

MANDATORY SERVICE BULLETIN NO. MSB 62-030 REV. 1 SUPERSEDES MSB 62-030 REV. 0

I TECHNICAL DETAILS

I.1 Category

Mandatory.

I.2 Airplanes Affected

Type: DA 62

Serial Numbers: 62.029, 62.044, 62.085 through 62.123, and 62.125 through 62.127 62.C008 through 62.C015

Prior compliance with FC 62-012, or the incorporation of OÄM 62-1010 precludes compliance with this service bulletin.

I.3 Date of Effectivity

01 July 2020

I.4 Time of Compliance

At owner's discretion, but no later than 31 December 2020.

I.5 Subject

Cowling lightning protection

ATA code: 51-80

I.6 Reason

During the production process, deviations to the type design have been recognized on the cowlings. For consistency reasons, an additional connection of the cowlings to the lightning protection system in accordance with the standard design practices are applied.

I.7 Concurrent Documents

None

I.8 Approval

The technical information and instructions contained in this document relate to Design Change Advisory No. OÄM 62-1010 and are approved as part of the type design.

I.9 Accomplishment/Instructions

See WI-MSB 62-030, latest effective issue.

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I.10 Mass (Weight) and CG

The change in mass and CG is negligible.

II PLANNING INFORMATION

II.1 Material and Availability

See WI-MSB 62-030, latest effective issue.

II.2 Special Tools

None.

II.3 Labour Effort

Appr. 8 hours.

This estimate is for direct labour performed by a technician, and it does not include setup, planning, familiarization, cure time, part fabrication, or tool acquisition.

II.4 Credit

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8 hours labour. Parts to be supplied by Diamond Aircraft Industries at no charge.

II.5 Reference Documents

DA 62 Airplane Maintenance Manual, Doc. No. 7.02.25, latest effective issue.

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III REMARKS

- 1. All work must be completed by the appropriate authorized personnel.
- 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 logbook.
- 4. In case of doubt, contact Diamond Aircraft Industries.

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.

Diamond Aircraft Industries Inc. 1560 Crumlin Sideroad, London, Ontario, Canada N5V 1S2

Customer Support: Phone: (519) 457-4041, Fax: (519) 457-4045 E-mail: support-canada@diamondaircraft.com

Technical Publications: E-mail: Techpubs@diamondaircraft.com



EXECUTION REPORT TO SERVICE BULLETIN MSB 62-030 REV. 1

AIRPLANE DATA

Airplane serial number				
Airplane registration				
Airplane operator				
Hours of operation airplane (TSN)				
Typical operation of airplane	private, club, training, other:			
MAINTENANCE DATA:				
Date of inspection				
Inspection carried out by				
Did the aircraft already have the lightning protection installed?				
Did the aircraft already have OÄM 62-1010 incorporated?				
Date				

Name

Signature

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



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WORK INSTRUCTION WI-MSB 62-030 REV. 1 SUPERSEDES WI-MSB 62-030 REV. 0

I GENERAL INFORMATION

I.1 Subject

Installation of improved cowling lightning protection.

I.2 Reference Documents

DA 62 series Airplane Maintenance Manual, Doc. No. 7.02.25, 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 if not described in this work instruction, must be done in accordance with the referenced maintenance manual.
- 3. For conversion factors between SI units and US/Imperial units, refer to AMM Chapter 02.
- 4. 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

ltem	Quantity	Part Number	Description
1	2	D64-7116-00-01-FC	Lightning Protection Connector Firewall LH
2	2	D64-7116-00-02-FC	Lightning Protection Connector Firewall RH
3	2	D64-7116-00-03-FC	Lightning Protection Sheet A-Cowling
4	2	D64-7116-00-04-FC	Lightning Protection Sheet B-Cowling
5	4	D64-7116-00-05-FC	Lightning Protection Sheet C-Cowling
6	16	DIN 7337-A4.0x7.0-A2	Blind Rivet
7	24	DIN 7337-B4.0x8-A2	Blind Rivet
8	8	D60-1127-10-02	Placard, Lightning Protection
9	As required	-	Bonderite M-CR 1201 (Alodine 1201)
10	As required	7-11 Blue	Nycote
11	As required	MS9380	Terostat MS 9380 WH
12	As required	-	Cleco temporary fasteners - black (4.0 mm)

NOTE: the original camlocks may not be long enough to complete the installation of the lightning protection connectors and sheets. Longer camlocks are available from Diamond Aircraft Industries.



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III INSTRUCTIONS

III.1 Left-Hand Engine, Cowling C, Bond

- 1. Verify that the lightning protection has not been installed, and that OÄM 62-1010 has not been incorporated. If either of the above has been accomplished, no further work is required. Submit the execution report to Techpubs@diamondaircraft.com.
- 2. Align item 5 (see Figure 1), and clamp it to the cowling. Take care not to damage the paint on the cowling.
- 3. Drill the hole for the camlock in item 5. Deburr the hole. Apply Bonderite M-CR 1201 to the exposed area (inner surface of hole) in item 5 after drilling.
- 4. From the inside of the cowling, match drill rivet holes (4 mm diameter) in the cowl surface. Use a suitable drill bit.

NOTE: take care to prevent damage to the external surface of the cowling.

- 5. Remove clamps and prepare item 5 for bonding:
 - A. Sand the inner surface of the cowling where item 5 will be bonded.
 - B. Sand the surface of item 5 that will be in contact with the cowling.
 - C. Apply Terostat MS 9380 WH to the sanded surface of item 5. Cover the surface completely.
 - D. Clamp item 5 to the cowling. Use multiple clamps to ensure sufficient contact. Take care not to damage the paint on the cowling.
 - E. Install clecos into the three rivet holes from the outside in.
 - F. Allow 24 hours to cure.
- 6. Repeat steps 2 to 5 for the other side of the cowling.

NOTE: leave a 2 mm (minimum) gap away from the cowling's edges to allow proper fit



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Figure 1. Position of item 5 on the left-hand side of Cowling C; right-hand side installation is similar. Leave at least a 2 mm gap from the edges of the cowling. Use multiple clamps while the sealant is curing to ensure a secure bond.

III.2 Right-Hand Engine, Cowling C, Bond

7. Perform the same steps in Section III.1 for Cowling C on the right-hand engine.

III.3 Left-Hand Engine, Cowling B, Bond

- 8. Align item 4 (see Figure 2), and clamp it to the cowling. Take care not to damage the paint on the cowling.
- 9. Drill the hole for the camlock in item 4. Deburr the hole. Apply Bonderite M-CR 1201 to the exposed area (inner surface of hole) after drilling.
- 10. From the inside of the cowling, match drill rivet holes (4 mm diameter) in the cowl surface. Use a suitable drill bit.

NOTE: take care to prevent damage to the external surface of the cowling.

- 11. Remove the clamps, and prepare item 4 for bonding:
 - A. Sand the inner surface of the cowling where item 4 will be bonded.
 - B. Sand the surface of item 4 that will be in contact with the cowling.
 - C. Apply Terostat MS 9380 WH to the sanded surface of item 4. Cover the surface completely.
 - D. Clamp item 4 to the cowling. Use multiple clamps to ensure sufficient contact. Take care not to damage the paint on the cowling.
 - E. Install clecos into the three rivet holes from the outside in.
 - F. Allow 24 hours to cure.



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NOTE: leave a 2 mm (minimum) gap away from the cowling's edges to allow proper fit.



Figure 2. Position of item 4 on Cowling B for the left-hand engine; for the installation on the righthand engine, leave enough space to clear the ice light cover. Leave at least a 2 mm gap from the edges of the cowling.

III.4 Right-Hand Engine, Cowling B, Bond

12. Perform the same steps as in Section III.3 for Cowling B on the right-hand engine.

NOTE: ensure the lightning protection strap clears the ice light cover.





III.5 Left-Hand Engine, Cowling A, Bond

13. Align item 3 (see Figure 3), and clamp it to the cowling. Take care not to damage the paint on the cowling.



Figure 3. Position of item 3 on Cowling A for the left-hand engine. Leave at least a 2 mm gap from the edges of the cowling. In the case of this aircraft, a gap much larger than 2 mm from the bottom edge was required to clear the ice light cover; this will not always be the case. There is no ice light cover on Cowling A for the right-hand engine.

- 14. Drill the hole for the camlock in item 3. Deburr the hole. Apply Bonderite M-CR 1201 to the exposed area (inner surface of the hole) after drilling.
- 15. From the inside of the cowling, match drill rivet holes (4 mm diameter) in the cowl surface. Use a suitable drill bit.

NOTE: take care to prevent damage to the external surface of the cowling.

- 16. Remove clamps, and prepare item 3 for bonding:
 - A. Sand the inner surface of the cowling where item 3 will be bonded.
 - B. Sand the surface of item 3 that will be in contact with the cowling.
 - C. Apply Terostat MS 9380 WH to the sanded surface of item 3. Cover the surface completely.
 - D. Clamp item 3 to the cowling. Use multiple clamps to ensure sufficient contact. Take care not to damage the paint on the cowling.
 - E. Install clecos into the three rivet holes from the outside in.



F. Allow 24 hours to cure.

NOTE: leave a 2 mm (minimum) gap away from the cowling's edges to allow proper fit.

NOTE: ensure the lightning protection strap clears the ice light cover.

III.6 Right-Hand Engine, Cowling A, Bond

17. Perform the same steps as in Section III.5 for Cowling A on the right-hand engine.

III.7 Left-Hand Nacelle, Position & Drill

18. Position lightning protection straps (items 1 and 2) onto the nacelle cowl flanges:

- A. Position item 1 onto the left-hand side of the nacelle.
- B. Position item 2 onto the right-hand side of the nacelle.

NOTE: item 1 is bonded to the left side of both the left-hand and right-hand nacelles. Item 2 is bonded to the right side of both the left-hand and right-hand nacelles.

NOTE: ensure that both camlock holes (see Figure 4) are covered.

NOTE: the rivets used to mount the ice light bracket must be accessible when the cowlings are removed (see Figure 4).



Figure 4. Left: ensure both camlock holes are covered. Right: do not cover the rivets (circled) used to mount the ice light bracket. This figure shows the installation of item 1 on the left-hand nacelle. The installation of item 2 is similar.

19. Clamp items 1 and 2 to the nacelle cowl flanges. Take care not to damage the paint on the nacelle.



20. Using a suitable drill bit, drill out the camlock holes in items 1 and 2. Deburr the holes. Apply Bonderite M-CR 1201 to all exposed areas (inner surface of holes) after drilling.



Figure 5. Items 1 and 2 installed on the left-hand nacelle. Installation on the right-hand nacelle is similar.

21. Using a suitable drill bit and a 90° angle head drill, match drill the rivet holes in items 1 and 2 to the firewall. The holes are 4 mm in diameter.

CAUTION: DRILL THROUGH THE SHEET METAL FIREWALL SKIN ONLY (0.4 MILLIMETERS THICK). DO NOT DRILL THROUGH THE ENTIRE FIREWALL.

III.8 Left-Hand Nacelle, Install Lightning Protection

22. Remove the clamps, and prepare items 1 and 2 for bonding:

- A. Sand the surface of the cowl flange where items 1 and 2 will be bonded.
- B. Sand the surface of items 1 and 2 that will be in contact with the cowl flange.
- C. Apply Terostat MS 9380 WH to the sanded surface of items 1 and 2. Cover the sanded surface of items 1 and 2 completely.
- D. Clamp items 1 and 2 to the cowl flange. Use multiple clamps to ensure sufficient contact. Take care not to damage the paint on the nacelle.
- E. Install clecos into the eight rivet holes.
- F. Allow 24 hours to cure.



III.9 Right-Hand Nacelle, Position & Drill

23. Perform the same steps as in Section III.7 for the right-hand nacelle.

III.10 Right-Hand Nacelle, Install Lightning Protection

24. Perform the same steps as in Section III.8 for the right-hand nacelle.

CONTINUE AFTER ALL THE SEALANT ON ALL THE PARTS HAS CURED.

III.11 Left-Hand Engine, Cowling C, Countersink

- 25. Remove clamps.
- 26. Clean around item 5 by scraping away excess Terostat MS 9380 WH. Use a plastic scraper.
- 27. Remove clecos.
- 28. Remove the surface protection from item 5 around the rivet holes (approximately 5 mm around the holes). Use Scotch-Brite or another suitable material.
- 29. On the outside of the cowling, counter sink holes (2 mm) for flush head rivet installation.
- 30. Repeat steps 25 to 29 for the other side of the cowling.

III.12 Left-Hand Engine, Cowling C, Rivet

- 31. Install flush head blind pop rivets.
- **NOTE:** make sure to keep the rivet perpendicular to the surface.
- 32. Apply Nycote to the rivet shanks on the inside of cowling, to seal the connection between the rivets and item 5.
- 33. Repeat steps 31 and 32 for the other side of the cowling.

III.13 Left-Hand Engine, Cowling C, Sealant

- 34. Apply Terostat MS 9380 WH sealant to the rivet heads on the outside of the cowling, and wipe off the excess. Repeat for the other side of the cowling. See Figure 6.
- 35. Allow time of the sealant to cure (24 hr) prior to placard application.



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Figure 6. Rivet heads that have been countersunk and sealed with Terostat MS 9380 WH. Apply the placard after the sealant has cured (24 hr). Ensure the placard covers all the rivet heads.

III.14 Right-Hand Engine, Cowling C, Countersink

36. Perform the same steps as in Section III.11 for Cowling C on the right-hand engine.

III.15 Right-Hand Engine, Cowling C, Rivet

37. Perform the same steps as in Section III.12 for Cowling C on the right-hand engine.

III.16 Right-Hand Engine, Cowling C, Sealant

38. Perform the same steps as in Section III.13 for Cowling C on the right-hand engine.

III.17 Left-Hand Engine, Cowling B, Countersink

- 39. Remove clamps.
- 40. Clean around item 4 by scraping away excess Terostat MS 9380 WH. Use a plastic scraper.
- 41. Remove clecos.
- 42. Remove the surface protection from item 4 around the rivet holes (approximately 5 mm around the holes). Use Scotch-Brite or another suitable material.
- 43. On the outside of the cowling, countersink holes (2 mm) for flush head rivet installation.

III.18 Left-Hand Engine, Cowling B, Rivet

44. Install flush head blind pop rivets.

NOTE: make sure to keep the rivet perpendicular to the surface.



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45. Apply Nycote to the rivet shanks on the inside of the cowling, to seal the connection between the rivets and item 4.

III.19 Left-Hand Engine, Cowling B, Sealant

- 46. Apply Terostat MS 9380 WH sealant to the rivet heads on the outside of the cowling, and wipe off the excess.
- 47. Allow time for the sealant to cure (24 hr) prior to placard application.

III.20 Right-Hand Engine, Cowling B, Countersink

48. Perform the same steps as in Section III.17 for Cowling B on the right-hand engine.

III.21 Right-Hand Engine, Cowling B, Rivet

49. Perform the same steps as in Section III.18 for Cowling B on the right-hand engine.

III.22 Right-Hand Engine, Cowling B, Sealant

50. Perform the same steps as in Section III.19 for Cowling B on the right-hand engine.

III.23 Left-Hand Engine, Cowling A, Countersink

- 51. Remove clamps.
- 52. Clean around item 3 by scraping away excess Terostat MS 9380 WH. Use a plastic scraper.
- 53. Remove clecos.
- 54. Remove the surface protection from item 3 around the rivet holes (approximately 5 mm around the holes). Use Scotch-Brite or another suitable material.
- 55. On the outside of the cowling, counter sink holes (2 mm) for flush head rivet installation.

III.24 Left-Hand Engine, Cowling A, Rivet

56. Install flush head blind pop rivets.

NOTE: make sure to keep the rivet perpendicular to the surface.

57. Apply Nycote to the rivet shanks on the inside of the cowling, to seal the connection between the rivets and the rivets and item 3.

III.25 Left-Hand Engine, Cowling A, Sealant

- 58. Apply Terostat MS 9380 WH sealant to the rivet heads on the outside of the cowling, and wipe off the excess.
- 59. Allow time for the sealant to cure (24 hr) prior to placard application.

III.26 Right-Hand Engine, Cowling A, Countersink

60. Perform the same steps as in Section III.23 for Cowling A on the right-hand engine.



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III.27 Right-Hand Engine, Cowling A, Rivet

61. Perform the same steps as in Section III.24 for Cowling A on the right-hand engine.

III.28 Right-Hand Engine, Cowling A, Sealant

62. Perform the same steps as in Section III.25 for Cowling A on the right-hand engine.

III.29 Left-Hand Nacelle, Rivet

- 63. Remove clamps.
- 64. Clean around items 1 and 2 by scraping away excess Terostat MS 9380 WH. Use a plastic scraper.
- 65. Remove clecos.
- 66. Remove the surface protection from items 1 and 2 around the rivet holes (approximately 5 mm around the holes). Use Scotch-Brite or another suitable material.
- 67. Install the lightning protection connectors to firewall with blind pop rivets.
- 68. Apply Nycote to the rivet heads, and to the edges of the lightning protection strap in contact with the firewall to seal the connection between the rivets, the lightning protection connectors, and the firewall (see Figure 7). See Figure 5 for the completed installation.







Figure 7. Item 2 installed on left-hand nacelle. Note the Nycote on the rivets and around the edges where the straps contact the firewall.

III.30 Right-Hand Nacelle, Rivet

69. Perform the same steps as in Section III.29 for the right-hand nacelle.

CONTINUE AFTER ALL THE SEALANT ON ALL THE PARTS HAS CURED.



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III.31 Apply Placards

- 70. Wipe the surface free of excess sealant/dirt/grease.
- 71. Apply placards over rivet heads on the external surface of items 3, 4, and 5. Ensure each placard covers all three rivet heads.

III.32 Inspection and Wrap-Up

- 72. Inspect installation of all components on the left-hand nacelle.
- 73. Inspect installation of all components on the right-hand nacelle.
- 74. Inspect installation of all components on the left-hand cowl set (cowlings A, B, and C).
- 75. Inspect installation of all components on the right-hand cowl set (cowlings A, B, and C).
- 76. Inspect camlock function after installation of cowl set onto the nacelles.
- 77. Inspect ice light clearance.
- 78. Clean working areas, and check for foreign objects.
- 79. Make all necessary entries in the airplane logs.
- 80. Fill in the execution report, and submit it to Techpubs@diamondaircraft.com.

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