



Departure Recommendation 00556415 Revision 0.0

Basic

Submitting Site
Work Order Number
Purchase Order Number
Date opened 25-Aug-2017

Received from

End User / Operator THAI AVIATION SERVICES LTD
Aircraft Tail Number 920279
Engine Serial Number 947906
ETSN 290
ECSN 187

Engine Type Certificate

Holder Recommendation

Approved by
Craig Ackerman 25-Aug-2017
Approved by
Jeffrey Simpson 25-Aug-2017

Engine Manual

Engine Model CT7-8
Manual Reference AMM
Manual Revision Rev 15
Pageblock Type Servicing
Pageblock/Repair Number N/A
Pageblock Configuration
Pageblock Effectivity
ATA Number 72-00-00
ATA Task/Subtask 72-00-00-620-001

Part Information

Part Name Engine Assy
Part Number 3066T90G02
Prefix/suffix/repair code N/A
Part Quantity 001
Part Serial Number 947906
Life Limited Part No
Part Time Since New 290
Part Cycles Since New 187

Engine Regulatory Review

This departure condition was
evaluated to 14 CFR 1.1 and GE
procedures and determined to be
Minor

Manual Requirement CT7-8 Maintenance Manual, GEK 105159, Rev. 15, Dated 10/31/2014, Section 72-00-00, Engine Servicing 001A, TASK 72-00-00-620-001, Preservation for engine to be inactive for 14-45 day requires the following:

- (1) Inspect the engine for removed or disconnected parts. Be sure that all discrepancies are entered in the engine records.
- (2) Be sure that the engine, accessories, and inlet area are clean and free from corrosion and foreign material.
- (3) Clean the engine. Refer to TASK 72-00-00-100-005.
- (4) Install the protective covers on the engine inlet and exhaust. If the covers are not available, seal the openings with barrier material or equivalent, and secure the wrap with adhesive tape PPP-T-60 C10-103 .
- (5) Cover the other engine openings, blower exhaust, fuel pump inlet, and customer bleeds.

This recommendation provides technical and substantiating data regarding the above described condition with respect to engine type design requirements (14 CFR Part 33 requirements). The condition has been reviewed per GE Procedures and the recommendation maintains or restores the engine, module or component serviceability with regards to type design requirements. This recommendation is applicable only to the subject engine, module or component.

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Departure Recommendation 00556415 Revision 0.0

- (6) Record the date and extent of the engine preservation in the engine records.
- B. Maintenance During 14 to 45 Day Storage.
- (1) No engine run required.

Current Condition

ESN 947906 was removed without proper preservation for 45-180 day storage IAW MM GEK 105159 (fuel system not preserved). The engine was stored in an engine can and in a temperature controlled room for a period of 220 days. Request permission to extend the 14-45 day preservation to 220 days.

Recommendation

Recommend return to operation with the following maintenance and servicing to be performed prior to return to revenue service.

1. Remove the radial driveshaft per TASK 72-60-00-020-001, Paragraph 3.A
2. Drain engine oil (TASK 72-00-00-610-005) and refill with new engine oil (72-00-00-610-005).
3. Replace the oil filter element (01-225, 79-00-00) and the engine oil filter bowl (01-230, 79-00-00), Refer to TASK 79-00-00-100-004.
4. Replace the fuel filter per TASK 72-00-00-610-007 including the idle speed leakage check.
5. Perform a ground or in flight power assurance check per TASK 72-00-00-760-004, IC 72-00-00-1300-004, Paragraph 3.D or 3.E.
6. Operate the engine for a minimum of 30 minutes with the engine in fly (steps 6 and 7 may be accomplished together).
7. Inspect the electrical chip detector Refer to TASK 72-00-00-610-004.
8. Perform an idle speed leakage check per TASK 72-00-00-760-004, IC 72-00-00-1300-004, Paragraph 3.C

Substantiation

This disposition maintains the component serviceability with regards to type design requirements. No airworthiness directives are impacted by this recommendation. It is supported by the following engineering rational: Field Experience, Inspection and Test.

This requested 220 day extension to the CT7-8A engine 14 -45 day preservation upper limit within PSE's field experience, similar to approved extensions, for the CT7 family of engines. The recommendation is consistent with departure records approved for various extensions above the 14-45 preservation procedure.

GE CT7 Product Support Engineering (PSE) had approved a Departure Record (DR) for an engine which was not properly preserved or properly stored for 320 days over the manual requirement. The engine followed similar recommendation procedures defined above and was successfully returned to service and continue to operate with no oil or fuel related issues. The engine has accrued a minimum of 372 engine flight hours in operation, after incorporating the recommended procedure to return the engine to service, with no abnormalities reported.

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Departure Recommendation 00556415 Revision 0.0

In addition, Forty-three (43) prior eDRs were accepted for CT7 engines not properly preserved. These DRs accepted extensions, above the 45 day upper limit from the minimum of a 7 day extension to the maximum of a 160 day extension with no fuel preservation. In addition, three DRs accepted extensions with engines stored indoors, in a temperature controlled environment out on engine stands for 365 days. These engines were returned to service with no abnormalities reported.

The proposed deviation to the storage requirements of the CT7-8A engine preservation is within PSE's field experience for engines stored inside. Requiring the recommended procedures, prior to returning ESN 947906 to service, will identify any potential issues that will negatively impact engine performance.

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