

**DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION**

G46EU
CENTRAIR
101, 101P
101A, 101AP
January 17, 1984

TYPE CERTIFICATE DATA SHEET NO. G46EU

This data sheet which is a part of type certificate No. G46EU 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 CENTRAIR
Aerodrome B.P.N. 44
36300 Le Blanc
France

I. Model Centrair 101 (Category U), approved 17 January 1984

Airspeed Limits (I.A.S.)	Never Exceed (VNE)	250 km/h	135 kts	155 mph
	In Rough Air (VB)	170 km/h	92 kts	105 mph
	Aero Tow (VT)	170 km/h	92 kts	105 mph
	Maneuvering (VA)	170 km/h	92 kts	105 mph
	Winch Tow (VW)	120 km/h	65 kts	74 mph
C.G. Range	9.06 to 14.76 in. (230 to 375 mm) aft of datum.			
Empty Weight c.g.	See diagram in Section 6 of the Centrair Model 101 Flight Manual approved by the D.G.A.C.			
Maximum Weights	<u>Glider not equipped with water-ballast:</u>			
	Max. approved weight		800.3 Lbs	(363 Kg)
	<u>Glider equipped with water-ballast:</u>			
	Max. approved weight with loaded water-ballast	1003.1 Lbs		(455 Kg)
	Max. approved weight with empty water-ballast	811.3 Lbs		(368 Kg)
Minimum Crew	One pilot.			
Number of Seats	One located at 25.59 in. (0.65m) in front of datum.			
Maximum Baggage	33 lbs (15 Kg) 7.87 in aft of datum.			

II. Model CENTRAIR 101P (Category U), approved 17 January 1984

Airspeed Limits (I.A.S.)	Never Exceed (VNE)			
	Without winglets	250 Km/h	135 kts	155 mph
	With winglets	220 Km/h	119 kts	136 mph
	Maneuvering Speed VA	170 Km/h	92 kts	105 mph
	In Rough Air (VE)	170 Km/h	92 kts	105 mph
	Aero Tow (VT)	170 Km/h	92 kts	105 mph
	Wind Launching Speed (VW)	120 Km/h	65 kts	74 mph
C.G. Range	9.06 to 14.76 in (230 to 375 mm) aft of datum.			
Empty Weight C.G. Range	See diagram in section 6 of the Centrair Model 101P Flight Manual approved by the D.G.A.C.			

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II. Model CENTRAIR 101P (Category U), approved 17 January 1984 (cont'd)

Maximum Weights	<u>Glider not equipped with water-ballast:</u>	
	15 M version without winglets	15 M version with winglets
Max. approved weight	365 Kg = 804.7 Lbs	368 Kg = 811.3 Lbs
	<u>Glider equipped with water-ballast:</u>	
	15 M version without winglets	15 M version with winglets
Max. approved weight with loaded water ballast	455 Kg = 1003.1 Lbs	455 Kg = 1003.1 Lbs
Max. approved weight with empty water ballast	370 Kg = 815.7 Lbs	373 Kg = 822.3 Lbs
Minimum Crew	One pilot.	
Number of Seats	One located at 25.59 in. (0.65 m) in front of datum.	
Maximum Baggage	33 Lbs (15 Kg) 7.87 in aft of datum.	

III. Model CENTRAIR 101A (Category U), approved 17 January 1984

Airspeed Limits (I.A.S.)	Never Exceed (VNE)	250 Km/h	135 kts	155 mph
	Maneuvering Speed (VA)	170 Km/h	92 kts	105 mph
	Rough Air Speed (VB)	170 Km/h	92 kts	105 mph
	Aero Tow Speed (VT)	170 Km/h	92 kts	105 mph
	Winch Launching Speed (VW)	120 Km/h	65 kts	74 mph
	Max. Landing Gear Extended Speed (VLE)	170 Km/h	92 kts	105 mph
	Max. Landing Gear Operating Speed (VLO)	170 Km/h	92 kts	105 mph
C.G. Range	9.06 to 14.76 in. (230 to 375 mm) aft of datum.			
Empty Weight C.G. Range	See diagram in section 6 of the Centrair Model 101A Flight Manual approved by the D.G.A.C.			
Maximum Weights	<u>Glider not equipped with water-ballast</u>			
Max. approved weight	800.3 Lbs (363 Kg)			
	<u>Glider equipped with water-ballast</u>			
Max. approved weight with loaded water-ballast	1003.1 Lbs (455 Kg)			
Max. approved weight with empty water-ballast	811.3 Lbs (368 Kg)			
Minimum Crew	One pilot.			
Number of Seats	One located at 25.59 in. (0.65 m) in front of datum.			
Maximum Baggage	33 Lbs (15 Kg) 7.87 in aft of datum.			

IV. Model CENTRAIR 101AP (Category U), approved 17 January 1984

Airspeed Limits (I.A.S)	Never Exceed Speed VNE			
	Without winglets	250 Km/h	135 kts	155 mph
	With winglets	220 Km/h	119 kts	136 mph
	Maneuvering Speed (VA)	170 Km/h	92 kts	105 mph
	Rough Air Speed (VB)	170 Km/h	92 kts	105 mph
	Aero Tow Speed (VT)	170 Km/h	92 kts	105 mph
	Winch Launching Speed (VW)	120 Km/h	65 kts	74 mph
	Max. Landing Gear extended speed (VLE)	170 Km/h	92 kts	105 mph
	Max. Landing Gear operating speed (VLO)	170 Km/h	92 kts	105 mph
C.G. Range	9.06 to 14.76 in (230 to 375 mm) aft of datum.			
Empty Weight C.G. Range	See diagram in section 6 of the Centrair Model 101AP Flight Manual approved by the D.G.A.C.			
Maximum Weights	<u>Glider not equipped with water-ballast:</u>			
		15 M version without winglets	15 M version with winglets	
	Max. approved weight	365 Kg = 804.7 Lbs	368 Kg = 811.3 Lbs	
	<u>Glider equipped with water-ballast:</u>			
		15 M version without winglets	15 M version with winglets	
	Max. approved weight with loaded water ballast	455 Kg = 1003.1 Lbs	455 Kg = 1003.1 Lbs	
Max. approved weight with empty water ballast	370 Kg = 815.7 Lbs	373 Kg = 822.3 Lbs		
Minimum Crew	One pilot.			
Number of Seats	One located at 25.59 in. (0.65 m) in front of datum.			
Maximum Baggage	33 Lbs (15 Kg) 7.87 in aft of datum.			

DATA PERTINENT TO ALL MODELS

Datum	Wing leading edge at wing root.		
Levelling Means	On top surface of fuselage tail cone, level using a gradient wedge of 45/1000.		
Control Surface Movements	Aileron	up	2.25 ± 0.20 in. (57.1 ± 5.1 mm)
		down	1.44 ± 0.20 in. (36.5 ± 5.2 mm)
	Measurement on inboard of trailing edge.		
	Stabilizer	up	2.36 ± 0.4 in. (60 ± 10 mm)
	down	1.97 ± 0.2 in. (50 ± 5 mm)	
Measurement on inboard angle of trailing edge.			
Rudder	± 6.30 ± 0.59 in (± 160 ± 15 mm)		
Measurement on bottom of rudder.			

Import Requirements	A U.S. Standards Airworthiness Certificate may be issued on the basis of a Certificate of Airworthiness for Export signed by a representative of the Direction Generale de l'Aviation Civile (D.G.A.C.), containing the following statement: "The glider covered by this certificate has been examined, tested, and found to conform to the type design approved under F.A.A. Type Certificate G46EU and is in condition for safe operation". Serial numbers 101 002 through 101 099 are eligible for a United States standard Airworthiness Certificate when modified in accordance with D.G.A.C. APPROVED CENTRAIR Service Bulletin No. 101/02 bis, dated 18 July 1988, and other import requirements of this TCDS are satisfied.
Certification Basis	FAR 21.23, and 21.29, effective February 1, 1965 including Amendments 21-1 through 21-53. Joint Airworthiness Requirements for Sailplanes and Powered Sailplanes (JAR-22), dated April 1, 1980, including Amendment Number 1, dated 18 May 1981. Section 5(e)(6) of Advisory Circular No. 21.23-1 dated 12 January 1981.
Equipment	Date of application for Type Certificate: 20 July 1982. The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the glider for certification. In addition, the CENTRAIR 101-101P-101A-101AP Flight Manual, D.G.A.C. approved dated July 18, 1983, is required. The required equipment for Day VFR flight is listed in this Flight Manual. The equipment approved for these CENTRAIR gliders is listed in the Centrair Master Equipment List dated May 1983.
Service Information	CENTRAIR Technical Informations (Service Bulletins), published in the English language for the U.S. Type Design that carry a Statement "Approved by the Direction Generale de l'Aviation Civile" may be interpreted as "F.A.A. approved." Available Documents for the models CENTRAIR 101, 101P, 101A, 101AP: - Flight Manual, issue 2 dated 18 July 1983. - Maintenance Manual, issue 2 dated June 1983.
NOTE 1:	Current weight and balance report including list of equipment included in certificated empty weight, and loading instructions when necessary must be provided for each glider at the time of original certification.
NOTE 2:	All placards listed in Section II of the D.G.A.C. approved CENTRAIR 101, 101P, 101A, 101AP Flight Manual must be installed in the appropriate locations.
NOTE 3:	Section 5 of the CENTRAIR Maintenance Manual, titled "Airworthiness Limitations", is FAA-approved and it specifies mandatory replacement times, structural inspection intervals, and related structural inspection procedures. These airworthiness limitations may not be changed without F.A.A. approval.
NOTE 4:	Information essential for the proper operation maintenance, and inspection of the gliders is contained in the CENTRAIR Flight Manual, and Maintenance Manual.
NOTE 5:	Major airframe repairs must be accomplished at F.A.A. certificated repair stations rated for composite aircraft structure work, in accordance with CENTRAIR repair methods or using other methods acceptable to the Administrator.
NOTE 6:	The approved flight instruments, for day VFR, for the models CENTRAIR 101, 101P, 101A, 101AP are listed in the CENTRAIR Master Equipment List dated May 1983.

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