



TYPE-CERTIFICATE DATA SHEET

NO. EASA.A.539

for
RUSCHMEYER R 90

Type Certificate Holder
Bernd Hager/Anatoli Stobbe GbR

Hedwigstr. 18
30159 Hannover
Germany

For models: R 90-230RG



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SECTION A: R 90-230RG

A.I. General

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| 1. Data Sheet No.: | EASA.A.539 |
| 2. a) Type: | Ruschmeyer R 90 |
| b) Model: | R 90-230RG |
| 3. Airworthiness Category: | Normal Category |
| 4. Type Certificate Holder: | Bernd Hager/Anatoli Stobbe GbR
Hedwigstr. 18
30159 Hannover
Federal Republic of Germany |
| 5. Contracted DOA Holder | Gomolzig Aircraft Services GmbH
Eisenwerkstrasse 9
58332 Schwelm
Germany |
| 6. Manufacturer: | see Note 4 |
| 7. Reserved: | |
| 8. National Certifying Authority | Luftfahrt-Bundesamt |
| 9. National Authority Type Certificate Date: | 12-Jun-1992 |



A.II. EASA Certification Basis

- | | |
|--|--|
| 1. Reference Date for determining the applicable requirements: | N/A |
| 2. Airworthiness Requirements: | FAR Part 23 incl. amendment 23-1 through 23-34, effective 17-Feb-1987 |
| 3. Special Conditions: | Refer to LBA-Letter from 07-Jan-1991
1. Primary structures designed with composite material
2. Protection of Systems From Lightning and HIRF |
| 3. Exemptions: | N/A |
| 4. Deviations: | N/A |
| 5. Equivalent Safety Findings: | N/A |
| 6. Requirements elected to comply: | N/A |
| 7. Environmental Standards: | LSL Chapter VI and X dated 01-Jan-1991 |
| 8. Additional National Requirements: | N/A |
| 9. (Reserved) | N/A |



A.III. Technical Characteristics and Operational Limitations

1. Type Design Definition: Set of drawings 1082.xxx
Specifications and reports R 90-230 RG

2. Description: Single-engine low wing airplane, four seated,
dual controls, composite design, standard empennage,
retracting tricycle landing gear with nose wheel

3. Equipment: Refer to AFM Section VI

4. Dimensions:

Span:	9,5 m
Length:	7,93 m
Height:	2,73 m
Wing Area:	12,94 m ²

5. Engine:
 - 5.1.1 Model: Textron-Lycoming IO-540-C4D5

 - 5.1.2 Type Certificate: FAA TCDS 1E4

 - 5.1.3 Limitations: Refer to AFM Section II

6. Propeller:
 - 6.1 Model: MTV-14-B/190-17

 - 6.2 Type Certificate: EASA TCDS P.017

 - 6.3 Number of blades: 4

 - 6.4 Diameter: 1900mm (+ 0mm, – 30mm)

 - 6.5 Sense of Rotation: Clockwise

7. Fluids:
 - 7.1 Fuel: Aviation Grade AVGAS 100
Aviation Grade AVGAS 100LL



7.2 Oil:	Refer to AFM Section I		
8. Fluid capacities:			
8.1 Fuel:	Total capacity:	250 litres	
	Useable capacity:	236 litres	
8.2 Oil:	Max.	11,4 litres	
	Min.	3,8 litres	
8.3 Coolant system capacity:	N/A		
9. Air Speeds:	V _{NE}	(Never Exceed Speed)	193 KIAS
	V _A	(Manoeuvring Speed)	128 KIAS
	V _{NO}	(Maximum Structural Cruising Speed)	157 KIAS
	V _{FE}	(Maximum Flap Extended Speed)	102 KIAS
	V _{LO}	(Maximum Landing Gear Operating Speed)	140 KIAS
	V _{LE}	(Maximum Landing Gear Extended Speed)	140 KIAS
10. Load factors:	Flaps retracted :	+3,8g to -1,52g ^{*)}	
	Flaps extended (15° and 30°):	+2,0g to 0,0g	
	*)Intended manoeuvres with negative load factors are prohibited		
11. Maximum Operating Altitude:	Not specified		
12. Allweather Operations Capability:	VFR Day/Night, IFR Flights in known icing conditions are prohibited		
13. Maximum Weights:	Max. Take-Off and Landing Weight 1350 kg (2977 lbs)		
14. Centre of Gravity Range:	Forward limit 2,2685 m (89.3 in) aft of datum at 1350 kg (2977 lbs) 2,1976 m (86.5 in) aft of datum at 1250 kg (2756 lbs) 2,1976 m (86.5 in) aft of datum at 961 kg (2119 lbs) Aft limit: 2,3677 m (93.2 in) aft of datum at 1350 kg (2977 lbs) 2,3677 m (93.2 in) aft of datum at 961 kg (2119 lbs)		



15. Datum: Fuselage station 0.00 m (0.00 in)
(2,00 m in front of wing leading edge at the kink at $y = 1,675$ m)
16. Control surface deflections: Refer to Maintenance Manual Chapter 06
- | | | |
|--------------------|------|----------|
| Flaps | Up | 0° |
| | Down | 15°, 30° |
| Aileron | Up | 16° |
| | Down | 11° |
| Elevator | Up | 18° |
| | Down | 15° |
| Rudder | LH | 25° |
| | RH | 27° |
| Trim tab | Up | 13° - 1° |
| (Elevator neutral) | Down | 28° - 1° |
17. Levelling Means: Lower edge of door frame
18. Minimum Flight Crew: 1
19. Maximum Passenger Seating Capacity: 3
20. Baggage/Cargo Compartments: Max. 50 kg (110 lbs)
21. Wheels and Tyres: Refer to Maintenance Manual Section I
22. Serial Numbers Eligible: 3 – 24, 27 - 30



A.IV. Operating and Service Instructions

1. Flight Manual: Airplane Flight Manual R90-230 RG Issue 1, Revision 0, dated March 1994
2. Technical Manual: Maintenance Manual R90-230 RG Issue 1, Revision 3, dated June 25th, 1994
3. Repair Manual: see Maintenance Manual
4. Manual for Operation: see Airplane Flight Manual
5. Spare Parts Catalogue: Illustrated Parts Catalogue Issue 1, Revision 0, dated February 23rd, 1994
6. Table of Dimensions, Limits and Clearances: see Airplane Flight Manual Section I
7. Instruments and aggregates: see Airplane Flight Manual Section VII



A.V. Notes:

1. This Type Certification Data Sheet is based on the original Luftfahrt-Bundesamt (Germany) TCDS No. 1082/SA, issue 1, dated 12 June 1992.
2. All components that are exposed to the sun have to be painted with colors and absorption coefficients in accordance with Maintenance Manual Chapter 04.
3. Structural repairs must be accomplished in accordance with Maintenance Manual Chapter 51.
4. The placards listed in Section 2 of the LBA approved Airplane Flight Manual RUSCHMEYER R90-230RG must be displayed.
5. Aircraft Serial Numbers 3 through 24 and 27 through 30 have been manufactured by Ruschmeyer Luftfahrttechnik GmbH.



SECTION ADMINISTRATIVE

I. Acronyms & Abbreviations

AFM	Airplane Flight Manual
EASA	European Union Aviation Safety Agency
FAA	Federal Aviation Authority (US)
IFR	Instrument Flight Rules
LBA	Luftfahrt-Bundesamt (Germany)
N/A	not applicable
VFR	Visual Flight Rules

II. Type Certificate Holder Record

Date	Type Certificate Holder
12-Jun-1992	Ruschmeyer-Luftfahrttechnik GmbH Segelfliegerweg 41 49324 Melle Federal Republic of Germany
23-Dec-1996	deister electronic Verwaltungsgesellschaft für Industriebeteiligungen mbH Hedwigstr. 18 30159 Hannover Federal Republic of Germany
24-Dec-1996	Bernd Hager/Anatoli Stobbe GbR Hedwigstr. 18 30159 Hannover Federal Republic of Germany

III. Change Record

Issue	Date	Changes	TC Issue No. & Date
Issue 01	27 May 2014	First Edition	1, 27 May 2014
Issue 02	24 June 2014	Type designation corrected	-
Issue 03	11 Feb 2020	Changed name of the Contracted DOA holder. New TCDS format	-

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