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I. General

1. Type / Models:

Rotax 535 A
Rotax 535 B
Rotax 535 C

2. Type Certificate Holder:

Since February 3, 2009	BRP-Powertrain GmbH & Co KG Welser Straße 32 A-4623 Gunskirchen, Austria DOA EASA.21J.048
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

3. Manufacturer:

As above

4. Certification Application Date:

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

5. EASA 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. **Airworthiness Standards:**

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

2. **Special Conditions (SC):**

none

3. **Deviations:**

none

4. **Equivalent Safety Findings (ESF):**

none

5. **Environmental Protection Requirements:**

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. Dimension:

not determined

5. Dry Weight:

not determined

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/Additives/Coolant):

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. Operational 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. Operational 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).
