TYPE CERTIFICATE
DATA SHEET

No. EASA.IM.R.506

for
Bell 429

Type Certificate Holder
Bell Textron Canada Ltd.

12 800, rue de l'Avenir
Mirabel, Québec J7J 1R4
Canada

For Model: 429
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SECTION 1: 429

I. General

1. Type/ Model/ Variant
   1.1 Type
   1.2 Model
   1.3 Variant

2. Airworthiness Category

3. Manufacturer

4. Type Certification Application Date
   to TCCA: 27 October 2006
   to EASA: 4 August 2008

5. State of Design Authority

6. Type Certificate Date by TCCA
   19 June 2009

7. Type Certificate n° by TCCA
   H-107

8. Type Certificate Data Sheet n°
   H-107

9. EASA Type Certification Date
   23 September 2009

II. Certification Basis

1. Reference Date for determining the applicable requirements
   27 October 2006

2. Airworthiness Requirements
   As defined in CRI A-1, Issue 3.
   CS-27 Amdt. 1, dated 30 November 2007, including:
   - Appendix B - Airworthiness Criteria for Helicopter Instrument Flight
   - Appendix C - Criteria for Category A.
   Appendix C specifies certain sections of CS-29. For these sections CS-29 Amdt. 1, dated 30 November 2007 is applicable.

3. Special Conditions
   - HIRF
   - 30 Second OEI Power Limits – Limit Override Feature

4. Exemptions
   none

5. Deviations
   none

6. Equivalent Safety Findings
   - CS 29.903 Engine Isolation
   - CS 27.307 (b)(5), CS 27.723, CS 27.725, CS 27.727 Landing Gear Limit Drop Test
   - CS 27/29.1545 (b)(2) Airspeed Indicator Markings of \( V_{NE} \) (Autorotation)

7. Requirements elected to comply
   none

8. Environmental Protection Requirements

   8.1 Noise Requirements
   See TCDSN EASA.IM.R.506

   8.2 Emission Requirements
   n/a

9. Operational Suitability Data (OSD)
   see SECTION 2 below
III. Technical Characteristics and Operational Limitations

1. Type Design Definition
   BHTCL Drawing 429-100-001 revision CA, or later approved revision

2. Description
   Main rotor: four MR blades
   Tail rotor: four TR blades
   Fuselage: carbon composite and aluminium
   Landing gear: skid type, and optional retractable wheeled type (see Note 7)
   Powerplant: two free turbine engines

3. Equipment
   Refer to approved RFM for equipment list

4. Dimensions
   4.1 Fuselage
      Length: 11.68 m
      Width hull: 1.63 m
      Height: 3.23 m
   4.2 Main Rotor
      Diameter: 10.97 m
   4.3 Tail Rotor
      Diameter: 1.65 m

5. Engine
   5.1 Model
      Pratt & Whitney Canada
      2 x Model PW207D1, or, 2 x Model PW207D2
      (see Note 3)
   5.2 Type Certificate
      TCCA TC/TCDS n°: E-23
      EASA TC/TCDS n°: EASA.IM.E.017
   5.3 Limitations
      5.3.1 Installed Engine Limitations and Transmission Torque Limits
         Refer to engine TCDS EASA.IM.E.017
      5.3.2 Other Engine and Transmission Torque Limits
         Refer to engine TCDS EASA.IM.E.017

6. Fluids (Fuel/ Oil/ Additives)
   6.1 Fuel
   6.2 Oil
      Engine: MIL-PRF-23699
      Transmission and Tail Rotor Gearbox: DOD-PRF-85734
      For approved engine oil types, prohibition against mixing brands and for approved transmission and gearbox oil types refer to Maintenance Manual BHT-429-MM-01.
   6.3 Additives
      Anti-icing fuel additive is required for operations at fuel temperatures below 4°C (39.2°F). The maximum allowed concentration of fuel additives is 0.15% by volume.
      Anti-icing fuel additive is not required with PW207D2 engine, which incorporates fuel heater kit.
      Refer to approved RFM.

7. Fluid capacities
   7.1 Fuel
      Refer to 429 Flight Manual for fuel capacity
   7.2 Oil
      Refer to 429 Maintenance Manual for oil capacity
   7.3 Coolant System Capacity
      n/a

8. Air Speed Limitations
   $V_{NE PWR ON}$: 155 KIAS
   $V_{NE PWR OFF}$: 100 KIAS
9. Rotor Speed Limitations

Power on: Maximum 100 %
Maximum Cat A 104 %
Minimum 99 %

Power off: Maximum 107 %
Minimum 85 %

10. Maximum Operating Altitude and Temperature

10.1 Altitude (en route) 20 000 ft (6 096 m) PA

10.2 Temperature

Maximum sea level ambient air temperature for operation is 51.7°C (125°F) and decreases with HP at a standard lapse rate of 2°C (3.6°F) per 1 000 feet. Minimum ambient air temperature is -40°C (-40°F). Refer to approved RFM.

11. Operating Limitations

VFR day and night
IFR (single and dual pilot)
Cat A and B

12. Maximum Mass

3 175 kg (7 000 lb) internal loading
3 629 kg (8 000 lb) external loading

13. Centre of Gravity Range

Refer to approved RFM

14. Datum

Longitudinal: the datum plane (STA 0) is located at 1 836 mm (72.3 in) forward of the helicopter nose. Lateral: Fuselage median plane (buttock line BL 0.0).

15. Levelling Means

Protractor or level placed on the crew or passenger floor or seat rails, both longitudinally and laterally

16. Minimum Flight Crew

one (1) pilot

17. Maximum Passenger Seating Capacity

seven (7)

18. Passenger Emergency Exit

2, one on each side of the cabin

19. Maximum Baggage/ Cargo Loads

Refer to approved RFM for loading schedule

20. Rotor Blade Control Movement

For rigging information refer to Maintenance Manual

21. Auxiliary Power Unit (APU)

n/a

22. Life-limited Parts

See approved ALS Section in Chapter 04 Maintenance Manual BHT-429-MM-01, dated 19 June 2009, or later approved revision.

IV. Operating and Service Instructions

1. Flight Manual

Bell Rotorcraft Flight Manual, BHT-429-FM-1, dated 19 June 2009 (Transport Canada approved), or later approved revision


- BHT-429-MM-01, dated 19 June 2009, or later revision
- Life-limited components and approved retirement times are listed in Chapter 4, Airworthiness Limitations Section of Maintenance Manual BHT-429-MM-01, dated 19 June 2009, or later approved revision


BHT-ALL-SRM - Structural Repair Manual


Refer to approved RFM, Section 5

5. Illustrated Parts Catalogue

BHT-429-IPB Illustrated Parts Breakdown

6. Miscellaneous Manuals

- BHT-SPECTOOL-IPB Special Tools Illustrated Parts
Breakdown
- CSSD-PSE-87-001 Corrosion Control Guide
- CSSD-PSE-90-001 Chafing Control Guide

7. Service Letters and Service Bulletins
As published by Bell Helicopter Textron Canada, or Bell Textron Canada

8. Required Equipment
Refer to approved RFM and related supplements for other approved mandatory and optional equipment and MMEL.
For Ditching equipment see Note 6.

V. Notes
1. Manufacturer’s eligible serial numbers: s/n 57001, and subsequent.
2. Certification noise levels are detailed in the approved RFM.
3. PW207D1 is a derivative of the PW207D with increased mechanical power and without a fuel heater. The PW207D2 is identical to the PW207D1, but has a fuel heater installed.
4. The following placard must be displayed in front of and in clear view of the pilot:
   “THIS HELICOPTER MUST BE OPERATED IN COMPLIANCE WITH OPERATING LIMITATIONS SPECIFIED IN THE APPROVED FLIGHT MANUAL”.
5. The current weight and balance report, including list of equipment included in approved empty weight and loading instructions, when necessary, must be in each rotorcraft at the time of original certification.
6. The Emergency Flotation Kit (429-706-069) is approved for emergency water landing only and not for ditching per CS 27.801.
   For Ditching approval per CS 27.801 the following kits must be installed:
   - Ditching equipment meeting the requirements of CS 27.1411 and CS 27.1415;
   - Ditching Kit 429-706-048;
   - If the Airline Passenger seating configuration is installed, the Bell Helicopter Kit 429-706-068 (Push-out window mounted in the hinged passenger doors).
7. The 429 Retractable Landing Gear Kit (429-705-001) converts the basic skid gear to a retractable wheeled landing gear (EASA approval 10058322)

* * *
SECTION 2: OPERATIONAL SUITABILITY DATA (OSD)

The OSD elements listed below are approved by the European Aviation Safety Agency as per Commission Regulation (EU) 748/2012, as amended by Commission Regulation (EU) No 69/2014.

I. OSD Certification Basis

I.1 Reference Date for determining the applicable OSD requirements

Grandfathering date: 17 February 2014

I.2 MMEL - Certification Basis

JAR-MMEL/MEL Section 1 Subpart A & B Amendment 1

I.3 Flight Crew Data - Certification Basis

CS-FCD, Initial Issue, dated 31 January 2014

I.4 SIM Data - Certification Basis

reserved

I.5 Maintenance Certifying Staff Data - Certification Basis

reserved

II. OSD Elements

II.1 MMEL

European Aviation Safety Agency
Master Minimum Equipment List (MMEL) BELL 429, BHT-429-EASA-MMEL
Revision: Original, dated 29 September 2015, or later EASA-approved revision

II.2 Flight Crew Data

Operational Suitability Data (OSD)
Flight Crew Data Bell 429
BHT-429-EASA-FCD
Revision: OSD FC Original, 9 September 2015, or later EASA-approved revision

II.3 SIM Data

reserved

II.4 Maintenance Certifying Staff Data

reserved
**SECTION: ADMINISTRATIVE**

I. Acronyms and Abbreviations

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<tr>
<th>Acronym</th>
<th>Description</th>
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<tr>
<td>CRI</td>
<td>Certification Review Item</td>
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<tr>
<td>IFR</td>
<td>Instrument Flight Rules</td>
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<tr>
<td>KIAS</td>
<td>Knots Indicated Air Speed</td>
</tr>
<tr>
<td>MMEL</td>
<td>Master Minimum Equipment List</td>
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<tr>
<td>MR</td>
<td>Main Rotor</td>
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<tr>
<td>OSD</td>
<td>Operational Suitability Data</td>
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<tr>
<td>PA</td>
<td>Pressure Altitude</td>
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<tr>
<td>PWR</td>
<td>Power</td>
</tr>
<tr>
<td>RFM</td>
<td>Rotorcraft Flight Manual</td>
</tr>
<tr>
<td>s/n</td>
<td>Serial Number</td>
</tr>
<tr>
<td>STA</td>
<td>Station</td>
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<tr>
<td>TR</td>
<td>Tail Rotor</td>
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<tr>
<td>VFR</td>
<td>Visual Flight Rules</td>
</tr>
<tr>
<td>VNE</td>
<td>Never Exceed Speed</td>
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<tr>
<td>V_PWR_OFF</td>
<td>Power-off Speed (Autorotation)</td>
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<tr>
<td>V_PWR_ON</td>
<td>Power-on Speed</td>
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II. Type Certificate Holder Record

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<th>II.1 Type Certificate Holder</th>
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<td>Bell Helicopter Textron Canada Ltd. 12 800, rue de l’Avenir Mirabel, Québec J7J 1R4, Canada</td>
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<td>Bell Textron Canada Ltd. 12 800, rue de l’Avenir Mirabel, Québec J7J 1R4, Canada</td>
<td>From 16 December 2019</td>
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III. Change Record

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<tr>
<th>Issue</th>
<th>Date</th>
<th>Changes</th>
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<tr>
<td>Issue 1</td>
<td>23 Sep 2009</td>
<td>Initial issue of EASA TCDS</td>
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<tr>
<td>Issue 2</td>
<td>18 Dec 2017</td>
<td>Optional Retractable Wheeled Landing Gear added; Maximum Mass with External Load updated; number of emergency exit added; Required Equipment for Ditching listed; OSD data added; EASA TCDS format updated</td>
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<td>Issue 3</td>
<td>16 Dec 2019</td>
<td>Type Certificate Holder name change</td>
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