



- Subject** : PU fuel hoses, limitation of life-time, replacement by new types of fuel hoses
- Effectivity** type: LS8, LS10
variants: LS8-t, LS10-st
- 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 LS8-t and LS10-st 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 3x1,5x6 mm and PU 5x1,5x8 mm will be replaced by hoses 3x1,5 FPM black and 5x1,5 FPM black. These hoses are part of the material kit for the maintenance after 5 years required by the SOLO company, thus the life time of these hoses is limited to 5 years.
3. **LS8-t up to serial No. 8528:** The line between main and feeder tank is a 9.5 mm inside dia. rubber hose. To enable the use of an 8 mm hose DIN 73379-2A the ring-nipples at the tanks must be exchanged by nipples with matching size. This action enables increasing the life time of this hose to 10 years, as for the other hoses uses in the fuselage.
- 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 your motorglider must be changed accordingly.
2. Interim regulation for PU 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), coming from the fuselage, to the mechanical fuel pump (see diagram 2 resp. 2a LS8-t and 22 resp. 23 LS10-st) and slide the shield downwards by approx. 10 cm. To accomplish this you have to remove the red heat shrink tubing. After the inspection slide down the shield again and fix the hose clamp. 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 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.
 The pipe clamp which fixes the impulse line and the supply line to the engine must be exchanged by a large pipe clamp size 18-15
 To exchange the impulse line at the crank case it is necessary to remove the carburetors according to working instruction No. 1 for TN8026.
4. In addition the hoses at the carburetors should be replaced by hoses 3x1,5 FPM black and 5x1,5 FPM black. As these hoses are part of the material kit for the maintenance after 5 years required by the SOLO company the life time of these hoses should not be exceeded.
 However we y recommend to perform this maintenance when replacing the fuel lines see above.
5. **Only LS8-t up to serial No. 8528:** Screw out the hollow screws q from main and feeder tank (see diagram 2). Replace the existing ring nipples by ring nipples NW8:6. For reinstallation use 2 new copper sealing rings DIN 7603 Form A 14x20 for each nipple.
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 these fuel hose located at the carburetors will be limited to 5 years (part of the material kit for the maintenance after 5 years required by the SOLO company)
 a)+b) Change the "Summary of operating hours" of your motorglider accordingly.
7. Exchange the following maintenance manual pages against new pages issued February 2018 marked with TN 8026 resp. LS10-04. Respect the changes marked in the right hand margin.
 MM LS8-t: 0-1, 0-3, 0-5, 0-7, 0-8, 0-11, 0-12, 3-8, 9-1, diagrams 2 (10-2) and 2a (10-2a), remove 3-9, file working instruction No. 1 for TN8026 at the end of the MM
 MM LS10-s, -st : 0.1, 0.3, 0.4, 0.6, 0.7, 0-8, 0.12, 0.13, 3.10, 8.1, diagrams 22 and 23,
 file working instruction No. 1 for TN LS10-04 at the end of the MM.



- Material : Manual pages according to instruction 6.
- Working instruction No. 1 for TN LS10-04 with the material listed therein.
Fuel hoses and hose clamps as given in the respective fuel system diagrams.
Material sets see MM section 9.1 MM LS8-t resp. 8.1 MM LS10-st.
- 1 x 60000674 NORMA hose clamp with rubber inlet DIN3016 18-15
- If applicable: 60500204 „Maintenance instruction for the engine SOLO 2 350 after 5 years of operation” with material kit including the fuel hoses at the carburetors
- Only LS8-t up to serial No. 8528:**
2 x 45001604 ring nipple NW8:6
4 x 53691420 copper sealing rings DIN 7603 Form A 14x20
- 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:
March 07. 2018

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Modifications approved by EASA Date 26 March 2018
under Approval No. 10065070

Photo for instruction 3



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

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