



- Subject** : PU fuel hoses, limitation of life-time, replacement by new types of fuel hoses
- Effectivity** type: DG-1000
variants: DG-1000T
- Accomplishment** : Instructions 1, 2 and 7 up to 30 April 2018 but prior to the next annual inspection.
Instructions 3, 4, 5 and 6 when replacing the fuel hoses, latest when the fuel hoses have reached a service time of 6 years, respectively with the interim regulation latest end of 2018.
- Reason** : 1. The PU fuel hoses used so far in the DG-1000T had no life-time limitation.
During maintenance work on a 10 years old DG-808C a broken hose was found. In addition the look of the hoses had changed.
Therefore the life-time of the PU fuel hoses will be limited to 6 years.
2. When exchanging the fuel hoses new types of fuel hoses shall be used.
These new hoses have already been introduced with TN800/44 for other DG variants:
In the fuselage: Fuel hoses type DIN 73379-2A.
In the engine area: Fire resistant fuel hoses ISO 7840-A1 (no metal shielding)
For these types of hoses combined with periodically inspections the life time will be limited to 10 years.
The hoses at the carburetors which have been designated so far with PU 4 mm and PU 5 mm will be replaced by hoses 3x1,5 FPM black and 5x1,5 FPM black. The life time for these hoses will be limited to 6 years.
3. To enable the use of a fire resistant fuel hose for the vacuum impulse line the nipple at the crank case will be moved to a more rearward position.
4. The FAA requires a change of the limitation section in the maintenance manual.
- Instructions** : 1. Limitation of all installed fuel hoses to 6 years. To accomplish this the manual revision see below must be performed and the "Summary of operating hours" of the powered sailplane must be changed accordingly.
2. Interim regulation for fuel hoses having already a service-time of more than 6 years: Check the fuel hoses for damage and changed look see the photo on page 3. To enable the inspection you have to remove baggage compartment floors and rear wall.
To check the hoses with metal shield it is sufficient to perform a random examination: Open the hose clamp at the connection of the fuel supply line (red) to the distributor 10M54 (see diagram 15 resp. 15a) and to slide the shield downwards by approx. 10 cm. To accomplish this you have to remove the red heat shrink tubing and may be one cable tie.
After the inspection slide up the shield again, fix the hose clamp and replace the cable tie. It is not necessary to replace the heat shrink tubing.
If a failure is found all fuel hoses must be replaced immediately, otherwise the replacement must be done latest end of 2018.

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3. Replace all fuel hoses in the fuselage by fuel hoses DIN 73379-2A and fire resistant fuel hoses ISO 7840-A1 in the engine area according to the fuel system diagrams 15 resp. 15a issued with this TN.
Notes: Fuel hoses supplied by DG which are marked "COH-Line 2134" correspond to DIN 73379-2A.
 Any springs which may have been installed to prevent kinking of the hoses are no more necessary.
 To exchange the fuel hoses at the carburettors it is necessary to remove the carburettors according to working instruction No. 1 for TN1000/38 item A.
4. Exchange the fuel hose between primer valve and carburettors by hoses 3x1,5 FPM black and 5x1,5 FPM black.
5. Move the nipple of the vacuum impulse line to a more rearward position according to working instruction No. 1 for TN1000/38 item B. This is necessary to enable the use of a hose clamp to fix the line.
6. Establishing the life time of the fuel hoses
 - a) Fuel hoses according to DIN 73379-2A and ISO 7840-A1 to 10 years.
 To make this lifetime possible you have to inspect thoroughly and completely all fuel hoses visually for any damage especially fissures, kinks or leaks after the fuel hoses have reached a life time of 6 years.
 For the check switch on the ignition to run the electric fuel pump to demonstrate operating fuel pressure. This inspection must be repeated every following year, see MM section 3.5.
 - b) FPM fuel hoses: The life-time of the fuel hose between primer valve and carburettors must be limited to 6 years.
 - a)+b) Change the "Summary of operating hours" of the powered sailplane accordingly.
7. Exchange the following maintenance manual pages against new pages issued February 2018 marked with TN1000/38. Respect the changes marked in the right hand margin.
Note: The FAA required change of the limitation section is included. 0.2-0.7, 0.10 - 0.13, 1.16, 2.6, 3.9, 8.2, diagrams 15 and 15a, file working instruction No. 1 for TN 1000/38 at the end of the MM.

Material : Manual pages according to instruction 7.
 Working instruction No. 1 for TN 1000-38 with the material listed therein.
 Fuel hoses and hose clamps as given in the respective fuel system diagram 15 or 15a.
 Material sets see MM section 8.1

Weight and balance : influence negligible

Remarks : Instructions No. 1, 2, 6, 7 may be executed by the pilot/owner himself.
 The actions are to be inspected and released by the pilot/owner (according to MA. 801 (b) 3. for EASA registered aircraft).

Instruction No. 3, 4 and 5:

1. EASA registered aircraft: The pilot/owner is not allowed to perform the actions. The actions have to be performed and released according to M.A.801 (b) 1. or (c).
2. Non EASA registered aircraft: The actions have to be performed in a licensed workshop. All instructions are to be inspected and entered in the aircraft logs by a licensed inspector.

If you have any questions concerning this TN please contact DG
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Bruchsal, date:
February 15. 2018

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under Approval No. 10065070

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Photo for instruction 3



PU hose with crack lines starting at the inside of the hose