

RECOMMENDED SERVICE BULLETIN

RSB 42-025/1

supersedes RSB 42-025

I TECHNICAL DETAILS

I.1 Category

Recommended.

I.2 Airplanes Affected

Type: DA 42

Serial Numbers: 42.008 through 42.152, 42.154 through 42.167, 42.177
42.AC001 through 42.AC029

I.3 Date of Effectivity

02-Oct-2006

I.4 Time of Compliance

At owners discretion.

I.5 Subject

Fuel System – Fuel Probe
ATA Code: 28

I.6 Reason

An improved fuel probe is available. The new fuel probe is resistant against failure due to water contamination of the fuel, where water droplets collect within the probe.

NOTE

It is highly recommended replacing the original fuel probe if troubles are experienced.

I.7 Concurrent Documents

None

I.8 Approval

The technical information or instructions contained in this document relate to the Design Change Advisory No. MÄM 42-201, which has been approved under the authority of EASA Design Organization Approval No. EASA.21J.052.

The technical content of this document has been approved under the authority of DOA No. EASA.21J.052.

I.9 Accomplishment/Instructions

Comply with WI-RSB-42-025, latest effective issue.

I.10 Mass (Weight) and CG

Mass and CG are not affected.

II PLANNING INFORMATION

II.1 Material & Availability

See WI-RSB-42-025, latest effective issue.

II.2 Special Tools

None.

II.3 Labor Effort

18 hours

II.4 Credit

None.

II.5 Reference Documents

DA 42 Airplane Maintenance Manual, Doc. No. 7.02.01, latest effective issue.
WI-RSB-42-025, latest effective issue.

III REMARKS

1. All work must be done by a certified aircraft service station or a certified aircraft maintenance mechanic.
2. All work, particular that which is not especially described in this Service Bulletin, must be done in accordance with the referenced Maintenance Manual.
3. Completion of all work must be recorded in the log book.
4. In case of doubt contact Diamond Aircraft Industries GmbH.

EXECUTION REPORT TO SERVICE BULLETIN RSB 42-025/1

AIRPLANE INFORMATION

Airplane Serial Number _____

Airplane Registration _____

Airplane Operator _____

Hours of operation of airplane _____

No. of landings _____

Hours of operation-engine _____

Typical operation of airplane private, club, training, other _____

Date, Name, Sign

Please fax the completed form to Fax No. +43-2622-26700-1369 or e-mail to
airworthiness@diamond-air.at

WORK INSTRUCTION

WI-RSB-42-025

„Exchange of Fuel Probe“

I GENERAL INFORMATION

I.1 Subject:

The exchange of the fuel probe and replacement through an improved design.

I.2 Reference Documents:

Diamond Aircraft DA 42 Airplane Maintenance Manual, Doc. No. 7.02.01, latest effective issue.

I.3 Remarks:

- a) The work must be carried out by a certified aircraft service station or a certified aircraft maintenance mechanic. In case of doubt, contact Diamond Aircraft.
- b) All works, particularly those that are not especially described in this work instruction, have to be carried out in accordance with the referenced maintenance manual.

II DRAWINGS, SPECIAL TOOLS & MATERIALS

II.1 Drawings:

D60-2817-00-00, rev "-"

II.2 Special Tools:

None

II.3 Material:

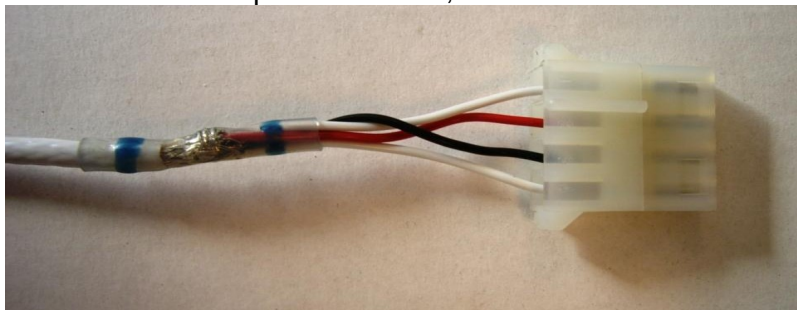
Qty	Description	Part Number
2	Fuel Probe Assembly	D60-2817-13-00_1-ASY
2	Fuel Probe Assembly	D60-2817-14-00_1-ASY
4	Circlip	DIN472-J21X1
4	Bushing	D4D-2817-11-30
4	O-seal (Fuel Probe)	DIN3771-23.4X3.53
2 (a.r.)	O-seal (Drain Valve)	DIN3771-7.66X1.78FPM
2 (a.r.)	O-seal (Fuel Filler)	DIN3771-127X5
1 (a.r.)	Female Connector, 3-poles	1-0480303-0
20mm (a.r.)	Heat Shrink Tube, 6.4 mm	5053094080

III INSTRUCTIONS

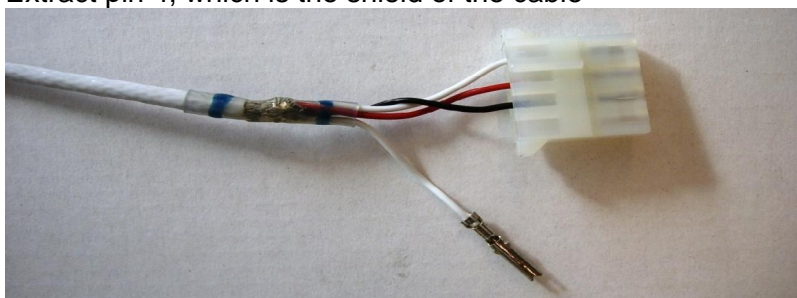
1	Remove Fuel Probe on LH Side- inboard and outboard chamber. Refer to AMM Section 28-40-00 – Paragraph 2.A.
2	Replace both Teflon bushings/guides <ul style="list-style-type: none"> • Remove Teflon bushing/guide • Install new Circlip in new bushing/guide (D4D-2817-11-30) Install bushing/guide in tank assembly (refer to drawing D60-2817-00-00)

3

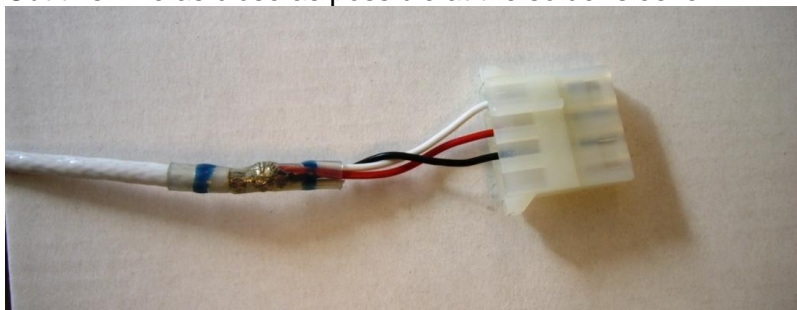
If a 4-pole connector is installed that connects the fuel probe, replace this connector with a 3-pole connector, as shown below.



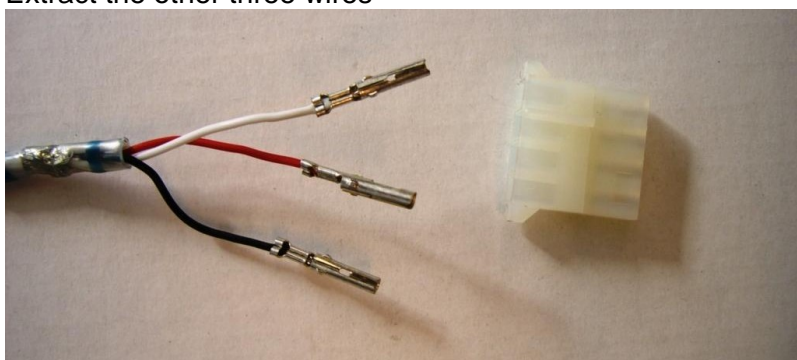
Extract pin 4, which is the shield of the cable



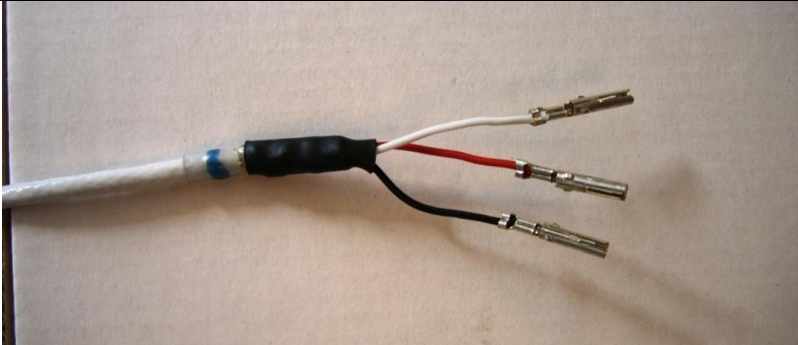
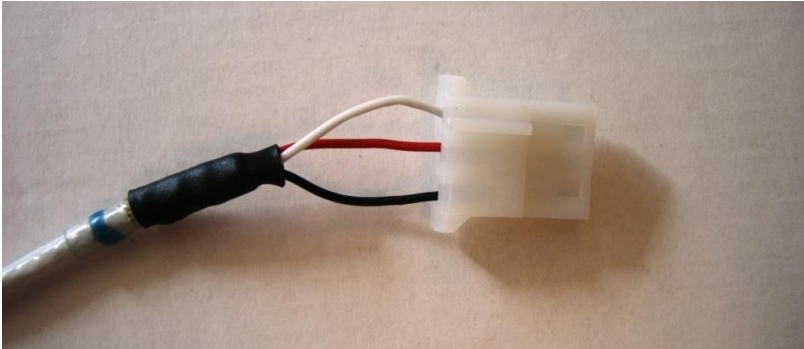
Cut this wire as close as possible at the solder sleeve

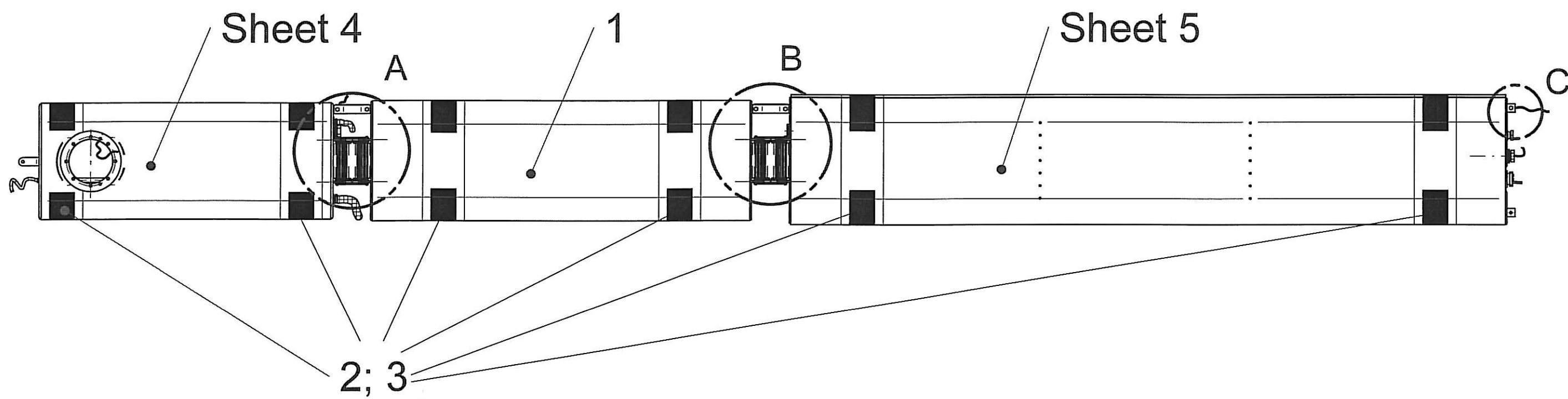


Extract the other three wires



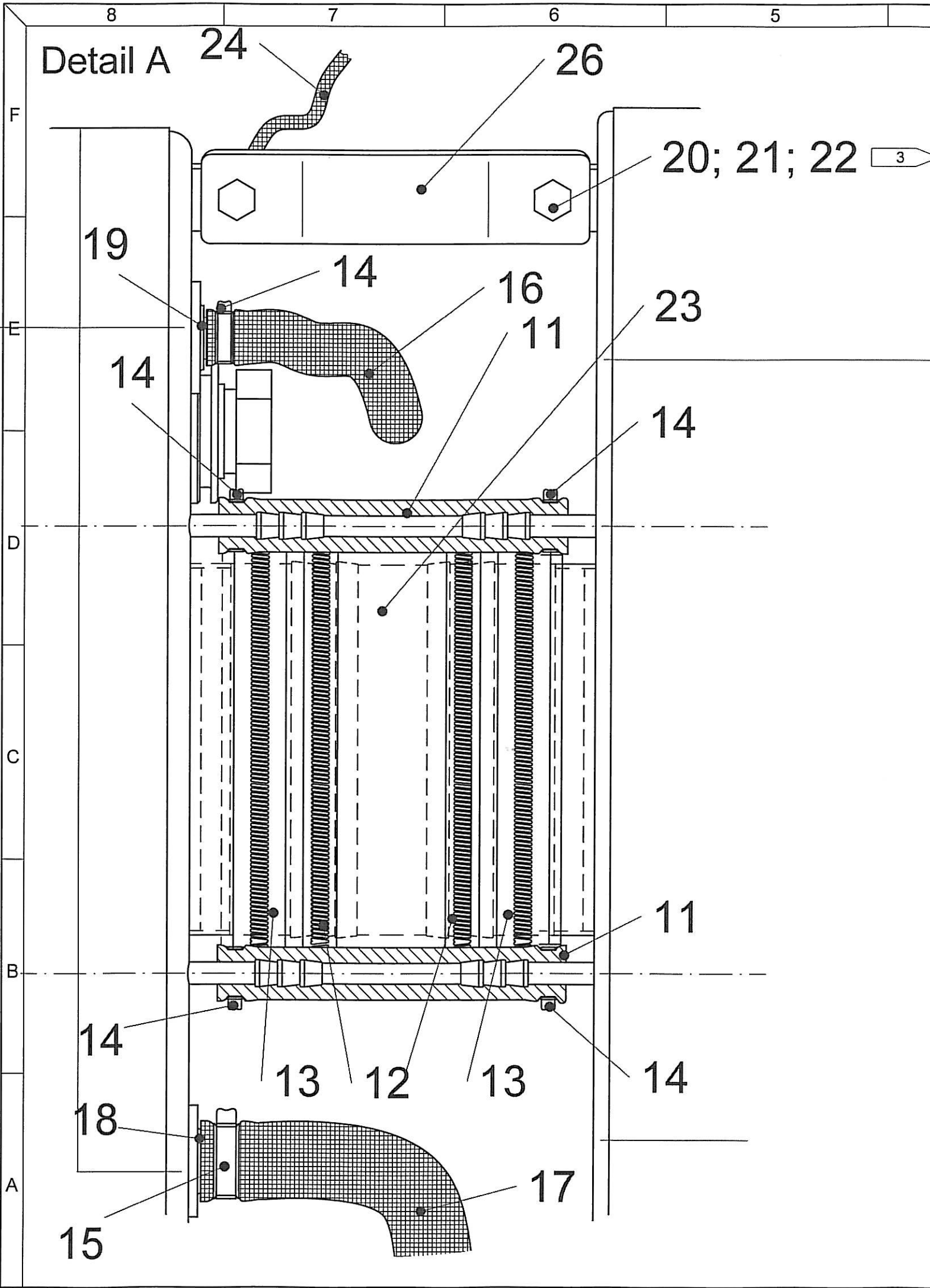
Put a 6.4mm heat shrink over the cut wire and shrink it by using a heat gun.

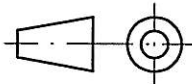

	 <p>Insert the wires into the new 3-pole connector (P/N 1-0480303-0), refer also to D60-9231-60-01, sheet 4.</p> 
4	Install improved Fuel Probe. Refer to Section 28-40-00 – Paragraph 2.B and drawing D60-2817-00-00.
5	Perform Items 1 to 4 for RH side.
6	Clean working area and check for foreign objects.
7	Perform functional check of altered, repaired and new parts.
8	Test all systems in working area for function.
9	Make necessary entries in aircraft logs.



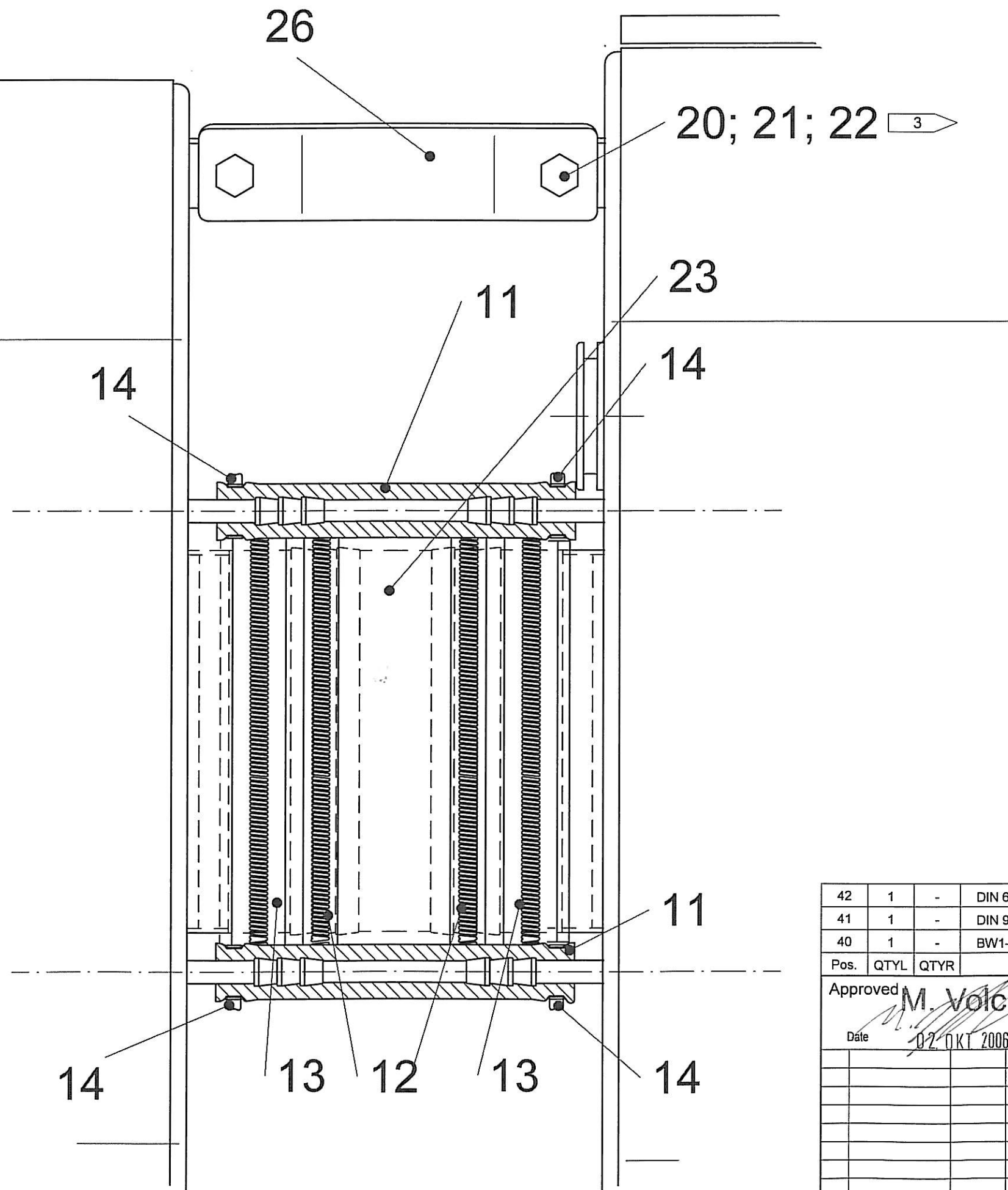
- 1 Secure with Loctite 243
- 2 Lubricate with EZTURN 1LB #09595 006
- 3 Secure with Torque Seal

3	-	-	N000234	Scotch Gleitband 50x0,3		
2	-	-	139H030003	Gummistreifen 40x2		
1	1	-	DA4-2817-20-00_1	Auxiliary tank assy		
Pos.	QTYL	QTYR	Part Number	Description	Specification	Supplier
Approved: <i>M. Volck</i>			Checked: <i>B. Jäger</i>		General Tolerance : ISO 2768 medium	Scale: 1:10
Date: 02. OKT. 2006			Date: 02. OKT. 2006			
				Next Higher Assembly : D60-2800-00-00	Title : Main Tank assy	
				Diamond AIRCRAFT Industries GmbH		
				DA 42 Twin Star	Drawing Number: D60-2817-00-00	Sheet 1 from 5
Rev.	Change	Date	Name	Saved under : D60-2817-00-00.dft		

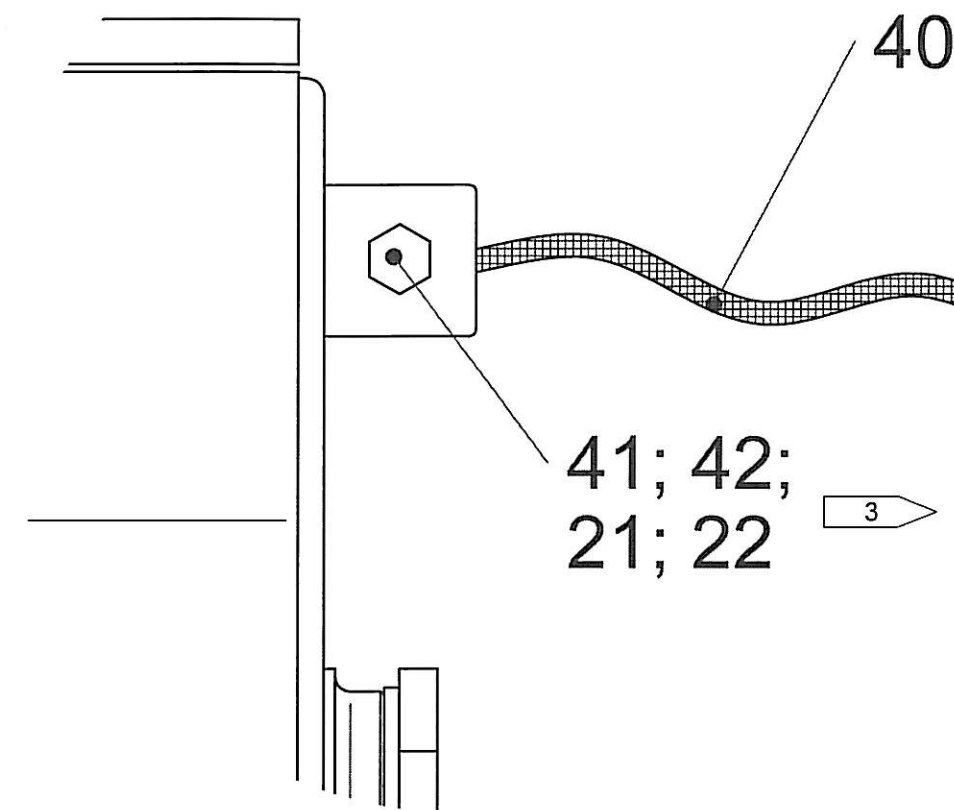


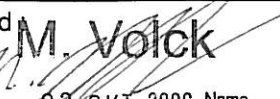
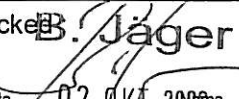
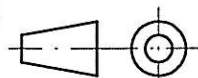

26	2	-	DA4-2817-00-01	Connection sheet		
24	1	-	BW1-B14-RB6-RB6-160	DS Mass cable		
23	2	-	D4D-2817-10-70	Gummischlauch		
22	4	-	DIN125A M6 A2	Washer without chamfer		
21	4	-	DIN985 M6 A2	Sicherungsmutter m. Polya.		
20	4	-	DIN931 M6x12 A2	Sechskantschraube		
19	1	-	PDKJ_7_16	Fitting		
18	1	-	700106	Fitting, gerade 6D		
17	1	-	DIN 73379 - 10x2,5	Fuel hose		
16	1	-	DIN 73379 - 6x2,5	Fuel hose		
15	1	-	18,5 GER	Oetiker		
14	9	-	13.8 GER	Oetiker		
13	4	-	SGTS80-100_12W1C7	Hose clamp 12mm	12mm x 80-100	
12	4	-	0539_80_100	Hose clamp 9mm	9mm x 80-100	
11	4	-	4219-3681-6,0mm	Fuel hose	Ø6 x 100	Gates Ø6,3
Pos.	QTYL	QTYR	Part Number	Description	Specification	Supplier
Approved M. Volck Date 02. OKT. 2006 Name			Checked R. Jäger Date 02. OKT. 2006 Name		General Tolerance : ISO 2768 medium	 Scale: 1:1
				Next Higher Assembly : D60-2800-00-00	Main Tank assy	
						
				DA 42 Twin Star	Drawing Number: D60-2817-00-00	Sheet 2 from 5
Rev.	Change	Date	Name	Saved under : D60-2817-00-00.dft		

Detail B



Detail C



42	1	-	DIN 6797 A2	Zahnscheibe	d 6,4mm	
41	1	-	DIN 931 M6x14 A2	Sechskantschraube		
40	1	-	BW1-B14-RB5-RB6-150	DS Mass cable		
Pos.	QTYL	QTYR	Part Number	Description	Specification	Supplier
Approved  M. Volck			Checked  B. Jäger		General Tolerance : ISO 2768 medium	 Scale: 1:1
Date 02. OKT 2006			Name		Date 02. OKT 2006	
				Next Higher Assembly : D60-2800-00-00	Title : Main Tank assy	
						
				DA 42 Twin Star	Drawing Number: D60-2817-00-00	Sheet from
Rev.	Change	Date	Name	Saved under : D60-2817-00-00.dft		
"-"	MAM 42-215	29.09.06	M. Scheikl			



