0 General

0.1 Amendments

No.	Page	Description	Date
0.1	all	New standardized format of the initial Maintenance Manual of Variant DG-400	December 2009
0.2	0.12, 0.13, 1.10, 1.11, 1.13, 1.19, 1.25, 2.1, 2.2, 2.6, 3.2, 3.6, 4.8 - 4.10, 4.12, 4.16, 5.1, 5.2, 6.1 - 6.3, 8.1 – 8.4, Checkliste, SI 1/86/2, L'Hotellier Instructions for the maintenance M 10.01, SI 61/06, 4R14, TN825/46, 4E30, Service Info 63/07 with working instruction No. 1 for TN826/22 and drawing 4M81	Miscellaneous changes to the contents of the latest amendment of the initial maintenance manual	December 2009
1	0.1, 0.3 – 0.6, 0.9, 0.12, 3.3, 3.6, 3.7, 8.2, diagram 8, delete diagram 8a	Fuel hoses TN DG-SS-02	October 2016
2	0.1, 0.5, 8.3	Rectifier-Regulator TN DG-SS-03	October 2017
3	0.1, 0.3, 1.2, 1.3	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	See manual amendments		
	0.1	"	"		
	0.2	"	"		
	0.3	"	"		
	0.4	"	"		
	0.5	"	"		
	0.6	"	"		
	0.7	"	"		
	0.8	"			
	0.9	"	October 2016		
	0.10	"			
	0.11	"			
	0.12	"	October 2016		
	0.13	"			
1	1.1	December 09			
	1.2	"	December 23		
	1.3	"	December 23		
	1.4	"			
	1.5	"			
	1.6	"			
	1.7	"			
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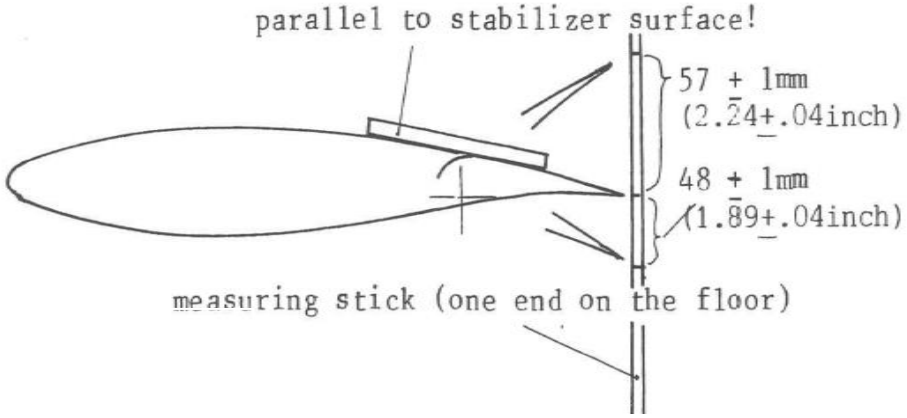
	1.20	"			
	1.21	"			
	1.22	"			
	1.23	"			
	1.24	"			
	1.25	"			
	1.26	"			
	1.27	"			

1.3 Elevator deflections and adjustment

1.3.1 Control circuit - see diagram 1

1.3.2 Elevator deflections and tolerances

Up 57 ± 1 mm (2.24±.04 inch)
Down 48 ± 1 mm (1.89±.04 inch)
measured 150 mm (5.9 inch) from. hinge axis.
The adjustment is made at the base of the control column. To measure displacement lay a straight edge over the elevator and trailing surface of the stabilizer (which is flat in this area). The straight edge must lie parallel to the stabilizer surface. Holding a measuring stick with one end on the floor mark the 0 point on the stick. Then mark the up and down displacements from this zero point.



1.3.3 Elevator stops

The elevator stops are located at the base of the control column and can be adjusted with a 10 mm open ended spanner.

1.3.4 Elevator control circuit free play

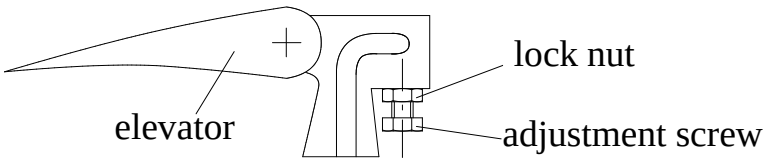
The play at the top of the control stick must not exceed ± 1.5 mm (± 0.06 in.) when the elevator is firmly held in neutral position.

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.

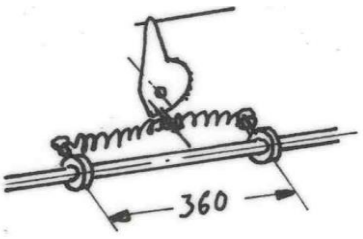
In case the roller has too much free play on the rod end or if the roller is no more round you must replace the roller by a new one 2L24.
In case the glider was operated for a longer time with the adjustment screw turned in too far the rod end must be replaced by a new one 2L19/1.



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

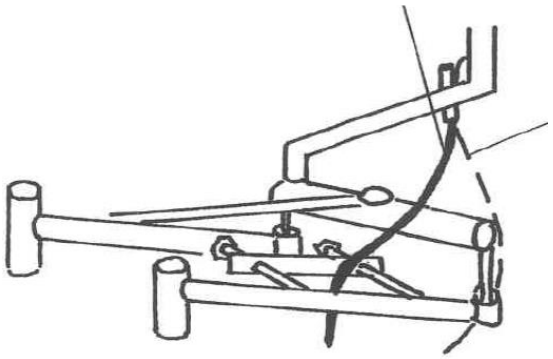
1.3.5 Trim

The automatic trim mechanism should be adjusted so that with full forward (nose down) trim, the control column is from 1 to 1,5 cm (0,4 – 0,6 inch) away from its maximum forward position. The tensioning of the trim mechanism springs is to adjust as shown on the sketch. (360 mm; 14,2 inch)



1.3.6 Repair of the automatic trim mechanism bowden cable

In the event of a replacement bowden cable being installed, it should be ensured that the cable passes between the two parallel arms of the con-trol column mechanism as shown in the sketch.



Note: if the cable passes outside the mechanism control column movement could be blocked