



SERVICE INSTRUCTION

Scoda Aeronáutica Ltda
Estrada Municipal IPN 020 km 0,1
Ipeúna – SP, Brazil.
PHONE: (19) 3576-1292
ZIP CODE: 13537-000
www.scodaeronautica.com.br

SI_SPLS_002
Revision 02

Page 1 de 8

Released Date: September 17th, 2019
Effective Date: November 25th, 2021

SERVICE INSTRUCTION

SI_SPLS_002

FUEL SENSOR UNIT REPLACEMENT

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



SERVICE INSTRUCTION

Scoda Aeronáutica Ltda
Estrada Municipal IPN 020 km 0,1
Ipeúna – SP, Brazil.
PHONE: (19) 3576-1292
ZIP CODE: 13537-000
www.scodaeronautica.com.br

SI_SPLS_002
Revision 02

Page 2 de 8

Released Date: September 17th, 2019
Effective Date: November 25th, 2021

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
Applicable Countries:	Not Limited

1.2. Reason

In the course of continuous development and standardization, a new fuel sensor unit has been introduced.

1.3. Subject

Fuel Sensor Unit Replacement

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

N/A

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	Fuel Level Sensor KUS 0.5" RES	KFL11A.0130.08	1
2	Fixation Bolts	ISO 7380 A2 M5X20	5
3	Nylon Washer M5	PN-703.010	5
4	Aluminum Rivet 3/32" X 9,52 BSC34	PN-705.014	7
5	Fuel Sensor Support Plate	SE-132.063	1





SERVICE INSTRUCTION

Scoda Aeronáutica Ltda
Estrada Municipal IPN 020 km 0,1
Ipeúna – SP, Brazil.
PHONE: (19) 3576-1292
ZIP CODE: 13537-000
www.scodaeronautica.com.br

SI_SPLS_002
Revision 02

Page 4 de 8

Released Date: September 17th, 2019
Effective Date: November 25th, 2021

3. Instructions

1. Remove the seats and baggage compartment.
2. Close the Shut Off and Selector Valve.
3. Empty the header tank.

NOTE

With the selector valve OFF empty the header tank through the drain valve and drain button. This should be performed in one go in order to not lose the suction.

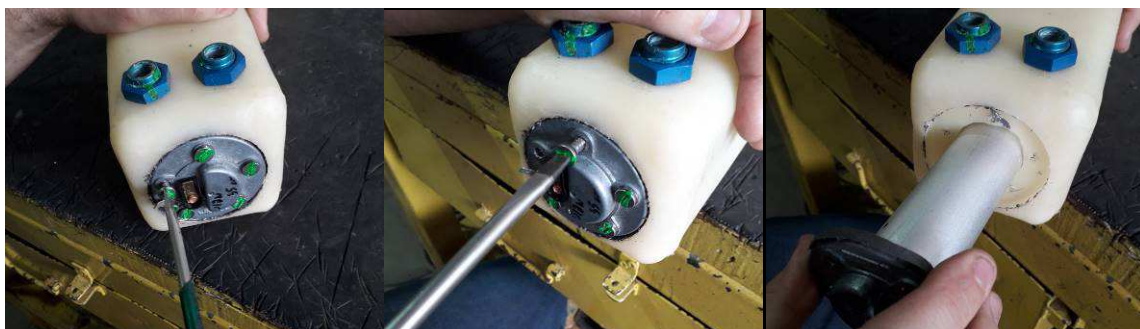
4. Remove clamps to disconnect hoses from the header tank.
5. Disconnect wires from the fuel sensor.
6. Remove the header tank fixation brand and then remove the header tank.

NOTE

It is possible that the header is stuffed due to the pressure. You will need to move a little harder for removing.



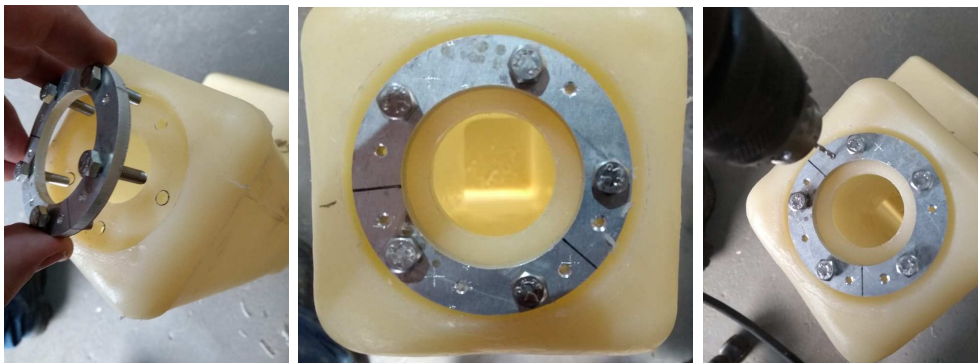
7. Remove the fuel sensor.



8. Clean the PRC from the header tank top surface.

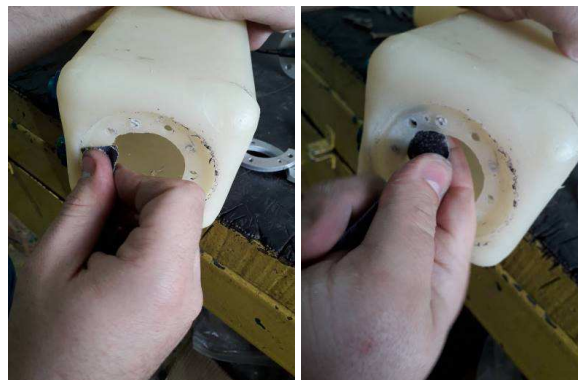


9. Install the support plate on the header tank. Drill the top surface with 3/32 inches in order to install the rivets.

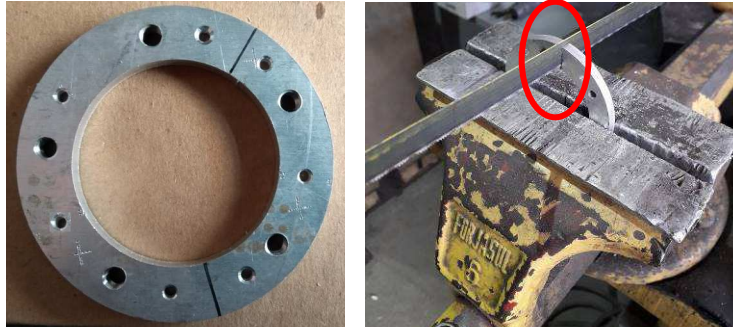
**NOTE**

Rivets countersunk holes should face down to accommodate rivets expansion.

10. Clean the external and internal surface of the header tank using a sand paper 100.

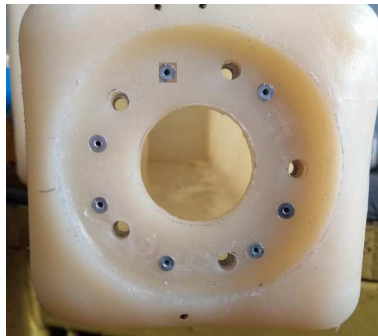


11. Cut the support plate following the marks. Use a hacksaw.

**NOTE**

Rivets countersunk holes should face down to accommodate rivets expansion.

12. Install the halves of the support plate in the internal part of the header tank top using the fixation bolts. Then install the rivets.



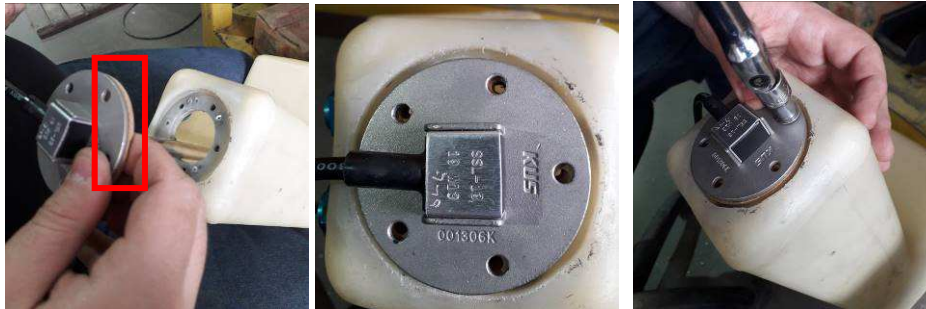
13. Use compressed air to remove residual material from the inner part of the header tank and fuel connectors.

14. Wash the tank with gasoline.

15. Install the fuel sensor with the cork gasket. Apply Loctite 577 on the bolts and torque with 35 lbf.in. / 4 N.m.

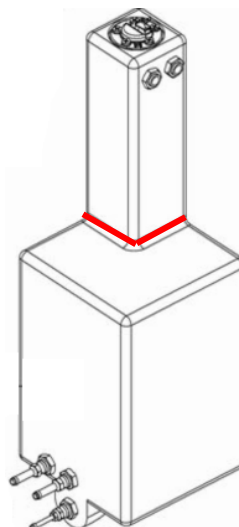
NOTE

It is recommended to allow the Loctite 577 to cure a minimum of 24 hours.

**NOTE**

There is a single position; the holes of the fuel sensor will match with the holes of the header tank.

16. Install electrical connectors on the new fuel sensor. Black wire of the new fuel sensor connects to the stripe white and blue of the aircraft.
17. Reinstall the header tank on the aircraft. Make sure all hoses, clamps and wires are properly connected.
18. Open Shut Off valve.
19. Select the wing tank with less quantity and wait until fuel level equalizes.
20. Level the aircraft laterally.
21. Set fuel level 10 mm above the shoulder of the header tank (reference for zero fuel on the selected wing tank).



22. Start calibration of new fuel sensor according to the instructions of the equipment installed (Garmin / Dynon):



SERVICE INSTRUCTION

Scoda Aeronáutica Ltda
Estrada Municipal IPN 020 km 0,1
Ipeúna – SP, Brazil.
PHONE: (19) 3576-1292
ZIP CODE: 13537-000
www.scodaeronautica.com.br

SI_SPLS_002
Revision 02

Page 8 de 8

Released Date: September 17th, 2019
Effective Date: November 25th, 2021

- **Garmin G3X System**

NOTE

Please refer to the last revision of the G3X Touch Installation Manual

NOTE

Before performing the calibration, select flight, resistive

To perform the Fuel Quantity calibration:

- 1 Access to Configuration Mode / Engine and Airframe / Fuel 1
- 2 Press the Calibrate button to display the Calibration Page.
- 3 Orient the aircraft appropriately for the calibration curve (normal flight or ground/taxi) being performed.
- 4 Drain all usable fuel from the tank and calibrate at 0.0 gallons.
- 5 Put a known quantity of fuel (e.g. 1.0 gallons) into the empty fuel tank and enter that same amount into the Actual Fuel Quantity field.
- 6 Note the resulting sensor value displayed in the Sensor Value field (the sensor value should change with each added amount of fuel), wait at least 2 minutes for the reading to stabilize.
- 7 Press the Calibrate button.
- 8 Repeat this process until the fuel tank is full.

The installer determines the best interval values of fuel to most accurately calibrate the full range of the tank. The greater number of calibration points that are used (maximum of 50 points), the more accurate the calibration will be. A yellow line on the graph indicates potentially incorrect/invalid info.

- **Dynon Avionics**

NOTE

Please refer to the last revision of the SkyView_System_Installation_Guide

After installation, prior to use, fuel level sensors must be calibrated before they can display accurate fuel levels. Until you have performed a fuel level calibration, the fuel level sensor widget will not display fuel levels, and will display CAL?

To perform a fuel level calibration, go to

SETUP MENU > HARDWARE CALIBRATION > EMS CALIBRATION > FUEL TANK xxx CALIBRATION > (one more right click)

and follow the on-screen instructions to perform the fuel level calibration. Generally, you will be prompted to perform up to ten (10) fuel level pours of equal volume; the volume of each pour will be determined by the size of the tank that you input. For an accurate fuel level calibration, it is important to follow the on-screen instructions exactly. For example, pushing the NEXT button before a fuel pour is completed, or pushing it twice for one fuel pour, will result in an inaccurate calibration, and the fuel level calibration procedure will likely have to be repeated.