DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

T00013WI
Revision 12
Beechcraft
4000
February 14, 2014

TYPE CERTIFICATE DATA SHEET NO. T00013WI

This data sheet, which is part of Type Certificate No. T00013WI, prescribes conditions and limitations under which the product for which this Type Certificate was issued meets the airworthiness requirements of the Federal Aviation Regulations.

Type Certificate Holder: Beechcraft Corporation
10511 East Central
Wichita, Kansas 67206

Type Certificate Holder Record: Raytheon Aircraft Company transferred to
Hawker Beechcraft Corporation March 26, 2007

Hawker Beechcraft Corporation transferred to
Beechcraft Corporation on April 12, 2013.

I. Model 4000 (Transport Category), approved November 21, 2006

Engines: Two Pratt & Whitney Canada Corporation PW308A Turbofans
(Engine Type Certificate No. E00065NE)

Fuel: Commercial Kerosene JET A, JET A-1, JP-5, JP-8, RT, TS-1, and Chinese Jet Fuel No. 3
(See FAA Approved Airplane Flight Manual for limitations on use of TS-1 fuel)

For unmodified aircraft:
Fuels not containing icing inhibitors must have MIL-DTL-85470 fuel system icing inhibitor added in amounts of not less than 0.10% nor more than 0.15% by volume. Minimum fuel icing inhibitor content during refueling is 0.10% by volume.

For modified aircraft using Service Bulletin 73-3903, Kit 401-9000 or RC-23 and after:
It is permissible to use fuels that do not contain MIL-DTL-85470 fuel system icing inhibitor (Prist).

See FAA Approved Airplane Flight Manual for approved fuel additives.

Engine Limits

Takeoff static thrust, sea level, standard day	6,904 lbs.
Maximum Continuous static thrust, sea level, standard day	6,904 lbs.
Maximum permissible engine rotor operating speed:	
Low pressure rotor, N1 (20 seconds)	103.5%
Low pressure rotor, N1 (100% N1 = 10400 RPM)	102.5%
High pressure rotor, N2 (20 seconds)	103.0%
High pressure rotor, N2 (100% N2 = 26780 RPM)	102.0%

I. Model 4000 (cont'd)

Engine Limits (cont'd)

Maximum permissible Interstage Turbine Temperature (ITT):

	W/O BPU (See Note 2)	W/BPU (See Note 2)
Take-off (5 seconds)		910°C
Take-off (40 seconds)	890°C	
Take-off (45 seconds)		890°C
Take-off (5 minutes)	875°C	875°C
One Engine Inoperative Take-off (10 minutes)		875°C
Below Take-off (20 seconds)	890°C	890°C
Maximum Continuous	860°C	860°C
Engine Starting	950°C	950°C

APU

Honeywell International Inc.
Model 36-150 [HH] APU P/N 3800760-1

APU Limits

See FAA Approved Airplane Flight Manual for APU Limits

Airspeed Limits

V_{MO} (Maximum Operating)

-1000 to <8,000 ft.	280 KIAS
≥ 8,000 to 20,000 ft	350 KIAS
32,000 ft.	307 KIAS

(Linear variation, 20,000 ft. to 32,000 ft.)

M_{MO} (Maximum Operating) (above 32,000 ft) 0.84 Mach

V_{FE} (Flaps Extended)

Flaps 12 °	230 KIAS
Flaps 20°	230 KIAS
Flaps 35°	180 KIAS

V_{LE}	(Landing Gear Extended)	230 KIAS
V_{LORET}	(Landing Gear Retract)	210 KIAS
V_{LOEXT}	(Landing Gear Extend)	230 KIAS
$V_{LO\ EMER\ EXT}$	(Landing Gear Emergency Extend)	200 KIAS

V_A (Maneuvering)

-1,000 to 45,000 ft.	210 KIAS

V_{RA}/M_{RA} (Rough Air Speed)

Standard Aircraft	Increased Gross Weight Aircraft	Standard Aircraft	Increased Gross Weight Aircraft
-1,000 to 37,685 ft.	-1,000 to 38,100 ft.	245 KIAS	235 KIAS
37,685 to 45,000 ft.	38,100 to 45,000 ft.	0.77 Mach	0.75 Mach

I. Model 4000 (cont'd)

Airspeed Limits (cont'd)

V_B/M_B (Speed for Max. Gust Intensity)

Standard Aircraft	Increased Gross Weight Aircraft	Standard Aircraft	Increased Gross Weight Aircraft
-1,000 ft.	-1,000 ft.	250 KIAS	235 KIAS
5,000 ft.	5,000 ft.	251 KIAS	235 KIAS
10,000 ft.	10,000 ft.	252 KIAS	235 KIAS
15,000 ft.	15,000 ft.	253 KIAS	235 KIAS
20,000 ft.	20,000 ft.	255 KIAS	235 KIAS
25,000 ft.	25,000 ft.	257 KIAS	235 KIAS
30,000 ft.	30,000 ft.	260 KIAS	235 KIAS
36,000 ft.		265 KIAS/0.80 Mach	
	38,100 ft.		235 KIAS/0.75 Mach
45,000 ft.	45,000 ft.	0.80 Mach	0.75 Mach

V_{SB}/M_{SB} (Speedbrake) NO LIMIT

V_{MCA} (Minimum Control Speed Air)

Flaps 0°	99 KIAS
Flaps 12 °	Below stick pusher at all weights
Flaps 20°	Below stick pusher at all weights

V_{MCG} (Minimum Control Speed Ground) 85 KIAS

V_{MCL} (Minimum Control Speed Approach/Landing)

Approach Flaps 12°	Below stick pusher at all weights
Landing Flaps 35°	Below stick pusher at all weights

V_{TIRE} (Maximum tire ground speed) 182 KNOTS

Datum F.S. 0.00 is located 38.00 inches forward of the nose of the aircraft.

Mean Aerodynamic Chord 114.79 inches. The leading edge of the mean aerodynamic chord is 377.82 inches aft of the datum.

C.G. Range
(Gear and Flaps Extended)

	Standard Aircraft	Increased Gross Weight Aircraft
Allowable Fwd CG at 21,000 lbs.	F.S. 414.55	
Allowable Fwd CG at 22,000 lbs.		F.S. 412.60
Allowable Fwd CG at 25,000 lbs.	F.S. 406.52	F.S. 406.52
Allowable Fwd CG at 30,000 lbs.	F.S. 401.93	F.S. 401.93
Allowable Fwd CG at 33,500 lbs.	F.S. 401.93	F.S. 401.93
Allowable Fwd CG at 33,700 lbs. (Without Passenger Interior)	F.S. 402.04	F.S. 402.04
Allowable Fwd CG at 37,500 to 37,700 lbs. (With Passenger Interior)	F.S. 403.65	
Allowable Fwd CG at 37,500 lbs.		F.S. 403.65
Allowable Fwd CG at 39,500 to 39,700 lbs.		F.S. 404.80
Aft CG between 21,000 and 23,000 lbs.	F.S. 423.74	
Aft CG between 22,000 and 23,000 lbs.		F.S. 423.74
Aft CG at 30,000 lbs.	F.S. 413.40	F.S. 413.40
Aft CG Up to 33,700 lbs. (Without Passenger Interior)	F.S. 413.40	F.S. 413.40

I. Model 4000 (cont'd)

C.G. Range (cont'd)
(Gear and Flaps Extended)

Aft CG at 37,500 lbs. (With Passenger Interior)		F.S. 413.40
Aft CG Up to 37,500 lbs. (With Passenger Interior)	F.S. 413.40	
Aft CG between 39,500 and 39,700 lbs. (With Passenger Interior)		F.S. 412.26

Straight line variation between given points.

Landing Gear Retracting Moment -3900 lb.-in.

Leveling Means — Level is determined with a level gauge placed on the leveling pads in the aft maintenance bay.

Maximum Weights
(With Passenger Interior)

	Standard Aircraft	Increased Gross Weight Aircraft
Ramp/Taxi	37,700 lbs.	39,700 lbs
Take-Off	37,500 lbs.	39,500 lbs
Landing	33,500 lbs.	33,500 lbs
Zero Fuel	25,000 lbs.	26,000 lbs.

Maximum Weights
(Without Passenger Interior)

	Standard Aircraft	Increased Gross Weight Aircraft
Ramp/Taxi	33,700 lbs.	33,700 lbs.
Take-Off	33,500 lbs.	33,500 lbs.
Landing	33,500 lbs.	33,500 lbs
Zero Fuel	25,000 lbs.	26,000 lbs.

Minimum Weights
(With and Without Interior)

	Standard Aircraft	Increased Gross Weight Aircraft
Flight	23,000 lbs.	23,000 lbs.
Zero Fuel	22,000 lbs.	22,000 lbs.

Minimum Crew — Two (2) Pilots

No. of Seats
2 Crew, 1 Observer Seat*, Up to 10 Passengers (With Passenger Interior)
2 Crew, 1 Observer Seat* (Without Passenger Interior)
* When Forward Observer Seat is Installed

Maximum Baggage

Aft Fuselage Baggage Compartment	900 lbs. at F.S. 484.00
Aft Fuselage Compartment	900 lbs at F.S. 484.00
Aft Fuselage Baggage Compartment or Aft Fuselage Compartment	
Maximum floor loading density	100 lbs. per square foot
Maximum cabin floor loading density	80 lbs. per square foot

Note: The "without passenger interior" configuration prohibits carriage of baggage and refers to the aft fuselage baggage compartment as "Aft Fuselage Compartment". The structural loading capabilities are valid for both "with passenger interior" and "without passenger interior" configurations.

I. Model 4000 (cont'd)

Fuel Capacity

TANK	CAP. GAL.	USABLE GAL.	ARM
LH	1094.7	1090.1 Single Point	See Note 7
RH	1094.7	1090.1 Single Point	See Note 7
		1085.1 Gravity Fill	

See Note 1 for data on unusable and undrainable fuel.

Note: The "without passenger interior" configuration limits operational fuel load to 12,700 lbs for a standard weight aircraft and limits operational fuel load to 11,700 lbs for an increased gross weight aircraft.

Oil Capacity

4.76 Gallons total

See Note 1 for included oil in basic empty weight.

Maximum Operating Altitude

45,000 feet

Control Surface Movements (Trailing Edge)

Rudder (0 KIAS)	Right 32 ° (+ 1°)	Left 32° (+ 1°)
Rudder Trim (0 KIAS)	Right 18.25° (± 1.25°)	Left 18.25° (± 1.25°)
Elevators	Up 20 ° (± 0.5°)	Down 12.5° (± 0.5°)
Horiz. Tail Incidence	Up 7.5° (± 0.25°)	Down 2.5° (± 0.25°)
Elevator Tabs, Deflections due to Elevator-to-Tab Gearing (Relative to Elevator)	Up 11.25° (± 0.5°)	Down 18° (± 0.5°)
Ailerons	Up 15 ° (± 0.5°)	Down 15° (± 0.5°)
Left and Right Aileron Tab Deflections due to Aileron-to-Tab Gearing (Relative to Aileron)	Up 12.3° (± 0.5°)	Down 11.6° (± 0.5°)
Left Aileron Tab Trim Deflections (Relative to Aileron)	Up 7.7° (± 0.5°)	Down 7.9° (± 0.5°)

Wing Flaps	Inboard	Outboard
Up/Takeoff	0° (± 0.25°)	0° (± 0.25°)
Takeoff	13.1° (± 1°)	12° (± 1°)
Takeoff	21.1° (± 1°)	20° (± 1°)
Landing	36.4° (± 1°)	35° (± 1°)

Roll Spoiler	
Flaps 0, 12, 20	0 - 35° (± 1°)
Flaps 35	0 - 17.5° (± 1°)

Speedbrakes	
Flaps 0, 12, 20	0 - 35° (± 1°)
Flaps 35	0 - 17.5° (± 1°)

Ground Spoilers: 60° (All six spoiler panels) (+ 1°, - 2°)

Serial Numbers Eligible

RC-7 and after

I. Model 4000 (cont'd)

Certification Basis

1) Part 25 of the Federal Aviation Regulations effective February 1, 1965, as amended by Amendments 25-1 through 25-105; 14 CFR 25.856 as amended by 25-111; and 14 CFRs 25.1457(a)(1)(2)(3)(4(b)(c)(d)(e)(f) and 25.1459 as amended by 25-124.

2) Part 34 of the Federal Aviation Regulations effective September 10, 1990, plus any amendments in effect on the date of type certification.

3) Part 36 of the Federal Aviation Regulations effective December 1, 1969, as amended by Amendment 36-1 through 36-24 (Standard Aircraft) and as amended by Amendment 36-1 through 36-28 (Increased Gross Weight Aircraft).

4) Compliance with Section 44715 of the Title 49 U.S.C. (Noise Control Act of 1972).

5) Special Conditions:
   (a) No. 25-162-SC High Intensity Radiated Fields
   (b) No. 25-279-SC Side-Facing Single-Occupant Seats

6) Exemptions:
   (a) Exemption No. 7512B, exemption from the requirements of 14 CFR § 25.785(b) and 25.562(c)(3), (c)(5), and (c)(6) for the general occupant protection requirements for occupants of multiple place side-facing seats.
   Note: This exemption applies to aircraft that have installed multiple-place side-facing seats, for example, a three-place divan. This exemption is not applicable to aircraft that only have installed single seats, whether side-facing or otherwise.
   (b) Exemption No. 8761C, time-limited exemption until March 24, 2014 for airplanes granted a Certificate of Airworthiness on or before May 25, 2011, from the requirements of 14 CFR § 25.981(a)(3) and (b) as they pertain to the fuel system, and a permanent exemption for all M4000 airplanes to § 25.981(a)(3) pertaining to the effects of lightning on structural wing fasteners.
   Note: Compliance with Service Bulletin No. 28-3950 (airplane serial numbers RC-7 through RC-58) configures the fuel system to meet the requirements of § 25.981(a)(3) and (b), and eliminates the applicability of the time-limited portion of this exemption. The time-limited exemption is not applicable to aircraft serial numbers RC-59 and later.
   (c) Exemption No. 8760A, exemption until December 21, 2007, from the requirements of 14 CFR §25.1431(a)(1), Hydraulic System Proof Pressure Testing
   Note: This exemption is no longer applicable to any M4000 airplanes.

7) Equivalent levels of safety:
   (a) TC1258WI-T-A-5, Emergency Exit Marker & Locator Signs - §§25.811(d)(1), 25.812(b)(1)(d)
   (b) TC1258WI-T-A-6, Water Dam - §25.807(i)
   (c) TC1258WI-T-A-8, Frangible Door for Lavatory - §25.813(e)
   (d) TC1258WI-T-A-9, Door Handle Markings - §25.811(e)(4)
   (e) TC1258WI-T-F-1, Use of 1G Stall Speed - §25.103 and related paragraphs
   (f) TC1258WI-T-P-1, Thrust Reverser - §25.933(a)(1)(i) & (ii)
   (g) TC1258WI-T-P-7, Digital Engine Displays - §25.1549(a),(b), & (c)
   (h) TC1258WI-T-P-8, APU Displays - §§25.1305, 25.1501(b) & 25.1549
   (i) TC1258WI-T-SE-8, High Altitude Airport Operation - §25.841(b)(c)
   (j) TC1258WI-T-SE-21, Gust Lock - §25.679(a)(2)
   (k) TC1258WI-T-SE-23, Magnetic Compass §25.1303(a)(3)
   (l) TC1258WI-T-SE-24, Hydraulic System Function Test §25.1435
   (m) TD4618WI-T-SE-1, Temperature and Humidity §25.831(g)

8) §14 CFR 25.801 ditching not complied with.

9) Reduced Vertical Separation Minimum (RVSM) group airworthiness has been approved.

I. Model 4000 (cont'd)

Certification Basis (cont'd)

Application for Type Certificate was first dated August 1, 1996, followed by a re-application on May 31, 2001. An extension until December 31, 2006 was granted via FAA letter dated May 31, 2006.

Production Basis	Production Certificate No. 8 amended to add Model 4000 effective June 6, 2008. See Note 9 for airplane serial effectivity of Production Certificate No. 8 on new airplane serials.
Equipment	The basic required equipment as prescribed in applicable airworthiness regulations (see Certification Basis) must be installed in the aircraft for certification.

NOTE 1. Current weight and balance data, loading information and a list of equipment included in empty weight must be provided for each airplane at the time of original certification.
(a) Basic empty weight includes unusable fuel of 77.5 lbs, 61.6 lbs being drainable, 15.9 lbs being undrainable.
(b) Basic empty weight includes engine oil of 38.2 lbs.

NOTE 2. Passenger aircraft must be operated according to the FAA Approved Airplane Flight Manuals, part number 401-590001-0003B, Original Issue (or later FAA approved revision) for a standard aircraft or part number 401-590001-0035, Original Issue (or later FAA approved revision) for an increased gross weight aircraft. Airplanes which have had Block Point Upgrade (BPU) in production (S/N RC-59 and on) or by Service Bulletin 34-4030 must be operated according to FAA Approved Airplane Flight Manual, Part Number 401-590001-0078, Original Issue (or later FAA approved revision). Aircraft without a passenger interior must be operated according to the FAA Approved Airplane Flight Manual Supplements, Part Number 401-590001-0045, Original Issue (or later FAA approved revision) for a standard aircraft; Part Number 401-590001-0051, Original Issue (or later FAA approved revision) for an increased gross weight aircraft; or Part Number 401-590001-0085, Original Issue (or later FAA approved revision) for BPU airplanes until a passenger interior is installed in the aircraft. Required placards and markings are listed in Chapter Eleven (11) of Illustrated Parts Catalog, part number 401-590001-0011B, Original Issue (or later revision). In addition to the appropriate Airplane Flight Manual defined above, aircraft with a forward observer seat installed must also be operated according to the FAA Approved Flight Manual Supplement Part Number 401-590001-0075, Original Issue (or later FAA approved revision). BPU Category II Operations requires FAA Approved Airplane Flight Manual Supplement Part Number 401-590001-0087, Original Issue (or later FAA approved revision).

NOTE 3. See Airworthiness Limitations Manual, Part Number 401-590001-0027B, Original Issue (or later FAA-approved revision), for inspections, mandatory retirement life information, and other requirements for continued airworthiness. Aircraft without a passenger interior are limited to 100 flight hours.

NOTE 4. Aircraft definition for Type Certificate is 401-000010, Rev. 6 (or later FAA-approved revision), Sub-general Assembly Station #1.

NOTE 5. Certification Maintenance Requirements (CMR) are found in the Airworthiness Limitations Manual, Chapter Four (4). Engineering approval of the CMR's is documented in report 4000E285673, Certification Maintenance Requirements.

NOTE 6. The Model 4000 received a Provisional Type Certificate on December 23, 2004, that was subsequently cancelled when the Type Certificate was issued on November 21, 2006.

NOTE 7. Refer to the FAA Approved Airplane Flight Manual, Weight and Balance Section, or the FAA approved dedicated Weight and Balance Manual, for fuel moment arm variation with fuel quantity.

NOTE 8. The Model 4000 has been approved for high altitude operations. Any modifications to the pressure vessel must be approved in accordance with the requirements as shown in the certification basis. This includes modifications which could result in a pressure vessel opening, such as the loss of an antenna, greater than 4.35 square inches.

NOTE 9. Production Certificate No. 8 applies to Model 4000 serial numbers RC-8, RC-10, and RC-12 through RC-76.

…END…