

BGA glider data sheet - Junior (SZD 51-1)

Data source: Manufacturers Technical Manual

Date of issue: April 1995

Manufacturer: SZD Allstar, Bielsko-Biala, Poland

UK Agent:

Web site:

Phone:

Fax:

Weighing Data:

Control deflections in mm

	Kg	Pounds
Max weight	380	838
BGA concession non-aerobatic max weight (dry) [+3%]	391	863
Max pilot weight (seat load)	110	242
Max in baggage compartment	30	66
Max weight of non lifting components (everything except wings)	275	606
BGA concession non-aerobatic max weight of non lifting components [+5%]	289	637
Forward C of G limit (aft of datum)	287 mm	
Aft C of G limit (aft of datum)	482 mm	
Pilot position (forward)	500 to 510 mm	

	Up	Down	Measuring point	Max free play with stick fixed
Ailerons	75 / 87	38 / 44	TE inboard end	3 mm
Elevator	124 / 138	63.5 / 70.5	TE inboard ends	2.5 mm
Rudder	Left & right 250 / 280		TE bottom	
Airbrakes	Outer ends above wing top surface 176 / 186			
Rudder cable tension 10daN (22 pounds).				

Control surface mass balance – Support the control horizontally on its hinges. Measure the weight at the TE, which must not exceed the following % of the total weight of the control surface: - Aileron 15.8%, at inboard end TE, Elevator 41.1%, at outboard end TE, Rudder 1.16%, at bottom TE.

Longitudinal datum: Wing root LE

Horizontal datum: Datum marks on fuselage side horizontal or wing rib 1 horizontal (front of LE and back of TE at same height).

The two standard nose weights each weigh 0,5 kg. Each reduces the minimum cockpit weight by 1 kg.

Maximum speeds

VNE at altitude

	Knots	Kph
VNE	119	220
Rough air	84	155
Manoeuvre	84	155
Aerotow	81	150
Winch / auto tow	70	130

Height feet	Height meters	Knots	Kph
0 – 6562	0 – 2000	119	220
6562 - 9843	2000 – 3000	113	209
9843 - 13124	3000 – 4000	107	198
13124 - 16405	4000 – 5000	102	188
16405 - 19686	5000 - 6000	96	178

Winch weak link: 690 ± 69 daN = 774 kg max (Tost red)

Tyre pressure: Main 22 psi (1.5 bar), rear 22 psi (1.5 bar)

Semi aerobatic, cloud flying permitted. JAR 22 “Utility” category

Span 15 meters

Manufacturer’s maximum service life 6000 hours.

CAIR Aviation “Ottfur” hook(s) may be fitted in place of the original hooks.

This sheet compiled by: Tim Macfadyen

Last update: 27 April 2009 (CAIR Aviation hooks added).