



Aircraft Design Certification GmbH Reichensteinstr.48 69151 Neckargemünd		Bristell B23 - Exhaust retrofit	Doc-Nr: ADxC-73-SB-044 Issue: A Date: 14.05.2024 Change-no.: ADxC-73-DC-110
Service Bulletin			

Bristell B23
SERVICE BULLETIN

<p>Office of Airworthiness release</p> <p>Date:</p> <p>Name:</p> <p>Signature:</p>

<p>Verification Engineer</p> <p>I hereby declare that the technical content of this document is correct and can be used to fulfil the obligations of the type design holder per 21.A.265(h)</p> <p>Date:</p> <p>Name:</p> <p>Signature:</p>

<p>Author</p> <p>Date:</p> <p>Name: L. Rammos</p> <p>Signature:</p>

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Amendments

Issue	Reason	Date
A	DC-110: Initial issue	14.05.2024

<p>Bristell B23 - Exhaust retrofit</p> <p>Optional retrofit of exhaust system with higher diameter tubing (DC-110). , Optional retrofit of exhaust system and silencer with higher diameter tubing (DC-115) with corresponding changes to the DC-110 exhaust system and front fuselage. Subsequent furnishing of AFM and AMM supplements. Version without silencer (DC-110) and with silencer (DC-115) both described in this bulletin.</p> <p>Reduction of Exhaust back pressure</p>

STANDARD


0 General

0.1 ATA Code

ATA 78 EXHAUST
ATA 78 EXHAUST - 78-20 – Noise Suppressor

0.2 Effectivity

Applicable to all serial numbers of Bristell B23 and B23-912-G500 - TCDS EASA.A.642

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1 Planning information

1.1 Reason

Optional retrofit of B23 exhaust system with the following equipment according ADxC-DC-73-110:

Exhaust system DC-110: bigger diameter tubing, muffler internal bulkhead modification

Exhaust system DC-115: bigger diameter tubing, muffler internal bulkhead modification + Silencer system

Both result in a reduced exhaust back pressure.

Note: DC-115 silencer is only compatible with DC-110 exhaust system (PN 71B241000N issue B or higher). It is NOT compatible with original DC-001 exhaust (PN 71B240000N)

1.2 Safety Intent

No safety intent.

1.3 Configuration Description

The mentioned equipment is optional and can be added to the a/c if compatibility with other changes is provided.


1.4 Compliance

If criteria in Section 0 is met

- Service bulletin must be accomplished
- This SB could be made mandatory by an EASA AD.
 - This SB is mandatory as per EASA AD no. _____
 - Service bulletin recommended to be accomplished to prevent significant operational disruptions
 - Service bulletin to introduce improvements
 - Service bulletin for convenience or option

1.5 Approval statement

The technical content of this document is approved under the authority of the DOA ref. EASA. 21J.411.

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1.6 Concurrent publications

ADxC-73-001-AMM supplement issue 2.4 issue date 21.05.2024

and

ADxC-73-012-AMM supplement issue 1.1 issue date 24.05.2024

ADxC-73-110-AFM supplement revision A issue date 14.05.2024

OR

ADxC-73-115-AFM supplement revision A issue date 14.05.2024

1.7 Manpower

Approx. 2 hours are required to accomplish this SB.

1.8 Weight and Balance

Additional weight of DC-110 is <0.5 kg

Additional weight of DC-115 is ~3.5 kg

After completion of instructions as defined in section 3 update the weight and balance record for the affected B23. Perform the weight and balance according to section 6 of ADxC-73-001-AFM/ADxC-73-070-AFM.

1.9 Electrical load data

n/a

1.10 Software modification

none

1.11 Referenced documentation


ADxC-73-001-AFM; issue B4; dated 24th of November 2023

ADxC-73-070-AFM; issue A3; dated 24th of November 2023

ADxC-73-001-AMM; edition 2.4; dated 21st of May 2024

ADxC-73-012-AMM; edition 1.1; dated 25th of May 2024

1.12 Other publications effected N/A

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2 Material information

2.1 Material- cost – availability

Refer to aircraft manufacturer BRM Aero s.r.o.

2.2 Company support information

Refer to aircraft manufacturer BRM Aero s.r.o.

2.3 Material requirements per aircraft N/A


71B241000N, Rev. B	Exhaust system Assy	
71B241100N, Rev. A	Silencer installation	<i>(Only for DC-115)</i>

Safety wire

2.4 Rework parts

See section 3.

2.5 Special tooling N/A

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3 Accomplishment/Instructions

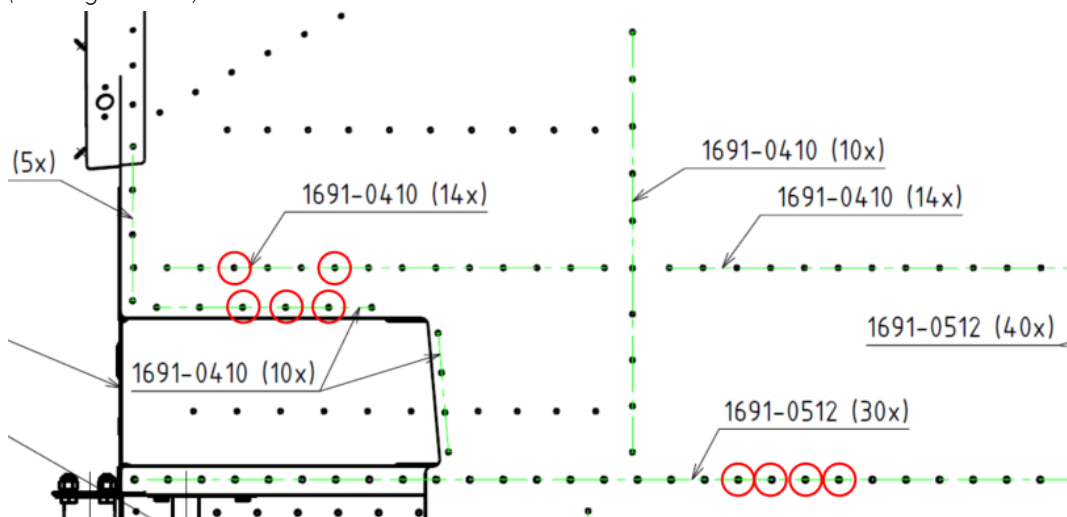
Installation of DC-110

- 1) Remove the complete original type design exhaust system (71B24000N). For instructions refer to chapter 78-00 of the main maintenance manual (ADxC-73-001-AMM, ref. 1.11).
- 2) Install the supplied DC-110 exhaust (71B241000)
- 3) Perform weight & balance measurement according to section 8-10 of the main AMM (ADxC-73-001-AMM/ ADxC-73-070-AMM, ref. 1.11) and store record in aircraft documentation.
- 4) Make a log book entry and add note to aircraft CAW documentation that this Service bulletin has been incorporated.


Installation of DC-115

The points 2) to 4) do not apply when ADxC-DC-73-012 is installed.

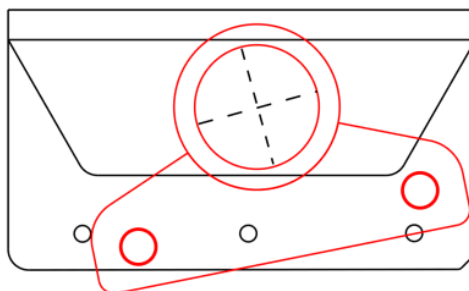
- 1) Remove silencer (if installed). For instructions refer to chapter 78-20 of the DC-012 maintenance manual (ADxC-73-012-AMM, , ref. 1.11).
Remove the complete original type design exhaust system (71B24000N). For instructions refer to chapter 78-00 of the main maintenance manual (ADxC-73-001-AMM, ref. 1.11).
- 2) *Unrivet rivets 19-22 counting from the first rivet on the firewall in the row left of the Nose Landing Gear bay and on the over next row rivets 4-6, as well as the rivets 4 and 7 in the adjacent row (leaving out 5&6):*



- 3) *Install the supplied brackets oriented as depicted on the installation drawing.*
- 4) *Relocate electric connector and drain hoses as defined on drawing 71B240135N.*
- 5) Install the supplied exhaust/silencer assembly 71B241100N (according to drawing 71B241000N and its supplement 71B241100N)
Mount the clamps on the main silencer body (front and rear) to the shock absorber bracket (sandwiching of the shock absorber metal sheet: *clamp – shock absorber – clamp*) by use of the defined washers, bolts and nuts. Just tighten the bolt-connection so that the clamp is still movable in axial and radial direction.

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- 6) Connect the main body of the silencer to the flexible hose using the supplied springs.
- 7) Position the silencer main body and clamps, so that the middle point of the bushing of both shock absorber brackets is the most possible in the middle of the fuselage brackets:



Mark the middle point of the bushing on each bracket. Drill an 8mm hole at the marked position into each bracket and smooth the edges.

- 8) Insert the rubber shock absorber inserts into the bushings and connect to the bracket using the defined hardware.
- 9) Tighten the bolts on the clamps.
- 10) Apply as described in main AMM safety wire to all the installed springs.
- 11) Perform weight & balance measurement according to section 8-10 of the main AMM ADxC-73-001-AMM and store record in aircraft documentation.
- 12) Make a log book entry and add note to aircraft CAW documentation that this Service bulletin has been incorporated.

4 Appendix

Appended/Updated are following manuals and drawings:

- 71B241000N; issue B Exhaust system assembly
- 71B241100N; issue A silencer installation (applicable to DC-115 only)
- 71B240135N; issue A connector relocation (applicable to DC-115 only)
- ADxC-73-110-AFM supplement issue A (applicable to DC-110 only)
- ADxC-73-115-AFM supplement issue A (applicable to DC-115 only)
- ADxC-73-001-AMM, edition 2.4
- ADxC-73-012-AMM supplement, edition 1.1 (applicable to DC-115 only)