0 General

0.1 Manual amendments

No.	Page	Description	Date
1	0.3, 0.6, 0.10, 1.22, 1.23, diagram 15a	TN1000/09	October 2006

List of effective pages

Section	page	issued	replaced/	replaced/	replaced/
0	0.0	June 2005			
	0.1	see manual amendments			
	0.2	"			
	0.3	"			
	0.4	"			
	0.5	"			
	0.6	"			
	0.7	June 2005			
	0.8	"			
	0.9	"			
	0.10	"			
	0.11	"			
	0.12	"			
1	1.1	June 2005			
	1.2	"			
	1.3	"			
	1.4	"			
	1.5	"			
	1.6	"			
	1.7	"			
	1.8	"			
	1.9	"			
	1.10	"			
	1.11	"			
	1.12	"			
	1.13	"			
	1.14	"			
	1.15	"			
	1.16	"			
	1.17	"			
	1.18	"			
	1.19	"			
	1.20	"			
	1.21	"			
	1.22	"	October 2006		
	1.23	"	October 2006		
	1.24	"			
	1.25	"			

0.2 List of effective pages (continued)

diagram	issued	replaced/	replaced/	replaced/
1	May 2004			
2	Nov. 2001			
3	June 2005			
4	Nov. 2001			
5	Nov. 2001			
6	Nov. 2001			
7	Nov. 2004			
8	Nov. 2001			
9	June 2005			
10	May. 2005			
11	June 2005			
12	Sept. 2003			
13	June 2005			
14	June 2005			
15	June 2005			
15a	Oct. 2006			
16	June 2005			
5EP34	25.01.90			
5EP50	17.12.98			
5V18	14.10.94			
10FW2	05.10.99			
10E102	14.09.05			
10E103	24.06.05			
Encl. 1	June 2005			
Encl. 2	June 2005			

diagrams

1	Elevator control, trim
2	Rudder control
3	Aileron and spoiler controls in the fuselage
4	Aileron and spoiler controls in the wings
5	Tow releases
6	Water ballast system
7	Landing gear, hydraulic wheel brake (Version without nose wheel)
8	Landing gear, hydraulic wheel brake (Version with nose wheel)
9	Landing gear, non retractable
10	Systems for static and total pressure
11	Placards
12	Landing gear control (Version without nose wheel)
13	Powerplant
14	Extension/retraction mechanism
15	Fuel system
15a	Fuel system with automatic fuel cock
16	Powerplant retaining cables
5EP34	Installation plan Dräger oxygen system
5EP50	Installation plan ELT ACK
5V18	Tool for airbrake adjustment
10FW2	Spring leg (landing gear)
10E102	Wiring plan DINA1 (in aircraft log)
10E103	Wiring scheme
Encl. 1	Download instructions for flightlog and service data from the DEI-NT
Encl. 2	Instructions for transponder installation

1.14 Fuel system

1.14.1 Layout

see diagram 15 or diagram 15a (with automatic fuel cock see section 1.14.6b) standard from ser. no. 10-77 on or optional according to ‘TN1000-09)

1.14.2 Tank

Fuselage tank with 22 litres (5.8 US gal.) capacity which can be used down to at least 0.5 l (0.13 US gal.).
The tank can be drained via a drainer located in the landing gear box at its rear wall.
The vent outlet of the fuselage tank is at the bottom of the fuselage.
The tank can be removed from the fuselage after removing 2 bolts and all lines.

1.14.3 Refuelling

Filling the fuselage tank can only be done with the installed electric refuelling pump. To refuel couple the special refuelling hose No. Z155/2 to the quick connector located at the left front side of the engine bay.
A sensor (at the upper end of the fuel tank) switches off the electric power to the pump when the fuel tank is filled completely.

1.14.4 Excess fuel line

Close to the carburettors an excess fuel line with built in restriction separates and runs back to the fuel tank.

1.14.5 Fuel pumps

Electric fuel pump mounted in the fuselage centre section. This pump operates as soon as the ignition is switched on.
Min. fuel flow at the electric pump: 30 l / hour (7.9 U.S.gal. /hour). The fuel flow can be determined by disassembling the fuel supply line at the distributor near the carburettor and flowing 1 litre (.26 U.S.gal.) of fuel into a container. Max. time for 1 litre: 120 seconds. (The fuselage tank should contain at least 10 l (2.6 U.S. gal.) of fuel for the measurement).
Should the flow rate be lower, then the filter could be dirty or there could be an obstruction elsewhere in the fuel system.
In line to the pump described above, a second mechanical pump is installed. This pump is driven by the vacuum impulses from the engine block and supplies the engine with enough fuel even in case the .electrical pump is not working. To check the functioning of this pump switch off the main switch with the engine running at full power. With the electric pump switched off you should hear no drop of RPM.
The excess fuel line with built in restriction limits the fuel pressure .

1.14.6 Fuel cock

a) The fuel cock is mounted at the rear of the landing gear box between the tank and the electric fuel pump. The cock is controlled by a diameter 2 mm (0.08 in.) piano-wire from the cockpit. The stops are located directly at the lever of the fuel cock.
b) In addition an automatic fuel cock is installed in the engine compartment (standard from ser. no. 10-77 on or optional according to ‘TN1000-09). This cock will be opened by the engine mount during engine extension and closed during engine retraction.

1.14.7 Fuel filter

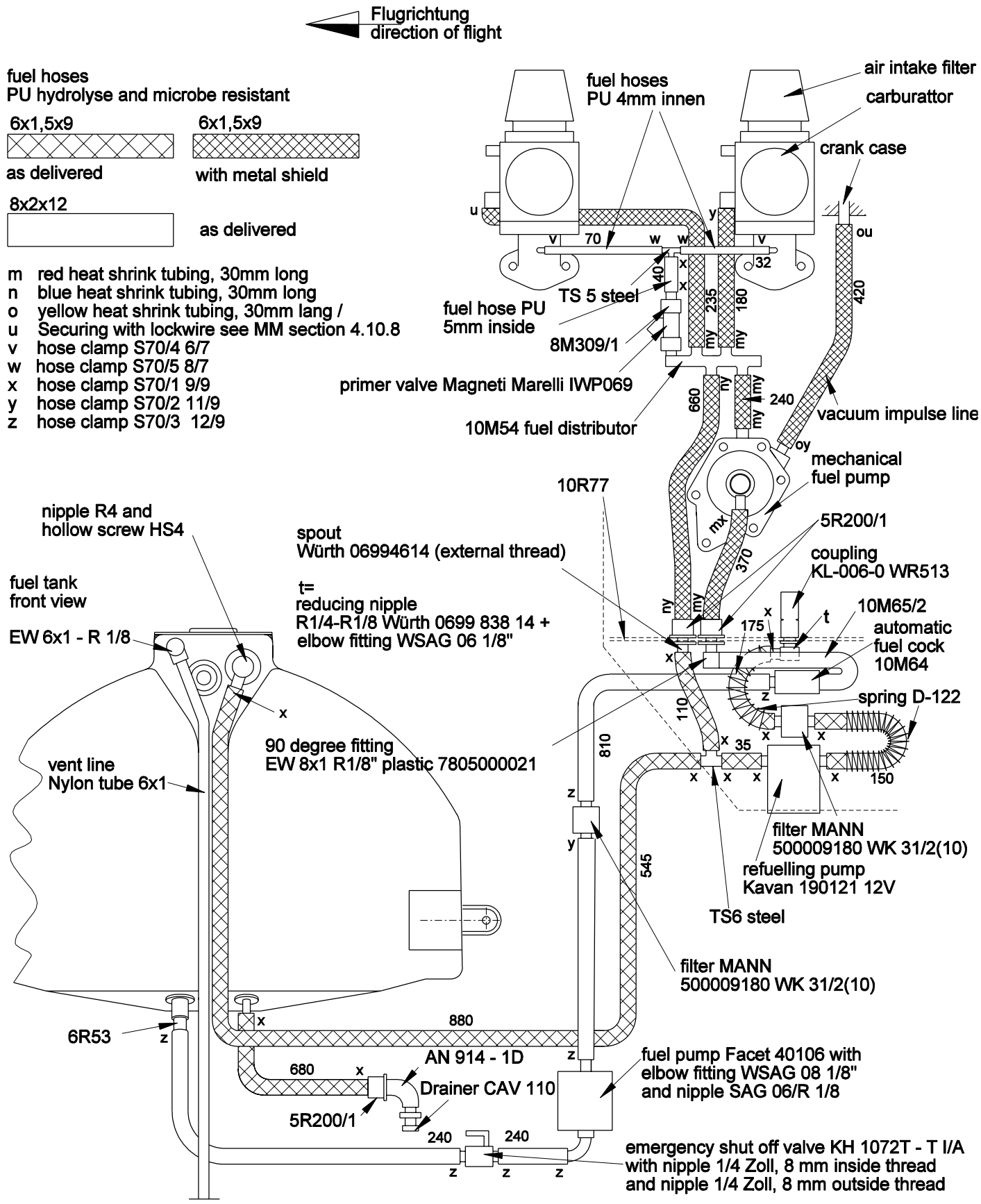
The filter is installed between electric fuel pump and engine. The filter is visible in the baggage compartment (right hand side of fuel tank).
Type see section 8.1.

1.14.8 Fuel quantity indication

The fuel quantity measuring system in the fuselage tank is by an electric float gauge.
The aircraft's attitude hardly affects the readout.

Fuel system with automatic fuel cock

diagram 15 a



issued: October 2006