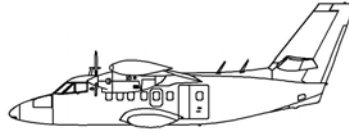




Aircraft Industries



MANDATORY BULLETIN

MB No.: L410UVP-E/124a Revision 1

Concerns: L410 UVP-E20 aircraft powered with GE H80-200 engines of S/N stated in the latest revision of Service Bulletin No. H80-200-80-0005.

Subject: Engine on ground re-start procedure.

Revision 1 changes validity of the bulletin for specific S/N of GE H80-200 engines.

Reason: Issue of the Service Bulletin No. H80-200-80-0005 R1 by engine producer.

To be carried out at the latest by: Before next flight.

To be performed by: Operator.

Costs to be covered by: Not arise.

Necessary material to be delivered by: Not required.

Bulletin becomes effective: On the date of its issue.

Total No. of pages: 3

Bulletin L410UVP-E/124a Revision 1 supersedes previous bulletin L410UVP-E/124a.

A handwritten signature in blue ink, appearing to read 'za Pešák', is written over a dotted line.

Miroslav Pešák
Chief Designer

Technical content of this document has been approved based on the Design Organization Approval No. EASA.21J.119.

February 28, 2014

PERFORMANCE: mandatory

1. INSTRUCTIONS FOR PLANNING

A. CONCERNS

1. Aircraft model

L410 UVP-E20

2. Version / S/N

Aircraft powered with GE H80-200 engines of S/N stated in the latest revision of Service Bulletin No. H80-200-80-0005.

3. Qualification for implementation

No special requirements.

4. New equipment

Not required.

B. REASON

To emphasize the importance of the cooling procedures prior to engine shut down and to clarify the engine on ground restart procedure when restart is required within 60 minutes after shut down.

Issue of the Service Bulletin No. H80-200-80-0005 R1 by engine producer.

C. DESCRIPTION

Not affected.

D. APPROVAL

Not affected.

E. MANHOURS

Not affected.

F. MATERIAL - AVAILABILITY

1. New equipment

Not required.

2. Installation parts

Not required.

3. Costs

Not arise.

G. SPECIAL TOOLS

Not required.

H. WEIGHT AND BALANCE

Not affected.

I. USED DOCUMENTATION

Not affected.

J. AMENDED DOCUMENTATION

Not affected.

2. INSTRUCTIONS FOR IMPLEMENTATION

Follow instructions published in the latest revision of SB No. H80-200-80-0005 issued by GE Aviation, Business & General Aviation Turboprops.

If applicable, insert the latest revision of SB No. H80-200-80-0005 after title page of the appropriate AFM.

3. NECESSARY MATERIAL

Not required.

4. RECORD IN THE AIRPLANE LOGBOOK

Not required.

Elaborated: Ing. Vlastimil Lapčák 

Approved: Ing. Michal Šácha 



SERVICE BULLETIN

No. H75-100-80-0002 R1
H75-200-80-0002 R1
H80-80-0004 R1
H80-100-80-0005 R1
H80-200-80-0005 R1
H85-100-80-0002 R1
H85-200-80-0002 R1

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Subject: Engine on Ground Re-start Procedure

1. PLANNING INFORMATION

1.1. Effectivity

Engine models GE H80, H80-100, H80-200, H75-200, H85-100 & H85-200
serial numbers identified in Table 1.

1.2. Compliance

Mandatory

1.3. Reason

The purpose of this Service Bulletin is to introduce the additional dry-motoring requirement for engines as identified in Table 1.

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The additional dry-motoring requirement is defined in 1.4.B ENGINE RE-START PROCEDURES ON THE GROUND. GE Aviation Czech has improved assembly procedures to reduce sensitivity of engine to normal bowed rotor during on-ground restarts of hot engine. Engines listed in Table 1. were manufactured prior to the improved procedures, therefore, are subject of the present Service Bulletin.

At first exposure of the compressor rotor at an approved overhaul shop the improved procedures will be implemented and the Engine Serial Number removed from the population as shown in Table 1.

Moreover, this Service Bulletin is to emphasize the requirement for 5 minutes engine cool down prior to engine shut down, see parag. 1.4.A.

1.4. Description

A. ENGINE COOL DOWN AND SHUTDOWN PROCEDURES ON THE GROUND:

Prior to shutdown, perform engine cool down procedure according to the Engine Operating Manual (EOM) P/N 0983302 as follows:

- (1) Move engine control lever (ECL) to ground idle position or beta mode and cool down the engine for a period of at least 5 minutes at idle speed. Refer to the EOM P/N 0983302, Table 1-1.

NOTE: This period may include taxiing providing that the ECL is set at position "GROUND IDLE" or in "BETA MODE".

- (2) Perform shutdown procedures as follows:
 - (a) Move propeller control lever (PCL) to the feather position and let the engine run at idle speed for a period of 40 seconds to remove oil from the reduction gearbox.
 - (b) Stop the engine by setting the shut-off valve (SOV) to the "CLOSED" position.
 - (c) Check the gas generator rundown time. The rundown time is measured from when SOV is closed at idle speed until the gas generator speed

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indicator shows zero. The time required for the rundown is shown in EOM P/N 0983302, Table 1-1.

B. ENGINE RE-START PROCEDURES ON THE GROUND:

(1) Definition of dry motoring cycle for re-start:

- (a) Set ECL to "IDLE".
- (b) Set SOV to "CLOSED"
- (c) Set PCL to "FEATHERING" or "MAXIMUM PROPELLER SPEED".
- (d) Press the "DRY MOTORING RUN" push button for 3 sec.
- (e) Starter-generator (STG) will run for 20 sec. and then disengage automatically.

(2) Engine restart within 0-5 minutes

If engine restart is planned within 5 minutes of shutdown, it is necessary to perform the following steps:

- (a) Immediately before starting, perform "Dry motoring" according to the above mentioned procedure in section B. (1).
- (b) Then wait 2 minutes to cool down STG – Refer to the EOM P/N 0983302, Section 1 Par. 1.8.
- (c) Start the engine using the standard procedure.

(3) Engine restart within 5-60 minutes

If engine restart is planned within 5-60 minutes of shutdown, it is necessary to follow the procedure:

- (a) Between 5 to 10 minutes after shutdown, perform "Dry motoring" according to the above mentioned procedure in Section B. (1).
- (b) Wait minimum 5 minutes.

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- (c) Immediately before starting, perform "Dry Motoring" according to above mentioned procedure in section B. (1).
 - (d) Then wait 2 minutes to cool down STG – Refer to the EOM P/N 0983302, Section 1 Par. 1.8.
 - (e) Start the engine using standard procedure.
- (4) Engine restart more than 60 minutes after shutdown
- If engine start is planned more than 60 minutes after shutdown than no dry motoring is required. Follow the procedure listed in GE H8X EOM P/N 0983302. Section1, Engine Starting.
- (5) Unexpected engine restart within 5-60 minutes after shutdown
- If it is desired to run the engine unexpectedly within 5-60 minutes after shutdown, it is necessary to follow procedure:
- (a) Perform "Dry Motoring" according to the above mentioned procedure in Section B. (1).
 - (b) Wait minimum 5 minutes.
 - (c) Immediately before starting, perform "Dry motoring" according to the above mentioned procedure in Section B. (1).
 - (d) Then wait 2 minutes to cool down STG – according to the procedure in EOM P/N 0983302, Section 1 Par. 1.8.
 - (e) Start the engine using normal procedure.

1.5. Approval

The technical content of this document is approved under the authority of DOA No.EASA.21J.300.

1.6. Manpower

N/A

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1.7. Expenses

N/A

1.8. References

Engine Operation Manual No. 0983302

1.9. Other Publications affected

N/A

1.10. Supplemental Information

N/A

2. ACCOMPLISHMENT INSTRUCTIONS

After receiving of this Service Bulletin insert into the Engine Log Book the following record:

The mentioned procedure in this Service Bulletin is implemented into standard practices.

3. MATERIAL INFORMATION

3.1. Material Required

N/A

3.2. Tooling

N/A

4. APPENDICES

None

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Table 1 - Affected Engines Serial Numbers

H80 ESN

123007	123008
131016	131013

H80-100 ESN

113007	113008	114007	114008	114009					
121007	121008	121010	121011	122009	122010	122011	123011	123012	123016
123017	123018	124005	124006						
131001	131002	131003	131009	131010	131011	131015	131017	132002	132003
132004	132005	132006	132007	132008	132009	132010	133001	133002	133012
133013	133014	134005							

H80-200 ESN

124007	124008	124009							
131004	131005	131006	131007	131008	131012	131014	132001	132011	132012
132013	132014	132015	132016	132017	132018	133003	133004	133005	133006
133007	133008	133011	134001	134002	134003	134004			

H85-100 ESN

123009

H85-200 ESN

123013	123014
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H75-200 ESN

133009	133010
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Approved by:



Robert Levin

Head of Design Organization

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