Necessary changes to the power plant LS8-t

All parts and materials that are required for instruction 2 – 5 of TN8017 are included in order no. 45005075 “material for TN8017”.

Parts and material list, order no. 45005075:

Item	Description	Drawing no.	Art.no.	amount
1	Cooling liquid hose 70mm straight, for TN8017		60504054	1 pcs.
2	Hose clamp 9/9 S70/1	S70/1	40050701	4 pcs.
3	Hose clamp 11/9 S70/2	S70/2	40050702	12 pcs.
4	Heat shrink tubing DERAY-I ½“, yellow FT-100 12,7 / 6,4		60504275	0,1 m
5	Heat shrink tubing 3/8“, blue, range -55 to 135 Grad C, Deray-I		60504280	0,1 m
6	Heat shrink tubing 3/8“, red range -55 to 135 Grad C, Deray-I		60504281	0,4 m
7	Check valve, complete assembly	3M02-018“d“	45008046	1 pcs.
8	T-connector with restriction for excess fuel line	4M02-015“d“	45002059	1 pcs.
9	Ty-rap 186x4,8 nature		60510953	10 pcs.
10	Ty-rap 140x3,6 nature		60510952	10 pcs.
11	Ty-rap 3,6x284 nature		60510965	10 pcs.
12	Ty-rap 360x4,8 nature		60510956	10 pcs.
13	Hose PUR 3x1,5 MT.PUR786		30092049	0,3 m
14	Hose PUR 5x1,5 MT.PUR786		60000103	0,65 m
15	Hose PUR DH 6x1,5x9mm 85 transparent		60000103	2,65 m
16	Metal braiding, inside D8 (for fuel hose)		30092051	3 m
17	Pipe clamp with rubber lining DIN Ø 20mm		60000671	1 pcs.
18	Pipe clamp with rubber lining DIN Ø10mm		60000673	1 pcs.
19	Allen key bolt M 5 x 35 DIN 7984 8.8 ZN		50053503	1 pcs.
20	Allen key bolt M 5 x 30 DIN 7984 8.8 ZN		50053003	1 pcs.
21	Self-locking nut M5 DIN 985.8 BIC		51050020	1 pcs.
22	Washer B 5,3 DIN 125 ST ZN		52050001	2 pcs.
23	Washer 5,3 DIN 9021 ST ZN		52050020	1 pcs.
24	Lock wire (used in working instruction no. 2)		60503000	0,5 m

1. De-rig motor glider.
2. Extend power plant, using the manual switch (ignition off!).
3. Empty main and feeder tanks completely. To accomplish this, disconnect the fuel supply line from the mechanical fuel pump on the engine mount and hold the hose end in a fuel container with a capacity of at least 17 litres. Then activate the main switch and switch on the ignition to empty both fuel tanks via the electrical fuel pump. The remainder of the fuel may be dumped via the drainer valve.
4. Remove the main fuel tank.

Note: The main fuel tank should not be reinstalled before working instruction no. 3 for TN8017 has been executed.

5. Loosen the hose clamps 1,2,3 and 6 and bolt 4 (see figure 1) and remove the T-connector between the hose clamp 1, 2 and 7. Remove the fuel hoses A, B, C and D. These hoses, bots 4 and 5 and the T-connector won’t be needed any more.

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Figure 1 (initial configuration)

6. Remove bolt no. 5 (won't be needed any more) and attach the check valve (3M02-18) with a pipe clamp Ø20mm and an Allen key bolt M5x35 to the vacuum fuel pump, see figure 2. Use a 5,3 DIN9021 washer under the bolt head and a 5,3 DIN125 washer and a self locking nut M5 DIN985.8 to fix the bolt.

Caution: With the power plant fully extended, the check valve must be positioned in a horizontal attitude, as is shown in figure 2.

Caution: Make sure the hose clamps are installed as shown in figure 2 (view from the front), so they do not touch the engine bay edge during retraction.

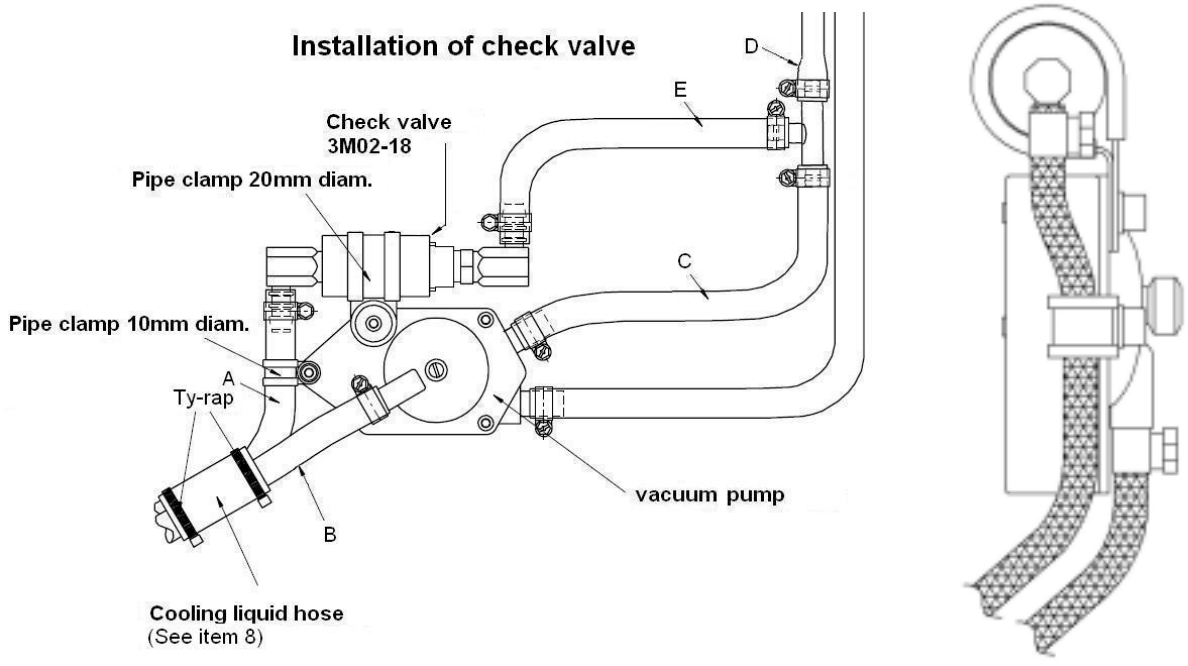


Figure 2, left: side view, right: view from the front (double size)

7. Assemble new fuel hoses A, B, C, D and E with metal braiding, as well as the replacement T-connector 4M02-15, issue "d", see Figures 2 and 4.

Note: As you have access to the complete fuel system we recommend to exchange all fuel hoses between the power plant and the feeder tank. The length of all hoses in the parts and materials kit for TN 8017 (order no. 45005075) is sufficient to do this.

8. Fix hose A with a pipe clamp Ø10mm, washer 5,3 DIN125 and the Allen key bolt M5x30 (bolt 4) and secure with Loctite 243.

Note: Up to serial no. L8526 fuel hoses 5x1,5 have been installed, instead of 6x1,5, as shown in figure 4 below, as well as on maintenance manual page 10-2 (issue November 2010. When exchanging these hoses, which haven't already been exchanged in line with this TN8017, fuel hoses 6x1,5 have to be used.

Caution: The old T-connector must not be reused. The new T-connector (revision "d") has a built in restriction with a smaller diameter and is marked on the outside with a yellow dot.

9. The piece of cooling liquid hose must be positioned over hoses A and B in such a way, that the metal braiding of the fuel hoses can't create a mass short circuit with the end switch (see figure 3). The hose must be fixed with two cable ties.

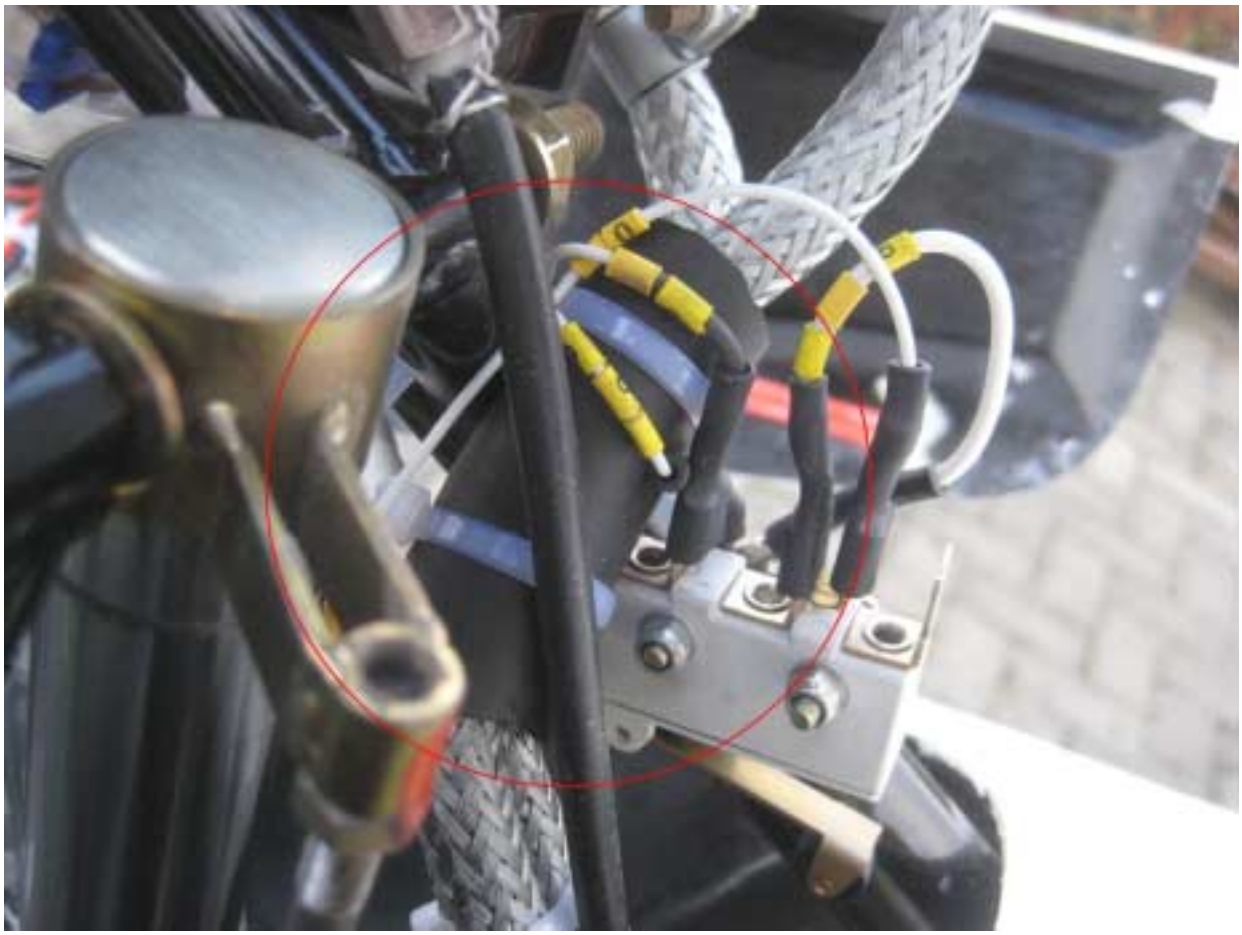
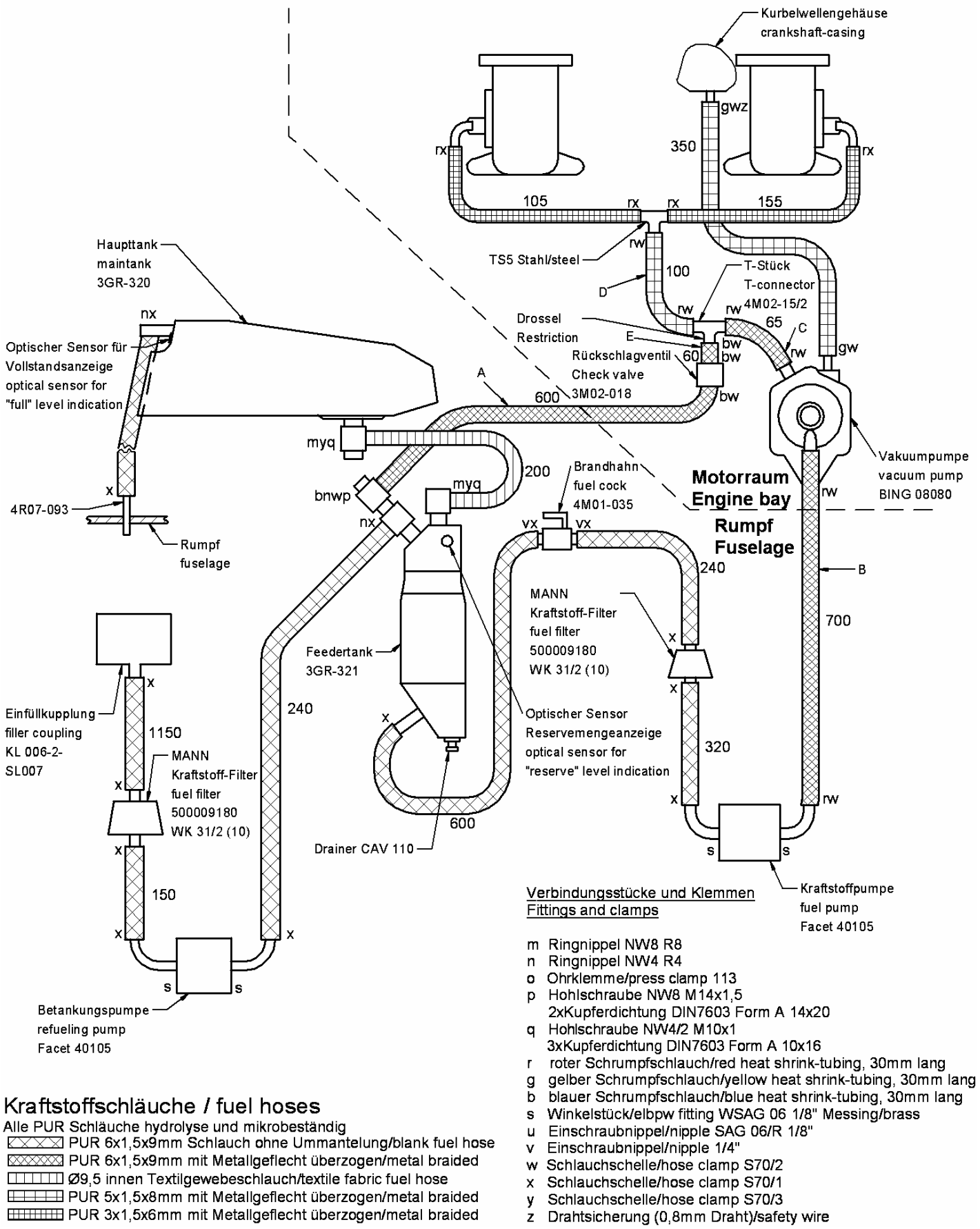


Figure 3

Necessary changes to the power plant LS8-t



Verbindungsstücke und Klemmen
Fittings and clamps

m Ringnippel NW8 R8
n Ringnippel NW4 R4
o Ohrklemme/press clamp 113
p Hohlschraube NW8 M14x1,5
2xKupferdichtung DIN7603 Form A 14x20
q Hohlschraube NW4/2 M10x1
3xKupferdichtung DIN7603 Form A 10x16
r roter Schrumpfschlauch/red heat shrink-tubing, 30mm lang
g gelber Schrumpfschlauch/yellow heat shrink-tubing, 30mm lang
b blauer Schrumpfschlauch/blue heat shrink-tubing, 30mm lang
s Winkelstück/elbpw fitting WSAG 06 1/8" Messing/brass
u Einschraubnippel/nipple SAG 06/R 1/8"
v Einschraubnippel/nipple 1/4"
w Schlauchschelle/hose clamp S70/2
x Schlauchschelle/hose clamp S70/1
y Schlauchschelle/hose clamp S70/3
z Drahtsicherung (0,8mm Draht)/safety wire

Kraftstoffschläuche / fuel hoses

Alle PUR Schläuche hydrolyse und mikrobeständig
PUR 6x1,5x9mm Schlauch ohne Ummantelung/blank fuel hose
PUR 6x1,5x9mm mit Metallgeflecht überzogen/metal braided
Ø9,5 innen Textilgewebeschlauch/textile fabric fuel hose
PUR 5x1,5x8mm mit Metallgeflecht überzogen/metal braided
PUR 3x1,5x6mm mit Metallgeflecht überzogen/metal braided

Figure 4

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