



**GFA AD 606**  
(ISSUE 1)

## GFA AIRWORTHINESS DIRECTIVE

- TYPE AFFECTED:** GROB G103 TWIN II ACRO & TWIN III ACRO All Serial Nos.
- SUBJECT:** Strengthening of rear fuselage to allow cancellation of flight limitations and speed restrictions imposed under AD 590, Issues 1 & 2.
- BACKGROUND:** Limits to certain speeds and permitted maneuvers were imposed due to concerns regarding fuselage strength safety margins. This was the subject of AD590 Issue 1.
- Issue 2 of AD590, which incorporates MSB 315-65 introduces revised Manual pages which permit some relaxation of the initial limitations under issue 1 of AD 590. To completely remove these restrictions some fuselage strengthening is required for the "Acro" versions.
- DOCUMENTATION:** Luftfahrt-Bundesamt (LBA) AD 2004-02 and GROB OSB 315-66 are attached and form part of this AD.
- ACTION REQUIRED:** Carry out instructions as per OSB 315-66 and Work Instruction 315-66, which is available from GROB or the secretariat.
- WEIGHT AND BALANCE:** Following the structural modifications detailed in the Work instruction, a W & B is to be completed and loading placards re-calculated accordingly. A copy of the W & B report is to be sent to GFA & the report is also to be entered in the Aircraft logbook.
- IMPLEMENTATION:** At owner's / Certificate holder's discretion.
- COMPLIANCE:** The requirements of this GFA Airworthiness Directive are mandatory. This Directive is issued pursuant to the Rules and Regulations of the Gliding Federation of Australia.

SIGNED:

CHIEF TECHNICAL OFFICER AIRWORTHINESS



For and on behalf of:

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OF AUSTRALIA



## Airworthiness Directive

**D-2004-002**

## Luftfahrt-Bundesamt

Airworthiness Directive Section  
Hermann-Blenk-Str. 26  
38108 Braunschweig  
Federal Republic of Germany

### Grob

Effective Date: January 23, 2004

#### Affected:

Kind of aeronautical product:	Sailplane
Manufacturer:	GROB, Tussenhausen-Mattsies, Germany
Type:	TWIN ASTIR
Models and Serial numbers affected:	Grob G 103 TWIN II - S/N: 3501 up to 3878 and 33879 up to 34078  Grob G 103A TWIN II ACRO - S/N: 3544 up to 34078 (with Suffix "K"))  Grob G 103C TWIN III ACRO - S/N: 34101 up to 34203
German Type Certificate No.:	315

#### Subject:

Limitations of Operations – Cancellation

#### Reason:

New investigations of the fuselage structure have indicated, that the safety margins against damage of the fuselage structure under limit loads might be insufficient. To prevent damage of the fuselage, which could result in a reduced structural integrity of the fuselage, the speeds for rough air, maximum flying speed and further speeds are reduced and for certain gliders, the aerobatic flights are provisionally prohibited.

#### Action:

- Insert revised pages into the Flight and Maintenance Manual in accordance with Service Bulletin No. MSB 315-65
- To regain the full capability for Aerobatic Flight for the G 103A TWIN II ACRO and G 103C TWIN III ACRO, perform the instructions of the Service Bulletin No. OSB 315-66 (installation of stringers in rear fuselage and cancellation of limitation of operation)

#### Compliance:

Action a) must be done before the next flight  
Action b) optional, after accomplishment of action a)

#### Technical publication of the manufacturer:

Grob Service Bulletin MSB315-65, dated September 2003 and Service Bulletin No. OSB315-66, dated October 16, 2003 which becomes herewith part of this AD can be obtained from Messrs.:

GROB Luft- und Raumfahrt  
Lettenbachstrasse 9  
D-86874 Tussenhausen-Mattsies / Germany

Phone: ++ 49 8268 / 998139  
Fax: ++ 49 8268 / 998200  
e-mail: productssupport@grob-aerospace.de

#### Note:

This AD supersedes the AD-No. 2003-185 dated May 30, 2003.

#### Holders of affected aircraft registered in Germany have to observe the following:

Enquiries regarding this Airworthiness Directive should be referred to Mr. Olaf Schneider, Airworthiness Directive Section at the above address, fax-no. 0049 531/2355-720. Please note, that in case of any difficulty, reference should be made to the German issue!



## SERVICE BULLETIN OSB 315-66

### I. TECHNICAL DETAILS

#### 1.1 Category:

Optional

#### 1.2 Aircraft affected:

GROB G 103A TWIN II ACRO  
GROB G 103C TWIN III ACRO

Serial-No. 3544 – 34078 (with suffix „K“)  
Serial-No. 34101 – 34203

#### 1.3 Time of Compliance:

At holders discretion

#### 1.4 Subject:

ATA-Code: 53-00 Fuselage

1.4.1. Installation of stringers in rear fuselage

1.4.2. Cancellation of limitation of operation.

#### 1.5 Reason:

Alert Service Bulletins ASB315-63 and ASB315-63/2 introduced a reduction of speeds for rough air  $v_B$  and the maximum flying speed  $v_{NE}$ . Aerobatic flights were provisionally prohibited.

Mandatory Service Bulletin MSB 315-65 introduced revised Manual pages for operation in a reduced envelope:

This Service Bulletin OSB 315-66, in combination with Work Instruction OSB 315-66, must be completed to regain the full capability for Aerobatic Flight for GROB G 103A TWIN II ACRO and GROB G 103C TWIN III ACRO. Otherwise the reduced envelope as determined with MSB 315-65 will remain valid.

**NOTE: Execution of this Service Bulletin require, that MSB 315-65 be complied with before!**

GROB G 103A TWIN II ACRO  
GROB G 103C TWIN III ACRO



### 1.6 Concurrent documents:

Work Instruction OSB 315-66

### 1.7 Approval Note:

The technical information contained in this document has been approved by the authority (Luftfahrt-Bundesamt).

### 1.8 Accomplishment/ Instructions:

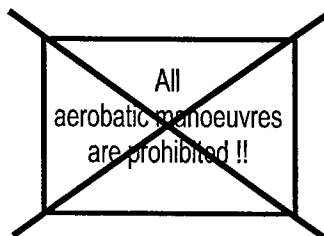
1.8.1 Completion of all structural modifications and all associated measures in accordance with Work Instruction OSB 315-66.

1.8.2 Exchange of obsolete pages (Flight and Maintenance Manual) by revised pages (attached to this SB).

Flight Manual GROB G 103A TWIN II ACRO	Revision 6, 16.10.03
Flight Manual GROB G 103A TWIN II ACRO <b>Canadian issue</b>	Revision 7, 16.10.03
Flight Manual GROB G 103A TWIN II ACRO <b>FAA issue</b>	Revision 4, 16.10.03
Flight Manual GROB G 103A TWIN II ACRO <b>Italian issue</b>	Revision 4, 16.10.03

Flight Manual GROB G 103C TWIN III ACRO	Revision 6, 16.10.03
Maintenance Manual GROB G 103C TWIN III ACRO	Revision 6, 16.10.03

1.8.3 The following placard (attached near to the front/rear airspeed indicator) is to be removed.



GROB G 103A TWIN II ACRO  
GROB G 103C TWIN III ACRO



#### 1.8.4 G 103A TWIN II ACRO:

Apply the following limitation placard over the existing placard on the front and rear RH cockpit side wall

Maximum Flying Weight	580 kp	1280 lbs		
Maximum airspeeds		km/h	kts	mph
In calm air:	V <sub>NE</sub>	250	135	155
In rough Air:	V <sub>RA</sub>	180	97	115
Aerotow:	V <sub>T</sub>	170	92	105,5
Winch/ Automobile tow:	V <sub>W</sub>	120	65	74,5
Airbrakes extended:	V <sub>FE</sub>	250	135	155
Manoeuvring speed:	V <sub>A</sub>	180	97	115

#### 1.8.4 G 103C TWIN III ACRO:

Apply the following limitation placard over the existing placard on the front and rear RH cockpit side wall:

Maximum Flying Weight	600 kp	1323 lbs		
Maximum airspeeds		km/h	kts	mph
In calm air:	V <sub>NE</sub>	280	151	174
In Rough Air:	V <sub>RA</sub>	200	108	124
Aerotow:	V <sub>T</sub>	185	100	115
Winch/ Automobile tow:	V <sub>W</sub>	140	76	87
Airbrakes extended:	V <sub>FE</sub>	280	151	174
Manoeuvring speed:	V <sub>A</sub>	185	100	115

#### 1.9 Repetitive Actions:

None

#### 1.10 Mass (Weight) and CG:

Following the structural modification in accordance with Work Instruction OSB 315-66 a Weight and Balance report is to be completed. The CG must be within limits. The W&B Report is to be added to the Flight Manual and the Aircraft History Record.

GROB G 103A TWIN II ACRO  
GROB G 103C TWIN III ACRO



GROB Luft- und Raumfahrt  
Lettenbachstrasse 9  
D-86874 Tussenhausen-Mattsies

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## **II. PLANNING INFORMATION**

### **2.1 Material & Availability:**

The material required for the modification in accordance with Work Instruction 315-66 may be ordered with the attached Purchase Order.

### **2.2 Special Tools:**

N/A

### **2.3 Labour costs:**

approximately 30 hrs.

### **2.4 Reference documents:**

N/A

### **2.5 Credit:**

N/A

## **III. REMARKS**

- 3.1 The correct execution of the instructions may be performed by an authorised aviation workshop and has to be certified in the logbook by an authorised inspector.
- 3.2 If you have sold your aircraft in the meantime, would you kindly pass this information on to the new owner and forward his address and aircraft S/N to us..
- 3.3 For questions and assistance please contact:

Michael Reinhold, Product Support,  
Tel.: +49 (08268) 998 105  
Fax: +49 (08268) 998 200  
e-mail: [m.reinhold@grob-aerospace.de](mailto:m.reinhold@grob-aerospace.de)

Approved by EASA under Approval

No...1415.....on...02.12.03...(date)

GROB G 103A TWIN II ACRO  
GROB G 103C TWIN III ACRO