0 General

0.1 Amendments

No.	Page	Description	Date
0.1	all	New standardized format of the initial Maintenance Manual DG-800	December 2009
0.2	0.11, 1.4, 1.12, 1.15, 1.22, 2.1, 2.2, 2.6, 3.2, 3.7, 4.2, 4.10, 4.19, 4.24, 5.1, 6.1 – 6.3, 8.1, 8.3, TN873/33 with working instruction rev. 2, 4E30 Service info 61/06, 4R14, 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, 0.8, 0.11, 3.4, 3.7, 3.8, 8.2, diagram 11	Fuel hoses TN 800/44	October 2016
2	0.1, 0.3 - 0.6, 0.11, 0.12, 1.4, 1.24, 2.1, 2.2, 3.4, 8.1, 8.3, diagram 3	manual revision TN800/45	July 2017
3	0.1, 0.3, 1.2 - 1.4	TN800/50 adjustment of elevator free play	December 2023

0.2 List of effective pages

Section	page	issued	replaced /	replaced /	replaced /
0	0.1	December 09	See manual amendments		
	0.2	"	"		
	0.3	"	"		
	0.4	"	"		
	0.5	"	"		
	0.6	"	"		
	0.7	"			
	0.8	"	October 2016		
	0.9	"			
	0.10	"			
	0.11	"	October 2016	July 2017	
	0.12	"	July 2017		
	1.1	December 09			
	1.2	"	December 23		
	1.3	"	December 23		
	1.4	"	July 2017	December 23	
	1.5	"			
	1.6	"			
	1.7	"			
	1.8	"			
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	1.14	"			
	1.15	"			
	1.16	"			
	1.17	"			
	1.18	"			
	1.19	"			
	1.20	"			
	1.21	"			
	1.22	"			
	1.23	"	July 2017		
	1.24	"			
	1.25	"			
	1.26	"			

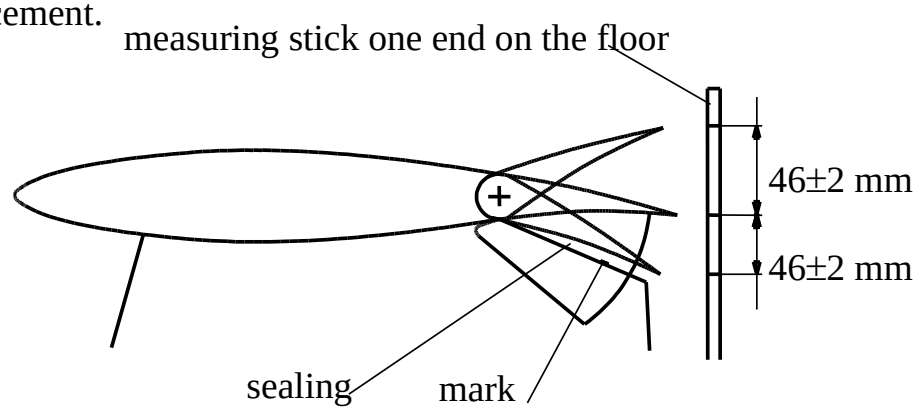
1.2 Elevator control and trim system

1.2.1 Control system see diagram 1

1.2.2 Elevator deflections and tolerances

Up 46 ± 2 mm (1.81 ± 0.08 in.)
Down 46 ± 2 mm (1.81 ± 0.08 in.)
measured at 134 mm (5.3 in.) from hinge axis.

Measurement:
Hold a measuring stick with one end on the floor. Deflect the elevator to neutral position by bringing the mark at the sealing in line with the upper end of the fin. Mark the 0-point on the stick. Then mark the up and down displacement.



1.2.3 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.

1.2.4 Elevator control circuit free play

With the elevator held fixed in the zero position, the free play at the top of the control column can be ± 1.5 mm (± 0.06 in.).

Free play within the automatic elevator connection

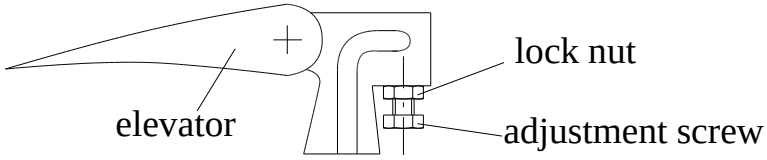
Within the automatic elevator connection there should be no free play noticeable in the zero position when the elevator is moved at its trailing edge.

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.

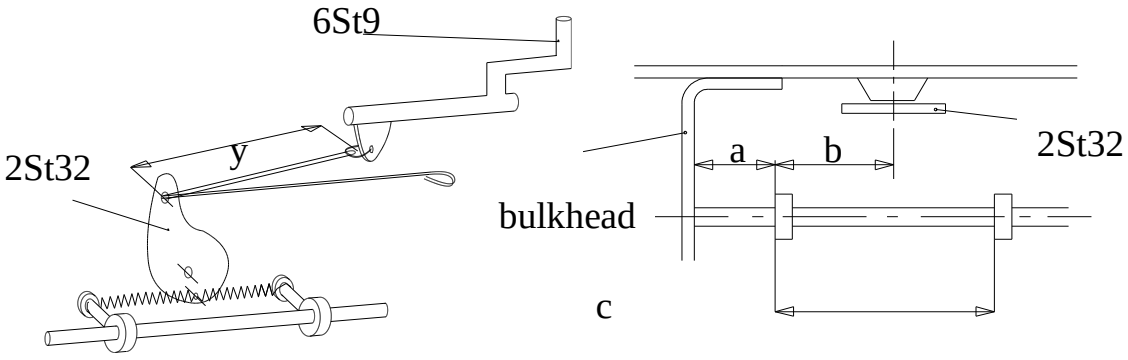
In case the roller has too much free play on the rod end or if the roller is no more round you must replace the roller by a new one 8St50/2.
In case the glider was operated for a longer time with the adjustment screw turned in too far the rod end must be replaced by a new one 8St50/1.



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

1.2.5 Trim

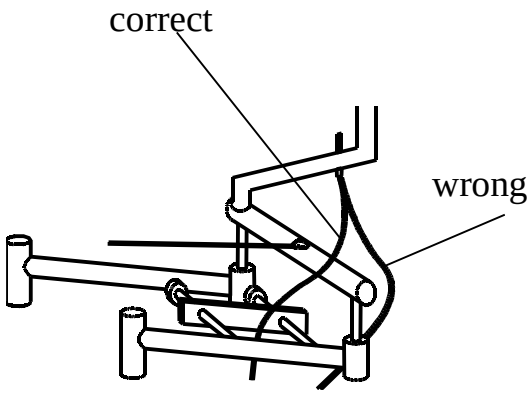
The automatic trim mechanism should be adjusted according to the sketch below. The measures a and b are with the control stick in forward position:
a = 30 mm (1.18 in.), b = 187 mm (7.36 in.), c = 357 mm (14.1 in.).



The bungee interconnection between wing flap lever 6 St 9 and trim lever 2 St 32 is to be replaced, when worn or when elongated.
The length in unstretched condition y must be 110 mm (4.3 in.). The interconnection consists of 2 mm dia. bungee wound around 3 times.

1.2.6 Repair of the automatic trim mechanism bowden cable

In the event of a replacement bowden cable being installed, it should be emphasized that the cable must pass between the two parallel arms of the control column mechanism as shown in the sketch.



Warning: If the cable passes outside the mechanism control column movement can be blocked.

1.3 Rudder control

1.3.1 Rudder control circuit - see diagram 2

1.3.2 Rudder deflections and tolerances

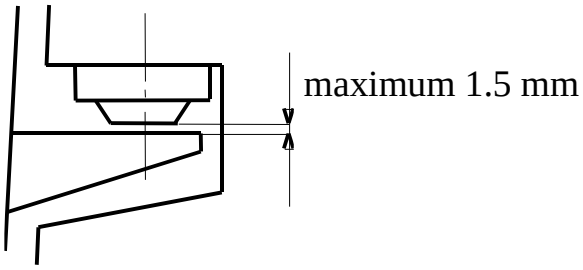
165-5 mm (± 30°) (6.5 - .2 inch)
measured at 318 mm (12.52 inch) from the hinge axis.

1.3.3 Rudder stops

The rudder stops are located at the lower hinge pedestal and can be adjusted with an allen key wrench.

1.3.4 Axial free Play

The maximum allowable free play at the upper hinge point is 1.5 mm (0.06 inch)



1.3.5 Sealing the rudder

The rudder is sealed on both sides. On the outside with Mylar tape and optionally insude the fin with V-sealing tapes.
This seal is not to be removed. If damaged it should be replaced, see section 4.9.

1.3.6 Retaining spring for the pedal adjustment handle

A spring which pulls the pedal adjustment cable tight is installed in the console below the instrument panel. If this spring is defective or not connected the handle of the pedal adjustment cable won't be pulled to the front so that it may hook into the trim release lever at the control stick with pedals in a rear position