

Service Bulletin 001-90

Service Bulletin SBO11-93

Subject: Pre-preg bulkhead panels, Lancair IV

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Status: Advisory

This is an advisory regarding ply orientation of standard bulkhead panels. To hopefully eliminate confusion, component parts such as ribs and bulkheads, etc. should always be fabricated with the weave orientation called for in the construction manual for your Lancair aircraft.

Weave orientation is marked on the face of the panels and one must always cheek this orientation. This becomes particularly evident when a panel has been trimmed and consequently the original "long side" vs. "short side" becomes no longer obvious.

While drawings may suggest part layout, the panel's weave orientation should be indicated in pencil at several locations on the panel after peel ply is removed. Some builders have been confused by the weave orientation not matching the drawing layout suggestions in the manual. Once again, weave orientation is of primary importance and should follow manual directions.

In general, most parts are directed to he cut "on the bias" or  $45^{\circ}$  x  $45^{\circ}$  orientation. This will require proper positioning on the bulkhead panel. Currently, panels are layed up with the cloth running square to the long edge, or on a  $90^{\circ}$  orientation. Thus,  $45^{\circ}$  specified parts should be layed out accordingly ( $45^{\circ}$ s to the long edge).

For builders who have mistakenly built horizontal stabilizer ribs on the 0 - 90° basis, they can be left in place provided the BID tapes that attach them to the lower skin and the BID tapes that attach the cap strips run full width across the vertical dimension of each rib face. (They nearly do this anyway simply due to the nature of part size and fabrication techniques.)

Wing ribs can not be on the 0-90° orientation.

For long parts that cannot be cut in one piece from a prepreg sheet, see the following drawing for proper approach and technique.

