

RECOMMENDED SERVICE BULLETIN NO. RSB 40-094 REV. 1
SUPERSEDES RSB 40-094 REV. 0

I TECHNICAL DETAILS

I.1 Category

Recommended.

I.2 Airplanes Affected

Type: DA 40
S/N: 40.1229 and below

I.3 Date of Effectivity

25 November 2021

I.4 Time of Compliance

At next scheduled maintenance.

I.5 Subject

Installation of insulation around the fuel supply line from the engine driven pump to the fuel servo.

I.6 Reason

Diamond Aircraft has received reports of DA 40s equipped with Lycoming IO-360-M1A engines experiencing high fuel pressures after engine shutdown, which may damage the fuel servo. The pressure build-up occurs in the fuel line between the engine driven fuel pump and the fuel servo due to heat soak from the engine and the exhaust.

This service bulletin describes insulating the fuel supply line, which has been demonstrated to mitigate the risk of excessive fuel pressures after shutdown.

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 40-1101, which has been approved as part of the type design.

I.9 Accomplishment/Instructions

Comply with WI-RSB 40-094, latest effective issue.

I.10 Mass (Weight) and CG

The change in mass and CG is negligible.

II PLANNING INFORMATION

II.1 Material and Availability

See WI-RSB 40-094, latest effective issue.

II.2 Special Tools

None.

II.3 Labour Effort

Approximately 1 hour will be required to accomplish this service bulletin.

II.4 Credit

None.

II.5 Reference Documents

DA 40 Series Airplane Maintenance Manual, Doc. No. 6.02.01, 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, in particular 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 logbook.
4. In case of doubt, contact Diamond Aircraft Industries Inc.



**EXECUTION REPORT TO
SERVICE BULLETIN
RSB 40-094 REV. 1**

AIRPLANE INFORMATION

Airplane Serial Number _____

Airplane Registration _____

Airplane Operator _____

Hours of Operation of Airplane _____

No. of Landings _____

Hours of Operation of Engine _____

Typical Operation of Airplane _____
(private, club, training, other)

Date, Name, Signature

Please e-mail the completed form to Techpubs@diamondaircraft.com.

WORK INSTRUCTION WI-RSB 40-094 REV. 1
SUPERSEDES WI-RSB 40-094 REV. 0

I GENERAL INFORMATION

I.1 Subject

Installation of insulation around the fuel supply line from the engine driven pump to the fuel servo.

I.2 Reference Documents

DA 40 Series Airplane Maintenance Manual, Doc. No. 6.02.01, latest effective issue.

I.3 Remarks

1. All work must be done by a certified aircraft service station or a certified aircraft maintenance mechanic.
2. All work, in particular which is not especially described in this work instruction, must be done in accordance with the referenced maintenance manual.
3. In case of doubt, contact Diamond Aircraft Industries Inc.

II DRAWINGS, SPECIAL TOOLS & MATERIALS

II.1 Drawings

None.

II.2 Special Tools

None.

II.3 Material

Item	Part No.	Qty	Description
1	2650-13	375 mm	Firesleeve
2	PRF-20-12*	1	Reflective sleeve
3	MS35842-12	1	Hose clamp
4	PLT-2-SM-76	1	Cable tie, fire resistant
5	5027	A/R	5027 firesleeve end dip
5a	LSR2112	ALT	ADL Insulflex firesleeve end dip
5b	AE13702-004	ALT	Eaton-Aeroquip firesleeve end dip

*This part must be ordered from Diamond Aircraft.

III INSTRUCTIONS

1. Make sure that the engine is safe.
2. Remove the cowling. Refer to AMM Section 71-10.
3. Disconnect the airplane battery. Refer to AMM Section 24-31.
4. Disconnect the fuel supply line from the engine driven pump.
5. Plug the open end of the fuel supply line and the open connection to the engine driven pump.
6. Remove the aft hose clamp from the fuel supply line assembly. Discard the hose clamp.

NOTE: Refer to Figure 1 for the installation drawing. Refer to Figures 2 and 3 for photos of the installation.

7. Install the new firesleeve (item 1):
 - A. Coat both ends of the firesleeve with a first coat of firesleeve end dip (item 5). Ensure 50 mm (2 in) of the inner surface of both ends of the firesleeve are coated.
 - B. Wipe excess end dip from the outside of the firesleeve. Allow the first coat to dry.
 - C. Coat both ends of the firesleeve with a second coat of firesleeve end dip. Ensure 50 mm (2 in) of the inner surface of both ends of the firesleeve are coated.
 - D. Wipe the excess end dip from the outside of the firesleeve. Allow the second coat to dry.
 - E. Install the new firesleeve over the fuel supply line, and under the existing large firesleeve. Refer to Figure 1.
8. Install a new hose clamp (item 3). Ensure the new firesleeve is secure under the clamp.
9. Install the reflective sleeve (item 2). The reflective sleeve should start against the aft end of the existing large firesleeve. Do not insert the reflective sleeve under the large firesleeve.
10. Secure the reflective sleeve with a fire resistant cable tie (item 4).
11. Connect the fuel supply line to the engine driven pump.
12. Connect the airplane battery. Refer to AMM Section 24-31.
13. Do an engine ground run-up. Refer to the AFM.
14. Shut down and secure the engine.
15. Look for fuel leaks around the fuel servo and engine driven pump.

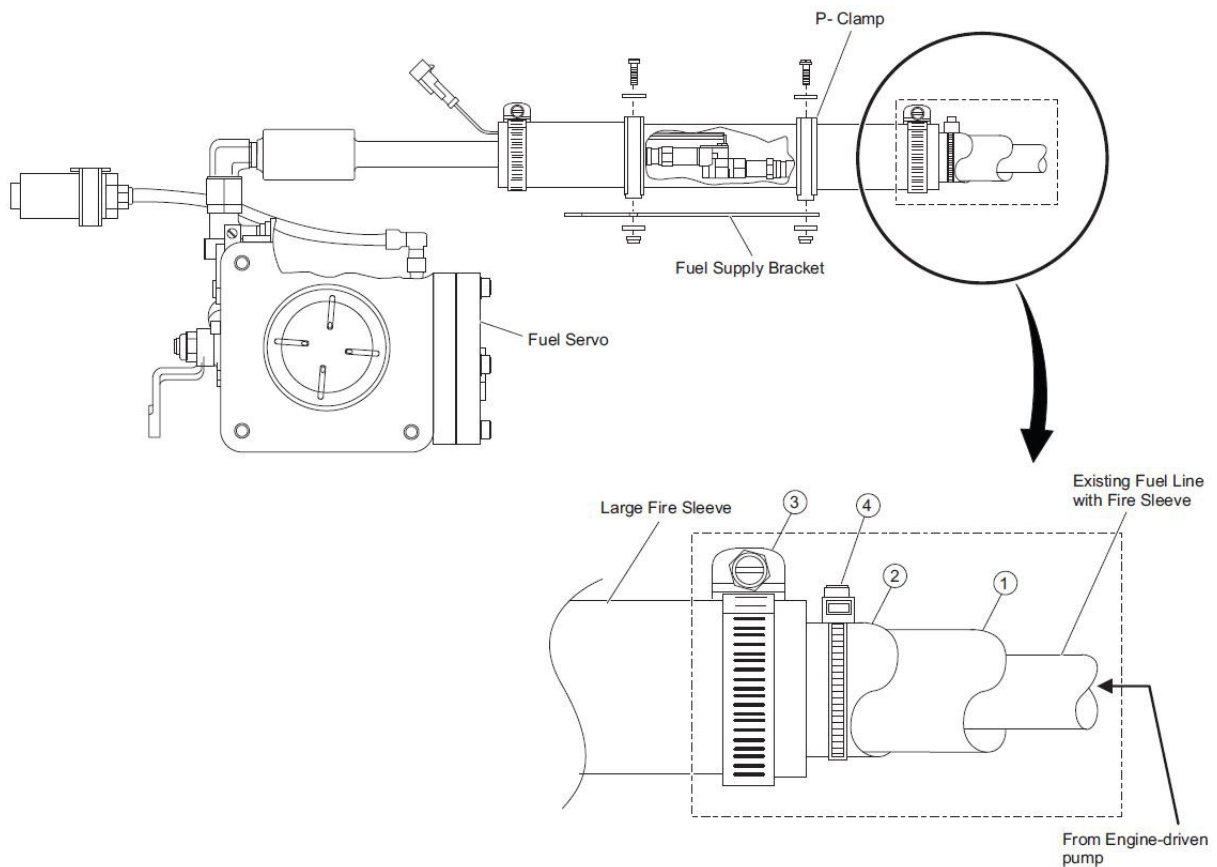


Figure 1. Installation drawing.

16. Clean the working area, and check for foreign objects.
17. Check all altered, replaced, repaired parts for proper function.
18. Install the cowlings. Refer to AMM Section 71-10.
19. Make all necessary entries in the logbooks.
20. Submit the execution report to Techpubs@diamondaircraft.com.

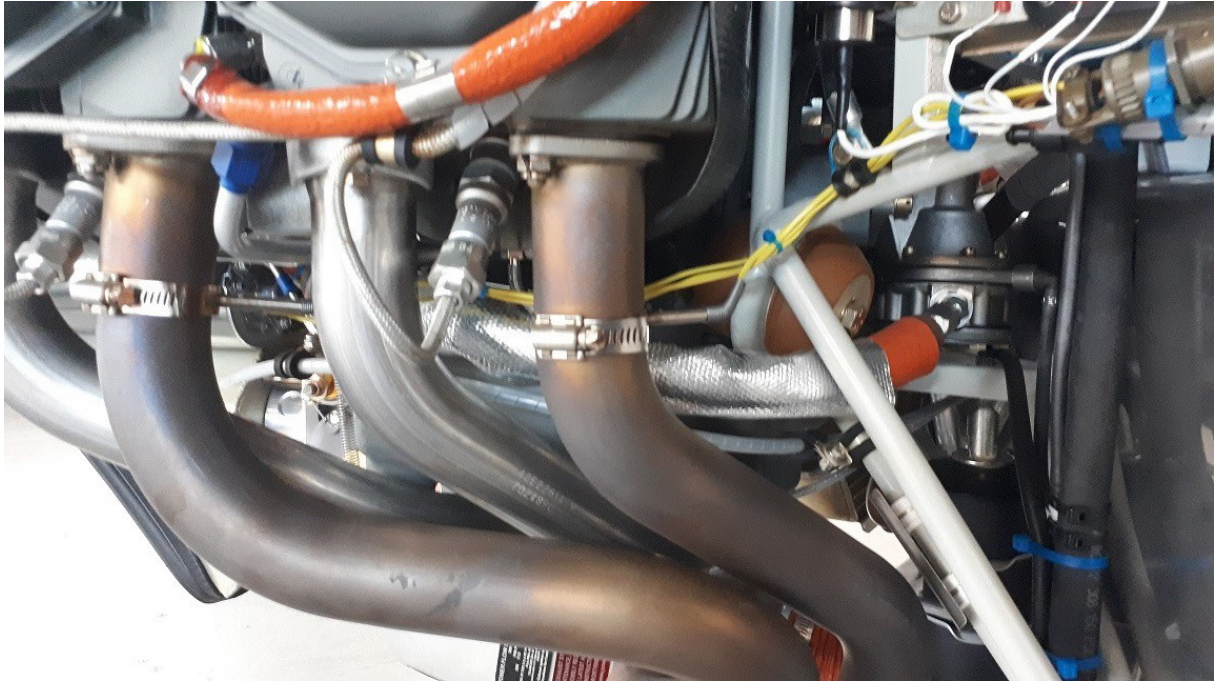


Figure 2. Installation, rear view.

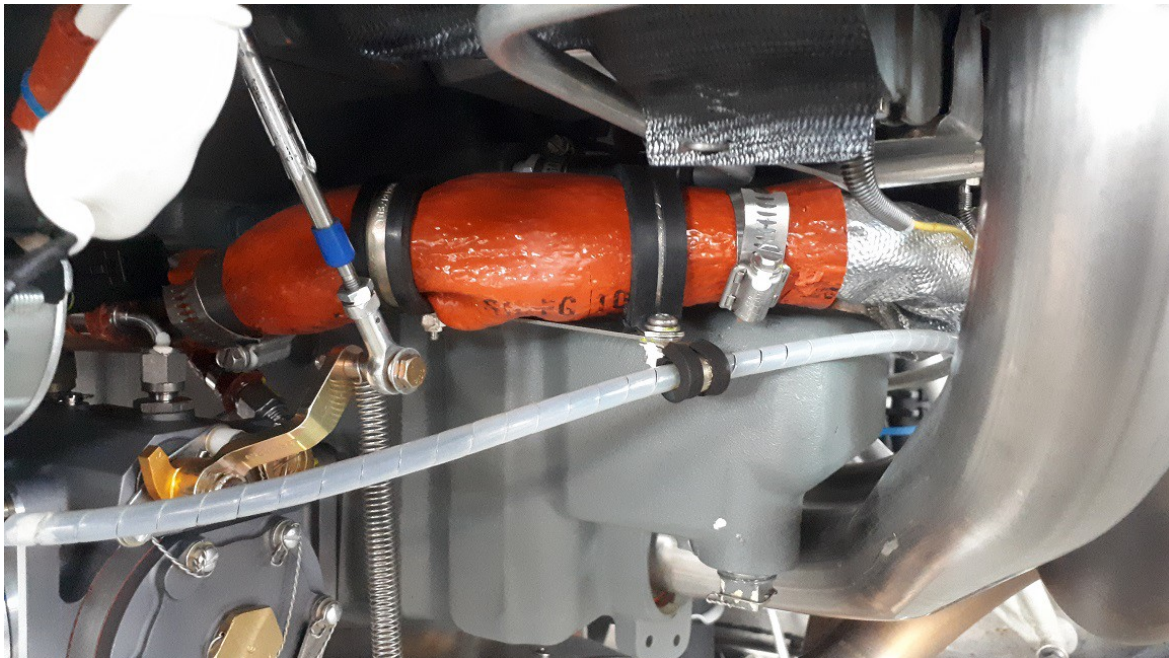


Figure 3. Installation, front view. Note that item 4 has not yet been installed.

Diamond Aircraft Industries
WORK INSTRUCTION
Model DA 40



To obtain satisfactory results, procedures specified in this service bulletin must be accomplished in accordance with accepted methods and current government regulations. Diamond Aircraft cannot be responsible for the quality of work performed in accomplishing the requirements of this service bulletin. Diamond Aircraft reserves the right to void continued warranty coverage in the area affected by this service bulletin if it is not incorporated.

If you no longer own the aircraft to which this service bulletin applies, please forward it to the current owner, and send the name of the current owner to Diamond Aircraft at the address below.

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