

**Manual amendments**

No.	Page	Description	Date	Signature
1	4, 5	TN 370/1 Manualrevision	July 90	
2	2, 3, 4, 21, 36, 36a	TN 370/10 Manualrevision	Febr. 06	

Content	Page	LBA approved
0 Airworthiness limitations	4	Febr. 06
<b>1. System description and adjustment data</b>		<b>issued</b>
1.1 Wing and tailgroup setting data	5	July 90
1.2 Elevator control and trim system	6	Apr. 88
	7	" "
1.3 Rudder control	8	" "
1.4 Aileron and wing flaps control	9	" "
	10	" "
1.5 Airbrake control and wheel brake	11	" "
1.6 Undercarriage	12	" "
1.7 Tow hooks	13	" "
1.8 Waterballast	14	" "
1.9 Massbalance and weights of control surface	15	" "
1.10 Fore and aft play of the wings	16	" "
<b>2. Inspections</b>		
2.1 Daily inspection	17	" "
2.2 Regular inspections	17	" "
2.3 Inspection after a heavy landing	18	" "
	19	" "
	20	" "
2.4 Inspection procedure for increase of service time	21	Febr. 06
	22	Apr. 88
2.5 Inspection procedures	23	" "
<b>3. Maintenance</b>		
3.1 General maintenance	24	" "
3.2 Maintenance of the airframe	25	" "
3.3 Greasing programme	25	" "
3.4 Damage of the airframe	26	" "
<b>4. Detailed instructions for assembly and servicing work</b>		
4.1 Replacement of the water ballast bags and servicing of the valves	27	" "
4.2 Replacement of control cables	28	" "
4.3 Adjustment and servicing of the control circuit	28	" "
4.4 Removal and installation of the undercarriage	29	" "
4.5 Fixing excessive free play of the canopy	30	" "

Content	Page issued
4.6 Removal and installation of the ailerons	31 Apr. 88
	32 Apr. 88
5. Centre of gravity measurements-weighing	33 Apr. 88
	34 " "
6. Instruments and accessories list	35 " "
	36 Febr. 06
	36a Febr. 06
7. List of special tools	37 Apr. 88

Diagrams	issued
1 Elevator control circuit, trim	July 90
2 Rudder control circuit	" "
3 Aileron, wing flap and spoiler control circuits, fuselage side	" "
4 Aileron, wing flap and spoiler control circuits, wing side	" "
5 Tow hooks	" "
6 Waterballestsystem	" "
7 Lending gear, hydraulic wheel brake	" "

**Enclosures**

Equipment list	Apr. 90
5 EP 30 Installation Dräger oxygen system	30.07.84
5 EP 30 Installation ELT	07.04.88

**0 Airworthiness limitations**

**0.1 Repairs:**

Repair damaged wings, fuselage and tail surfaces prior to next flight. Repairs outside the scope of Glaser-Dirks DG-600 repair manual and major repairs must be accomplished at a certified repair station rated for composite aircraft structure work in accordance with Glaser-Dirks repair methods.

**0.2 Life time of the airframe**

The maximum allowable operating time for composite sailplanes is 12000 flight hours. Therefore inspections according to section 2.4 of this manual have to be executed at 3000 h, 6000 h, 9000 h and every 1000 hours following thereafter.

**0.3 Life time of components**

a) The fabric straps of the safety harness have to be exchanged after 12 years.

b) other components:

All other components such as tow hook, wheels, gas struts, control system parts, bolts, pins etc. have no life time limitation, but should be replaced when worn, damaged or disqualified by excessive corrosion.

**0.4 Service time, maintenance documents**

Follow the instructions of the respective manufacturer.

a) tow release: Operating and maintenance instructions for the "release mechanism safety release G 72 and G 73" issued May 1975 or January 1989 (only for releases which have been overhauled) or for safety Tow Release Series: Europa G 88 Safety Tow Release date of issue February 1989

and if installed, for the "nose release E 72 and E 75" issued May 1975 or March 1989 (only for releases which have been overhauled) or for tow releases Series: E 85 Nose Tow Release, date of issue March 1989.

b) safety harness: instructions of the manufacturer

c) minimum instrumentation: instructions of the manufacturer.

2.4 Inspection procedure for increase of service time

1. General

The results of fatigue tests of wingspar sections have demonstrated recently that the service time of GFRP/CFRP gliders may be extended to 12000 hours, if for each individual glider (in addition to the obligatory annual inspections) the airworthiness is demonstrated according to a special multi-step inspection program particularly with regard to the service life.

2. Dates

When the glider has reached a service time of 3000 hours, an inspection must be done in accordance with the inspection program mentioned under point 3.

If the results of this inspection are positive or if any defects found have been duly repaired, the service time of the glider is extended by another 1000 hours to a total of 6000 hours (first step).

The above inspection program must be repeated when the glider has reached a service time of 6000 hours. If the results of this inspection are positive or if any defects found have been duly repaired, the service time of the glider is extended to 9000 hours (second step).

When the glider has reached a service time of 9000 h the above inspection program must be repeated. If the results of the inspection are still positive, or if any defects found have been duly repaired, the service time may be extended to a total of 10000 hours (third step).

Proceed analogous when reaching 10000 and 11000 hours (4. + 5. step).

6.5 VHF transceiver

Manufacturer	Type	Certification No.
Dittel	FSG-40 S	10.911/45
	FSG-50	10.911/71
	FSG-60 M	10.911/72
	FSG-70,71 M	10.911/81
	FSG-90	10.911/98JTSTO
Becker	FSG 2T	LBA.0.10.911/103JTSTO
	AR 3201-(1)	10.911/76
	AR 2008/25 (A)	10.911/48
Filser	AR 4201	JTSTO-2C37 D, ED-23A
	ATR 720 A	10.911/74
	ATR 720 C	10.911/83
	ATR 600	0.10.911/106JTSTO
	ATR 500	LBA.0.10.911/113JTSTO

or other instruments certified for aircraft use according to TSO or JTSTO or ETSO standards may be installed.

6.6 Variometer

Manufacturer	Type	Certification No.
Winter	5 St VM	TS 10.230/4
	(dia.58 mm)	
Ident.No.	±5 m/sec 5451	
	±1000 ft/min 5452	
Winter	±10 knts 5453	
	5 StV	10.230/13
Ident.No.	(dia. 80 mm)	
	±5 m/sec 5251	
	±1000 ft/min 5252	
	±10 knts 5253	

6.7 Turn and bank indicator

Manufacturer	Type	Certification No.
Apparatebau Gauting	WZ-402/31 12 V	10.241/8

6.8 Outside air temperature gauge

Manufacturer	Type
Störk	TF 00-059 K (-20 - + 40@ C)

**6.9 Instruments which are not part of the minimum equipment:**

**Transponders:** Transponders certified for aircraft use according to TSO or JTSO or ETSO standards may be installed.

**Other instruments and equipment (eg. variometers, gliding computers or flight data recorders):**  
Instruments and other equipment may be installed if they do not in themselves, or by their effect upon the sailplane, constitute a hazard to safe operation.

**Caution:** If additional instruments or equipment are to be installed after production of the glider, it must be assured that they will be installed in the places provided by the design. If installed in other places it must be assured that they are secured safely.  
Electrical instruments and equipment must be connected via appropriately rated fuses, the power consumption of each single part should not exceed 3A.

After installation raise a new weight and balance report.