



Remove damaged area by cutting a circular or rectangular hole, leaving sufficient skin to allow for the installation of the external patch. If the damage occurred over internal structure, repair the rib, stringer, or frame by nesting the repair member on the inside of damaged member. Cut the external patch larger than the cutout to accommodate the rivets thru the skin with proper edge distance. Attach external patch to the skin with rivets of the same diameter, spacing, and pattern as the parallel manufactured seam at the edges of the skin panel. If the manufactured seams are different, the stronger one must be copied. Cherry rivets (CR-163C) may be used for attaching the external patch where it is inaccessible for bucking rivets. Cherry rivets, the next size larger than regular rivets must be used, or add additional cherry rivets in

the ratio of 3-2 if the size is not increased. If a removable access door is desired, use plate nuts riveted to the doubler and attach the access doors with screws. Plate nuts should also be riveted to the internal structure, if the access door is over internal structure. NAS 220 screws and AN366 plate nuts are substituted for rivets up to and including a diameter of 5/32 inch and NAS 221 and AN366 plate nuts are used for 3/16 inch rivets. The spacing and pattern of screws is to be identical with that of rivets in the cover plate.

NOTE

If the rivet size, spacing and pattern is called out in the section applicable to the repair, it must be used.

FIGURE B-3. EXTERNAL SKIN PATCH