

The Airframe

dition. The preflight checklist essentially assures that everything is where it belongs and is in working condition. But there should be more to the preflight than just checklist items. For instance, is the aircraft clean?

Aside from aesthetics, there are practical reasons for a clean aircraft. You can see telltale traces of fluid leaks, popped rivets, and other problems more readily on a clean aircraft. Spotting popped rivets is fairly simple, as black oxide seeps out from under the rivet as illustrated in Figure 1-1. Simply sight along a line of rivets and look for small, black stains. If you find one, press the surface next to the rivet to confirm it's loose. Popped rivets are indicative of potentially serious damage such as an overstressed wing spar, so always notify a mechanic.

Fluid leaks show up better on clean aircraft and often can be traced along the fuselage to their source. Another benefit of a washed and waxed airplane is that it will be aerodynamically cleaner, resulting in an increase in your cruise speed of a couple of knots.

Speed fairings on fixed-gear aircraft are another item that should be checked. They're the things that your mechanic curses when it's time to change a tire. Folks up north call them snow catchers and usually remove them permanently, the first snowfall after they buy the airplane. Not only do they increase cruise airspeed, but many cruise performance charts such as those in the Cessna 152 pilot's operating handbook (POH) are calculated with the fairings on. Read the fine print closely, and it will tell you if the computations reflect them.

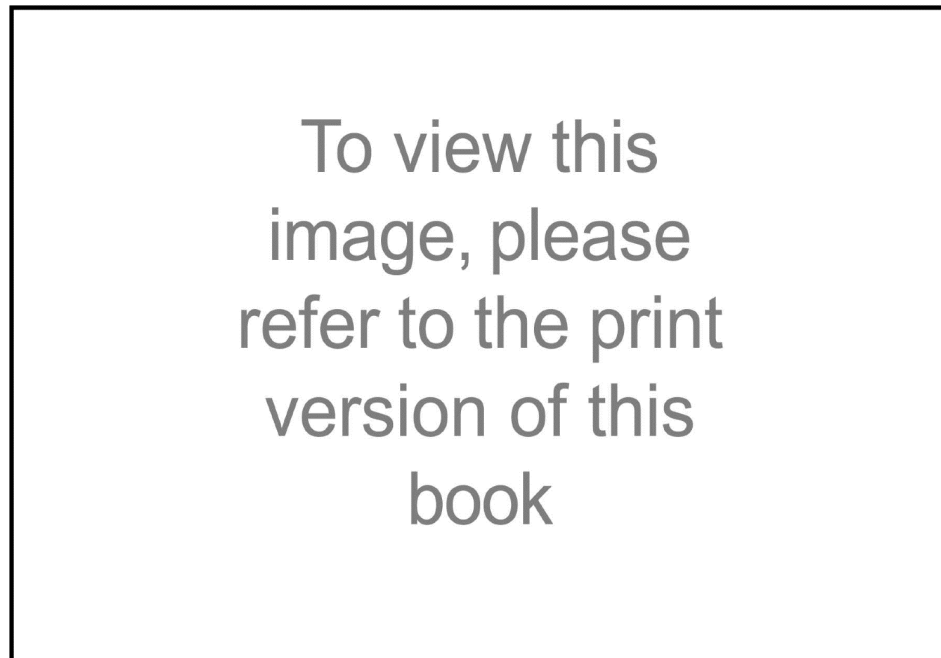


Fig. 1-1. *Popped rivets showing oxidation.* (Photo by author, courtesy of Frasca Air Services)