L-29

AERO VODOCHODY L-29C DELFIN

APPROVED AIRCRAFT INSPECTION PROGRAM

For: 591378

Dated: July 12, 2010
PREFACE

This document contains excerpts from the Approved Aircraft Inspection Program developed for the Aero L-29 Delfin and is intended as an example of the program. This document:

- is not a complete program.
- contains at least the first and last pages of each chapter or section.
- printing of this file is inhibited.
- can be customized to your aircraft.

PROGRAM BENEFITS:

- The program has previously been approved by the FAA for other L-29's.
- Simple, easy to understand, straightforward format.
- Saves time and frustration on your initial program submission.
- Reduces downtime and hours required to complete the inspections.
- Addresses operations with inoperative equipment which allows the pilot to defer some items.
- Addresses components that have a time in service limitation to be overhauled or rebuilt.
- The engine hot section inspection is not required every year.
- The program incorporates easy to follow procedures that are specific for your aircraft to test and check the equipment installed.
- The cost to use the program is inexpensive.

THE PROGRAM INCLUDES:

- Editing of Chapter 4 Section 6 for equipment removed from a standard L-29.
- Three paper copies of the program.
- Ten copies of the Maintenance Discrepancy Form.
- Three copies of the Summary of Items Deferred Form.
- Digital copies for future use.
- Cover letter to the FAA for program submission.

FOR FURTHER INFORMATION:

Visit

L29support.com

or contact

Tom Lindee

at

tlindee@L29support.com
AERO VODOCHODY L-29C DELFIN

APPROVED AIRCRAFT INSPECTION PROGRAM

for

SERIAL NUMBER: 591378

REGISTRATION NUMBER: N21KE

OWNED AND OPERATED BY:

Thomas W. Lindee
3296 Honeywood Lane
Minnetonka, MN 55305

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## RECORD OF REVISIONS

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**SAMPLE**
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1. INTRODUCTION. US citizens may own and operate certain ex-military aircraft. To facilitate this the FAA normally issues these aircraft an Experimental Exhibition Airworthiness Certificate, under the provisions of Title 14 of the Code of Federal Regulations (CFR) § 21.191(d). This prompts a whole host of issues and conflicts within the Code of Federal Regulations that need to be addressed. This program is designed to address the issues and conflicts as they relate to maintenance records, inspections and operating with inoperative instruments and equipment.

14 CFR § 43.1(b) Applicability, states in part “This part does not apply to any aircraft for which the FAA has issued an experimental certificate”. This eliminates required guidance in regard to recording of certain maintenance and inspection events. To ensure these events are properly documented references to particular regulations in 14 CFR § 43 are incorporated within the program instructions and therefore are now required to be complied with.

14 CFR § 91.409 Inspections, this regulation does not specifically address nor does it offer any guidance specifically for a single engine turbine powered experimental exhibition aircraft. However it is not unreasonable for the FAA to insist on some means of oversight as to how this aircraft will be inspected.

14 CFR § 91.409(e) Large Airplanes (to which part 125 is not applicable), turbojet multiengine airplanes, turbopropeller-powered multiengines, and turbine powered rotorcraft. This seems to be the most appropriate guidance for this aircraft. So as to address the intent of this regulation rather than the specific regulatory requirement this program was created in part to administer, implement and track an inspection program that is acceptable to the FAA.

14 CFR § 91.213 Inoperative instruments and equipment, offers no specific guidance for complying with inoperative equipment for turbine powered experimental exhibition aircraft. A conflict exists between the operating limitations issued by the FAA requiring certain systems to be deactivated and placarded as inoperative and this regulation. To exhibit the aircraft in its original configuration, with weapons panels and external stores installed, these systems must be deactivated for obvious safety reasons. However an approved minimum equipment list does not exist for the aircraft and it is turbine powered so it does not meet the exceptions allowed under this regulation. To resolve this conflict and address the intent of both the FARs and the FAA’s operating limitations, this Approved Aircraft Inspection Program was developed using AC 135-10A which states in part under item 4(e) “deferral of discrepancies is authorized by the program”. A system to control discrepancies and inoperative equipment was developed to meet these requirements and is modeled after 14 CFR § 91.213(d).
2. PAGE NUMBERS. Pages in this Inspection Program are assigned a two or three part page number. The first number always specifies the chapter number. The last number always indicates the page number. If a chapter is broken down into sections, the middle number will be a section number. The following are examples:

1.1 = Chapter 1, Page 1
3.0.1 = Chapter 3, Contents, Page 1
4.2.3 = Chapter 4, Section 2, Page 3

For ease of publication and revision, the pages are only printed on their face. The back side of each page is intentionally left blank.

3. METHOD OF REVISION. Submit revisions of this manual to the Minneapolis FSDO office for approval. Once approved by the FSDO, insert the revision into the approved aircraft inspection program. Record revisions on the Record of Revisions page, which lists the revision number, date and initials of the person making the insertion.

4. PROGRAM INITIATION. Logbooks, Maintenance Discrepancy forms and Summary of Items Deferred forms will be identified and used for keeping maintenance record entries made in accordance with 14 CFR §§ 43.9 and 43.11 and retained in accordance with 14 CFR § 91.417.

In the aircraft logbook an entry will be made detailing the aircraft total time and number of landings. In addition an entry will be made, for each item outline in 9(B-J) of this chapter, detailing the date entered into service and the time or number of landings since overhaul or rebuilt as appropriate.

In the engine logbook an entry will be made detailing the engine total time, time since overhaul or rebuilt and the date and aircraft total time when placed into service.

In addition a statement shall also be entered in each logbook identifying the election of this approved aircraft inspection program and the date initiated.

The entries listed above will serve as the initial entry into service under this program for the aircraft, engine and their associated components. These entries shall be made by Mr. Lindee or an appropriately rated certificated mechanic.

5. INSPECTIONS. This program includes the following inspections to be complied with at specified intervals:

A. A CHECK. The A Check is an inspection that is required within 50 hours time in service of a B Check. The inspection shall be performed by an appropriately rated certificated mechanic and signed off in accordance with the aircraft's operating limitation.

B. B CHECK. The B Check is a more in depth inspection than an A Check and is due every 100 hours time in service or 12 calendar months, whichever occurs first. The inspection shall be performed by an appropriately rated certificated mechanic and signed off in accordance with the aircraft's operating limitation.
C. C CHECK. The C Check is an engine hot section inspection that is due every 100 hours time in service or as directed in this program when discrepancies are found. The inspection shall be performed by an appropriately rated certificated mechanic and signed off in accordance with the aircraft’s operating limitation.

D. ADDITIONAL INSPECTIONS.

1. Spectrographic Oil Analysis Program (SOAP). SOAP samples will be taken every 25 hours time in service or every 12 calendar months whichever occurs first. The sample will be taken in accordance with the testing facilities instructions. Any abnormalities or trends identified by the analysis will be considered when determining the airworthiness of the engine.

2. Altimeter System(s), Altitude Reporting & Transponder Test & Inspections. Required tests and inspections will be accomplished in accordance with 14 CFR §§ 91.411 and 91.413 as required and shall not exceed 24 calendar months between inspections.

3. Hydrostatic Test. The high pressure bottles will be hydrostatically tested as set forth in 49 CFR §173.34 as amended, Applicable Military Specifications, Foreign Specifications or the Aircraft Manufacturer’s Specifications as applicable. The results of these tests will be entered in the aircraft log.

These additional inspections may be completed in conjunction with an A, B or C Check or performed independently.

6. INSPECTION TIME LIMITATION. Inspection intervals called out in this inspection program may be exceeded by no more than 10 hours. If an inspection interval was exceeded, the next required inspection time must be calculated from the previous due time, not the time the inspection was actually performed. There is no extension allowed for calendar items.

7. INSPECTION PROGRAM RESPONSIBILITY. The aircraft owner is responsible for this program and shall ensure that:

- the inspections are performed as prescribed by the inspection program identified in the FAA’s operating limitations for this aircraft.
- all maintenance and inspection record entries are made in accordance with 14 CFR §§ 43.9 and 43.11 and retained in accordance with 14 CFR § 91.417.
- all inspections and maintenance is performed in accordance with the L-29 and other applicable manufacture’s maintenance manuals.
- the following manuals shall be readily available for reference:
  - GENERAL DATA OF THE L-29 AIRCRAFT.
  - INSTRUCTIONS FOR OPERATION AND ATTENDANCE OF THE L-29 AIRCRAFT.
  - INSTRUCTION FOR AIRCRAFT OPERATIONS AND MAINTENANCE (L-29).
  - TECHNICAL DESCRIPTION OF M701c-500 AIRCRAFT ENGINE.
  - SERVICE INSTRUCTIONS OF M701c-500 AIRCRAFT ENGINE.
8. DISCREPANCIES AND INOPERATIVE EQUIPMENT. The pilot in command shall ensure that all mechanical irregularities occurring during flight are entered on a maintenance discrepancy form at the end of that flight. Before each flight the pilot in command shall ascertain the status of each discrepancy entered on a maintenance discrepancy form for the previous flight.

All mechanical irregularities documented on maintenance discrepancy forms must be addressed (corrected or deferred) prior to the next flight.

It is preferred to have all mechanical irregularities cleared and the corrective action documented on the maintenance discrepancy form prior to flight. However this is not always possible and some maintenance irregularities may be repaired at a later date (deferred) provided:

1.) The inoperative instruments and equipment are not-
   a.) Part of the instruments and equipment required for VFR flight during the day under 14 CFR § 91.205(a);
   b.) Required by 14 CFR § 91.205 or any other rule of 14 CFR § 91 for the specific kind of flight operation being conducted and

2.) The inoperative instruments and equipment are:
   a.) Removed from the aircraft, the cockpit control is placarded and the maintenance is recorded in accordance with 14 CFR § 43.9 or
   b.) Deactivated and placarded as “Inoperative”. If deactivation of the inoperative instrument or equipment involves maintenance, it must be accomplished and recorded in accordance with 14 CFR §§ 43.3, 43.7 and 43.9 and

3.) A determination is made by a certificated pilot who is rated to act as pilot in command of an L-29, or by a person who is certificated and appropriately rated to perform maintenance on the aircraft, that the inoperative instrument or equipment does not constitute a hazard to the aircraft.

This aircraft with inoperative instruments or equipment as provided for above is considered to be in a properly altered condition acceptable to the FAA Administrator.

The Maintenance Discrepancy form and the Summary of Items Deferred form (SID) shall be kept with the aircraft until the maintenance discrepancy is corrected and cleared. These forms are considered part of the aircraft maintenance records and shall be kept in accordance with 14 CFR § 91.417.

Items that are permanently deactivated and remain installed on the aircraft (Jettison systems etc.) shall be documented in the aircraft logbook and are also required to be entered in SID.

A copy of Chapter 1 Item 8 shall be kept in the aircraft for reference.
9. ITEMS TO BE OVERHAULED OR REBUILT AS INDICATED BELOW:

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<td>G</td>
<td>MAIN U/C WHEEL</td>
<td>600 X 150</td>
<td>2</td>
<td>1000</td>
<td></td>
</tr>
<tr>
<td>H</td>
<td>NOSE WHEEL</td>
<td>400 X 150</td>
<td>1</td>
<td>1000</td>
<td></td>
</tr>
<tr>
<td>I</td>
<td>UNDERCARRIAGE STRUT LEFT</td>
<td>L 229.501-XX</td>
<td>1</td>
<td>800</td>
<td></td>
</tr>
<tr>
<td>J</td>
<td>UNDERCARRIAGE STRUT RIGHT</td>
<td>L 229.502-XX</td>
<td>1</td>
<td>800</td>
<td></td>
</tr>
</tbody>
</table>

Note: The (-XX) behind a part number indicates the series of the part and is only significant regarding the number of landings for the main undercarriage leg.
Listed below are safety practices that must be adhered to. Understand that not all situations can be anticipated, however, most accidents can be prevented with planning and situational awareness. Before performing any work or tasks on the aircraft, please follow these simple steps:

A.) Brief co-workers of your intentions.
B.) Ensure the area is clear.
C.) Ensure it is safe for what is planned.
D.) Know where your co-workers are.

1. ELECTRICAL POWER. Disconnect the aircraft battery before performing any inspections. If electrical power is required to perform certain tasks or checks ensure it is safe to apply electrical power to the aircraft before doing so. The use of an external power source is preferred over the aircraft battery.

2. EJECTION SEATS. The ejection seats on this aircraft should have been disabled and placarded as inoperative. Prior to performing any inspections, confirm both seats have been disabled. This can be accomplished ensuring that the firing pin hold-off has been removed. If the pin is still in place, treat the seats as hot and disable them in accordance with the manufactures instructions.

3. CANOPY JETTISON. Ensure the canopy jettison system has been disabled by disconnecting the electrical connectors from the jettison valves located behind the pilot’s seat. In addition use caution so as not to activate the canopy jettison valves manually.

4. GEAR COLLAPSE. While inspecting or performing maintenance on the landing gear or in a gear well area, it is strongly recommended that the aircraft be placed on jacks prior to starting work.

5. RADIOACTIVE COMPONENTS. The transmitter of the ice accretions system on the right side of the nose may contain built-in radioisotopes. The high energy ignition box may also contain radioisotopes. Do not dismantle either of the above units. If these units are to be disposed of, comply with all applicable EPA guide lines and requirements.

6. HYDRAULIC PRESSURE. Prior to starting any work or inspections, ensure that the hydraulic pressure is at zero and all emergency extension valves are closed (clockwise). Before applying hydraulic pressure to any system, ensure the area around the landing gear, flaps and speed brakes are clear.

7. DEFLATE TIRES. An explosion hazard exists if the wheel or wheel bolts are damaged and the axel nut is loosened. Before loosing any axel nut, ensure the tire is deflated.
8. ENGINE RUNS.
   A.) FOD, Ensure: That the engine intake and tail pipe is clear of FOD. There are not any loose articles in the cockpit that could end up going down the intake. The ramp area is free of FOD.
   B.) Personal Hazard: Ensure everyone on the ramp is briefed not to walk within 15’ of the jet intakes or within 100’ of the tail pipe while the engine is running. Hearing protection is required.
   C.) No Brakes: It is possible to lockout normal braking from the front cockpit. Ensure normal brakes can be applied from the front cockpit before starting.
   D.) Hot Starts: One of the leading causes of hot starts is a low battery. Prior to starting, ensure that the battery is fully charged (26VDC MIN) or use an adequate external power source.

9. OXYGEN. An explosion or fire hazard exists when servicing the oxygen system:
   A.) At a high rate.
   B.) Using contaminated tools.
   C.) An ignition source is present.
When working on or servicing the oxygen system, ensure that only clean tools are used, the aircraft is not powered and the flow rate is kept to a minimum.

10. FLOOR BOARDS. To prevent damage, it is recommended that floor boards be fabricated and installed in the cockpits when the regular floor panels are removed.
The A Check is an inspection that is required within 50 hours time in service of a B Check. The inspection shall be performed by an appropriately rated certificated mechanic and signed off in accordance with the aircraft's operating limitation.

Dimensions and tolerances required for this inspection may be found in *L-29 Aircraft Book, Instruction for Aircraft Operations and Maintenance* pages 52 thru 56.

|------------------------------------|-------------------|------------------------------------------|---------------------------------|

NOTE: IF UNDOCUMENTED FOD IS DETECTED PERFORM A C CHECK.
<table>
<thead>
<tr>
<th>67. INSPECT LEFT MAIN</th>
<th>a. General Condition.</th>
</tr>
</thead>
<tbody>
<tr>
<td>INBOARD GEAR DOOR AND</td>
<td>b. Leaks.</td>
</tr>
</tbody>
</table>

*** REMOVE AIRCRAFT FROM JACKS ***

<table>
<thead>
<tr>
<th>68. REINSTALL AND CONNECT</th>
<th>a. Mounting and Security</th>
</tr>
</thead>
<tbody>
<tr>
<td>BATTERY THEN INSPECT FOR:</td>
<td>b. Vent System (If Installed)</td>
</tr>
</tbody>
</table>

THE A CHECK IS CONSIDERED COMPLETE WHEN ALL ITEMS HAVE BEEN SUCCESSFULLY COMPLETED.

MAKE LOGBOOK ENTRIES IN ACCORDANCE WITH THE OPERATING LIMITATIONS ISSUED BY THE FAA INDICATING THAT AN “A CHECK” HAS BEEN COMPLETED.
The B Check shall be completed every 100 hours time in service or every 12 calendar months, whichever occurs first. This inspection must be performed by an appropriately rated certificated mechanic and signed off in accordance with the aircraft’s operating limitation. The mechanic performing the B Check shall thoroughly clean the aircraft and engine.

Dimensions and tolerances required for this inspection may be found in L-29 Aircraft Book, Instruction for Aircraft Operations and Maintenance pages 52 thru 56.

**Section 1 (blue)**  
Forward Fuselage: Everything forward of the aft pressure bulkhead excluding the nose gear and gear doors.

**Section 2 (red)**  
Center Section & Both Wings: From the aft pressure bulkhead to the engine firewall, excluding the landing gear & gear doors.

**Section 3 (green)**  
Aft Fuselage & Empennage: The point at which the aft fuselage mates to the center section aft to include the entire empennage.

**Section 4**  
Landing Gear, Gear Doors, Wheels & Brakes.

**Section 5**  
Engine: Everything aft of the engine firewall that is not attached to the aft fuselage when it is de-mated.

**Section 6**  
Operational Checks.

**Section 7**  
Initial Engine Run.

**Section 8**  
Final Items.

**Section 9**  
Final Engine Run.
## SECTION 1: FORWARD FUSELAGE

### 1. REMOVE BATTERY
- **ACCESS PANEL**
  - a. Remove Battery.  
  - b. Service Electrolyte Level, if applicable.  
- **AND:**
  - c. Charge Battery.  
  - d. Test Battery.  
  - e. Recharge Battery or Replace.

### 2. INSPECT (4) COCKPIT ENTRY STEPS FOR:
- a. General Condition.  

### 3. REMOVE FRONT CANOPY AND INSPECT:
- a. General Condition.  
- b. Condition of Canopy Seal.  
- d. Condition of Hinges.

### 4. INSPECT WINDSHIELD FOR:
- a. General Condition.  
- c. Condition of Windshield Plastic.

### 5. REMOVE FRONT PILOT SEAT AND INSPECT:
- a. General Condition.  

**NOTE:** DISCONNECT CANOPY JETTISON CONNECTORS AT THEIR SOLENOID VALVES.

***** IN THE FRONT COCKPIT REMOVE THE GLARESHIELD, SIDE PANELS AND FLOOR PANELS THEN PERFORM THE FOLLOWING STEPS. ***

### 6. MOVE FLIGHT CONTROLS FULL TRAVEL AND INSPECT FOR:
- b. Interference or Chafing.
45. INSPECT ELECTRIC WIRE BUNDLES AND CONNECTORS (NOSE) FOR:
   a. General Condition. ________  b. Routing and Security. ________
   c. Obvious Defects. ________

46. INSPECT FORWARD SIDE OF FORWARD PRESSURE BULKHEAD FOR:
   a. General Condition. ________  b. Defects or Distortion. ________
   c. Condition and Security of Bulkhead Fittings. ________

47. REINSTALL BATTERY AND INSPECT FOR:

NOTE: DO NOT CONNECT THE BATTERY AT THIS TIME.

THIS SECTION IS COMPLETE WHEN ALL ITEMS IN THIS SECTION HAVE BEEN SUCCESSFULLY COMPLETED. PROCEED TO CHAPTER 4 SECTION 2.
### SECTION 2: CENTER SECTION & BOTH WINGS

1. **INSPECT BOTH WINGS**
   - a. General Condition. 
   - b. Loose Rivets/Fasteners. 
   - c. Corrosion. 
   - d. Distortion. 

2. **INSPECT LEFT WING TIP**
   - a. General Condition. 
   - c. Presence and Condition of Static Wick. 

3. **INSPECT LEFT AILERON**
   - a. General Condition. 
   - b. Loose Rivets/Fasteners. 
   - d. Corrosion. 
   - e. Distortion. 
   - f. Aileron Hinges. 
   - g. Proper Deflection/Rigging. 

4. **INSPECT LEFT AILERON**
   - a. General Condition. 
   - b. Corrosion. 

5. **INSPECT CONNECTING POINTS (3) OF THE LEFT OUTER WING AND CENTER PLANE**
   - a. General Condition. 
   - b. Cracks. 
   - c. Corrosion. 
   - d. Lubricate and Re-torque. 

---

*Remove wing straps, turtle back, open all access panels and doors. Then perform the following steps.*

---

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36. INSPECT HYDRAULIC LINES AND COMPONENTS IN THE CENTER SECTION FOR:

<table>
<thead>
<tr>
<th>Item</th>
<th>Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. General Condition</td>
<td>________</td>
</tr>
<tr>
<td>b. Mounting and Security</td>
<td>________</td>
</tr>
<tr>
<td>c. Leaks</td>
<td>________</td>
</tr>
<tr>
<td>d. Routing and Security of Hydraulic Lines</td>
<td>________</td>
</tr>
<tr>
<td>e. Obvious Defects</td>
<td>________</td>
</tr>
</tbody>
</table>

37. INSPECT ANTENNAS FOR:

<table>
<thead>
<tr>
<th>Item</th>
<th>Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. General Condition</td>
<td>________</td>
</tr>
<tr>
<td>b. Mounting and Security</td>
<td>________</td>
</tr>
</tbody>
</table>

38. INSPECT PNEUMATIC LINES FOR BRAKES AND EXT. FUEL TANKS FOR:

<table>
<thead>
<tr>
<th>Item</th>
<th>Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. General Condition</td>
<td>________</td>
</tr>
<tr>
<td>b. Routing and Security</td>
<td>________</td>
</tr>
</tbody>
</table>

39. INSPECT BLEED AIR LINES AND COMPONENTS FOR:

<table>
<thead>
<tr>
<th>Item</th>
<th>Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. General Condition</td>
<td>________</td>
</tr>
<tr>
<td>b. Mounting and Security</td>
<td>________</td>
</tr>
</tbody>
</table>

THIS SECTION IS COMPLETE WHEN ALL ITEMS IN THIS SECTION HAVE BEEN SUCCESSFULLY COMPLETED. PROCEED TO CHAPTER 4 SECTION 3.
**SECTION 3: AFT FUSELAGE & EMPENNAGE**

*** REMOVE ALL FAIRINGS AND ACCESS PANELS ON THE VERTICAL AND HORIZONTAL STABILIZER. THEN PERFORM THE FOLLOWING STEPS. ***

<table>
<thead>
<tr>
<th>1. INSPECT AFT FUSELAGE</th>
<th>a. General Condition.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SKIN FOR:</td>
<td>b. Loose Rivets/Fasteners.</td>
</tr>
<tr>
<td></td>
<td>c. Corrosion.</td>
</tr>
<tr>
<td></td>
<td>d. Distortion.</td>
</tr>
</tbody>
</table>

| 2. INSPECT SPEED         | a. General Condition. |
| BRAKE SKIN FOR:          | b. Loose Rivets/Fasteners. |
|                         | c. Corrosion. |
|                         | d. Distortion. |


*** DEMATE AFT FUSELAGE FROM CENTER SECTION AND THEN PERFORM THE FOLLOWING STEPS. ***

|                                                        | b. Corrosion. |
|                                                        | c. Lubricate, as Required. |

|                                     | b. Loose Rivets/Fasteners. |
|                                     | c. Corrosion. |
|                                     | d. Distortion. |
|                          | b. Loose Rivets.        |   |
|                          | c. Counter Weight Security. |   |
|                          | d. Corrosion.           |   |
|                          | e. Distortion.          |   |
|                          | f. Hinges and Lubricate, as Required. |   |
| 19. INSPECT ELEVATOR TRIM | a. General Condition.   |   |
| TAB FOR:                | b. Loose Rivets.        |   |
|                        | c. Counter Weight Security. |   |
|                        | d. Corrosion.           |   |
|                        | e. Distortion.          |   |
|                        | f. Hinges and Lubricate, as Required. |   |
| 20. INSPECT TAIL PIPE   | a. General Condition.   |   |
| EXIT SHROUD FOR:       | b. Corrosion.           |   |
|                        | c. Corrosion.           |   |
|                        | d. Proper Charge.       |   |

THIS SECTION IS COMPLETE WHEN ALL ITEMS IN THIS SECTION HAVE BEEN SUCCESSFULLY COMPLETED. PROCEED TO CHAPTER 4 SECTION 4.
### SECTION 4: LANDING GEAR, GEAR DOORS, WHEELS & BRAKES

*** WASH LANDING GEAR AND GEAR WELLS DOWN BEFORE INSPECTION ***

1. **INSPECT NOSE TIRE FOR:**
   - a. General Condition.
   - b. Abnormal Wear.
   - c. Deflate Tire.

2. **REMOVE NOSE WHEEL AND INSPECT WHEEL, WHEEL BEARINGS, AXEL AND AXEL NUT FOR:**
   - a. General Condition.
   - b. Obvious Defects.
   - c. Corrosion.
   - d. Clean and Repack Bearings.

3. **INSPECT NOSE GEAR FOR:**
   - a. General Condition.
   - b. Leaks.
   - c. Free Play.
   - d. Corrosion.
   - e. Mounting and Security.
   - f. Proper Inflation.
   - g. Lubricate.

4. **INSPECT SHIMMY DAMPENER FOR:**
   - a. General Condition.
   - b. Leaks.
   - c. Corrosion.
   - d. Mounting and Security.

5. **INSPECT NOSE GEAR ACUATOR AND HYDRAULIC LINES FOR:**
   - a. General Condition.
   - b. Leaks.
   - c. Corrosion.
   - d. Mounting and Security.
   - e. Lubricate.
<table>
<thead>
<tr>
<th>34. INSPECT RIGHT INBOARD GEAR DOOR AND ACTUATOR FOR:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a. General Condition.</td>
<td></td>
</tr>
<tr>
<td>b. Corrosion.</td>
<td></td>
</tr>
<tr>
<td>c. Leaks.</td>
<td></td>
</tr>
<tr>
<td>d. Mounting and Security.</td>
<td></td>
</tr>
<tr>
<td>d. Lubricate.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>35. REINSTALL RIGHT MAIN WHEEL, INFLATE TIRE AND INSPECT FOR:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Brake Adjustment.</td>
<td></td>
</tr>
<tr>
<td>b. Proper Tire Inflation.</td>
<td></td>
</tr>
</tbody>
</table>

THIS SECTION IS COMPLETE WHEN ALL ITEMS IN THIS SECTION HAVE BEEN SUCCESSFULLY COMPLETED. PROCEED TO CHAPTER 4 SECTION 5.
### SECTION 5: ENGINE

1. **INSPECT INLETS, Y DUCT, STARTER DOME AND INLET GUIDE VAINS FOR:**
   - a. General Condition. ________
   - b. Corrosion. ________
   - c. Mounting and Security. ________

2. **INSPECT COMPRESSOR BLADES THROUGH AIR INTAKE FOR:**
   - a. General Condition. ________
   - b. Corrosion. ________
   - c. Mounting and Security. ________

   **NOTE:** IF UNDOCUMENTED FOD IS DETECTED PERFORM A "C CHECK".

3. **INSPECT FIREWALL AND ENGINE MOUNTS FOR:**
   - a. General Condition. ________
   - b. Corrosion. ________
   - c. Mounting and Security. ________

4. **CHECK COMPRESSOR HOUSING BOLTS FOR:**
   - a. General Condition. ________

5. **EXTERNALLY INSPECT IGNITION BOX, LEADS AND IGNITERS FOR:**
   - a. General Condition. ________
   - b. Mounting and Security. ________
   - c. Wiring Condition, Routing and Security. ________

6. **EXTERNALLY INSPECT BURNER CANS, FLAME PROPAGATION TUBES, AND TURBINE HOUSING FOR:**
   - a. General Condition. ________
   - b. Spot Over Heating. ________
   - c. Distortion or Cracks. ________
   - d. Corrosion. ________
   - e. Mounting and Security. ________

   **NOTE:** IF ANY DEFECTS ARE FOUND, PERFORM A "C CHECK".
### 32. INSPECT OIL LINES AND PRESSURE

**TRANSMITTERS FOR:**
- a. General Condition. 
- b. Leaks. 

### 33. INSPECT TACH GENERATOR FOR:

**a. General Condition.**

### 34. INSPECT THE FIRE BOTTLE, LINES AND FITTINGS FOR:

- a. General Condition. 
- c. Proper Pressure.

---

**THIS SECTION IS COMPLETE WHEN ALL ITEMS IN THIS SECTION HAVE BEEN SUCCESSFULLY COMPLETED. PROCEED TO CHAPTER 4 SECTION 6.**
SECTION 6: OPERATIONAL CHECKS

The Operational Checks may be accomplished when working on a particular system individually or as they are outlined in this section sequentially. For example it may be advantageous to perform the Landing Gear Check when working with the landing gear in section 4 and not wait until you complete all five sections before doing any operational checks. To accommodate this method a checklist has been provided to ensure all checks in this section are completed.

The Operational Checks are broken down into three categories. Checks that require no external power (Green), checks that require only external electrical power (Yellow) and checks that require both external electrical and hydraulic power (Gold). When possible items are listed, starting in the front cockpit, aft left then proceeding clockwise to conclude at aft right. Only the items not checked in previous sections or engine runs will be listed in this section.

GREEN
- OXYGEN SYSTEM
- CABIN DUMP VALVE
- FIRE COCK LEVER
- PITOT STATIC SEL.
- BRAKES & RUDDER ADJ.
- RAM AIR VENT

YELLOW
- AIR START
- FIRE EXT.
- PITOT HEAT
- LIGHTS
- GYRO INST.
- TEMP. CONTROL

GOLD
- FLAPS
- LANDING GEAR

THIS SECTION IS CONSIDERED COMPLETE WHEN ALL OPERATIONAL CHECKS IN THIS SECTION HAVE BEEN SUCCESSFULLY COMPLETED. PROCEED TO CHAPTER 4 SECTION 7.
## TO ESTABLISH ELECTRICAL POWER FOLLOW THIS PROCEDURE:

### NOSE COMPARTMENT

<table>
<thead>
<tr>
<th>Switch/Connector</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fire Extinguishing Switch</td>
<td>Off</td>
</tr>
</tbody>
</table>

### REAR COCKPIT

<table>
<thead>
<tr>
<th>Component/Link</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fire Extinguishing Switch Cover</td>
<td>Closed</td>
</tr>
<tr>
<td>Master Switch</td>
<td>On</td>
</tr>
<tr>
<td>Secondary Bus Switch</td>
<td>On</td>
</tr>
</tbody>
</table>

### FRONT COCKPIT

<table>
<thead>
<tr>
<th>Component/Link</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fire Extinguishing Switch Cover</td>
<td>Closed</td>
</tr>
<tr>
<td>All Electrical Switches</td>
<td>Off</td>
</tr>
<tr>
<td>Gyro Inverter Circuit Breakers</td>
<td>Off (2)</td>
</tr>
<tr>
<td>External Power (Preferred Method)</td>
<td>Connect</td>
</tr>
</tbody>
</table>

- If external power is available skip connecting the battery.

<table>
<thead>
<tr>
<th>Component/Link</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Battery (Alternate Method)</td>
<td>Connect</td>
</tr>
<tr>
<td>Battery Switch</td>
<td>On</td>
</tr>
<tr>
<td>External Power Light (If Connected)</td>
<td>On</td>
</tr>
</tbody>
</table>

| Check Voltage                                        | 26 VDC Min.  |
TO ESTABLISH HYDRAULIC POWER FOLLOW THIS PROCEDURE:

REAR COCKPIT

Flap Selector Buttons………………………………………………………………………... Out
Gear Selector Buttons……………………………………………………………………….. Out
Flap and Gear Emergency Extension Valves ......................................................... Closed (CW)
F/C Landing Gear Lockout Switch…………………………………………………………. Off

FRONT COCKPIT

Flap Selector Buttons………………………………………………………………………... Out
Gear Selector Buttons……………………………………………………………………….. Out
Flap and Gear Emergency Extension Valves......................................................... Closed (CW)
Hydraulic Mule................................................................. Connect

After turning on the hydraulic mule the pressure should read zero, if not, shut the mule off and determine the cause and correct.
OXYGEN SYSTEM

Oxygen Regulator.................................................................................................................................................. 100%
Lever should be 90° to the direction of flight.

Oxygen Valve.................................................................................................................................................. Closed (CW)

Oxygen Gauge.................................................................................................................................................. Zero
If gauge reads any pressure open emergency valve until the pressure is depleted then close.

Oxygen Mask.................................................................................................................................................. Inhale
There should be no flow from the regulator.

Oxygen Regulator.................................................................................................................................................. Dilute
Oxygen Mask.................................................................................................................................................. Inhale
There should be flow of cabin air from the regulator.

Oxygen Valve.................................................................................................................................................. On (CCW)
The oxygen gauge should read the pressure of the bottle dedicated for the front pilot and the white lung symbols should be in view.

Oxygen Mask.................................................................................................................................................. Inhale
The white lung symbols should move out of view when inhaling and return when not.

Oxygen Regulator.................................................................................................................................................. 100%
Oxygen Mask.................................................................................................................................................. Inhale
The white lung symbols should move out of view when inhaling and return when not.

Emergency Oxygen Valve.................................................................................................................................. On (CCW)
There should be a constant flow to the mask and the white lung symbols should be out of view.

Emergency Oxygen Valve.................................................................................................................................. Closed (CW)
Flow should stop and the white lungs should be in view.

Oxygen Valve.................................................................................................................................................. Closed (CW)
Relieve any residual pressure by opening the emergency valve until the pressure reads zero, then re-close the emergency valve.

REAR COCKPIT

Oxygen Regulator.................................................................................................................................................. 100%
Lever should be 90° to the direction of flight.

Oxygen Valve.................................................................................................................................................. Closed (CW)
Brake Pressure Left/Right………………………………………………………. 8 ATM/8 ATM
Normal Brakes...................................................................................... Release
Brake Pressure Left/Right………………………………………………………. 0 ATM/0 ATM

Repeat the above procedure in rear cockpit before continuing with the procedure below.

Front Cockpit Normal Brakes................................................................. Apply and Hold
Hold approximately 4 ATM. These next steps will check the front cockpit lockout device.
Rear Cockpit Normal Brakes................................................................. Apply and Release
Brake Pressure Indicator....................................................................... 0 ATM/0 ATM
Front Cockpit Normal Brake................................................................. Release and Re-Apply
Brake Pressure Indicator....................................................................... 0 ATM/0 ATM
Front Cockpit Normal Brake.................................................................. Release

This confirms that the front cockpit lockout device worked.

Front & Rear Normal Brakes................................................................. Apply and Hold
Deflection should be approximately the same, about half travel.

Front & Rear Normal Brakes Simultaneously................................. Release Slowly

This should have reset the front cockpit lockout device.

Front Cockpit Normal Brake................................................................. Apply and Release

Confirm with the brake pressure gauge that normal braking is restored in the front cockpit.

---

RAM AIR VENT

Ram Air Vent Valve.................................................................................. Open
Verify valve position through vent opening.

Ram Air Vent Valve.................................................................................. Closed
Verify valve position through vent opening.

Vent Nozzle Rotate.................................................................................. Left and Right
Perform the same procedure for rear vent.
ESTABLISH ELECTRICAL POWER FOR THESE PROCEDURES:

AIR START (IGNITION)

Engine Bus Switch………………………………………………………………………………………. On
Airstart Switch………………………………………………………………………………….. Push and Release
This provides ignition for approximately 19 seconds and the RELIGHT IN FLIGHT
annunciator light should be illuminated.

REAR COCKPIT

Airstart Switch………………………………………………………………………………….. Push and Release
This also provides ignition for approximately 19 seconds and the RELIGHT IN FLIGHT
annunciator light should be illuminated.

Engine Bus Switch………………………………………………………………………………….. Off
When finished, safety both airstart switches with breakable copper wire.

FIRE EXTINGUISHING

Fire Bottle Connectors (Two)…………………………………………………………………… Disconnect
Connect a voltmeter between each connector and ground.

Engine Bus Switch………………………………………………………………………………….. On
Fire Extinguisher Button………………………………………………………………………… Push and Hold
Approximately 28 VDC should be read on one connector.

Fire Extinguisher Button………………………………………………………………………… Release
Voltage should drop to zero. Repeat above two steps in rear cockpit.

Engine Bus Switch………………………………………………………………………………….. Off
Battery Switch………………………………………………………………………………….. Off
External Power………………………………………………………………………………….. Disconnect
Battery……………………………………………………………………………………… Connect
Fire Extinguisher Switch In Nose Compartment………………………………………… On
Fire Extinguisher Button………………………………………………………………………… Push and Hold
Approximately 28 VDC should be read on the other connector.

Fire Extinguisher Button………………………………………………………………………… Release
Voltage should drop to zero. Repeat above two steps in rear cockpit.

Fire Extinguisher Switch In Nose Compartment………………………………………… Off

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D.G. Slave Button............................................................... Push and Hold
The card should rotate and stop on a heading close to the magnetic compass, release button.

REAR COCKPIT

Attitude Indicator.............................................................. Check
Should display the aircraft attitude and the slave light should be extinguished.

Directional Indicator.......................................................... Check
The card should be stable on a heading.

D.G. Slave Button............................................................... Push and Hold
The card should rotate and stop on a heading close to the magnetic compass, (should be the same as the front cockpit) release the button.

RETURN TO FRONT COCKPIT

Secondary Bus Switch........................................................ Off
Gyro Circuit Breakers......................................................... Off

TEMPERATURE CONTROL

Secondary Bus Switch........................................................ On
Temperature Control Switch................................................ Cool
This should drive the air distributor valve to the full cool position.

Temperature Control Switch................................................ Warm
This should drive the air distributor valve to the full warm position.

Temperature Control Switch................................................ Automatic
Cab Temperature Pre-select Knob........................................... 16° (CCW)
This should drive the air distributor valve back to the full cool position (assuming ambient air temperature is approximately 20°C or higher).

Cab Temperature Pre-Select Knob......................................... Reset
Secondary Bus Switch........................................................ Off
ESTABLISH ELECTRIC AND HYDRAULIC POWER FOR
THE FOLLOWING PROCEDURES:

FLAPS

Extending the landing gear and or the flaps by means of the emergency extension valves will overfill the hydraulic reservoir and will cause venting of hydraulic fluid. For this reason it is recommended that the hydraulic reservoir not be refilled until tests using the emergency extension system are complete and the hydraulic accumulator is full.

Flap Hydraulic Dump Valve…………………………………………………………Drain and Close
Secondary Bus Switch………………………………………………………………….On
Flaps 0° Button…………………………………………………………………………..Push
Verify Flaps Up Electrically……………………………………………………….Red Light On
Verify Flaps Up Manually…………………………………………………………Pole Retracted
Selector Button…………………………………………………………………………Out
Hydraulic Pressure………………………………………………………………………..Zero
Visually Verify Flaps……………………………………………………………………Up
Battery Switch…………………………………………………………………………Off
Hydraulic Mule…………………………………………………………………………Off
Check……………………………………………………………………………………Fit
Battery Switch…………………………………………………………………………On
Hydraulic Mule…………………………………………………………………………On
Flaps 15° Button…………………………………………………………………………Push
Verify Flaps 15° (Electrically)………………………………………………………Amber Light On
Verify Flaps 15° (Manually)…………………………………………………………Pole at 15° Mark
Selector Button…………………………………………………………………………Out
Hydraulic Pressure……………………………………………………………………….Zero
Battery Switch…………………………………………………………………………Off
Hydraulic Mule…………………………………………………………………………Off
Flaps Rigging At 15°………………………………………………………………………Check
Hydraulic Mule…………………………………………………………………………On
Battery Switch…………………………………………………………………………On
Flaps 30° Button…………………………………………………………………………Push
Hydraulic Pressure ......................................................................................................................... Zero
Emergency Gear Ext Valve ............................................................................................................ Open
Verify Gear Down Electronically ................................................................................................. 3 Green Lights
Emergency Gear Ext. Valve ........................................................................................................... Closed (CW)
Master Switch ................................................................................................................................. Off
Hydraulic Mule ............................................................................................................................... Off
Visually Verify Gear ....................................................................................................................... Down and Locked
Gear Dump Valve ............................................................................................................................ Drain and Close
Hydraulic Mule ............................................................................................................................... On
Master Switch ................................................................................................................................. On
Hydraulic Accumulator .................................................................................................................. Fill
Select Gear ....................................................................................................................................... Up
Gear Up (Electronically) .................................................................................................................... 3 Red Lights
Gear Selector Button ...................................................................................................................... Out
Hydraulic Pressure .......................................................................................................................... Zero
Select Gear ....................................................................................................................................... Down
Verify Gear Down Electrically ......................................................................................................... 3 Green Lights
Verify Gear Down Manually ............................................................................................................ 3 Poles Extended
Gear Selector Button ...................................................................................................................... Out
Hydraulic Pressure .......................................................................................................................... Zero
Electrical Power ............................................................................................................................... Off
Hydraulic Mule ............................................................................................................................... Off
Visually Verify Gear ....................................................................................................................... Down and Locked
Hydraulic Reservoir ....................................................................................................................... Fill

*** REMOVE THE AIRCRAFT FROM THE JACKS AFTER THE LANDING GEAR CHECK IS SUCCESSFULLY COMPLETED ***
SECTION 7: INITIAL ENGINE RUN

Please review this entire procedure prior to attempting an engine start.

SAFETY FIRST!

- Ensure that the engine intake and tail pipe is clear of FOD.
- There are not any loose articles in the cockpit that could end up going down the intake.
- The ramp area is free of FOD.
- Ensure everyone on the ramp is briefed not to walk within 15' of the jet intakes or within 100' of the tail pipe while the engine is running.
- Hearing protection is required.
- It is possible to lockout normal braking from the front cockpit. Ensure normal brakes can be applied from the front cockpit before starting.
- One of the leading causes of hot starts is a low battery. Prior to starting, ensure that the battery is fully charged (26VDC MIN) or use an adequate external power source.

To properly observe the fuel transfer the fuel should be distributed as follows:

- Internal fuel, 800L or less.
- Each external fuel tank, 5 - 10 gallons.

The electrical part of the start sequence is controlled automatically by the starting control box as follows:

- 0sec. – Starter current applied half power (200A)
- 3sec. – Ignition on
- 5sec. – Starter current applied full power (400A)
- 15sec. – Ignition off
- 17sec. – Starter off

Duration of a complete start cycle is 17 + 1.5 seconds.

NOSE

Battery ...................................................................................................................... Connect
External Fuel Tank Switch................................................................. Off

SHUTDOWN CHECK

Electrical Equipment........................................................................ Off
Secondary Bus Switch........................................................................ Off
Throttle Idle.................................................................................... 35 - 39% (30sec. Min.)
Fuel Shutoff Lever........................................................................ Off
Timer................................................................................................. Start

Rundown Time 50 Seconds Minimum.

Engine Switch................................................................................ Off
Battery Switch................................................................................. Off
GEN Switch.................................................................................... Off
Emergency Brakes........................................................................ Off
Battery........................................................................................... Disconnect

THIS ENGINE RUN IS CONSIDERED COMPLETE WHEN ALL ITEMS IN THIS SECTION
HAVE BEEN SUCCESSFULLY COMPLETED. PROCEED TO CHAPTER 4 SECTION 8.
SECTION 8: FINAL ITEMS

1. BEFORE ENGINE COOLS DOWN:
   a. Obtain a Soap Sample (If Due).
   b. Drain Engine Oil.
   c. After Engine Cools, Clean Oil Screens.
   d. Refill Oil.

2. INSPECT ENGINE FOR ANY FLUID LEAKS:
   a. Fuel System.
   b. Oil System.
   c. Hydraulic System.

3. EXTERNALLY INSPECT COMBUSTION CHAMBERS, FLAME PROPAGATION TUBES, AND TURBINE HOUSING FOR:
   a. General Condition.
   b. Spot Over Heating.
   c. Distortion or Cracks.
   d. Mounting and Security.

*** PLACE AIRCRAFT ON JACKS ***

4. RE-INSTALL AFT FUSELAGE TO CENTER SECTION AND INSPECT:
   a. Torque on (8) Mounting Bolts.
   b. Hydraulic Connections.
   c. Electrical Connections.
   d. Push Pull Tubes Connections.
   e. Tail Pipe Hangar.

*** REMOVE AIRCRAFT FROM JACKS ***

5. INSPECT FRONT COCKPIT FOR:
   a. Cleanliness.
   b. Loose Items.
   c. Anything Out of Place.
THIS SECTION IS COMPLETE WHEN ALL ITEMS IN THIS SECTION HAVE BEEN SUCCESSFULLY COMPLETED. PROCEED TO CHAPTER 4 SECTION 9.
SECTION 9: FINAL ENGINE RUN

*Please review this entire procedure prior to attempting an engine start.*

**SAFETY FIRST!**

- Ensure that the engine intake and tail pipe is clear of FOD.
- There are not any loose articles in the cockpit that could end up going down the intake.
- The ramp area is free of FOD.
- Ensure everyone on the ramp is briefed not to walk within 15' of the jet intakes or within 100' of the tail pipe while the engine is running.
- Hearing protection is required.
- It is possible to lockout normal braking from the front cockpit. Ensure normal brakes can be applied from the front cockpit before starting.
- One of the leading causes of hot starts is a low battery. Prior to starting, ensure that the battery is fully charged (26VDC MIN) or use an adequate external power source.

The electrical part of the start sequence is controlled automatically by the starting control box as follows:

- 0sec. – Starter current applied half power (200A)
- 3sec. – Ignition on
- 5sec. – Starter current applied full power (400A)
- 15sec. – Ignition off
- 17sec. – Starter off

Duration of a complete start cycle is 17 + 1.5 seconds.

**NOSE COMPARTMENT**

Fire Extinguishing Switch........................................................................................................... On

**REAR COCKPIT**

Emergency Brake..................................................................................................................... Safety Wired
Master Switch........................................................................................................................... On
Secondary Bus Switch .............................................................................................................. On
Engine Instrument Priority Switch................................................................................................. F/C
Emergency Gear and Flap Valves............................................................................................... Safety Wired
EGT.................................................................................................................. 550 Max.
Fuel Pressure................................................................................................... 12kg Min.
Oil Pressure................................................................................................... .5kg Min.
Oil Temperature............................................................................................ 110°C Max.

SHUTDOWN CHECK

Electrical Equipment..................................................................................... Off
Secondary Bus Switch.................................................................................... Off
Throttle........................................................................................................... Idle, 30sec. Min.
Fuel Shutoff Lever........................................................................................ Off
Timer................................................................................................................ Start

Rundown Time 50 Seconds Minimum.

Engine Switch.............................................................................................. Off
Battery Switch.............................................................................................. Off
GEN Switch................................................................................................. Off
Emergency Brakes........................................................................................ Off

CHECK ENGINE COMPARTMENT FOR ANOMALIES THEN INSTALL AFT BELLY PAN.

THIS ENGINE RUN IS CONSIDERED COMPLETE WHEN ALL ITEMS IN THIS SECTION HAVE BEEN SUCCESSFULLY COMPLETED.

MAKE LOGBOOK ENTRIES IN ACCORDANCE WITH THE OPERATING LIMITATIONS ISSUED BY THE FAA INDICATING THAT A “B CHECK” HAS BEEN COMPLETED.
The C Check is an engine hot section inspection due every 100 hours time in service or as directed in this program when discrepancies are found. It must be performed by an appropriately rated certificated mechanic and signed off in accordance with the aircraft's operating limitation.

Dimensions and tolerances required for this inspection may be found in *L-29 Aircraft Book, Instruction for Aircraft Operations and Maintenance* pages 52 and 53.

If the C Check is performed in conjunction with a B Check then:

1.) Perform the Hot Section Inspection as specified in Chapter 5 Section 1 at the same time as the Engine Inspection found in Chapter 4 Section 5.
2.) Do not perform the steps and procedures found in Chapter 5 Sections 2 – 4, as these are covered in Chapter 4 Sections 7 – 9.
3.) At the completion of the B Check include in the logbook entry that a C Check has also been completed.

**Section 1**
- Hot Section Inspection.

**Section 2**
- Initial Engine Run.

**Section 3**
- Final Items.

**Section 4**
- Final Engine Run.
SECTION 1: ENGINE HOT SECTION INSPECTION

DISCONNECT THE BATTERY.
PLACE THE AIRCRAFT ON JACKS.
DEMATE THE AFT FUSELAGE FROM THE CENTER SECTION.
REMOVE THE AIRCRAFT FROM THE JACKS.
PERFORM THE FOLLOWING STEPS.

| 1. INSPECT COMPRESSOR | a. General Condition.  
| BLADES THROUGH AIR  | b. Corrosion.  
| INTAKE FOR:  | c. FOD.  
| 2. CHECK COMPRESSOR | a. General Condition.  
| HOUSING FOR:  | b. Distortion or Cracks.  
| 3. EXTERNALLY INSPECT | a. General Condition.  
| COMBUSTION CHAMBERS | b. Spot Over Heating.  
| OUTER CASING FOR:  | c. Distortion or Cracks.  
| d. Mounting and Security.  
| 4. EXTERNALLY INSPECT | a. General Condition.  
| TURBINE HOUSING  | b. Spot Over Heating.  
| FOR:  | c. Distortion or Cracks.  
| d. Mounting and Security.  
| 5. REMOVE AND INSPECT | a. General Condition.  
| THERMOCOUPLES AND  | b. Cracks.  
| WIRING HARNESS FOR:  |  
| THERMAL BLANKETS, EXHAUST  |  
| NOZZEL, TAIL PIPE, AND  |  
| DIFFUSER FOR:  |  

IF DEFECTS ARE FOUND REMOVE ALL COMBUSTION CHAMBERS AND INSPECT.
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<td></td>
<td>b. Cracks.</td>
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<td>BLADE GUIDE VANES AND</td>
<td>c. FOD damage.</td>
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<td>TURBINE BLADES FOR:</td>
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<td>INSPECT FOR:</td>
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<tr>
<td>15. INSPECT IGNITERS</td>
<td>a. General Condition.</td>
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<td>FOR:</td>
<td>b. Proper Gap.</td>
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<td>TAIL PIPE, EXHAUST NOZZLE</td>
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<td>AND THERMAL BLANKETS</td>
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<td>AND INSPECT FOR:</td>
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<tr>
<td>COUPLES AND WIRING</td>
<td>b. Wiring, Connectors,</td>
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<tr>
<td>HARNESS AND INSPECT FOR:</td>
<td>Routing and Security.</td>
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THIS SECTION IS COMPLETE WHEN ALL ITEMS IN THIS SECTION HAVE BEEN SUCCESSFULLY COMPLETED. PROCEED TO CHAPTER 5 SECTION 2.
SECTION 2: INITIAL ENGINE RUN

*Please review this entire procedure prior to attempting an engine start.*

**SAFETY FIRST!**

- Ensure that the engine intake and tail pipe is clear of FOD.
- There are not any loose articles in the cockpit that could end up going down the intake.
- The ramp area is free of FOD.
- Ensure everyone on the ramp is briefed not to walk within 15’ of the jet intakes or within 100’ of the tail pipe while the engine is running.
- Hearing protection is required.
- It is possible to lockout normal braking from the front cockpit. Ensure normal brakes can be applied from the front cockpit before starting.
- One of the leading causes of hot starts is a low battery. Prior to starting, ensure that the battery is fully charged (26VDC MIN) or use an adequate external power source.

The electrical part of the start sequence is controlled automatically by the starting control box as follows:

- 0sec. – Starter current applied half power (200A)
- 3sec. – Ignition on
- 5sec. – Starter current applied full power (400A)
- 15sec. – Ignition off
- 17sec. – Starter off

Duration of a complete start cycle is 17 + 1.5 seconds.

**NOSE**

- Battery .......................................................... Connect

**REAR COCKPIT**

- Emergency Brake ........................................... Safety Wired
- Master Switch .................................................. On
- Secondary Bus Switch ...................................... On
- Engine Instrument Priority Switch ....................... F/C
- Emergency Gear and Flap Valves ......................... Safety Wired
Throttle (Within 2 Seconds) ................................................................. Full Forward

Acceleration time must not be more than 12 seconds at ambient temperatures of 15°C and below or 14 seconds above 15°C.

- **RPM Swing** ................................................................. 102% Max 5 Times
- **EGT** ............................................................................... 730 Peak
- **RPM Stabilized** ............................................................... 100% (20 Seconds Min.)
- **RPM** ................................................................. 52% (2 1/2 Minutes for Cooling)
- **RPM** ................................................................. 35 - 39% (30 Seconds Min.)
- **EGT** ............................................................................... 550 Max.
- **Fuel Pressure** ................................................................. 12kg Min.
- **Oil Pressure** ................................................................. 5kg Min.
- **Oil Temperature** ............................................................. 110°C Max.

**SHUTDOWN CHECK**

- **Electrical Equipment** ........................................................ Off
- **Secondary Bus Switch** ........................................................ Off
- **Throttle Idle** ................................................................. 35 - 39% (30sec. Min.)
- **Fuel Shutoff Lever** .......................................................... Off
- **Timer** .............................................................................. Start

Rundown Time 50 Seconds Minimum.

- **Engine Switch** ................................................................. Off
- **Battery Switch** ................................................................. Off
- **GEN Switch** ................................................................. Off
- **Emergency Brakes** .......................................................... Off
- **Battery** ................................................................. Disconnect

**THIS ENGINE RUN IS CONSIDERED COMPLETE WHEN ALL ITEMS IN THIS SECTION HAVE BEEN SUCCESSFULLY COMPLETED. PROCEED TO CHAPTER 5 SECTION 3.**
SECTION 3: FINAL ITEMS

1. INSPECT ENGINE FOR
   a. Fuel System. ________
   ANY FLUID LEAKS:
   b. Oil System. ________
   c. Hydraulic System. ________

2. EXTERNALLY INSPECT
   a. General Condition. ________
   COMBUSTION CHAMBERS,
   b. Spot Over Heating. ________
   FLAME PROPAGATION
   c. Distortion or Cracks. ________
   TUBES, AND TURBINE
   d. Mounting and Security. ________
   HOUSING FOR:

3. VISUALLY INSPECT
   a. General Condition. ________
   DEFUSER, TAIL PIPE
   b. Mounting and Security. ________
   EXHAUST NOZZLE AND
   THERMAL BLANKETS FOR:

*** PLACE AIRCRAFT ON JACKS ***

4. REINSTALL AFT
   a. Torque on (8) Mounting Bolts. ________
   FUSELAGE TO CENTER
   b. Hydraulic Connections. ________
   SECTION AND
   c. Electrical Connections. ________
   INSPECT:
   d. Push Pull Tubes Connections. ________
   e. Tail Pipe Hangar. ________

*** REMOVE AIRCRAFT FROM JACKS ***

5. REINSTALL TURTLE
   a. Mounting and Security. ________
   BACK FAIRINGS THEN
   INSPECT FOR:

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| **6. INSPECT ELEVATOR** | a. Proper Operation   
| **7. INSPECT ELEVATOR** | a. Proper Operation   
| **8. INSPECT RUDDER FOR:** | a. Proper Operation   
|  | b. Freedom of Movement.   |
| AND BATTERY ACCESS COVER AND INSPECT FOR: |   |

THIS SECTION IS COMPLETE WHEN ALL ITEMS IN THIS SECTION HAVE BEEN SUCCESSFULLY COMPLETED. PROCEED TO CHAPTER 5 SECTION 4.
SECTION 4: FINAL ENGINE RUN

*Please review this entire procedure prior to attempting an engine start.*

**SAFETY FIRST!**

- Ensure that the engine intake and tail pipe is clear of FOD.
- There are not any loose articles in the cockpit that could end up going down the intake.
- The ramp area is free of FOD.
- Ensure everyone on the ramp is briefed not to walk within 15' of the jet intakes or within 100' of the tail pipe while the engine is running.
- Hearing protection is required.
- It is possible to lockout normal braking from the front cockpit. Ensure normal brakes can be applied from the front cockpit before starting.
- One of the leading causes of hot starts is a low battery. Prior to starting, ensure that the battery is fully charged (26VDC MIN) or use an adequate external power source.

The electrical part of the start sequence is controlled automatically by the starting control box as follows:

- 0sec. – Starter current applied half power (200A)
- 3sec. – Ignition on
- 5sec. – Starter current applied full power (400A)
- 15sec. – Ignition off
- 17sec. – Starter off

Duration of a complete start cycle is $17 + 1.5$ seconds.

**NOSE COMPARTMENT**

**Fire Extinguishing Switch**

... On

**REAR COCKPIT**

**Emergency Brake**

... Safety Wired

**Master Switch**

... On

**Secondary Bus Switch**

... On

**Engine Instrument Priority Switch**

... F/C

**Emergency Gear and Flap Valves**

... Safety Wired
EGT................................................................. 550 Max.
Fuel Pressure......................................................... 12kg Min.
Oil Pressure.......................................................... .5kg Min.
Oil Temperature..................................................... 110°C Max.

SHUTDOWN CHECK

Electrical Equipment..................................................... Off
Secondary Bus Switch................................................... Off
Throttle.............................................................. Idle, 30sec. Min.
Fuel Shutoff Lever..................................................... Off
Timer............................................................................. Start

Rundown Time 50 Seconds Minimum.

Engine Switch.............................................................. Off
Battery Switch............................................................ Off
GEN Switch............................................................... Off
Emergency Brakes........................................................ Off

CHECK ENGINE COMPARTMENT FOR ANOMALIES THEN INSTALL AFT BELLY PAN.

THIS ENGINE RUN IS CONSIDERED COMPLETE WHEN ALL ITEMS IN THIS SECTION
HAVE BEEN SUCCESSFULLY COMPLETED.

MAKE LOGBOOK ENTRIES IN ACCORDANCE WITH THE OPERATING LIMITATIONS
ISSUED BY THE FAA INDICATING THAT A “C CHECK” HAS BEEN COMPELTED.