

SERVICE BULLETIN

PITTS SPECIAL

DATE: 20th March, 1996
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SERVICE BULLETIN NO.24

SUBJECT: Fuselage Upper Longerons
P.N. 2-2100-021/022

1. EFFECTIVITY

All Pitts Model S-2A and S-2S aircraft. Model S-2B Serial Number 5000 to 5350.

2. PURPOSE

To inspect the fuselage upper longerons for cracks in the region of the rear cabane struts.

3. BACKGROUND

There have been a few instances, with the Model S-2B, of fatigue cracking of the upper longerons just aft of the rear cabane struts and forward of the front instrument panel. Continued operation following the failure of one longeron is characterized by airframe noises and the possible early failure of the other longeron with subsequent difficulty in controlling the airplane.

In flight strain gauge tests of the longerons have been conducted which confirmed that fatigue cracking in this area should not occur if the airplane is operated within the flight manual limits of +6g/-3g and the recommended entry speeds for maneuvers. Inside snap rolls, in particular, cause relatively high stresses in these longerons and entry speeds must be kept below 140 mph in accordance with the cockpit placard.

A modified forward upper longeron is now fitted to production aircraft to reduce the local stresses and provide an enhanced margin of safety. A reinforcement kit is available from Aviat Aircraft Inc to provide a similar enhanced margin of safety to airplanes in service.