

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

A77EU
RUSCHMEYER R90-230RG
June 24 , 1994

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

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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	0°
	Down	30° ± 1°
Aileron	Up	16° ± 1.5°
	Down	11° ± 1.5°
Elevator	Up	18° ± 1.5°
	Down	15° ± 1.5°
Trim tab (Elevator neutral)	Up	13° - 1°
	Down	28° - 1°
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. To be considered eligible for operation in the United States, each aircraft manufactured under this type certificate must be accompanied by a certificate of airworthiness for export or certifying statement endorsed by the exporting foreign civil airworthiness authority which states (in the English language): This aircraft conforms to its U.S. type design (Type Certificate No. A77EU) and is in a condition for safe operation.

An airplane maintenance manual in compliance with FAR 23.1529 must be furnished before delivery of the first airplane or issuance of standard certificate of airworthiness whichever occurs later.

- 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.

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. "Service Bulletins, Structural Repair Manuals, Vendor Manuals, Aircraft Flight Manuals, and Overhaul and Maintenance Manuals, which contain a statement that the document is (LBA) approved, are accepted by the FAA and are considered FAA approved. These approvals pertain to the type design only."

Available Documents for RUSCHMEYER Model R90-230RG:
 - Airplane Flight Manual RUSCHMEYER R90-230RG and subsequent revisions, LBA approved for the FAA.
 - Maintenance Manual RUSCHMEYER R90-230RG, LBA approved for the FAA.
 - Operators manual for AVCO LYCOMING IO-540 Series Aircraft Engines
 - Operation and Installation Manual for Mühlbauer Propeller MTV-14B/190-17

NOTES

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- 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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