BGA TECHNICAL COMMITTEE

TECHNICAL NEWSHEET 3/4/98

PART 1 Airworthiness "AGGRO"

Please add to the 1998 Yellow Pages.

1.1. DART T.I. 109/T51 Issue 2 - Spar Inspections. Please endorse your BGA Inspection Form 267 to indicate compliance with this T.I.

1.2. DG500/22 ELAN. LBA A/D 1998-048 (herewith) Mandates T/Note 348-9 in respect of C.G. Tow Release Hook Pulley.

1.3. ROTAX FUEL PUMP P/N 996.592. A/D 94/1 (herewith) requires replacement of pump and associated pipe-line.

1.4. AEROMOT MT-200 MOTOR GLIDERS. A/D 97-09-06RI requires replacement of landing gear fork bolts.

1.5. PW-5 - List of Bulletins is attached

1.6. ALTIMETER CALIBRATION information from FAA/FAR43 is attached.

1.7. DISCUS - check that drain holes in the Rudder are functioning. (Bristol & Glos G.C.).

1.8. MOSQUITO'S. Unconfirmed reports suggest that cracks may occur in lower rudder hinge assemblies.

1.9. GROB G.103 TOW HOOKS OPERATION. T/Note 315-35/2 prohibits winch launching on the Nose Hook.

PART 2 GENERAL MATTERS

2.1. ELECTRICAL SUPPLIES IN GLIDERS. To avoid damage to equipment, batteries and chargers, Pin 1 of the battery connector should be POSITIVE.

2.2. IMPORTING CIVIL CERTIFICATED AEROPLANES (Tugs, SLMG's). UK Civil Certification will not be possible unless the following, valid documentation is available :-

a) Certificate of De-Registration
b) Export Certificate of Airworthiness

c) Flight Manual for the type (in English!)
d) Current Weight & Balance Report.

Three recent imports have been denied Certification until the above documentation has been produced.

2.3. CAA Airworthiness Notices are now at Issue 122. Is your copy amended?

Dick Stratton
Chief Technical Officer

Airworthiness Directive 1998-048

Luftfahrt-Bundesamt
Airworthiness Directive Section
Lilienthalplatz 6
38108 Braunschweig
Federal Republic of Germany

Glaser-Dirks

Effective Date: January 29, 1998

Affected:

Kind of aeronautical product:	Sailplanes
Manufacturer:	Glaser-Dirks, Bruchsal, Germany
Type:	DG-500/22 ELAN
Models affected:	all
Serial numbers affected:	all
German Type Certificate No.:	348

Subject:
Pulley for C.o.G.-tow release cable, increase of service time and Maintenance Manual revisions

Reason:
On a DG-500 the pulley for C.G.-tow release cable moved a little in axial direction as the ball bearing in the pulley came loose. With this incorrect position of the pulley the cable can come off the pulley and jam between pulley and the housing of the pulley.
The fluid of the hydraulic wheel brake system must be exchanged every 4 years. This was added to the maintenance manual section „3. Maintenance".

Action:
Inspection and if necessary exchanged of the pulley.
Exchange of brake fluid.
Exchange of some pages of the Maintenance Manual.

Compliance:
Inspection must be done before the next flight.
Exchange of pulley, brake fluid and pages of the MM not later than February 28, 1998..

Technical publication of the manufacturer:
DG Flugzeugbau Technical Note No. 348-9 dated November 21, 1997 which becomes herewith part of this AD and must be obtained from Messrs.:

DG Flugzeugbau
P.O. Box 41 20

D-76625 Bruchsal
Phone: +49 (0) 7257-890

Federal Republic of Germany

Accomplishment and log book entry:
Action to be accomplished by an approved service station and to be checked and entered in the log book by a licensed inspector.

Airworthiness Directive Nr. 94/1

Fuel Pump Rotax P/N 996 592

1. Affected: Fuel Pumps P/N 996 592, S/N 95 0002 up to 97 0702, installed on Engines Rotax 912 A S/N 4,410.122 up to S/N 4,410.252 incl. and Rotax 912 F S/N 4,412.502 up to S/N 4,412.764 incl., or those kept as spare parts.

2. Subject: Exchange of the fuel pump Rotax P/N 996 592 and of the steel fuel line P/N 874 282.

3. Reason: Improper maintenance and modifications or varios condition of installation cause cracks on the fuel pump P/N 996 592.

4. Action: All affected Rotax 912 A and F Series engines and fuel pumps must comply with the actions required by Bombardier Rotax Technical Bulletin No. 912-20R1 issued 10. Februar 1998, which becomes herewith part of this AD.

5. Compliance: 1. At leakage of the fuel pump - Before next flight
   2. Otherwise in accordance with Rotax TB No. 912-20R1

6. Accomplishment: The required action has to be accomplished by the manufacturer, through an approved service center or by a licensed/qualified person. An entry into the aircraft/engine log has to be done.

LBA AD No.	*Description*	*Applicability – Compliance – Requirement*
97–011	Airbrake torque tube in the fuselage and airbrakes in the wings.	Applicable to all DG–400. Compliance required as detailed in Airworthiness Directive. DG Flugzeugbau Technical Notes 301/18, 323/9 and 826/34 also refer.
97–224	Powerplant system, cracks in the propeller mounting plate.	Applicable to all DG–500M. Compliance required as detailed in Airworthiness Directive. DG Flugzengbau Technical Note 843/8 also refers.
1998–023	Pulley for C.o.G. – tow release cable and Maintenance Manual revisions.	Applicable to all DG–500M. Compliance requried as detailed in Airworthiness Directive. DG Flugzengbau Technical Note 843/9 also refers.
1998–048	Pulley for C.o.G. – tow release cable, increase of service time and Maintenance Manual revisions.	Applicable to all DG–500/22 ELAN. Compliance required as detailed in Airworthiness Directive. DG Flugzengbau Technical Note 348/9 also refers.

Issue 3
February 1998

AEROMOT AMT-200 MOTORGLIDERS

PART 1 – DEPARTAMENTO DE AVIACO CIVIL AIRWORTHINESS DIRECTIVES

DAC AD No.	*Description*	*Applicability – Compliance – Requirement*
97–04–02	Replacement flexible hoses.	Applicable to AMT–200 motorgliders serial numbers 200.046 through 200.066. Compliance required as detailed in AD. Aeromot Service Bulletin 200.079.036 also refers.
97–07–01	Inspection of the front horizontal stabilizer bolt.	Applicable to AMT–200 motorgliders serial numbers 200.057, .058, .059, .063, .065, .066, .071 and .072. Compliance required as detailed in AD. Aeromot Alert Service Bulletin 100–53–042 also refers.
97–09–06 R1	Replacement of main landing gear fork attaching bolts.	Applicable to AMT–200 motorgliders serial numbers 200.040 and 200.045 thru 200.080. Compliance required as detailed in AD. Aeromot Service Bulletin 200–32–044 also refers.

TNS 3141 98

PW5 - List of Bulletins. 26/2/98.

Item	Bulletin No Date of publication	Subject	Effectivity	Kind of Bulletin	Remarks
1.	4/PW-5/97 97.03.20	Introduction of new edition of PW-5 Flight Manual Doc. No. PW-5/IWL/III/97	Sailplanes from S/N 17.07.010	Mandatory	
2.	5/PW-5/97 97.06.24	Modified position of static pressure transmitters	Sailplanes up to S/N 17.07.009	Reference	
3.	6/PW-5/97 97.07.09	Check of canopy frame profile shape within the bumper area	Gliders in service, S/Nos 17.02.002 thru 17.02.005, 17.03.001 thru 17.03.025 (except 17.03.010 and 17.03.025) 17.04.001 thru 17.04.025 (except 17.04.007) 17.05.001 thru 17.05.016 (except 17.05.004); 17.05.009 and 17.05.014	Mandatory	
4.	7/PW-5/97 97.06.24	Installation of new canopy jettisoning system on the PW-5 "SMYK" sailplane	Sailplanes being operated to S/N 17.07.013 except of S/N 17.06.018	Reference	
5.	8/PW-5/97 97.07.23	Replacement of canopy lock handles	Sailplanes in operated up to S/N 17.08.018 except S/N 17.08.011	Mandatory	
6.	6/PW-5/97/1 97.11.20	Correction of errors in the text of Bulletin No 6/PW-5/97	Bulletin No 6/PW-5/97 Gliders in service with S/N: 17.02.002 through 17.02.005, 17.03.001 through 17.03.025 (excluding 17.03.010; 17.03.021) 17.04.001 through 17.04.025 (excluding 17.04.007) 17.05.001 through 17.05.016 (excluding 17.05.004; 17.05.009; 17.05.014)	Mandatory	
7.	9/PW-5/97 97.12.30	Revisions in the PW-5 SAILPLANE MAINTENANCE MANUAL Document No: PW-5/IOT/II/94	Sailplanes from S/N 17.10.001	Advisory	

9/PW-5/97 PW-5 "SMYK"

I

With reference to:

- replacement of the EZS-4 turn indicator by improved EZS-5P model and of the WRs-5D rate-of-climb indicator by the improved WRs-5E version.
- Notice issued by the Chief Designer on revision of permissible forces of control systems actuation

The following revisions have been introduced to the PW-5 Sailplane Maintenance Manual Doc. No PW-5/IOT/II/94:

1. Page 2-31 para 2.6.3
   "Allowed control forces" - the values of the forces have been changed as follows:
   elevator 0,4 daN max.
   aileron 0,4 daN max.
   airbrake 2 daN min; 10 daN max.
2. Page 4 - 2 para 4.2
   "List of the parts approved independently of the sailplane serviced acc. to their own documents" - in the "Type" column the following has been added for:
   Item 4 or WRs-5E
   Item 5 or EZS-5P

II

Revised manuals will be delivered with the sailplane by the manufacturer from S/N 17.10.001

Translated by:
H. Prus

Prepared by: S. Romaniszyn | 9/PW-5/97

G 103.

GROB
LUFT- UND RAUMFAHRT

Service Bulletin
315-35/2

GROB
G 103

The Service Bulletin 315-35/2 substitutes the Service Bulletin 315-35, dated 22.03.1988.

Subject: Optional removal of the winch launching hook

Concerned:

Sailplane Model:	TCDS No. 315
G 103 TWIN II	all S/N's
G 103A TWIN II ACRO	all S/N's
G 103C TWIN III ACRO	all S/N's
G 103C TWIN III	all S/N's

Urgency: optional

Procedure: An optional removal of the winch launching hook was already offered for all US-registered G 103 TWIN II and G 103A TWIN II ACRO with Service Bulletin 315-35. Due to the hook installation of the series G 103C TWIN III and G 103C TWIN III ACRO is identical, the optional removal is now offered also for this series. To keep the nose hook further operative, the installation of a "dummy" is mandatory.

Actions:

1. Remove the winch launching hook according to the Maintenance Manual and install in exchange the "dummy" P/N 102-2134.08.

2. Attach the following placard to the front and rear cockpit:

   > The sailplane is not equipped with a winch launching hook.
   > **Winch launching is not allowed !**

3. In the Flight Manual the following note has to be placed handwritten:
   "Winch launching using the nose hook is prohibited !"

Material: The required material can be ordered from GROB.

Weight and Balance: not affected

Remarks:

1. The removal of the winch launching hook can be performed by a competent person or an authorized aviation work shop and has to be certified in the logbook by an authorized inspector.

2. The reinstallation of the winch launching hook is permissible.

3. If you have sold your sailplane in the meantime, would you kindly pass this information on to the new owner and forward his name and address and aircraft S/N to us.

Mattsies, 03 March 1998

Dipl.Ing. P. Hirt
(Airworthiness Engineer
Certification Staff)

LBA approved:
This Service Bulletin is originally written in German and approved by the German LBA on the March 09 1998.
The translation has been accomplished to the best of our knowledge and judgement.

Datum/ Date	Ersetzt Ausgabe/ Replaces Issue	Bearbeitet/ Prepared by	Mustergeprüft/ Approved by	Page/ Page
03.03.98	substitutes SB 315-35 dated 22.03.98	R. Vodermeier		1 of 1

FAR 43 (FAA).

Appendix E

Altimeter System Test and Inspection

Each person performing the altimeter system tests and inspections required by § 91.170 shall comply with the following:

(a) Static pressure system:

(1) Ensure freedom from entrapped moisture and restrictions.

(2) Determine that leakage is within the tolerances established in § 23.1325 or § 25.1325, whichever is applicable.

(3) Determine that the static port heater, if installed, is operative.

(4) Ensure that no alterations or deformations of the airframe surface have been made that would affect the relationship between air pressure in the static pressure system and true ambient static air pressure for any flight condition.

(b) Altimeter:

(1) Test by an appropriately rated repair facility in accordance with the following subparagraphs. Unless otherwise specified, each test for performance may be conducted with the instrument subjected to vibration. When tests are conducted with the temperature substantially different from ambient temperature of approximately 25 degrees C., allowance shall be made for the variation from the specified condition.

(1013).

(i) *Scale error*—With the barometric pressure scale at 29.92 inches of mercury, the altimeter shall be subjected successively to pressures corresponding to the altitude specified in Table I up to the maximum normally expected operating altitude of the airplane in which the altimeter is to be installed. The reduction in pressure shall be made at a rate not in excess of 20,000 feet per minute to within approximately 2,000 feet of the test point. The test point shall be approached at a rate compatible with the test equipment. The altimeter shall be kept at the pressure corresponding to each test point for at least one minute, but not more than ten minutes, before a reading is taken. The error at all test points must not exceed the tolerances specified in Table I.

(ii) *Hysteresis* — The hysteresis test shall begin not more than 15 minutes after the altimeter's initial exposure to the pressure corresponding to the upper limit of the scale error test prescribed in subparagraph (i); and while the altimeter is at this pressure, the hysteresis test shall commence. Pressure shall be increased at a rate simulating a descent in altitude at the rate of 5,000 to 20,000 feet per minute until within 3,000 feet of the first test point (50 percent of maximum altitude). The test point shall then be approached at a rate of approximately 3,000 feet per minute. The altimeter shall be kept at this pressure for at least 5 minutes, but not more than 15 minutes, before the test reading is taken. After the reading has been taken, the pressure shall be increased further, in the same manner as before, until the pressure corresponding to the second test point (40 percent of maximum altitude) is reached. The altimeter shall be kept at this pressure for at least one minute, but not more than 10 minutes, before the test reading is taken. After the reading has been taken, the pressure shall be increased further, in the same manner as before, until atmospheric pressure is reached. The reading of the altimeter at either of the two test points shall not differ by more than the tolerance specified in Table II from the reading of

the altimeter for the corresponding altitude recorded during the scale error test prescribed in subparagraph (i).

(iii) *After effect*—Not more than 5 minutes after the completion of the hysteresis test prescribed in subparagraph (ii), the reading of the altimeter (corrected for any change in atmospheric pressure) shall not differ from the original atmospheric pressure reading by more than the tolerance specified in Table II.

(iv) *Friction*—The altimeter shall be subjected to a steady rate of decrease of pressure approximating 750 feet per minute. At each altitude listed in Table III, the change in reading of the pointers after vibration shall not exceed the corresponding tolerance listed in Table III.

(v) *Case leak*—The leakage of the altimeter case, when the pressure within it corresponds to an altitude of 18,000 feet, shall not change the altimeter reading by more than the tolerance shown in Table II during an interval of one minute.

(vi) *Barometric scale error*—At constant atmospheric pressure, the barometric pressure scale shall be set at each of the pressures (falling within its range of adjustment) that are listed in Table IV, and shall cause the pointer to indicate the equivalent altitude difference shown in Table IV with a tolerance of 25 feet.

[(2) Altimeters which are the air data computer type with associated computing systems, or which incorporate air data correction internally, may be tested in a manner and to specifications developed by the manufacturer which are acceptable to the Administrator.]

(c) Records: Comply with the provisions of §43.9 of this chapter as to content, form and disposition of the records. The person performing the altimeter tests shall record on the altimeter the date and maximum altitude to which the altimeter has been tested and the persons approving the airplane for return to service shall enter that data in the airplane log or other permanent record.

TABLE I

Altitude (feet)	Equivalent pressure (inches of mercury)	Tolerance ± (feet)
−1,000	31.018	20
0	29.921	20
500	29.385	20
1,000	28.856	20
1,500	28.335	25
2,000	27.821	30
3,000	26.817	30
4,000	25.842	35
6,000	23.978	40
8,000	22.225	60
10,000	20.577	80
12,000	19.029	90
14,000	17.577	100
16,000	16.216	110
18,000	14.942	120
20,000	13.750	130
22,000	12.636	140
25,000	11.104	155
30,000	8.885	180
35,000	7.041	205
40,000	5.538	230
45,000	4.355	255
50,000	3.425	280

TABLE II—TEST TOLERANCES

Test	Tolerance (Feet)
Case Leak Test	±100
Hysteresis Test	
First Test Point (50 percent of maximum altitude)	75
Second Test Point (40 percent of maximum altitude)	75
After Effect Test	30

TABLE III—FRICTION

Altitude (Feet)	Tolerance (Feet)
1,000	±70
2,000	70
3,000	70
5,000	70
10,000	80
15,000	90
20,000	100
25,000	120
30,000	140
35,000	160
40,000	180
50,000	250