
TYPE-CERTIFICATE DATA SHEET

UK.TC.R.00141

for
R44

Type Certificate Holder
Robinson Helicopter Company

2901 Airport Drive
Torrance, CA 90505
U.S.A

Model(s): R44
R44 II
R44

Issue: 1

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Section 0 Preamble

This Type-Certificate Data Sheet (TCDS) is the concise definition of the type-certificated product accepted and or approved by the CAA in the UK for the affected types and models.

This TCDS includes:

- Details of the type design that affect the TCDS that have been approved or accepted by the CAA in the UK from 01 January 2021.
- Details of the type design that affected the TCDS and were approved or accepted by EASA before 01 January 2021, and were incorporated into EASA TCDS Number - EASA.IM.R.121 at Issue 6 dated 28 February 2017, and are therefore accepted by the UK under Article 15 of Annex 30 of the UK-EU Trade and Cooperation Agreement.

Section 1 R44 (s/n 0004 -9999, except s/n 1140)**I. General**

This Type-Certificate Data Sheet (TCDS) is the concise definition of the type-certificated product accepted and or approved by the CAA in the UK for the affected types and models.

1. Type / Variant / Model

- a) Type: R44
b) Variant or Model: R44

2. Type Certificate Holder

Robinson Helicopter Company
2901 Airport Drive
Torrance, California 90505, USA

II. Certification Basis

- | | |
|---|---|
| 1. Reference Date for determining the applicable requirements | 12 November 1989 |
| 2. Airworthiness Requirements | <p>14 CFR Part 27, dated 1 February, 1965, including Amdts. 27-1 through 27-24.</p> <p>For the symmetrical horizontal stabilizer installation:
 14 CFR Part 27 Amdt. 27-26: § 27.613, § 27.629, § 27.663.
 14 CFR Part 27 Amdt. 27-34: § 27.391.
 14 CFR Part 27 Amdt. 27-27: § 27.427.
 14 CFR Part 27 Amdt. 27-44: § 27.49, § 27.71, § 27.75.
 CS-27 Amdt. 8, dated 14 June 2021: CS 27.173; CS 27.175;
 CS 27.177; CS 27.351; CS 27.571.</p> |
| 3. Special Conditions | FAA Special Condition No. 27-033-SC Robinson Model R44 and R44 II Helicopters, Installation of HeliSAS Autopilot and Stabilization Augmentation System (AP/SAS) |
| 4. Exemptions | <p>- FAA Exemption No. 5473, dated 2 July 1992, to §27.955(a)(7) and § 27.1305(q)</p> <p>- FAA Exemption No. 6692, dated 17 October 1997 to §27.695.</p> |
| 5. Deviations | None |
| 6. Equivalent Safety Findings | FAA ELOS No. TD10352LA-R/S-1 to 14 CFR Part 27, §27.1401(d), Anticollision Light System |
| 7. Requirements elected to comply | None |
| 8. Environmental Protection Requirements | |
| 8.1 Noise Requirements | See TCDSN UK.TC.R.00141 |
| 9. Operational Suitability Data (OSD) | See SECTION V below |

III. Technical Characteristic and Operating Limitations

1. Type Design Definition Robinson Helicopter Company Drawing C001, Robinson Technical Report RTR 540 R44 EASA Type Design Definition.
2. Description

Main rotor:	2-blade, free to teeter and cone, rigid in-plane
Tail rotor:	2-blade, free to teeter, rigid in-plane
Fuselage:	Riveted aluminium sheet and welded steel tube for primary structure, fiberglass & hermoplastic for secondary structure. Seats integral to cabin structure.
Landing gear:	Aluminium skids
Powerplant:	Single normally-aspirated reciprocating engine
Avionics:	Analogue or EFIS
3. Equipment Basic equipment must be installed and operational prior to registration of the helicopter.
Optional equipment per RHC drawing C025.
4. Dimensions
 - 4.1 Fuselage

Length:	11.66 m
Width hull:	1.28 m
Height:	3.28 m
 - 4.2 Main Rotor

Diameter:	10.06 m
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 - 4.3 Tail Rotor

Diameter:	1.47 m
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5. Engine
 - 5.1 Model Lycoming Engines
1 x Model O-540-F1B5
 - 5.2 Type Certificate

FAA TC/TCDS n°:	E-295
EASA TC/TCDS n°:	None
 - 5.3 Limitations

5.3.1 Installed Engine Limitations

	Power Limit [BHP]	RPM [%]
TOP (5 min)	225	102
MCP	205	102

- See RFM for maximum manifold pressure corresponding to 225 BHP

5.3.2 Transmission Torque Limits

	Max. TQ [Nm]	Engine RPM [%]
TOP (5 min)	581	102
MCP	530	102

6. Fluids (Fuel/ Oil/ Additives)

- 6.1 Fuel 100 LL aviation gasoline
100/130 aviation gasoline
- 6.2 Oil See R44 RFM (RTR 461), Section 8.
- 6.3 Additives None

7. Fluid capacities

7.1 Fuel

	Capacity [litres]	Usable [litres]
Tank	Tanks without bladders	
Main	120	116
Auxiliary	70	69
Tank	Tanks with bladders	
Main	115	112
Auxiliary	65	64

7.2 Oil

- Engine: 9.00 qt (8.52 litres)
- Main Rotor Transmission: 2.00 qt (1.89 litres)
- Tail Rotor Transmission: 0.11 qt (0.10 litres)
- Hydraulic Reservoir: 0.65 qt (0.62 litres)

8. Air Speed Limitations

TO Gross Weight [kg]	PWR on V _{NE} [KIAS]	PWR off V _{NE} [KIAS]
Less than 998	130	100
998 to 1 089, or Fixed Floats version less than 998	130	100
Fixed Floats version 998 to 1 089	110	100

Notes:

- MSL VNE values shown above.
- For reduction of VNE with altitude and temperature, see R44 RFM (RTR 461).
- Airspeed limit at power settings above MCP is 100 KIAS.
- Airspeed limit with inflated pop-out floats is 80 KIAS.
- Airspeed limit for any combination of 'Doors Off' is 100 KIAS.

9. Rotor Speed Limitations

Condition	Minimum		Maximum	
	[rpm*]	[%]	[rpm*]	[%]
Power on	396	99	408	102
Power off	360	90	432	108

Note: *Main Rotor

10. Maximum Operating Altitude and Temperature

10.1 Altitude 14 000 ft (4 270 m)

Maximum altitude above ground level is 9 000 ft (2 700 m) to allow landing within 5 minutes in case of fire.

10.2 Temperature Maximum ambient temperature limited only by engine operating temperature limits

11. Operating Limitations

VFR day and night
Non-icing conditions

12. Maximum Mass

1 089 kg

13. Centre of Gravity Range

Gross mass [kg]	Longitudinal C.G.	
	FWD limit [mm]	AFT limit [mm]
635	2 337	2 604
907	2 337	2 604
998	2 311	2 546
1 089	2 362	2 489
Longitudinal C.G. [mm]	Lateral C.G.	
	Left limit [mm]	Right limit [mm]
2 337	-76	+76
2 540	-76	+76
2 604	-38	+38

Note: Straight line variation between points shown.

14. Datum

Longitudinal:
the datum plane (STA 0) is located at 2 540 mm (100 in) forward of main rotor centreline.

Lateral:
fuselage median plane

15. Levelling Means

Refer to R44 Maintenance Manual and Instructions for Continued Airworthiness (RTR 460)

16. Minimum Flight Crew

1 pilot (right seat)

17. Maximum Passenger Seating Capacity 4

18. Passenger Emergency Exit

4, two on each side of the passenger cabin
(intended for normal use)

19. Maximum Baggage/Cargo Loads

Maximum mass: 23 kg (50 lb)

For any seat location, the maximum combined weight of the load on the seat (e.g. occupant) plus the weight of stowed items and any installed equipment in the baggage compartment is 136 kg (300 lb).

20. Rotor Blade Control Movement

Main Rotor:

Collective pitch	12.5° ± 0.5° total travel	
Cyclic pitch	forward	13.50° to 14.25°
	aft	13.50° to 14.25°
	left	7.5° to 8.5°
	right	6.0° to 7.0°

Tail Rotor:

Collective pitch	right pedal	15.5° to 16.5°
	left pedal	18.5° to 19.0°

21. Auxiliary Power Unit (APU)

None

22. Life-limited Parts

See Robinson Maintenance Manual and Instructions for Continued Airworthiness (RTR 460). Retirement times are listed in the approved "Airworthiness Limitations" section of Chapter 3.

IV. Operating and Service Instructions

1. Flight Manual

Robinson Helicopter Company R44 Rotorcraft Flight Manual, RTR 461, dated 10 December 1992, with revisions through 20 April 2007, or later.

2. Maintenance Manual

R44 Maintenance Manual and Instructions for Continued Airworthiness (RTR 460 Volume I).

3. Structural Repair Manual

None

4. Weight and Balance Manual

None

5. Illustrated Parts Catalogue

R44 Illustrated Parts Catalog (RTR 460 Volume II)

6. Service Letter and Service Bulletins

R44 Service Letters and Service Bulletins as published by Robinson Helicopter Company.

7. Required Equipment

The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the aircraft for certification, or as required by the Master Minimum Equipment List. In addition, the approved Rotorcraft Flight Manual is required (see IV.1. Flight Manual)

V. Operational Suitability Data

The Operational Suitability Data elements listed below are approved by CAA as per Commission Regulation (EU) 748/2012 as amended by Commission Regulation No 69/2014, as retained (and amended in UK domestic law) under European (Withdrawal) Act 2018 and amended by the Aviation Safety (Amendment etc.) (EU Exit) Regulations 2019.

OSD Certification Basis

1. Reference Date for determining the applicable OSD requirements
For all models: 12 August 2014
2. MMEL - Certification Basis
For all models: Special Condition SC-CS-GEN-MMEL-H, Initial Issue
3. Flight Crew Data – Certification Basis
For R44 with symmetrical horizontal stabilizer: CS-FCD, issue 2.
For all other R44: CS-FCD, Initial Issue.

OSD Elements

1. MMEL
For all models:
EASA MMEL for R22, R44, and R66, Appendix 1 to RTR 666, dated 17 November 2015, or subsequent approved revisions.
2. Flight Crew Data
RTR 467, UK CAA Operation Suitability Data, Flight Crew Data, Initial OSD Issue, or subsequent approved revisions.

VI. Notes

1. Manufacturer's eligible serial numbers:
0002, 0004 through 9999, except 1140.
2. Designation:
'R44 Astro' is used as a marketing designation for the R44 with electric trim system (without hydraulic controls).
'R44 Raven' or 'R44 Raven I' is used as a marketing designation for the R44 with hydraulic controls.
'R44 Clipper' or 'R44 Clipper I' is used as a marketing designation for the R44 with fixed or pop-out floats installed.
3. The initially certified noise level of model R44 can be further reduced by installation of the optional large muffler P/N C169-35 (see TCDSN UK.TC.R.00141).

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Section 2 R44 II**I. General**

This Type-Certificate Data Sheet (TCDS) is the concise definition of the type-certificated product accepted and or approved by the CAA in the UK for the affected types and models.

1. Type / Variant / Model

- a) Type: R44
- b) Variant or Model: R44 II

2. Type Certificate Holder

Robinson Helicopter Company
2901 Airport Drive
Torrance, California 90505, USA

II. Certification Basis

- | | |
|---|--|
| 1. Reference Date for determining the applicable requirements | 12 November 1989 |
| 2. Airworthiness Requirements | <p>14 CFR Part 27, dated 1 February 1965, including Amdts. 27-1 through 27-24.</p> <p>For the symmetrical horizontal stabilizer installation:</p> <p>14 CFR Part 27 Amdt. 27-26: § 27.613, § 27.629, § 27.663.
 14 CFR Part 27 Amdt. 27-34: § 27.391.
 14 CFR Part 27 Amdt. 27-27: § 27.427.
 14 CFR Part 27 Amdt. 27-44: § 27.49, § 27.71, § 27.75.
 CS-27 Amdt. 8, dated 14 June 2021: CS 27.173; CS 27.175;
 CS 27.177; CS 27.351; CS 27.571.</p> |
| 3. Special Conditions | FAA Special Condition No. 27-033-SC Robinson Model R44 and R44 II Helicopters, Installation of HeliSAS Autopilot and Stabilization Augmentation System (AP/SAS). |
| 4. Exemptions | FAA Exemption No. 6692, dated 17 October 1997 to § 27.695. |
| 5. Deviations | None |
| 6. Equivalent Safety Findings | FAA ELOS No. TD10352LA-R/S-1 to 14 CFR Part 27, § 27.1401(d), Anticollision Light System |
| 7. Requirements elected to comply | None |
| 8. Environmental Protection Requirements | |
| 8.1 Noise Requirements | See TCDSN UK.TC.R.00141 |
| 9. Operational Suitability Data (OSD) | See SECTION V below |

III. Technical Characteristic and Operating Limitations

1. Type Design Definition Robinson Helicopter Company Drawing C001, Robinson Technical Report RTR 540 R44 EASA Type Design Definition.
2. Description

Main rotor:	2-blade, free to teeter and cone, rigid in-plane
Tail rotor:	2-blade, free to teeter, rigid in-plane
Fuselage:	Riveted aluminium sheet and welded steel tube for primary structure, fiberglass & thermoplastic for secondary structure. Seats integral to cabin structure.
Landing gear:	Aluminium skids
Powerplant:	Single normally-aspirated reciprocating engine
Avionics:	Analogue or EFIS
3. Equipment Basic equipment must be installed and operational prior to registration of the helicopter.
Optional equipment per RHC drawing C025.
4. Dimensions
 - 4.1 Fuselage

Length:	11.66 m
Width hull:	1.28 m
Height:	3.28 m
 - 4.2 Main Rotor

Diameter:	10.06 m
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 - 4.3 Tail Rotor

Diameter:	1.47 m
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5. Engine
 - 5.1 Model Lycoming Engines
1 x Model IO-540-AE1A5
 - 5.2 Type Certificate

FAA TC/TCDS n°:	1E4
EASA TC/TCDS n°:	None
 - 5.3 Limitations

5.3.1 Installed Engine Limitations

	Power Limit [BHP]	RPM [%]
TOP (5 min)	245	102
MCP	205	102

- See RFM for maximum manifold pressure corresponding to 245 BHP

5.3.2 Transmission Torque Limits

	Max. TQ [Nm]	Engine RPM [%]
TOP (5 min)	633	102
MCP	530	102

6. Fluids (Fuel/ Oil/ Additives)

6.1 Fuel 100 LL aviation gasoline
100/130 aviation gasoline

6.2 Oil See R44 II Rotorcraft Flight Manual (RTR 462), Section 8.

6.3 Additives None

7. Fluid capacities

7.1 Fuel

	Capacity [litres]	Usable [litres]
Tank	Tanks without bladders	
Main	120	116
Auxiliary	70	69
Tank	Tanks with bladders	
Main	115	112
Auxiliary	65	64

7.2 Oil

Engine: 9.00 qt (8.52 litres)

Main Rotor Transmission: 2.00 qt (1.89 litres)

Tail Rotor Transmission: 0.11 qt (0.10 litres)

Hydraulic Reservoir: 0.65 qt (0.62 litres)

8. Air Speed Limitations

TO Gross Weight [kg]	PWR on V_{NE} [KIAS]	PWR off V_{NE} [KIAS]
Less than 998	130	100
998 to 1 134, or Fixed Floats version less than 998	120	100
Fixed Floats version 998 to 1 134	110	100

Notes:

- MSL VNE values shown above.
- For reduction of VNE with altitude and temperature, see R44 II Rotorcraft Flight Manual (RTR 462).
- Airspeed limit at power settings above MCP is 100 KIAS.
- Airspeed limit with inflated pop-out floats is 80 KIAS.
- Airspeed limit for any combination of 'Doors Off' is 100 KIAS.

9. Rotor Speed Limitations

Condition	Minimum		Maximum	
	[rpm*]	[%]	[rpm*]	[%]
Power on	404	101	408	102
Power off	360	90	432	108

Note: *Main Rotor

10. Maximum Operating Altitude and Temperature

10.1 Altitude

14 000 ft (4 270 m)

Maximum altitude above ground level is 9 000 ft (2 700 m) to allow landing within 5 minutes in case of fire.

10.2 Temperature

Maximum ambient temperature limited only by engine operating temperature limits

11. Operating Limitations

VFR day and night
Non-icing conditions

12. Maximum Mass

- 1 134 kg

- 1 089 kg for intentional water landings with fixed or pop-out floats.

13. Centre of Gravity Range

Gross mass [kg]	Longitudinal C.G.	
	FWD limit [mm]	AFT limit [mm]
726	2 337	2 604
953	2 337	2 604
1 043	2 337	2 546
1 134	2 362	2 489
Longitudinal C.G. [mm]	Lateral C.G.	
	Left limit [mm]	Right limit [mm]
2 337	-76	+76
2 540	-76	+76
2 604	-38	+38

Note: Straight line variation between points shown.

14. Datum

Longitudinal:

the datum plane (STA 0) is located at 2 540 mm (100 in) forward of main rotor centreline.

Lateral:

fuselage median plane

15. Levelling Means

Refer to R44 Maintenance Manual and Instructions for Continued Airworthiness (RTR 460)

16. Minimum Flight Crew

1 pilot (right seat)

17. Maximum Passenger Seating Capacity 3

18. Passenger Emergency Exit

4, two on each side of the passenger cabin
(intended for normal use)

19. Maximum Baggage/Cargo Loads

Maximum mass: 23 kg (50 lb)

For any seat location, the maximum combined weight of the load on the seat (e.g. occupant) plus the weight of stowed items and any installed equipment in the baggage compartment is 136 kg (300 lb).

20. Rotor Blade Control Movement

Main Rotor:

Collective pitch	12.5° ± 0.5° total travel	
Cyclic pitch	forward	13.50° to 14.25°
	aft	13.50° to 14.25°
	left	7.5° to 8.5°
	right	6.0° to 7.0°

Tail Rotor:

Collective pitch	right pedal	15.5° to 16.5°
	left pedal	18.5° to 19.0°

21. Auxiliary Power Unit (APU)

None

22. Life-limited Parts

See Robinson Maintenance Manual and Instructions for Continued Airworthiness (RTR 460). Retirement times are listed in the approved "Airworthiness Limitations" section of Chapter 3.

IV. Operating and Service Instructions

1. Flight Manual

Robinson Helicopter Company R44 II Rotorcraft Flight Manual, RTR 462, dated 3 October 2002, with revisions through 20 April 2007, or later.

2. Maintenance Manual

R44 Maintenance Manual and Instructions for Continued Airworthiness (RTR 460 Volume I).

3. Structural Repair Manual

None

4. Weight and Balance Manual

None

5. Illustrated Parts Catalogue

R44 Illustrated Parts Catalog (RTR 460 Volume II)

6. Service Letter and Service Bulletins

R44 Service Letters and Service Bulletins as published by Robinson Helicopter Company.

7. Required Equipment

The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the aircraft for certification, or as required by the Master Minimum Equipment List. In addition, the approved Rotorcraft Flight Manual is required (see Flight Manual)

V. Operational Suitability Data

The Operational Suitability Data elements listed below are approved by CAA as per Commission Regulation (EU) 748/2012 as amended by Commission Regulation No 69/2014, as retained (and amended in UK domestic law) under European (Withdrawal) Act 2018 and amended by the Aviation Safety (Amendment etc.) (EU Exit) Regulations 2019.

OSD Certification Basis

1. Reference Date for determining the applicable OSD requirements
For all models: 12 August 2014
2. MMEL - Certification Basis
For all models: Special Condition SC-CS-GEN-MMEL-H, Initial Issue
3. Flight Crew Data – Certification Basis
For R44 with symmetrical horizontal stabilizer: CS-FCD, issue 2.
For all other R44: CS-FCD, Initial Issue.

OSD Elements

1. MMEL
For all models:
EASA MMEL for R22, R44, and R66, Appendix 1 to RTR 666, dated 17 November 2015, or subsequent approved revisions.
2. Flight Crew Data
RTR 467, UK CAA Operation Suitability Data, Flight Crew Data, Initial OSD Issue, or subsequent approved revisions.

VI. Notes

1. Manufacturer's eligible serial numbers:
1140, 10001 and subsequent.
2. Designation:
'R44 Raven II' is used as a marketing designation for the R44 II.
'R44 Clipper II' is used as a marketing designation for the R44 II with fixed or pop-out floats installed.
3. The initially certified noise level of model R44 II can be further reduced by installation of the optional large muffler P/N C169-37 (see TCDSN UK.TC.R.00141).

* * *

Section 3 R44 (s/n 30001 and subsequent)**I. General**

This Type-Certificate Data Sheet (TCDS) is the concise definition of the type-certificated product accepted and or approved by the CAA in the UK for the affected types and models.

1. Type / Variant / Model

- a) Type: R44
b) Variant or Model: R44

2. Type Certificate Holder

Robinson Helicopter Company
2901 Airport Drive
Torrance, California 90505, USA

II. Certification Basis

- | | |
|---|--|
| 1. Reference Date for determining the applicable requirements | 12 November 1989 |
| 2. Airworthiness Requirements | <p>14 CFR Part 27, dated 1 February, 1965, including Amdts. 27-1 through 27-24.</p> <p>For the symmetrical horizontal stabilizer installation:
 14 CFR Part 27 Amdt. 27-26: § 27.613, § 27.629, § 27.663.
 14 CFR Part 27 Amdt. 27-34: § 27.391.
 14 CFR Part 27 Amdt. 27-27: § 27.427.
 14 CFR Part 27 Amdt. 27-44: § 27.49, § 27.71, § 27.75.
 CS-27 Amdt. 8, dated 14 June 2021: CS 27.173; CS 27.175; CS 27.177; CS 27.351; CS 27.571.</p> |
| 3. Special Conditions | FAA Special Condition No. 27-033-SC Robinson Model R44 and R44 II Helicopters, Installation of HeliSAS Autopilot and Stabilization Augmentation System (AP/SAS). |
| 4. Exemptions | <p>FAA Exemption No. 5473, dated 2 July 1992, to § 27.955(a)(7) and § 27.1305(q)</p> <p>FAA Exemption No. 6692, dated 17 October 1997 to § 27.695.</p> |
| 5. Deviations | None |
| 6. Equivalent Safety Findings | FAA ELOS No. TD10352LA-R/S-1 to 14 CFR Part 27, § 27.1401(d), Anticollision Light System |
| 7. Requirements elected to comply | None |
| 8. Environmental Protection Requirements | |
| 8.1 Noise Requirements | See TCDSN UK.TC.R.00141 |
| 9. Operational Suitability Data (OSD) | See SECTION V below |

III. Technical Characteristic and Operating Limitations

1. Type Design Definition Robinson Helicopter Company Drawing C001, Robinson Technical Report RTR 540 R44 EASA Type Design Definition.
2. Description

Main rotor:	2-blade, free to teeter and cone, rigid inplane
Tail rotor:	2-blade, free to teeter, rigid in-plane
Fuselage:	Riveted aluminium sheet and welded steel tube for primary structure, fiberglass & thermoplastic for secondary structure. Seats integral to cabin structure.
Landing gear:	Aluminium skids
Powerplant:	Single normally-aspirated reciprocating engine
Avionics:	Analogue or EFIS
3. Equipment Basic equipment must be installed and operational prior to registration of the helicopter.
Optional equipment per RHC drawing C025.
4. Dimensions
 - 4.1 Fuselage

Length:	11.66 m
Width hull:	1.28 m
Height:	3.28 m
 - 4.2 Main Rotor

Diameter:	10.06 m
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 - 4.3 Tail Rotor

Diameter:	1.47 m
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5. Engine
 - 5.1 Model Lycoming Engines
1 x Model O-540-F1B5
 - 5.2 Type Certificate

FAA TC/TCDS n°:	E-295
EASA TC/TCDS n°:	None
 - 5.3 Limitations

5.3.1 Installed Engine Limitations

	Power Limit [BHP]	RPM [%]
TOP (5 min)	210	102
MCP	185	102

- See RFM for maximum manifold pressure corresponding to 210 BHP

5.3.2 Transmission Torque Limits

	Max. TQ [Nm]	Engine RPM [%]
TOP (5 min)	543	102
MCP	478	102

6. Fluids (Fuel/ Oil/ Additives)

6.1 Fuel 100 LL aviation gasoline
100/130 aviation gasoline

6.2 Oil See R44 Cadet Rotorcraft Flight Manual (RTR 463), Section 8.

6.3 Additives None

7. Fluid capacities

7.1 Fuel

	Capacity [litres]	Usable [litres]
Tank	Tanks without bladders	
Main	120	116
Auxiliary	70	69
Tank	Tanks with bladders	
Main	115	112
Auxiliary	65	64

7.2 Oil

Engine: 9.00 qt (8.52 litres)

Main Rotor Transmission: 2.00 qt (1.89 litres)

Tail Rotor Transmission: 0.11 qt (0.10 litres)

Hydraulic Reservoir: 0.65 qt (0.62 litres)

8. Air Speed Limitations

PWR on V_{NE} [KIAS]	PWR off V_{NE} [KIAS]
120	100

Notes:

- MSL VNE values shown above.
- For reduction of VNE with altitude and temperature, see R44 Cadet RFM (RTR 463).
- Airspeed limit at power settings above MCP is 100 KIAS.
- Airspeed limit with inflated pop-out floats is 80 KIAS.
- Airspeed limit for any combination of 'Doors Off' is 100 KIAS.

9. Rotor Speed Limitations

Condition	Minimum		Maximum	
	[rpm*]	[%]	[rpm*]	[%]
Power on	396	99	408	102
Power off	360	90	432	108

Note: *Main Rotor

10. Maximum Operating Altitude and Temperature

10.1 Altitude 14 000 ft (4 270 m)

Maximum altitude above ground level is 9 000 ft (2 700 m) to allow landing within 5 minutes in case of fire.

10.2 Temperature Maximum ambient temperature limited only by engine operating temperature limits

11. Operating Limitations

VFR day and night
Non-icing conditions

12. Maximum Mass

998 kg

13. Centre of Gravity Range

Gross mass [kg]	Longitudinal C.G.	
	FWD limit [mm]	AFT limit [mm]
703	2 337	2 604
907	2 337	2 604
998	2 362	2 546
Longitudinal C.G. [mm]	Lateral C.G.	
	Left limit [mm]	Right limit [mm]
2 337	-76	+76
2 540	-76	+76
2 604	-38	+38

Note: Straight line variation between points shown.

14. Datum

Longitudinal:
the datum plane (STA 0) is located at 2 540 mm (100 in) forward of main rotor centreline.

Lateral:
fuselage median plane

15. Levelling Means

Refer to R44 Maintenance Manual and Instructions for Continued Airworthiness (RTR 460)

16. Minimum Flight Crew

1 pilot (right seat)

17. Maximum Passenger Seating Capacity

1

18. Passenger Emergency Exit

2, one on each side of the passenger cabin
(intended for normal use)

19. Maximum Baggage/Cargo Loads

Maximum mass: 23 kg (50 lb)

For any seat location, the maximum combined weight of the load on the seat (e.g. occupant) plus the weight of stowed items and any installed equipment in the baggage compartment is 136 kg (300 lb). Maximum mass on aft deck is 23 kg (50 lb) each side and maximum mass in each compartment under aft deck is 23 kg (50 lb).

20. Rotor Blade Control Movement

Main Rotor:

Collective pitch	12.5° ± 0.5° total travel	
Cyclic pitch	forward	13.50° to 14.25°
	aft	13.50° to 14.25°
	left	7.5° to 8.5°
	right	6.0° to 7.0°

Tail Rotor:

Collective pitch	right pedal	15.5° to 16.5°
	left pedal	18.5° to 19.0°

21. Auxiliary Power Unit (APU)

None

22. Life-limited Parts

See Robinson Maintenance Manual and Instructions for Continued Airworthiness (RTR 460). Retirement times are listed in the approved "Airworthiness Limitations" section of Chapter 3.

IV. Operating and Service Instructions

1. Flight Manual

Robinson Helicopter Company R44 Cadet Rotorcraft Flight Manual, RTR 463, dated 29 April 2016, or later.

2. Maintenance Manual

R44 Maintenance Manual and Instructions for Continued Airworthiness (RTR 460 Volume I)

3. Structural Repair Manual

None

4. Weight and Balance Manual

None

5. Illustrated Parts Catalogue

R44 Illustrated Parts Catalog (RTR 460 Volume II)

6. Service Letter and Service Bulletins

R44 Service Letters and Service Bulletins as published by Robinson Helicopter Company.

7. Required Equipment

The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the aircraft for certification, or as required by the Master Minimum Equipment List. In addition, the -approved Rotorcraft Flight Manual is required (see IV.1 Flight Manual).

V. Operational Suitability Data

The Operational Suitability Data elements listed below are approved by CAA as per Commission Regulation (EU) 748/2012 as amended by Commission Regulation No 69/2014, as retained (and amended in UK domestic law) under European (Withdrawal) Act 2018 and amended by the Aviation Safety (Amendment etc.) (EU Exit) Regulations 2019.

OSD Certification Basis

1. Reference Date for determining the applicable OSD requirements
For all models: 12 August 2014
2. MMEL - Certification Basis
For all models: Special Condition SC-CS-GEN-MMEL-H, Initial Issue
3. Flight Crew Data – Certification Basis
For R44 with symmetrical horizontal stabilizer: CS-FCD, issue 2.
For all other R44: CS-FCD, Initial Issue.

OSD Elements

1. MMEL
For all models:
EASA MMEL for R22, R44, and R66, Appendix 1 to RTR 666, dated 17 November 2015, or subsequent approved revisions.
2. Flight Crew Data
RTR 467, UK CAA Operation Suitability Data, Flight Crew Data, Initial OSD Issue, or subsequent approved revisions.

VI. Notes

1. Manufacturer's eligible serial numbers:
30001 and subsequent.
2. Designation:
'R44 Cadet' is used as a marketing designation for the two-seat version of the R44.

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Section 4 Administration**I. Acronyms and Abbreviations**

Acronym / Abbreviation	Definition	Acronym / Abbreviation	Definition
AFT	Aft	n/a	Not applicable
C.G.	Centre of Gravity	OSD	Operational Suitability Data
CRI	Certification Review Item	PA	Pressure Altitude
CS	Certification Specification	PWR	Power
DA	Density Altitude	RHC	Robinson Helicopter Company
DP	Datum Point	RFM	Rotorcraft Flight Manual
EFIS	Electronic Flight Information System	RTR	Robinson Technical Report
ESF	Equivalent Safety Finding	s/n	Serial Number
FAA	Federal Aviation Administration	SC	Special Condition
FCD	Flight Crew Data	STA	Station
FWD	Forward	TC	Type Certificate
ISA	International Standard Atmosphere	TCDS	Type Certificate Data Sheet
KIAS	Knots Indicated Air Speed	TCH	Type Certificate Holder
max	Maximum	TOP	Take-Off Power
MC	Maximum Continuous	TRGB	Tail Rotor Gearbox
MCP	Maximum Continuous Power	TQ	Torque
MGT	Measured Gas Temperature	UK CAA	United Kingdom Civil Aviation Authority
MMEL	Master Minimum Equipment List	VFR	Visual Flight Rules
MRGB	Main Rotor Gearbox	V _{NE}	Never Exceed Speed
MSL	Mean Sea Level		

II. Type Certificate Holder Record

TCH Record	Period
Robinson Helicopter Company 2901 Airport Drive Torrance, California 90505, USA	Since 10 December 1992

III. Amendment Record

TCDS Issue No.	TCDS Issue Date	Changes	TC Issue and Date
1	20 Jun 2025	The content of the initial issue of this UK CAA TCDS was taken from EASA TCDS No. EASA.IM.R.121 Issue 6 dated 28 February 2017, which was the current EASA version at 31 December 2020 and therefore the version of the TCDS for the Robinson R44 accepted by the UK under Article 15 of Annex 30 of the UK-EU Trade and Cooperation Agreement, except as listed below: Changes related to [Project number - UK.MAJ.00477: Section 0: New Section explaining the content of this TCDS derived from the previous EASA TCDS Sections 1.II.2; 2.II.2; 3.II.2: certification basis updated for symmetrical horizontal stabilizer. Sections 1.V; 2.V; 3.V Flight Crew Data: to introduce RTR 467 UK FCD at initial issue. All sections: Editorial updates	Issue 1 20 Jun 2025

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