



An DG Flugzeugbau LS10st 18m glider equipped with turbo engine



John McCullagh has been a glider pilot for 27 years and flies at

Lasham in Hampshire and in the French Alps. He is an instructor and author.

Trying is believing

Imagine a sunny day with fluffy white cumulus clouds. Then imagine climbing beneath a cloud near the Matterhorn at 4m/s, having just flown over 200km of unlandable terrain, before turning to fly back to the airfield. No other type of flying comes close. Scary? Not really. Safety is built into the ethos of the sport and the modern glider surrounds the pilot with a strong structure, so you have to do something very stupid to get hurt. Exciting? Yes, if you are competitive. Racing round even a modest 300km task at 100km/h will get your brain cells working overtime. Expensive? No, learning to glide costs a fraction of a power licence, partly because most instructors do it for fun. And there's a big range of secondhand machinery out there: it's possible to find a 50 year-old glider which is safe to fly, cheap to buy, and great fun. Of course if you want the latest, slickest, most slippery aircraft, the manufacturers will happily take your house in part exchange. But it really is not necessary. I first thought of gliding when I was dreaming what I would do if I won a fortune, but I quickly realized I did not need one. However, I must warn you, it is addictive!

John McCullagh

Manufacturers, importers and advertisers are indexed at the back of this publication.

For a full list of abbreviations and metric/imperial conversions, see last page of this directory.

CERTIFIED GLIDERS & MOTORGLIDERS;

AMS-FLIGHT

The Carat is a single-seat touring motor glider. The propeller folds forward to a 'beak' but does not retract. Centrifugal force opens the propeller when the engine starts. It has a hydraulically retractable undercarriage. The wing is based on the Schempp-Hirth Discus and so has powerful airbrakes, but no flaps. Winglets are optional. The aircraft has a steerable tailwheel and can be derigged like a glider and transported in a trailer. The fuel tank gives a range of about 900km. About 26 have been built so far.

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Carat

CERTIFIED GLIDERS & MOTORGLIDERS

EW	WA	WS	TC	Eng	hp	MTOW	St	Vne	Vs0	GR	Vz min	Vz max	FC	Cert	Assembled	Kit	Plan
340	10,58	15	45	Sauer S1800-1-ES1C	44	490	2	250	77	35/105	0,75	2,9	10,8	CS2k			

« EW » Empty weight kilograms (1kg = 2.20 lb)

« WA » Wing area square metres (1m² = 10.8ft²)

« WS » Wing span metres (1m = 3.28ft)

« TC » Tank capacity litres (1 l = 0.264gal(US), 0.220gal(imp))

« HP » Horsepower (hp)

« MTOW » Maximum all-up weight kilograms (1kg = 2.20 lb)

« St » Number of seats

« Vne » Never exceed speed kilometres per hour (1km/h = 0.622mph)

« Vs0 » Stalling speed kilometres per hour (1km/h = 0.622mph)

« GR » GR@km/h (1km/h = 0.622mph)

« Vz max » Climb rate metres per second (1m/s = 197ft/min)

« Vz min » Minimum sink rate metres per second (1m/s = 197ft/min)

« FC » Fuel consumption litres per hour (1 l/h = 0.264gph(US), 0.220gph(imp))

« Cert » Certification

« Assembled » Assembled price Excluding local and national taxes

« Kit » Kit price Excluding local and national taxes

« Plan » Plan price Excluding local and national taxes



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Carat

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EW	WA	WS	TC	Eng	hp	MTOW	St	Vne	Vs0	GR	Vz min	Vz max	FC	Cert	Assembled	Kit	Plan
340	10.58	15	45	Sauer S1800-1-ES1C	54	490	2	250	77	35@105	0.75	2.9	10.8	CS22	-	-	-

AMS-FLIGHT

DG 505 Elan

The DG 500 first flew in 1987 and was developed into the DG 505 by Glaser & Dirks but some production was outsourced to AMS/Elan, with a total of 260 built so far. After the DG500 was superseded by the DG1000, AMS/Elan continued production. It is designed for cross-country flight, training and aerobatics. Removable tips allow the span to be changed from 17.2m for aerobatics, to 18m for training and to 20m for higher performance applications (as detailed here). A slightly modified DG500 reached 15,460m with the late Steve Fossett and Einar Enevoldson – the current absolute altitude record for gliders.



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EW	WA	WS	TC	Eng	hp	MTOW	St	Vne	Vs0	GR	Vz min	Vz max	FC	Cert	Assembled	Kit	Plan
410	17.6	20	-	-	-	750	2	270	68	44@110	0.57	-	-	CS22	-	-	-

AMS-FLIGHT

LS4b

The potential of the LS4 was shown when an LS3 with its flaps locked in place won the US Standard Class Nationals in 1979. An LS4 won the World Gliding Championship in 1981 and the first six places in 1983. Production by Rolladen & Schneider totalled 1048 before the demise of the company. Although overtaken by later models, it was still a popular glider that is easy to fly, and so AMS acquired the rights to start production of the LS4b in 2006. The fin of the 'b' version is slightly taller (0.11m) and the fuselage is slightly shorter (0.13m) than the original version. Two have been produced so far by AMS.



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EW	WA	WS	TC	Eng	hp	MTOW	St	Vne	Vs0	GR	Vz min	Vz max	FC	Cert	Assembled	Kit	Plan
246	10.5	15	-	-	-	472	1	270	68	40.2@102	0.61	-	-	CS22	-	-	-

BERES

Diana 2

The Diana 2 is an exclusively 15m span glider that has been developed from the Diana 1. Its most unusual feature is that the control column is not centrally placed, but is mounted on the right of the cockpit to allow the instrument panel to be closer to the pilot. Ducts on bottom surface of the flaperons supply air under pressure to holes on the lower wing surface, forward of the flaps' leading edges, creating a pneumatic turbulator.



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EW	WA	WS	TC	Eng	hp	MTOW	St	Vne	Vs0	GR	Vz min	Vz max	FC	Cert	Assembled	Kit	Plan
185	8.64	15	-	-	-	500	1	277	60	>50	0.45	-	-	not known	-	-	-

DG FLUGZEUGBAU

DG-1001

The DG-1000 first flew in 2000, replacing the DG-505. The 1001 included improvements such as electric deployment of the undercarriage. The data given is for 20m span. With 18m tips, it is certified for aerobatics. It can be specified as the unpowered 'S' model or the turbo 'T' model. A self-launcher, the 'M' is being developed. The 30hp turbo engine adds 50kg to the weights shown here. The aircraft can be specified with fixed or retractable undercarriage, total production of all types to date being 145.



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EW	WA	WS	TC	Eng	hp	MTOW	St	Vne	Vs0	GR	Vz min	Vz max	FC	Cert	Assembled	Kit	Plan
410	17.51	20	-	-	-	750	2	270	68	46.5	0.51	-	-	CS22	-	-	-