

1. Approving Competent Authority / Country:

2.

AUTHORISED RELEASE CERTIFICATE

3. Form Tracking Number: 0000000000004790813

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CAA-The Netherlands

EASA FORM 1

4. Organisation Name and Address:

Hamilton Sundstrand Customer Support Center Maastricht B.V.
Horsterweg 7
6199 AC Maastricht Airport
The Netherlands

5. Work Order/Contract/Invoice:

41366591
4505231177

6. Item:

7. Description:

8. Part No.:

9. Qty:

10. Serial No.

11. Status/W:

01 DUAL HEAT EXCHANGER

1001858-2

1

0652

REPAIRED

12. Remarks:
Unit was Repaired I.A.W. CMM 21-52-12, Rev 19, Date Jun 24/16.

Outgoing Times: CSN:6325 TSN:4826.07 TSO:2780.58 TSR:0.00 TSI:0.00

NOTE: Further details of the work carried out are documented in the component Shop Findings Report(TDR)of the related Work Order in block 5.

The work identified in Block 11 and described herein has been accomplished in accordance with 14 CFR part 43 and in respect to that work, the items are approved for return to service under certificate no. CW5Y794M

13a. Certifies the items identified above were manufactured in conformity to:

☐ Approved design data and are in a condition for safe operation.

☐ Non-approved design data specified in Block 12.

14a.

☒ Part-145 A.50 Release to Service

☐ Other regulation specified in Block 12

Certifies that unless otherwise specified in block 12, the work identified in block 11 and described in block 12 was accomplished in accordance with Part 145 and in respect to that work, the items are considered ready for release to service.

13b. Authorised Signature:

13c. Approval / Authorisation Number

14b. Authorised Signature:

14c. Certificate / Approval Ref. N

NL.145.1160

13d. Name:

13e. Date (dd mmm yyyy):

14d. Name:

HENRY HENDRIKS (263)

14e. Date (dd mmm yyyy):

24 JAN 2017

USER / INSTALLER RESPONSIBILITIES

This certificate does not automatically constitute authority to install the item(s).

Where the user/installer performs work in accordance with regulations of an airworthiness authority different than the airworthiness authority specified in block 1, it is essential that the user/installer ensures that his/her airworthiness authority accepts items from the airworthiness authority specified in block 1.

Statements in blocks 13a and 14a do not constitute installation certification. In all cases aircraft maintenance records must contain an installation certification issued in accordance with the national regulations by the user/installer before the aircraft may be flown.

REPORT ATTACHED
INSPECTED
SHELF LIFE EXPIRY
DATE 24 JAN 2017
QC INSPECTOR [Signature]
DATE 24 JAN 2017

| | |
|----------------------------|---|
| Customer | ARAMCO OVERSEAS Cust PO 4505231177 Operator PO |
| Input Part | 1001858-2 |
| Output Part | 1001858-2 |
| Cust Part | Cust Serial 0652 |
| Description | DUAL HEAT EXCHANGER |
| Aircraft | Engine Type |
| Incoming NSN | N/A |
| Date Rec'd | 01/10/2017 |
| Ship Date | DOM |
| Sales Order | 4923080 |
| Customer Reason for Return | repair |
| Certification Type | easa dual faa |
| Removal Scheduled? (S/U/O) | unscheduled |
| Conditions | cracked |
| Configuration IN | none |
| Configuration OUT | none |
| CMM Reference | CMM 21-52-12 |
| | Unit was Repaired I.A.W. CMM 21-52-12, Rev 19, Date Jun 24/16. |
| | Incoming Times:CSN:6325 TSN:4826.07 TSO:2780.58 TSR:UNK TSI:UNK |
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| Work Order | Input Part | Cust Part | Description | Date Rec'd |
|--|------------|-----------|---------------------|------------|
| 41366591 | 1001858-2 | 0652 | DUAL HEAT EXCHANGER | 01/10/2017 |
| Outgoing Times:CSN:6325 TSN:4826.07 TSO:2780.58 TSR:0.00 TSI:0.00 | | | | |
| NOTE: Further details of the work carried out are documented in the component Shop Findings Report(TDR)of the related Work Order in block 5. | | | | |

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|------------------------|--|--|--|--|
| Preliminary Inspection | <p>shopfindings</p> <p>* during incoming visual inspection the following parts were missing or damaged:</p> <ul style="list-style-type: none"> - crack found in the fan inlet diffuser housing. - fins in the heat exchanger core found bent. - heat exchanger contaminated with small stones. - found several cracks in ram air flange. | | | |
| | <p>-----</p> <ul style="list-style-type: none"> - the heat exchanger passed the primary circuit and the secondary circuit leakage test. - the heat exchanger failed pressure drop test, before cleaning the pressure drop value for this heat exchanger is within the unserviceable region 4. - the heat exchanger passed the primary circuit and the secondary circuit pressure drop test. <p>-----</p> <p>* additional information:</p> <ul style="list-style-type: none"> - after several attempts of cleaning and fin straightening the heat exchanger still lies in the "life limited region" as defined by cmm 21-52-12. when in this region, the maintenance interval on the unit should be lowered as necessary to ensure that the pressure drop does not go beyond maximum allowed limits in CMM 21-52-12 | | | |

| | | | | | |
|-------------------|-----------|---------------------|---------------------|--------------------|------------|
| Work Order | 41366591 | Description | DUAL HEAT EXCHANGER | Date Rec'd | 01/10/2017 |
| Input Part | 1001858-2 | Input Serial | 0652 | Cust Serial | |
| Cust Part | | | | | |

- the heat exchanger passed pressure drop test, after cleaning the pressure drop value for this heat exchanger is within the serviceable region 3.

* the following repairs will be done:

- alodine surface finish will be locally restored.
- silicone-alu paint finish will be restored.
- minor fin straightening (small stone removal).
- rivets will be replaced.
- welding repair to the ram air flange.
- welding repair to the fan inlet diffuser housing.
- Ram Air Circuit has been cleaned.

* reason for return confirmed.

* the heat exchanger will be repaired per cmm 21-52-12

| | | |
|---|-----------|--|
| Incoming Functional Test Performed?(Y/N) | Y | |
| Incoming Functional Test Failed? (Y/N) | Y | |
| Removal Reason Confirmed? (Y/N) | Y | |
| Archive Box Number | | |
| CMM Reference | REV 19 | |
| CMM Reference | Jun 24/16 | |

| | | | | | | |
|-------------|--------------|----------------------------|---------------------|------------|-------------|----------|
| Work Order | 41366591 | Description | DUAL HEAT EXCHANGER | Date Rec'd | 01/10/2017 | |
| Input Part | 1001858-2 | Input Serial | 0652 | | | |
| Cust Part | | | | | | |
| Components: | | | | | | |
| Order | Material | Description | Req Qty | Issued | Reason Code | Stor Loc |
| 41366591 | MS20605AD3C2 | RIVET, BLIND, FLUSH, SHEAR | 8 | 8 | | NEW1 |

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