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(Sling Aircraft (Pty) Ltd. considers compliance with all Service Bulletins mandatory)

RELEASE DATE: 25/03/2026

EFFECTIVE DATE: 25/03/2026

MODELS AFFECTED:

Firewall Forward RTFs
N/A

Firewall Forward Kits and Quick Build Kits

Sling 2:
465bk, 466bk, 469bk.

Sling 4 TSi:
293sk, 345sk, 376sk, 459sk, 467sk, 479sk, 520sk, 532sk, 533sk, 536sk, 548sk, 550sk, 554sk, 563sk, 564sk, 574sk, 579sk, 582sk, 587sk, 594sk, 598sk, 601sk, 602sk, 605sk, 612sk, 613sk, 614sk, 621sq, 623sq, 624sq, 626sk, 629sk, 630sk, 632sq, 634sq, 636sk, 637sk, 638sk, 639sk, 640sk, 641sk, 645sk, 646sk, 654sq, 655sk, 656sk, 658sk, 661sq, 664sq, 665sk, 667sq, 669sq, 671sq, 678sk, 682sq, 683sq, 687sq, 691sk, 694sq, 696sk, 697sq, 699sk, 700sk, 703sk, 705sk, 707sk, 708sq, 713sq

Sling 4 HW:
015gk, 038gk, 039gk, 042gk, 043gk, 047gk, 049gk, 052gk, 057gk, 059gk, 060gk, 066iq, 070gk, 071gk, 075gk, 080gq, 087gq, 088gq, 089gk, 093iq, 094iq, 095gk, 107gq, 114gq, 115gq, 117gk, 118gk, 121gq, 122gq, 131gq, 136gk.

SUBJECT: Inspection and Replacement of Incorrectly Installed or Supplied Check Valves

COMPLIANCE TIME: At the next MPI or immediately if kits remains in build

LABOUR TIME TSi & Sling 2: Inspection: 5 minutes
Replacement: 60 minutes

LABOUR TIME HW: Inspection: 30 minutes
Replacement: 120 minutes

1 DESCRIPTION AND PURPOSE:

Low-pressure (break out pressure: 0.03-0.05 bar) check valves may have been installed or supplied for installation on the fuel return line across the fuel selector in certain Quick Build and Kit aircraft. This installation is incorrect and resulted from an error in the aircraft construction manual, with specified low-pressure check valves in this location.

Applicable Rotax engine installation and fuel system manuals specify that high-pressure (minimum break out pressure of 0.8 bar) check valves are required on the fuel return line across the fuel selector. The installation of low-pressure check valves does not comply with these requirements.

If a low-pressure check valve is installed, fuel return flow follows the path of least resistance and could potentially bypass the fuel selector during normal operation. As a result, all return fuel is directed to the tank connected to the check valve (Left tank for Sling 4 TSi and Sling 2), Right tank for Sling 4 HW) rather than the tank selected on the fuel selector.

If flight is initiated while the affected tank is full, continued return fuel flow into that tank can lead to tank overfilling, fuel venting and loss of usable fuel. This condition represents an unsafe fuel system configuration and compromises normal fuel management.

This Service Bulletin mandates an inspection of the fuel system to verify the type of check valves installed in the fuel return line across the fuel selector. A low-pressure check valve found in the area circled on Figure 3 and Figure 8 must be removed and replaced with the approved high-pressure check valve. The purpose of this bulletin is to restore compliance with Rotax requirements, ensure correct fuel return behaviour and maintain safe and reliable engine operation. Refer to Figure 1 for differences between the low- and high-pressure check valves.

The addition of the high-pressure bypass check valve allows fuel to return to the preset fuel tank should the fuel selector be blocked for any reason.

a. Andair High Pressure Check Valve. Breakout Pressure 0.8 to 1.3 Bar.

b. Black True Flow High Pressure Check Valve. Breakout Pressure 0.8 to 1.0 Bar.

c. Blue True Flow Low Pressure Check Valve. Breakout Pressure 0.03 to 0.05 Bar.

Figure 1: Illustration of a. Andair High Pressure Check Valve, b. Black True Flow High Pressure Check Valve and c. Blue True Flow Low Pressure Check Valve (wrong valve).

1.1 MASS DATA:

N/A

1.2 ELECTRICAL LOAD DATA:

N/A

1.3 SOFTWARE MODIFICATIONS:

N/A

1.4 REFERENCES:

a) DC-KAI-006-X-A – Sling 2 Firewall Forward & Fuel System Construction Manual
b) DC-MAM-002-X-B – Sling 2 & LSA Maintenance Manual
c) DC-KAI-006-X-F – Sling 4 TSi Firewall Forward & Fuel System Construction Manual
d) DC-MAM-001-X-F – Sling 4 TSi Maintenance Manual
e) DC-KAI-006-X-G – Sling 4 HW Firewall Forward & Fuel System Construction Manual
f) DC-MAM-001-X-G – Sling 4 HW Maintenance Manual

1.5 PUBLICATIONS AFFECTED:

N/A

2 MATERIAL INFORMATION:

2.1 PARTS AND CONSUMABLES LIST:

2.1.1 Sling 2 and Sling 4 TSi

a) 1 x HW-VAL-015-X-X-0 - Check Valve (Minimum breakout pressure of 0.8 bar) (3/8" Barb to 3/8" Barb) (only required if the check valve installed is a low-pressure check valve)**.**
b) 4 x HW-CLM-305-X-X - 2 Ear Crimp Type Clamp 15-18mm clamp range.
c) 0.5m x HW-HSE-106-X-X-0 - Fuel Hose, 3/8" (9.5mm) SAE J30R9, /m (high p).

2.1.2 Sling 4 HW

a) 1 x HW-VAL-011-X-X-0 - Check Valve (Minimum breakout pressure of 0.8 bar) (AN6 Male to AN6 Male) (only required if the check valve installed is a low-pressure check valve)**.**

2.2 TOOLS REQUIRED:

a) Front pincer pliers.
b) Hacksaw or Dremel tool.
c) 18 mm (11/16”) spanner.
d) 25mm spanner or Shifting Spanner.
e) Fuel container (for draining residual fuel).
f) Safety gloves.

2.3 MATERIAL RESPONSIBILITY:

Sling Aircraft (Pty) Ltd will provide the required parts listed in Section 2.1 for all aircraft subject to the Service Bulletin.

2.4 COMPANY SUPPORT INFORMATION

Sling Aircraft AMO 1264 (Johannesburg, South Africa) is available to perform the work required under this Service Bulletin on aircraft presented at its facilities. All personnel undertaking the actions prescribed herein shall adhere strictly to the instructions set out below and shall consult all supplementary documentation identified in Section 1.4, as applicable. Sling Aircraft accepts no liability for the quality, completeness, or airworthiness of any work carried out to implement this Service Bulletin if such work is performed by any entity other than Sling Aircraft AMO 1264 (Johannesburg, South Africa).

Work required under this Service Bulletin (Service Bulletin 30) may be performed by a kit builder, subject to compliance with the legal and regulatory requirements of the governing aviation authority in the jurisdiction in which the work is undertaken.

Sling Aircraft will reimburse labour costs only for aircraft that (i) are already in flying condition at the time of compliance and (ii) remain within their applicable warranty period. Labour reimbursement by Sling Aircraft shall be limited to a maximum rate of US$50.00 per hour, and only for the time reasonably required to accomplish the corrective actions described herein.
Sling Aircraft shall bear no responsibility for labour costs associated with kit-built aircraft. Kit builders are entitled to the parts specified under this Service Bulletin; however, all labour associated with the installation, modification, or corrective work remains solely at the builder's expense.

Sling Aircraft shall not be liable for any indirect, consequential, or incidental costs arising from compliance with this Service Bulletin, including but not limited to shipping charges, aircraft downtime, loss of income, or other associated expenses.

2.5 COMPANY SUPPORT INFORMATION

Customers are required to direct all requests for Service Bulletin kits, materials, or related support to their authorised local distributor. Customers who have purchased their aircraft, kit, or components directly from Sling Aircraft Headquarters shall direct such requests to sales@slingaircraft.com.

All technical inquiries or requests for clarification regarding this Service Bulletin shall be submitted to technical@slingaircraft.com.

3 INSTRUCTIONS:

This section details the inspection and corrective action required.

3.1 Sling 2 and Sling 4 TSi

3.1.1 Inspection

It is possible to inspect the installed check valve by looking under the dash on the left side where the return line passes as indicated in Figure 2 below.

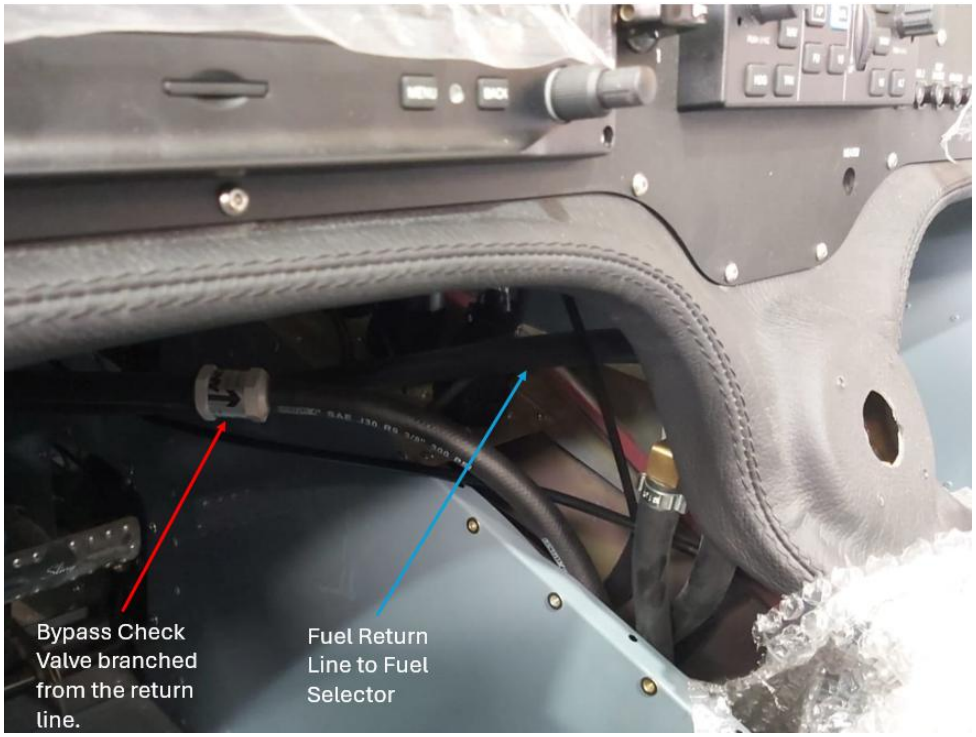
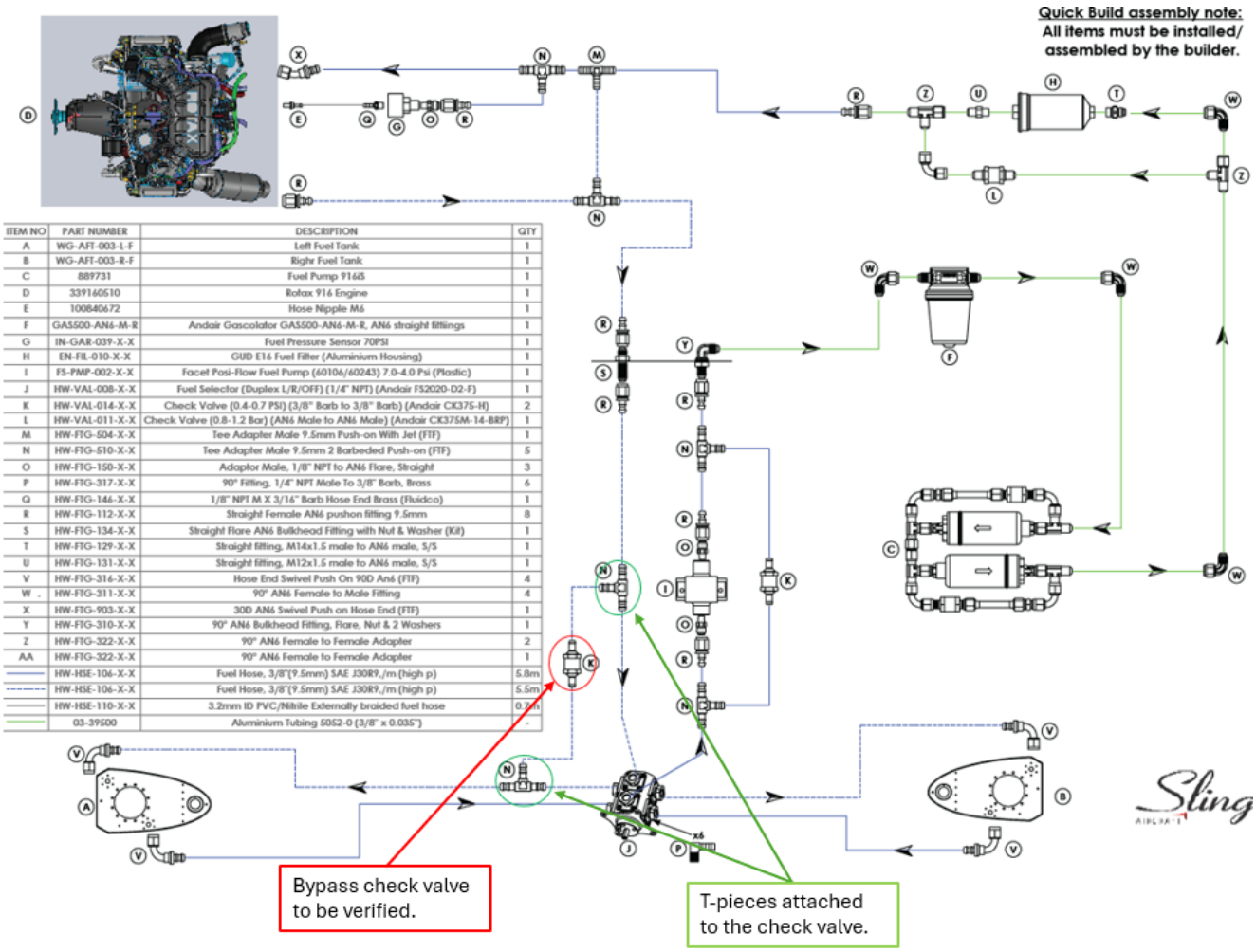


Figure 2: Valve is visible by checking under the dash.

Step 1: Set the Fuel Selector Valve to the OFF position, and ensure all electrical switches are OFF.

Step 2: Examine the return line to confirm if there is a check valve installed on the return line. Refer to Figure 3 for where the valve is located on the schematic. This will be visible by having a T-piece in the return line which branches with one end going to the selector and the other going directly to a fuel tank return line.



ITEM NO	PART NUMBER	DESCRIPTION	QTY
A	WG-AFT-003-L-F	Left Fuel Tank	1
B	WG-AFT-003-R-F	Right Fuel Tank	1
C	889731	Fuel Pump 91615	1
D	3391160510	Rotax 916 Engine	1
E	100840672	Hose Nipple M6	1
F	GAS500-AN6-M-R	Andair Gascolator GAS500-AN6-M-R, AN6 straight fittings	1
G	IN-GAR-039-X-X	Fuel Pressure Sensor 70PSI	1
H	EN-FIL-010-X-X	GUD E16 Fuel Filter (Aluminium Housing)	1
I	FS-PMP-002-X-X	Facet Posi-Flow Fuel Pump (60106/60243) 7.0-4.0 Psi (Plastic)	1
J	HW-VAL-008-X-X	Fuel Selector (Duplex L/R/OFF) (1/4" NPT) (Andair FS2020-D2-F)	1
K	HW-VAL-014-X-X	Check Valve (0.4-0.7 PSI) (3/8" Barb to 3/8" Barb) (Andair CK375-H)	2
L	HW-VAL-011-X-X	Check Valve (0.8-1.2 Bar) (AN6 Male to AN6 Male) (Andair CK375M-14-BRP)	1
M	HW-FTG-504-X-X	Tee Adapter Male 9.5mm Push-on With Jet (FTF)	1
N	HW-FTG-510-X-X	Tee Adapter Male 9.5mm 2 Barbeded Push-on (FTF)	5
O	HW-FTG-150-X-X	Adaptor Male, 1/8" NPT to AN6 Flare, Straight	3
P	HW-FTG-317-X-X	90° Fitting, 1/4" NPT Male To 3/8" Barb, Brass	6
Q	HW-FTG-146-X-X	1/8" NPT M X 3/16" Barb Hose End Brass (Fluidco)	1
R	HW-FTG-112-X-X	Straight Female AN6 pushon fitting 9.5mm	8
S	HW-FTG-134-X-X	Straight Flare AN6 Bulkhead Fitting with Nut & Washer (Kit)	1
T	HW-FTG-129-X-X	Straight fitting, M14x1.5 male to AN6 male, S/S	1
U	HW-FTG-131-X-X	Straight fitting, M12x1.5 male to AN6 male, S/S	1
V	HW-FTG-316-X-X	Hose End Swivel Push On 90D An6 (FTF)	4
W	HW-FTG-311-X-X	90° AN6 Female to Male Fitting	4
X	HW-FTG-903-X-X	30D AN6 Swivel Push on Hose End (FTF)	1
Y	HW-FTG-310-X-X	90° AN6 Bulkhead Fitting, Flare, Nut & 2 Washers	1
Z	HW-FTG-322-X-X	90° AN6 Female to Female Adapter	2
AA	HW-FTG-322-X-X	90° AN6 Female to Female Adapter	1
	HW-HSE-106-X-X	Fuel Hose, 3/8"(9.5mm) SAE J30R9,/m (high p)	5.8m
	HW-HSE-106-X-X	Fuel Hose, 3/8"(9.5mm) SAE J30R9,/m (high p)	5.5m
	HW-HSE-110-X-X	3.2mm ID PVC/Nitrile Externally braided fuel hose	0.2m
	03-39500	Aluminium Tubing 5052-0 (3/8" x 0.035")	-

Figure 3: Bypass check valve across the fuel selector and the associated T-pieces.

Step 3: If a check valve is installed, examine the check valve to confirm it matches the high-pressure check valve specifications (minimum breakout pressure of 0.8 bar).
Step 4: If the correct high pressure check valve is installed, no further action is necessary.
Step 5: If a low-pressure check (break out pressure: 0.03-0.05 bar) valve is identified, it must be replaced. Refer to Section 3.1.2 for detailed instructions on replacing the check valve.

3.1.2 Replacement of Low-Pressure Check Valve with High-Pressure Check Valve

If the check valve is ascertained to be low-pressure, follow the procedure set out below to replace it.

Step 1: Drain the fuel lines.
Step 2: Place a fuel container beneath the check valve assembly to catch any residual fuel.
Step 3: Wear safety gloves to protect against fuel exposure.
Step 4: Using a Dremel tool or hacksaw, carefully remove the two-ear clamps holding the hose into place on the T-pieces in the check valve line. See Figure 5 on how to remove the clamps.

C.1 REMOVAL OF TWO-EAR CLAMPS

Use a hacksaw or Dremel tool to cut through the one ear as shown by the dotted line. Once cut through, pry the clamp open and remove.

Figure 5: Extract from Sling 2 and TSi Maintenance Manual on the two-ear clamps removal.

Step 5: Use a standard utility knife, make a lengthwise cut in the fuel hose where it attaches to the aluminium T-piece, taking care not to damage the fitting as illustrated in Figure 4 below.

Figure 4: Illustration of the lengthwise cut through the hose.

Step 6: Once the hose is slit, spread it open with your fingers or a non-marring pick and peel it off the barb, leaving the aluminium T-piece undamaged and ready for installation

Step 7: Verify that the replacement high-pressure check valve matches the required specifications (minimum breakout pressure of 0.8 bar).

Step 8: Assemble a new bypass line using the high-pressure check valve and the hoses supplied.

Step 9: Position the high-pressure check valve in the same orientation as the removed valve, ensuring the flow direction arrow on the valve aligns with the fuel flow toward the main fuel tanks.

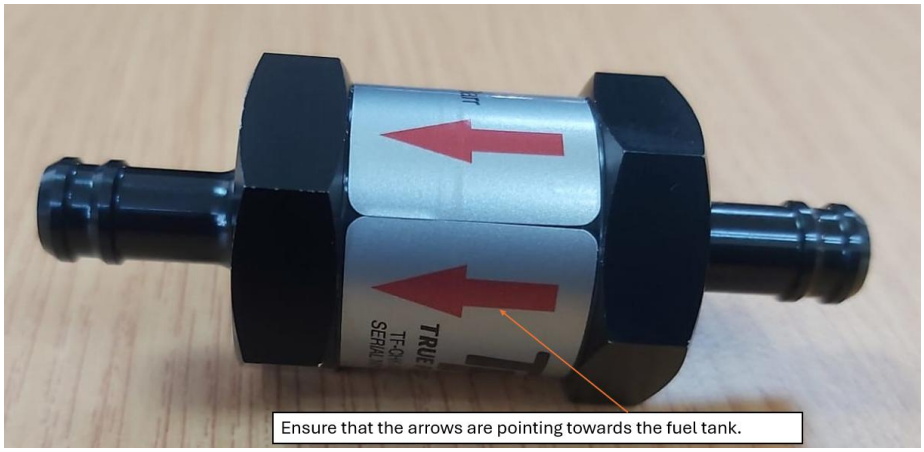


Figure 6: Ensure arrows are pointing towards the tank and away from the Firewall.

Step 10: Reattach the new bypass line to the T-pieces. Be sure to add the clamps on the hose before you fit the hose on the T-piece.

Step 11: Crimp the clamps, using the front pincer pliers.

Step 12: Open the fuel shutoff valve and check for leaks at the check valve connections.

Step 13: Before flight, perform an engine ground run and verify correct fuel flow and pressure. After the engine run, inspect for any sign of fuel leaking at the check valve to hose connections.

Step 14: Document the inspection and replacement in the aircraft maintenance log, including the part number of the new check valve and the date of service.

Step 15: Dispose of any residual fuel and used materials in accordance with local regulations.

3.2 Sling 4 HW

3.2.1 Inspection

Step 1: Set the Fuel Selector Valve to the OFF position, and ensure all electrical switches are OFF.

Access is gained to the unit from behind and below the instrument panel as illustrated in Figure 7 below.

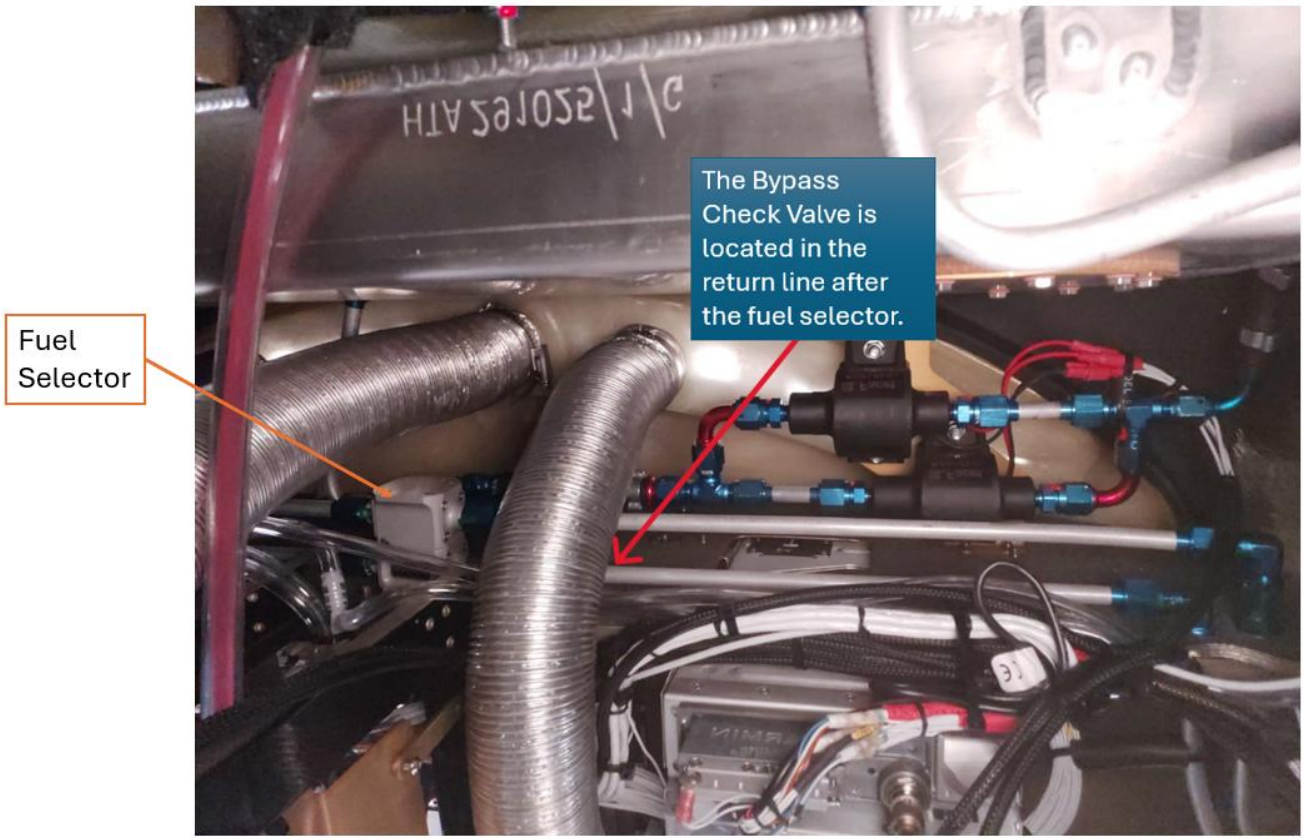


Figure 7: Arrow pointing to the position of the check valve if installed.

Step 2: Refer to Section 5.4.2 procedure number 5 of the maintenance manual (DC-MAM-001-X-G) to get access to the valve connected to the fuel selector.

Step 3: Examine the return line to confirm if there is a check valve installed. Refer to Figure 8 for where the valve is located on the schematic. This will be visible by having a T-piece in the return line which branches with one end going to the selector and the other going directly to a fuel tank return line.

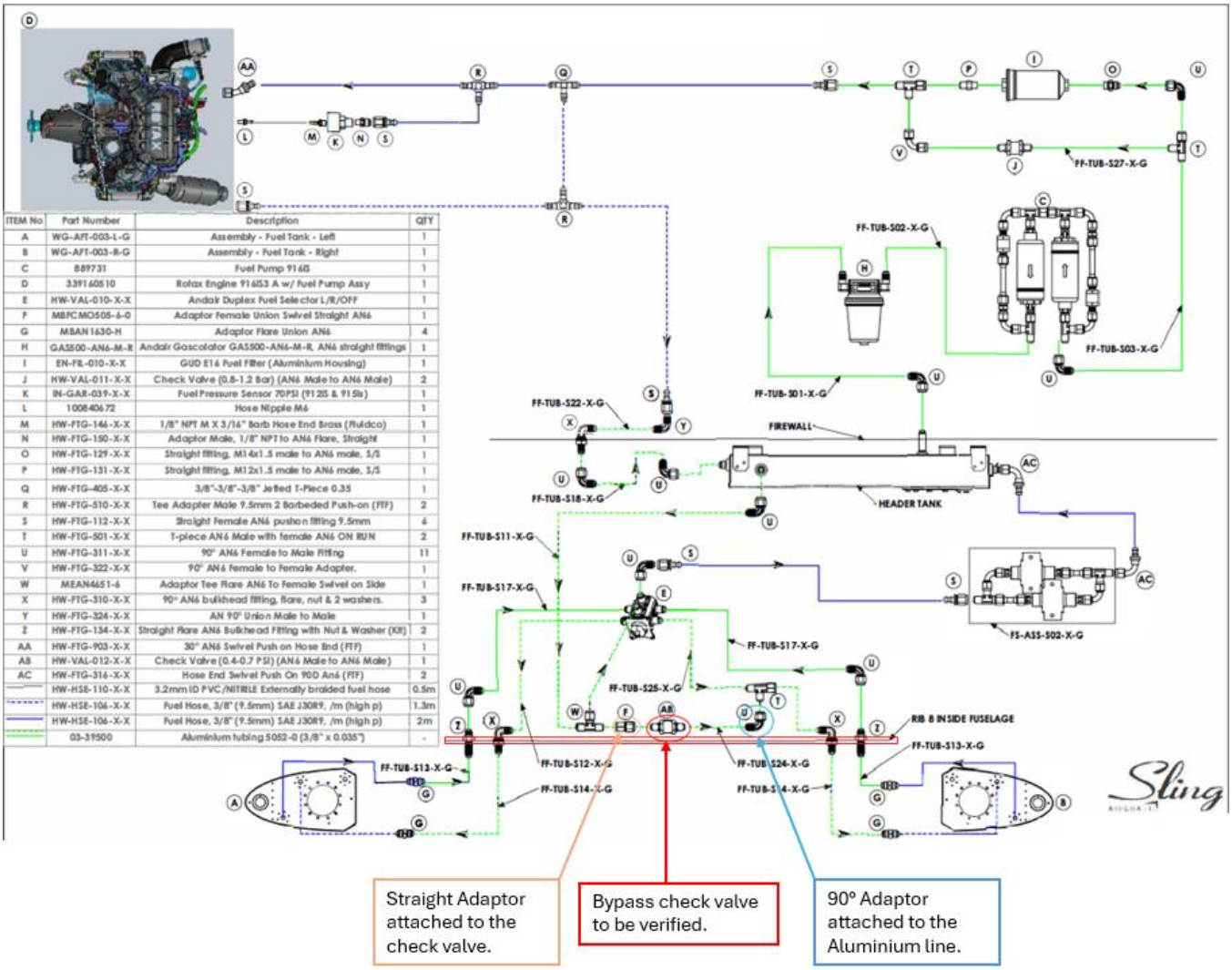


Figure 8: Bypass check valve across the fuel selector and the associated adaptor fittings.

Step 4: If a check valve is installed, examine the check valve to confirm it matches the high-pressure check valve specifications (minimum breakout pressure of 0.8 bar).

Step 5: If the correct high pressure check valve is installed, no further action is necessary.

Step 6: If a low-pressure check valve is identified (breakout pressure: 0.03 – 0.05 bar), it must be replaced. Refer to Section 3.2.2 for detailed instructions on replacing the check valve.

NOTE: You might need to remove the right tank feed line from RIB 8 (see Figure 9 below for reference) to the fuel selector, to access the check valve from below the panel.

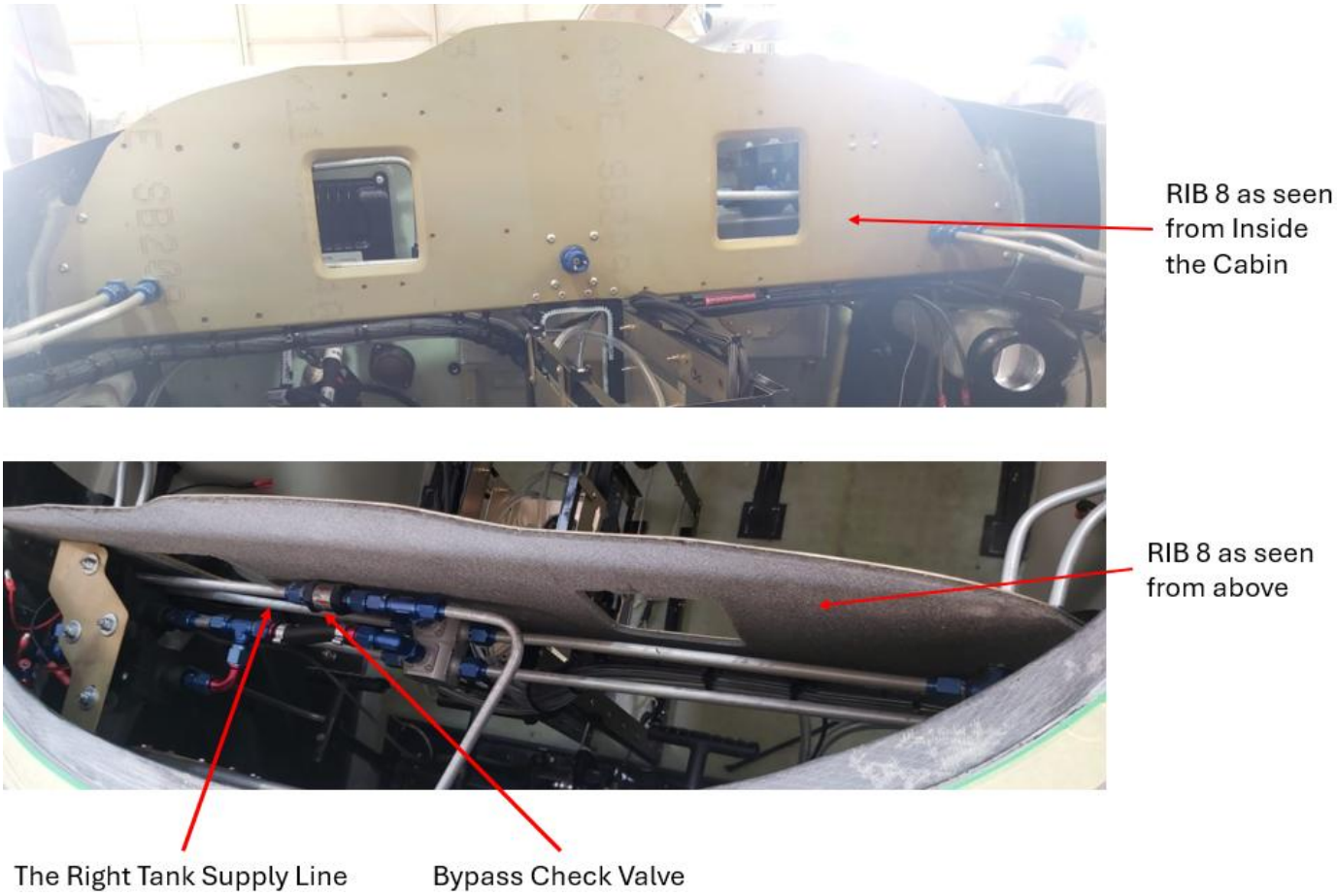


Figure 9: RIB 8 illustration.

3.2.2 Replacement of Low-Pressure Check Valve with High Pressure Check Valve

If the check valve is ascertained to be low-pressure, follow the procedure set out below to replace it.

Step 1: Drain the fuel lines.
Step 2: Place a fuel container beneath the check valve assembly to catch any residual fuel.
Step 3: Wear safety gloves to protect against fuel exposure.
Step 4: Disconnect the fuel line from the 90° AN6 Female to Male Fitting using the 11/16” spanner and the check valve from the Adaptor Female Union Swivel Straight AN6. Do not discard the aluminium tubing used. The tubing will be used to install the high-pressure check valves.
Step 5: Verify that the replacement high-pressure check valve matches the required specifications (minimum breakout pressure of 0.8 bar).
Step 6: Using the 18mm and 25mm spanners, carefully loosen the aluminium fuel line fittings connected to the check valve. See Figure 10 for illustration of loosening the fittings from the check valve.

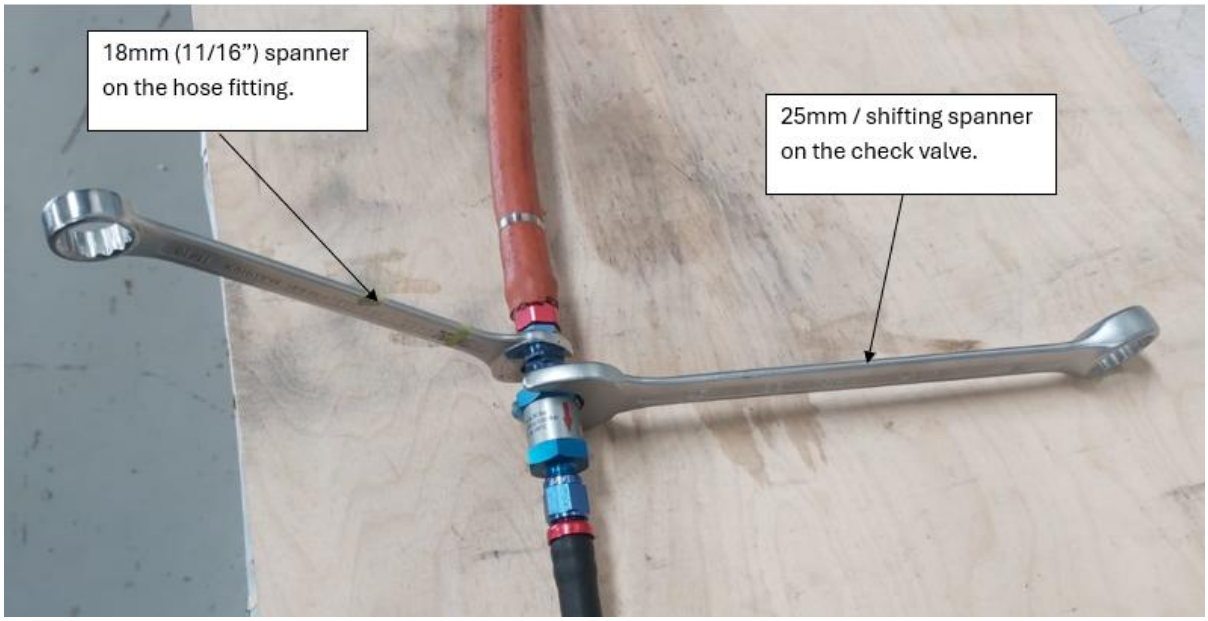


Figure 10: Correct way of loosening and tightening the check valve from the fittings.

Step 7: Assemble a new bypass line using the high-pressure check valve and the original aluminium tubing. The aluminium tubing will not change since the two valves have similar dimensions.

Step 8: Position the high-pressure check valve in the same orientation as the removed valve, ensuring the flow direction arrow on the valve aligns with the fuel flow toward the main fuel tanks.

Step 9: Reattach the new bypass line to the 90° AN6 Female to Male Fitting and the Adaptor Female Union Swivel Straight AN6.

Step 10: Set the fuel selector to a tank with fuel, run the fuel pumps and check for leaks at the check valve connections.

Step 11: Before flight, perform an engine ground run and verify correct fuel flow and pressure. After the engine run, inspect for any sign of fuel leaking at the check valve to tube connections.

Step 12: Document the inspection and replacement in the aircraft maintenance log, including the part number of the new check valve and the date of service.

Step 13: Dispose of any residual fuel and used materials in accordance with local regulations.

Signed on this the 24 day of March 2026

J A L Pitman

ACCOUNTABLE MANAGER

MR JAMES PITMAN