

- Subject : Necessary changes to the power plant
- Effectivity Type: LS8  
Variant: LS8-t  
Instructions no. 1 to 5: serial numbers up to L8526, excluding L8474.  
Instruction no. 6: serial numbers L8507 as well as L8513 to L8526.
- Accomplishment : All instructions have to be executed up to 30<sup>st</sup> of April 2011.
- Reason : Operational experience with the LS8-t showed that the following changes to the power plant are necessary:
1. Not all of the fuel hoses at the power plant are fire retardant which does not meet airworthiness requirements. The lines must be protected with metal braiding,
  2. Fuel can leak out of the carburetors into the engine bay during storage and transport with the power plant retracted.  
To prevent fuel spoilage:
    - a) the fuel supply line must be closed by shutting the fuel cock,
    - b) a check valve must be installed in the fuel return line.
  3. During flights at large altitude, variations in engine RPM may occur. To correct this, a restrictor with a smaller diameter will be installed in the return fuel line.
  4. The Bowden outer of the decompression valve cable may slip out of its recess in the adjustment screw, as the Bowden outer is not secured. This may cause that the decompression valves don't close completely. The Bowden outer must be secured with safety wire.
  5. The optical fuel level sensors become blind due to excessive air humidity and give wrong indications.  
Sensor for full tank indication: After pressing the push button to start the refuelling process the DEI will display a full tank (17L) and the refuelling pump won't run, so refuelling is no more possible.  
Reserve fuel sensor: The warning "LOW FUEL" won't appear with empty tank.
  6. The photos for description of cockpit controls in flight manual section 7.2 are not up to date. Exchange pages 7-3 and 7-4.
- Instructions : 1. Exchange and amend manual pages against new pages issued November 2010, marked with TN8017.  
Flight manual pages: 0.1, 0.2, 0.4, 0.5, 0.6, 0.7, 4-9, 4-55, 7-3, 7-4, 7-15, 7-21, 8-7.  
Maintenance manual pages: 0-1, 0-3, 0-4, 0-5, 0-6, 0-8, 0-11, 1-27, 3-4, 4-16, 4-19, 4-21, 10-2, 10-8, 11-2, 11-18, 11-20.  
Respect the changes marked on the right hand margin, especially the instruction to shut the fuel cock for parking and ground transport.
2. All fuel lines for which metal braiding is required must be exchanged and be shielded with metal braiding, see working instruction no. 1 for TN8017.
  3. A check valve needs to be installed in the return fuel line, see working instruction no. 1 for TN8017.
  4. The T-fitting in the return fuel line needs to be replaced by a T-fitting with a smaller diameter restrictor, see working instruction no. 1 for TN8017.
  5. The Bowden outer of the decompression valve cable needs to be secured with safety wire, see working instruction no. 2 for TN8017.
  6. Both fuel level sensors have to be replaced, see working instruction no. 3 for TN8017.

Material : 1. Manual pages see instruction 1.  
2. Working instructions No. 1 up to 3 for TN8017  
3. Material list see working instruction no. 1 for TN8017. All parts in this list are included in order no. 45005075, material for TN8017.  
4. If applicable 2 optical sensors order no. 45001605.

Weight and balance : Influence negligible

Remarks : Instruction no. 1 may be executed by the pilot/owner himself and is to be inspected and entered in the aircraft logs by a licensed inspector at latest with the next annual inspection.

Instructions no. 2 - 6:

1. EASA countries: The actions have to be performed in a Part -145 approved organisation, or in a Part M, Subpart F approved organisation according to the regulations of the Part M and released according to M.A.801.
2. Non EASA countries: 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.

Up to serial no. L8526 fuel hoses 5x1,5 have been installed inside the fuselage, instead of the hoses as shown in working instruction no. 1 for TN8017, figure 4, as well as maintenance manual page 10-2. When exchanging these hoses, which haven't already been exchanged in line with this TN8017, fuel hoses 6x1,5 have to be used.

This TN is not applicable for LS8-t serial numbers from L8527 on, as well as for L8474 as these ser. No.'s have an improved fuel system with some significant changes.

Bruchsal, date:  
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