

SERVICE BULLETIN: JSB 024-1
Issue: 1
Date: 9th Jan 2009
Subject: Fuel Line Routing

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1 Applicability

All models of Jabiru Aircraft equipped with wing tanks. This includes both kit and factory-built models.

Note: For aircraft in Light Sport Aircraft categories this Bulletin is equivalent to a Manufacturer’s Safety Direction.

2 Background:

Best practice when routing fuel lines between tanks of different heights is to have a positive gradient in the line at all times – i.e. there should be no dips (“U” shapes) or humps (upside-down “U” shapes) in the line. In extreme cases these humps or dips can create an airlock effect and prevent fuel from flowing along the line.

Recent inspections have shown some factory-built aircraft have subtle dips in the lines. In addition, flexible fuel lines in Jabiru Aircraft are required to be replaced at intervals and there has been limited guidance available to maintainers when carrying out this task.

This Bulletin describes an inspection procedure & provides guidance material for line routing.

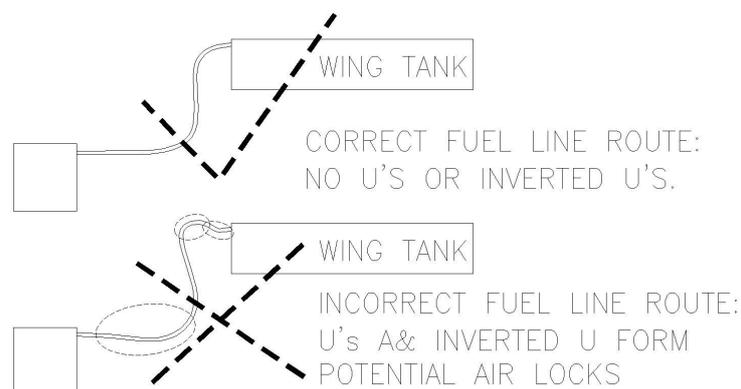
3 Compliance – Implementation Schedule

- The inspection detailed below is to be carried out at the aircraft’s next 100-hourly (or annual) inspection
- Thereafter the inspection is to be included as a part of the aircraft’s 100-hourly (or annual) inspections.

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FUEL LINES TO BE ROUTED WITHOUT ANY KINKS OR AIR TRAPS ("U"s OR INVERTED "U"s IN THE LINES).

Figure 1 – Schematic

4 Procedure:

- Remove the header tank cover (the baggage shelf for J160 / J170 family aircraft and the sound curtain at the rear of the cabin for J230 family aircraft).
- Visually inspect the fuel lines between the fuel tank fittings in the wing root and the header tank. Re-route lines as required to remove U's and inverted U's.
- Care must be taken when re-routing lines to avoid bending the hose around too sharp a corner – the flexible hose used can crimp itself off if bent too sharply. If a sharp bend is unavoidable a spring may be threaded over the line to prevent it crimping. Springs must be a snug fit on the hose & are available from Jabiru Aircraft if required. Figure 2 refers.
- Note that in some cases it may be necessary to shorten or lengthen lines.
- Line restraints must be spaced at intervals no greater than 400mm.
 - In some cases fuel lines are bundled inside tubes which are Velcro-ed to the aircraft – this is sufficient restraint.
 - If new restraints are added, plastic line clips can be bonded to the aircraft structure. (Figure 2 refers). Fasteners such as screws, which damage the structure, should not be used.

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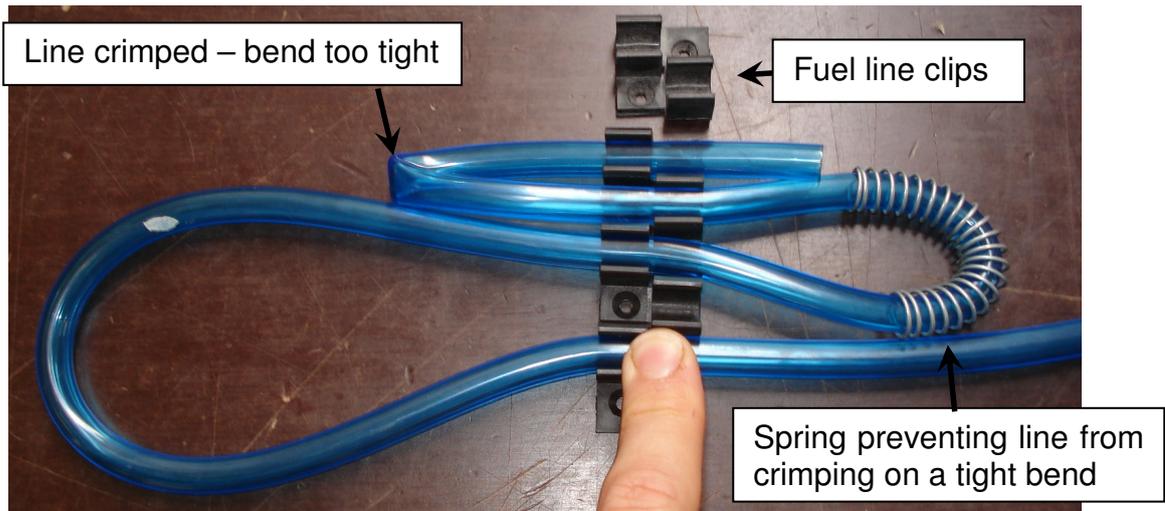


Figure 2 – Sample Fuel Line Details

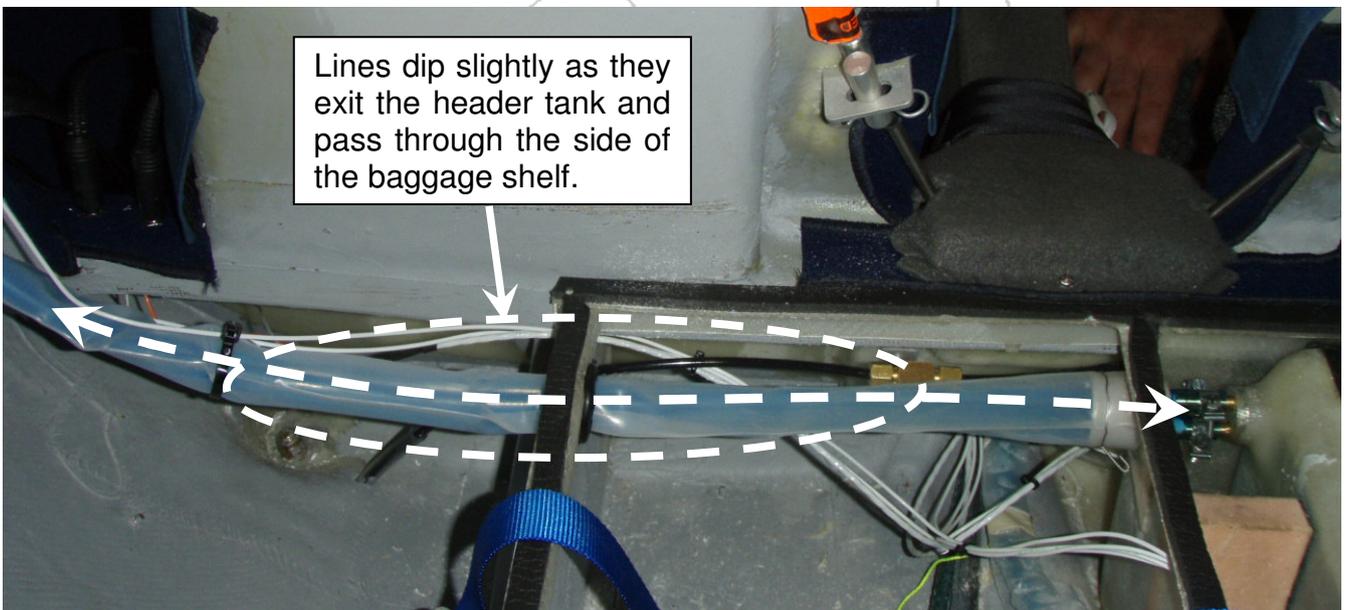


Figure 3 – J160-C Fuel Lines Showing Typical "U" Requiring Correction

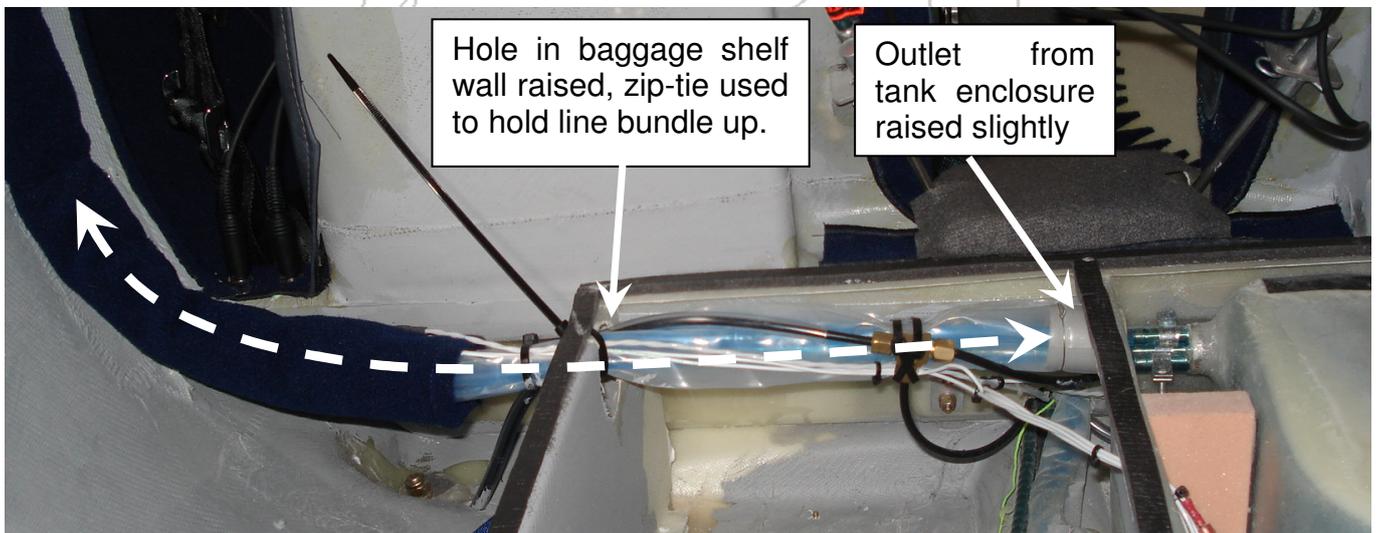


Figure 4– J160-C Corrected Fuel Lines

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5 Airworthiness Note:

- Where required, any work called for by this Bulletin must be carried out by authorised personnel. For the aircraft detailed herein this may mean the owner, an RA-Aus Level 2 holder, a Licensed Aircraft Maintenance Engineer (LAME) or equivalent – as appropriate to the aircraft's registration and use (Private or Air Work operations).
- On completion of the work, the authorised person must note the completion of the actions required by this bulletin in the aircraft's maintenance logbook. This note should include the date of the work and the identity (including licence number where appropriate) of the person carrying out the work.

