

Type Certificate Data Sheet

No. 69

This data sheet, which is part of Type Certificate No. 69, prescribes conditions and limitations under which the product for which the type certificate was issued meets the airworthiness requirements of the Japan Civil Aeronautics Law and Regulations.

Type Certificate Holder: Hawker Beechcraft Corporation
9709 East Central
Wichita, Kansas 67201

Model 400A, Transport Category, Approved June 14, 2010

Engines 2 Pratt & Whitney Canada JT15D-5 turbofans (Prior to RK-507)
2 Pratt & Whitney Canada JT15D-5R turbofans (RK-508 and after)
(JCAB Type Approval No. 685)
(See NOTE 13.)

Fuel JT15D-5 : Commercial Kerosene Jet A, Jet A-1, Jet B, JP-4, JP-5, JP-8, JP-8+100 or RP-3

JT15D-5R : Commercial Kerosene Jet A, Jet A-1, JP-5, JP-8, JP-8+100 or RP-3
(Jet B and JP-4 are not approved.)
(See NOTE 13.)

Fuel not containing icing inhibitors must have MIL-I-27686D or MIL-I-85470A 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 (5min.) 2,965 lb
Max. continuous 2,900 lb

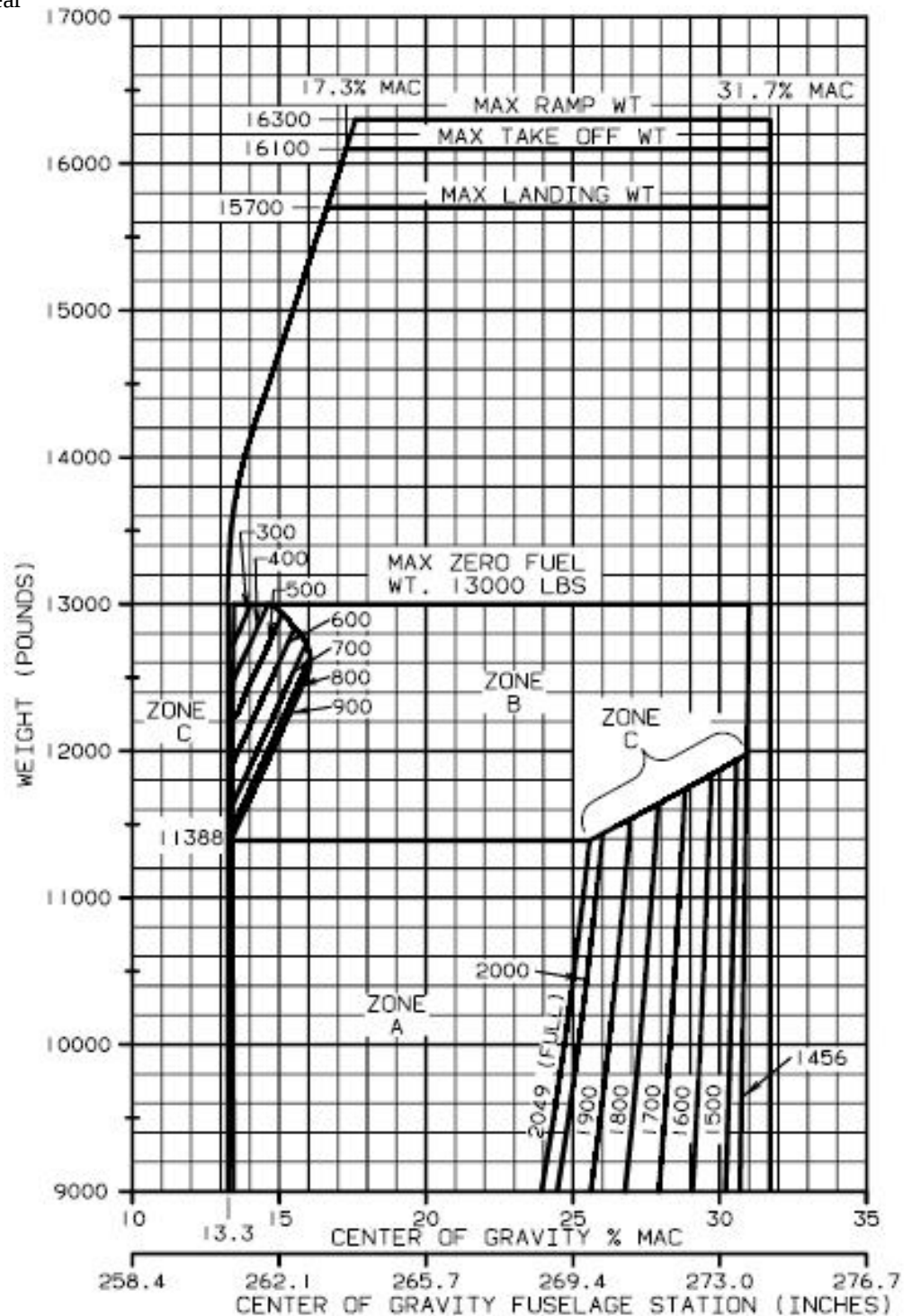
Max. permissible engine rotor operating speeds:
N1 (Fan) 104%
16,540 rpm

N2 (Gas Gen.) 96%
31,450 rpm.

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Engine Limits (cont'd.)	Max. permissible interturbine gas temperatures:	
	Takeoff	700°C
	Max. continuous	680°C
	Starting Transient (2sec.)	700°C
Airspeed Limits (IAS)	V_{MO} (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 knots at 8,000 ft to 320 knots at 11,000 ft	
	M_{MO} 0.78 MACH above 26,000 ft	
	V_A (Maneuvering Speed)	
	210 Knots at Sea Level	
	213 Knots at 20,000 ft	
	Note: Linear variation between sea level and 20,000 ft	
	246 Knots 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_{FE} (Flaps Extended)	
C.G. Range (Landing Gear Extended)	165 knots Flaps 30°	
	200 knots Flaps 20° and 10°	
	V_{MCA} (Min. Control Speed Air)	= 89 Knots
	V_{MCG} (Min. Control Speed Ground)	
	When equipped with Collins Proline IV Avionics with three or four-tube EFIS (PFD): 88 knots	
	When equipped with Collins Proline IV Avionics with two-tube EFIS display: 92 knots	
	V_{LO} (Landing Gear Operating)	= 200 knots
	V_{LE} (Landing Gear Extended)	= 200 knots
	<u>CENTER OF GRAVITY FLIGHT ENVELOPE</u>	
	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 between ZFW and 13,437 lb may be loaded in fuselage tanks.
	ZONE C	Fuselage tanks limited to the value shown on the guideline appropriate ZFW location.

C.G. Range (Landing Gear
Extended) (cont'd.)



Empty Wt. C.G. Range

None

Maximum Weight

Takeoff	16,100 lb.
	16,300 lb (See NOTE 11)
Landing	15,700 lb
Zero fuel	13,000 lb
Ramp	16,300 lb - Prior to RK-346 (See NOTE 11)
	16,500 lb - RK-347 and after (See NOTE 11)

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 +309.0) (Opt.) Fwd Cabin 150 lb (at +152.0) (Opt.) Fwd Cabin 100 lb (at +156.0) (Std.) (W/Galley)				
Fuel Capacity (Gal.)		<u>Total</u>	<u>Usable</u>	<u>Arm</u>	
	Two wing tanks:	217.2 ea.	213.6 ea.	+276.6	
	Six fuselage tanks:	307.0	305.8	+296.1	
	See NOTE 1 for data on unusable fuel.				
Oil Capacity (Gal.)	Two engine mounted tanks: JT15D-5, Total 2.03 each; usable 1.20 each; ARM = +342.2 in. JT15D-5R, Total 2.17 each; usable 1.20 each; ARM= +344.81 in. See NOTE 1 for data on undrainable oil. (See NOTE 13)				
Maximum Operating Altitude	45,000ft				
Control Surface Movements	Spoiler inboard	Up	68°	Down	14°
	Spoiler outboard	Up	72°	Down	14°
	Lateral trim	Up	25°	Down	25°
	Elevator	Up	25°	Down	12°
	*Pitch	L.E. Up	123.8	L.E.Down	12.8
	Rudder	Right	30°	Down	30°
	Rudder trim	Right	30°	Left	30°
	Flap	Full	30°	Left	30°
	Speed brake		36°		
	Yaw damper/rudder roost	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 Nos. Eligible	RK-98, RK-110 and up (See NOTE 10 and NOTE J3.)				
Datum	Located 71.65 in. forward of the front face of the forward pressure bulkhead.				
MAC	73.11 in. (L.E. of MAC at +251.09)				
Leveling Means	Seat rails				

Import Requirement	To be considered eligible for operation in the Japan, Each aircraft manufactured under this Type Certificate must be accompanied by a Certificate of Airworthiness for Export or certifying statement endorsed by the exporting foreign civil authority which states the following (in the English language). “This aircraft has been examined, tested and found to conform to the type design approved under JCAB Type Certificate No.69 and to be in a condition for safe operation.”
Certification Basis	<u>Airworthiness Requirement</u> - Civil Aeronautics Regulations Annex 1; Part 3 of the TAIKUSEI-SHINSA-YORYO (JCAB Airworthiness Standards) dated October 31, 1978 (Equivalent to FAR part 25 of the Federal Aviation Regulations Amendment 25-1 through 25-40), plus §25.1335, §25.1351(d), §25.1353(c)(5) and §25.1447 of Amendment 25-41; §25.29, §25.255 and §25.1353(c)(6) of Amendment 25-42; §25.361(b) and §25.1329(h) of Amendment 25-46. <u>Environmental Requirement</u> - Civil Aeronautics Regulations Annex 2 (Equivalent to ICAO Annex 16, Volume 1, Chapter 3) for Noise requirement. - Civil Aeronautics Regulations Annex 3 (Equivalent to ICAO Annex 16, Volume 2) for Fuel Venting and Exhaust Emission requirement. <u>Equivalent Safety Findings</u> (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) <u>Special Conditions</u> (1) High Altitude Operation at 45,000 feet (No. 25-ANM-32) (See NOTE 12) (2) Lightning and Radio Frequency Energy Protection (No. 25-ANM-33) <u>JCAB Additional requirements</u> (1) Placards and Markings written in Japanese language which are prescribed in JCAB Circular No. 1-008. (See NOTE J3) (2) Airplane Flight Manual written in Japanese language which are prescribed in Civil Aeronautics Regulations, Article 5-4 and JCAB Circular 1-001. (See NOTE J4)
Production Basis	FAA Production Certificate No. PC-8 issued March 26, 2007. Hawker Beechcraft Corporation is authorized to issue airworthiness certificates under the delegation provisions of Delegation Option Authorization No. DOA-230339-CE 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 airworthiness regulations (See Certification Basis) must be installed in the aircraft for certification.

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- 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:
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|--------------------------------|---------|-----------|
| Unusable fuel (two wing tanks) | 48.0 lb | at +277.8 |
| Unusable fuel (six fus. Tanks) | 8.0 lb | at +319.7 |
| Undrainable oil (two engines) | 2.4 lb | at +342.2 |
| Hydraulic fluid | 8.3 lb | at +349.6 |
- NOTE 2. The aircraft must be operated according to the following FAA Approved Airplane Flight Manuals:
- When equipped w/Collins Proline IV Avionics with three or four-tube EFIS (PFD) and APS-850 autopilot:
 - Beech Part Number 128-590001-167 dated July 13, 1994.
- 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 No. 128-590001-9 and Structural Repair Manual, Part No. 128-590001-17.
- NOTE 4. The toilet seat is certified as a side-facing seat approved for takeoff, flight, and landing.
- NOTE 5. (Reserved)
- NOTE 6. (Reserved)
- NOTE 7. (Reserved)
- NOTE 8. (Reserved)
- NOTE 9. (Reserved)
- NOTE 10. Company name change effective 4/15/96. The following serial numbers are manufactured under the name of Raytheon Aircraft Company: RK-98, RK-100 through RK-484, RK-486 through RK-511, and RK 514.
- NOTE 11. Kit 128-5202-0001, "Kit-Increased Gross Takeoff Weight, 200 Pound" may be installed on all 400A aircraft. Configuration upgrades are required with definition listed below:
- Prior to RK-346: 128-5052-0001 "Kit - Increased Gross Takeoff Weight, 200 Pound" may be installed without any other aircraft modification.
 - RK-347 and after: The increased Gross Takeoff Weight, 200 Pound is installed in production.
- NOTE 12. Airplane model 400A is the subject of Special Condition related to operation at high altitude. This special condition includes pressurization system requirements, as well as damage tolerance requirements on the pressure vessel. Therefore, any changes to the pressurization system or modifications or repairs to the pressure vessel must be approved in accordance with the requirements defined in the special condition.
- The damage tolerance requirements in the special condition are specified in terms of cabin altitude time history, which is a function of the cabin leak rate. For model 400A the specified cabin altitude time history requirement can be met with a pressure vessel opening of 1.0 square inches (assuming an emergency descent).

The determination of an equivalent crack length will depend upon the particular location of the crack, the pressure vessel configuration in that location, and the direction of the crack, etc. The approval of modifications and/or repairs must take into account the requirements of the special condition and how they apply to the particular location and configuration being modified or repaired. The resulting inspection program must also consider other applicable structural criteria.

NOTE 13. Prior to RK-507: JT15D-5R may be installed per Kit 128-9008-1.

NOTE 14. Company name change effective 3-26-07. The following serial numbers are manufactured under the name of Hawker Beechcraft Corporation: RK-485, RK-512, RK-513 and RK-515 and after.

NOTE J1. Dates of application for FAA and JCAB Type Certificate are as follows.

Model 400A	FAA TC No. A16SW	JCAB TC No. 69
	February 18, 1988	October 20, 2009

NOTE J2. This Type Certificate Data Sheet (TCDS) is based on FAA TCDS No.A16SW Revision 25 June 13, 2007.

NOTE J3. Placards and markings for the emergency evacuation, safety equipments and necessary matters to be notified to passengers in order to assure safe operation of aircraft, must be indicated in Japanese in accordance with JCAB Circular 1-008. The airplane must be operated according to the required Japanese placards and markings which are defined in drawing as listed below.

- DWG 128M531238 "Interior & Exterior Marking Installation, Japan"
- Kit 128-5310-0001 "Exit Sign Installation, Japan"
- * Kit 128-5310-0001 is applicable for RK-98, RK-110 and after only.

NOTE J4. The airplane must be operated according to the appropriate JCAB Approved Airplane Flight Manual (P/N 128-590001-167JPN) and appropriate Airplane Flight Manual Supplements.
JCAB approved Airplane Flight Manual Supplements are listed below.

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| (1) | 128-590001-207JPN | AMS-5000 & APS-4000 with FMS-97 (RK-118, RK-140 thru RK-224 that have complied with SB 34-3228 and RK-225 and After) |
| (2) | 128-590001-221JPN | CAT-II Operation with the Collins AMS-5000 & APS-4000 |
| (3) | 128-590001-269JPN | For Increased Gross Take-Off Weight To 16,300 Pounds |
| (4) | 128-590001-325JPN | For Airplanes Equipped With Collins GPS-4000S Global Positioning System.
Airplane Serial Numbers RK-548 and After or Those Airplanes Which Have Complied With Service Bulletin SB 34-3861 |
| (5) | 128-590001-337JPN | Japanese Registered Airplanes |
| (6) | 128-590001-229JPN | Airplanes Qualified For Operation In Reduced Vertical Separation Minimum Airspace (3/4-Tube System) |

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