



TYPE CERTIFICATE DATA SHEET

No. EASA.IM.R.505

for
214ST

Type Certificate Holder
McDermott 214 Holdings, LLC

7400 Oak Hills Court
North Richland, Texas 76182-3284
USA

For Model: 214ST



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SECTION 1: 214ST

I. General

- | | |
|--|--|
| 1. Type/ Model | |
| 1.1 Type | 214ST |
| 1.2 Model | 214ST |
| 2. Airworthiness Category | Large Rotorcraft, Category A and B |
| 3. Manufacturer | McDermott 214 Holdings, LLC.
7400 Oak Hills Court
North Richland, Texas 76182-3284, USA |
| 4. Type Certification Application Date | to FAA: not recorded |
| 5. State of Design Authority | FAA |
| 6. Type Certificate Date by | FAA: 16 February 1982 (Category B)
8 November 1984 (Category A)
CAA UK: 29 October 1982
CAA NO: 2 September 1985 |
| 7. Type Certificate n° by | FAA: H10SW
CAA UK: FR17
CAA NO: 04/85 (Certificate of Type Acceptance) |
| 8. Type Certificate Data Sheet n° | FAA: H10SW
CAA UK: FR17
CAA NO: not issued |
| 9. EASA Type Certification Date | 28 September 2003, in accordance with CR (EU) 1702/2003, Article 2, 3., (a), (i), 2 nd bullet, 2 nd indented bullet. |

II. Certification Basis

- | | |
|---|--|
| 1. Reference Date for determining the applicable requirements | not recorded |
| 2. Airworthiness Requirements | FAR Part 29, dated 1 February 1965, Amdts.29-1 through 29-13 and parts of Amdts. 29-14 through 29-16, plus 29.997 Amdt. 29-10 and 29.997 (b) Amdt. 29-17 IFR standards 'Airworthiness Criteria for Helicopter Instrument Flight', dated 15 December 1978 |
| 3. Special Conditions | CAA UK Special Conditions Report No. 9/31/Ry 3201 |
| 4. Exemptions | No. 3342, against FAR 29.1323 (c) |
| 5. Deviations | none |
| 6. Equivalent Safety Findings | Critical Decision Point Definition - FAR 29.53(b) |
| 7. Environmental Protection Requirements | |
| 7.1 Noise Requirements | See TCDSN EASA.IM.R.505 |
| 7.2 Emission Requirements | n/a |
| 9. Operational Suitability Data (OSD) | Not required for rotorcraft that are no longer in production. CR (EU) 748/2012, as amended by CR (EU) 69/2014 does not require OSD elements for this model (see Article 7a, 1.). |

III. Technical Characteristics and Operational Limitations

- | | |
|---------------------------|---|
| 1. Type Design Definition | 214-900-006 General Arrangement – Helicopter Assy and Auxiliary Equipment Kits. |
|---------------------------|---|



2. Description
Main rotor: two MR GFRP blades, elastomeric bearings
Tail rotor: two TR blades
Fuselage: conventional metal structure
Landing gear: skid type
Powerplant: two free turbine engines
3. Equipment
Refer to approved RFM for equipment list
4. Dimensions
- 4.1 Fuselage
Length: 14.96 m (49 ft 1 in)
Width (skids): 2.75 m (9 ft 8 in)
Height (tail fin): 3.22 m (10 ft 7 in)
- 4.2 Main Rotor
Diameter: 15.95 m (52 ft 0 in)
- 4.3 Tail Rotor
Diameter: 2.95 m (9 ft 8 in)
5. Engine
- 5.1 Model
General Electric Company
2 x Model CT7-2A
- 5.2 Type Certificate
FAA TC/TCDS n°: E8NE
EASA TC/TCDS n°: EASA.IM.E.010

5.3 Limitations

5.3.1 Installed Engine Limitations and Transmission Torque Limits

	Output shaft TQ [% (shp)]	PWR turbine speed [% (rpm)]	Exhaust gas temperature [°C]	Gas generator speed [% (rpm)]
TOP (5 min)	100 (2 350)	100 (21 000)	878	101.7 (45 430)
MCP	83 (1 950)		775	98.3 (43 900)
OEI 2½ min	73.4 (1 725)		915	103 (46 070)
OEI 30 min	69.1 (1 625)		878	101.7 (45 430)
OEI MCP ¹⁾			840	101.2 (45 240)
¹⁾ This 'emergency rating' can be used for demonstration/training purposes.				

5.3.2 Other Engine and Transmission Torque Limits

reserved

6. Fluids
- 6.1 Fuel
MIL-T-5624, Grade I, (JP-4), or, MIL-T-5624 Grade II (JP-5)
see Note 5
- 6.2 Oil
Engines: GE Spec D50TF1 Type I (above -54 °C) and Type II (above -40 °C)
Gear boxes: MIL-PRF-7808E and subsequent suffixes, or NATO O-148
- 6.3 Additives
For anti-icing additive see Note 5
7. Fluid capacities
- 7.1 Fuel
1 666 litres (440 US gal) at STA +243
See Note 2 for data on unusable fuel.
- 7.2 Oil
7.2 litres (1.9 US gal) at STA +285.5 (for each engine)
Usable oil: 4 litres (1.06 US gal) included in capacity
See Note 2 for data on oil.
- 7.3 Coolant System Capacity
n/a



8. Air Speed Limitations

$V_{ne_{MSL}}$: 160 KIAS
See placard P/N 214-175-271
(V_{ne} (IAS) varies with pressure altitude and temperature)

9. Rotor Speed Limitations

Power on: Maximum 287 rpm (100 %*)
Minimum 284 rpm (99 %*)
Power off: Maximum 301 rpm (105 %*)
Minimum 258 rpm (90 %*)

*: Tach reading

10. Maximum Operating Altitude and Temperature

10.1 Altitude

20 000 ft (6 096 m) DA
10 000 ft (3 048 m) DA for MTOM 7 938 kg (17 500 lb)

10.2 Temperature

-35°C (-31°F) to +52°C (+125°F)

11. Operating Limitations

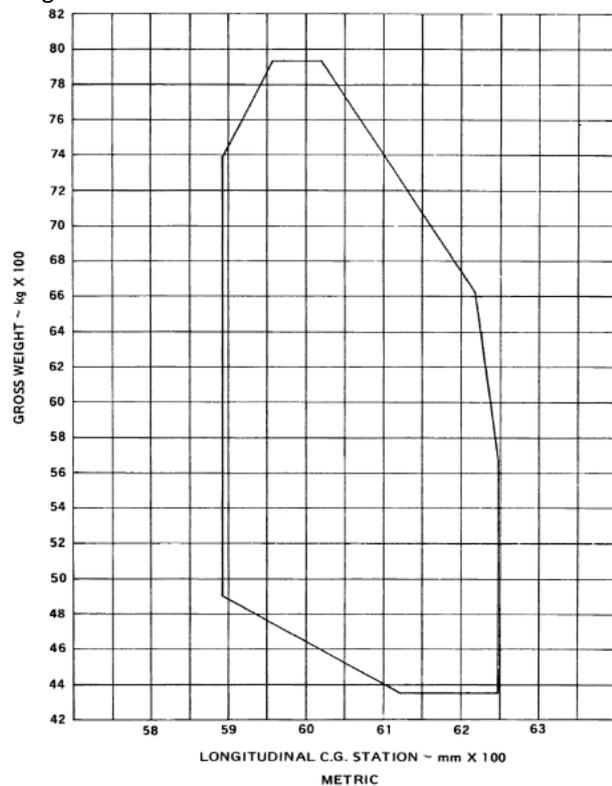
- VFR day/night
- IFR
- Eligible for Category A when operating in accordance with RFM Supplement 8, BHT-214ST-FMS-8.

12. Maximum Mass

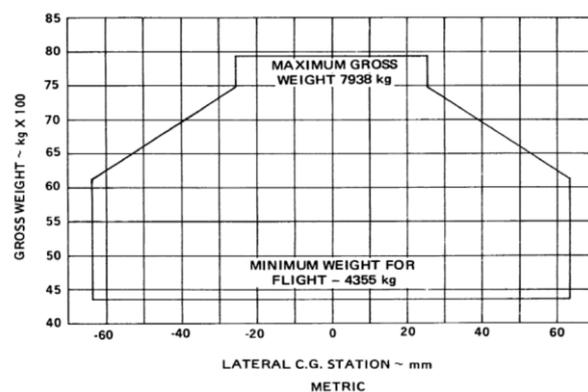
7 938 kg (17 500 lb)

13. Centre of Gravity Range

Longitudinal C.G. limits:



Lateral C.G. limits:



- | | |
|--|---|
| 14. Datum | Empty mass C.G. range: See Chapter 8, BHT-214ST-MM
Longitudinal: STA 0 is located 3 391 mm (133.5 in) forward of the forward jack fittings of the fuselage. |
| 15. Levelling Means | Plumb line from top of left main door frame |
| 16. Minimum Flight Crew | IFR: two (2) pilots
See RFM Section 6 for minimum crew station weight
VFR: one (1) pilot in the RH crew seat; LH crew seat may be used for an additional pilot.
Single pilot operations are based on the standard helicopter instrument panel and systems. |
| 17. Maximum Passenger Seating Capacity | eighteen (18)
(not limited by emergency exit requirements) |
| 18. Passenger Emergency Exit | 2, one on each side of the cabin |
| 19. Maximum Baggage/ Cargo Loads | 748 kg (1 650 lb) at STA 297 |
| 20. Rotor Blade Control Movement | For rigging information refer to BHT-214ST-MM |
| 21. Auxiliary Power Unit (APU) | n/a |
| 22. Life-limited Parts | See Airworthiness Limitations, Chapter 4, BHT-214ST-MM |

IV. Operating and Service Instructions

- | | |
|--|---|
| 1. Flight Manual | BHT-214ST-FM – Rotorcraft Flight Manual |
| 2. Maintenance Manual | BHT-214ST-MM-Maintenance Manual |
| 3. Structural Repair Manual | BHT-ALL-SRM - Structural Repair Manual |
| 4. Weight and Balance Manual | Refer to approved RFM, Section 6 |
| 5. Illustrated Parts Catalogue | BHT-214ST-IPB Illustrated Parts Breakdown Manual |
| 6. Miscellaneous Manuals | BHT-214ST-CR&O Component Repair and Overhaul Manual |
| 7. Service Letters and Service Bulletins | As published by McDermott 214 Holdings, LLC, Erickson 214 Holdings, LLC, Bell Textron Inc. and Bell Helicopter Textron Inc. |
| 8. Required Equipment | The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification basis) must be installed in the helicopter for certification. |

V. Notes

1. Manufacturer's eligible serial numbers: s/n 28101 to 28246.
- 2.¹⁾ The certificated empty weight and corresponding C.G. locations must include:
 - 32 lb of engine oil at STA +285.1, and,
 - unusable fuel of 5 US gal, 34 lb) at STA +224.2.
3. A partition must not be installed between the passenger and crew compartments that will obstruct the pilot's view of the passenger large sliding doors and hinged panels. Interior linings must not be installed that obstruct the view of the crew/passenger front doors latch engagement with the fuselage.
4. Composite (fiberglass) main rotor blades (215-015-300) must have conductive paint (a minimum resistance required) for lightning protection.
5. For all operations below 4.44 °C (40°F) ambient temperature, all fuel used in Model 214ST helicopters must contain Phillips PFA-55MB anti-icing additive in concentration of not less than 0.035% nor more than 0.15% by volume. Blending this additive into the fuel and checking its concentration must be conducted in the manner prescribed by the Rotorcraft Flight Manual.

* * *

¹⁾ Data as per TCDS H10SW



SECTION: ADMINISTRATIVE

I. Acronyms and Abbreviations

GFRP	Glas-Fibre-Reinforced-Plastic	s/n	Serial Number
IFR	Instrument Flight Rules	STA	Station
KIAS	Knots Indicated Air Speed	TR	Tail Rotor
MR	Main Rotor	V _{NE}	Never Exceed Speed
OSD	Operational Suitability Data	V _{PWR OFF}	Power-off Speed (Autorotation)
PWR	Power	V _{PWR ON}	Power-on Speed
RFM	Rotorcraft Flight Manual		

II. Type Certificate Holder Record

II.1 Type Certificate Holder	Period
Bell Helicopter Textron Inc. P.O. 482 Fort Worth, Texas 76101, USA	From 8 November 1984 until 30 July 2019
Bell Textron Inc. P.O. 482 Fort Worth, Texas 76101, USA	Until 7 September 2020
Erickson 214 Holdings, LLC. 3100 Willow Springs Road Central Point, Oregon 97502-0010, USA	Until 7 November 2023
McDermott 214 Holdings, LLC. 7400 Oak Hills Court North Richland, Texas 76182-3284, USA	From 8 November 2023

III. Change Record

Issue	Date	Changes	TC issue
Issue 1	15 Mar 2024	Initial issue of EASA TCDS	15 March 2024

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