

## Maintenance Manual DG-808C

### 0 General

#### 0.1 Manual amendments

No.	Page	Description	Date
1	0.3, 0.6, 0.10, 1.11, 8.2, diagrams 5a, 11d, 8EP210	ÄM 800-17-07 Fin tank valve and operating handle, Refuelling pump	April 2007
2	0.3, 0.4, 0.6, 0.7, 0.10, 0.12, 1.28, 1.29, 2.7, 3.3, 3.5, 3.11, 4.2, 4.8, 4.11, encl. 2 page 1, TN 4600-2-2 Solo	TN800/34 Manual revision	September 2007
3	0.6, 8.1, diagram 10	TN800/35 Extension-retraction unit, rear fork of spindle-drive	April 2009
4	0.3 ÷ 0.12, 1.3, 1.5, 1.6, 1.8, 1.10, 1.11, 1.14 ÷ 1.16, 1.24, 1.27, 1.29, 1.30, 2.1, 2.2, 2.6, 2.7, 3.1, 3.3 ÷ 3.11, 4.1 ÷ 4.3, 4.6 ÷ 4.11, 4.13, 4.15, 4.16, 4.18 ÷ 4.23, 4.25 ÷ 4.31, 5.1, 5.2, 6.1 ÷ 6.3, 7.2, 8.1 ÷ 8.4, 9.2, diagrams 1 ÷ 5, 5a, 8, 9, 10, 11, 11d, 12, 13, 13b, 14, 17, 14a removed, 8M110, 8E250, SI 69-10	TN800/41 Manual revision, Coolant pump Pierburg	May 2012
5	0.0, 0.1, 0.3 - 0.6, 0.11, 0.12, 2.1, 2.2, 3.7, 4.33, 8.1 - 8.3, diagrams 3, 9, 8E250h, 8E256b	manual revision, TN800/45	July 2017
6	0.1, 0.3 - 0.7, 0.10 - 0.13, 2.6, 3.11, 8.2, diagram 11c, 8EP210, add diagram 11e, remove diagrams 11 and 11d, file working instruction No. 1 for TN 800/46 at the end of the MM	TN800/46 PU fuel hoses, limitation of life- time, replacement by new types of fuel hoses	February 2018
7	Title, 0.1, 0.3 – 0.6, 0.11, 0.12, 3.9 – 3.12, 4.1, 4.2, 4.11, 8.1, 8.4, diagrams 18 + 16	manual revision, life-time drive-belt TN800/49	May 2023
8	0.1, 0.3, 1.2, 1.3	TN800/50 adjustment of elevator free play	December 2023

## Maintenance Manual DG-808C

### 0.2 List of effective pages

Section	page	issued	replaced/	replaced/	replaced/
	Title	June 2005	July 2017	May 2023	
0	0.1	see manual	amendments		
	0.2		"		
	0.3		"		
	0.4		"		
	0.5		"		
	0.6		"		
	0.7	June 2005	Sept. 2007	May 2012	Febr. 2018
	0.8	"	May 2012		
	0.9	"	May 2012		
	0.10	"	Sept. 2007	May 2012	Febr. 2018
	0.11	"	May 2012	July 2017	Febr. 2018
			May 2023		
	0.12	"	Sept. 2007	May 2012	July 2017
			Febr. 2018	May 2023	
	0.13	Febr. 2018			
1	1.1	June 2005			
	1.2	"	May 2012	December 23	
	1.3	"	May 2012	December 23	
	1.4	"			
	1.5	"			
	1.6	"	May 2012		
	1.7	"			
	1.8	"	May 2012		
	1.9	"			
	1.10	"	May 2012		
	1.11	"	April 2007	May 2012	
	1.12	"			
	1.13	"			
	1.14	"	May 2012		
	1.15	"	May 2012		
	1.16	"	May 2012	Febr. 2018	
	1.17	"			
	1.18	"			
	1.19	"			
	1.20	"			
	1.21	"			
	1.22	"			
	1.23	"			
	1.24	"	May 2012		
	1.25	"			

## 1.2 Elevator control and trim system

### 1.2.1 Control system

see diagram 1

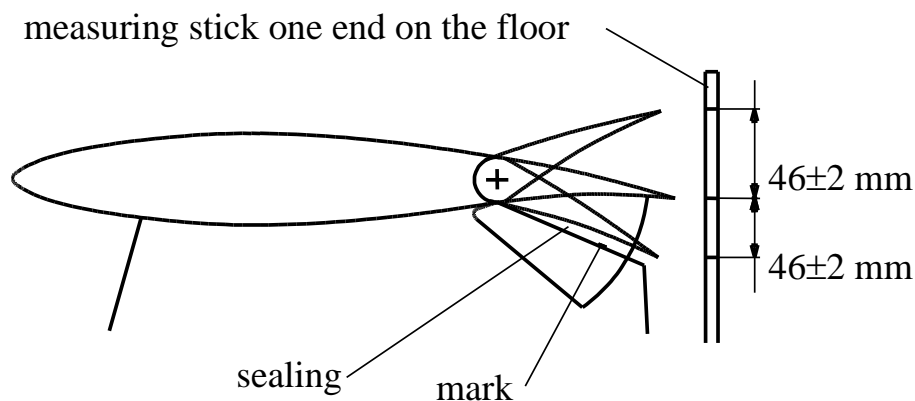
### 1.2.2 Elevator deflections and tolerances

up:	46 $\pm$ 2 mm	1.81 $\pm$ 0.08 in.
down:	46 $\pm$ 2 mm	1.81 $\pm$ 0.08 in.

measured at 134 mm (5.3 in.) from hinge axis which is directly at the edge of the cut-out for the rudder.

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  $\pm$  1.5 mm ( $\pm$  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.

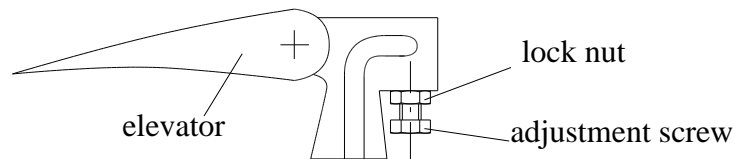
## Maintenance Manual DG-808C

To accomplish this, remove the complete 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 its position.

If the roller can't be moved without force completely to 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.

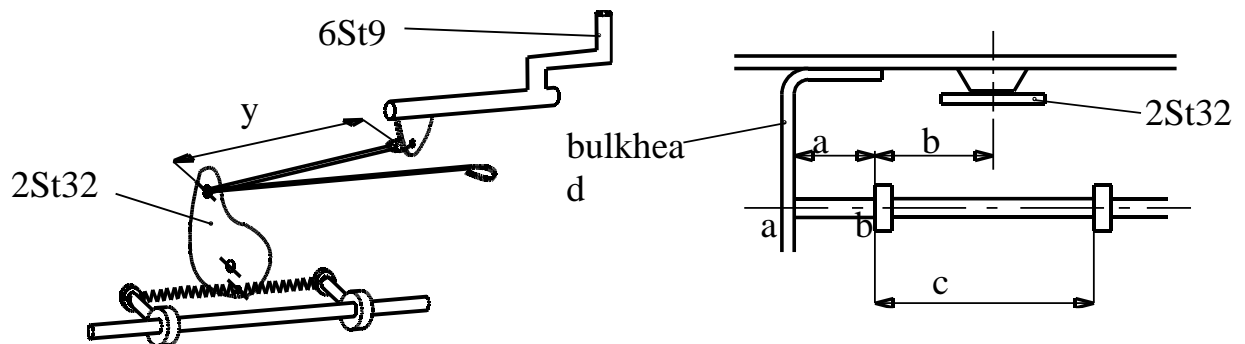


After completion of this work check the elevator displacements and adjust if necessary.

### 1.2.5 Trim

The automatic trim mechanism should be adjusted according to the sketch below. The measurements 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 6St9 and trim lever 2St32 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 diameter bungee wound around 3 times.