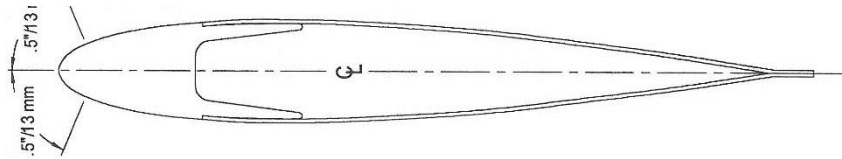




Repairing Main Rotor Blade Leading Edge Corrosion



BACKGROUND: Corrosion in the leading edge of main rotor blades; Enstrom main rotor blades are manufactured with a solid aluminum alloy leading edge spar that will develop intergranular corrosion if operated in high corrosive environments without protection to the paint coatings.

Enstrom currently offers a high quality leading edge protection tape for the leading edges that is very effective in controlling leading edge corrosion but occasionally MR blades may need repair if corrosion has developed in the leading edge spar.

Corrosion limits are found in the 480 MM manual beginning in paragraph 9-35 and in the Piston Maintenance Manual beginning in paragraph 9-9.

This instruction procedure provides information on how to treat leading edge corrosion.

PROCEDURE:



Customer Support Work aid Document

Aircraft Type: ALL
Effectivity: ALL
Model (S): ALL

1. Determine if the corrosion is within limits for repairing the blade
 - 1.1. Pick a point on the blade that is showing severe exfoliation.



FIGURE 1

- 1.2. Use a rat tail file, or ½ round lathe file to completely remove the corrosion in this area. When the corrosion is completely removed, the aluminum will be shiny and there will no black pits of corrosion showing.



FIGURE 2

- 1.3. Use a feeler gauge, depth micrometer, or other equivalent measuring method to determine the depth of the groove that has been filed in the blade. This is the measurement that determines whether the blade meets the spar corrosion limitations shown in figure 9-79 (480 MM) and figure 9-19 (Piston MM).

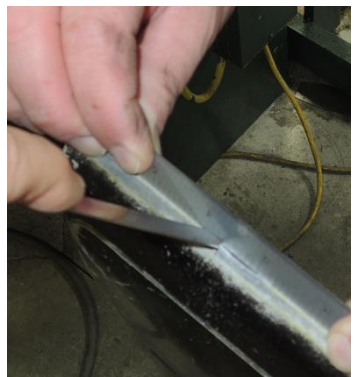


FIGURE 3

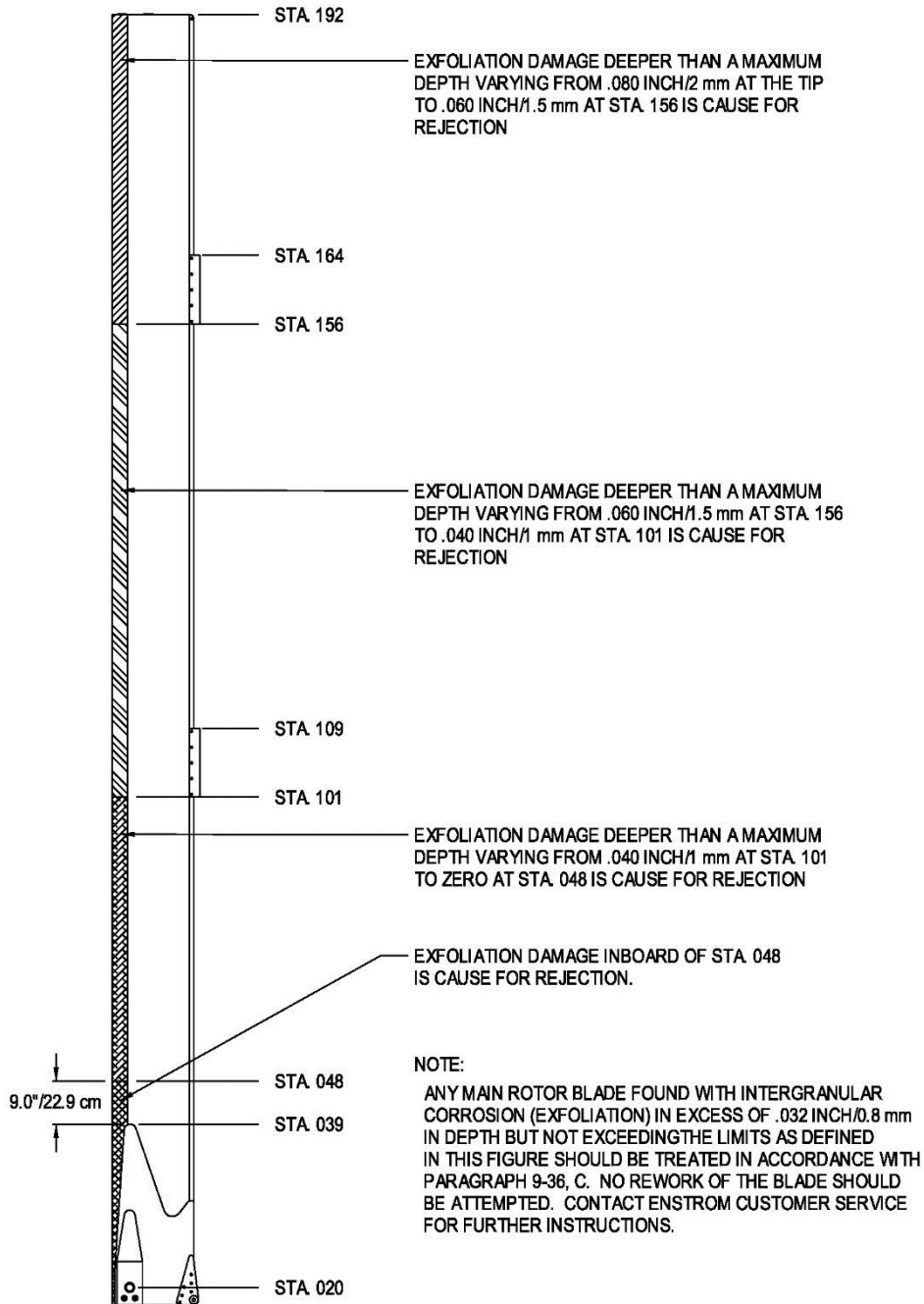


Figure 9-79



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Aircraft Type: ALL
Effectivity: ALL
Model (S): ALL

2. Once it has been determined that the blade can be repaired the following procedures can be used to remove the corrosion.

2.1. Use a course vixen (or equivalent) file to remove material from the leading edge of the blade until the corrosion has been completely eliminated.



2.2. It is permissible to have some slight depressions in the leading edge after filing is completed.

2.3. Use an orbital sander or equivalent, to remove the file marks from the aluminum.



2.4. It is necessary to completely remove the corrosion from the blade before painting the blade as any corrosion that is left in the aluminum will continue to develop.



FIGURE 4



FIGURE 5

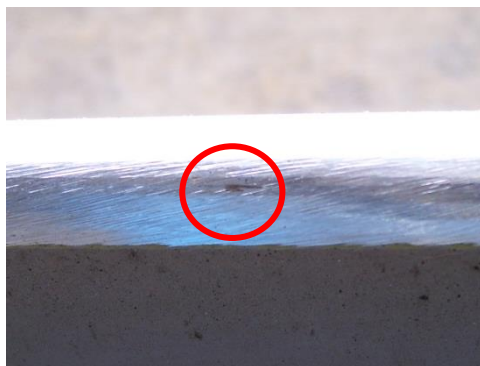


FIGURE 6

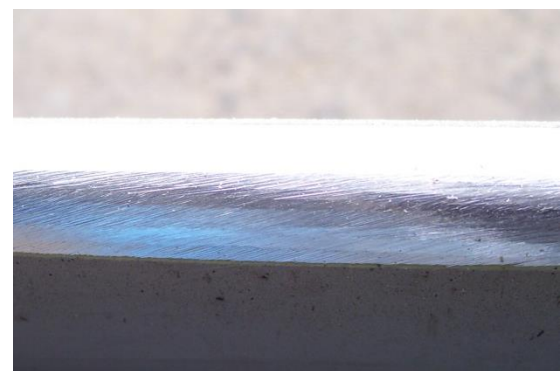


FIGURE 7

2.5. Corrosion can still be seen in figure 6.

3.0 Treat the bare aluminum with Alodine and paint before installing blade tape.