

Flight manual DG-808C

0 Revisions

0.1 Record of revisions

Any revision of the present manual, except actual weighing data, must be recorded in the following table and in case of approved sections endorsed by the responsible airworthiness authority.

The new or amended text in the revised page will be indicated by a black vertical line in the right hand margin, and the Revision No. and the date will be shown on the bottom left hand of the page.

Rev. No.	Affected Pages/ section	Description	Issue Date	EASA Approval Date	Inserted Date Signature
1	0.3-0.5, 1.5, 1.6, 2.5, 2.9-2.11, 4.22, 5.3, 5.6, 5.7, 5.9, 5.10, 5.13, 6.6, 6.10, 7.10, 7.13-7.15	TN 800/34 Manual revision	September 2007	9. October 2007	

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0.2 List of effective pages

Section	page	issued	replaced/	replaced/
0	0.0	June 2005		
	0.1	see manual	amendments	
	0.2		"	
	0.3		"	
	0.4		"	
	0.5		"	
	0.6	June 2005		
1	1.1	June 2005		
	1.2	"		
	1.3	"		
	1.4	"		
	1.5	"	Sept 2007	
	1.6	"	Sept 2007	
	2	App.	June 2005	
"		2.1	June 2005	
"		2.2	"	
"		2.3	"	
"		2.4	"	
"		2.5	"	Sept 2007
"		2.6	"	
"		2.7	"	
"		2.8	"	
"		2.9	"	Sept 2007
"		2.10	"	Sept 2007
"		2.11	"	Sept 2007
"		2.12	"	
"		2.13	"	
"	2.14	"		
3	"	3.1	June 2005	
	"	3.2	"	
	"	3.3	"	
	"	3.4	"	
	"	3.5	"	
	"	3.6	"	
	"	3.7	"	
4	"	4.1	June 2005	
	"	4.2	"	
	"	4.3	"	

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0.2 List of effective pages (cont.)

Section	Page	issued	replaced/	replaced/
4	App.	4.4	June 2005	
		4.5		
		4.6		
	"	4.7	"	
	"	4.8	"	
	"	4.9	"	
	"	4.10	"	
	"	4.11	"	
	"	4.12	"	
	"	4.13	"	
	"	4.14	"	
	"	4.15	"	
	"	4.16	"	
	"	4.17	"	
	"	4.18	"	
	"	4.19	"	
	"	4.20	"	
	"	4.21	"	
	"	4.22	"	Sept 2007
	"	4.23	"	
	"	4.24	"	
	"	4.25	"	
	"	4.26	"	
	"	4.27	"	
	"	4.28	"	
		4.29		
5	"	5.1	June 2005	
	"	5.2	"	
	"	5.3	"	Sept 2007
	"	5.4	"	
	"	5.5	"	
	"	5.6	"	Sept 2007
	App.	5.7	"	Sept 2007
		5.8	"	
		5.9	"	Sept 2007
		5.10	"	Sept 2007
		5.11	"	
		5.12	"	
		5.13	"	Sept 2007
		5.14	"	

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0.2 List of effective pages (cont.)

Section	Page	issued	replaced/	replaced/
6	6.1	June 2005		
	6.2	"		
	6.3	"		
	6.4	"		
	6.5	"		
	6.6	"	Sept 2007	
	6.7	"		
	6.8	"		
	6.9	"		
	6.10	"	Sept 2007	
7	7.1	June 2005		
	7.2	"		
	7.3	"		
	7.4	"		
	7.5	"		
	7.6	"		
	7.7	"		
	7.8	"		
	7.9	"		
	7.10	"	Sept 2007	
	7.11	"		
	7.12	"		
	7.13	"	Sept 2007	
	7.14	"		
	7.15	"	Sept 2007	
	7.16	"		
	7.17	"		
	7.18	"		
	7.19	"		
	7.20	"		
	7.21	"		
	7.22	"		
	7.23	"		
8	8.1	June 2005		
	8.2	"		
	8.3	"		
	8.4	"		
	8.5	"		
	8.6	"		
	8.7	"		

Technical data

Wingspan	m (feet)	15 (49.2)	18 (59.1)
Wing surface	m ² (ft ²)	10.68 (115.0)	11.81 (127.1)
Aspect ratio	/	21.07	27.42
Mean aerodynamic chord MAC	m (ft)	0.734 (2.41)	0.700 (2.30)
Length	m (ft)	7.055 (23.15)	
Fuselage width	m (ft)	0.63 (2.07)	
Fuselage height	m (ft)	0.81 (2.66)	
Horizontal tail span	m (ft)	2.52 (8.27)	

Data for the version DG-808C Classic

Waterballast wings	kg (U.S.gal)	100 (26.4)	
Waterballast fin tank	kg (U.S.gal)	none	
Empty weight without parting approx.	kg (lbs.)	/	337 (742)
Empty weight with parting approx.	kg (lbs.)	336 (741)	340 (750)
Wing loading with payload 80 kg (176 lbs.) approx.	kg/m ² (lbs./ft ²)	39 (7.97)	35.4 (7.29)
Max. weight	kg (lbs.)	525 (1157)	
Max. wing loading	kg/m ² (lbs./ft ²)	44.5 (9.11)	

Data for the version DG-808C Competition

Waterballast wings	kg (U.S.gal)	120 (31.7) or	150 (39.6)
Waterballast fin tank	kg (U.S.gal)	max. 6.5 (1.72)	
Empty weight without parting approx.	kg (lbs.)	/	347 (765)
Empty weight with parting approx.	kg (lbs.)	346 (762)	350 (772)
Wing loading with 80 kg (176 lbs.) payload approx.	kg/m ² (lbs./ft ²)	39.9 (8.16)	36.4 (7.46)
Max. weight	kg (lbs.)	540 (1190)	600 (1323)
Max. wing loading	kg/m ² (lbs./ft ²)	50.6 (10.35)	50.8 (10.47)

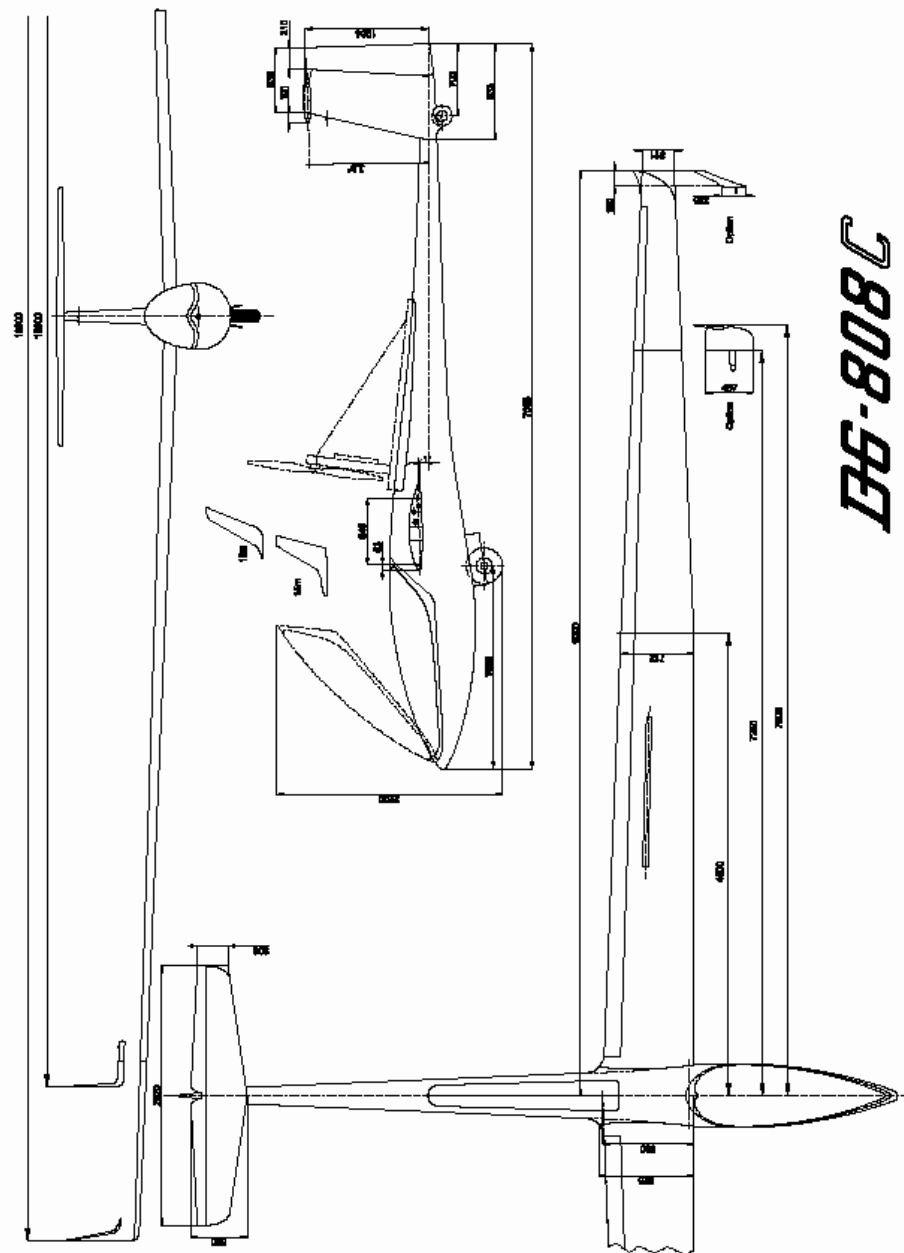
Powerplant

engine	Liquid cooled Solo 2 625 01 two stroke engine		
power	39 kW (53 hp)		
Reduction gear	1:3		
Propeller	Technoflug KS-1G-152-R-122-(-)-B	GFRP-Composite	
Propeller diameter	1.52 m (4.99 ft).		
Fuel tank capacity	fuselage tank	21 Liter (5.5 U.S.gal.)	

Empty masses are with common instrumentation.

*Options will increase the empty mass accordingly!

1.5 Three view drawing (dimensions in mm)



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2.4 Power plant

Engine manufacturer:	Solo Kleinmotoren Sindelfingen/Maichingen Germany		
Engine model:	Solo 2 625 01 2 cylinder liquid cooled two stroke engine with dual ignition		
Maximum power:	Take off:	39 kW	(53 hp)
	continuous:	39 kW	(53 hp)
Max. engine RPM:	6600 RPM		
Max. continuous RPM:	6300 RPM		
Max. coolant temperature:	95°C	(203°F)	

Note: After engine stop and retraction the coolant temperature may exceed 95°C. This is acceptable.

Propeller:	Diameter 1.52 m (4.99 ft)
Manufacturer:	Technoflug, Schramberg, Germany
Model:	KS-1G-152-R-122(-)-B

2.5 Power plant instrument markings (on DEI-NT DEI=digital engine indicator)

Power plant instrument markings and their significance are shown below:

Engine speed indicator:

In the centre of the DEI-NT display, indication digital with 4 digits, limitation data printed above display:

green	6300	max. continuous RPM
yellow	6300 – 6600	caution range
red	6600	max. RPM

Max. continuous RPM:

When exceeding this RPM a blinking “Hi” appears at the left hand side of the RPM.

Max. RPM:

When exceeding this RPM a full screen warning “Engine Speed” appears, when this warning has been confirmed (by pushing the selector knob at the right hand side of the display) the engine speed display is blinking whilst the engine speed is above max. RPM..

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2.12 Kinds of operation

A) All configurations

Flights according to VFR (daylight)
Aerotow
Winch- and auto-launching

B) In addition when flying without waterballast

1. Cloud flying (daylight): permitted when properly instrumented (see section 2.13 b).
2. Simple aerobatics see sect. 4.5.12. Category „Utility“

Note: Cloud flying is not permitted in the USA, Canada and Australia.

2.13 Minimum equipment

As minimum equipment only the instruments and equipment specified in the equipment list (see maintenance manual) are permitted.

Note: The actual equipment list is filed in the enclosures of the maintenance manual.

a) Normal operation

Airspeed indicator: Range: 0-300 km/h (0-165kts.); Speed range markings see sect. 2.3

Altimeter: Range: 0 – min. 10.000 m,
Altimeter with fine range pointer, 1 turn max. 1000 m (3000 ft.)

Magnetic compass (compensated in the aircraft)

b) Four piece symmetrical safety harness

VHF – transceiver: (ready for operation) with noise absorbing earphones (not required for Canada)

Engine speed indicator, Fuel quantity indicator, Coolant temperature indicator, Engine elapsed time indicator (counts as long as the engine is running):

These 4 indicators are incorporated in the DEI-NT. Markings and display of the limitations see sect.2.5

Outside air temperature gauge: with probe in the fuselage nose, also incorporated in the DEI-NT.

Rear view mirror

Fire warning light

Parachute: automatic or manual type or a hard back cushion approximately 8 cm (3 in.) thick.

Required placards, check lists and this flight manual

b) In addition for cloud flying : (Not permitted in the USA, Canada and Australia)

Variometer

Turn and bank indicator

Remark: Experience has shown that the installed airspeed indicator system may be used for cloud flying.

2.14 Aerotow, winch and autotow launching

2.14.1 Weak links in towing cables

Version Classic and Version Competition up to TOW 525kg

Aerotow, winch and autotow launching

recommended: 6000 N \pm 10% (1320 lbs. \pm 10%)

max.: 6600 N (1455 lbs.)

Version Competition up to TOW 600kg

Aerotow and autotow launching

recommended: 6000 N \pm 10% (1320 lbs. \pm 10%)

max.: 6600 N (1455 lbs.)

Winch launching

recommended: 7500 N \pm 10% (1654 lbs. \pm 10%)

max.: 8250 N (1820 lbs.)

2.14.2 Towing cables

For aerotow 30-70 m (100 - 230 ft)

Material: hemp- or plastic fibres

2.14.3 Max. towing speeds

Aerotow	$V_T =$	maximum 190 km/h	maximum 103 kts.
Winch- and autotow	$V_W =$	150 km/h	81 kts.

2.14.4 Tow Release

The C.G. tow release (installed in front of the main wheel) is suitable for winch-, auto launching and aerotow.

Caution: If an additional front hook is installed (below the instrument console) it is to be used only for aerotow.

Warning: Winch launching is not permitted at the front hook even in the case that no C.G. hook is installed.

Note: The front hook is mandatory for Australia.

2.15 Crosswinds

The demonstrated crosswind velocity is 15 km/h (8 kts.) according to the airworthiness requirements.

2.16 Tyre Pressure

Main wheel	3 bar	(44 psi)
Tail wheel	2,0 bar	(29 psi)

2.17 Waterballast

2.17.1 Wing ballast

Warning: Filling the water ballast is only allowed with a filling system which enables determination of the exact amount of ballast filled, e.g. water gauge or calibrated canisters. Only symmetrical loading is allowed.

After filling, balance the wings by dumping enough water from the heavy wing. Flight with leaking watertanks is prohibited, as this may result in asymmetrical loading conditions.

Warning: Follow the loading chart, see section 6.8.

Don't try to fill more water into the tanks than the specified values.

The max. take-off weight must not be exceeded.

2.17.2 Fin tank tank

Warning: As it is dangerous to fly with empty wing tanks while ballast is remaining in the fin tank, **it is prohibited to fill water into the fin tank if there is any risk of icing.** The flight conditions must comply with the following table:

Warning: Follow the loading chart, see section 6.8.

Don't try to fill more water into the tanks than the specified values.

The max. take-off weight must not be exceeded.

min. ground temperature	°C	13,5	17	24	31	38
	°F	56	63	75	88	100
max. flight altitude	m	1500	2000	3000	4000	5000
	ft	5000	6500	10000	13000	16500

In addition the outside air temperature OAT gauge is to be monitored. The OAT should not be lower than 2°C (36°F)!

2.18 Wing fuel tanks (Option)

Max. capacity 10 l (2.64 U.S. gal.) per wing.

Don't park the motorglider over night with fuel in the wing tanks.

4.5.7 Approach and landing

Note: Always land in the gliding configuration, engine retracted, except in an emergency.

4.5.7.1 Normal landing

It is recommended to dump the waterballast before landing on airfields.

Dump the ballast before an outlanding in any case.

Abeam the landing point extend the landing gear and set the wing flap to 8° or L.

In calm weather approach with approx. 96 km/h (52 kts.) (ballast dumped!).

With strong wind fly faster!

The very effective Schempp-Hirth dive brakes make a short landing possible.

Slipping may be used as additional landing aid.

Caution: While side-slipping the rudder is held in its deflected position by the airflow. So it is recommended to practice slipping at a higher altitude.

The slip can be introduced at the recommended approach speed see above.

To recover from the slip neutralize the aileron control first, this will reduce the force which sucks the rudder in its displaced position.

During the slip the airspeed indicator shows airspeed values which are too low, so the slip must be executed with regard to the position of the horizon.

No influence on the slipping characteristics when slipping with partially filled waterballast is noticeable.

Strong crosswind offers no problem.

Do not approach too slowly with fully extended airbrakes otherwise the aircraft may drop during flare out.

When flaring out keep the airbrake setting you were using, opening them further may drop the sailplane.

You can land the DG-808C on soft fields with the landing gear extended, as there is no tendency of nosing over, if the stick is pulled backwards.

During ground roll the wing flaps may be kept in the landing position.

Clean the landing gear and tow release after landing in a muddy field. Dirt in the front strut can keep the landing gear from locking over centre next time. Simply hosing with water is the best cleaning method.

4.5.7.2 Landing with the engine extended and stopped

See emergency procedures sect. 3.14.

Land with the engine extended only if the engine can't be retracted.

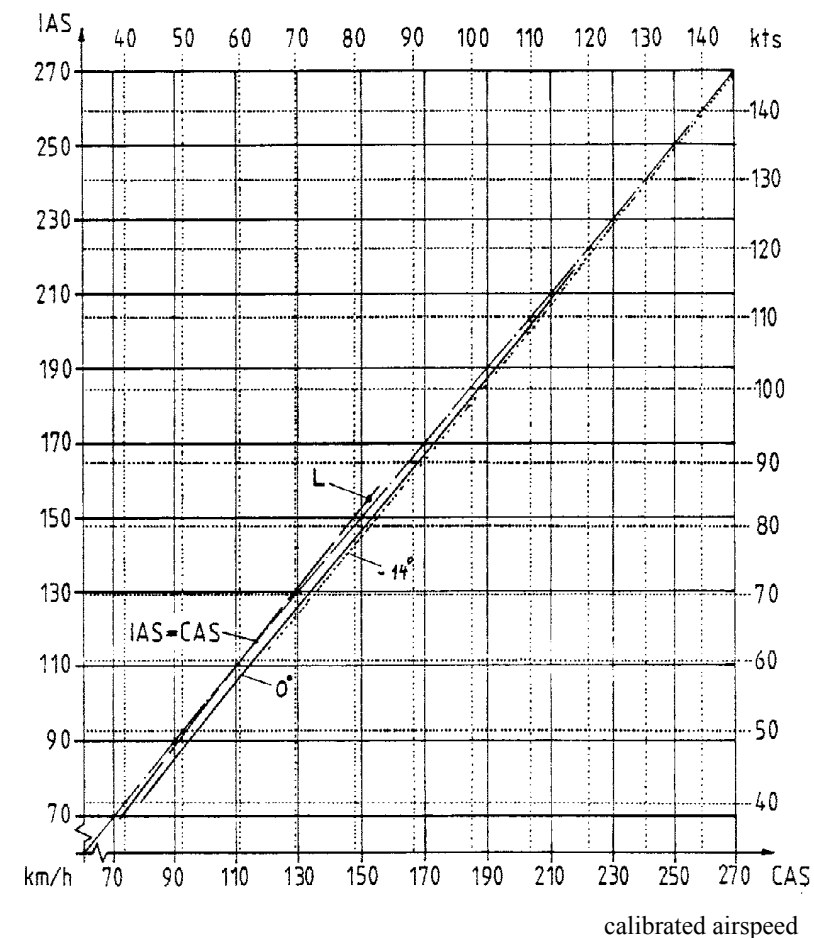
5.2 Approved data

5.2.1 Airspeed indicator system calibration

IAS = indicated airspeed

CAS = calibrated airspeed

Indicated airspeed



1 kts = 1 km/h / 1.852

Caution: The airspeed indicator is to be connected to the static ports and pitot probe in the fuselage nose.

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5.2.3 Take-off performance

The data is valid for take-off from dry level hard surface, no wind and proper condition of engine, propeller and aircraft.

The take-off procedure is to be executed according to 4.5.2.

SR = take-off roll

S = take-off distance to 15 m (50 ft.) altitude

T = temperature on ground

H = pressure altitude, can be computed as follows:

$H (m) = (1013 \text{ mb} - QNH) \cdot 100 / 11.7 + \text{airfield elevation (m)}$

18m span		m = 440 kg		m = 525 kg		m = 600 kg	
H (m)	T (°C)	SR(m)	S(m)	SR(m)	S(m)	SR(m)	S(m)
0	0°	110	174	157	240	205	306
	15°	123	193	175	267	229	341
	30°	136	214	194	296	253	377
500	0°	124	196	177	270	231	345
	15°	138	218	197	301	258	384
	30°	153	241	218	333	285	425
1000	0°	140	221	200	305	261	389
	15°	156	246	222	339	291	433
	30°	173	272	246	376	322	480
1500	0°	159	250	226	344	295	440
	15°	176	278	251	383	328	490
	30°	195	308	278	424	363	542
2000	0°	179	282	255	389	333	497
	15°	200	314	284	433	371	553
	30°	221	348	314	480	411	613
15m span		m = 440 kg		m = 480 kg		m = 540 kg	
H (m)	T (°C)	SR(m)	S(m)	SR(m)	S(m)	SR(m)	S(m)
0	0°	116	183	138	214	175	266
	15°	129	203	154	238	195	296
	30°	143	225	170	264	215	327
500	0°	131	206	156	241	197	299
	15°	146	229	173	269	219	333
	30°	161	254	192	297	243	369
1000	0°	148	232	176	272	222	338
	15°	164	259	196	303	247	376
	30°	182	286	216	335	274	416
1500	0°	167	263	198	308	251	381
	15°	186	292	221	342	280	424
	30°	205	323	244	379	309	470
2000	0°	189	297	224	348	284	431
	15°	210	330	250	387	316	480
	30°	232	366	276	428	350	531

Dry level grass surface increase the take-off distance by 10% to 15%.

Warning: Wet soft grass surface may increase the take-off distance much more

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Take-off performance, British, US

18 m span		m = 970 lbs.		m = 1160 lbs.		m = 1320 lbs.	
H (ft)	T (°F)	SR(ft)	S(ft)	SR(ft)	S(ft)	SR(ft)	S(ft)
0	32	362	570	518	790	671	1001
	59	403	635	577	880	747	1114
	86	446	703	638	973	827	1233
1640	32	408	643	584	890	756	1128
	59	454	715	650	991	841	1256
	86	503	792	719	1097	931	1390
3280	32	461	725	659	1005	853	1273
	59	513	807	733	1118	949	1416
	86	567	893	811	1237	1051	1568
4920	32	520	819	744	1135	964	1438
	59	579	912	828	1263	1072	1600
	86	641	1009	917	1398	1187	1771
6560	32	588	926	841	1283	1089	1625
	59	655	1031	936	1428	1212	1809
	86	725	1141	1036	1581	1342	2002
15 m span		m = 970 lbs.		m = 1060 lbs.		m = 1190 lbs.	
H (ft)	T (°F)	SR(ft)	S(ft)	SR(ft)	S(ft)	SR(ft)	S(ft)
0	32	381	600	455	705	573	871
	59	424	668	506	785	638	969
	86	469	739	560	868	706	1073
1640	32	429	676	513	794	646	981
	59	478	752	571	884	719	1092
	86	529	832	631	978	796	1209
3280	32	484	762	578	896	729	1107
	59	539	848	644	997	811	1232
	86	597	939	712	1104	898	1363
4920	32	547	861	653	1012	823	1250
	59	609	959	727	1127	916	1392
	86	674	1061	805	1247	1014	1540
6560	32	619	974	733	1144	932	1415
	59	688	1084	822	1274	1037	1574
	86	762	1200	910	1410	1148	1743

5.3 Additional Information

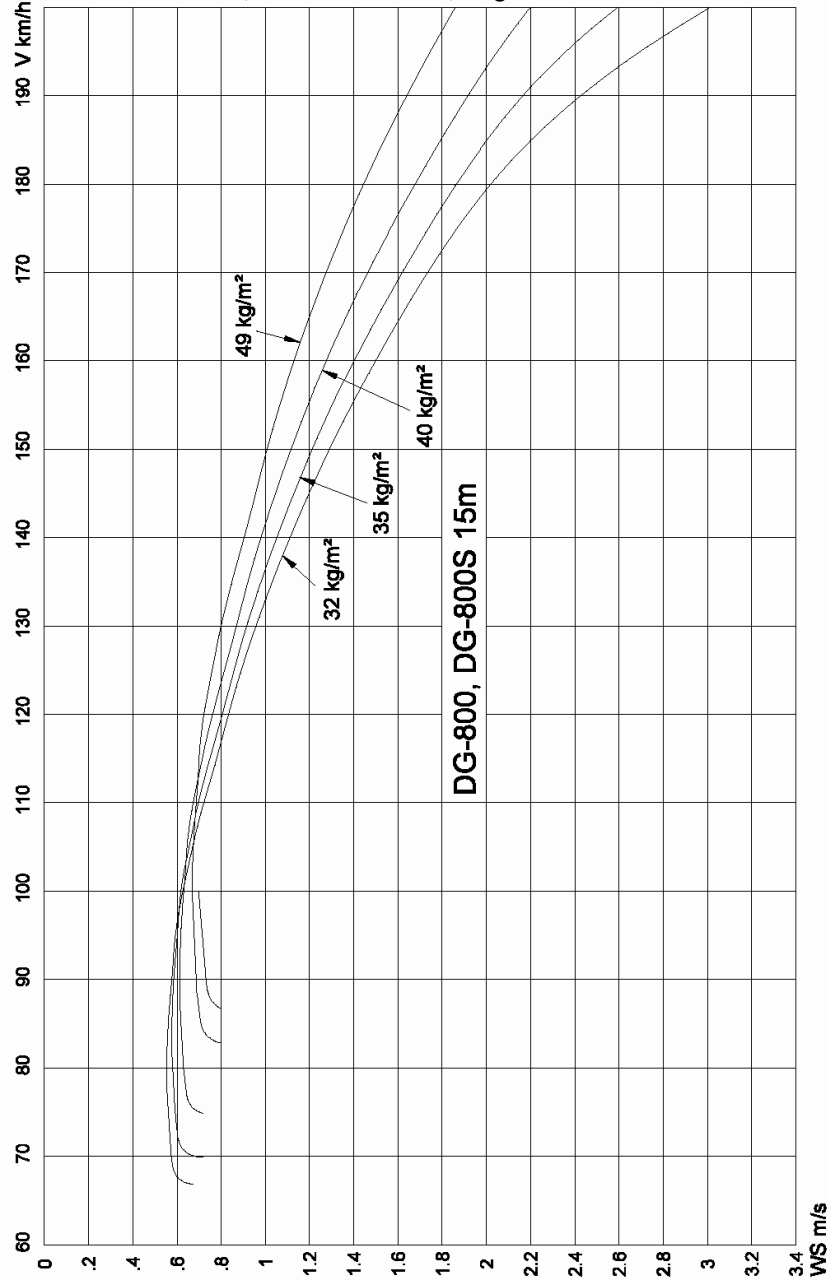
5.3.1 Demonstrated crosswind performance

The demonstrated crosswind velocity is 15 km/h (8 kts) according to the airworthiness requirements.

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5.3.3 Flight polar with 15 m wing span

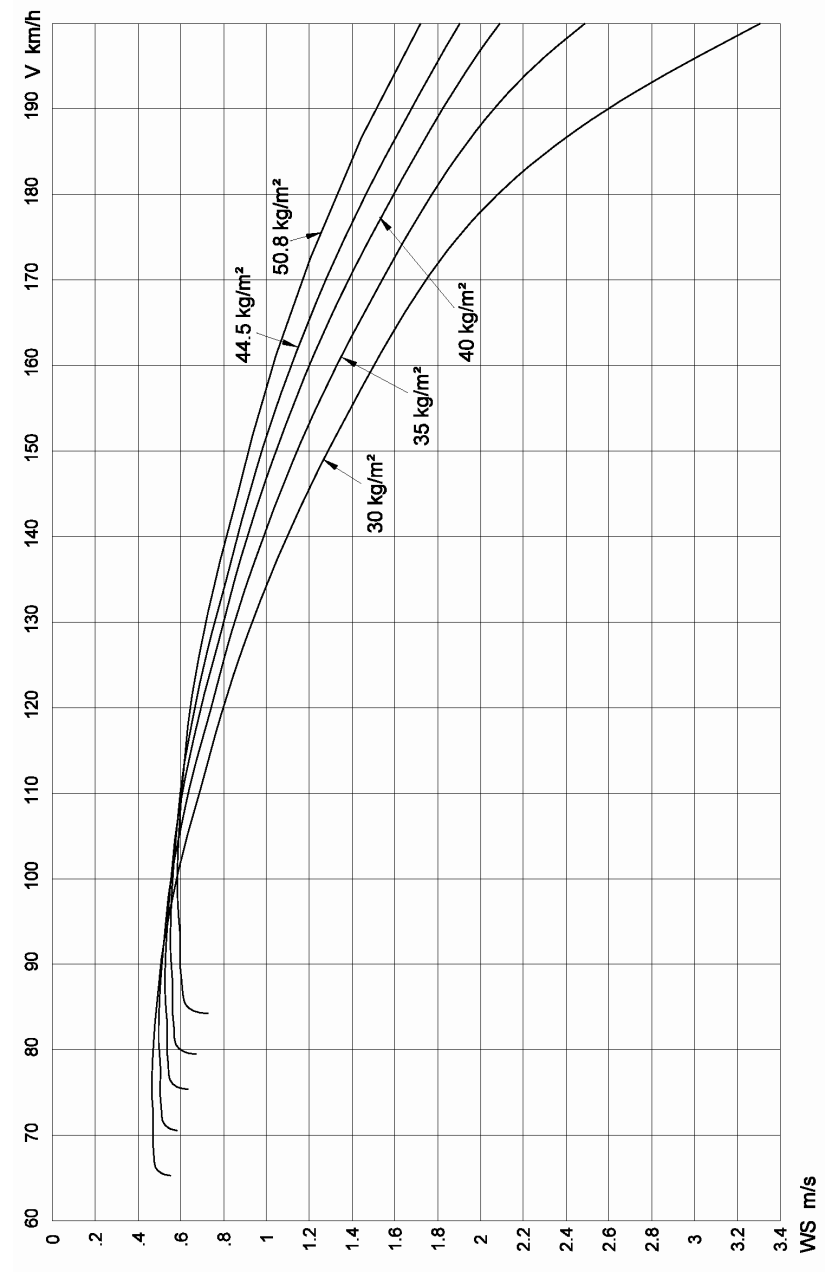
1 kts= 1 km/h / 1.852, 1 m/s= 197 ft/min., 1 kg/m²= 0.2048 lbs/ft²



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Flight polar with 18 m wing span

1 kts= 1 km/h / 1.852, 1 m/s= 197 ft/min., 1 kg/m²= 0.2048 lbs/ft²



5.3.5 Performance under power

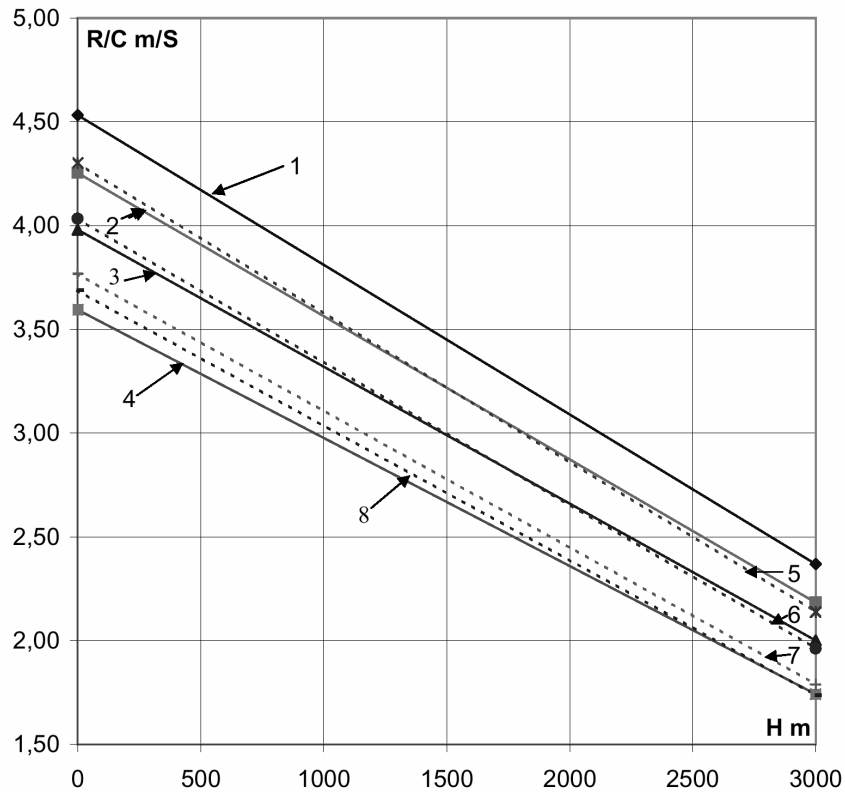
5.3.5.1 Rate of climb

Measured rates of climb for 15°C (59°F) at MSL.
 15°C increase in temperature reduces the rate of climb by ca. 0.2 m/s (40 ft/min.).

R/C = climb rate at $V_y = 90$ km/h (49 kts.) and with flap setting +8°
 H = altitude above sea level

1 m/s = 197 ft/min., 1 m = 3.2809 ft, 1 kg = 2.2046 lbs

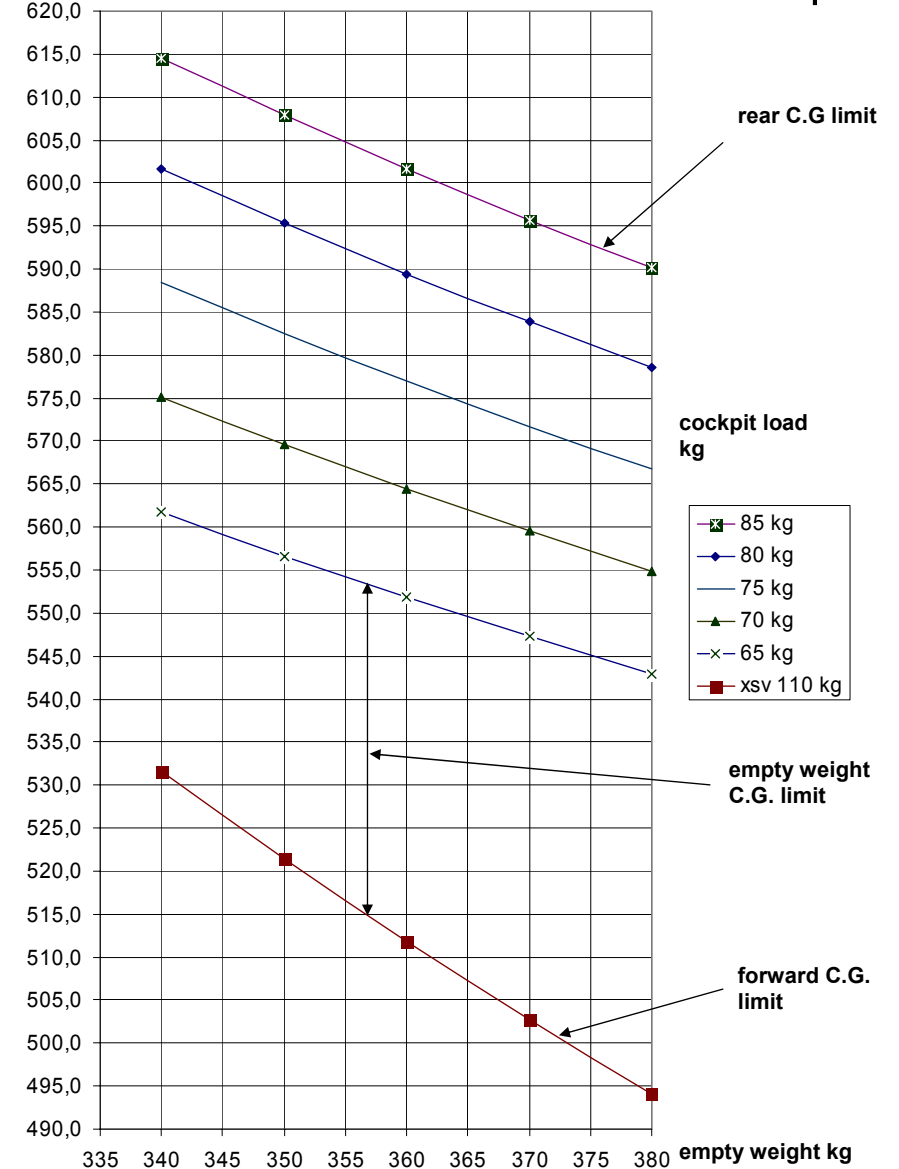
—◆— 1 440kg 18m —■— 2 480kg 18m —▲— 3 525kg 18m —■— 4 600kg 18m
 - - * - - 5 440kg 15m - - ● - - 6 480kg 15m - - + - - 7 525kg 15m - - - - - 8 540kg 15m



6.8.7 Empty weight C.G. limits (for 6.4)

Engine installed, retracted

empty weight C.G. mm, 1 mm = 1 in./25.4, 1 kg = 2.2046 lbs



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1 kg = 2.2046 lbs., 0.305 m = 1 ft

If the actual pilot C.G. is not known, you have to take the values from the following table:

Pilot mass [kg]	Pilot C.G. [m]	
	flight near the forward C.G.	Flight near the aft C.G.
110	-0,582	-0,533
105	-0,583	-0,535
100	-0,584	-0,537
95	-0,585	-0,539
90	-0,586	-0,541
85	-0,587	-0,543
80	-0,588	-0,546
75	-0,589	-0,548
70	-0,590	-0,550
65	-0,591	-0,552
60	-0,592	-0,554
55	-0,593	-0,556

Further C.G. positions:

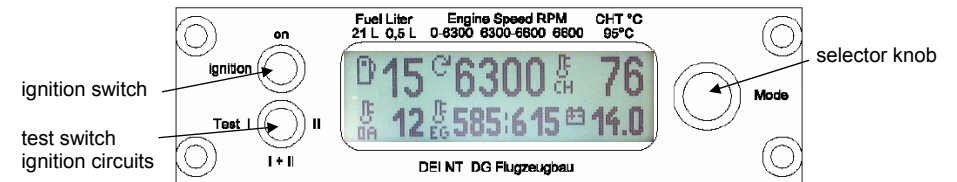
Baggage and battery in baggage compartment	0,171 m
Instruments	-1,070 m
removable ballast (Option, see section 7.17.1a)	-1,743 m
Waterballast in the wings	0,181 m
Fin ballast tank (see section 6.8.5)	4,400 m
Tail wheel	4,510 m
Batteries in the cockpit, front position	-1,402 m
Batteries in the cockpit, rear position	-1,180 m
Powerplant (see sect. 4.6)	1,120 m
Fuel tank	0,335 m

C.G. Shift due to extension of the engine

$XS2 = XS1 - 6.5/W$	W = total mass (kg)
	XS2 = C.G. position with engine extended (m)
	XS1 = C.G. position with engine retracted (m)

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7.4 DEI-NT Operation



After turning on the main switch the DEI-NT shows a screen with operating times. Then the screen changes to the gliding screen (powerplant retracted) or to the powered flight screen (powerplant not retracted).

You may change to other screens by pushing the selector knob (right hand side) until the DEI_NT beeps twice.

The following screens may be selected:

1. Gliding or powered flight (according to powerplant position),
2. Flight log, 3. Set up, 4. Operating times

Caution: In case of powerplant failures and if warnings are necessary full screen messages are displayed. All messages may be verified by a short push to the selector knob, the DEI-NT changes back to the normal screen.

With software versions below 1.5 (the stall can't be verified), only increase of airspeed can eliminate the warning message.

3 short alarm-signals (horn or the optional stick vibrator) will draw the pilots attention to the message, except for the stall warning where the signal is uninterrupted as long as the flight speed is too slow.

Description of the screens:

7.4.1 Gliding and powered flight screens

Upper left: Fuel level: If the fuel level falls short of approx. 4 litres the message "Low Fuel" will be displayed, after verifying this message the fuel level display is blinking, when reaching the amount of non useable fuel (0,5 litres) "R" starts blinking.

Lower left: Outside air temperature OA(T): When the OAT falls below 2°C the message "Water Freeze" will be displayed, after verifying this message the OAT display starts blinking.

Lower right: Battery voltage: Below a voltage of 11V the message "Low battery" will be displayed, after verifying this message the voltage display starts blinking. Above a voltage of 14,7V message "Battery Overch." will be displayed, after verifying this message the voltage display starts blinking.

Lower centre: engine time for this flight

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RESET TRIP COUNTER: Push the selector knob, N (no) will be displayed, rotate the selector knob Y (yes) will be displayed, push the selector knob to reset the time to zero.

RESET MAINT. TIMER: Push the selector knob, N (no) will be displayed, rotate the selector knob Y (yes) will be displayed, push the selector knob to reset the time to the service-interval (25 hours).

FLIGHTLOG → PC: Push the selector knob, N (no) will be displayed, rotate the selector knob Y (yes) will be displayed, push the selector knob to reset start the download of the recorded data. The PC must be connected to the serial interface (socket close to the radio). You will download the flight log and service data see section 7.4.6.

SET TIME: Set up time

SET DATE: Set up date

STARTER SPEED: % of the normal starter motor power to turn the propeller into the position for retraction (ignition switched off) – standard value 35%, adjustable between 0-49%.

PRIMER DOSE: % of the max. amount of fuel injected by the primer, max. 99% - standard value 99%.

(With 0°C HT. the adjusted amount of fuel will be injected. The amount of fuel will be reduced linearly to 0 at 40° CHT).

PRIMER DURATION: Post starting injection of the primer, max. 99% of the time programmed in the control unit (40 seconds), standard value 99%

STALL FACTOR: With this factor the start of the stall warning will be set (warning via a horn or via a vibrator at the control stick (Option)).

Adjustment may be made by flying level (with flap setting +8°) and gently stalling the glider to determine the stalling speed, then fly approx. 5% faster, note the displayed stall factor (upper centre display) and change the factor in the set up menu to this value. You have to make the adjustment for one flight mass only. The sensors for the stall warning make a quasi angle of attack measurement and thus the stall warning will work in other operating conditions too (different wing loading, turning flight, airbrakes extended etc.).

CAUTION: If the stall factor is set to 0.89 the stall warning is switched off completely. This setting is only allowed to eliminate a permanent stall warning in case a sensor fails. Send the DEI for repair to the manufacturer as soon as possible. This feature is only available with software Version 1.5 and higher.

EMPTY TANK CALIB.(ration): Calibration of the fuel gauge with empty tank. Push the selector knob, N will be displayed, rotate the selector knob, Y will be displayed. Push the selector knob to execute the calibration.

FULL TANK CALIB.(ration): Calibration of the fuel gauge with full tank. Push the selector knob, N will be displayed, rotate the selector knob, Y will be displayed. Push the selector knob to execute the calibration.

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SYSTEM SETUP **:** Only for service by the manufacturer.

PROP BRAKE: Activation of the electrical propeller brake (Option), Push the selector knob, N will be displayed, rotate the selector knob, Y will be displayed, the propeller brake is activated. Rotate the selector knob N will be displayed, the propeller brake is deactivated. Push the selector knob to save this adjustment.

Notes: If no electrical propeller brake is installed this function must be deactivated, otherwise failure messages will be displayed.

FREEZE WARNING: Activation or deactivation of the warning message.

Adjustment similar to Prop Brake. You may deactivate this warning in case no watertanks are installed. When deactivated the OAT screen will still blink at low temperatures.

JOINT WARNING OUTP: Activation or deactivation of the signals (horn or the optional stick vibrator) to draw the pilots attention to the messages.

Adjustment similar to Prop Brake.

Note: The signal for the stall warning will not be deactivated.

PRIMERTESTMODE: When you activate this mode the starter motor will be deactivated to enable testing the primer function see maintenance manual section 3.5.1 item 6.b). Adjustment similar to Prop Brake.

SWITCH-OFF WARNING: Activation or deactivation of the reminder to switch off the main switch. Adjustment similar to Prop Brake (from software version 1.7 on).

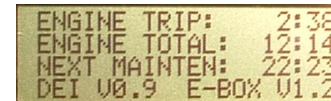
7.4.4 Operating times

ENGINE TRIP: Trip counter for the engine time, reset in the Setup menu.

ENGINE TOTAL: Engine elapsed time counter, reset only by the manufacturer.

NEXT MAINTENAN.(ce) : The engine time until the next maintenance, reset in the Setup menu after completion of the 25 hour maintenance.

DEI Vx.x E-BOX Vx.x: Software versions of DEI-NT and control unit



ENGINE TRIP:	2:38
ENGINE TOTAL:	12:14
NEXT MAINTEN:	22:23
DEI V0.9 E-BOX	V1.2

Push the selector knob until the DEI-NT beeps twice to return to the flight screen.

7.4.5 Display of powerplant failures and warnings

In case of powerplant failures and if warnings are necessary full screen messages are displayed. All messages may be verified by a short push of the selector knob, the DEI-NT changes back to the normal screen.

Powerplant failures:

Upper line displays "Failure" and is blinking, 2. line displays:

- "Engine Info" = no data transfer between DEI-NT and control unit
- "Spindle Fuse" = the fuse for the spindle drive is blown -> wait until it cools down and resets
- "RPM Pickup" = proximity switch defective -> automatic extension-retraction will be switched off
- "Primer Valve" = Primer-valve defective
- "OAT Sensor" = Outside air temperature sensor defective
- "CHT Sensor" = Cylinder head temperature Sensor defective
- "Fuel Sensor" = Fuel sensor defective
- "Generator" = Generator not charging
- "Water Pump" = coolant pump not working
- "Prop Brake" = Short circuit or interrupted connection to the motors for the propellerbrake (Option)
- "EGT Sensor" = EGT sensor (Option) defective

Warning messages:

Upper line displays "Warning " and is blinking, 2. line displays:

- "Spoiler" = airbrakes not locked, this warning is displayed only prior to and during take-off and will not be displayed when airbrakes are unlocked during the flight
- "Raise Gear" = Landing gear should be retracted, appears 4 minutes after take-off in case the landing gear is still extended
- "Landg. Gear " = Landing gear warning when airbrakes are unlocked and the landing gear is still retracted
- "Stall" = Stall warning appears simultaneously with the acoustically or tactile stall warning.
- "Low Battery" = Battery voltage permanently below 11V
- "Battery Overch." = Battery voltage permanently above 14,7V
- "CBox OvrTemp" = Starter motor control in control unit above temperature limit
- "CHT OverTemp" = CHT above max. certified value
- "Water Freeze" = OAT below +2°C
- "Low Fuel" = low fuel level
- "Engine Speed" = Engine RPM above max. certified value.
- "Main Switch" = Reminder to switch off the main switch (from software version 1.7 on).

