

Flight manual DG-800B

Rev. No.	Affected Pages/ section	Description	Issue Date	LBA Approval Date	Inserted Date Signature
8	0.4, 0.5, 4.8, 4.9, 7.14	Hydraulic disc brake TN 873/17 (Option)	October 1999	Nov. 1. 1999	
9	0.4, 4.4, 4.5	Permanently installed refuelling pump (Option)/ pump control from ser.no. 8-173 on ÄM 800-10-99	Nov. 1999	Nov. 12. 1999	
10	0.3, 0.5, 2.7, 6.2	Maximum mass of all non lifting parts ÄM 800-11-99 from ser.no. 8-191 on	Nov. 1999	Dec. 14. 1999	
11	0.4, 0.5, 4.12, 7.6,	TN 873/19 powerplant control extension-retraction switch unit (retrofit, standard from ser.no. 8-195 on)	May 2000	July 5. 2000	
12	0.3, 0.5, 2.10, 7.14	ÄM 800-12-00 Tow hooks/ only for aerotow (Option)	Sept. 2000	24.10.00	
13	0.5, 7.5	TN 873/20 Parking brake combined with an airbrake securing device (retrofit, standard from ser.no. 8-219 on)	Dec. 2000	07.02.01	
14	0.3 – 0.5, 1.5, 1.6, 3.6, 4.12, 4.13, 4.13a, 4.19, 4.20, 4.22, 7.3, 7.6, 7.7	ÄM 800/13/00 Vertical tailplane, steerable tailwheel, powerplant incl. electrics from ser.no. 8-219 on	Dec. 2000	12.02.01	
15	0.3, 0.4, 2.7, 4.14, 4.26	TN 873/23 manual revision	Febr. 2001	26.02.01	
16	0.3, 0.4, 0.5, 2.6, 4.5, 4.6, 4.8, 7.8	TN 873/26 manual revision	Nov. 2001		

Issued: see last item

0.2

Flight manual DG-800B

0.2 List of effective pages

Section	page	issued	replaced	replaced	replaced	replaced
0	0.0	March 98				
	0.1	/				
	0.2	/				
	0.3	see record of revisions				
	0.4	"				
	0.5	"				
1	0.6	Nov. 97				
	1.1	"				
	1.2	March 98				
	1.3	Nov. 97				
	1.4	"				
	1.5	"	Dec. 00			
2	1.6"	"	Dec. 00			
	App. 2.1	"				
	" 2.2	"				
	" 2.3	"				
	" 2.4	"				
	" 2.5	"				
	" 2.6	"	Nov. 01			
	" 2.7	"	Nov. 99	Febr. 01		
	" 2.8	"				
	" 2.9	"				
	" 2.10	"	Sept. 00			
3	" 2.11	"				
	" 2.12	"				
	" 3.1	"				
	" 3.2	"				
	" 3.3	"				
	" 3.4	"				
	" 3.5	"	Febr. 99			
4	" 3.6	"	"	Dec.00		
	" 3.7	"				
	App. 4.3	"				

Issued: November 2001 TN 873/26

0.3

0.2 List of effective pages (cont.)

Section	page	issued	replaced	replaced	replaced	replaced
	App. 4.4	Nov. 97	Febr. 99	Nov. 99		
	" 4.5	"	Febr. 99	Nov. 99	Nov. 01	
	" 4.6	"	Nov. 01			
	" 4.7	"				
	" 4.8	"	Oct. 99	Nov. 01		
	" 4.9	"	Febr. 99	Oct. 99		
4	" 4.10	"	Febr. 99			
	" 4.11	"				
	" 4.12	Dec. 97	Febr. 99	May 00	Dec.00	
	" 4.13	Nov. 97	Febr. 99	Dec.00		
	" 4.13a	Febr. 99	Dec.00			
	" 4.14	"	Febr. 01			
	" 4.15	"				
	" 4.16	"				
	" 4.17	"				
	" 4.18	"	June 99			
	" 4.19	"	Dec.00			
	" 4.20	"	Febr. 99	Dec.00		
	" 4.21	"				
	" 4.22	"	Dec.00			
	" 4.23	"				
	" 4.24	"				
	" 4.25	"				
	" 4.26	"	Febr. 01			
5	" 5.1	"				
	" 5.2	"				
	" 5.3	"				
	" 5.4	"				
	" 5.5	"				
	" 5.6	"				
	App. 5.7	"				
	5.8	"				
	5.9	"				
	5.10	"				
	5.11	"				
	5.12	"	Febr. 99			

0.2 List of effective pages (cont.)

Section	page	issued	replaced	replaced	replaced	replaced
6	6.1	"				
	6.2	"	Nov. 99			
	6.3	"				
	6.4	"				
	6.5	"				
	6.6	"				
	6.7	"				
	6.8	"				
	6.9	"				
	6.10	"				
7	7.1	"				
	7.2	"	Febr. 99			
	7.3	"	Dec.00			
	7.4	"				
	7.5	"	Dec. 00			
	7.6	"	May 00	Dec.00		
	7.7	"	Dec.00			
	7.8	Dec. 97	Febr. 99	June 99	Sept. 99	Nov. 01
	7.9	Nov. 97				
	7.10	"				
	7.11	"	Febr. 99			
	7.12	"	Febr. 99			
	7.13	"				
	7.14	"	Oct. 99	Sept. 00		
	7.15	Dec. 97	Febr. 99			
	7.16	Nov. 97	Febr. 99			
	7.17	"				
	7.18	"				
8	8.1	"				
	8.2	"	Febr. 99			
	8.3	"				
	8.4	"				
	8.6	"				
	8.5	"				
	8.7	"				
9	9.1	"				

2.5 ff

Coolant temperature indicator:

right LCD display, indication digital with 3 digits, limitation data printed above display:

red 95°C

When exceeding this temperature the CHT display starts blinking

Fuel quantity indicator:

Limitation data for the non usable amount of fuel printed above the display:

red 0.5 l

When reaching this quantity LL is displayed and this display starts blinking.

2.6 **Fuel**

Fuel capacity:

Fuselage tank:

total: 22.5 l (5.9 US gal.)

Non useable amount of fuel:

0.5 l (0.15 US gal.)

Useable amount of fuel: 22 l (5.8 US gal.)

Wing tank left (Option): 10 l (2.64 US gal.)

Wing tank right (Option): 10 l (2.64 US gal.)

Approved fuel grades: Car super gasoline min. 95 octane (ROZ) (RON) leaded or unleaded

or: AVGAS 100 LL (only if super gasoline is not available)

or: mix 50% AVGAS 100 LL and 50% Car super gasoline unleaded min 92 octane (ROZ) (RON)

mixed with self mixing Super quality two stroke oil - specification TSC 3 respective API TC or higher quality. Mixing ratio 1:50.

Note: The SOLO company recommends CASTROL Super TT oil.

Calibration: A device in the DG-800B automatically cuts off the electric power for the pump system as soon as the fuselage tank is filled and executes a calibration of the fuel gauge.

If you don't use a pump for filling (see a) or b)), the calibration can be done manually: With full tank switch off the engine master switch. Press the upper button of the engine time indicator in the DEI, while switching on the engine master switch.

You have to fill the tank completely to do a calibration to ensure a correct fuel quantity indication. This must be done at least each time you change the fuel type or quality.

4.2.3.4 Storage of the pump system (see a)

To increase the lifetime of the pump it is better not to empty the pump, but to store the pump filled with fuel. Therefore remove hose A by disengaging the coupling. The couplings C + D are closing the fuel lines to the pump when disengaged.

4.2.3.5 Wing fuel tanks (Option)

A) Filling can only be done by using the separate electric pump system Z 02/2. Therefore the fuselage tank should not be filled completely, otherwise the pump system will switch off.

1. Close the wing tank valves in the fuselage. Attach the quick connector C of the pump system to the wing fuel tank, plug the hose A into the quick connector D and pump the air which may be in the tank out for about 1 minute. Remove the quick connector C from the wing tank and plug hose A into quick connector C.

2. Place the wing tip of the tank to be filled on the ground. Connect the quick connector D to the wing tank and fill the wing tank. Fill in max. 10l (2.64 US gal).

3. After filling the wing tank connect the fuselage connector to the wing connector.

B) **Caution:** Empty the wing fuel tanks prior to derigging. Don't park the rigged glider with filled wing fuel tanks for extended periods!

4.2.3.6 In case there is no can available for premixing the fuel and oil for filling the wing tanks, the fuselage tank can be used. Transfer approx. 5 litres (1.3 US gal.) of fuel into the fuselage tank, pour in the oil and fill the tank with fuel. Then fill the wing tanks (option) from the fuselage tank.

4.2.4 **Derigging**

Derigging follows the reverse of rigging. Water ballast must be dumped before derigging.

Transfer the fuel from the wing tanks (Option) to the fuselage tank or empty the wing tanks using the electric pump system in reverse.

Disconnect the connectors from the wing fuel tanks.

The airbrakes must be locked.

4.2.5 **Rigging and derigging the wing tip extensions (Option)**

1. Insert the wing tip extensions into the wing.

Press in the locking pin with your finger.

Insert the wing tip as far as the flaperon connector starts to slide into the flaperon slot.

Strike firmly with the palm of your hand on to the wing tip to lock in the wing tip extension.

2. Disassembling of the wing tip

Use a diameter 6 mm pin for pressing in the locking pin on the wings upper side.

3. The rigging of the 15m wingtips with winglets (Option) has to be done analogous to the wing tip extensions.

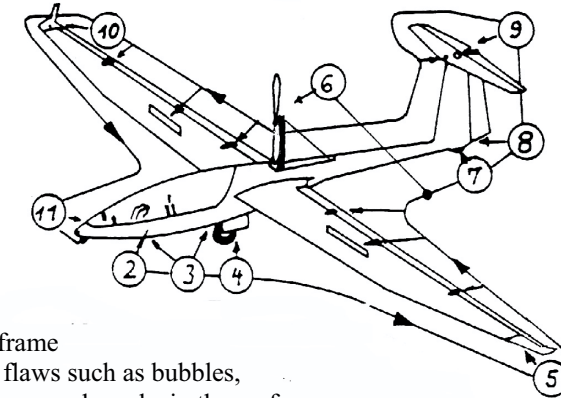
4.2.6 **Rigging and derigging the 18 m winglets (Option)**

To assemble the winglets pull off the wingtips and slot in the winglets.

The winglets are secured to the wings by means of a quarter turn fastener. With a screw driver turn the fastener a 1/4 turn in clockwise direction until it engages.

Removal is the opposite of that described above.

To fly with wingtips instead of winglets, secure the wingtips to the wings by taping the gap.

B Inspection after rigging / Walk around the aircraft

1. All parts of the airframe

- a) check for flaws such as bubbles, holes, bumps and cracks in the surface
- b) check leading -and trailing-edges of the wings and control surfaces for cracks

2. Cockpit area

- a) check the canopy locking mechanism
- b) check the canopy emergency release see sect. 7.15 (not each day, but min. every 3 month)
- c) check the main pin securing
- d) check all controls for wear and function, incl. positive control check
- e) check the tow release system for wear and function incl. cable release check
- f) check for foreign objects
- g) check the instrumentation and radio for wear and function
- h) switch on the main switch, from ser.no. 8-97 on the fire warning light must flash once (self-test-function), check the engine controls
- i) check all fuses including the battery fuse
- j) check the extension-retraction mechanism by operating it in both directions. The extension time should not exceed 13 seconds!
Note: If the mechanism can't be operated with the ignition switch or with the manual switch, check the circuit breaker.

k) extend the engine

l) **Option disc brake:** Check the break fluid level (the reservoir is located in the rear left hand side of the baggage compartment.

3. Tow hooks

- a) check the ring muzzle of the C.G. hook for wear and function
- b) check both hooks (if installed) for cleanliness and corrosion

33) Fuses

Up to ser.no. 8-149:

a	engine		
	ext.		
b	DEI	Gen.	c
d	Radio	Vario	e
f	Socket	Gyros	g

From ser.no. 8-150 on:

c	Gen.		
d	Radio	Vario	e
f	Socket	Gyros	g
a	engine	DEI	b
	ext		

- a) Circuit breaker for the engine extension
- retraction motor
- b) Circuit breaker for the DEI, the fuel-pump and the coolant-pump
- c) Circuit breaker for the generator, the control unit and the proximity switch
- d) Circuit breaker for the radio
- e) Circuit breaker for the electric variometer
- f) Circuit breaker for the 12 V socket
- g) Circuit breaker spare for turn and bank indicator or horizon

34) **Fire warning light** red **Fire**

The probe for the warning light is located near the carburetors at the engine bay wall. In case of a fire the light will shine if a temperature of appr. 140° C (284° F) is exceeded. From ser. No. 8-97 on a self-test-function is installed. When switching on the master switch, the fire warning light will flash once.

35) Change over switch from static pressure to total energy pressure for the variometer (Option).

up	stat	=	Vario operating on static pressure
		=	for engine running flight
down	T E	=	Vario operating on total energy probe
		=	soaring flight

36) Engine master switch

up	- on	=	the total electrical system is on line
down	- off	=	only soaring flight instrumentation, radio and 12 V socket No. 23 on line.

37) Handles for the wing fuel tanks black (Option)

to the front	=	open		
to the rear	=	closed	auf	Flügel tanks
right handle	=	right tank	open	wing tanks
left hand	=	left tank	closed	zu

Not effective in case of electro-magnetic valves see page 4.18

38) **From ser.no. 8-103 on:** Press button to test the second fuel pump with the engine running at full throttle. Pressing this button, you are switching off the first pump.

fuel pump test
