

OPTIONAL SERVICE BULLETIN

NO. OSB-42-046/2

SUPERSEDES OSB-42-046/1

I **TECHNICAL DETAILS**

I.1 **Category**

Optional

I.2 **Airplanes affected**

Type: DA 42

Serial Numbers: 42.004 up to and incl. 42.202
42.204 up to and incl. 42.223
42.225 up to and incl. 42.231
42.AC001 up to and incl. 42.AC064

I.3 **Time of Compliance**

At owners discretion

I.4 **Subject**

Retrofit of the TAE 125-02-99 engine

ATA-Code: 71

I.5 **Reason**

Optional installation of the TAE 125-02-99 engine since the TAE-125-01 engine will no longer be available from TAE in the future.

I.6 **Concurrent Documents**

None

I.7 Approval

The technical information or instructions contained in this document relate to the Design Change Advisory No. MÄM 42-198c, which has been approved under the authority of DOA No. EASA.21J.052.

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

I.8 Accomplishment / Instructions

WI-OSB-42-046, latest effective issue must be complied with.
A new noise certificate must be applied for.

I.9 Mass (Weight) and CG

New weighing is prescribed with this change.

II PLANNING INFORMATION

II.1 Material & Availability

The Work Instruction WI-OSB-42-046 is available at Diamond Aircraft Industries GmbH.

Appropriate necessary materials are available through Thielert Aircraft Engines and Diamond Aircraft Industries GmbH. For further information, please refer to the mentioned work instruction.

II.2 Special Tools

None

II.3 Credit

None.

II.4 Labor effort:

Approx. 25 hours per engine.

II.5 Reference Documents

DA 42 Series Airplane Maintenance Manual Doc. No. 7.02.01, latest effective issue
WI-OSB-42-046, latest effective issue.

III REMARKS

1. All measures must be carried out by a certified aircraft mechanic at an authorized TAE and DAI Service Center.
2. Accomplishment of the measures must be confirmed in the log book.
3. In case of any doubt, contact Thielert Aircraft Engines or Diamond Aircraft Ind.

EXECUTION REPORT

for OSB 42-046/2

AIRPLANE DATA

Airplane Serial Number: _____

Airplane Registration: _____

Airplane Operator: _____

Hours of operation of airplane: _____

No. of landings: _____

Hours of operation-engine LH: _____

RH: _____

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

Date, Name, Sign

Please fax the completed form to Fax No. **43-2622-26700-369 or e-mail to airworthiness@diamond-air.at

WORK INSTRUCTION

WI-OSB 42-046/2

TAE125-02-99 Preassembled Engine Retrofit Installation

(Change from TAE 125-01 to TAE 125-02-99)

I GENERAL INFORMATION

I.1 Subject

Retrofit Installation of TAE125-02-99 engine

I.2 Reference Documents

DA 42 Series Airplane Maintenance Manual, Doc. No. 7.02.01, latest effective issue
MSB 42-007, latest effective issue and MSB 42-008/4 or later revision.

I.3 Remarks

- a) All work must be done by a certified aircraft mechanic at an authorized Continental Aerospace Technologies GmbH and Diamond Aircraft Industries GmbH Service Center.
- b) All work, in particular that which is not especially described in this work instruction, has to be done in accordance with the referenced maintenance manual.
- c) Part numbers of Continental Aerospace Technologies GmbH call up the revision level in the last two digits. With this work instruction, only Continental Aerospace Technologies GmbH part numbers with the mentioned revision levels are approved.
- d) In case of doubt, contact Diamond Aircraft Industries GmbH.

II DRAWINGS, SPECIAL TOOLS & MATERIALS

II.1 Drawings

D60-2407-11-00-SB
D60-2407-12-00-SB
D60-2404-20-00-SB
D60-2404-21-00-SB
D60-2404-22-00-SB
D60-2404-23-00-SB
D60-7614-00-00_01
D60-7616-00-00

J2445-SB (for reference only)
J2444-SB (for reference only)

II.2 Special Tools

None.

II.3 Material

All material listed within this table must be ordered at Diamond Aircraft Industries GmbH.		
Qty	Description	Part Number
2	Adapter Harness, Central Connector	D60-2404-20-00-SB
2	Wire, Glow Rel +	D60-2404-21-00-SB
2	Wire, Glow Rel PWR	D60-2404-22-00-SB
2	Wire, Glow Rel GND	D60-2404-23-00-SB
1 (LH)	Wire, fire sensor LH engine	D60-2406-21-00
1 (RH)	Wire, fire sensor RH engine	D60-2406-22-00
2	Mounting plate – Glow box	D60-7414-10-00
1 (LH)	Label, J2445	J2445-SB
1 (RH)	Label, J2444	J2444-SB
1 m (a.r.)	Wire, 22 AWG	M-ZN_2219
6	Ring Terminal	130005
3	Ring Terminal	165_028
14	Socket	163084-2
2	Connector, 2 Socket	282080-1
4	Socket	183035-1
8	Seal	281934-3
4	Splice	D-436-36
2	Connector	3141255
4	Socket	183036-1
2	Fitting (RH engine)	AN832-6
2	Nut (RH engine)	AN6289-6
2	Fitting 45° (RH engine)	P-WSV-9_16-UNF-45
2	Copper seal	250640
4	blind rivet 4 x 12 mm	6330460
4	blind rivet 3.2 x 12 mm	DIN 7337-A3.2x12.0-A2
4	Rivet	DIN 7337-B2.4x5
0.2 m	Stratoflex hose	193-10
2 (RH)	flexible hose assembly (fuel line RH engine)	A22964-02
8	Screw	DIN965-AM4x12-A2
2	hexagon head screw	LN9037-06018
4	hexagon head screw	LN9037-05012
4	Washer	DIN 125-6.4-A2

All material listed within this table must be ordered at Diamond Aircraft Industries GmbH.		
Qty	Description	Part Number
2	Washer	1 x DIN 125-5.3-A2
2	Nut	DIN 985-M6-A2
2	Nut	1 x DIN985-M5-A2
2	Rivnut	LN29985-A05
2	Clamp	RSGU 1.40_15
2	Clamp	AS21919WDG19
4	Seal 3/16	S1201-12
0.9 m	Silicone hose	SHL19
100	tie wrap	PLT2SM30
2.0 m	Fire sleeve	2650-13
3.0 m	Fire sleeve	2650-16
1	Sealer	PR812/Kit25
2	Edge protection	GE52-C69
0.1 m	Heatshrink	727020-1
1.0m (a.r.)	Wire, AWG 22, fire resistant	M25038/3-22-9
4	Manifold Pressure Fitting	D4D-7156-11-00
4	Fitting	P-EVW 3/8 J/C ALU
4	Hose Clamp	05392812003100

All material listed within this table must be ordered at Continental Aerospace Technologies GmbH.		
Qty	Description	Part Number
2	Engine 125-02 preassembled acc. form 1 of Continental Aerospace Technologies GmbH	
2	Heat exchanger	52-2140-H000203
1	Heat exchanger box LH	52-7110-H000401
1	Heat exchanger box RH	52-7110-H000101
2	Silicone hose	52-2140-H000901 (NM-0000-0057001)
2	Silicone hose	52-2140-H002201 (NM-0000-0057001)
2	Plate	52-2610-H000301
4	Distance	52-6110-H001801
12	Nut LN9338-M5	52-7110-H000301
6	Nut LN9338-M10	52-7120-H000501
2	Scat hose , ø63x500mm	52-7160-H000501
2	Connection Pipe	52-7160-H000602
2	Hose ø63x70mm	52-7160-H001001
2	Heat shield	52-7160-H001101 or 52-7160-H001102

All material listed within this table must be ordered at Continental Aerospace Technologies GmbH.		
Qty	Description	Part Number
2	Silicone Hose Ø30 x 280mm	52-7520-H005701 (NM-0000-0042401)
2	Exhaust pipe	52-7810-H000102 or 52-7810-H000103 or 52-7810-H000104
2	Connector 6,3mm	NE-0000-0135001
28	Washer, ISO7089-6-200HV-gv (DIN125)	NM-0000-0003801
38	Washer, ISO7089-5-200HV-gv (DIN125)	NM-0000-0015101
8	Washer, DIN9021-6,4-gv	NM-0000-0015401
6	Clamp, DIN3016-RSGU1-30/20-W1-Polych.	NM-0000-0016201
8	Clamp, Aba 19-28-W1	NM-0000-0016901
16	Clamp, Aba 50-65-W1	NM-0000-0017001
8	Nut, ISO10511-M5-8-gv (DIN985)	NM-0000-0018001
38	Nut, ISO10511-M6-8-gv (DIN985)	NM-0000-0018101
4	Screw, DIN931-M6x70-8.8-gv	NM-0000-0018401
10	Screw, ISO4017-M5x16-8.8-gv (DIN933)	NM-0000-0019401
6	Screw, ISO4017-M6x25-8.8-gv (DIN933)	NM-0000-0019801
2	Screw, ISO4017-M6x30-8.8-gv (DIN933)	NM-0000-0019901
16	Clamp, Aba 26-38-W1	NM-0000-0021601
4.0 m	Compri-seal	NM-0000-0022701
4	Rubber damper, 20-15-M6x16-mittel	NM-0000-0023101
2	Screw M8 x 20, DIN 933 (screw), 10.9	NM-0000-0034201
2	Screw M6x16-8.8-MBN10143	NM-0000-0039401
8	Clamp, DIN3016-RSGU1-15/15-W1-Polych.	NM-0000-0041001
2	Silicone hose, E9028	NM-0000-0056801
14	Washer, DIN9021-5,3-gv	NM-0000-0058501
4	Screw, M5 x 25, DIN933	NM-0000-0096101
4	Clamp, DIN3016-RSGU1-18/15-W1-Polych.	NM-0000-0100501
4	Screw, ISO4017-M5x14-8.8-gv (DIN933)	NM-0000-0143301
4	Rubber damper, 20-10-M6x18-mittel	NM-0000-0159101
2	Nut, 1/2"x20-UNF ähnl.DIN439	NM-0000-0159301
2	Washer, 1/2" ähnl.DIN6797 Form A	NM-0000-0159401
2	Tube Intercooler TAE 125-02-114	52-7520-H0087 01
2	Turbo Tube TAE 125-02-114	52-7520-H0086 02
2	Turbo Connector TAE 25-02-114	52-7520-H0116 01
2	Connecting Pipe	52-7160-H0020 02
2	Heat Protection Sheet	52-7160-H0025 01
16	Clamp	NM-0000-00170 01

All material listed within this table must be ordered at Continental Aerospace Technologies GmbH.		
Qty	Description	Part Number
2	Hose Clamp	NM-0000-00172 01
2	V Clamp	NM-0000-02239 01
2	Screw with External Torx	NM-0000-01079 01
2	O-Ring	NM-0000-01391 01
2	Spacer	NM-0000-02070 01
2	Pipe Clamp	NM-0000-02310 01

All material listed within this table must be ordered at Diamond Aircraft Industries GmbH.		
Qty (as required)	Description	Part Number
4 *)	Water Separator Assembly	D60-7614-40-00
4 *)	Connecting Adapter 90°	E934103
1 **)	Cowling Assy. A LH Platinum	D60-7116-01-00-ASY
1 **)	Cowling Assy. A LH Standard	D60-7116-01-00_1-ASY
1 **)	Cowling Assy. A LH Standard De-Ice	D60-7116-01-00_1ASY2
1 **)	Cowling Assy. B LH	D60-7116-02-00-ASY
1 **)	Cowling Assy. C LH	D60-7116-03-00-ASY
1 **)	Cowling Assy. A RH Platinum	D60-7116-05-00-ASY
1 **)	Cowling Assy. A RH Standard	D60-7116-05-00_1-ASY
1 **)	Cowling Assy. B RH	D60-7116-06-00-ASY
1 **)	Cowling Assy. B RH De-Ice	D60-7116-06-00-ASY2
1 **)	Cowling Assy. C RH	D60-7116-07-00-ASY
2 **)	Air inlet cover side, silver (for cowling)	D60-7116-18-00x01
2 **)	Air inlet cover bottom, silver (for cowling)	D60-7116-25-00x01
2 **)	Air inlet cover side, black (for cowling)	D60-7116-18-00_1
2 **)	Air inlet cover bottom, black (for cowling)	D60-7116-25-00_1
2 **)	Air inlet cover side, chrome (for cowling)	D60-7116-25-00x02
2 **)	Air inlet cover bottom, chrome (for cowling)	D60-7116-18-00x02
1 **)	Terostat	180TE43697
1**) a.r.	Cowling design (colors as required)	-
3.0 m (a. r.)	Sleeve for cable loom	ROUNDIT2000NX5-5
6 ***)	Plug	3141334
6 ***)	Seal	3141160
2 ***)	Connector	3141198
2 m ***)	Wire AWG 22	M-ZN_2219
6 ***)	Splice	P_436_36
4****)	Screw	ISO4762-M4x16-A2
4****)	Washer	DIN125-A5.3-A2

All material listed within this table must be ordered at Continental Aerospace Technologies GmbH.		
Qty (as required)	Description	Part Number
2 ***)	Propeller Accumulator Mühlbauer	52-6110-H000101
4 ***)	Clamp	52-6110-H001101
2 ***)	Shrink Tube	52-6110-H001401
2 ***)	Teflon Spacer	52-6110-H001701
2	ALTREG Loom	52-7150-E000102

- *) Depending on Mod-Status of the Airplane (Required if Water separators are not installed)
- **) Depending on Mod-Status of the Airplane (Required if old Cowling design is installed)
- ***) Depending on Mod-Status of the Airplane (Required if “Hydraulic Liftsysteme” Prop-Accumulator is installed)
- ****) Depending on Mod-Status of the Airplane (Required if no glow box was installed in former installation)

III INSTRUCTIONS

Torque all screws without special torque acc. to the values given in the AMM Section 20.
Secure all screws with Loctite 243 and apply torque seal. Lock wire screws as required.

1	Defuel and drain the fuel tank.
2	Drain TKS-fluid, if TKS system is installed (necessary for weighing after engine change).
3	Remove the outlet rib assembly on the top side of the nacelle. This is recommended to have a better access during the installation of the new engine.
4	Remove LH ECU-compartment access cover.
5	Remove cowlings LH, (refer to AMM Section 71-10).
6	Disconnect the airplane main battery, (refer to AMM Section 24-34), the alternator excitation batteries, and if installed the ECU Backup Batteries.
7	Remove the Propeller. (refer to AMM Section 61-10, A)
8	Drain the coolant system (refer to AMM Section 75-00)
9	Drain the engine oil (refer to AMM Section 72-00)
10	Remove inlet duct of intercooler.
11	Drill out rivets of engine loom cover on fire wall and remove sealant and cover. Remove Teflon bushing (firewall to ECU- compartment)
12	Remove TAE125-01 engine (refer to AMM Section 71-00, item B) Disconnect engine at the following connection points: TKS line to propeller (if installed) Fuel line and return fuel line (remove and discard the 45°-Fittings of the LH engine installation) Water cooler (remove cooler) Cabin heat exchanger (remove box and heat exchanger) Oil line from oil thermostat and oil cooler Disconnect the three GND-wires (connection between engine and engine mount) Disconnect wire connection to : Coolant level sensor, starter warning, fire sensor, GND-wire to engine Remove propeller accumulator. Remove wire of prop accumulator return valve. Remove exhaust pipe, air duct to turbo charger. Remove oil return line from catch tank and from turbo charger. (disconnect on engine) Remove the turbo charger strut.
13	Remove the ECU (refer to AMM Section 76-00, 3.A.) Remove glow box (if installed) and alternator regulator. Remove relay box from bracket. Remove TAE- engine harness and alternator loom Remove MAP-lines. Disconnect wires of coolant level sensor, fire detector, Oil Accumulator and deice light (if installed)
14	Pictures after disconnections:



ECU-compartment with partially disconnected relay box and removed TAE-harness.



Remaining loom; disconnected MAP-lines and static line assembly.

15	Clean engine compartment, engine mount and fire wall. Remove and clean bracket for intercooler.
16	Carry out an inspection of the engine mount, the remaining cables and fuel lines. Examine the engine mount for cracks and corrosion. Clean and examine the intercooler, oil cooler and the inlet duct for the oil cooler for cracks. Check all remaining parts in the engine and ECU-compartment for damage.
17	Modification of fuel lines (on RH engine only): (Picture shows fuel lines prior modification)



Remove LH cover of nacelle and disconnect fuel filter bowl to get access to the rear side of the screws of the fuel line flange. (refer to AMM Section 28-20)



(picture shows RH installation)

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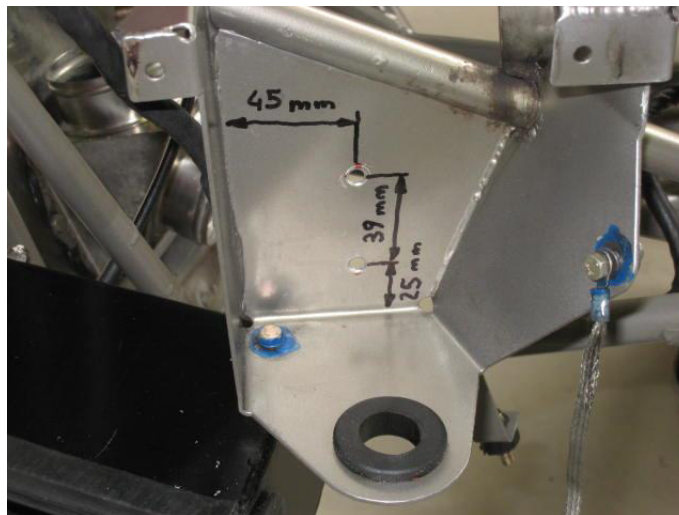
Modifications on firewall (on RH engine only):

Remove screws and flange for fuel lines, disconnect fuel lines inside of the nacelle and remove 45° Fittings.
Install straight fittings and nuts (P/N AN832-6 and AN6289-6), connect fuel lines on new fittings and install flange for fuel lines onto firewall. Use sealer PR812/Kit25 between flange and fire wall. Tighten the fittings acc. the values given in the AMM, Chapter 20.

	 (New installed fittings) Install fuel filter bowl and connect fuel lines onto bowl acc. to AMM, (refer to section 28-00)				
19	Remove drain pipe, drill out rivets and install new rivets to close the two wholes. Necessary new materials: 2 x 6330460 (blind rivet 4 x 12 mm) 				
20	Modification of engine mount: Replace damper elements for water cooler (use distance washers between engine mount and damper element from former installation). Use the following numbers of distance washers: <table border="0"> <tr> <td>LH, forward: 3x</td> <td>LH, aft: 2x</td> </tr> <tr> <td>RH, forward: 1x</td> <td>RH, aft: -</td> </tr> </table> Necessary new material: 2 x NM-0000-0023101 (for the two attachment points on LH side of the cooler.) 2 x NM-0000-0159101 (for the two attachment points on RH side of the cooler.) 4 x NM-0000-0018101 (nut) Torque the nuts with 6 Nm	LH, forward: 3x	LH, aft: 2x	RH, forward: 1x	RH, aft: -
LH, forward: 3x	LH, aft: 2x				
RH, forward: 1x	RH, aft: -				



Drill holes diameter 5.2 mm for waste gate regulation valve:
45 mm inboard of left edge, 25 mm from bottom edge, 39 mm between the two holes.



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Installations on engine mount:

Install clamps for air inlet duct acc. to the following pictures.

Necessary new material:

- 2 x NM-0000-0003801 (washer)
- 2 x NM-0000-0018101 (nut)
- 2 x NM-0000-0015401 (washer)
- 2 x NM-0000-0041001 (clamp)
- 2 x NM-0000-0016201 (clamp)
- 2 x NM-0000-0018401 (screw)
- 2 x 20-2140-H002101 (distance)
- 1 x 52-7160-H000501 (scat hose)



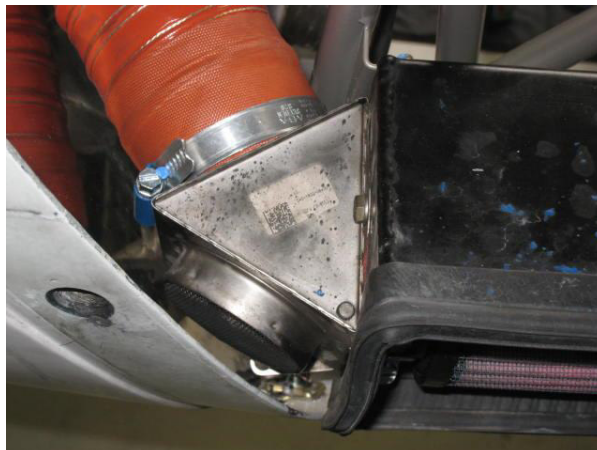
(tighten screws in a later step)



Connect inlet duct onto air filter box with clamp NM-0000-0017001.

Necessary new material:

- 1 x NM-0000-0017001 (clamp)

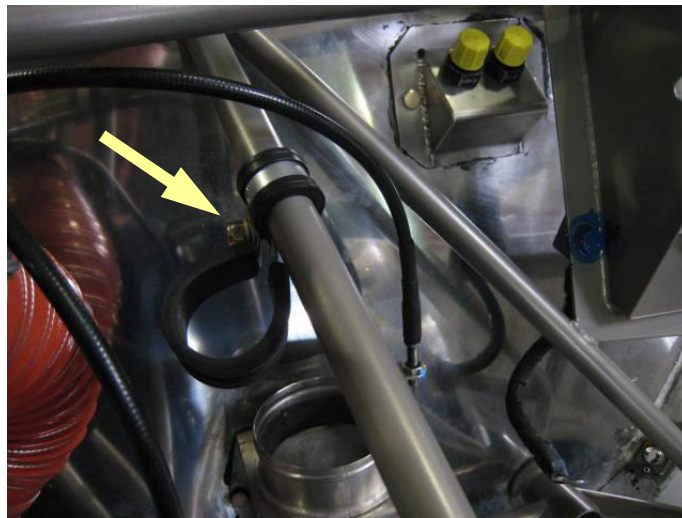


Torque the clamp with 8 Nm

Install clamps for attachment of breather line

Necessary new material:

- 1 x NM-0000-0018101 (nut)
- 2 x NM-0000-0015401 (washer)
- 1 x NM-0000-0041001 (clamp)
- 1 x NM-0000-0016201 (clamp)
- 1 x NM-0000-0019801 (screw)



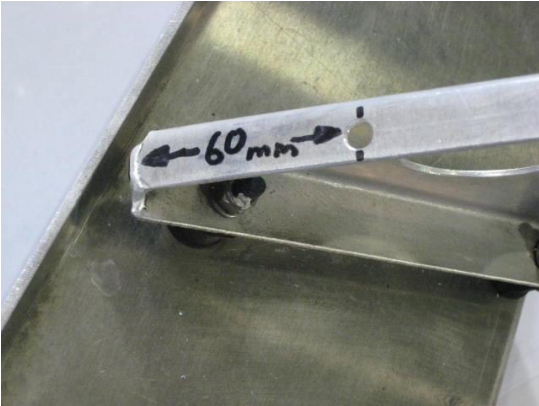
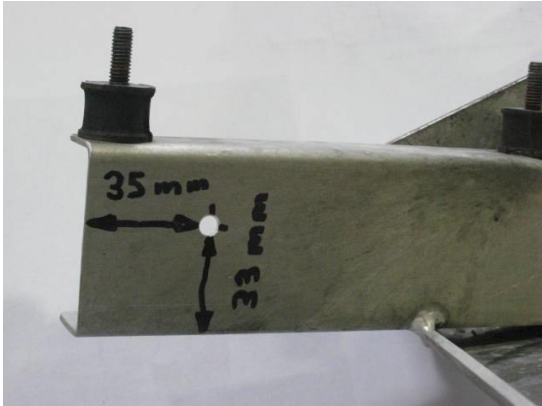
(tighten screws in a later step)

Attach the bowden cables:

Necessary new material:

- 6 x tie wrap

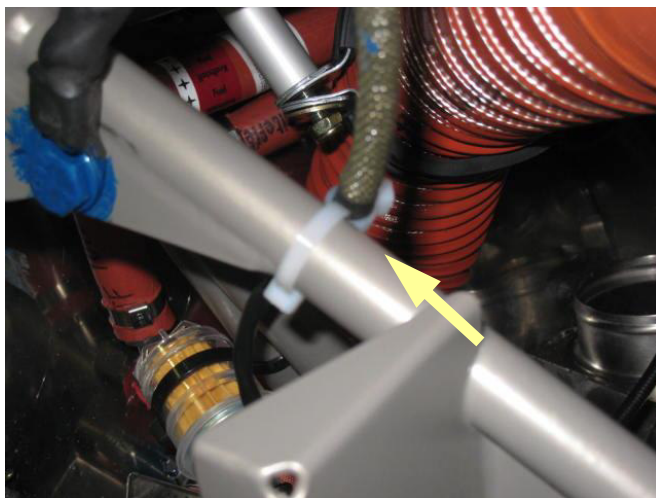
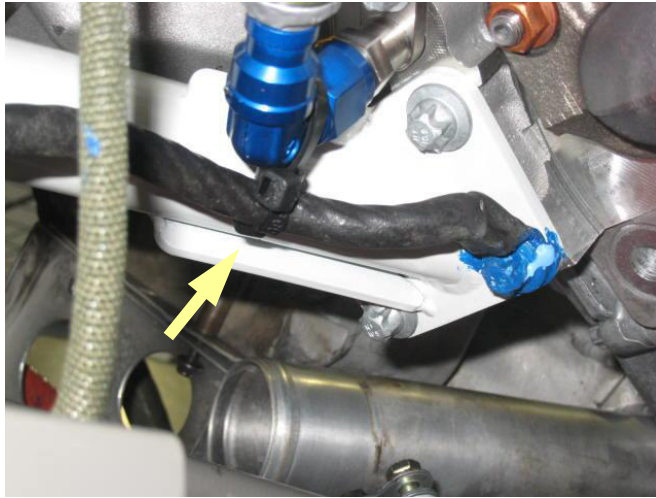


22	RH side only: Install fuel lines onto fittings on fire wall (torque with 20 Nm) Necessary new material (only for RH side): 2 x A22964-02 (flexible hose assy.) 
23	Reinstall fire sleeve on starter-, generator- and starter relay- cable. (PNo.: 2650-16)
24	Modify mounting bracket for intercooler: Drill two holes acc. to picture. (Attachment point for clamps to attach the cable loom)   drill Diameter 6.5 mm drill Diameter 5.5 mm
25	Install mounting bracket for intercooler, check for proper electrical bonding and seal areas. Necessary new material: 4 x NM-0000-0018101 (nut) 

26	Shorten screw of forward engine attachment to a length of 170 mm +- 1 mm 
27	Connection of oil lines to oil cooler: Reposition fittings as required. Remove 90°-fittings, clean the thread of the fittings and the oil cooler. Bond in fittings with Loctite 243 (blue)  Adjust both fittings approx. 15° inboard.
28	Install intercooler / oil cooler-assembly acc. AMM, (refer to Section 81-00) Torque screws with 10 Nm, rubber dampers with 6 Nm. 

29	Install preassembled engine (acc to attached part list definition) onto engine mount acc. to AMM or acc. to Temporary Revision for AMM, Chapter 71-00, C.(2), item (1) – (4) Torque for the nuts: 55 Nm Torque for the M8 screw: 25 Nm Necessary new material: 3 x 52-7120-H000501 (LN-Nut) 1 x NM-0000-0034201 (Screw) Insert engine cable loom plugs through the fire wall in a sequence from left to right acc. the following picture.  Note: Secure shortened screw on forward engine attachment with bonding lacquer against corrosion.
30	Connect the three bonding cables of the engine mount to the engine Torque for front bonding cable: 40 Nm Torque for rear right bonding cable: 25 Nm Torque for rear left bonding cable: 20 Nm Note: Clean bonding areas and remove paint of mounting strut (part of engine).
31	Connect the oil lines onto the oil cooler and check the fit of the fittings. Tighten the oil lines in a later step. (The lines must be disconnected once more to install the air inlet duct)

Secure bonding cable and engine cable loom with tie wrap acc. the following picture:



Installation of waste gate regulator valve

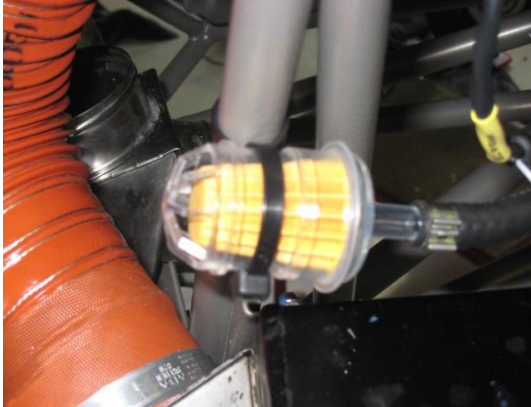
Necessary new material:

2 x NM-0000-0018001 (nut)

2 x NM-0000-0019401 (screw)

4 x NM-0000-0015101 (washer)

6 x tie wrap

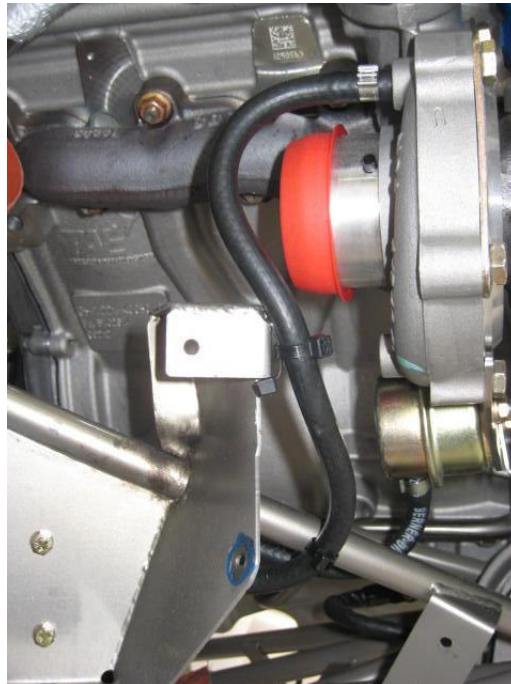


Connect air filter of waste gate regulator-valve onto engine mount with two tie wraps.



Install waste gate regulator valve

33



Open clamp of hose on turbo charger, route hose around engine mount, reinstall clamp and install tie wraps acc. to picture

34

Installation of breather line

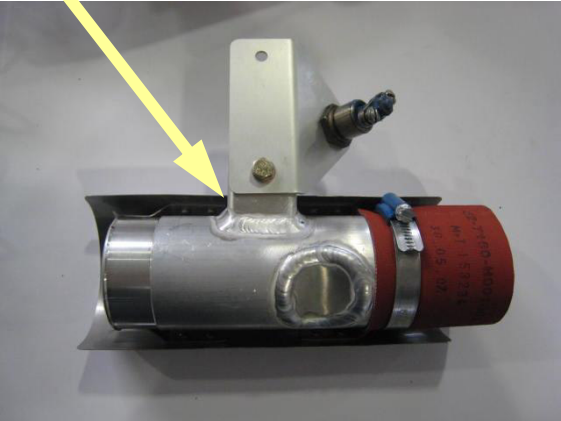
Necessary new material:

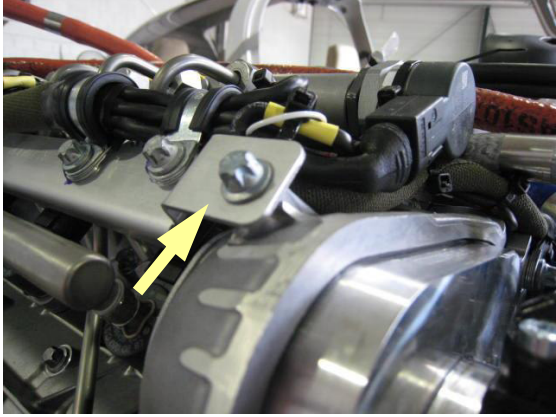
0.45 m SHL19 (silicone hose)

5 x tie wrap

Insert breather line in preassembled clamps, tighten clamps (torque 15 Nm) and install drain line. Use tie wraps to fix the drain on engine mount. Install the scat-hose for cabin / defrost onto fire wall.

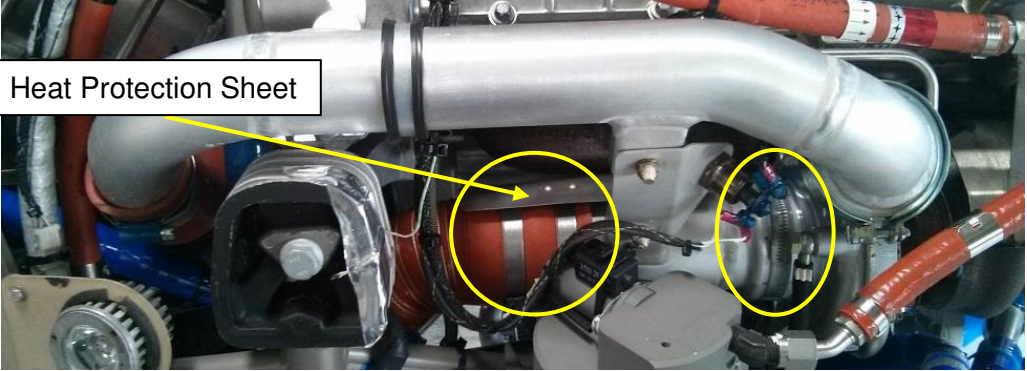
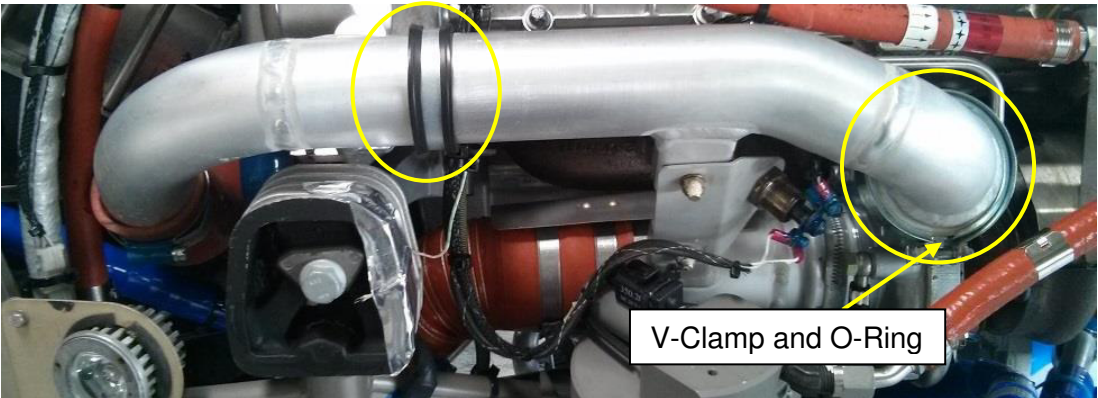
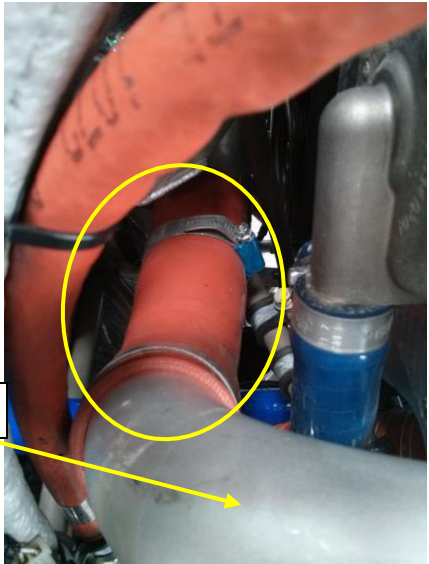


35	Remove fire sensor from former installation and install the sensor on new plate. Torque the nut with 20 Nm. Necessary new material: 1 x NM-0000-0159301 (nut) 1 x NM-0000-0159401 (washer) 1 x 52-2610-H000301 (plate) Install fire sensor assembly onto connection pipe 52-7160-H000602 Necessary new material: 1 x 52-7160-H000602 1 x NM-0000-0019801 (screw) 2 x NM-0000-0003801 (washer) 1 x NM-0000-0018101 (nut) 
36	Install hose and plate acc. to picture Necessary new material: 1 x 52-7160-H001001 (hose) 2 x NM-0000-0017001 (clamp) 1 x 52-7160-H001101 or 52-7160-H001102 (plate) Install the plate with 15 mm clearance between strut and edge of plate.  Torque the clamp with 8 Nm

37	Remove the lift plates from the engine. Necessary new material: 1 x NM-0000-0039401 (screw) Replace screw of front lift hook attachment, torque screws with 10 Nm 
38	LH engine only: Connect the fuel line and return fuel line onto the fittings on the fire wall. 

39	RH engine only: Connect the fuel line and return fuel line with clamps to the engine mount and connect fuel lines with 45° fittings. Necessary new material: 1 x NM-0000-0019901 (screw) 2 x NM-0000-0003801 (washer) 2 x NM-0000-0100501 (clamp) 1 x NM-0000-0041001 (clamp) 1 x NM-0000-0018101 (nut) 2 x P-WSV-9_16-UNF-45 2 x tie wrap  Connect the fuel lines with tie wraps to the engine mount
40	Installation of breather line. New material: 0.45 m SHL19 (silicone hose) 0.35 m NM-0000-0210701 (reinforced hose) 1 x NM-0000-0018101 (nut) 2 x NM-0000-0016901 (clamp) 1 x NM-0000-0050401 (clamp) 1 x NM-0000-0041001 (clamp) 1 x NM-0000-0019801 (bolt) 2 x NM-0000-0003801 (washer) 1 x NM-0000-0147001 (fitting) 1 x NM-0000-0147001 (fitting) Install breather line in preassembled breather assy clamps, tighten clamps and install drain line. Use tie wraps to fix the drain on engine mount. Install the scat-hose for cabin / defrost onto fire wall. Install chafing protector on engine mount. Note: On the LH side the alternate Air Bowden Cable must be in front of the breather line.



41	Install Connecting Pipe onto the turbo charger: • Install Connecting Pipe 52-7160-H0020 02 and Heat Protection Sheet 52-7160-H0025 01 • Install Connecting Pipe on Turbo charger with Hose Clamp NM-0000-00172 01 • Install Connecting Pipe with the Heat Protection Sheet on long Flexafit with 2 Clamps NM-0000-00170 01 
42	Install Turbo Connector: • Install Turbo Connector 52-7520-H0116 01 • Install Turbo Connector on Turbo charger with O-Ring NM-0000-01391 01 and V-Clamp NM-0000-02239 01 • Install Spacer NM-0000-02070 01 and Pipe Clamp NM-0000-02310 01 on Turbo Connector with Screw with External Torx NM-0000-01079 01 
43	Install Turbo Tube 52-7520-H0086 02 between Charged Air Cooler and Turbo Connector with 1 Clamp NM-0000-00170 01 on each side. 

Replace Heat exchanger and heat exchanger box.
Install the new heat exchanger in the heat exchanger box

Necessary new material:

1 x LN29985-A05 (rivnut)

2 x DIN 7337-B2.4x5 (rivet)

1 x 52-2140-H000203 (heat exchanger)

1 x 52-7110-H000401 (heat exchanger box LH) only for LH engine installation.

1 x 52-7110-H000101 (heat exchanger box RH) only for RH engine installation.

2 m NM-0000-0022701 (Compri-tape)

Replaced heat exchanger box must be sent back to Continental Aerospace Technologies GmbH for repair (exchange part).

44



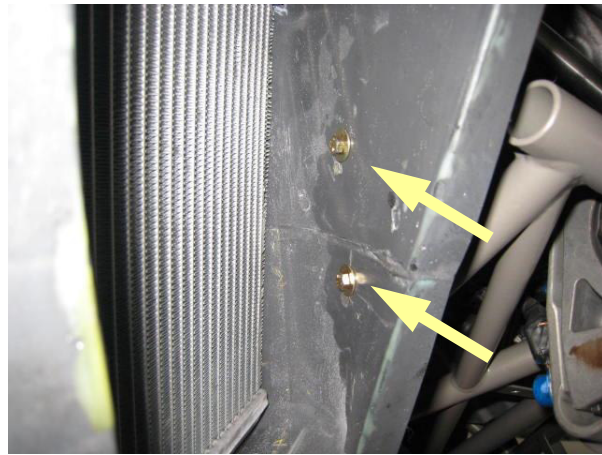
Install the tape and insert the heat exchanger in the box. Rework (sand) the cut out if necessary.

45

Install heat exchanger Assembly:

Necessary new material:

3 x (RH), 2 x (LH) NM-0000-0143301 (screw) cooler and prop accumulator bracket
2 x (RH), 3 x (LH) NM-0000-0019401 (screw) for attachment to the engine mount
10 x NM-0000-0015101 (washer) used for distance and outside of the box
4 x (RH), 4 x (LH) NM-0000-0058501 (washer) used inside of the box
3 x (LH) NM-0000-0058501 (washer) used outside as distance
2 x 52-7110-H000301 (nut) used on engine mount
2 x NM-0000-0018001 (nut) used inside of the box



Use three washers as distance between box and engine mount for the top screw.
Use two washers as distance between box and engine mount for the bottom screw.



(Picture shows RH installation), torque screws with 8 Nm

Use bonding cable from former installation, clean bonding areas and remove paint.
Insert three washers on LH side between mounting bracket for prop accumulator and air box heat exchanger for distance. (NM-0000-0058501)

46

Install the silicone tubes and connect heat exchanger to pipes.

Necessary new material:

1 x NM-0000-0057001 (52-2140-H000901) (silicone tube 90°)

1 x NM-0000-0057001 (52-2140-H002201) (silicone tube 90°)

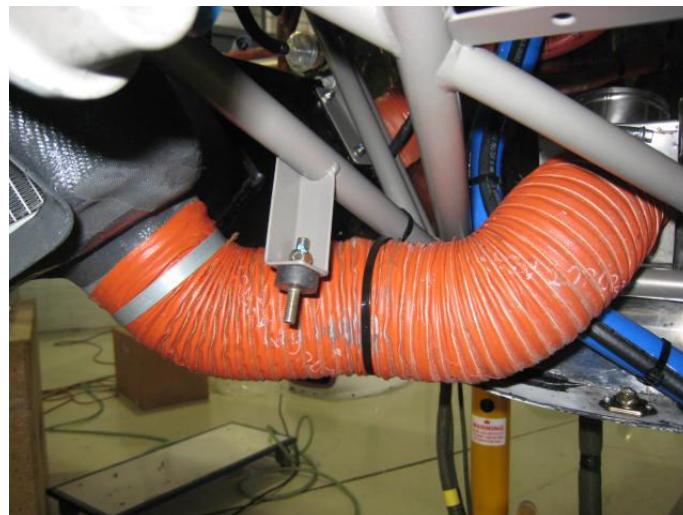
4 x NM-0000-0016901 (clamp)

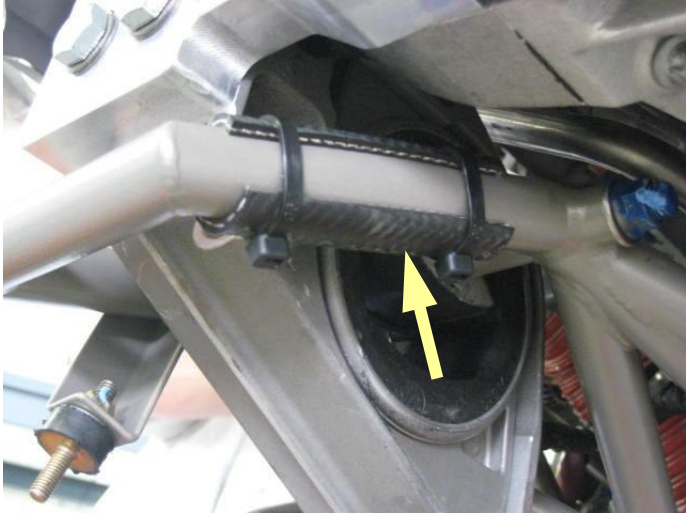


Shorten the tubes as required and check for adequate clearance to heat shield of the turbo charger.

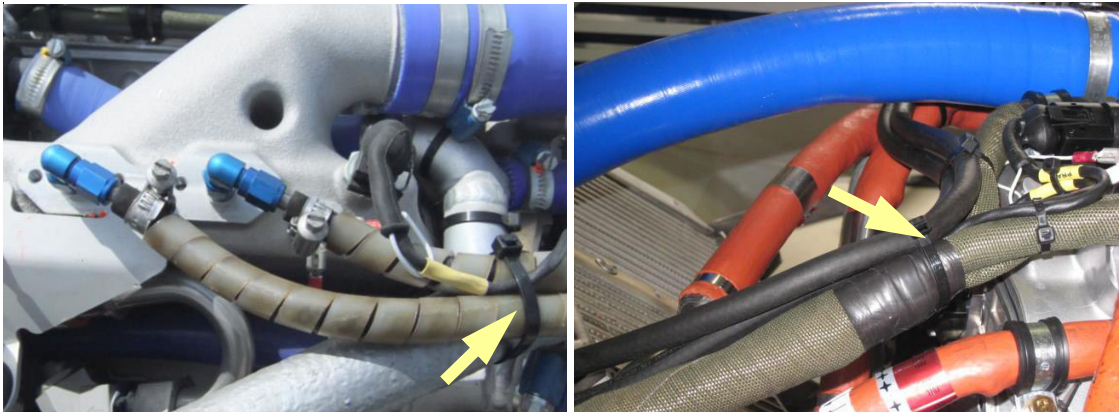
47

Connect the air duct with clamp onto the heat exchanger and with tie wraps to the engine mount.



48	Install a rubber hose with two tie wraps on the forward LH strut of the engine mount, like on the picture. Necessary new material: 2 x tie wrap 0.1 m x 193-10 (stratoflex hose) 
49	Modification of water cooler: Round off edges on the left forward (flight direction) attachment bracket acc. the picture 

50	Install water cooler Necessary new material: 1 x 250640 (copper seal) 4 x NM-0000-0003801 (washer) 4 x NM-0000-0018101 (nut) 1 x NM 0000-0056801 (silicone tube 90°) front 1 x 52-7520-H005701 (silicone tube) 8 x NM-0000-0021601 (clamp) Replace copper seal, screw in drain screw (secure with Loctite 243), torque 20 Nm. Install water cooler onto engine mount (rubber damper), torque 6 Nm.  (Shorten tubes as required)
51	Install Tube Intercooler 52-7520-H0087 01 between Charged Air Cooler and Engine Inlet Manifold with 2 Clamps NM-0000-00170 01 on each side. Note: ensure chafing protection orientation as shown in the figure below. 

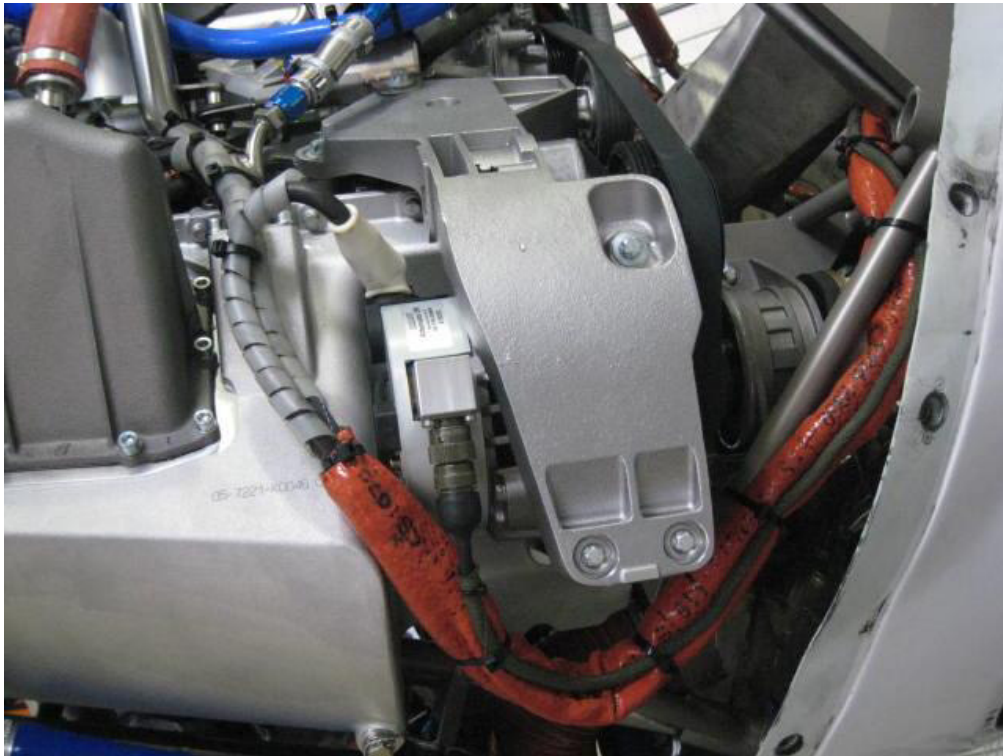
52	Install exhaust pipe Necessary new material: 52-7810-H000102 or 52-7810-H000103 or 52-7810-H000104 (Exhaust pipe) 05-7241-K006203 (ring) Remove the preinstalled three nuts, insert ring and install the exhaust pipe. Tighten the nuts in a later step. (pipe must be adjusted with cut out in bottom cowling) 
53	Install the MAP-lines on the engine (torque 10 Nm) and connect them with tie wraps along the oil line and the engine cable loom through the fire wall. Refer to drawing D60-7616-00-00 for installation of the fittings. 

Install cable protection onto alternator cable loom (if not installed).

(a. r.) 1.5 m ROUNDIT2000NX5-5

Reinstall cable loom and connect it to the starter, generator and starter relays
Connect the alternator loom onto the alternator. Use tie wraps to attach the looms as required.

54



Install the propeller accumulator:

Necessary new material:

2 x NM-0000-0096101 (screw)

2 x NM-0000-0015101 (washer)

2 x 52-7110-H000301 (nut)

2 x 52-6110-H001801 (spacer) to use between clamp and engine mount

1 x NE-0000-0135001 (connector)

If the “hydraulic liftsysteme” propeller accumulator was installed, the accumulator must be replaced by the “Mühlbauer-accumulator”.



55

The accumulator must be installed, so that the fitting of the connected oil hose is aligned in parallel in flight direction.



Install the spacer, and connector for the bonding wire acc. to the picture. Torque the screws with 13 Nm.

Additional material for the change to the “Mühlbauer”-Accumulator:

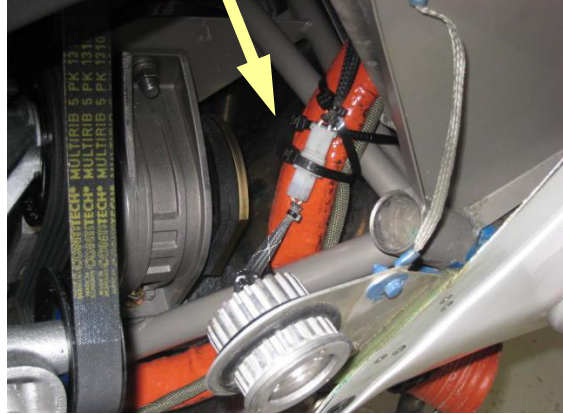
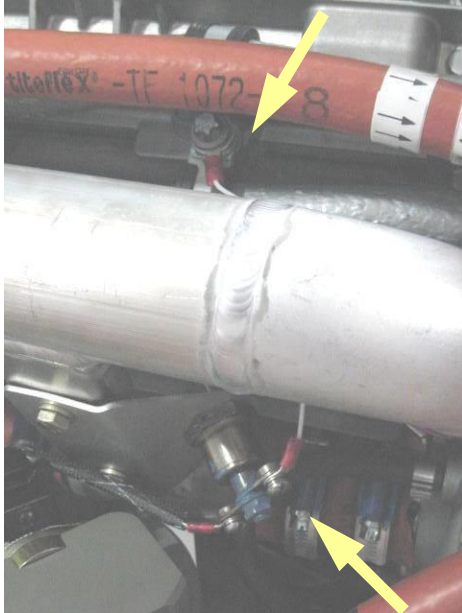
(a. r.) 1 x 52-6110-H000101 (Propeller accumulator)

(a. r.) 1 x 52-6110-H001401 (shrink tube)

(a. r.) 1 x 52-6110-H001701 (spacer)

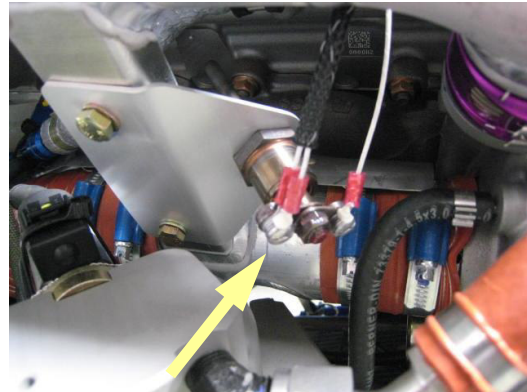
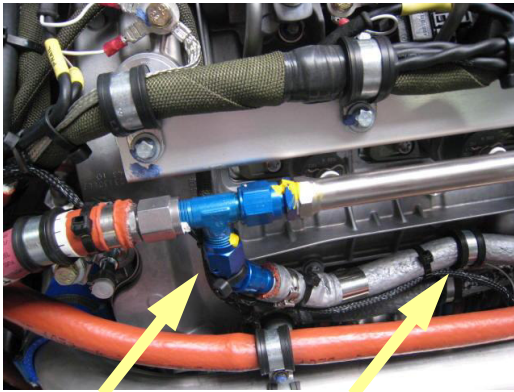
(a. r.) 2 x 52-6110-H001101 (clamp)

56	<i>(Only required if the deice system is installed.)</i> Install the deice line on the bracket. Replace the seal of the deice line. Route the line along the common rail of the engine and then along the engine cable loom through the firewall. Necessary new material: (a. r.) 2 x S1201-12 (Seal 3/16) (a. r.) 8 x tie wrap   Adjust the outlet pipe and lock wire the fittings when the propeller is installed.
57	Install the fire sleeve onto the two MAP-lines, and the cables of the fire detector, propeller feathering accumulator and coolant level sensor. (Deice light cable, optional) (disconnect the connector for the prop accumulator cable to route the cable through the fire sleeve) Necessary new material: 1.0 m 2650-13 (fire sleeve)
58	If the "hydraulic liftsysteme"- propeller accumulator was installed replace the connector. Necessary new material: (a. r.) 3 x 3141334 (a. r.) 3 x 3141160 (a. r.) 1 x 3141198 (a. r.) 1m AWG 22 (a. r.) 3 x D-436-36
59	Reinstall the connector on the cable of the propeller feathering accumulator.

60	<i>(Only required if the deice system is installed.)</i> Reinstall the ice light acc. the picture. Attach the cables and connectors with tie wraps. Route the cable of the ice light out of the fire sleeve and close the cut in the sleeve with tie wraps.   RH engine LH engine
61	Connect the GND-cable of the fire sensor onto the sensor. Remove screw on engine block and connect the GND-cable. Necessary new material: 1 x D60-2406-21-00 (GND-cable for LH engine) 1 x D60-2406-22-00 (GND-cable for RH engine) 

62

Attach the cable for the fire sensor with tie wraps and connect it on the sensor.



Lengthen the wire for the fire sensor as required

Necessary new material:

- 1 x 31890 (ring terminal)
- (a.r.) M25038/3-22-9 (wire)
- 2 x D-436-36 (splice)

63

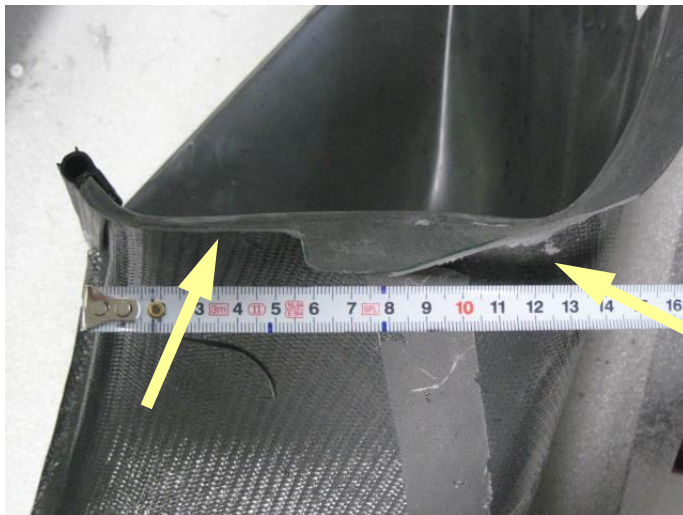
Attach the cable of the coolant level sensor with tie wraps and connect it to the sensor of the coolant tank.



64	Install the clamp on the mounting bracket of the inter cooler and attach the harness and lines. (hole predrilled prior installation of the bracket) Necessary new material: 1 x GE52-C69 1 x RSGU 1.40_15 (clamp) 1 x LN9037-06018 (screw) 1 x LN9037-05018 (screw) 2 x DIN 126-6.2-A2 (washer) 1 x DIN 985-M6-A2 (nut) 2 x DIN7337-A3.2x12.0-A2 (blind rivet 3.2 x 12 mm) 1 x PR812/Kit25 (sealer) for left attachment point: 1 x A521919WDG19 (clamp) 1 x DIN985-M5-A2 (nut) 1 x DIN 126-5.2-A2 (washer)  Reinstall the Teflon-bushing, rivet the plates onto the fire wall, replace the edge protection and seal acc. the picture with fire retardant sealer PR812/Kit25.
65	Check for sufficient clearance of the engine to all installed parts, even under side- vertical- and horizontal- loads.

66

Modify Inlet duct acc. the following pictures to have sufficient clearance to the water pump.



67

Disconnect the oil lines from the oil cooler (not tightened yet) and install the air duct onto the intercooler and oil cooler.



Reconnect the oil lines, adjust and tighten them with a torque of 45 Nm on the engine side and with 55 Nm on the oil cooler side.

View of the installed TAE 125-02-99 engine

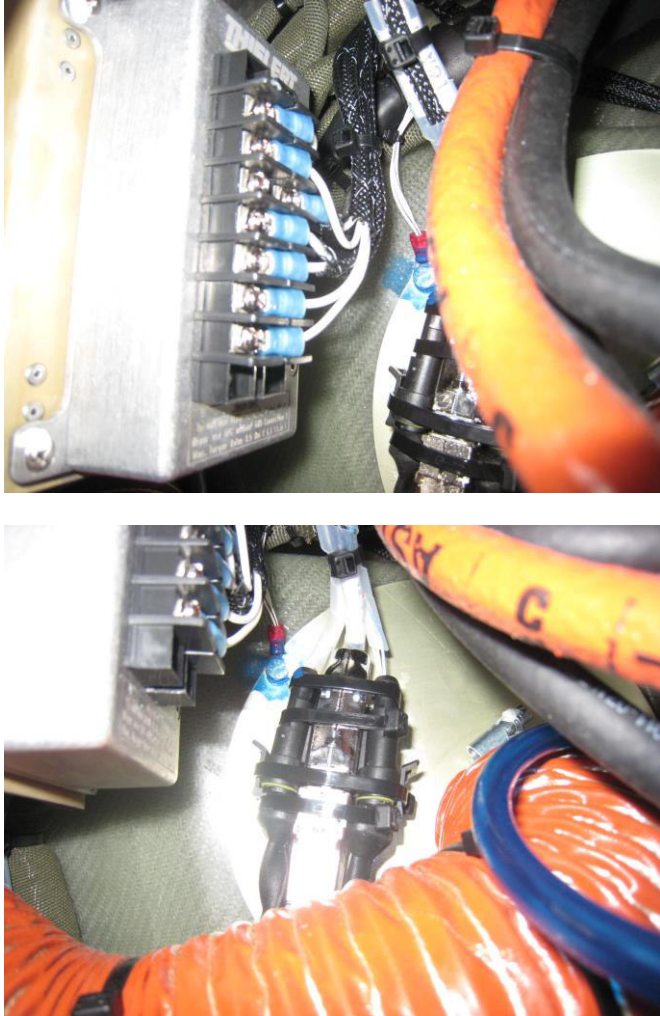


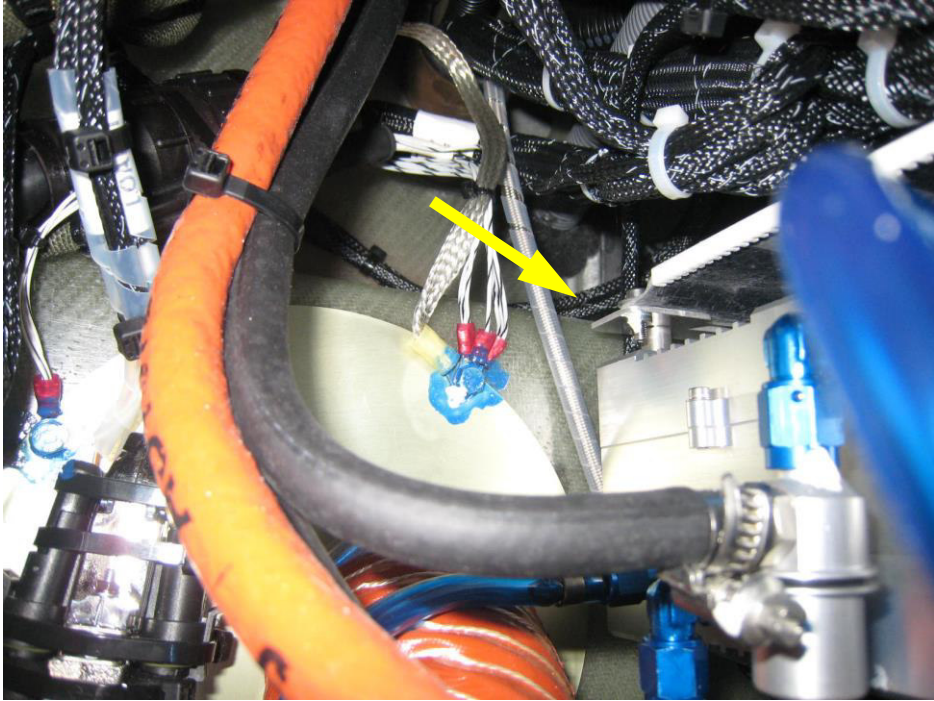
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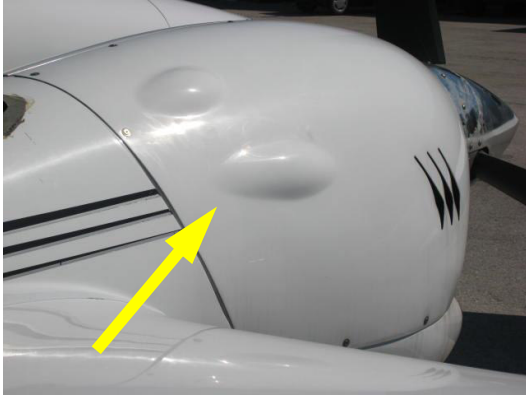
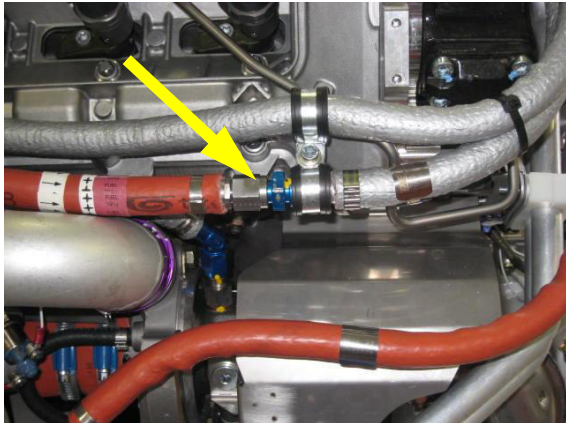




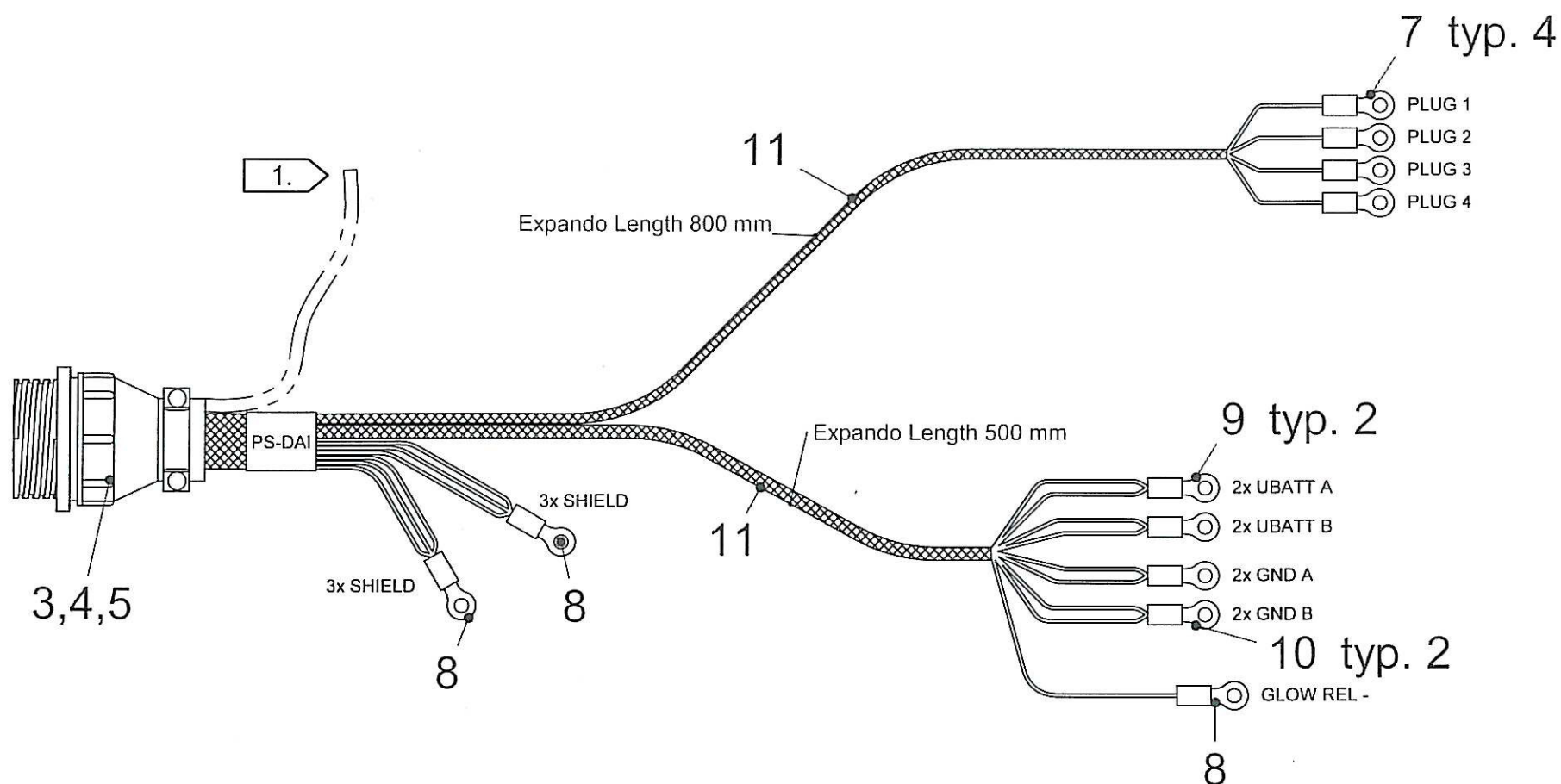
69	Install the Glow Power Control Unit onto the bracket Necessary new material: 1 x GPCD4 (Glow Power Control Unit), part of Engine 4 x DIN965-AM4x12-A2 (screw) 1 x D60-7414-10-00 (bracket) 
70	Modify Harness and Relay Panel acc. the instructions given in drawing D60-2407-11-00-SB (for LH-Engine) and acc. to drawing D60-2407-12-00-SB (for RH-Engine)
71	Install the relay box into the nacelle. Necessary new material: 2 x (a.r.) ISO7462-M5x16-A2 2 x (a.r.) DIN125-A5.3-A2
72	Seal the ring terminal, labeled "Glowindicator" next to the connector "PS-DAI" of the Thielert engine harness, using the heatshrink P/N 727020-1 and secure it with a cable tie.
73	Install new ECU in accordance to drawing D60-7614-00-00_01. NOTE: Slide aft latches of brackets above FRP, as shown on drawing. Secure bolts with Loctite 243 Hook up all pressure and electrical lines to the ECU in accordance with the AMM Section 76-00. Perform software check in accordance with MSB-42-007.

74	Install the Glow Power Control Unit and connect the ring terminals (refer to drawing D60-2407-11-00-SB, LH and D60-2407-12-00-SB, RH, sheet 3 / Step 8) according the following pictures: Necessary new material: 2 x LN9037-05012 
75	Install the new alternator regulator.

76	Install water separators on ECU and connect MAP-lines. If the water separators were not installed on the old (replaced) ECU, the following material is necessary: Additional material: 2 x D60-7614-40-00 Water Separator Assembly 2 x E934103 Connecting Adapter 90° Open hose clamp on MAP-lines and remove connector fitting. Install new connector fitting E934103 onto connection (MAP) of ECU-A and ECU-B and adjust fitting downwards. Install water separator onto 90°- fitting E934103. Connect MAP-lines onto water separator of ECU-A and ECU-B and tighten hose clamp. 
77	Fill and bleed cooling system. (refer to AMM Section 75-00.)
78	Fill the engine with oil. (refer to AMM Section 12-10.)
79	Fill the reduction gear with oil. (refer to AMM Section 12-10.)
80	Connect the airplane main battery acc. to AMM (refer to Section 24-34), the alternator excitation batteries, and if installed the ECU Backup Batteries.
81	Install the Propeller (refer to AMM Section 61-10, B.)
82	Install the outlet rib assembly on the top side of the nacelle.
83	Perform a software update for the G 1000 system. Carry out MSB 42-008/4 or later revision.
84	Perform functional check of all systems in working area.
85	Check working area for foreign objects.

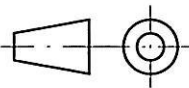
86	Install the engine cowlings. (refer to AMM Section 71-00) Note: If the old Cowling-design was installed, a new cowling set is necessary.  old cowling design  new cowling design Note: When new cowlings are installed, it may be necessary to adjust trim and Camloc positions to fit the individual airplane. Adjust the exhaust pipe after installation of the bottom cowling and tighten the three nuts (torque acc. the values given in the AMM).
87	Install the access panels on the nacelle.
88	Perform items 1 to 88 for RH side.
89	Perform weighing (refer to AMM Section 08-10.)
90	Refuel airplane, remove cowling, fill and bleed fuel system. Note: Tighten and lock wire the fitting in the fuel line. 
91	Perform engine ground test (refer to the Operators Manual of Continental Aerospace Technologies GmbH for the TAE 125-02 engine and AMM, Chapter 71-00, 3. (Engine Test-General).
92	Perform a check flight (refer to AMM, Chapter 05-20-00)
93	Make appropriate entries into aircraft log.
94	Incorporate the Temporary Revision AMM-TR-MÄM-42-198 (latest revision) into the AMM.
95	Incorporate the Temporary Revision TR-MÄM-42-198 (latest revision) into the AFM.
96	Send the LH and RH heat exchanger box to Continental Aerospace Technologies GmbH.

PS-DAI			
PIN	WIRE	WIRE GAUGE	WIRE LENGTH
1	PLUG 1	16 AWG	900 mm
2	PLUG 2	16 AWG	900 mm
3	PLUG 3	16 AWG	900 mm
4	PLUG 4	16 AWG	900 mm
9	GLOW REL -	22 AWG	600 mm
16	UBATT A	16 AWG	550 mm
17	UBATT A	16 AWG	550 mm
18	UBATT B	16 AWG	550 mm
19	UBATT B	16 AWG	550 mm
22	GND A	16 AWG	550 mm
23	GND A	16 AWG	550 mm
24	GND B	16 AWG	550 mm
25	GND B	16 AWG	550 mm
26	SHIELD	22 AWG	150 mm
27	SHIELD	22 AWG	150 mm
28	SHIELD	22 AWG	150 mm
29	SHIELD	22 AWG	150 mm
30	SHIELD	22 AWG	150 mm
31	SHIELD	22 AWG	150 mm



NOTES:

1. Shown for reference only. Wires will be inserted into connector when installing adapter harness into airplane.

11	1.3 m	-	5021000632	Expando FR-6		Federal Mogul
10	2	-	31906	Ring Terminal		AMP
9	2	-	320565	Ring Terminal		AMP
8	3	-	130005	Ring Terminal		AMP
7	4	-	320561	Ring Terminal		AMP
6	-	-	-			
5	19	-	163084-2	Socket		AMP
4	1	-	206138-1	Backshell		AMP
3	1	-	206306-2	Connector, 37 Socket		AMP
2	8.0 m	-	M22759/16-16-9	Wire, 16 AWG		
1	1.5 m	-	M22759/16-22-9	Wire, 22 AWG		
Pos.	QTYL	QTYR	Part Number	Description	Specification	Supplier
Approved : B. Jäger Date 27. JULI 2007			Checked : M. Kowarsch Date 27. JULI 2007		General Tolerance : ISO 2768 medium	 Scale: NTS
				Next Higher Assembly : N/A	Adapter Harness, Central Connector	
				 Diamond AIRCRAFT Industries GmbH		
				DA 42 Twin Star	Drawing Number: D60-2404-20-00-SB	Sheet from
Rev.	Change	Date	Name	Saved under : D60-2404-20-00-SB.dft		

Weight: N/A
Calculated Weight: N/A

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Diamond Aircraft Industries GmbH

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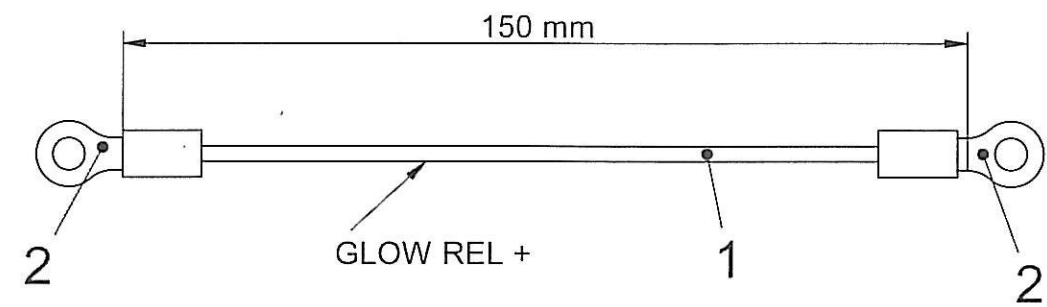
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1



2	2	-	36151	Ring Terminal		AMP
1	0.15 m	-	M22759/16-22-9	Wire, 22 AWG		
Pos.	QTYL	QTYR	Part Number	Description	Specification	Supplier
Approved :				Checked : M. Kowarsch	General Tolerance : ISO 2768 medium	Scale: NTS
Date		Name		Date 27. JULI 2007		
				Next Higher Assembly : N/A	Title : Wire, Glow Rel +	
				Diamond AIRCRAFT Industries GmbH		
				DA 42 Twin Star	Drawing Number: D60-2404-21-00-SB	Sheet 1 from 1
Rev.	Change	Date	Name	Saved under :	D60-2404-21-00-SB.dft	

Weight: N/A
Calculated Weight: N/A

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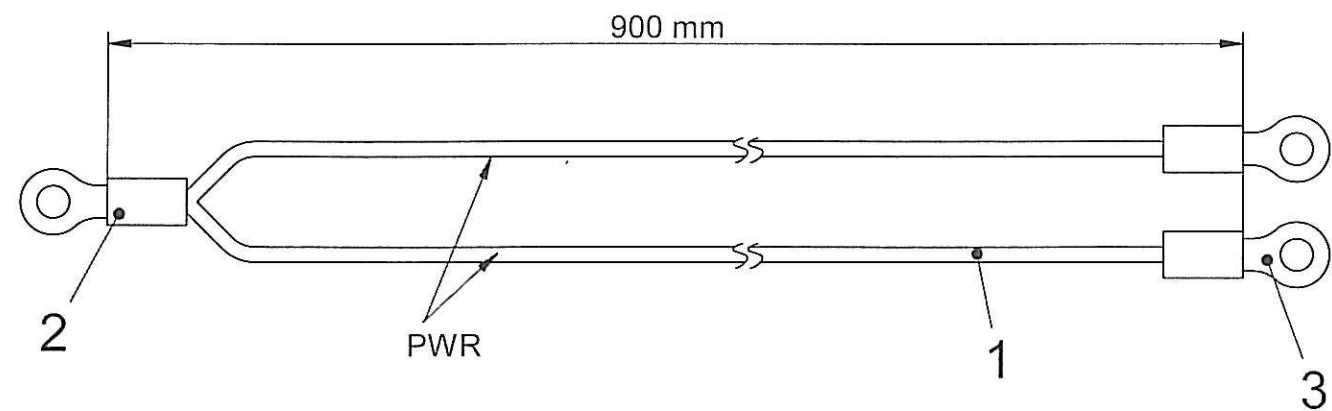
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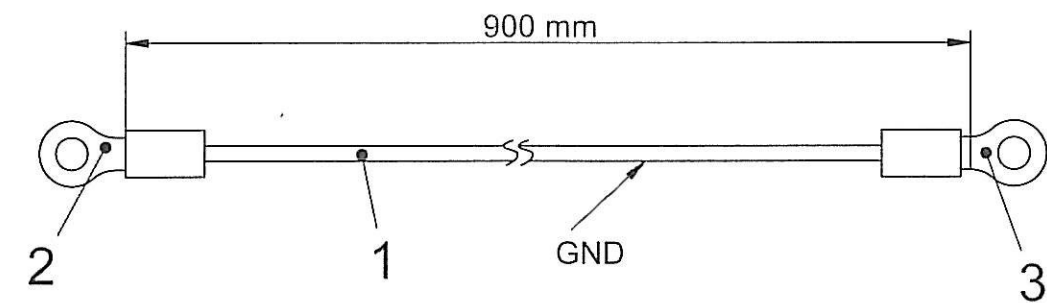
2

1



3	2	-	320561	Ring Terminal		AMP
2	1	-	160298	Ring Terminal		AMP
1	1.8 m	-	M22759/16-14-9	Wire, 14 AWG		
Pos.	QTYL	QTYR	Part Number	Description	Specification	Supplier
Approved :				Checked: M. Kowarsch	General Tolerance : ISO 2768 medium	Scale: NTS
Date		Name		Date 27. JULI 2007	Name	
				Next Higher Assembly :	Title : Wire, Glow PWR	
				N/A		
				Diamond AIRCRAFT Industries GmbH	Drawing Number: D60-2404-22-00-SB	
				DA 42 Twin Star		
				First Edition 06.06.07 Kowarsch	Sheet 1 from 1	
Rev.	Change	Date	Name	Saved under :	D60-2404-22-00-SB.dft	

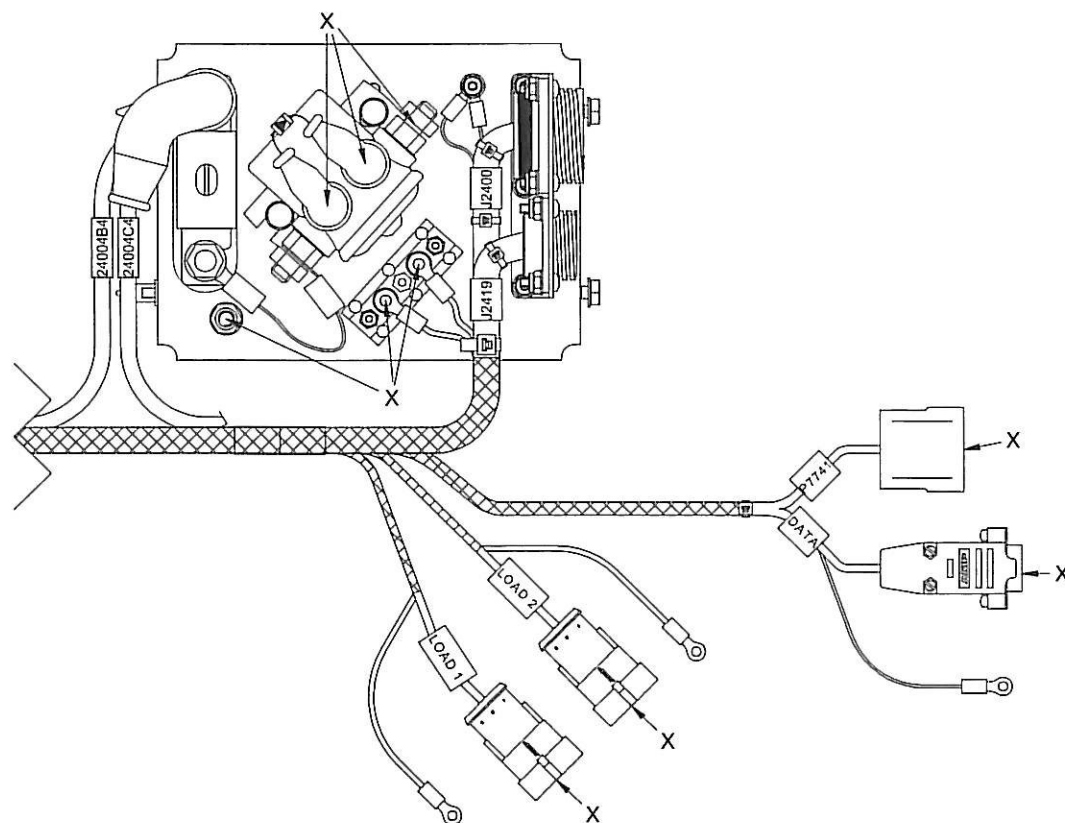
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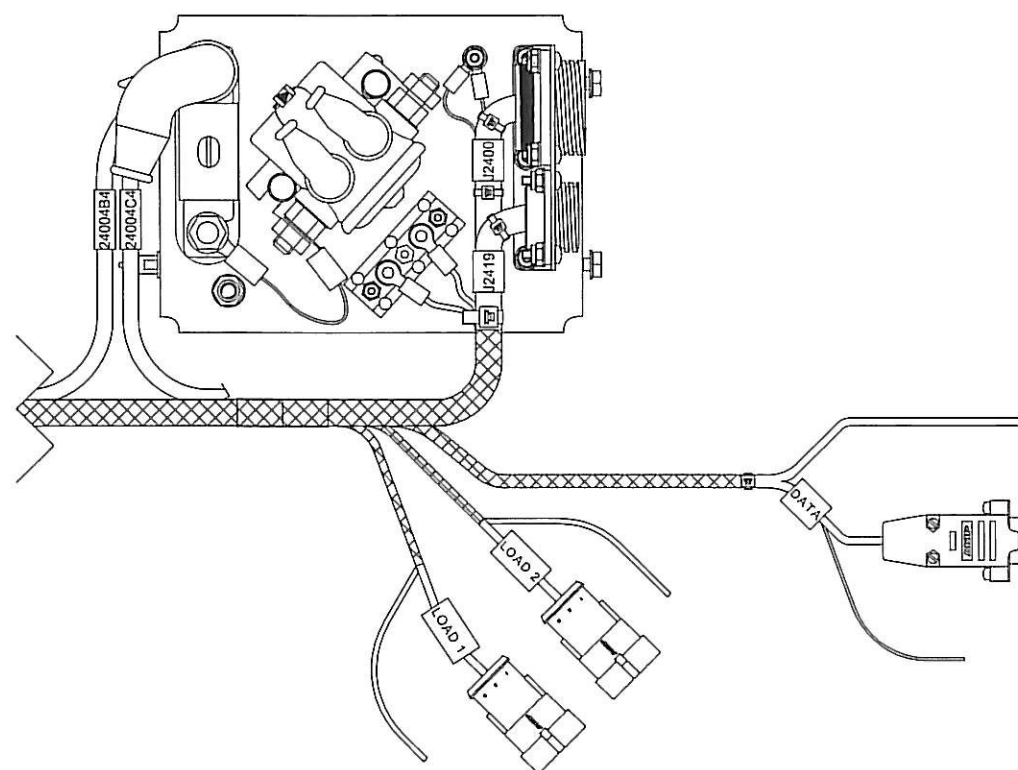
3	1	-	320561	Ring Terminal		AMP
2	1	-	31894	Ring Terminal		AMP
1	0.9 m	-	M22759/16-16-9	Wire, 16 AWG		
Pos.	QTYL	QTYR	Part Number	Description	Specification	Supplier
Approved :			Checked : M. Kowarsch		General Tolerance : ISO 2768 medium	Scale: NTS
Date		Name		Date 27. JULI 2007	Name	
				Next Higher Assembly : N/A	Title : Wire, Glow GND	
						
				DA 42 Twin Star	Drawing Number: D60-2404-23-00-SB	
"-"	First Edition	06.06.07	Kowarsch			
Rev.	Change	Date	Name	Saved under :	D60-2404-23-00-SB.dft	
Sheet 1 from 1						

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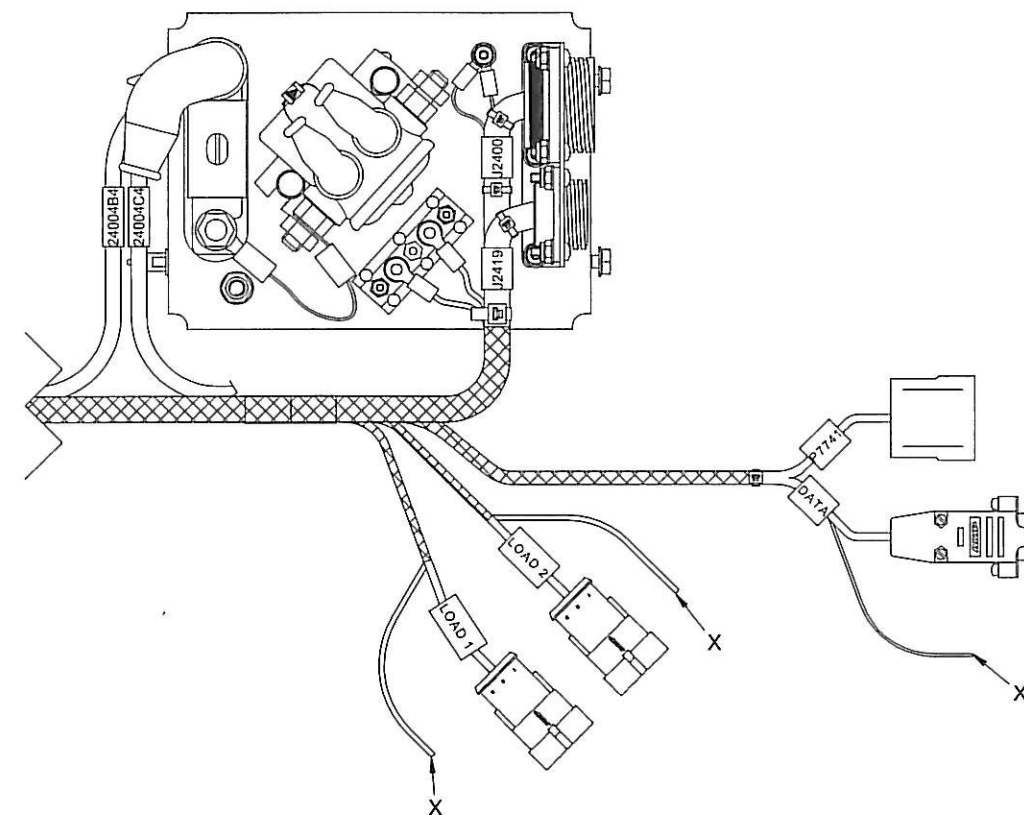
Step 1:
Disconnect the Thielert Engine Harness at the positions marked X.

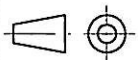


Step 3:
Extract the pins of connector P7741 and cut them off.



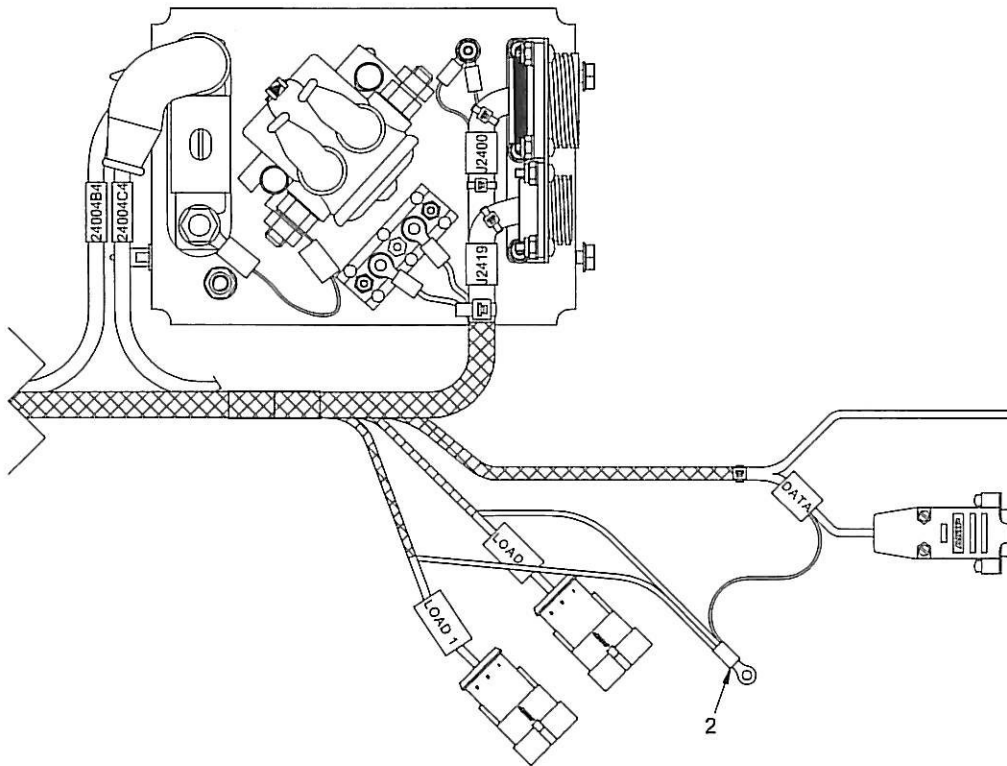
Step 2:
Cut-off the ring terminals of the LOAD1, LOAD2 and DATA connector shields at the positions marked X.



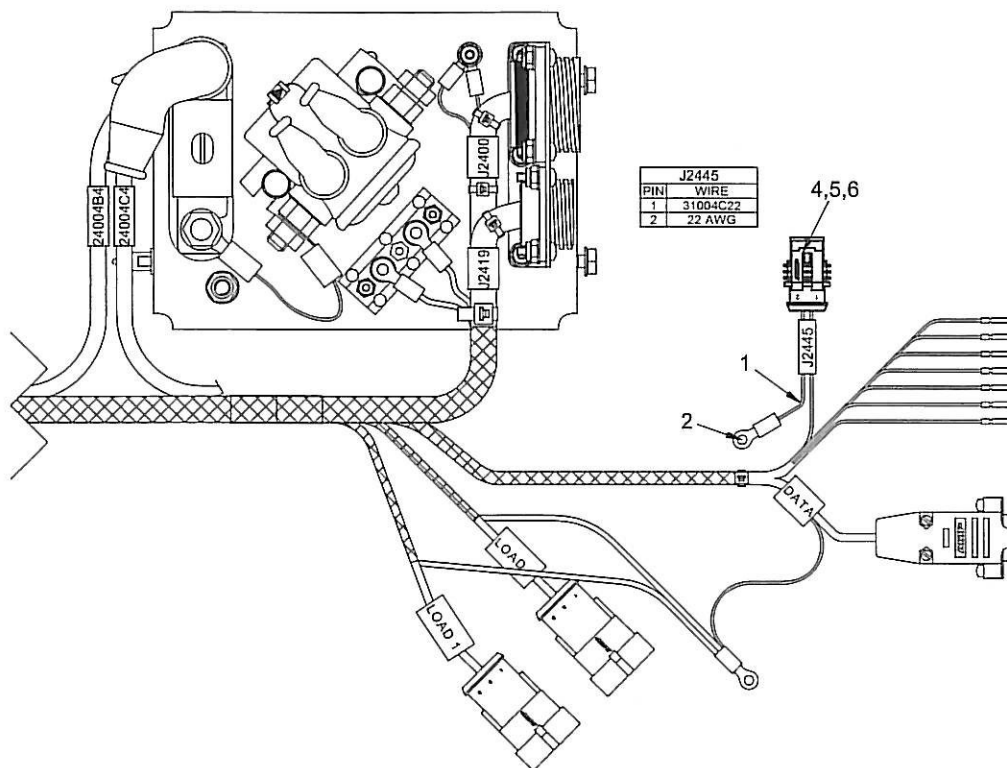
10	1	-	D60-2404-23-00-SB	Wire, Glow GND		Diamond
9	1	-	D60-2404-22-00-SB	Wire, Glow PWR		Diamond
8	1	-	D60-2404-21-00-SB	Wire, Glow Rel +		Diamond
7	1	-	D60-2404-20-00-SB	Adapter Harness		Diamond
6	2	-	281934-3	Seal		AMP
5	2	-	183035-1	Socket		AMP
4	1	-	282080-1	Connector, 2 Socket		AMP
3	7	-	163084-2	Socket		AMP
2	2	-	130005	Ring Terminal		AMP
1	0.2m	-	M22759/16-22-9	Wire, 22 AWG		
Pos.	QTYL	QTYR	Part Number	Description	Specification	Supplier
Approved :			Checked : M. Kowarsch		General Tolerance : ISO 2768 medium	Scale: NTS
Date			Date 23 JUL 2007			
			Next Higher Assembly : N/A		Title : LH Relay Panel Assembly, Service Bulletin	
					Drawing Number: D60-2407-11-00-SB	
			DA 42 Twin Star		Sheet from	
Rev.	Change	Date	Name	Saved under : D60-2407-11-00-SB.dft		
First Edition		25.06.07	Kowarsch			

Weight: N/A
Calculated Weight: N/A

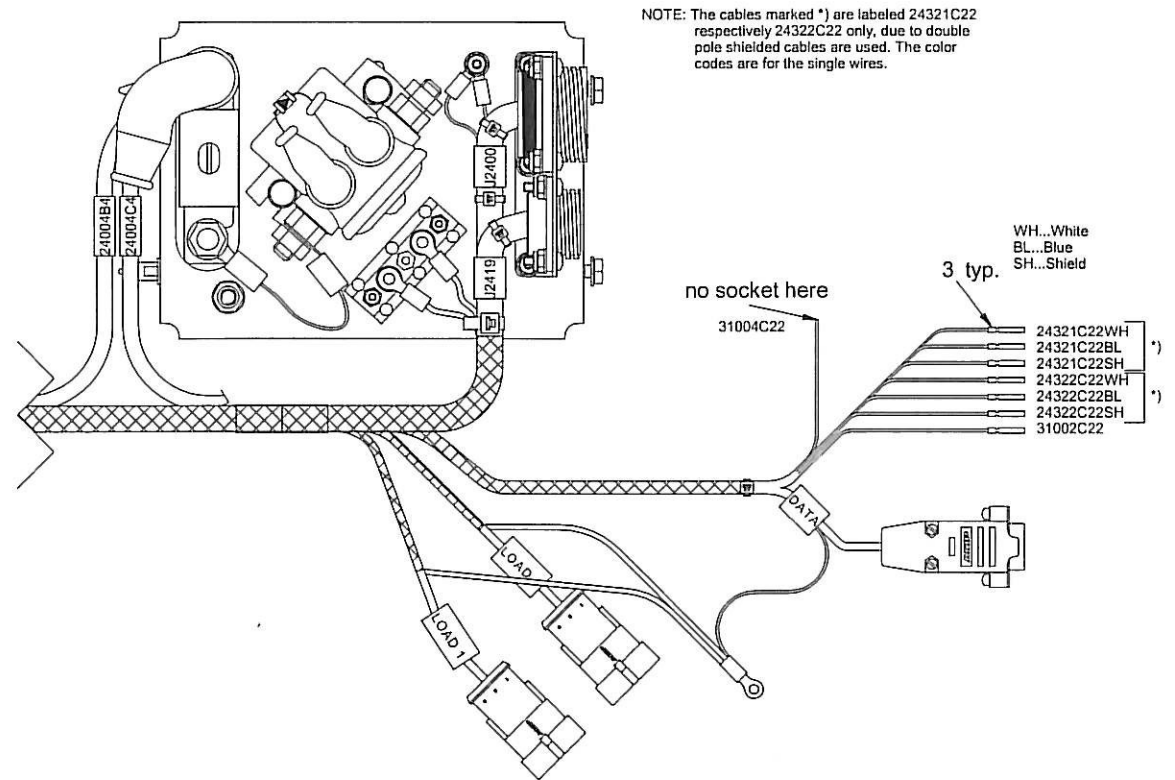
Step 4:
Install the 3 shield wires into one ring terminal, Position 2.



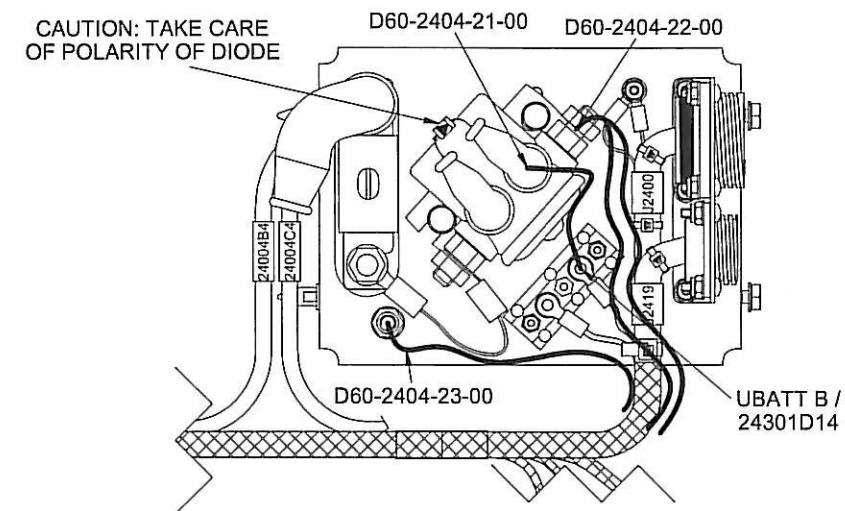
Step 6:
Install connector and label, Positions 4, 5, 6 onto wire 31004C22, Pin 1.
Install 150mm #22 AWG into Pin 2 and a ring terminal Pos. 2 on the other end.



Step 5:
Crimp sockets, Position 3 onto the wires shown below.



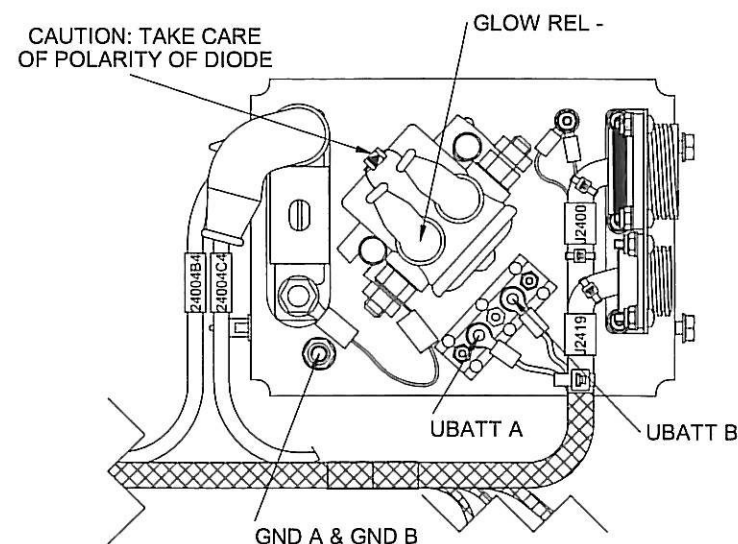
Step 7:
Install Wire, Glow Rel + (D60-2404-21-00-SB); Wire, Glow PWR (D60-2404-22-00-SB) and Wire, Glow GND (D60-2404-23-00-SB) as shown below.



Approved :		Checked : M. Kowarsch		General Tolerance : ISO 2768 medium		Scale : NTS	
Date	Name	Date	23 JUL 2007				
		Next Higher Assembly : N/A		Title : LH Relay Panel Assembly, Service Bulletin			
		DA 42 Twin Star		Drawing Number : D60-2407-11-00-SB		Sheet 2 from 3	
First Edition 25.06.07 Kowarsch		Saved under : D60-2407-11-00-SB.dft					
Rev.	Change	Date	Name				

Weight: N/A
Calculated Weight: N/A

Step 7:
Connect Adapter Harness, Central Connector (D60-2404-20-00-SB) as shown below.



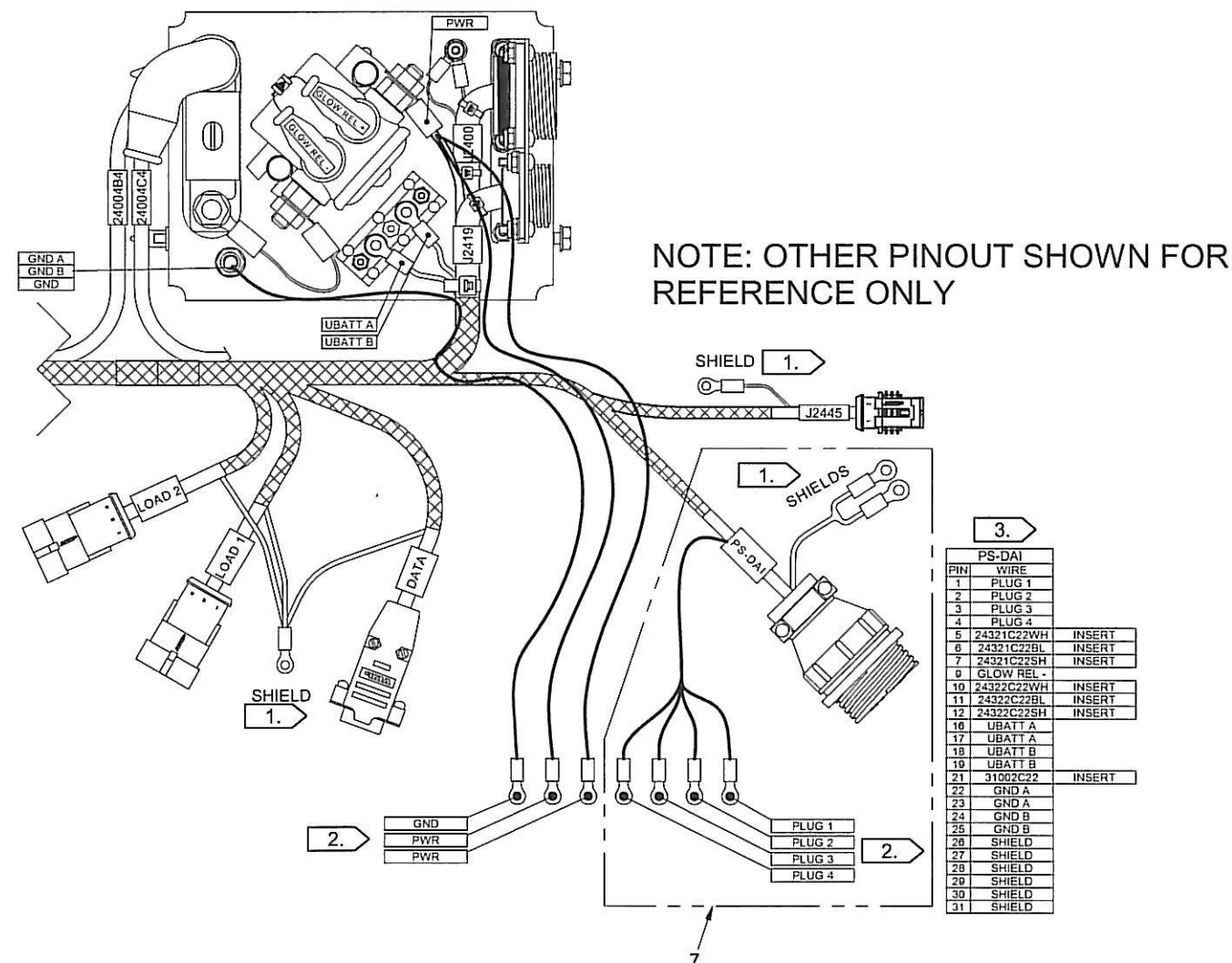
NOTES:

1. For connection of the shields refer to WI 42-046.
2. For connection of the glow power control unit refer to WI 42-046.
3. Information old connector.

Information

Old Connector	
WIRE	PIN
24321C22BL	1
24321C22WH	2
24321C22SH	3
24322C22BL	4
24322C22WH	5
24322C22SH	6
31002C22	7

Step 8:
Insert the sockets, prepared in Step 5, into the new central connector (PS-DAI) as shown below.

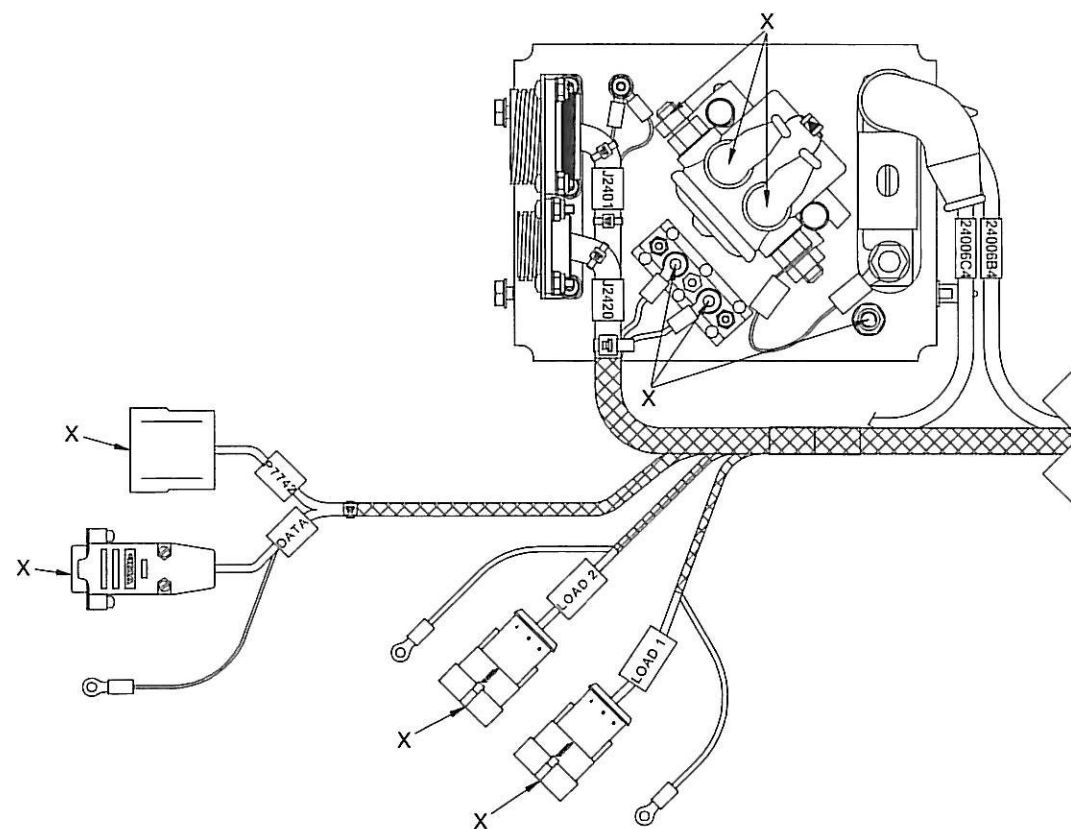


PS-DAI	
PIN	WIRE
1	PLUG 1
2	PLUG 2
3	PLUG 3
4	PLUG 4
5	24321C22WH
6	24321C22BL
7	24321C22SH
8	GLOW REL -
9	24322C22WH
10	24322C22BL
11	24322C22SH
12	24322C22SH
13	UBATT A
14	UBATT A
15	UBATT B
16	UBATT B
17	31002C22
18	GND A
19	GND A
20	GND B
21	GND B
22	PLUG 1
23	PLUG 2
24	PLUG 3
25	PLUG 4
26	SHIELD
27	SHIELD
28	SHIELD
29	SHIELD
30	SHIELD
31	SHIELD

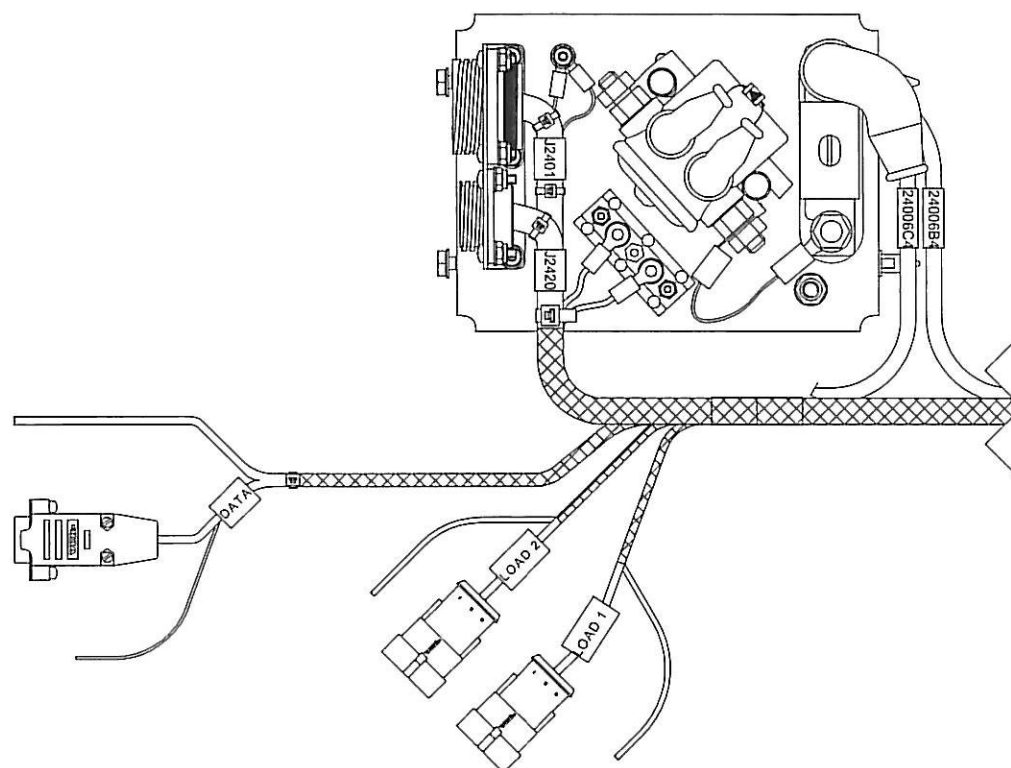
Approved :	Checked : M. Kowarsch	General Tolerance : ISO 2768 medium	Scale : NTS
Date	Date 23 JUL 2007		
Name			
	Next Higher Assembly : N/A	Title : LH Relay Panel Assembly, Service Bulletin	
	Diamond	Drawing Number : D60-2407-11-00-SB	Sheet 3 from 3
	DA 42 Twin Star		
First Edition 25.06.07 Kowarsch	Saved under : D60-2407-11-00-SB.dft		
Rev. Change Date Name			

Weight: N/A
Calculated Weight: N/A

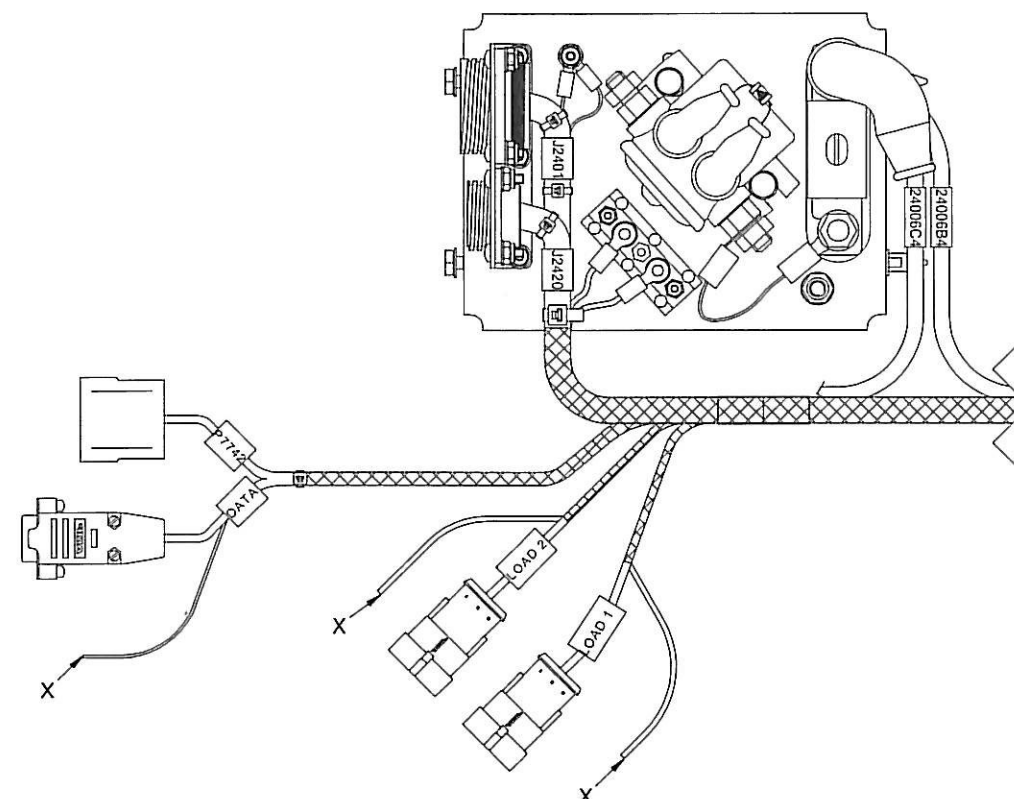
Step 1:
Disconnet the Thielert Engine Harness at the positions marked X.

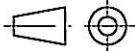
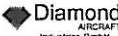


Step 3:
Extract the pins of connector P7742 and cut them off.



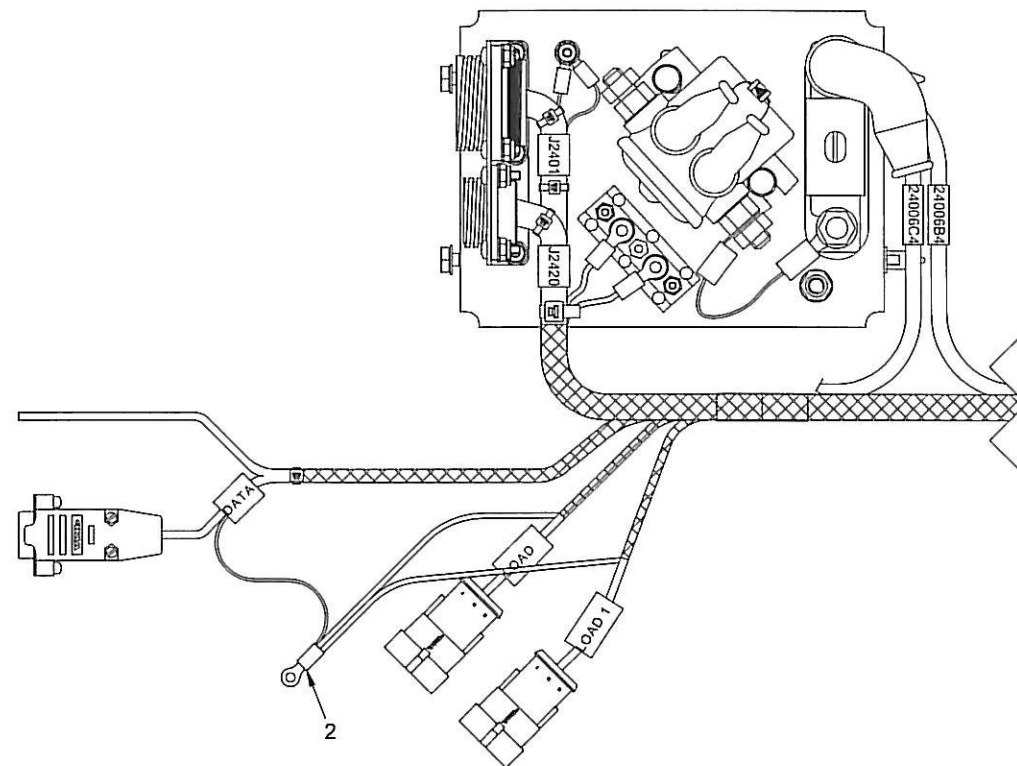
Step 2:
Cut-off the ring terminals of the LOAD1, LOAD2 and DATA connector shields at the positions marked X.



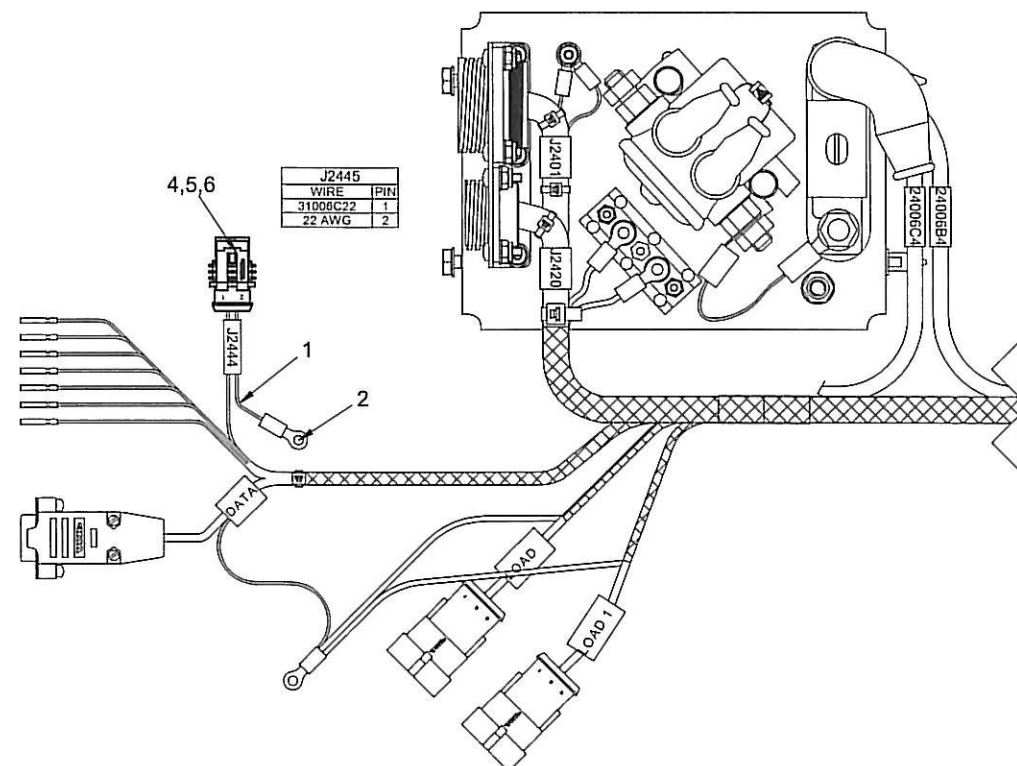
10	-	1	D60-2404-23-00-SB	Wire, Glow GND		Diamond
9	-	1	D60-2404-22-00-SB	Wire, Glow PWR		Diamond
8	-	1	D60-2404-21-00-SB	Wire, Glow Rel +		Diamond
7	-	1	D60-2404-20-00-SB	Adapter Harness		Diamond
6	-	2	281934-3	Seal		AMP
5	-	2	163035-1	Socket		AMP
4	-	1	282080-1	Connector, 2 Socket		AMP
3	-	7	163084-2	Socket		AMP
2	-	2	130005	Ring Terminal		AMP
1	-	0.2m	M22759/16-22-9	Wire, 22 AWG		
Pos.	QTYL	QTYR	Part Number	Description	Specification	Supplier
Approved :			Checked : M. Kowarsch		General Tolerance :	Scale:
Date			Date 23. JULI 2007		ISO 2768 medium	 NTS
				Next Higher Assembly :	Title :	
				N/A	RH Relay Panel Assembly, Service Bulletin	
				 Diamond AIRCRAFT Industries GmbH	Drawing Number:	
				DA 42 Twin Star	D60-2407-12-00-SB	
				Saved under :	D60-2407-12-00-SB.dft	
Rev.	First Edition	25.06.07	Kowarsch			Sheet from
	Change	Date	Name			

Weight: N/A
Calculated Weight: N/A

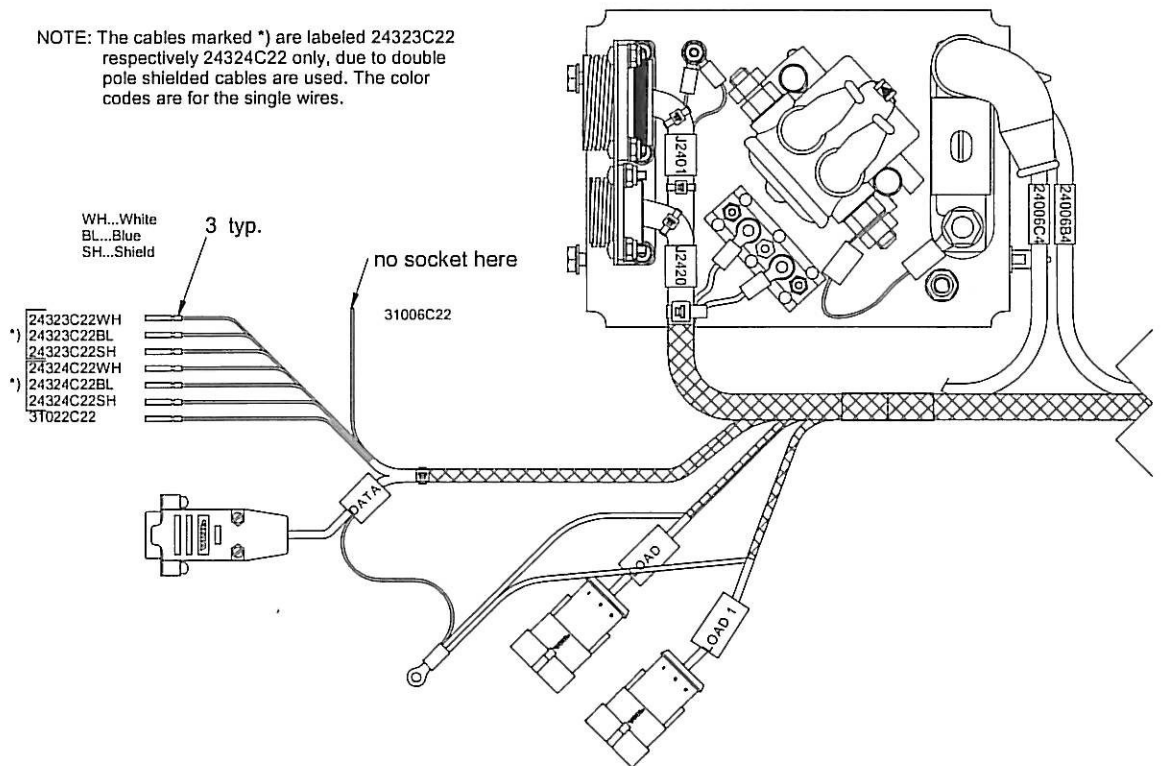
Step 4:
Install the 3 shield wires into one ring terminal, Position 2.



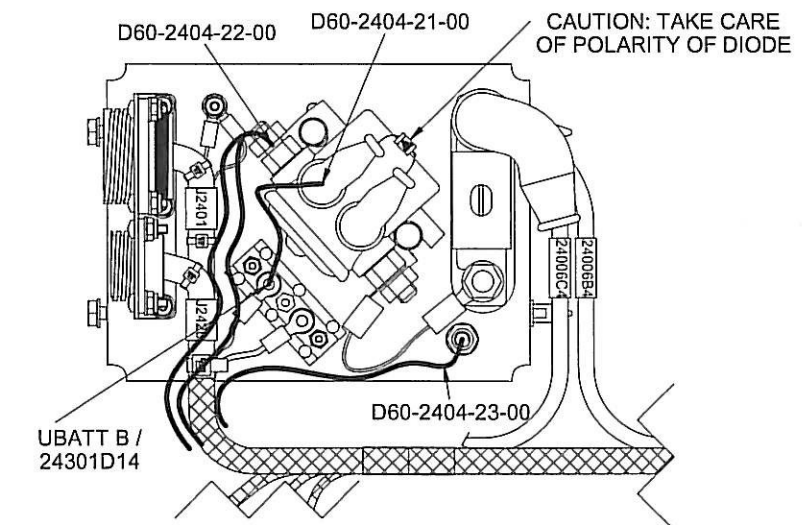
Step 6:
Install connector and label, Positions 4, 5, 6 onto wire 31006C22, Pin 1.
Install 150mm #22 AWG into Pin 2 and a ring terminal Pos. 2 on the other end.



Step 5:
Crimp sockets, Position 3 onto the wires shown below.



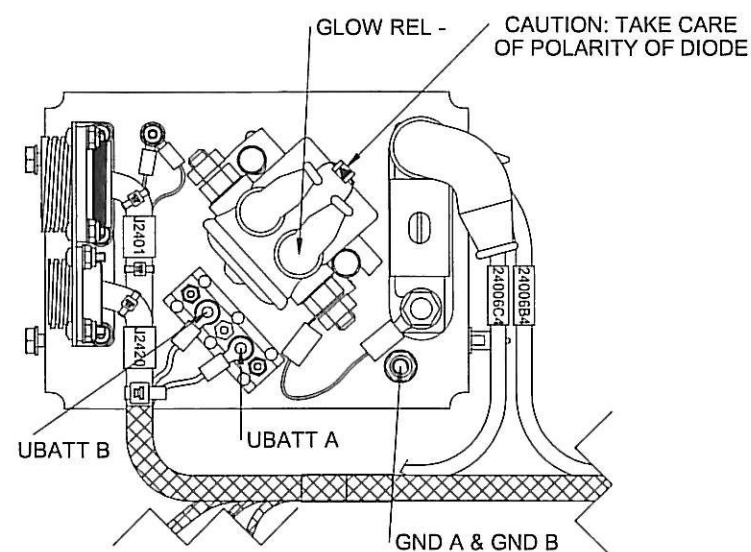
Step 7:
Install Wire, Glow Rel + (D60-2404-21-00-SB); Wire, Glow PWR (D60-2404-22-00-SB) and Wire, Glow GND (D60-2404-23-00-SB) as shown below.



Weight: N/A
Calculated Weight: N/A

Approved :		Checked : <i>M. Kowarsch</i>	General Tolerance :	Scale : NTS
Date	Name	Date <i>23. JULI 2007</i>	ISO 2768 medium	
		Next Higher Assembly : N/A	Title : RH Relay Panel Assembly, Service Bulletin	
		Diamond Aircraft Industries GmbH	Drawing Number : D60-2407-12-00-SB	
		DA 42 Twin Star	Sheet 2 from 3	
First Edition 25.06.07 Kowarsch		Saved under : D60-2407-12-00-SB.dft		
Rev.	Change	Date	Name	

Step 7:
Connect Adapter Harness, Central Connector (D60-2404-20-00-SB) as shown below.



NOTES:

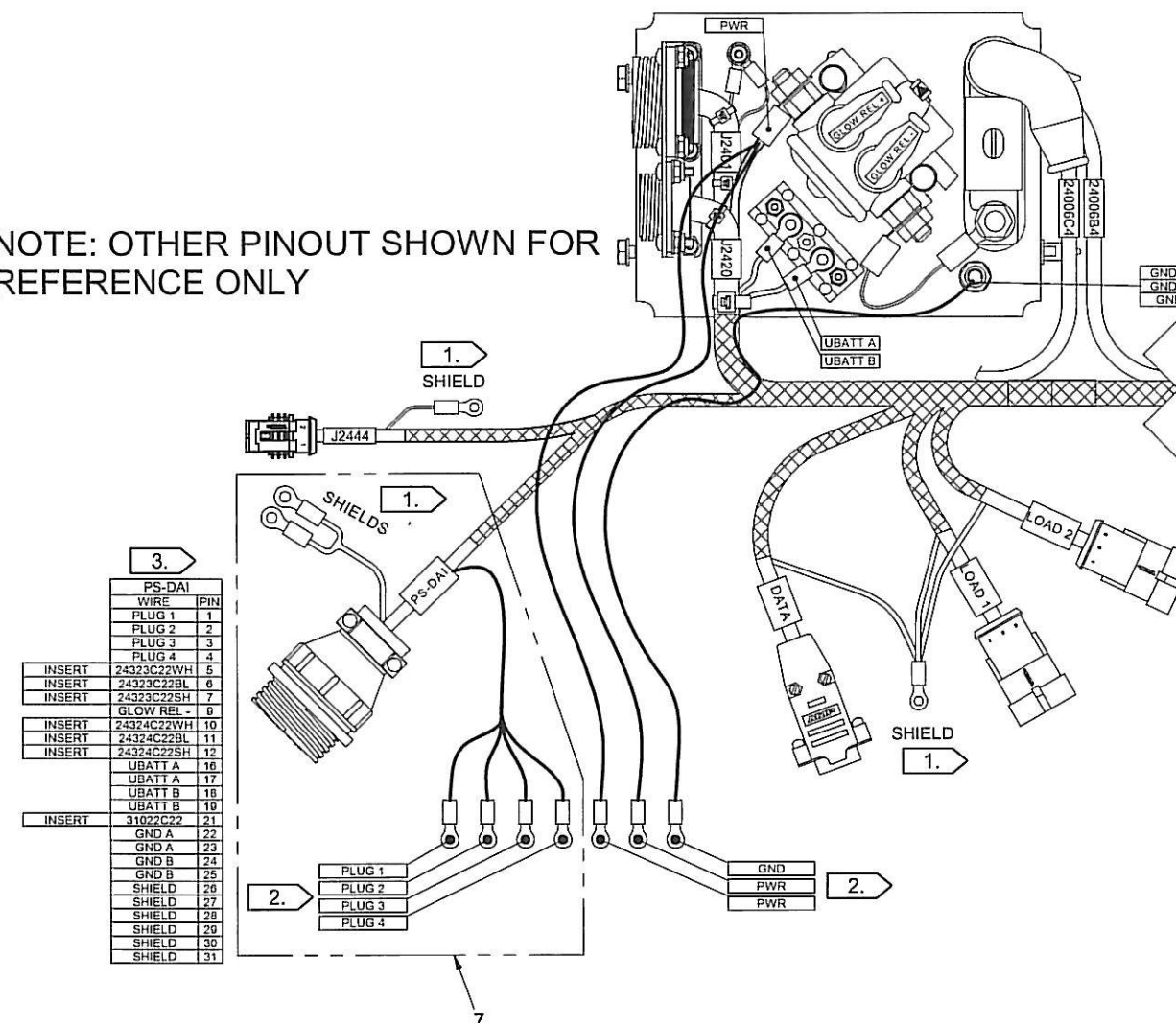
1. For connection of the shields refer to WI 42-046.
2. For connection of the glow power control unit refer to WI 42-046.
3. Information old connector.

Information

Old Connector	
WIRE	PIN
24323C22BL	1
24323C22WH	2
24323C22SH	3
24324C22BL	4
24324C22WH	5
24324C22SH	6
31022C22	7

Step 8:
Insert the sockets, prepared in Step 5, into the new central connector (PS-DAI) as shown below.

NOTE: OTHER PINOUT SHOWN FOR REFERENCE ONLY



Approved :		Checked: <i>M. Kowarsch</i>		General Tolerance : ISO 2768 medium		Scale: NTS	
Date	Name	Date	Name				
		23 JUL 2007					
		Next Higher Assembly : N/A		Title : RH Relay Panel Assembly, Service Bulletin			
		Diamond Industries GmbH		Drawing Number: D60-2407-12-00-SB			
		DA 42 Twin Star		Sheet 3 from 3			
First Edition 25.06.07 Kowarsch		Saved under : D60-2407-12-00-SB.dft					
Rev	Change	Date	Name				

Weight: N/A
Calculated Weight: N/A