Affected Propellers

All MT-, MTE- and MTV- Propellers with Natural Composite Blades

1. Background:

During the operation time between overhaul periods it is sometimes necessary to perform minor infield repairs of the natural composite MT-Propeller blades.

This Service Letter defines the painting for small local repairs.

2. Painting

Attention: Avoid a too thick paint which may lead to fine hairline cracks in the paint during operation.

Painting of MT-Propeller Composite blades should only be accomplished after the composite cover is absolutely dry and the leading edge is installed.

The following PPG color can also be used if original MT-Propeller color is not available:

<table>
<thead>
<tr>
<th>Paint</th>
<th>Weight Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>DX 1791 Wash Primer</td>
<td>1</td>
</tr>
<tr>
<td>DX 1792 Catalyst</td>
<td>1</td>
</tr>
<tr>
<td>K 36 Acrylic Urethane Primer Surface</td>
<td>5</td>
</tr>
<tr>
<td>K 201 Hardener</td>
<td>1</td>
</tr>
<tr>
<td>DT 885 Reducer</td>
<td>1</td>
</tr>
</tbody>
</table>

Gloss Colors: PPG DCC Concept (Acrylic Urethane Color)

<table>
<thead>
<tr>
<th>Paint</th>
<th>Weight Ratio</th>
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</thead>
<tbody>
<tr>
<td>DCC Color</td>
<td>4</td>
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<tr>
<td>DCX 61 Hardener</td>
<td>1</td>
</tr>
<tr>
<td>DT 885 Reducer</td>
<td>2</td>
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</table>

Flat Colors:

<table>
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<th>Weight Ratio</th>
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</thead>
<tbody>
<tr>
<td>DCC Color</td>
<td>6</td>
</tr>
<tr>
<td>DCX 61 Hardener</td>
<td>1</td>
</tr>
<tr>
<td>DT 885 Reducer</td>
<td>2</td>
</tr>
</tbody>
</table>

Attention: If any other paint system than the one listed above is used, it is acceptable to MT-Propeller but in this case MT-Propeller cannot be kept liable for any eroded away paint.
Painting process for small repaired areas:
- Sand blade surface with 60 grit or finer sandpaper by using a oscillating rotary sander or by hand.
  Do not remove any composite material during grinding otherwise airfoil may be destroyed.
  Smoothen transition from blade to metal leading edge. Finish blade surface completely by hand, using 60 grid sand paper.
- Wipe entire blade with MEK or similar.
- Finally use sand paper grid 400 and water to finish surface by hand.
- Wipe entire blade with MEK or similar.
- For small repairs only apply some filler and locally repaint the area.
- For painting the blade tip copy the paint layout from the blade before removing the painting.

Attention: Avoid sharp transition from leading edge to the blade and make sure that the affected area is sanded smoothly as otherwise paint will come off.
- The silicone must be on the transition blade ferrule to the blade that no moisture can enter into the blade core.

Attention: Not installing the silicon is NOT allowed!
- The black PU tape must be installed, see SL 55 for Hovercraft applications.
- After painting and balancing use one of the following 4 plugs for the applicable blade models to seal the blade center bore:

  C-071-A 15 mm diameter (0.59 inch)
  C-072-A 22 mm diameter (0.87 inch)
  C-073-A 34 mm diameter (1.34 inch) (used for MTV-27-1-V-C-R(H) CRLD258-121b and MTV-27-1-X-C-R(H) CRLD218-121d)
  C-073-1 35 mm diameter (1.38 inch)

Attention: If this plug is not installed and an internal oil leak occurs during operation, the blade may be scrap as the oil can enter into the blade core which may lead to retiring the blade.

3. List of recommended Materials:

**Blade Root-Ferrule Seal**

Silicone Sealant RTV 109 General Electric or similar

**Epoxy Resin Materials:**

Quick Epoxy: Devcon 14210 (5 Minute Epoxy) or similar
Loctite 0151 Epoxy Patch or similar (Loctite Hysol 3430)
Scheufler: Resin 285 Hardener 500 or similar
Fuller: Resin A20 Hardener B20 (original MT-System)
Service Letter
SL 32-1

Erosion Sheath (V2A and Nickel) Bonding Epoxy:
EA 9359.3 QT System Part A Epoxy Adhesive; Hysol / Henkel
EA 9359.3 QT System Part B Epoxy Adhesive Hysol / Henkel

Fiber Glass Material
Fiber Glass Cloth: Interglas Type 92110 Fiber Glass (twill 2/2 163g/m²) or similar

Filler Material:
Reladur 481 PU spraying filler, gray 48PU-7750 or similar
Feycopur 610 PU Priming color
Relonit priming, color grey 61-AC-9000 or similar

Paint Material
Relonit 620 2K Acrylic Paint:
  White: Opaque pigment, clear white, 63-AC-9010, RAL 9010
  Grey: MT - Grey
  Black: RAL 9005 black, dull
  Red: RAL 5001 dark red

or if above listed material is not available:
  DX 1791 Wash Primer
  DX 1792 Catalyst
  K 36 Acrylic Urethane Primer Surface
  K 201 Hardener
  DT 885 Reducer

Gloss Colors:
PPG DCC Concept (Acrylic Urethane Color)
DCC Color
DCX 61 Hardener
DT 885 Reducer

Flat Colors:
DCC Color
DCX 61 Hardener
DT 885 Reducer

The technical information contained in this document has been approved under the authority of EASA DOA N° EASA.21J.020.