

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# **AIRSPEED LIMITS (cont.)** $M_{MO} = 0.78$ MACH above 26,000 ft.

V<sub>A</sub> (Maneuvering Speed)

210 kt at Sea Level 213 kt at 20,000 ft.

Note: Linear variation between sea level and 20,000 ft.

246 kt at 38,000 ft.

Note: Linear variation between 20,000 ft. and 38,000

ft.

0,78 MACH From 38,000 ft. to 45,000 ft.

V<sub>FE</sub> (Flaps Extended)

 $\begin{array}{ccc} 165 \text{ kt} & \text{Flaps } 30^{\circ} \\ 200 \text{ kt} & \text{Flaps } 10^{\circ} \\ V_{MCA} \text{ (Min. Control Speed Air)} = 89 \text{ kt} \end{array}$ 

V<sub>MCG</sub> ( Min. Control Speed Ground)

When equipped with Collins Proline IV Avionics with three - or four-tube EFIS (PFD): 88 kt

When equipped with Collins Proline IV Avionics with two-tube EFIS display: 92 kt

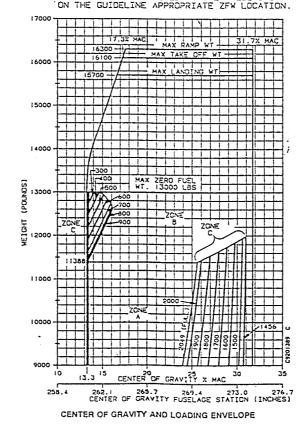
 $V_{LO}$  ( Landing Gear Operating) = 200 kt  $V_{LE}$  ( Landing Gear Extended) = 200 kt

#### C.G. RANGE (Landing Gear Extended)

### **CENTER OF GRAVITY FLIGHT ENVELOPE**

FUSELAGE FUEL IS RESTRICTED AS SPECIFIED FOR ZONES A. B AND C WITH FULL WING FUEL:

ZONE A ANY AMOUNT OF FUSELAGE FUEL UP TO FULL TANKS.
ZONE B THE DIFFERENCE SETWEEN ZFW AND 13.437 POUNDS
MAY BE LOADED IN FUSELAGE TANKS.



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EMPTY Wt. C.G.

**RANGE** 

None

MAXIMUM WEIGHT Takeoff 16,100 lb

Landing 14,220 lb -RK-1 through RK-23 (See Note 5)

Landing 15,700 lb -RK-24 and after

Zero fuel 13,000 lb Ramp 16,300 lb

MINIMUM CREW For all flights: 2 persons ( pilot and co-pilot)

**NUMBER OF SEATS** 11 (2 pilots and 9 passengers). See Note 4

MAXIMUM BAGGAGE Aft Cabin 350 lb. at +784.9 mm (+309.0 in) (Opt)

Fwd Cabin 150 lb. at +386.1 mm (+152.0 in) (Opt.)

Fwd Cabin 100 lb at +396.2 mm (+156.0 in) (Std.) (W/Galley)

FUEL CAPACITY (Gal.) Total Usable Arm

Two Wing tanks: 217.2 ea 213.6 ea. +702.6 mm(+276.6 in) Six fuselage tanks 307.0 305.8 +752.1 mm(+296.1 in)

See Note 1 for data on unusable fuel

**OIL CAPACITY (Gal)** Two engine mounted tanks:

Total 2.03 each; usable 1.20 each; ARM = +869.2 mm (+342.2 in)

See Note 1 for data on undrainable oil

**MAXIMUM OPERATING** 4

**ALTITUDE** 

**ING** 45,000 ft

CONTROL SURFACE MOVEMENTS

Up 68° Down 14° Spoiler inboard Spoiler outboard UP 72° Down 14° Lateral trim Up 25° Down 25° Elevator Up 25° Down 12° \*Pitch L.E. Up123.8 L.E.Down 12.8 Rudder Right 30° Left 30°

Flap Full 30° Speed brake 36°

Yaw damper/Rudder Boost Function through primary rudder

See Drawing 45A00601 or maintenance manual for rigging tolerance

\*Length of the trim actuator jack screw in millimeters (mm)

See drawing for details

SERIAL NUMBERS

**ELIGIBLE** 

Serial Numbers RK-24 thru RK-77, RK-79 thru, RK-86 and those airplanes

modified by kit 128-8001-1.

**DATA PERTINENT TO MODEL 400A** 

**DATUM** Located 182,0mm (71,65 in.) forward of the front face of the forward pressure

bulkhead.

**MAC** 185,7mm (73.11 in.) - L.E. of MAC at + 637,8mm (+251.09 in)

**LEVELING MEANS** Seat rails

CERTIFICATION BASIS

Part 25 of the Federal Aviation Regulations effective February 1, 1 965, as amended by 25-1 through 25-40, plus FAR 25.1335, 25.1351(d), 25.1353(c)(5), and 25.1447 of Amendment 25-41; FAR 25.29, FAR 25.255, and FAR 25.1353(c)(6) of Amendment 25-42; and FAR 25.361(b) and 25.1329(h) of Amendment 25-46. Part 36 of the Federal Aviation Regulations effective December 1, 1969, as emended by 36-1 through 36-17; SFAR 27 effective February 1, 1974, as amended by 27-1 through 27-7; and Special Conditions No. 25-ANM-32 dated February 22, 1990 (High Altitude Operation at 45,000 feet), and Special Conditions No. 25-ANM-33 dated June 18, 1990 (Lightning and Radio Frequency Energy Protection).

#### **Equivalent Safety Items**

- (1) Out-of-trim characteristics FAR 25.255
- (2) Pilot compartment view FAR 25.773(b)(2)
- (3) Passenger compartment door FAR 25.813(e)
- (4) Emergency exit marking FAR 25.811(d)(1) and 25.811(d)(2)

#### **Additional Requirements**

Brazilian Special Requirements set forth in CTA Report H.10-1290-01 or in its approved revisions

#### **EQUIPMENT**

The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the aircraft for certification.

The following document contains lists of all required equipment as well as optional equipment installations approved by FAA:

## Beech Report 400E383

#### IMPORT ELEGIBILITY

A Brazilian Airworthiness Certificate may be issued on the basis of an Export Certificate of Airworthiness, issued by the FAA, including the following statement:

"The aircraft covered by this certificate has been inspected, tested and found to be in conformity with the Brazilian Approved Type Design as defined by the Brazilian Type Certificate Data Sheet No. EA-9405 and in condition for safe operation."

## **PLACARDS**

All markings and placards for passenger information, external markings for emergency, load limits in cargo/baggage compartments must be presented in Portuguese or bilingual in accordance with Annex 1 to CTA Report H.10-1290-01.

NOTE 1.- Current weight and balance report including list of equipment included in certificated empty weight and loading instructions when necessary must be provided for each aircraft at the time of original certification.

The certificated empty weight and corresponding center of gravity location must include:

Unusable fuel (two wing tanks)

Unusable fuel (six fus. tanks)

Undrainable oil (two engines)

Hydraulic fluid

48.0 lb at +705.6 mm (+277.8 in)

8.0 lb at +812.0 mm (+319.7 in)

2.4 lb at +862.2 mm (+342.2 in)

8.3 lb at +888,0 mm (+349.6 in)

NOTE 2.- The aircraft must be operated according to the Brazilian Approved Airplane Flight Manual:

P/N 128-590001-175A

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NOTE 3.- Airworthiness Limitations containing overhaul times, replacement times, and special inspections required for continued airworthiness are listed in the following manuals:

Section 4 of Maintenance Manual, Part Number. 128-590001-9 and Structural Repair Manual, Part Number . 128-590001-17.

- NOTE 4.- The toilet seat is certified as a side-facing seat approved for takeoff, flight, and landing.
- NOTE 5.- If Beech Kit 128-8001-1 is installed, landing weight is at 15,700 lbs.

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