

AIRWORTHINESS OPERATOR MESSAGE

Date: 21 September 2023

Ref AOM: 2022/04 issue 3

AIRCRAFT MODELS: All ATR42 and ATR72 models

ATA: 24

SUBJECT: Contactor 1PA operational test

INSTRUCTIONS FOR CONTINUED AIRWORTHINESS: ☒ Yes ☐ No

APPLICABILITY

All ATR 42 and ATR 72 pre MOD 05948.

Note: MOD 05948 consists in the installation of New Avionics Suite "Glass cockpit".

REASON

One event of electrical failure has been reported to ATR on a pre MOD 05948 aircraft. Troubleshooting evidenced the contactor 1PA has failed with its contacts in intermediate position and this failure could be a potential contributor to the reported occurrence. Investigation is still on-going to fully understand the root cause.

To address this failure mode, ATR has developed an operational test to be performed on contactor 1PA.

This AOM was revised to issue 2 to inform all operators that EASA will release an AD to require the application of operational test on contactor 1PA within 60 days and, thereafter, at intervals not to exceed 1000 flight hours (FH), as a repetitive operational test.

In addition, Contactor 1PA operational test instructions in Appendix 1 were updated to include the repetitive operational test condition. Contactor 1PA operational test instructions in Appendix 1 were also modified to add information regarding C/B 62PA and 13PA alternative position. Appendix 2 was removed as accomplishment reporting is no longer requested.

This AOM is revised to issue 3 to correct the Operational test flowchart in Appendix 1 by removing the step 11, in accordance with the procedure.

Further action may follow depending on the investigation.

ACTIONS

ATR recommends all operators:

- Within 60 days and, thereafter, at intervals not exceeding 1000 flight hours: to perform operational test of the contactor 1PA as per instructions provided in Appendix 1 of this AOM.

REFERENCE DOCUMENTS

- MP ATR-A-24-31-80-06ZZZ-520Z-A: Removal of the Battery DC Contactor
- MP ATR-A-24-31-80-06ZZZ-720Z-A: Installation of the Battery DC Contactor
- MP ATR-A-24-46-XX-00ZZZ-761Z-A: Energization of the Electrical Circuits - AC and DC Circuits with the Ground Power Unit
- MP ATR-A-24-46-XX-00ZZZ-561Z-A: De-energization of the Electrical Circuits - AC and DC Circuits with the Ground Power Unit

ATTACHMENTS

- Appendix 1: Contactor 1PA operational test instructions

APPROVAL

The technical content of this document is approved under the authority of the DOA ref. EASA.21J.044.



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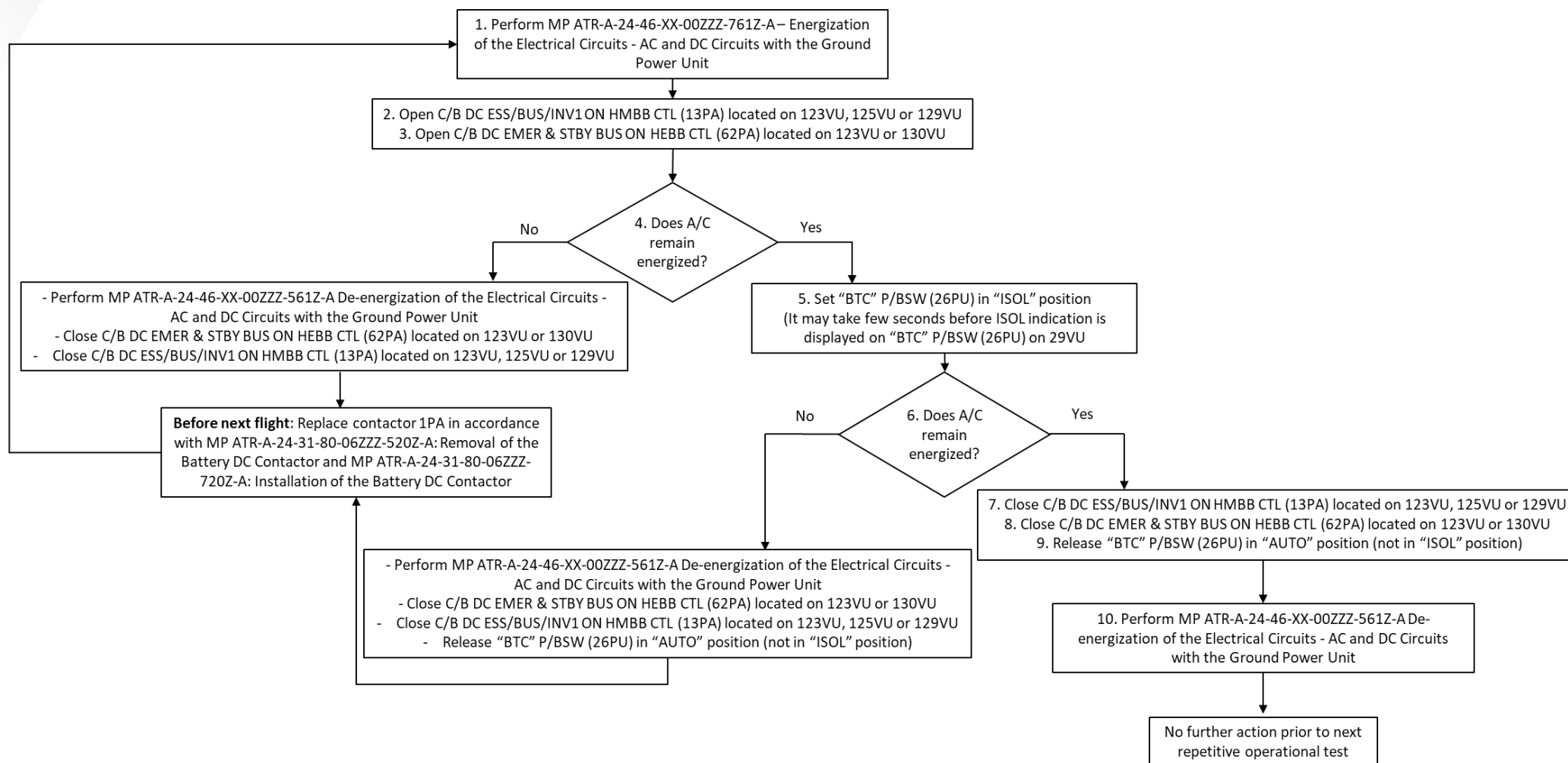
Appendix 1

Contactor 1PA operational test instructions

1. Important notice :

- In case any corrective action is requested as per flowchart below, the full procedure has to be performed again from the beginning.
- It is reminded that contactor 1PA is not a repairable unit.
- It is requested to send to ATR for examination any contactor 1PA replaced during the application of the below procedure.

2. Operational test flowchart



3. Initial configuration:

1. Perform MP ATR-A-24-46-XX-00ZZZ-761Z-A: Energization of the Electrical Circuits - AC and DC Circuits with the Ground Power Unit

4. Procedure:

2. Open C/B DC ESS/BUS/INV1 ON HMBB CTL (13PA) located on 123VU, 125VU or 129VU
3. Open C/B DC EMER & STBY BUS ON HEBB CTL (62PA) located on 123VU or 130VU
4. Check A/C power supply status
 - If A/C remains energized: Proceed with Step 5
 - If A/C does not remain energized:
 - Perform MP ATR-A-24-46-XX-00ZZZ-561Z-A De-energization of the Electrical Circuits - AC and DC Circuits with the Ground Power Unit
 - Close C/B DC EMER & STBY BUS ON HEBB CTL (62PA) located on 123VU or 130VU
 - Close C/B DC ESS/BUS/INV1 ON HMBB CTL (13PA) located on 123VU, 125VU or 129VU
 - **Before next flight:**
 - Replace contactor 1PA in accordance with MP ATR-A-24-31-80-06ZZZ-520Z-A: Removal of the Battery DC Contactor and MP ATR-A-24-31-80-06ZZZ-720Z-A: Installation of the Battery DC Contactor
 - Proceed with Step 1
5. Set “BTC” P/BSW (26PU) in “ISOL” position (It may take few seconds before ISOL indication is displayed on “BTC” P/BSW (26PU) on 29VU)
6. Check A/C power supply status
 - If A/C remains energized: Proceed with Step 7
 - If A/C does not remain energized:
 - Perform MP ATR-A-24-46-XX-00ZZZ-561Z-A De-energization of the Electrical Circuits - AC and DC Circuits with the Ground Power Unit
 - Close C/B DC EMER & STBY BUS ON HEBB CTL (62PA) located on 123VU or 130VU
 - Close C/B DC ESS/BUS/INV1 ON HMBB CTL (13PA) located on 123VU, 125VU or 129VU
 - Release “BTC” P/BSW (26PU) in “AUTO” position (not in “ISOL” position)
 - **Before next flight:**
 - Replace contactor 1PA in accordance with MP ATR-A-24-31-80-06ZZZ-520Z-A: Removal of the Battery DC Contactor and MP ATR-A-24-31-80-06ZZZ-720Z-A: Installation of the Battery DC Contactor
 - Proceed with Step 1
7. Close C/B DC ESS/BUS/INV1 ON HMBB CTL (13PA) located on 123VU, 125VU or 129VU
8. Close C/B DC EMER & STBY BUS ON HEBB CTL (62PA) located on 123VU or 130VU
9. Release “BTC” P/BSW (26PU) in “AUTO” position (not in “ISOL” position)

5. Close-up

10. Perform MP ATR-A-24-46-XX-00ZZZ-561Z-A: De-energization of the Electrical Circuits - AC and DC Circuits with the Ground Power Unit