

Flight manual DG-1000T

0.1 Record of revisions continued

Rev. No.	Affected Pages/ section	Description	Issue Date	EASA Approval Date	Inserted Date Signature
7	0.3, 0.6, 0.7, 9.1-9.12	Electrically operated main landing gear TN1000/14	Nov. 2008	28. January 2009	
8	0.6, 9.1, 9.2, 9.13	Special equipment for very small pilots TN1000/17	May 2010	20. July 2010	
9	0.2 - 06, 1.4, 2.6, 2.11, 2.12, 4.3, 4.5 - 4.7, 4.9, 4.10, 4.13, 4.14, 4.29, 6.3, 6.5, 6.6, 6.10, 6.11, 7.2, 7.9, 7.12, 7.18, 7.21, 7.23, 7.24, 9.7, 9.13	Manual revision TN1000/18	Febr. 2011	13.05.2011	
10	0.1 ÷ 0.6, 1.5, 2.9, 2.11, 4.6, 4.8, 4.22, 5.4, 6.4, 6.7, 7.15, 7.22, 7.24, 9.8	Manual revision TN1000/24, Fuel cock warning TNDG-G-09 added on page 7.15	October 2014	11.11.2014	
11	0.2, 0.4, 4.14	Propeller adapter with elastomeric damper element TN 1000/26	August 2015	9.11.2015	

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0.2 List of effective pages (cont.)

Section		page	issued	replaced	replaced	replaced	replaced
4	App.	4.1	July 2005				
	"	4.2	"				
	"	4.3	"	Febr. 2011			
	"	4.4	"				
	"	4.5	"	Febr. 2011			
	"	4.6	"	Oct. 07	Febr. 2011	Oct. 2014	
	"	4.7	"	Febr. 2011			
	"	4.8	"	Oct. 2014			
	"	4.9	"	Febr. 2008	Febr. 2011		
	"	4.10	"	Febr. 2011			
	"	4.11	"				
	"	4.12	"	Oct. 2007			
	"	4.13	"	Jan. 2007	Oct. 07	Febr. 2011	
	"	4.14	"	Febr. 2011	August 15		
	"	4.15	"				
	"	4.16	"	Jan. 2007			
	"	4.17	"	Jan. 2007	Febr. 08		
	"	4.18	"	Jan. 2007			
	"	4.19	"				
	"	4.20	"				
	"	4.21	"	Jan. 07			
	"	4.22	"	Oct. 2014			
	"	4.23	"				
	"	4.24	"	Jan. 2007			
	"	4.25	"	Jan. 2007			
	"	4.26	"				
	"	4.27	"				
	"	4.28	"				
	"	4.29	"	Febr. 2011			
5	"	5.1	July 2005				
	"	5.2	"	Febr. 2011			
	"	5.3	"	Jan. 2007			
	"	5.4	"	Oct. 2014			
	App.	5.5	"	Jan. 2007			
		5.6	"	Jan. 2007			
		5.7	"	Jan. 2007			
		5.8	"	Jan. 2007			
		5.9	"				

4.5.3 Cruise engine on

4.5.3.1 General

The engine of the DG-1000T is not designed for continuous cruise with the engine. Due to the drag of the extended powerplant and as the propeller is designed for optimum climb performance, cruise with higher speed is not efficient.

The optimum cruise is with the so called sawtooth technique. After climb with V_y retract the engine and glide with airspeed according to the Mc Cready theory, flying slowly in lift and faster in sinking air.

The medium cruise speed achieved by sawtooth technique is not much less than for level engine on cruise, but the range will be 1.5 times longer.

Performance data see sect. 5.3.5.

Warning: if there is a problem with the elastic damper element of the propeller adapter, the power plant may oscillate around its vertical axis with low frequency (1-10 Hz). If such oscillations start, switch off the ignition immediately. Report to DG Flugzeugbau prior to next engine use.

4.5.4 Powerplant extension-retraction in flight

4.5.4.1 Extension and starting the engine in flight

1. With the engine extended but not running the rate of sink at 90 km/h (49 kts) increases to 1.5 m/sec. (300 ft/min.).

Therefore restarting the engine should only be done over landable terrain and not below 400 m (1320 ft) above ground. But it is better to restart the engine at 200 m (660 ft) over a landable field rather than at 400 m (1320 ft) over a forest or unlandable scrub.

Should a flight be conducted over a wide expanse of unlandable terrain, the engine should then be restarted at 1000 m (3300 ft) above ground level so that if the engine does not start, all the emergency starting procedures can be followed unhurriedly including retraction of the engine if necessary.

2. In a normal restarting situation the loss of altitude from starting the extension procedure until the engine is running is only about 20 m (70 ft).
3. Extension: Fly at 80-90 km/h (43-49 kts). Check if the primer switch is in the "auto" position and if the fuel cock is open.

Throttle on idle, switch on the ignition. The engine will extend by itself.

You may press the starter button before the engine is extended completely. The starter motor will start the engine as soon as the powerplant is extended.

When the engine fires, release the starter button and move the throttle slowly to full throttle.

In case of starting problems see sect. 4.5.4.3.

Warning: If after starting the engine the failure message "Starter Run" will be displayed, the starter motor didn't disengage and produces electric power, stop the engine immediately to prevent damage of the electrical system.