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Savannah Tip No: 21

Cabin Structure Corrosion;

The ICP instruction manual calls for Black Head Aluminium rivets to be fitted through the Lexan windscreen into the front steel diagonals of the cabin frame on all models. The XL model also calls for these rivets to be installed into the main tube between the front wing attachments, and also into the top diagonal tubes of the cabin frame.

There is a very likely potential for water to ingress into the tubes over time as a result of these rivets being installed. In the case of the front diagonals, this will result in water lying in the bottom of the tubes where they are welded to the plate which joins the tubes to the engine mount through the firewall. This will eventually result in serious corrosion of this area, which will compromise the strength of this assembly with possibly serious consequences. Similar results could be expected with the roof structure of the XL.

Many builders do not install these rivets in the front diagonals of the cabin frame as they are not necessary if the windscreen is fitted tightly over these diagonals and cushioned with some door/window seal tape.

However, if rivets have been installed in any of these areas, steps should be taken to provide a drain for the water, and to corrosion proof the internals of the structure.

At a minimum small (2mm but not through any welds) drain holes should be drilled at the lowest points of the risk areas, and these holes be inspected at each scheduled inspection ie, each 25hrs for signs of water and that the holes are clear. **It would be preferable** that in addition to the drain holes, that the tubes be corrosion proofed by filling the tubes completely with raw linseed oil and then draining the tubes and sealing the filling points. Note that the linseed oil will tend to continue to drain small quantities of oil for some time until the inside surface has dried.

This procedure should be added to the ICP Manual Maintenance section so that it is carried out at each 25hrly inspection.