DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

A77EU Revision 2 RUSCHMEYER R90-230RG March 4, 2022

TYPE CERTIFICATE DATA SHEET No. A77EU.

This data sheet which is part of Type Certificate No. A77EU prescribes conditions and limitations under which the product for which the Type Certificate was issued meets the airworthiness requirements of the Federal Aviation Regulations.

Type Certificate Holder.

RUSCHMEYER LUFTFAHRTTECHNIK GmbH
Segelfliegerweg 41
D-49324 Melle
Federal Republic of Germany

I. Model RUSCHMEYER R90-230RG (normal category), approved June 24, 1994.

Engine.

Avco Lycoming IO-540-C4D5

Fuel.

AVGAS 100 or 100LL

Engine Limits.

Max. power	231 hp (172 kW)
Max. permitted RPM	2400 RPM
Max. continuous power	231 hp (172 kW)
Max. continuous RPM	240 RPM

Propeller and Propeller Limits.

Mühlbauer MTV-14B/190-17

Diameter max.	6.23 ft (1.90 m)
Pitch	variable
Static RPM limit	2700 RPM

Airspeed Limits.

V_{NE} (never exceed)	194 kts (360 km/h)
V_{NO} (normal operating)	157 kts (290 km/h)
V_A (maneuvering)	129 kts (238 km/h)
V_{FE} (flaps extended)	103 kts (190 km/h)

C.G. Range.

Most forward C.G.:
(Between the given values linear change)
89.3 in (2268 mm) aft of datum at 2977 lbs (1350 kg)
86.5 in (2198 mm) aft of datum at 2756 lbs (1250 kg) or less

Most rearward C.G.:
93.2 in (2368 mm) aft of datum

Datum.

78.7 in (2000 mm) in front of wing leading edge at the kink.

Leveling Means.

Lower gull wing door frame.

Minimum Crew.

1 pilot

Number of Seats.

4 (2 front seats, side by side 92.9 in (2360 mm) aft of datum
(2 rear seats, side by side 126.4 in (3210 mm) aft of datum

Maximum Baggage. 110 lbs (50 kg) 150.8 in (3830 mm) aft of datum

Fuel Capacity. Total Contents: 66.0 U.S. gal. (250 L) 82.7 in (2100 mm) aft of datum
Usable: 62.3 U.S. gal. (236 L)

Oil Capacity. 12 quarts (11.4 L)

Control Surface Movements.

Flaps	Up	0º
	Down	30º ± 1º
Aileron	Up	16º ± 1.5º
	Down	11º ± 1.5º
Elevator	Up	18º ± 1.5º
	Down	15º ± 1.5º
Trim tab (Elevator neutral)	Up	13º - 1º
	Down	28º - 1º
Rudder	LH	8.66 ± 0.6 in (220 ± 15 mm)
	RH	9.45 ± 0.6 in (240 ± 15 mm)

Serial Nos. Eligible. From Serial # 020 on.

Import Requirements The FAA can issue a U.S. airworthiness certificate based on an NAA Export Certificate of Airworthiness (Export C of A) signed by a representative of the Luftfahrt Bundesamt on behalf of the European Community. The Export C of A should contain the following statement: 'The aircraft covered by this certificate has been examined, tested, and found to comply with U.S. airworthiness regulations 14 CFR Part 23 approved under U.S. Type Certificate No. A77EU and to be in a condition for safe operation.'

Refer to the applicable bilateral agreement to verify eligibility for import into the United States of both new and used aircraft based on the scope of the agreement, to identify any required statements by the exporting authority on the export certificate of airworthiness (or equivalent document), and for procedures for coordinating exceptions to conformity statements on these documents. Refer to FAA Order 8130.2, *Airworthiness Certification of Aircraft*, for requirements for issuance of an *airworthiness certificate* for imported aircraft.

Certification Basis.

1) 14 CFR Sections 21.29, 21.183(c) and 14 CFR 23, effective February 11, 1965, including Amendments 23-1 through 23-35; and Amendment 23-36 Section 23.2, 23.561, 23.783, 23.785 (except (b)), 23.787, 23.811, 23.967, 23.1411, 23.1413; and Amendment 23-45 Sections 23.571, 23.572, 23.573 and 23.613.

2) 14 CFR Section 36, effective November 18, 1969, including Amendments 36-1 through 36-20.

3) Section 611(b) of the FAA Act of 1958.

The Luftfahrt Bundesamt originally type certificated this aircraft under its type certificate Number 1082. The FAA validated this product under U.S. Type Certificate Number A77EU. Effective September 28, 2003, the European Aviation Safety Agency (EASA) began oversight of this product on behalf of Germany.

Equipment. The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the airplane for certification.

Service Information Each of the documents listed below must state that it is approved by the European Aviation Safety Agency (EASA) or – for approvals made before September 28, 2003 – by the Luftfahrt Bundesamt.

- Service bulletins,
- Structural repair manuals,
- Vendor manuals,
- Aircraft flight manuals, and
- Overhaul and maintenance manuals.

The FAA accepts such documents and considers them FAA-approved unless one of the following conditions exists:

Service Information, cont'd

- The documents change the limitations, performance, or procedures of the FAA approved manuals; or

- The documents make an acoustical or emissions changes to this product's U.S. type certificate as defined in 14 CFR § 21.93.

The FAA uses the post type validation procedures to approve these documents. The FAA may delegate on case-by-case to EASA to approve on behalf of the FAA for the U.S. type certificate. If this is the case it will be noted on the document.

NOTES

NOTE 1. Current weight and balance data together with list of equipment included in the certificated empty weight and loading instructions, when necessary, must be provided for each powered aircraft at the time of original certification. The certificated empty weight and corresponding center of gravity locations must include the following:

a) unusable fuel of 22 lbs
b) engine oil of 22.4 lbs
c) hydraulic fluid for brake and retractable landing gear

NOTE 2. The placards listed in Section 2 of the LBA approved Airplane Flight Manual RUSCHMEYER R90-230RG must be displayed.

NOTE 3. Every 3000 flight hours the, "Special Inspection of Structure" of Maintenance Manual R90-230RG must be performed.
To exceed 18,000 flight hours a major inspection of structure in accordance with Maintenance Manual Chapter 4 must be conducted.

NOTE 4. Changing the color and the thickness of the coat is only permissible after prior approval by the manufacturer or FAA, or LBA for the FAA. Approved color and absorption coefficient are defined in the Maintenance Manual, Chapter 04.

NOTE 5. Major structural repairs must be accomplished at FAA certified repair stations rated for composite aircraft structure work, in accordance with RUSCHMEYER repair methods approved by FAA, or LBA for the FAA.

NOTE 6. The R90-230RG is approved both, for VFR day and night and for IFR.

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