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 429
   1.2 Model 429
   1.3 Variant - - -

2. Airworthiness Category Small Rotorcraft

3. Manufacturer Bell Textron Canada Ltd.
   12 800, rue de l’Avenir
   Mirabel, Québec J7J 1R4, Canada

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

5. State of Design Authority Transport Canada

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 OEl Power Limits – Limit Override Feature
   - SCA 2016-01, Rechargeable Lithium Batteries and Battery Systems

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
   Bell 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

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<thead>
<tr>
<th>Condition</th>
<th>Power on:</th>
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<th>Power off:</th>
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<tr>
<td></td>
<td>Maximum</td>
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</tr>
<tr>
<td></td>
<td>Maximum Cat A</td>
<td>104 %</td>
<td>Minimum</td>
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</tbody>
</table>

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

For ALS see Chapter 04 of BHT-429-MPI, dated 10 January 2019, or later approved issue (see Note 8)

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, dated 10 January 2019, or later issue
- Life-limited components and approved retirement times (ALS) are listed in Chapter 4 of BHT-429-MPI, dated 10 January 2019, or later approved issue (see Note 8)


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
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.

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**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 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).
8. In 2019 the Instructions for Continuing Airworthiness (ICA) and Airworthiness Limitations Section (ALS) were converted to digital format.
   Applicability of the legacy printed documents listed below is up to:
   - BHT-429-MM-01, revision 31, dated 16 November 2018.
   - Life-limited components and approved retirement times are listed in Chapter 4, Airworthiness Limitations Section of Maintenance Manual BHT-429-MM-01, revision 29, dated 25 July 2018.

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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

<table>
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<tr>
<th>ALS</th>
<th>Airworthiness Limitations Schedule</th>
<th>RFM</th>
<th>Rotorcraft Flight Manual</th>
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<td>Certification Review Item</td>
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<tr>
<td>IFR</td>
<td>Instrument Flight Rules</td>
<td>STA</td>
<td>Station</td>
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<td>KIAS</td>
<td>Knots Indicated Air Speed</td>
<td>TR</td>
<td>Tail Rotor</td>
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<tr>
<td>MMEL</td>
<td>Master Minimum Equipment List</td>
<td>VFR</td>
<td>Visual Flight Rules</td>
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<td>MR</td>
<td>Main Rotor</td>
<td>VNE</td>
<td>Never Exceed Speed</td>
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<td>OSD</td>
<td>Operational Suitability Data</td>
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<td>V_PWR_ON</td>
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II. Type Certificate Holder Record

II.1 Type Certificate Holder

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<th>Period</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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II.3 Change Record

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<td>Issue 1</td>
<td>23 Sep 2009</td>
<td>Initial issue of EASA TCDS</td>
<td>23 September 2009</td>
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<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>16 Dec 2019</td>
<td>Type Certificate Holder name change</td>
<td>Reissued, 16 December 2019</td>
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<td>Issue 4</td>
<td>1 Mar 2021</td>
<td>II.3.: SCA 2016-01 added; III.1.: drawing title corrected; III.22., IV.2.: digital Maintenance Manual and Airworthiness Limitations Section introduced; V.: Note 8 added</td>
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