



ILL CORPORA



Gillpatch® With Rivets may be applied as a permanent repair patch on overhead liner panels in Airbus aircraft without removing or drilling through the panel, thus avoiding damage to components behind the panel. The patch can be installed rapidly using tools commonly available at aircraft repair facilities.

Gillpatch® (without rivets) is approved by the FAA for the repair of laminated cargo liners for cargo compartment classes B, C, and E (according to FAR 25.857). For Airbus aircraft, however, the patches must be attached with rivets in addition to the pressure sensitive adhesive for repairs to sandwich panel liners having through damage (both faces penetrated) in the overhead position) to ensure compliance with burn-through requirements of FAR Part 25, Appendix F, Part III. (Gillpatch® may be used to repair through damage in panel liner sidewall positions without the addition of rivets.) The rivets provide additional fastening points to hold the repair patch in position during the movement of the facings of the sandwich panel when intense fame is applied. The installation instructions must be followed carefully, and only the rivets specified below may be used for the installation; the rivets are of stainless steel construction, and the length is such that only the visible facing of the panel is penetrated by the rivet. This procedure may be used to provide a permanent repair to sandwich panels with one-side or through damage, in the ceiling as well as the sidewall positions.

For more information on cargo liner panels for Airbus aircraft, please see the Airline Instruction Manual – AIM 2001 Revision F.

For through damage (penetration of both panel faces), the maximum hole size is 150 mm L X 150 mm W; for damage larger than this, the liner panel must be replaced, as specified in the Airbus Aircraft Maintenance Manual. Through damage of the ceiling panel requires that ____ riveted Gillpatch® with Rivets may be used to repair the panel.

The maximum, allowable through damage in the overhead location is 150 mm (6 ins.), and the edges of the repair patch must extend at least 38 mm (1.5 ins.) beyond the edge of the damaged area. For example, the smallest patch which may be used for a 51 mm (2 in.) hole is 127 mm (5 ins.); the patch must be carefully centered over the damaged area.

Gillpatch® With Rivets has the rivet holes pre-drilled, eliminating a drilling step in repair patch preparation, reducing the time of installation. The pre-drilled patches are available in sizes of 5" X 5", 8" X 8", and 12" X 12" (other sizes may be fabricated from undrilled patch stock, but the patches must be drilled before application, increasing the repair time and complexity; instructions for fabricating these patches are shown following this section).



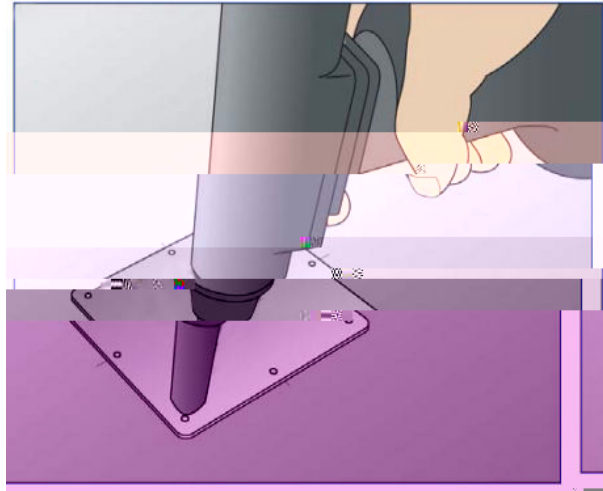


4.3. Bond the Gillpatch® in place over the damaged area such that there is a minimum of 38 mm. (1 ½") from the edge of the damage to the edge of the patch, as required by the Airbus repair method. Press the patch firmly in place to ensure adequate adhesion. See Figure 3.

4.4. With the patch as a template, the panel is now ready to be drilled to accept the rivets. It is strongly recommended that a stop collar be used on the drill bit to prevent inadvertent drilling through the back of the panel, possibly damaging equipment or fixtures behind the panel. With a drill bit of 3 or 3.1 mm. (0.112 or 0.122")



- 4.7. Install 8 rivets in the pre-drilled holes around the edges of the repair patch using a rivet gun such as Cherry Model G784; alternate rivet guns may be used provided they can accommodate the 3.18 mm. diameter rivet with a 31.8 mm. (1 ¼") shaft length. The rivet gun will cause the formation of a fange on the underside of the facing, resulting in strong attachment points, while, at the same time, shear off the shank flush with the face of the rivet. See Figure 7.



- 4.8. The finished repair patch installation is shown in Figure 8.

