



Cracked or torn lightening hole flanges, where the damage does not extend more than $\frac{4}{3}$ the width of the flange, may be repaired as shown in the Figure. Drill No. 30 (.1285) stop hole at the ends of all cracks. Remove the cracked or damaged material by trimming the flange of the lightening hole back to the stop drill hole, with a $\frac{1}{8}$ inch minimum radius. If desired, the entire flange may be removed. Smooth all edges to remove burrs. Cut a

doubler of the same material and thickness as the existing structure, and form flanges to match the original part. Attach the formed doubler to the existing structure with AN470AD rivets, using the size indicated in the table. Space rivets at approximately $\frac{1}{4}$ times the diameter of the lightening hole; but not greater than eight rivet diameters; maintaining a minimum edge distance of two rivet diameters.

RIVET SIZES FOR RIB REPAIRS							
Material Gage (inches)	.016	.020	.025	.032	.040	.051	.064
Rivet Diameter (inches)	3/32	3/32	1/8	5/32	5/32	3/16	3/16
The above values are the preferred AN470AD rivet sizes to be used with various gages of 24ST alclad.							

FIGURE B-6. LIGHTENING HOLE FLANGE REPAIR