ECLIPSE AEROSPACE

RECOMMENDED

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SERVICE BULLETIN

NUMBER:	**SB 500-54-003, REV A**
MODEL:	**ECLIPSE EA500**
SUBJECT:	**LEADING EDGE SKIN ASSEMBLY FIRE EXTINGUISHER SIGHT GLASS REPLACEMENT**

1. PLANNING INFORMATION

A. Effectivity

Aircraft Serial Numbers 0001-0300.

B. Reason

Additional clearance between the new Fire Extinguisher Cartridge (FEC) gauge and sight glass is required due to the new Fire Extinguisher Cartridge increased size.

C. Description

This Service Bulletin provides procedures to modify the Leading Edge Skin Assemblies to incorporate a new FEC Gauge Sight Glass.

D. Relevant Publications

SB 500-26-001 Phostrex Fire Extinguisher Cartridge (FEC) Replacement

E. Compliance

Eclipse Aerospace Inc. considers this to be a recommended modification that should be accomplished in conjunction with SB 500-26-001 Phostrex Fire Extinguisher Cartridge (FEC) Replacement or if SB 500-26-001 has already been accomplished, at the next maintenance visit.

F. Approval

This Service Bulletin is based on engineering data that is FAA-approved, and the modification herein complies with the applicable regulations.

G. Labor Requirements

The following information is for planning purposes only.

(1) Estimated labor hours to perform:

Suggested number of personnel: 1

Job Set-up and Job Close-up: 1.0 Hour

Rework Leading Edge Skin Assemblies: 4.0 Hours

Total labor hours: 5.0

The above is an estimate based on properly equipped and experienced personnel complying with this Service Bulletin. Actual labor hours may vary depending on workforce experience, concurrent maintenance, discovery of other discrepancies, etc.

(2) Qualification of personnel:

- A person properly authorized under 14 CFR 43 to perform aircraft maintenance.

H. Weight and Balance Change

Negligible

I. Electrical Load Data Change

Negligible

J. Software Accomplishment Summary

None

K. References

Aircraft Maintenance Manual (AMM), P/N 06-117751, latest revision.

L. Publications Affected

None

2. MATERIAL INFORMATION

A. Materials

Order parts below:

Item	Part Number	Description	Qty	Unit of Issue
2, Figure 4	54-123231-2001	Sight Glass	2	EA.

B. Consumables

The following consumables are required for this Service Bulletin.

Material	Specification	Use
Acrylic Structural Adhesive	CB200	Sight Glass Installation
Epoxy Adhesive	Scotch-Weld 2216	Sight Glass Installation
Primer	MIL-PRF-85582	Sight Glass Installation
Cleaning Solvent	Isopropyl Alcohol	Sight Glass Installation
ScotchBrite Pad	120 Grit	Sight Glass Installation

C. Tooling

The following special tooling/support equipment is required in addition to normal hand tools to accomplish this Service Bulletin.

Nomenclature	Specification	Use
Heat Gun	Proheat, PH1200 or equivalent	Sight Glass Installation

D. Interchangeability/Intermixability of Parts

None

E. Part Re-identification

None.

3. ACCOMPLISHMENT INSTRUCTIONS

A. Procedure

SIGN OFF

(1) **Job Set-up,**

(a) Make the aircraft safe for maintenance. Refer to AMM - 20-00-01 - MAKE SAFE FOR MAINTENANCE. _____

(b) Remove the Left Pylon Leading Edge - 311 EL. Refer to AMM - 54-30-11 - LEADING EDGE PYLON SKIN - REMOVAL. _____

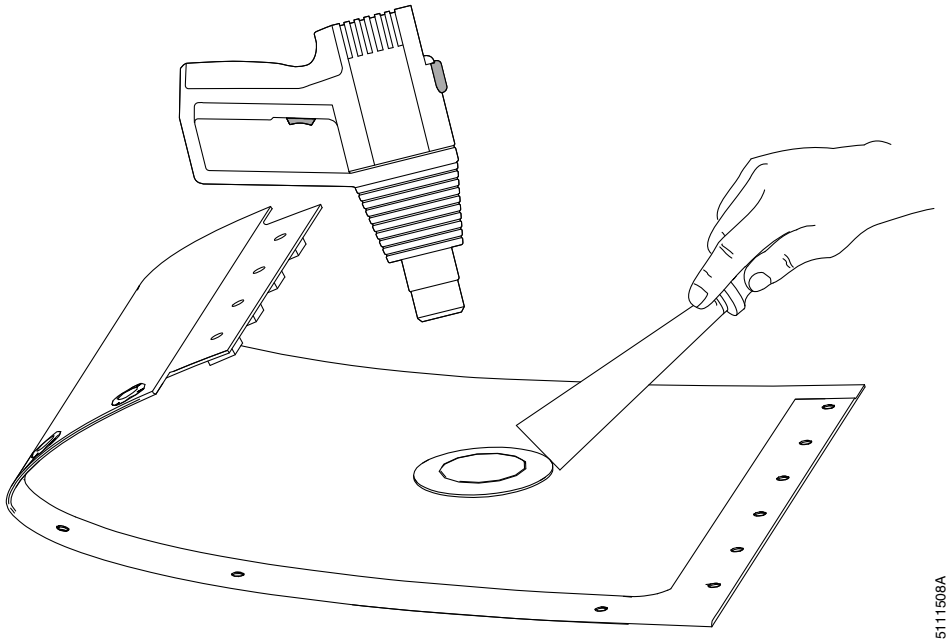
(c) Remove the Right Pylon Leading Edge - 312 BR. Refer to AMM - 54-30-11 - LEADING EDGE PYLON SKIN - REMOVAL. _____

(2) **Rework**

(a) Rework left Leading Edge Skin Assembly P/N 5130002-01 (Left Pylon Leading Edge - 311 EL) on bench as follows:

CAUTION: Do not use higher temperature than what is listed. Damage to the laminate skin can occur.

1. Set the heat gun temperature to 250° F. _____
2. Heat the inner surface around the perimeter of the Leading Edge Skin Assembly sight glass location, maintaining a distance of 2-5 inches between the heat gun and the sight glass location. _____
3. While heating the area, use a sharpened putty knife to carefully scrape excess squeeze-out of epoxy (as shown in Figure 1) on the Leading Edge Skin Assembly inner surface around the perimeter of the composite doubler (Sight Glass Pocket Laminate Pylon Skin, 5130002-15). _____

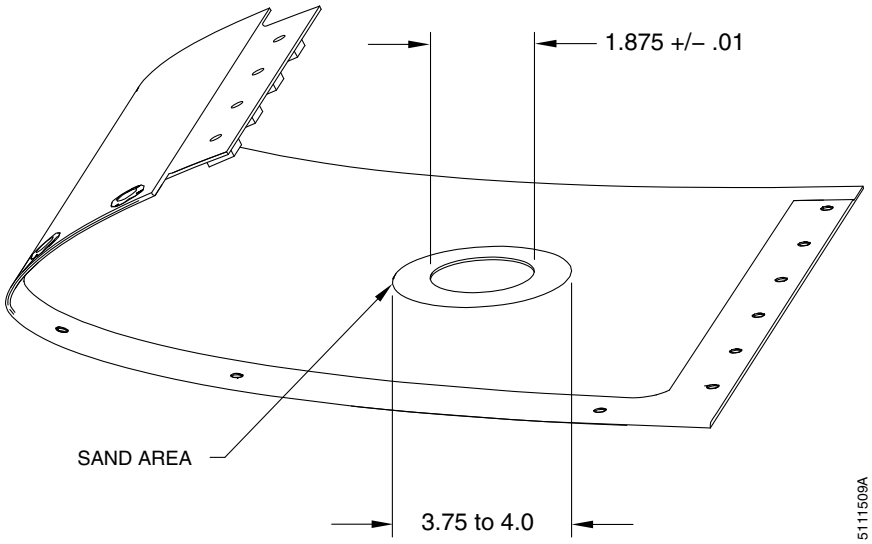


Leading Edge Skin Assembly Rework
Figure 1

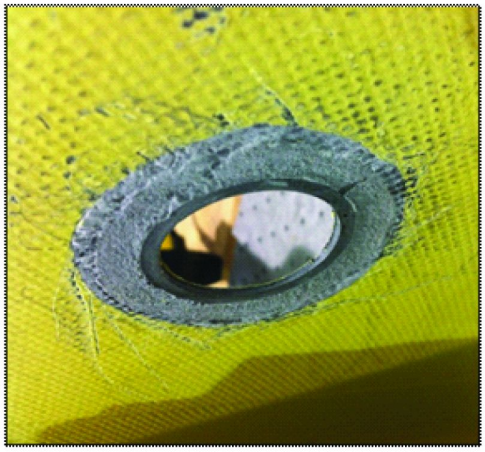
SIGN OFF

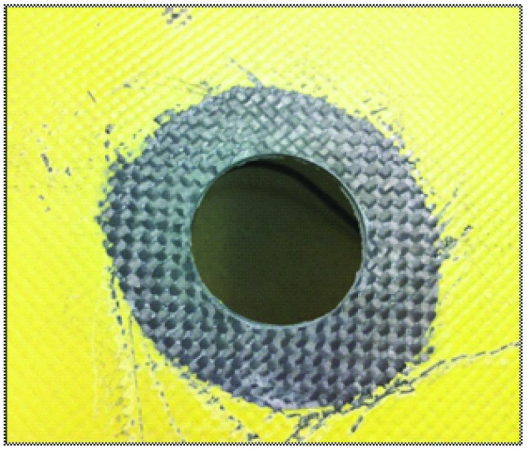
4. Once the adhesive has softened sufficiently, use the sharpened putty knife to separate the composite doubler from the composite fairing by tapping the handle of the putty knife with a hammer as the blade is positioned around the edge of the doubler perimeter. Work the putty knife carefully around the perimeter evenly to remove the doubler with the sight glass. _____

5. Remove the remaining epoxy from the mating surface of the composite fairing by sanding the mating areas with 120 grit Scotch-Brite sanding pad. Sand an area around the hole that is between 3.75 and 4.00 inches in diameter. Refer to Figure 2, Sheet 1. A fairing is shown prior to sanding and after sanding in Figure 2, Sheet 2. _____



Leading Edge Skin Assembly Rework
Figure 2 (Sheet 1 of 2)





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BEFORE SANDING AFTER SANDING

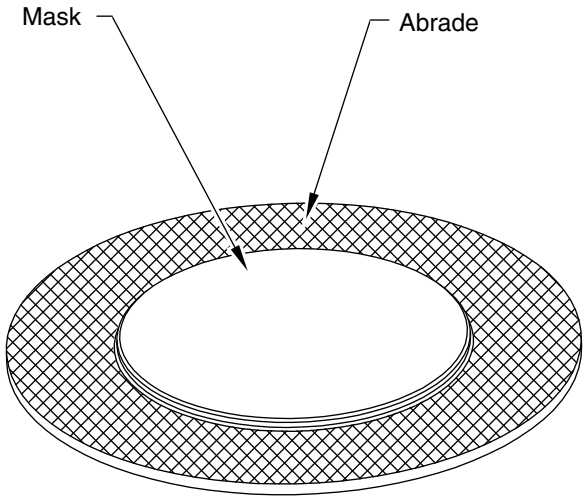
Leading Edge Skin Assembly Rework
Figure 2 (Sheet 2 of 2)

SIGN OFF

6. Inspect the Leading Edge Skin Assembly and report any delamination of the plies or other abnormalities. Request disposition from EAI Service Engineering if required. _____

7. Enlarge the hole in the Leading Edge Skin Assembly to 1.875 +/- .010 inches in diameter. Dress bare edges with 3M Scotch-Weld 2216 Epoxy Adhesive to perimeter edge. Refer to Figure 2, Sheet 1 _____

8. Mask center of sight glass to avoid scratches and abrade (roughen) mating surfaces for bonding, Pocketed Sight Glass P/N 54-123231-2001 and inner surface of Leading Edge Skin Assembly. Refer to Figure 3. _____



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Sight Glass P/N 54-123231-2001
Figure 3

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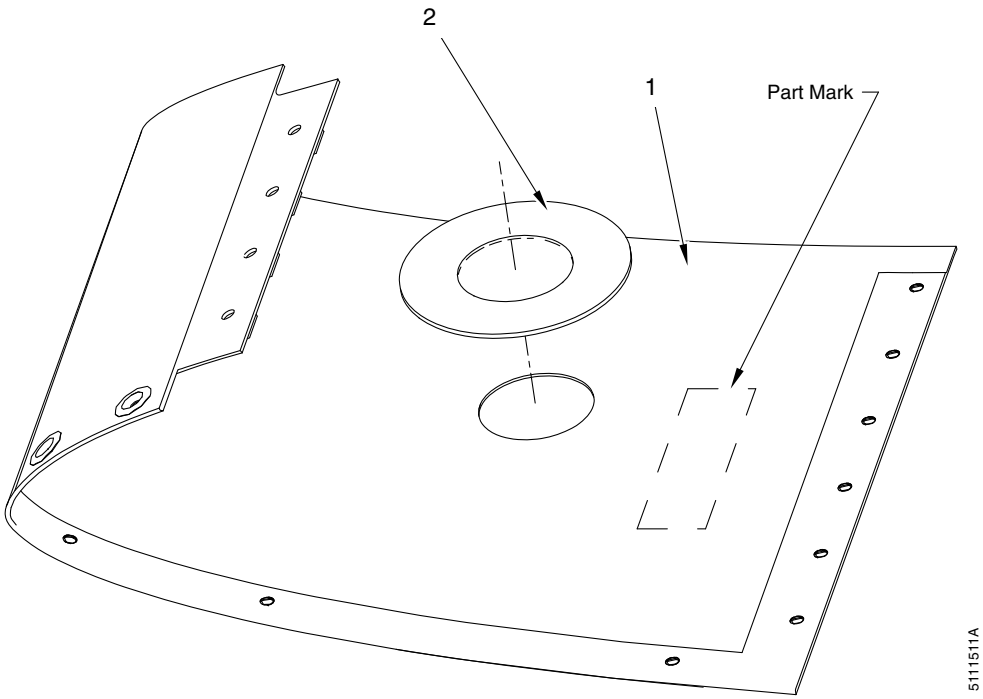
9. Install Pocketed Sight Glass P/N 54-123231-2001 (2, Figure 4) to the Leading Edge Skin Assembly (1, Figure 4) with CB200 Acrylic Structural Adhesive. Refer to AMM - 20-08-00 - SEALANTS AND ADHESIVES - MAINTENANCE PRACTICES. _____

   NOTE: A doubler is not required with the new sight glass installation.



Leading Edge Skin Assembly Rework
Figure 4

10. Maintain aerodynamic smoothness on the outer surface of the Leading Edge Skin Assembly at the sight glass location. Apply suitable pressure during bonding to minimize any step between the outer sight glass surface and the outer surface of the Leading Edge Skin Assembly. _____

    a. Remove excess squeeze-out of adhesive before it cures. _____

11. Mask the sight glass (Figure 3) and reapply primer MIL-PRF-85582 to the reworked inner surface of the Leading Edge Skin Assembly. _____

12. Remove the sight glass mask and clean the sight glass with Isopropyl alcohol on both sides to obtain optical clarity. _____

13. Mark Leading Edge Skin Assembly “Modified by SB 500-54-003” with indelible ink. Refer to Figure 4. _____

SIGN OFF

(b) Rework right Leading Edge Skin Assembly P/N 5130002-04 (Right Pylon Leading Edge - 312 BR) on bench as follows:

CAUTION: Do not use higher temperature than what is listed. Damage to the laminate skin can occur.

1. Set the heat gun temperature to 250° F. _____
2. Heat the inner surface around the perimeter of the Leading Edge Skin Assembly sight glass location, maintaining a distance of 2-5 inches between the heat gun and the sight glass location. _____
3. While heating the area, use a sharpened putty knife to carefully scrape excess squeeze-out of epoxy (as shown in Figure 1) on the Leading Edge Skin Assembly inner surface around the perimeter of the composite doubler (Sight Glass Pocket Laminate Pylon Skin, 5130002-15). _____
4. Once the adhesive has softened sufficiently, use the sharpened putty knife to separate the composite doubler from the composite fairing by tapping the handle of the putty knife with a hammer as the blade is positioned around the edge of the doubler perimeter. Work the putty knife carefully around the perimeter evenly to remove the doubler with the sight glass. _____
5. Remove the remaining epoxy from the mating surface of the composite fairing by sanding the mating areas with 120 grit Scotch-Brite sanding pad. Sand an area around the hole that is between 3.75 and 4.00 inches in diameter. Refer to Figure 2, Sheet 1. A fairing is shown prior to sanding and after sanding in Figure 2, Sheet 2. _____
6. Inspect the Leading Edge Skin Assembly and report any delamination of the plies or other abnormalities. Request disposition from EAI Service Engineering if required. _____
7. Enlarge the hole in the Leading Edge Skin Assembly to 1.875 +/- .010 inches in diameter. Apply 3M Scotch-Weld 2216 Epoxy Adhesive to perimeter edge. Refer to Figure 2, Sheet 1 _____
8. Mask center of sight glass to avoid scratches and abrade (roughen) mating surfaces for bonding, Pocketed Sight Glass P/N 54-123231-2001 and inner surface of Leading Edge Skin Assembly. Refer to Figure 3. _____
9. Install Pocketed Sight Glass P/N 54-123231-2001 (2, Figure 4) to the Leading Edge Skin Assembly (1, Figure 4) with CB200 Acrylic Structural Adhesive. Refer to AMM - 20-08-00 - SEALANTS AND ADHESIVES - MAINTENANCE PRACTICES. _____

NOTE: A doubler is not required with the new sight glass installation.

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10. Maintain aerodynamic smoothness on the outer surface of the Leading Edge Skin Assembly at the sight glass location. Apply suitable pressure during bonding to minimize any step between the outer sight glass surface and the outer surface of the Leading Edge Skin Assembly. _____

    a. Remove excess squeeze-out of adhesive before it cures. _____

11. Mask the sight glass and reapply primer MIL-PRF-85582 to the reworked inner surface of the Leading Edge Skin Assembly. _____

12. Remove the sight glass mask and clean the sight glass with Isopropyl alcohol on both sides to obtain optical clarity. _____

13. Mark Leading Edge Skin Assembly “Modified by SB 500-54-003” with indelible ink. Refer to Figure 4. _____

(3) **Job Close-up**

(a) Install the Left Pylon Leading Edge - 311 EL. Refer to AMM - 54-30-11 - LEADING EDGE PYLON SKIN - INSTALLATION. _____

(b) Install the Right Pylon Leading Edge - 312 BR. Refer to AMM - 54-30-11 - LEADING EDGE PYLON SKIN - INSTALLATION. _____

(c) If all other maintenance is complete, return the aircraft to service. Refer to the AMM - 20-00-02 - RETURN TO SERVICE (AFTER MAINTENANCE). _____

B. Limitations and Procedures

None

C. Cost

Contact Eclipse Aerospace Inc. for cost and availability.

4. RECORD OF COMPLIANCE

Upon completion of this Service Bulletin, make an appropriate maintenance-record entry specifying the Service Bulletin number.

5. NOTIFYING ECLIPSE AEROSPACE

On completing this service bulletin, the operator/maintainer shall complete the attached Compliance Record and send it to Eclipse Aerospace via regular mail, fax, or e-mail.

Mailing Address	Eclipse Aerospace Incorporated ATTN: Customer Care 2503 Clark Carr Loop SE Albuquerque, NM 87106
Fax	1-505-241-8802
E-mail	customerfirstteam@eclipse.aero

SERVICE BULLETIN COMPLIANCE RECORD

SB 500-54-003, Rev A: Leading Edge Skin Assembly Fire Extinguisher Sight Glass Replacement

MODEL _____ AIRPLANE S/N _____ REG. NO. _____ TOTAL TIME _____ (HOURS)

OWNER NAME:

_____

ADDRESS: _____

_____

TELEPHONE NO. (___) _____ FAX NO. (___) _____

COMPLIANCE WITH SB 500-54-003, Rev A

Description of Work Performed

(Inspection | Modification | Repair | Option Installation | Defect or Damage Found, if applicable)

_____

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_____

DATE _____

WORK PERFORMED

BY _____ (PRINTED)

_____ (SIGNATURE)

COMPANY _____

ADDRESS _____

_____

TELEPHONE _____ FAX_____ _____