



AIRCRAFT  
MAINTENANCE MANUAL

**REAR WING-TO-FUSELAGE FAIRING - REMOVAL/INSTALLATION**

EFFECTIVITY: ACFT MODEL(S) EMB-145

1. General

- A. This section gives the procedures to remove and install the Rear Wing-to-Fuselage Fairing.
- B. The procedures in this section are given in the sequence below. The tasks identified with (♦) are part of the Scheduled Maintenance Requirements Document (SMRD).

| TASK NUMBER        | DESCRIPTION                                     | EFFECTIVITY              |
|--------------------|---|--------------------------|
| 53-04-30-000-801-A | REAR WING-TO-FUSELAGE FAIRING -<br>REMOVAL      | ACFT MODEL(S)<br>EMB-145 |
| 53-04-30-400-801-A | REAR WING-TO-FUSELAGE FAIRING -<br>INSTALLATION | ACFT MODEL(S)<br>EMB-145 |



# AIRCRAFT MAINTENANCE MANUAL

TASK 53-04-30-000-801-A

EFFECTIVITY: ACFT MODEL(S) EMB-145

## 2. REAR WING-TO-FUSELAGE FAIRING - REMOVAL

### A. General

(1) This procedure gives the instructions to remove the Rear Wing-to-Fuselage Fairing.

### B. References

| REFERENCE            | DESIGNATION |
|----------------------|-------------|
| AMM MPP 06-41-01/100 | -           |
| SRM 51-20-01-PR      | -           |

### C. Zones and Accesses

| ZONE | PANEL/DOOR      | LOCATION                              |
|------|-----------------|---------------------------------------|
| 193  | 193AL           | Rear wing-to-fuselage attachment area |
| 193  | 193LL           | Rear wing-to-fuselage attachment area |
| 193  | 193BL (LH side) | Rear wing-to-fuselage attachment area |
| 193  | 193CR (RH side) | Rear wing-to-fuselage attachment area |

### D. Tools and Equipment

| ITEM                   | DESCRIPTION     | PURPOSE           | QTY |
|------------------------|-----------------|-------------------|-----|
| Commercially available | Acrylic spatula | To remove sealant |     |

### E. Auxiliary Items

| ITEM                   | DESCRIPTION       | PURPOSE                              | QTY |
|------------------------|-------------------|--------------------------------------|-----|
| Commercially available | Protective Gloves | For protection of technician's hands | 1   |
| Commercially available | Safety Goggles    | For protection of technician's eyes  | 1   |

### F. Consumable Materials

| SPECIFICATION (BRAND) | DESCRIPTION               | QTY |
|-----------------------|---------------------------|-----|
| ASTM-D-740            | Methyl Ethyl Ketone - MEK | AR  |

### G. Expandable Parts

Not Applicable

**H. Persons Recommended**

| QTY | FUNCTION    | PLACE                                 |
|-----|-------------|---------------------------------------|
| 3   | Do the task | Rear wing-to-fuselage attachment area |

**I. Preparation**
**SUBTASK 841-014-B**

- (1) Put the aircraft on safe condition for maintenance.

**J. Removal (Figure 401)**
**SUBTASK 020-014-B**

- (1) With an acrylic spatula, remove the old aerodynamic sealant in the rear wing-to-fuselage attachment area.
- (2) Refer to (AMM MPP 06-41-01/100) and remove the hydraulic compartment access panels.
  - 193BL (LH side) (5).
  - 193CR (RH side) (1).

**WARNING: THE HYDRAULIC SYSTEM CONTAINS PHOSPHATE-ESTER HYDRAULIC FLUID. THE FLUID CAN CAUSE IRRITATION IN YOUR SKIN OR INJURY TO YOUR EYES. USE THE APPLICABLE GOGGLES AND RUBBER GLOVES. IF THE FLUID TOUCHES YOU, FLUSH YOUR SKIN WITH WATER. IF IT GETS IN YOUR EYES, FLUSH THEM WITH WATER AND GET MEDICAL HELP.**

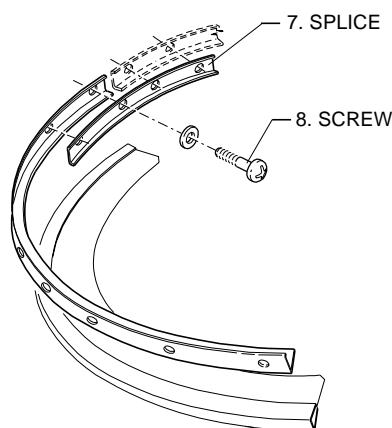
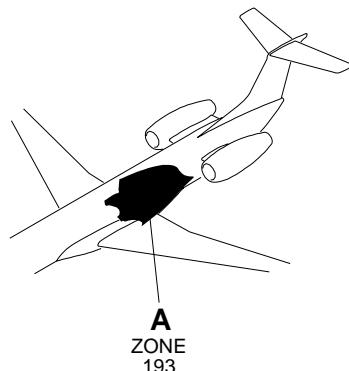
- (3) Remove the clamps (LH and RH sides) which connect the flexible hose to the hydraulic compartment drain.
- (4) Remove the clamps (LH and RH sides) which connect the drain to the air-scoop outlet ducts.
- (5) Remove the 193AL access panel (6). Refer to (AMM MPP 06-41-01/100).
- (6) Remove the 193LL access panel (3). Refer to (AMM MPP 06-41-01/100).
- (7) Remove the clamp which connects the drain to the drain valve hose.
- (8) Remove the screws (8) that attach the splices (LH and RH side) (7) to the fairings.
- (9) Remove the splices (7) from the interface between the center and the rear wing-to-fuselage fairings (2).
- (10) Remove the screws (4) that attach the rear wing-to-fuselage fairing (2).
- (11) Remove the rear wing-to-fuselage fairing (2).

**NOTE:** Make sure that the interface sealing is not damaged. If necessary, apply sealant again. Refer to (SRM 51-20-01-PR).

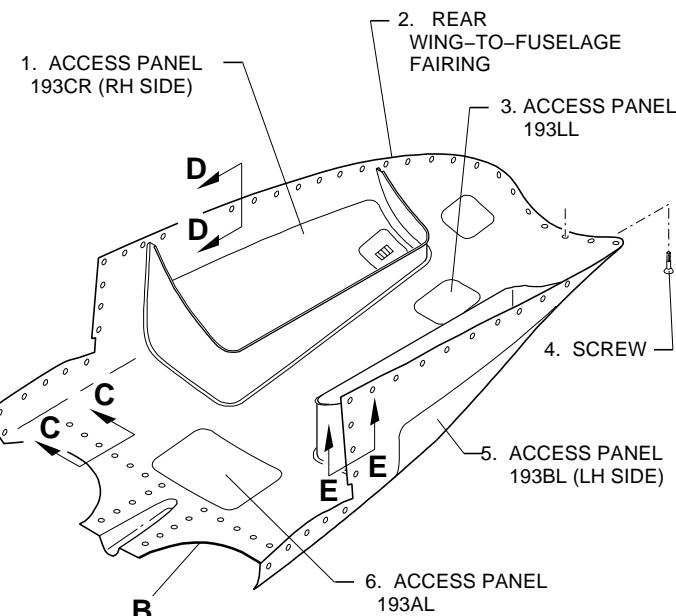
**EFFECTIVITY: ACFT MODEL(S) EMB-145**

Rear Wing-to-Fuselage Fairing - Removal/Installation

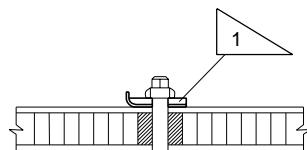
Figure 401



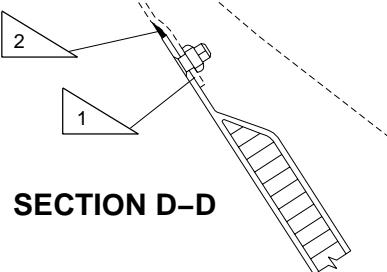
**DET. B**



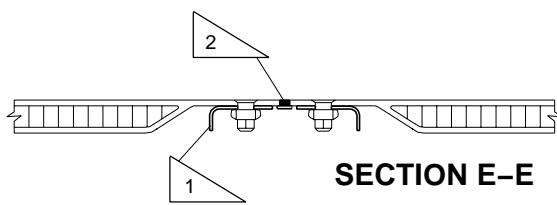
**DET. A**



**SECTION C-C**



**SECTION D-D**



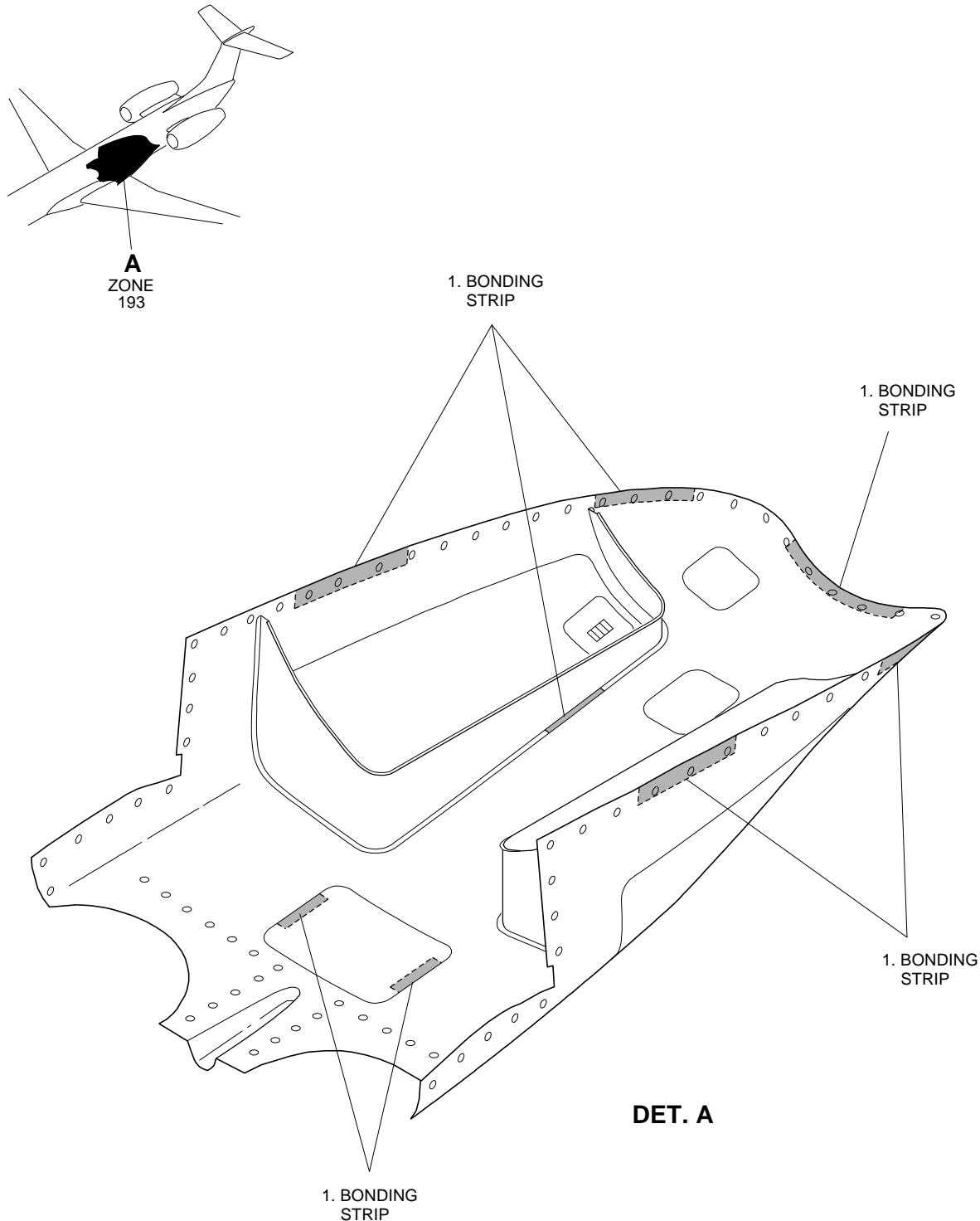
**SECTION E-E**

1 GREASE (DC-33 LIGHT)

2 AERODYNAMIC SEALING

EM145AMM050264C.DGN

**EFFECTIVITY: ACFT MODEL(S) EMB-145**  
**Bonding Strap**  
**Figure 402**



EM145AMM530345B.DGN



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TASK 53-04-30-400-801-A

EFFECTIVITY: ACFT MODEL(S) EMB-145

3. REAR WING-TO-FUSELAGE FAIRING - INSTALLATION

A. General

(1) This procedure gives the instructions to install the rear wing-to-fuselage fairing.

B. References

| REFERENCE                       | DESIGNATION                                   |
|---------------------------------|---|
| AMM MPP 06-41-01/100            | -   |
| AMM MPP 20-10-01/200            | - MAINTENANCE PRACTICES                       |
| AMM TASK 20-13-21-700-801-A/200 | ELECTRICAL BONDING TEST - STANDARD PROCEDURES |
| AMM TASK 28-41-00-200-801-A/600 | -   |
| IPC 53-04-00                    | FAIRINGS WING/FUSELAGE                        |
| SRM 51-20-01-PR                 | -   |

C. Zones and Accesses

| ZONE | PANEL/DOOR      | LOCATION                              |
|------|-----------------|---------------------------------------|
| 193  | 193AL           | Rear wing-to-fuselage attachment area |
| 193  | 193LL           | Rear wing-to-fuselage attachment area |
| 193  | 193BL (LH side) | Rear wing-to-fuselage attachment area |
| 193  | 193CR (RH side) | Rear wing-to-fuselage attachment area |

D. Tools and Equipment

| ITEM                   | DESCRIPTION   | PURPOSE               | QTY |
|------------------------|---------------|-----------------------|-----|
| Commercially available | Torque wrench | To tighten the screws |     |

E. Auxiliary Items

| ITEM                   | DESCRIPTION       | PURPOSE                              | QTY |
|------------------------|-------------------|--------------------------------------|-----|
| Commercially available | Protective Gloves | For protection of technician's hands | 1   |
| Commercially available | Safety Goggles    | For protection of technician's eyes  | 1   |

F. Consumable Materials

| SPECIFICATION (BRAND)   | DESCRIPTION                   | QTY |
|-------------------------|-------------------------------|-----|
| MIL-G-46886             | Grease, Molykote DC-33, Light | AR  |
| MIL-PRF-81733 TYPE II-2 | Sealant, P/S 870 - B 2        | AR  |

(Continued)

| <b>SPECIFICATION<br/>(BRAND)</b> | <b>DESCRIPTION</b>          | <b>QTY</b> |
|----------------------------------|-----------------------------|------------|
| MIL-PRF-81733 TYPE II-1/2        | Sealant, P/S 870 - B 1/2    | AR         |
| Commercially available           | Adhesive Tape               | AR         |
| Commercially available           | Aluminum Tape (AL Tape 425) | AR         |
| Commercially available           | Polyethylene Film           | AR         |
| ASTM-D-740                       | Methyl Ethyl Ketone - MEK   | AR         |
| Commercially available           | Scotch Brite Sponge         | AR         |

**G. Expendable Parts**

| <b>ITEM</b> | <b>IPC REFERENCE<br/>(VENDOR REFERENCE)</b> | <b>QTY</b> |
|-------------|---|------------|
| Gasket      | IPC 53-04-00                                | AR         |

**H. Persons Recommended**

| <b>QTY</b> | <b>FUNCTION</b> | <b>PLACE</b>                          |
|------------|-----------------|---------------------------------------|
| 3          | Do the task     | Rear wing-to-fuselage attachment area |

**I. Installation (Figure 401) (Figure 402)**
**SUBTASK 420-014-B**

**CAUTION:** THE INSPECTION OF FUEL QUANTITY INDICATION HARNESS IS PART OF CRITICAL DESIGN CONFIGURATION CONTROL LIMITATIONS (CDCCL) IN THE AIRWORTHINESS LIMITATIONS OF THE AIRCRAFT MAINTENANCE PROGRAM.

- (1) Do an inspection on the fuel quantity indication harness, according to AMM TASK 28-41-00-200-801-A/600.

**WARNING:** THE HYDRAULIC SYSTEM CONTAINS PHOSPHATE-ESTER HYDRAULIC FLUID. THE FLUID CAN CAUSE IRRITATION IN YOUR SKIN OR INJURY TO YOUR EYES. USE THE APPLICABLE GOGGLES AND RUBBER GLOVES. IF THE FLUID TOUCHES YOU, FLUSH YOUR SKIN WITH WATER. IF IT GETS IN YOUR EYES, FLUSH THEM WITH WATER AND GET MEDICAL HELP.

- (2) Apply molykote DC-33 light grease to the faying surface of the rear wing-to-fuselage (3).

- (3) Install the rear wing-to-fuselage fairing (2).

- (4) Install the screws (4) that attach the rear wing-to-fuselage fairing (2).

**NOTE:** For torque, refer to ([AMM MPP 20-10-01/200](#)).

- (5) Install the clamps to connect the flexible hose to the hydraulic compartment drain.

- (6) Install the clamps (LH and RH sides) to connect the drain to the air-scoop outlet hose.

- (7) Install the clamp to connect the drain to the drain valve hose.
- (8) Install the splices (7) at the interface between the center and the rear wing-to-fuselage fairings (2).
- (9) Install the screws (8) that attach the splices (LH and RH side) (7) to the fairings.
- (10) Install the hydraulic compartment access panels (AMM MPP 06-41-01/100):
  - 193BL (LH side) (5).
  - 193CR (RH side) (1).
- (11) Install the 193AL access panel (6) (AMM MPP 06-41-01/100).
- (12) Install the 193LL access panel (3) (AMM MPP 06-41-01/100).
- (13) There are different methods to do the aerodynamic sealing in the rear wing-to-fuselage attachment area. Use the applicable procedure as necessary.
  - (a) Full sealant-curing time:
    - 1 Apply sealant P/S 870 - B 1/2 or P/S 870 - B 2.  
NOTE: Sealant curing time will change according to the environmental conditions. Refer to (SRM 51-20-01-PR).
  - (b) Acceleration of the sealant curing time with heating:
    - 1 Apply sealant P/S 870 - B 1/2 or P/S 870 - B 2.
    - 2 Wait for one hour after the sealant is applied.  
CAUTION: THE TEMPERATURE MUST NOT BE HIGHER THAN 55°C (131°F).
    - 3 Heat the area which received the sealant.  
NOTE: Sealant curing time will change according to the environmental conditions. Refer to (SRM 51-20-01-PR).
  - (c) Application of aluminum tape after the tack-free time.  
NOTE: This procedure must only be done when a faster aircraft clearance is necessary.
    - 1 Apply sealant P/S 870 - B 1/2 or P/S 870 - B 2.
    - 2 You can accelerate the sealant curing time as written in paragraph (b).
    - 3 After the sealant is tack-free, apply aluminum tape.  
NOTE: You can operate the aircraft immediately after the aluminum tape application.
    - 4 Remove the aluminum tape after 150 hours.
  - (d) Application of polyethylene film and aluminum tape.



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1 Apply sealant P/S 870 - B 1/2 or P/S 870 - B 2.

2 Apply a polyethylene film over the sealant.

3 Apply the aluminum tape.

NOTE: You can operate the aircraft immediately after the aluminum tape application.

4 Remove the aluminum tape after 10 days.

J. Follow-on

**SUBTASK 842-014-B**

(1) Do the electrical-bonding test procedure as given in [AMM TASK 20-13-21-700-801-A/200](#). Refer to (Figure 402).

(2) Do the procedure to put the aircraft back to initial condition.

