

OPTIONAL SERVICE BULLETIN

NO. OSBD4-048

I TECHNICAL DETAILS

I.1 Category

Optional.

I.2 Airplanes affected

Type: DA 40 D

Serial Numbers: 40.080, 40.084, D4.001 and subsequent

I.3 Time of Compliance

At owner's discretion

I.4 Subject

Installation of additional instrument panel cooling devices.

I.5 Reason

For better cooling at severely hot climatic conditions the installation of additional instrument panel cooling devices is regulated by this service bulletin.

I.6 Concurrent Documents

None.

I.7 Approval

The technical information or instructions contained in this document relate to the Design Change Advisory No. OÄM 40-244, which has been approved under the authority of EASA Design Organization Approval No. EASA.21J.052.

I.8 Accomplishment/Instructions

See Work Instruction WI-OSB-D4-048.

I.9 Mass (Weight) and CG

Negligible

II PLANNING INFORMATION**II.1 Material & Availability**

See WI-OSB-D4-048

II.2 Special Tools

none

II.3 Labor effort

Appr. 4 hr

II.4 Credit

n. a.

II.5 Reference Documents

DA 40 Series Airplane Maintenance Manual, Doc. No. 6.02.01, latest effective issue
WI-OSB-D4-048

III REMARKS

1. All measures must be carried out by manufacturer, a certified aircraft station or a certified aircraft mechanic
2. Accomplishment of the measures must be confirmed in the log book.
3. In case of any doubt, contact Diamond Aircraft Industries.

WORK INSTRUCTION

WI-OSB-D4-048

„I-Panel cooling for severely hot climatic conditions“

I GENERAL INFORMATION

I.1 Subject:

The optional installation of ventilation plugs in the instrument panel cover and the installation of two additional cooling fans for improvement of the cooling within the instrument panel for operation under severely hot climatic conditions.

I.2 Reference Documents:

Diamond Aircraft DA 40 Series Airplane Maintenance Manual, Doc. No. 6.02.01, 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, particular 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:

DA4-3103-02-00x01
D4D-3110-25-00
D4D-9221-20-03

II.2 Special Tools:

None.

II.3 Material:

| Qty | Description | Part Number |
|-----|-------------------------|----------------|
| 9 | Modification, Hole Plug | D4D-2121-00-99 |
| 2 | Assembly, Cooling Fan | D4D-2121-10-00 |
| 8 | Screw | DIN 84-M4x25 |
| 24 | Washer | DIN 125A-4.3 |
| 8 | Locknut | DIN 985-M4 |
| 3 m | Wire, 22 AWG | M22579/16-22-9 |
| 2 | Connector | 1-480319-0 |
| 4 | Pin | 163305-2 |
| 10 | Cable Tie | PLT1MM30 |
| 4 | Ring Terminal | 31890 |

III INSTRUCTIONS

| | |
|----|--|
| 1 | Remove instrument panel cover in accordance with the Airplane Maintenance Manual, Doc. No. 6.02.01. |
| 2 | Drill the 9 holes (22 mm) into the instrument panel cover in accordance with drawing DA4-3103-02-00x01. |
| 3 | Install the ventilation plugs and secure them with 5-min Epoxy resin. |
| 4 | Drill the holes for the cooling fans in accordance with drawing D4D-3110-25-00. |
| 5 | Install the two cooling fans in accordance with drawing D4D-3110-25-00. |
| 6 | Wire the positive leads of the cooling fans to circuit breaker "FAN/OAT" in accordance with drawing D4D-9221-20-03. |
| 7 | Wire the negative leads of the cooling fans to an appropriate ground stud in accordance with drawing D4D-9221-20-03. |
| 8 | Secure the installed wires to the instrument panel harness with appropriate cable ties. |
| 9 | Clean working area and check for foreign objects. |
| 10 | Perform functional check of altered, repaired and new parts. |
| 11 | Install the instrument panel cover in accordance with Airplane Maintenance Manual, Doc. No. 6.02.01. |
| 12 | Test all systems in working area for function. |
| 13 | Make all necessary entries in the airplane's logs |

8 7 6 5 4 3 2 1

F

E

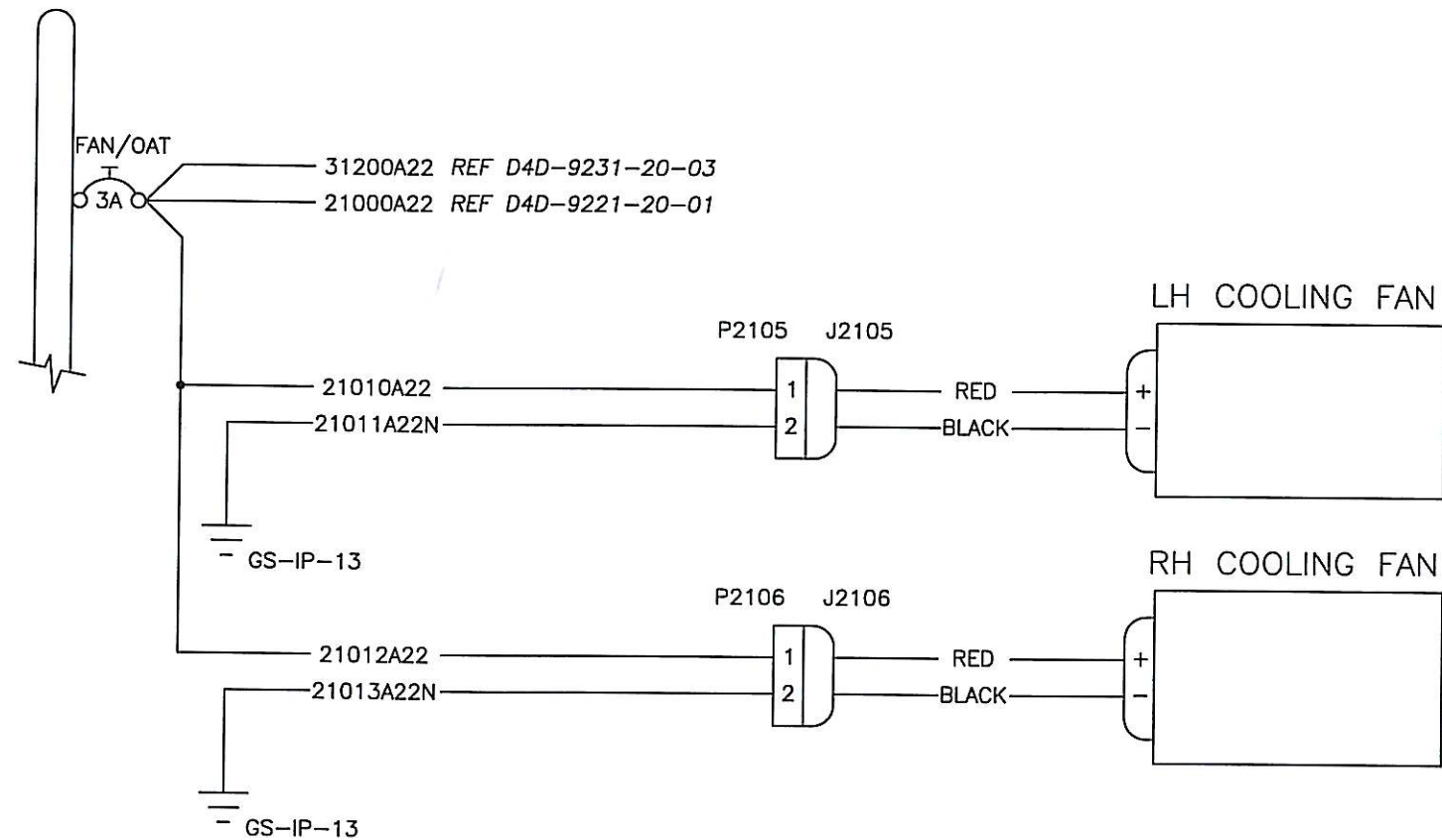
D

C

B

A

MAIN BUS



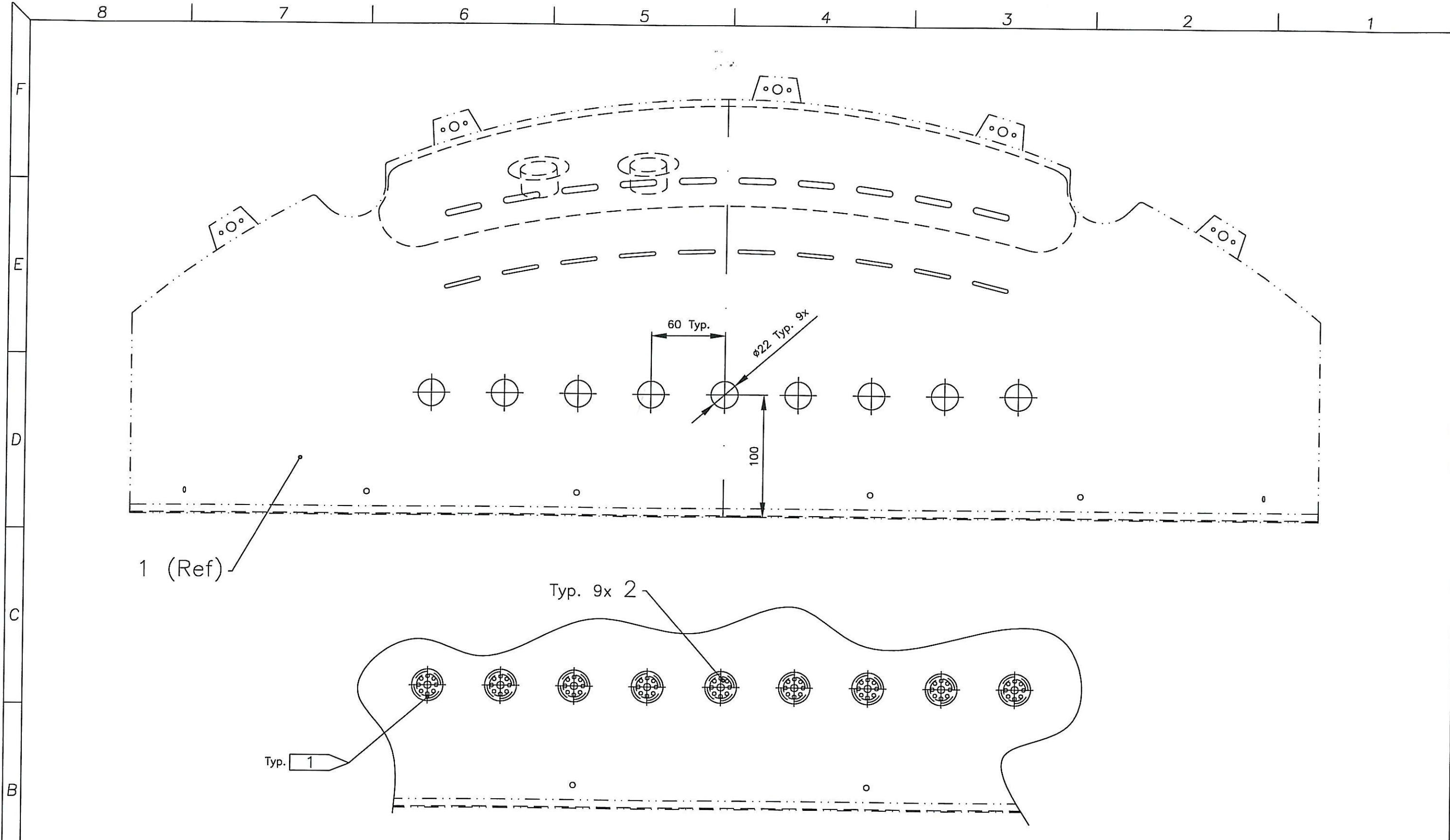
| QTY | QTY | ITEM | PART NUMBER | DESCRIPTION | MATERIAL TYPE | H.T. | MATERIAL SIZE | SPECIFICATION | SUPPLIER |
|---------------|-----|------------|-------------|-------------|---------------|------|---------------|---------------|----------|
| REVISION | | | | | | | | | |
| AN# | | OAM 40-244 | | | | | | | |
| DATE | | 25.01.06 | | | | | | | |
| DRAWN | | KOWARSCH | | | | | | | |
| CHECK | | | | | | | | | |
| CHECK DATE | | | | | | | | | |
| STRESS | | | | | | | | | |
| STRESS DATE | | | | | | | | | |
| APPROVAL | | | | | | | | | |
| APPROVAL DATE | | | | | | | | | |

Diamond Aircraft

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Do Not Scale Drawing

| | | | |
|---------------------------|---------------------------|-------------------------------|---|
| Size: B | Scale: NTS | First Angle | TITLE: SCHEMATIC ADDITIONAL EQUIPMENT COOLING |
| Dimensions in Millimetres | Tolerances are ISO 2768 m | NEXT ASSEMBLY: D4D-9200-00-00 | DRAWING NUMBER: D4D-9221-20-03 |
| | | | SHEET: 1/1 |
| | | | REPLACES DWG.# |



NOTES:

1 Bond Item 2 with 5-min Epoxy to inner side of Item 1.

M. Reichel
02 FEB 2006

| 2 | 9 | - | D4D-2121-00-99 | MODIFICATION, HOLE PLUG | | DIAMOND |
|---|--------|--------|----------------|---|---|---|
| 1 | - | - | DA4-310302-00 | COVER, I-PANEL | | DIAMOND |
| Pos. | Stk. L | Stk. R | Teile Nr.: | Benennung | Orientierung/Abmessungen | Lieferant/Bemerkung |
| <small> DIESE UNTERLAGE IST UNSER GEISTIGES EIGENTUM UND DARF OHNE UNSERE AUSDRUECKLICHE GENEHMIGUNG WEDER Vervielfaeltigt NOCH DRITTEN PERSOENEN UEBERLASSEN WERDEN! UEBERTRETUNGEN UNTERLIEGEN DER VERFOLGUNG NACH DEM URHEBERRECHT. DIAMOND AIRCRAFT INDUSTRIES GmbH </small> | | | | <small> Freimass- toleranzen : DIN 7168 m ISO 2768 m OeN M 1365 m </small> | <small> Masstab : 1:3 Benennung : COVER, INSTRUMENT PANEL KNEE ROOM, HOT WEATHER </small> | |
| | | | | <small> O6 Datum Name Bearb. 12.01. KOWARSCH Gepr. </small> | | |
| | | | | <small> Nächster Zusammenbau: DA4-3103-00-00 </small> | <small> Zeichnungs Nr.: DA4-3103-02-00x01 </small> | <small> Blatt 1 1 Bl </small> |
| | | | | <small> OAM 40-244 12.01.06 KOW </small> | <small> DA40 </small> | |
| | | | | <small> Zust. Änderung Datum Name </small> | <small> Technikserver\... \3103\DA4-3103-02-00x01.dwg </small> | <small> Ers. fuer : N/A </small> |