

GLIDING NEW ZEALAND

ADVISORY CIRCULAR

COCKPIT PLACARDS

This is an Uncontrolled Document

Issued September 2004

Holder's Name: _____

Address: _____

© COPYRIGHT 1999 GLIDING NEW ZEALAND INC. No part of this Advisory Circular may be used or reproduced in any form by photocopying or otherwise, or incorporated into any information retrieval system without the written consent of the President of Gliding New Zealand.

1 Introduction

1.1 This Advisory Circular provides guidance on the following:
Cockpit Weight & Speed Placards

1.2 It is a requirement that all New Zealand gliders and powered gliders be placarded to the following standard.

2 Speed placards

2.1 The glider to which the placard applies, must be identified on the placard.
(Normally by registration.)

2.2 The placard is to be positioned and securely affixed in the cockpit in a manner and position that it can be easily read by the pilot from their normally seated position.

2.3 This placard is to include all Maximum speeds, in knots, to cover all flight regimes permitted in the particular glider.

2.4 A listing of the Aerobatics permitted by the Flight Manual.

3 Weight Placards

3.1 The glider to which the placard applies, must be identified on the placard.
(Normally by registration.)

3.2 The placard is to be positioned and securely affixed in the cockpit in a manner and position it can be easily read by the pilot from their normally seated position.

3.3 This placard is to include :

- Empty Weight, (EW)
- Maximum All Up Weight, (MAUW)
- Maximum cockpit load,
- Minimum cockpit load,
- Maximum water ballast permitted.
- Any requirement for trim ballast weights.
- Any special combination of cockpit load and water ballast.

3.4 Weights are to be in Kilograms.

4 Cockpit Controls colour coding

4.1 Mandatory.

Canopy Release/Jettison, ...	Red.
Tow Release,	Yellow
Airbrakes,	Blue

4.2 Recommended.

Trim,	Green
Flaps,	Grey
U/C,	Black
Tail Drogue Chute, ...	Blue
Rudder pedal adjustment, ...	

5 FLIGHT MANUAL

5.1 It is not a requirement for the Flight Manual to be carried in the glider providing the cockpit controls are correctly colour coded, and the cockpit placards give all necessary information required for safe operation of the glider.

See below extract from Civil Aviation Rule 104.

Civil Aviation Rule,
Part 104.9 Flight Manuals

Notwithstanding 91.111(a)(2), a person may operate a glider without carrying a flight manual in the aircraft if---

(1) The flight manual is available to the pilot for pre-flight planning; and

(2) Cockpit decals provide all the reference information necessary for a pilot to safely operate the aircraft.

5.2 It is a requirement that the following documents be carried in the glider on every flight:

- The **Airworthiness Certificate**,
- The **Tech. log/D.I. book**,
- The **CAA form 2129**, Radio Station Approval,
- The **CAA Form 2173**, Weight & Balance Data.

6 Supply of Placards

Placards similar to the ones shown below, printed on white adhesive backed plastic, can be obtained by writing to the NAO giving details as in the samples below. Give required overall size, number off, and if to be split into two as the Libelle below. Cost is about \$5.00 A4 sheet.

7 Sample Placards

(Note. Weights shown are an indication of one glider only, and may not apply to other gliders of the same type.)

<u>GLASSFLUGEL</u>		
<u>STANDARD LIBELLE</u>		
<u>TYPE</u>	<u>SERIAL No.</u>	<u>*** ZK-G**</u>
<u>Airspeed Limits (I.A.S.)</u>		
<u>Never Exceed (VNE)</u>		<u>135</u>
<u>Manoeuvring (VA)</u>		<u>81</u>
<u>Aerotow (VAt)</u>		<u>81</u>
<u>Auto/winch (VW)</u>		<u>65</u>
<u>Air brakes (VB)</u>		<u>135</u>
<u>Landing gear (VL)</u>		<u>135</u>

<u>ZK-G** Empty weight = 224 Kgs</u>	
<u>Maximum Permitted All Up Weight = 350 Kgs.</u>	
<u>No aerobatic manoeuvres approved.</u>	
<u>Weight Limitations</u>	
<u>Pilot weight</u>	<u>} Max. 97</u>
<u>(inc. parachute)</u>	<u>} Min. 70</u>
<u>Max. water ballast.</u>	
<u>Cockpit load 70 Kgs..</u>	<u>= 50 Lts.</u>
<u>Cockpit load 80 Kgs..</u>	<u>= 40 Lts.</u>
<u>Cockpit load 90 Kgs..</u>	<u>= 30 Lts.</u>

Sample placards..

(Note. Weights shown are an indication of one glider only, and may not apply to other gliders of the same type.)

<u>SCHEMPP-HIRTH</u>	
<u>TYPE</u> Nimbus 2 <u>SERIAL</u> No. *** <u>ZK-G**</u>	
<u>Airspeed Limits (I.A.S.)</u>	<u>Kts.</u>
<u>Never Exceed (VNE)</u>	<u>146</u>
<u>Flaps 0/-4/-7 (VF -)</u>	<u>146</u>
<u>Flaps L/+10/+6 (VF+)</u>	<u>86</u>
<u>Manoeuvring (VM)</u>	<u>86</u>
<u>Aerotow (VAt)</u>	<u>86</u>
<u>Auto/winch (VW)</u>	<u>65</u>
<u>Air brakes (VB)</u>	<u>146</u>
<u>Landing gear (VL)</u>	<u>146</u>
Empty Weight	= *** Kgs.
Maximum Permitted All Up Weight	
Without water ballast	= 470 Kgs.
With water ballast	= 580 Kgs.
No aerobatic manoeuvres approved.	
<u>Weight Limitations = Kgs.</u>	
<u>Pilot weight</u> }	<u>Max. 126</u>
<u>(inc. parachute)</u> }	<u>Min. 62</u>
<u>Max. water ballast.</u>	<u>100</u>

Sample Placards....

(Note. Weights shown are an indication of one glider only, and may not apply to other gliders of the same type.)

ALEXANDER SCHLEICHER
TYPE ASW-20 SERIAL No. 20-* ZK-G****

<u>Airspeed Limits (I.A.S.)</u>	<u>Kts.</u>
Never Exceed (VNE)	146
Flaps 0/-4/-7 (VF -)	146
Flaps L/+10/+6 (VF+)	86
Manoeuvring (VM)	86
Aerotow (VAt)	86
Auto/winch (VW)	65
Air brakes (VB)	146
Landing gear (VL)	146

Empty weight = *** Kgs

Maximum Permitted All Up Weight

Without water ballast = 454 Kgs.

With water ballast = 574 Kgs.

No aerobatic manoeuvres approved.

<u>Weight Limitations</u>	<u>Kgs.</u>
Pilot weight } <u>Max.</u>	126
(inc. parachute) } <u>Min.</u>	74
<u>Max. water ballast.</u>	120

Sample Placards....

(Note. Weights shown are an indication of one glider only, and may not apply to other gliders of the same type.)

Grob Twin Astir. ZK-G**						
Feet ASL (X 1000)	10	15	20	25	30	
Airspeed limits	Kts.					
Never exceed (Vne)	135	120	105	90	75	
In rough air (Vb)	108	83	68	-	-	
Manoeuvring (Va)	92	83	68	-	-	
Aerotow (Vt)	92	-	-	-	-	
Winch tow (Vw)	65	-	-	-	-	
Dive brakes (Vdf)	135	120	105	90	75	

Grob Twin Astir. ZK-G**						
Feet ASL (X 1000)	10	15	20	25	30	
Airspeed limits	Kts.					
Never exceed (Vne)	135	120	105	90	75	
In rough air (Vb)	108	83	68	-	-	
Manoeuvring (Va)	92	83	68	-	-	
Aerotow (Vt)	92	-	-	-	-	
Winch tow (Vw)	65	-	-	-	-	
Dive brakes (Vdf)	135	120	105	90	75	

Grob Twin Astir. ZK-G**						
Maximum permitted all up weight = 650 kgs.						
Payload (pilot & parachute)						
Weight limits	kgs			kgs.		
Min. front seat	75	Min. rear seat	0			
Max. front seat	113	Max. rear seat	113			
Using Trim weights.						
Pilot weight between:	kgs.	59 - 66		67 - 74		75 - 110
Number of trim weights =		2		1		0
1 Trim weight ; 5.6 kg. = 8 kgs on seat.						

Grob Twin Astir. ZK-G**						
Maximum permitted all up weight = 650 kgs.						
Payload (pilot & parachute)						
Weight limits	kgs			kgs.		
Min. front seat	75	Min. rear seat	0			
Max. front seat	113	Max. rear seat	113			
Using Trim weights.						
Pilot weight between:	kgs.	59 - 66		67 - 74		75 - 110
Number of trim weights =		2		1		0
1 Trim weight ; 5.6 kg. = 8 kgs on seat.						