



SERVICE INSTRUCTION

Scoda Aeronáutica Ltda
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Revision 01

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Released Date: **March 26th, 2019**
Effective Date: **July 09th, 2020**

SERVICE INSTRUCTION

SI_SPLS_001

HOT KIT INSTALLATION PROCEDURE

Application of Notes, Cautions and Warnings

NOTES, CAUTIONS and **WARNINGS** are used in this document to emphasize instructions and information considered to be unusual or critical. A **NOTE, CAUTIONS** and **WARNINGS** may appear in the text either before or after the instruction(s) to which it applies, depending on the relative significance of the information. The conditions that warrant the use of **NOTES, CAUTIONS** and **WARNINGS** are defined below:

WARNING

IDENTIFIES AN INSTRUCTION, WHICH IF NOT FOLLOWED MAY CAUSE SERIOUS INJURY OR EVEN DEATH

CAUTION

Denotes an instruction which if not followed, may severely damage the aircraft or could lead to suspension of warranty

NOTE

Information useful for better handling



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1. Planning Information

NOTE

SCODA AERONAUTICA cannot accept any responsibility for the quality of work performed. Please refer to the last revision of the Advisory Circular 43.13 – 1B Acceptable Methods, Techniques, and Practices Aircraft Inspection and Repair.

1.1. Affected Aircraft

Type:	Super Petrel
Model:	LS
Serial Number:	All serial number aircraft equipped with Rotax 912 iS Sport Engine
Applicable Countries:	Not Limited

1.2. Reason

Summer's higher ambient temperature can cause oil and coolant temperatures to run uncomfortably close to redline. This Service Instruction introduces a Hot Kit Installation Procedure.

1.3. Subject

Hot Kit Installation Procedure

1.4. Compliance

NOT MANDATORY

1.5. Type of Maintenance

N/A

1.6. Personnel Qualifications

LSA Repairman Maintenance or A&P

1.7. Release to Service

Conduct of this SI must be logged in the aircraft logbook with date and signature of the responsible person as applicable.

1.8. Weight and Balance

New weight and balance is required.

1.9. References

N/A

1.10. Contact Details

For further information on performing this SI, contact us to the following email address:

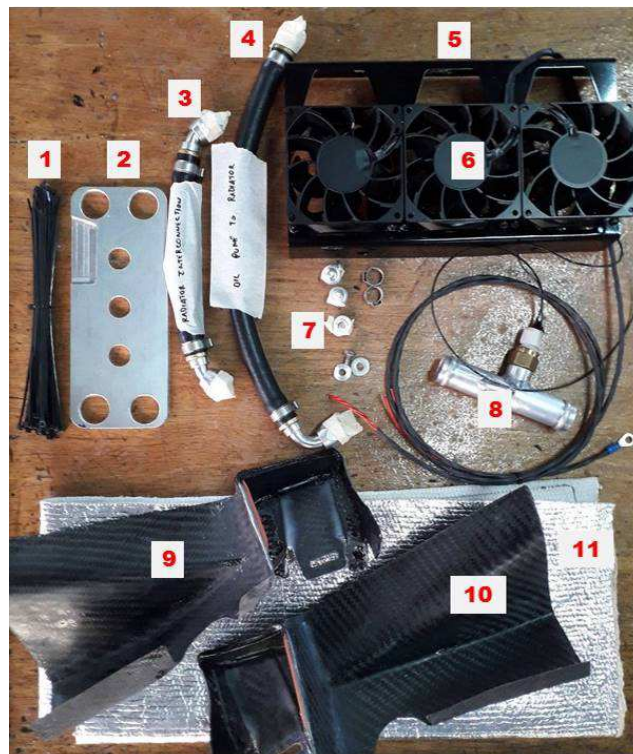
engineering@scodaero.com.br

1.11. Disclaimer

This Service Instruction has been generated with utmost care. Nevertheless, errors and misunderstandings can never be fully excluded. In case of any doubts, the applicant is requested to contact Scoda Aeronáutica Ltda immediately to clarify the issue.

2. Resources

2.1. Parts



Item	Description	Part Number	Qty
1	Zip Tie	---	---
2	Oil Radiators Support	SE-413.014-1	1
3	Oil Radiators Interconnect Hose	---	1
4	Oil Pump to Radiator Hose	---	1
5	Electrical Fans Support (Upper)	SE-413.016	1
5	Electrical Fans Support (Lower)	SE-413.017	1
6	Sanyo Denki DC Fan 92X38mm12VDC	9WL0912P1H001	3
7	Fasteners	---	---
8	Output Adapter with Temperature Sensor	SE-413.006-2	1
9 / 10	Baffles	SE-411.013	1
11	Fireproof fabric or similar	---	1

3. Instructions

CAUTION

Torque Seal is required for marking fasteners during the installation.

CAUTION

Loctite 648 is required to secure all connection.

3.1. Engine Cowling

1. Remove engine upper and lower cowlings.
2. Remove the fireproof fabric from the lower engine cowling.
3. Using a sanding machine wear out bafflers and oil cooler supports from both sides of the lower cowling.
4. The engine cowling itself shall not be sand or damaged however, it is necessary to removed bafflers and supports completely in order to fit the new ones.
5. Set the supports at **(5' 3/4" or 145 mm)** from the rear part of the cowling according to the picture below.



6. Mark the correct position of the bafflers and oil radiators supports according to the picture below.

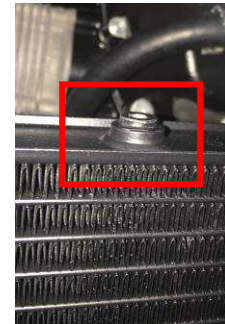
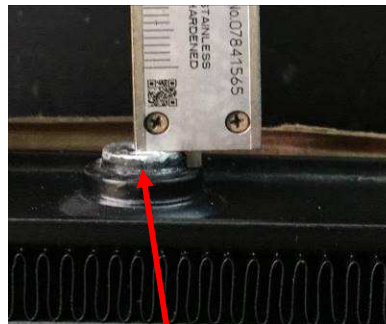
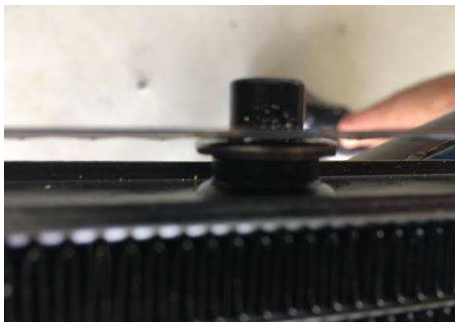
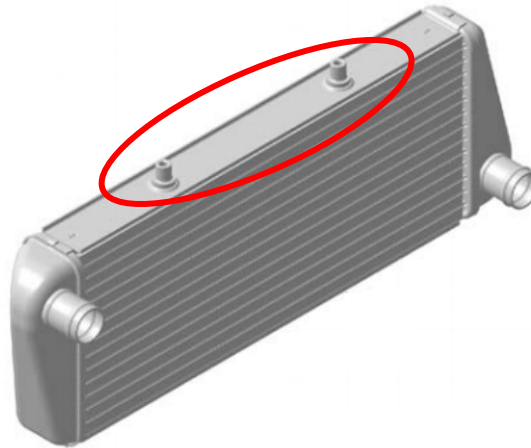


7. Apply epoxy resin loaded with micro balloon on the whole contact surface to glue the new bafflers and supports (Items 9 / 10) on the lower engine cowling according to the picture bellow.
8. Finish and paint as necessary.
9. Reinstall the fireproof fabric or similar (Item 11).



3.2. Cooling System

1. Disconnect the left pipe from the radiator and drain coolant from the system.
2. Remove the radiator.
3. Rework all four supports as shown at the picture below (these should have height of **1/12" 2 mm**).



Height = 1/12" or 2 mm

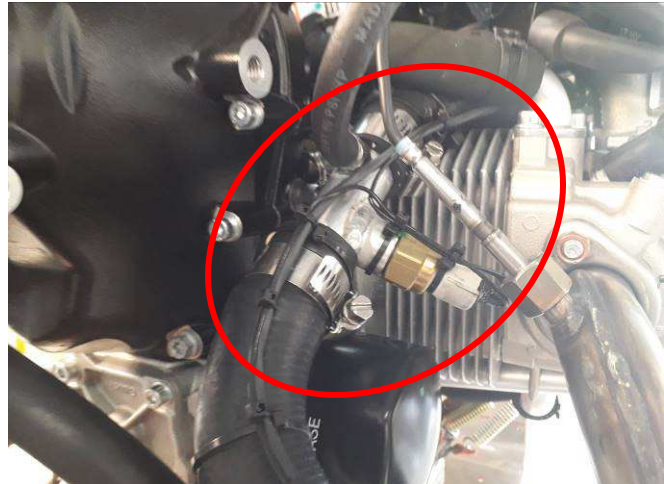
4. Install fans on the radiator according to picture below.



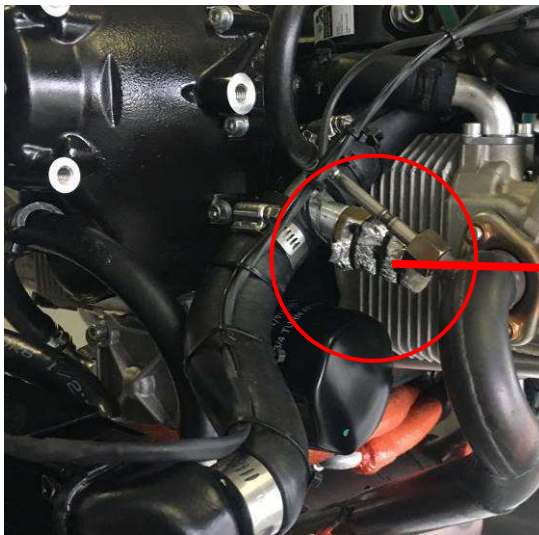
NOTE

Gap between radiator and fans should be 1 – 2,5 mm.

5. Install the supplement with sensor (Item 8) in the cooling system line. Cutting off about **(1 inch or 25mm)** of the original pipe connected between the radiator and the new supplement is required considering the new supplement is **1 inch or 25 mm** longer than the original.



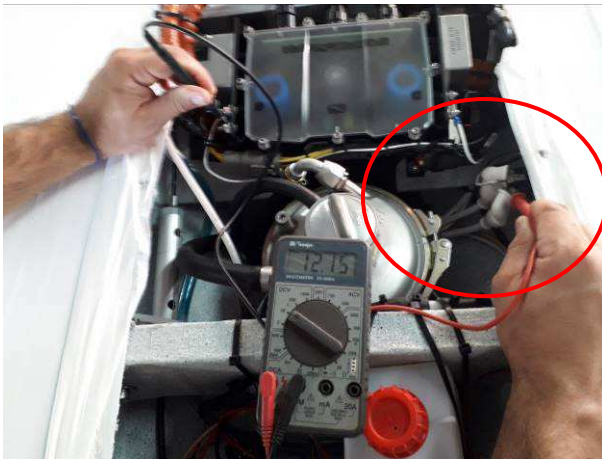
6. Isolate the sensor using fireproof fabric or similar around the part.



7. Reinstall radiator with fans in the cooling system.
8. Replenish the coolant.

3.2.1 Electrical Installation

1. Turn the Master on.
2. Check the positive pole of the starter relay, which is located inside the upper fuselage part of the aircraft (pylon).



3. After located the positive pole of the starter relay turn the master off and disconnect the aircraft battery.
4. Connect the fans cable in the positive pole of the starter relay.
5. Ground the fans cable in the same place where other components are grounded.



- Secure wires with zip ties (Item 1) according to picture below.



- Connect the aircraft battery.

CAUTION

Wires shall not have direct contact with the engine cowling.

3.3. Oil System

- Disconnect the output hose from the oil reservoir.



- Remove the oil radiator.
- Assemble the new oil radiator (**Rotax part number 886036**) and the old radiator into the support (Item 2) according to the picture below.

CAUTION

Loctite 648 is required to secure all connections.

4. Replenish the radiators with oil before install them in the system.
5. Install Oil Radiators Interconnect Hose (Item 3) according to the picture below.



6. Replace the hose which is connected between the oil radiator and oil pump by the Oil Pump to Radiator Hose (Item 4).
7. Connect radiators in the oil system according to the picture below





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NOTE

Check the distance between the exhaust pipe (output) and the oil radiator structure. It should be have a minimum gap of **7 mm**.

8. Reconnect the output hose to the oil reservoir.
9. Perform the purging of lubrication system according to the last revision of the **Rotax Service Instruction SI-912i-004**.

3.4. Final Installation, Tests and Log

1. Install the lower engine cowling.
2. Check hoses, wires for proper fixation and clearance.
3. Check exhaust pipes clearance on the new lower engine cowling bafflers and supports (9 / 10).
4. Check oil, replenish if necessary.
5. Run the engine for **1 minute**.
6. Replenish with coolant.
7. Check oil and cooling system for leakage.
8. Install the upper cowling.
9. Perform a full engine run test.
10. Perform after run final check.
11. Perform aircraft Weight and Balance.
12. Log this SI in the aircraft logbook with date and signature of the responsible person.