0 General

0.1 Manual amendments

No.	Page	Description	Date
0.1	all	Combination of the initial service manuals of the variants DG-100, DG-100 ELAN, DG-100G and DG-100G ELAN, new standardized format	December 2009
0.2	0.7, 1.1, 1.2, 1.4, 1.6, 1.8 – 1.12, 1.15 – 1.18, 1.20, 1.21, 1.24, 2.1 – 2.3, 4.2-4.6	Miscellaneous changes to the contents of the latest amendments of the initial service manuals	December 2009
1	0.1, 0.3, 0,5, 1.23 - 1.25	TN DG-SS-09 adjustment of elevator free play	December 2023

0.2 List of effective pages

Section	page	issued	replaced	replaced	replaced
0	0.0	December 09			
	0.1	see manual amendments			
	0.2	"			
	0.3	"			
	0.4	"			
	0.5	December 09	December 23		
	0.6	"			
	0.7	"			
1	1.1	December 09			
	1.2	"			
	1.3	"			
	1.4	"			
	1.5	"			
	1.6	"			
	1.7	"			
	1.8	"			
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	1.13	"			
	1.14	"			
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	1.17	"			
	1.18	"			
	1.19	"			
	1.20	"			
	1.21	"			
	1.22	"			
	1.23	"	December 23		
	1.24	"	December 23		
	1.25	December 23			
2	2.1	December 09			
	2.2	"			
	2.3	"			

0.3 List of content

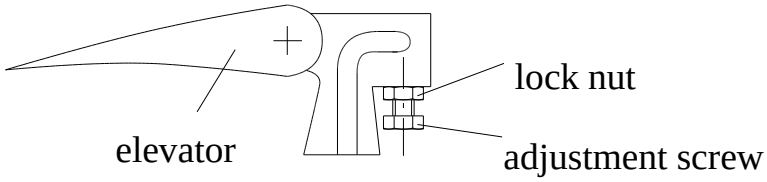
1.13 Free play in Control Systems

Aileron:
With the stick fixed in a neutral position, the play in the aileron 188 mm from the hinge Line should be ± 1.5 mm and the aileron should be neutral.
With the aileron fixed, the play in the stick at the top should not exceed ± 3 mm (± 0.12 in.).

Elevator control:
With the surface fixed in neutral, the play at the stick at the top should not exceed ± 2 mm (0.08 in.).
Only DG-100 G ELAN from ser, no. E 46 on:
Within the automatic elevator connection there should be no free play noticeable in the zero position when the elevator is moved at its trailing edge.
Any free play can be reduced by screwing in the adjustment screw on the automatic connector funnel.

Warning: In case the adjustment screw was turned in too far, the roller will jam inside the funnel and can´t be moved or only with larger force to the front of the funnel. Moving the horizontal tailplane backwards for rigging might not be possible or only with large effort. Each time a bending force will act on the rod end which might lead to failure of the rod end with time.
For this reason after adjusting the free play it is necessary to check if the roller can be moved without force in the funnel.
To accomplish this, remove the compete rod end with the roller or remove the roller from the rod end and stick it on an 8 mm f7 pin and move the roller in the funnel. Prior to removal of the rod end mark it´s position.
If the roller can´t be moved without force completely zo the front you must turn back the adjustment screw and bend back the sheet metal which was bent by the adjustment screw. Then adjust the free play again.

In case the roller has too much free play on the rod end or if the roller is no more round you must replace the roller by a new one 2L24.
In case the glider was operated for a longer time with the adjustment screw turned in too far the rod end must be replaced by a new one 2L19/1.



After completion of this work check the elevator displacements and adjust if necessary.

Trim tab:
Only DG-100 & DG-100 ELAN: With the stabilator in neutral, allowable play is ± 0,5 mm at 110 mm from hinge line.

Rudder:
Axial play at the upper hinge max. 0,5 mm
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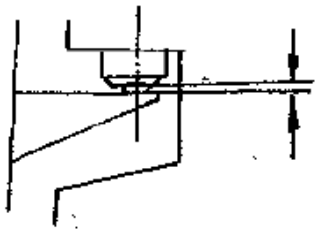
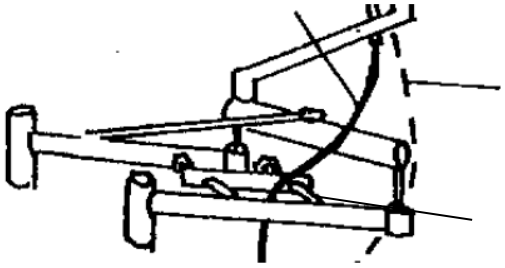


1.14 Repair of the bowden cable in the parallelogram stick mechanism

In case of replacement it is of importance that the cable should be placed between the two parallelogram arms of the control column (see drawing).



Placement of the cable outside the parallelogram might lead to blocking of the control mechanism.

1.15 Tangential play of the wings

Rig your glider. Pull the wings forward and backward and observe at which lift pin you can find the maximum tangential play.
Derig the glider. Sand the flange of the lift pin and glue a thin washer inner diameter 16,5 mm 0,25 mm of thickness with a suitable metal adhesiv (Stabilit Express, Decon etc.) to the flange.

Mark the thickness of this washer at the fuselage side near the lift pin. Rig the glider again and check if tangential play is eliminated.

Tolerances
Free play should be adjusted if you hear a rattling sound when moving the wings backwards and forwards.

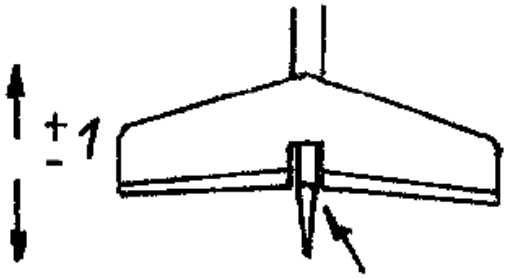
The max. amount of free play can also be determined as follows: Measure the free play at each lift pin with a feeler gauge. Sum up the free play.

The free play of all 4 pins together should not exceed 1 mm.

1.16 Tangential play of the stabilizer

Only DG-100 & DG-100 ELAN:

Tangential play is unobjectionable if it does not exceed ± 1 cm (± 0,4 in.)
(Measure only the play, not the elastically deformation of the whole structure!).



Check for clearance between tailplane, trimtab and the access cover.
Enlarge clearance if necessary