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SERVICE LETTER: JSL 001-1

Issue: 1

Date: 22nd November 2004

Subject: Wing Fuel Tank System
Management

1. Applicability

All Jabiru Aircraft with wet wings (fuel tanks in the wings).

Note that from Serial Number 164 on, all "J Series" (all 3-door fuselages) kits have the header tank kit included as standard. Kits with the UL / SP / Calypso fuselage and wet wings have had the header tank as standard from Serial Number 614. All J160 kits with wet wings have the header tank system as standard.

2. Background

Due to fuel management technique there have been some cases of fuel starvation to the engine when there has still been a considerable amount useable fuel remaining in the tanks. If one fuel tank is turned off and the aircraft is flown in an unbalanced way (e.g. a sideslip), all the fuel flows to the end of the tank, and so both fuel pickups in the active tank can be uncovered leading to fuel starvation. This condition needs to be maintained continuously for a prolonged period for the engine to starve for fuel.

3. Recommendations

With the proper technique this situation can normally be avoided. However a header tank system is available that simplifies fuel management.

The header tank has a capacity of approximately 6L and is fitted under the front passengers seat. (See Figure 1 for original fuel system schematic and Figure 2 for the header tank system schematic.) The header tank acts as a buffer between the wing tanks and the engine, preventing air bubbles reaching the engine. A float switch can also be fitted to the tank which illuminates a warning light once the level in the header tank drops below a certain level, warning the pilot that they are using the last 15 minutes worth of fuel.

Installation of the header tank system entails draining the fuel from wing tanks, modifying the plumbing for the taps & tank, fitting the tank inside the front – right seat pan (cutting a

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hole in the pan, fitting the tank then reassembling the seat pan) and, if appropriate, fitting the low fuel warning system. A typical kit builder should complete the job in around 12 hours of work and full installation details are included with the kit.

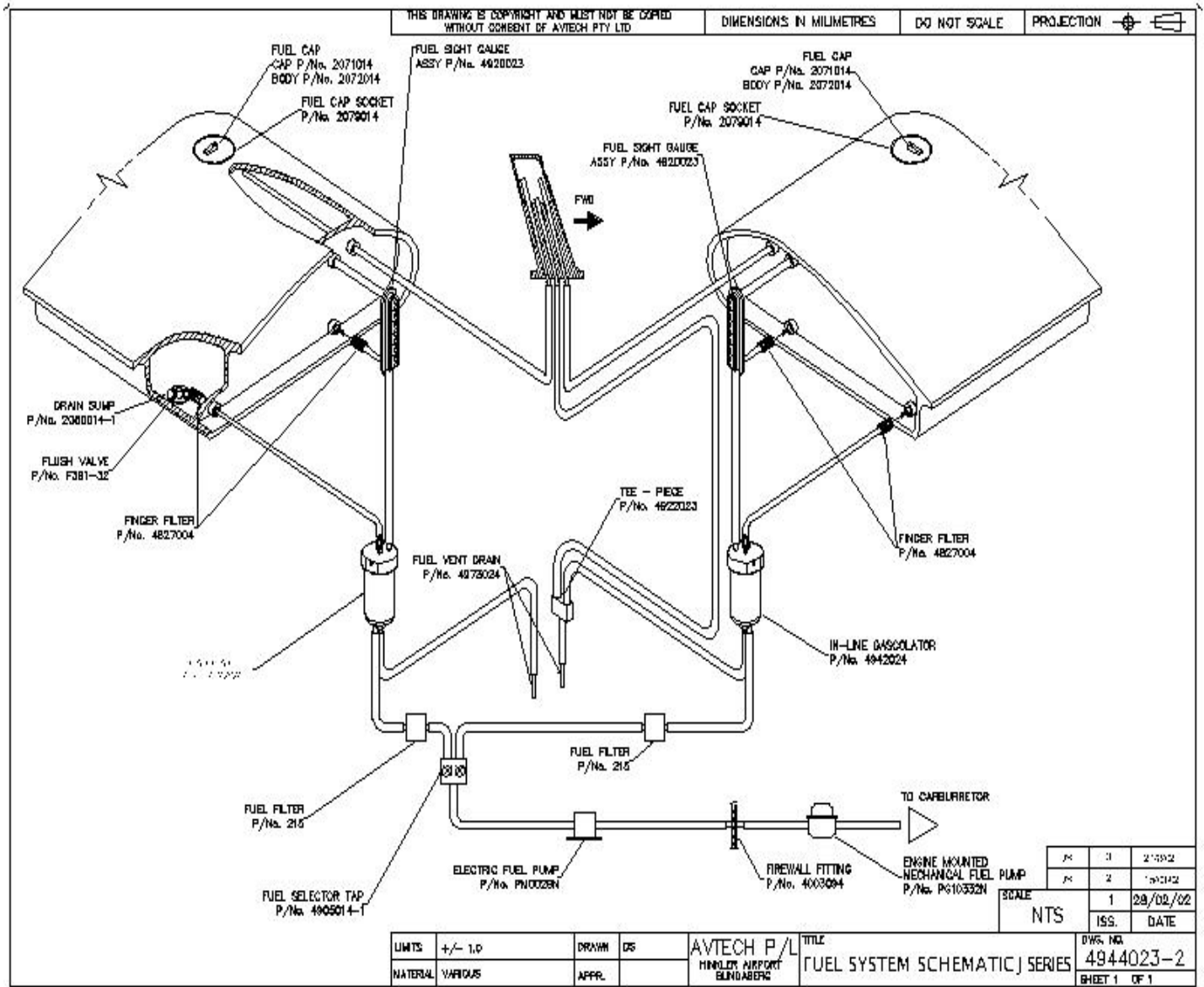


Figure 1. Original Fuel system schematic.

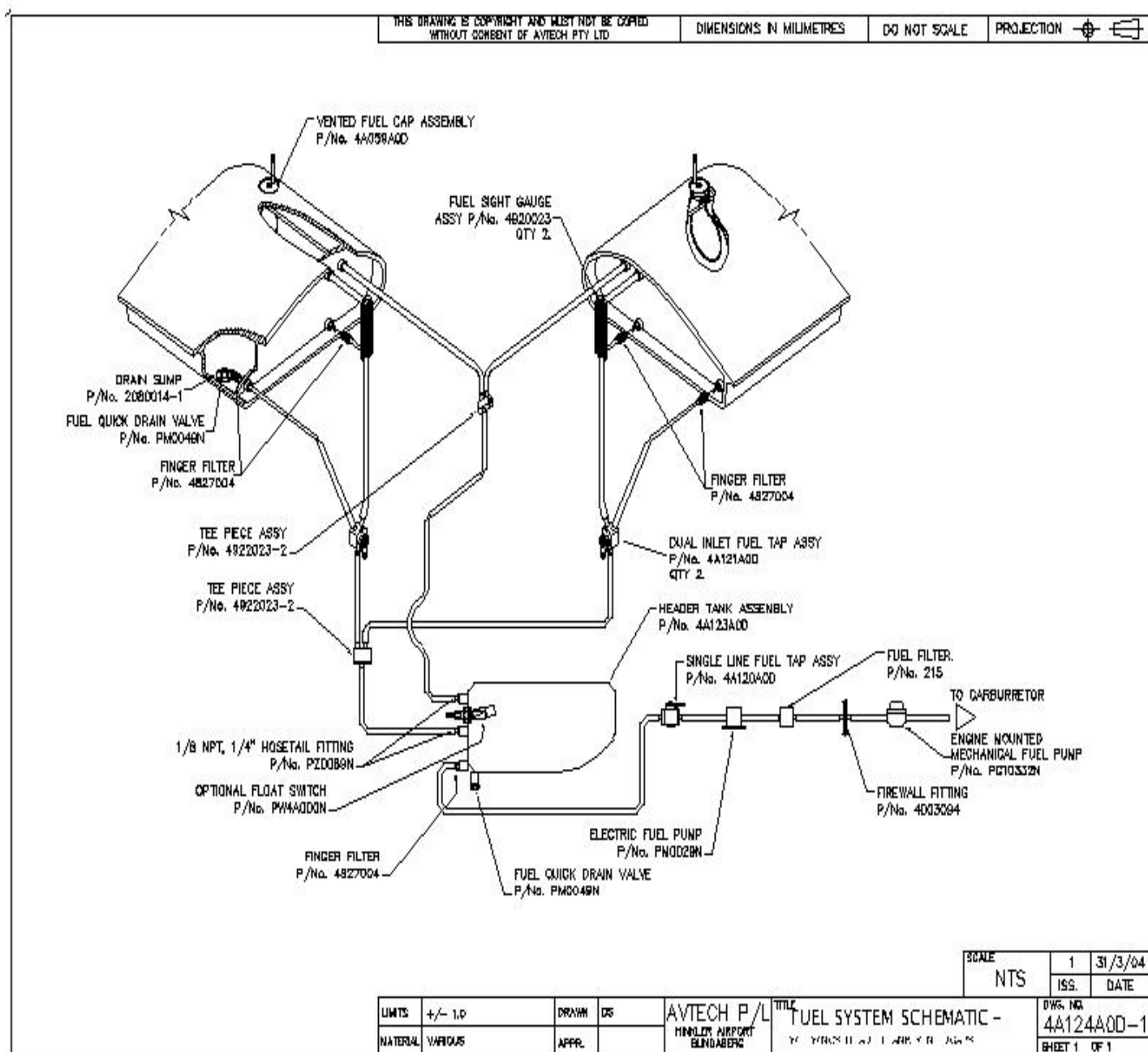


Figure 2: Header tank Fuel system schematic.

4. Parts Required:

Header Tank Retro Fit Kit.