

# Commercial Aviation Services

# **SERVICE LETTER**

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737-SL-71-053-A

ATA: 7100C70 23 March 2005

**SUBJECT:** INLET COWL LIPSKIN CORROSION PREVENTION

**MODEL:** 737-600/-700/-700C/-800/-900/ BBJ

**APPLICABILITY:** All 737-NG Airplanes

**REFERENCE:** 737NG-FTD-71-00001, Inlet Cowl Corrosion During Long Term Storage

#### **SUMMARY:**

Some operators have reported surface corrosion on the engine inlet cowl lip skins after prolonged parking or storage in warm, moist environments. As discussed in the referenced fleet team digest article, Boeing has evaluated several methods to prevent corrosion on the lipskin, and determined that Xzilon is an acceptable temporary protective coating for corrosion prevention.

#### **BACKGROUND:**

Boeing initiated an Equipment Quality Analysis (EQA) to determine the cause of the corrosion. Results of the analysis identified that the primary cause of corrosion is stagnant water against the surface of the lipskin. The engine prolonged parking and storage procedures in AMM 71-00-03 were revised to use alternate storage covers and inspect/wipe down the lipskin to prevent accumulation of moisture. In addition, several methods of corrosion prevention were studied including water displacing compounds, thermal spray coatings, and alternate lipskin materials. The study concluded that alternate lipskin materials and thermal spray coatings were not economically feasible. Of the water displacing compounds, Xzilon was determined to be an acceptable temporary protective coating for corrosion prevention.

#### **DISCUSSION:**

The Boeing Company has tested Xzilon for performance of its intended function (corrosion protection) and found that it offered enhanced corrosion prevention performance over anodized or bare (polished) lip skins fabricated from 2219-T62. The following instructions are provided to assist operators in the use and application of Xzilon as a preventative maintenance process.

- 1. A thorough chemical cleaning of the lipskin must be done with the cleaner furnished from the Xzilon vendor prior to application. (Xzilon will not remove corrosion, but will act to assist in preventing future corrosion.)
- 2. Cap the container when not in use. Check expiration dates before using the Xzilon. The product should have a clear, unclouded appearance.
- 3. The Xzilon shall be applied with the materials supplied by the vendor for application. The Xzilon shall be applied by CAREFULLY pouring a few drops onto the felt material supplied and not saturate the applicator to the point of Xzilon dripping from the cloth.
- 4. The Xzilon shall be applied quickly to a SMALL AREA followed by an immediate wipe dry with the clean, cotton cloth supplied. The Xzilon should not be allowed to dry before it is wiped down. This will cause streaking. Direct exposure to sunlight or warm surface temperatures can result in streaking.
- 5. The application should proceed around the lip skin until the entire surface has been coated. The second and third coats can follow with at least 15 minutes drying time between coating applications.
- 6. Boeing recommends that the cleaning and application of the Xzilon be done under cover in a clean area in order to protect the surface from sun and heat so that drying times are not altered and to protect from contaminants entering the work surface.
- 7. Reapplication should occur after the surface loses its shine. Boeing recommends a schedule of checking the lipskins for visual appearance every two weeks for the first two months and then adjusting the schedule according to operator experience based on environment and use of the aircraft.
- 8. If repainting operations are to be performed on areas treated with Xzilon, prepare the painted area according to D6-1816 to remove any silicone residue and provide adequate adhesion to the paint

## **BOEING ACTION:**

Boeing has reviewed Xzilon and has no objection for its use on the inlet cowl lipskin.

#### SUGGESTED OPERATOR ACTION:

Boeing suggests that operators evaluate the information provided in this service letter to determine if the use of Xzilon as a corrosion prevention method for the inlet cowl lipskin during storage would be beneficial to their aircraft.

#### **WARRANTY INFORMATION:**

Boeing warranty remedies are not available for the subject discussed in this service letter.

# **INTERCHANGEABILITY:**

#### **INTERCHANGEABILITY:**

Use of Xzilon does not affect interchangeability of the inlet cowls

#### **SUPPLIER:**

### **Granitize Products, Inc.**

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MLE:cmm

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Revision Removed caution about getting Xzilon on paint.