

TYPE CERTIFICATE

EASA.E.209

This Type Certificate is issued by EASA, acting in accordance with Regulation (EC) No. 216/2008 on behalf of the European Community, its Member States and of the European third countries that participate in the activities of EASA under Article 66 of that Regulation and in accordance with Commission Regulation (EU) No. 748/2012 to

BRP-ROTAX GmbH & Co KG

ROTAXSTRASSE 1
4623 GUNSKIRCHEN
AUSTRIA

and certifies that the product type design listed below complies with the applicable Type Certification Basis and environmental protection requirements when operated within the conditions and limitations specified on the associated:

Type Certificate Data Sheet Number: EASA.E.209

Type Design:

Rotax 535 Series

Model:

Rotax 535 A
Rotax 535 B
Rotax 535 C

Date of Issue:

27 April 1983
27 April 1983
12 June 1987

For the European Aviation Safety Agency

Date of Issue: 05 September 2016



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TYPE CERTIFICATE – 10026500 – BRP-ROTAX GmbH & Co KG – 301057





TYPE-CERTIFICATE DATA SHEET

No. E.209

for

Rotax 535 series engines

Type Certificate Holder

BRP-Rotax GmbH & Co. KG

Rotaxstrasse 1
A-4623 Gunskirchen
Austria

For Models:

Rotax 535 A

Rotax 535 B

Rotax 535 C



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I. General

1. Type/ Model

Rotax 535 A
Rotax 535 B
Rotax 535 C

2. Type Certificate Holder

BRP-Rotax GmbH & Co KG
Rotaxstraße 1
A-4623 Gunskirchen, Austria
DOA EASA.21J.048

3. Manufacturer

As above

4. Date of Application

Rotax 535 A	Rotax 535 B	Rotax 535 C
29 June 1982	29 June 1982	not known, but before 1987

5. EASA Type Certification Date

Rotax 535 A	Rotax 535 B	Rotax 535 C
27 April 1983	27 April 1983	12 June 1987

Note: EASA type certificate for all these models is granted in accordance with article 2 paragraph 3(a) of EU Commission Regulation 1702/2003 replacing the BAZ/ACG Austria certification of these products (Austrian Type Certification no. TW 5/83)



II. Certification Basis

1. EASA Certification Basis

1.1. Airworthiness Standards

JAR 22, Appendix H, airworthiness requirements for engines of powered sailplanes issued by Bundesanstalt für Flugsicherung, BRD (publication March 15, 1982)

1.2. Special Conditions (SC)

none

1.3. Equivalent Safety Findings

none

1.4. Deviations

none

1.5. Environmental Protection

none

III. Technical Characteristics

1. Type Design Definition

As defined the type design definition number 73.535.



2. Description

ROTAX 535 A and 535 B:

2 cylinders in line, two stroke engine, liquid cooling, mixture lubrication, dual magneto high-voltage condenser ignition contact less, 2 x diaphragm carburetors, belt driven propeller, electric starter, alternator, fuel pump

Weight (dry):	35 kg (with muffler and electric starter)
Bore:	72 mm
Stroke:	64 mm
Displacement:	521,2 cm ³
Compression Ratio:	11,5
Crankshaft drive rotation:	counter clockwise (viewed from front)

ROTAX 535 C:

2 cylinders in line, two stroke engine, liquid cooling, mixture lubrication, dual magneto high-voltage condenser ignition contact less, 1 diaphragm carburetor, belt driven propeller, electric starter, alternator, fuel pump

Weight (dry):	35 kg (with muffler and electric starter)
Bore:	72 mm
Stroke:	64 mm
Displacement:	521,2 cm ³
Compression Ratio:	11,5
Crankshaft drive rotation:	counter clockwise (viewed from front)

3. Equipment

ROTAX 535 A and 535 B:

Carburetor:	2 x diaphragm carburetors Tillotson type HR, or 2 x diaphragm carburetors Mikuni type BN 38
Fuel pump:	Mikuni diaphragm pump DF 44
Ignition system:	dual magnetic high-voltage condenser ignition, contact less 12 V 100 W gen. Ignition-box Bosch or Ducati
Spark plugs:	for ignition-box Bosch: B8ES; Bosch W3CC, W3CP for ignition-box Ducati: BR8ES; Bosch WR3CC, WR3CP
Starter:	Inertia drive electric starter AB
Power drive:	trapper 1:10, 30 Ø
Revolution measurement:	supply for an electronic tachometer



ROTAX 535 C:

Carburetor:	1 diaphragm carburetor BN 38
Fuel pump:	Mikuni diaphragm pump DF 44
Ignition system:	dual magnetic high-voltage condenser ignition, contact less 12 V 100 W gen. Ignition-box Bosch or Ducati
Spark plugs:	for ignition-box Bosch: B8ES; Bosch W3CC, W3CP for ignition-box Ducati: BR8ES; Bosch WR3CC, WR3CP
Starter:	Inertia drive electric starter AB
Power drive:	trapper 1:10, 30 Ø
Revolution measurement:	supply for an electronic tachometer

4. Dimensions

not determined

5. Dry Weight

35 kg (with muffler and electric starter)

6. Ratings

ROTAX 535 A and 535 C:

	kw	PS	1/min
Take off power:	44	60	7200
max. continuous:	44	60	7200

ROTAX 535 B:

	kw	PS	1/min
Take off power:	40	55	7200
max. continuous:	40	55	7200

7. Fluids (Fuel, Oil, Coolant, Additives)

7.1. Fuel

Fuel: 2 stroke mixture
super gasoline min 96 ROZ or AVGAS 100 LL

Description	Rotax 535 A / 535 B		Rotax 535 C	
	German	English	German	English
See Operator's Manual	HB-535	OM-535	HB-535-000	OM-535-000
See Service Instruction	n.a.	n.a.	n.a.	n.a.



7.2. Oil

Lubrication: Mixture lubrication
mixing ratio 1:50
with super two stroke oil

Description	Rotax 535 A / 535 B		Rotax 535 C	
	German	English	German	English
See Operator's Manual	HB-535	OM-535	HB-535-000	OM-535-000
See Service Instruction	n.a.	n.a.	n.a.	n.a.

7.3. Coolant

Description	Rotax 535 A / 535 B		Rotax 535 C	
	German	English	German	English
See Operator's Manual	HB-535	OM-535	HB-535-000	OM-535-000
See Service Instruction	n.a.	n.a.	n.a.	n.a.

8. Aircraft Accessory Drives

none

IV. Operating Limitations

1. Temperature Limits

Cylinder head temperature	max. 95°C
(cooling liquid in cylinder head)	

2. Speed Limits

max. RPM	7200
idling RPM:	approx. 2500



V. Operating and Service Instructions

Description	Rotax 535 A / 535 B		Rotax 535 C	
	German	English	German	English
Operation- and Maintenance instruction	HB-535	OM-535	HB-535-000	OM-535-000
Installation Manual	EBHB-535	n.a.	EBHB-535	n.a.
Repair Manual	RHB-535-000	RM-535-000	RHB-535-000	RM-535-000
Service Bulletins, Service Instructions and Service Letters	as issued	as issued	as issued	as issued

VI. Notes

Note 1: Fuel consumption

At 100 % power approx. 29 l/h (7,67 Gal/h) and at 75 % power approx. 22 l/h (5,82 Gal/h).



SECTION: ADMINISTRATIVE

I. Acronyms and Abbreviations

ACG	Austro Control GmbH
AS 8020	Aerospace Standard: General minimum performance standards for generators/starter-generators and associated voltage regulators for use in direct current (DC) electric systems for civil aircraft
AVGAS	Aviation Gasoline
CHT	Cylinder Head Temperature
CT	Coolant Temperature
CW	clockwise
CCW	counter-clockwise
CS-E	Certification Specifications Engines
EASA	European Aviation Safety Agency
FAA	Federal Aviation Administration
FAR	Federal Aviation Regulations
HIRF	High Intensity Radiated Fields
IM	Installation Manual
IPC	Illustrated Parts Catalog
JAR	Joint Aviation Requirements
JAR-E	Joint Aviation Requirements Engines
MMH	Maintenance Manual Heavy
MML	Maintenance Manual Line
OM	Operators Manual
OHM	Overhaul Manual
OHMA	Overhaul Manual, Appendix
rpm	revolutions per minute
RTCA	Radio Technical Commission for Aeronautics
SB	Service Bulletin
SI	Service Instruction
TBO	Time between Overhaul
TCDS	Type Certificate Data Sheet
TCU	Turbo Control Unit



II. Type Certificate Holder Record

Before June 15, 2016	BRP-Powertrain GmbH & Co KG Rotaxstraße 1 A-4623 Gunskirchen Austria DOA EASA.21J.048
Before March 15, 2014	BRP-Powertrain GmbH & Co KG Welser Straße 32 A-4623 Gunskirchen, Austria
Before February 3, 2009	BRP-Rotax GmbH & Co. KG Welser Straße 32 A-4623 Gunskirchen, Austria DOA EASA.21J.048
Before June 16, 2004	Bombardier-Rotax GmbH & Co. KG Welser Straße 32 A-4623 Gunskirchen, Austria
Before December 29, 2001	Bombardier-Rotax Gesellschaft mbH Welser Straße 32 A-4623 Gunskirchen, Austria

III. Change Record

Issue	Date	Changes	TC issue
Issue 01	26 February 2010	Initial Issue	26 February 2010, Initial Issue
Issue 02	14 May 2014		
Issue 03	05 September 2016	Name change to BRP-Rotax GmbH & Co KG as of June 15, 2016	05 September 2016

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