

Maintenance manual DG-1000S

No.	Page	Description	Date
15	0.3 ÷ 0.8, 0.10 ÷ 0.12, 1.3, 1.5, 1.11, 1.16, 1.18, 1.19, 2.1, 2.6, 3.1, 4.6, 4.10, 4.12, 4.13, 6.1, 7.1, diagrams: 2, 3, 9, Enclosure 1 pages: 5, 8	Manual revision TN 1000/24, New type 12V sockets and plugs	October 2014
16	0.3, 0.4, 1.11	TN1000/34 small nose wheel	October 2017
17	0.3 - 0.7, 0.10, 0.11, 0.12, 1.3, 1.12, 1.14, 2.6, 4.9, 4.11, 6.1, 6.3 Enclosure 1 pages 5-7, Diagrams 2, 5, 5a, 7, 7a, 11, 20, Drawings 10E13, 10R146	TM1000/41 Manual revision	December 2018
18	0.3, 0.6, diagram 11	TN1000/41 revision 1	May 2019
19	0.3 - 0.6, 2.1, 2.2, 4.9, 6.3, enclosure 1 page 7	TN1000/42 Canopy lock, rear locking rods Manual revision	July 2019
20	0.3, 0.6, 0.10, enclosure 3 (incl. diagram 2b + 11a)	TN1000/36 Revision 2 Manual rudder control	May 2020
21	Title, 0.3, 0.4, 0.6, 0.11, 1.12, 2.1, 2.6, diagrams 5a, 7a, 11, 11a, 20, enclosure 1 page 2 + 8	TN1000/45 Manual revision, raised max. TOW	October 2021
22	0.3, 0.6, enclosure 3 pages 2+3+ diagram 2b	TN1000/36 Revision 3 Manual rudder control	February 2023
23	0.3, 0.4, 1.3, 1.4	TN1000/50 adjustment of elevator free play	December 2023

0.2 List of effective pages

Section	page	issued	replaced	replaced	replaced	replaced
0	Title	March 2002	Oct. 2021			
	0.2	see manual	amendments			
	0.3		“			
	0.4		“			
	0.5		“			
	0.6		“			
	0.7	March 2002	Febr. 2011	Oct. 2014	Dec. 2018	
	0.8	“	Febr. 2011	Oct. 2014		
	0.9	“	Febr. 2011			
	0.10	“	Febr. 2008	March 2008	Oct. 2008	Nov. 2008
			Febr. 2011	March 2011	Oct. 2014	May 2020
	0.11	“	Jan. 2005	Febr. 2011	Oct. 2014	Dec. 2018
			Oct. 2021			
	0.12	“	Febr. 2011	Oct. 2014	Dec. 2018	
1	1.1	March 2002				
	1.2	“	May 2008	Febr. 2011		
	1.3	“	Oct. 2014	Dec. 2018	Dec. 2023	
	1.4	“	Dec. 2023			
	1.5	“	Febr. 2011	Oct. 2014		
	1.6	“				
	1.7	“				
	1.8	“				
	1.9	“	Nov. 2004	Febr. 2008		
	1.10.	“	Febr. 2008			
	1.11	“	Febr. 2011	Oct. 2014	Oct. 2017	
	1.12	“	Dec. 2018	Oct. 2021		
	1.13	“				
	1.14	“	March 2008	Febr. 2011	Dec. 2018	
	1.15	“	Febr. 2011			
	1.16	“	Oct. 2014			
	1.17	“				
	1.18	Febr. 2011	Oct. 2014			
	1.19	Oct. 2014				
2	2.1	March 2002	Febr. 2011	Oct. 2014	July 2019	Oct. 2021
	2.2	“	July 2019			
	2.3	“				
	2.4	“	Febr. 2011			
	2.5	“	Febr. 2011			
	2.6	“	Jan. 2005	May 2008	Febr. 2011	Oct. 2014
			Dec. 2018	Oct. 2021		
	2.7	“	removed	May 2008		

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 ± 2 mm (± 0.08 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.

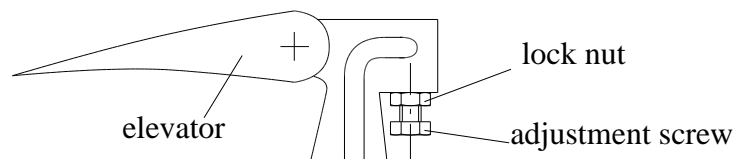
For this reason after adjusting the free play it is necessary to check if the roller can be moved without force in the funnel.

To accomplish this, remove the 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 it's 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 5St95/3.

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 10St97/1.



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

1.2.5 Trim

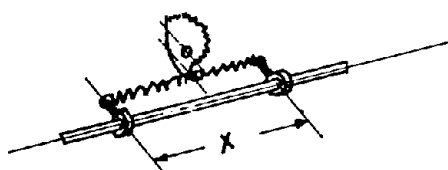
Complete readjustment

The trim mechanism should be adjusted so that with full forward (nose down) trim the control column is pulled by the trim springs into it's maximum forward position with a force P of approx. 30 N (6.6 lbs.).

The force P is to be measured with a spring balance at the upper end of the control stick. Read the force, when the stick just starts to move.

The tensioning of the trim mechanism springs is adjusted as shown in the sketch.
 $x = 340 \text{ mm (13.4 in.)}$

The springs are located in the rear cockpit on the left hand side.



The correct adjustment should be verified in flight and corrected if necessary. Trimming should be possible up to 200 – 220 km/h (108 - 119 kts.).

Note: If the DG-1000S can be trimmed up to higher speeds it is likely that the trim is not sufficient in circling flight.

1.2.6 Pilot force reducing rubber-cord

The rubber cord produces an elevator stick force in push direction. If the trim efficiency of your glider in push direction is reduced, you have to inspect the rubber cord.

The rubber cord is located on the left hand side behind the main bulkhead below the baggage compartment floor. The rubber cord runs from bellcrank 5St19 to a fork beside the left hand front edge of the landing gear box.

The length of the rubber cord when loose should be 470 mm (18.5 in.). If the cord is longer or worn it must be replaced.

The cord must be replaced at least every 6 years.