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4. A/C Type/Model:SEE AIRBUS  
REPOSE

5. MSN:

6. P/N:

7. S/N:

8. ATA: 28-11;73-00

9. FC:

10. FH:

**11. Subject:**

Kathon Fuel Tank Cleaning procedure required by AD 2020-0176

**12. Operator Request:**

In the frame of an EASA AD No. 2020-0176 related to the prohibition of Kathon FP1.5, a procedure for engines testing before release of the A/C to service is requested to be available.

Such procedure may have to be applied on aircrafts affected by AD No.: 2020-0176 that have been operated with fuel mixed with Kathon FP1.5 less than 30 FC.

**13. Airbus Response:**

This TA 80808794/002/2020 Issue 4 cancels and supersedes the TA 80808794/002/2020 Issue 3. This was done to provide more information about affected parts (PN, CMM references) and clarify the statement (NOTE) about the cleaning requirements for the affected parts not installed on group 1 or 2 aeroplanes (as defined in EASA AD No.: 2020-0176). Two paragraphs have been created for a better readability of the technical content.

**Note:** This TA is applicable to all aircraft configurations identified in EASA AD 2020-0176

**A. ATA73 / ATA75****A.1. Aircraft level Kathon removal**

If KATHON FP 1.5 biocide treatment has been done on the A/C powered with LEAP-1A engines, the following steps shall be applied on both engines prior to return the A/C to service:

- Remove fuel from all fuel tanks. Refer to AMM task 12-11-28 & AMM task 28-25-00
- Refuel the aircraft with approximately 50% of fresh and untreated fuel. Refer to AMM task 12-11-28 procedures.
- Start the engines to idle and wait a minimum of 15 minutes.
- Perform the engines idle test (menu mode). Refer to AMM task 73-29-00-740-803-A.
- Perform the power assurance check. Refer to AMM task 71-00-00-710-816-A.
- Perform a 70% N1 leak check. Refer to AMM task 71-00-00-790-809-A.
- Perform the actuators test (menu mode). Refer to AMM task 73-29-00-740-802-A.
- If any test fails, perform the applicable corrective actions and repeat until the engines pass the tests.
- After engines runs are complete, download and provide Continuous Engine Operational Data (CEOD) from both engines. Refer to AMM task 73-21-55-860-801-A. CEOD can be provided to CFM via Wasabi, MEL, GE Box, or your CFM field service engineer.
- Submit a Salesforce/CSC case to CFM requesting a review of CEOD with the description of engine serial numbers and that the CEOD download was completed following a Kathon treatment.

Expect a minimum of 3 days for CEOD to be processed and evaluated.

- CFM will evaluate the data and provide a response to the case. If data review confirms acceptable engine response, no further action is required. If any abnormalities in fuel system response are

observed, CFM will provide additional recommendations.

**A.2. Affected parts not installed on aircraft**

The following list provides engine parts, which could potentially meet the definition of “affected part” as per the AD:

- Fuel Metering Unit – SIN 30000
- Split Control Unit – SIN 31700
- Fuel Return Valve – SIN 31800
- Main Fuel Pump – SIN 30900
- Main Fuel Filter – SIN 31300
- Fuel Nozzles – SIN 12500
- VSV Actuators – SIN 30400
- VBV Actuators – SIN 30701
- MTC Actuators – SIN 32200
- Fuel/Oil Heat Exchangers – SIN 31200, 40700, 31100
- HPTACC Valve – SIN 60600
- LPTACC Valve – SIN 60800
- Transient Bleed Valve – SIN 60200
- Start Bleed/Booster Anti-Ice Valve – SIN 60700
- Fuel Flow Transmitter – SIN 30800

This list includes components, which are exposed to fuel and can directly result in a thrust instability event if operated with fuel mixed with Kathon or have the potential to contain residual fuel/Kathon mixture when removed from an engine. Pressure sensors, tubes, hoses, and manifolds do not meet these criteria and are therefore not included in the above list.

In order to be considered as an “affected part”, the part must have been removed from an aircraft that had fuel tanks treated with Kathon. If an aircraft was treated with Kathon and operated more than 30 cycles before the part was removed from the engine, it is no longer considered an affected part.

If a part meets the definition of “affected part” and is not installed on an aircraft to apply the cleaning procedure defined in point A.1 above, returning of the part to an approved shop for acceptance test as per the Component Maintenance Manual (CMM) results in the part becoming a “non-affected part”. Any parts meeting any of the following criteria will have completed an acceptance test and thus should not be considered as “affected parts” as per AD definition.

- New or spare parts received from the part manufacturer.
- Spare parts received from approved component repair shop.
- Parts accompanied with a FAA 8130 or EASA Form 1 or any equivalent National Authority certificate documentation.

Part history is required to determine if the part actually meets the definition of “affected part” as per the AD. Indeed parts belonging to the above list and that do not meet any of the above criteria should be considered as potentially affected parts.

**Note:** ATA-73 and ATA-49 should be consulted for possible additional actions to remove fuel mixed with KATHON FP 1.5 biocide from affected engine and APU equipment.

**B. ATA 28**

**B.1. Fuel Tank Cleaning Procedure**

If KATHON FP 1.5 biocide treatment has been done on the A/C powered with LEAP-1A engines, the following steps shall be applied prior to return the A/C to service:

**WARNING: OBEY ALL FUEL SAFETY PROCEDURES.**

- Defuel the aircraft including ACT(s) (if fitted)
- Drain the remaining fuel from all of the fuel tanks and ACT(s) (if fitted) by operating the water drain valves in each tank.

**Note:** fuel will drain slowly and may take several hours to drain fully

- Perform TASK 28-23-00-720-001-A Operational Test of Crossfeed Valve Using Individual Motors and Check Fuel Flow in "Open" and Fuel Shut Off in "Closed" Positions.

**Note:** Refuel only with fuel that does not contain a Biocide additive.

- Defuel the aircraft including ACT(s) (if fitted)
- Drain the remaining fuel from all of the fuel tanks and ACT(s) (if fitted) by operating the water drain valves in each tank.
- Get access to the fuel tanks
- Remove the remaining fuel in each tank using any suitable means
- Mix a solution of one part of Non Aqueous Cleaner-- Methyl Alcohol - (Material Ref. 08BBE1) to one part of water in a CONTAINER 10 L (2 1/2 USGAL).

Make sure there is not more than 50% of Methyl Alcohol in the solution.

- Kathon contamination can be seen as crystalline deposits, white particles, a gel like substance or a high viscosity liquid.

**Note:** It is necessary to do a manual removal of the contamination from all fuel tanks

- Clean with a TEXTILE – LINT FREE COTTON (Material Ref. 14SBA1) and/or BRUSH – BRISTLE and the solution
  - the lower surfaces of the tank structure (stringers, spars and ribs),
  - areas where water can be caught,
  - the fuel pump canisters,
  - the fuel quantity probes.
- Remove the solution with clean water. Remove any water from the tank with a SPONGE.
- Use a BLOWING EQUIPMENT - DRY AIR to make sure that the tank is dry.
- Make sure that the work area is clean and clear of tools and other items.
- Close the access to the fuel tanks
- Remove the ground support and maintenance equipment, tools and all other items.
- Refuel each tank to high level with fuel that does not contain a biocide additive.

**WARNING: 1 ADDITIONAL FUEL UPLIFT AND BURN IS REQUIRED BEFORE APPLYING AN ALTERNATIVE BIOCIDIC TREATMENT. DO NOT MIX BIOCIDES.**

**B.2. Affected parts not installed on aircraft**

Any fuel system component which has an associated FAA 8130-3 or EASA Form 1 conformity (or equivalent national authority form) is not to be considered an affected part and no further cleaning procedure is required for such a part, with the exception of the parts listed in the note section below. This is based on the fact that the conformity form indicates the part has previously been through acceptance test and are compliant with the part specification.

For any affected parts that are not installed on an aircraft and is not accompanied with a FAA 8130-3 or

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EASA Form 1 conformity (or equivalent national authority form), then the part history is required to determine if the part meets the definition of "affected part" within the AD.

If the part meets the definition of "affected part", before installation of the part on Group 1 or 2 aeroplanes, the application of the relevant CMM cleaning procedure has to be performed and is sufficient to ensure the parts cleanliness.

**Note:** The following list provides fuel system components that should be traced to identify if they are compliant with the AD requirements:

- Fuel Probes PN series: 20145-xxxx, 20146-xxxx, 20147-xxxx and 20400-xxxx,  
Relevant CMM: ref. 28-42-19.
- Fuel Probes PN series (for Additional Centre Tank): 7443xx,  
Relevant CMM: ref. 28-46-43.

For the parts listed above, if from the part history it is confirmed that no cleaning has been performed (as per relevant CMM procedure). Then a visual inspection is required to identify any jelly substance, brown deposits and/or discoloration. If any abnormal condition is identified the application of the relevant CMM cleaning procedure has to be performed and is sufficient to ensure the parts cleanliness.

**14. Regulations involved in addition to Certification Basis:**

None

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### 15. Instructions for Continued Airworthiness (21A.449 for Repair-TA, 21A.107 for Change-TA)

Inspection areas: see details in Box 13

Threshold\*:

N/A

Interval:

N/A

Method of Inspection:

N/A

\* If not otherwise specified, threshold is from time of repair embodiment

### 16. Limitations (Part 21A.443 for Repair-TA)

DEFINITIVE

TEMPORARY

TA Limitation in FC, FH or Days/months/years or date (if not otherwise specified, limitation is from time of TA embodiment):

N/A

Other limitations/Flight limitations:

N/A

### 17. Classification (Part 21A.435 for Repair-TA , and 21A.91 for Change-TA)

MAJOR

MINOR

### 18. Issuing organization:

SEEE5\_FUEL SYSTEMS

### Customer Services Engineer:

DJEBBOUR KENZY

The technical information described above is approved under the authority of EASA approved Design Organisation Number EASA 21J031 and per EASA rules Part 21 Subpart M and D. This approved data is based on the information provided by the requester to Airbus. Airbus disclaims any and all responsibilities for incorrect, inaccurate or incomplete information provided (including modification STC status). If this Technical Adaptation affects the compliance to a mandatory requirement, it is the operators' responsibility to obtain the necessary approval from its National Aviation Authority.

### 19. Designated Airworthiness Engineer

Name: PHUC DINH

Signature:

APPROVED UNDER EASA  
DESIGN ORGANISATION APPROVAL  
N° : EASA.21J.031  
STAMP N° 386

Date: 06/10/2020