

BGA glider data sheet – Arcus & Arcus Turbo

Data source: Flight & maintenance manuals

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Weighing Data:

	Kg
Max AUW (take off & landing) with water	800
Max AUW without water with engine	785
Max AUW without water or engine	765
Max weight of non-lifting components (everything except wings) with engine	530
Max weight of non-lifting components (everything except wings) without engine	460
Max in baggage compartment	2
Max seat load (front & rear seats)	115

mm

Forward C of G limit (aft of datum) without engine	50
Forward C of G limit (aft of datum) with engine	75
Aft C of G limit (aft of datum)	290
Front pilot position (forward of datum)	1468
Rear pilot position (forward of datum)	308

Control deflections in mm

	Up	Down	Distance - hinge to measuring point	Max free play
Ailerons flaps 0	40 ± 2	23 ± 2	Measure at root	± 3
Elevator	57 ± 4	57 ± 4	170	± 3
Rudder	Left & Right 190 ± 20		410	
Flaps	-2 16 ± 2 up 0 0 ± 1 L 40 +1 -4 dwn		Measure at root	

Weighing Longitudinal datum: Wing root LE. Horizontal datum: Top of rear fuselage 1000:45 tail down. The standard nose weights each reduce min front cockpit load by 5 kg. One litre may be put in the tail tank for each 20 litres in the wing tanks. Tail tank is 5292 mm aft of datum. The tail battery is 5277 Aft of Datum. Main wheel is 20mm forward of datum ("a" = -20mm). Tail wheel to main wheel, distance "b" is 5320mm.

Maximum speeds

	Knots	Kph
VNE	151	280
Rough air	97	180
Manoeuvre	97	180
Flaps down +1, +2 & L	97*	180*
Winch / auto tow	81	150
U/C operation	97	180
Aerotow	97	180

	Knots	Kph
Engine extended ignition "on"	67	125
Engine extended ignition "off"	97	180
Max speed for extending/retracting engine	59	110
Min speed for extending engine	49	90
Max cylinder head temp 275°C		

VNE at altitude	Knots	Kph
0 – 6600 feet	151	280
6600 - 10 000 feet	146	270
10 - 13 000 feet	142	263
13 - 16 000 feet	132	245
16 - 20 000 feet	125	232
20 - 23 000 feet	119	220
23 - 26 000 feet	112	207
26 - 30 000 feet	105	195
30 - 33 000 feet	98	182

Notes :-

Max winch weak link: 1000 Kg (Black)

Type certificate number EASA.A.532

Tyre pressures: Nose & tail wheels 3 bar, 43 psi. Main wheel 4 bar, 57 psi.

Semi aerobatic Max 690 Kg AUW, Flaps in 0 Cloud flying is permitted without water, 690 Kg Max AUW.

Fuel - unleaded automobile min RON 95 or 100LL. Fuel oil mixture 30:1. Oil - Castrol Super TT two stroke oil.

Fuel capacity, centre fuselage tank 16.2 litres (16 useable).

Brake fluid SAE - J 1703 or US specification FMVSS 116, DOT 3 resp. DOT 4

This sheet compiled by: Tim Macfadyen

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