



EMB145 - EMB135

AIRCRAFT
MAINTENANCE MANUAL

VERTICAL-STABILIZER LEADING EDGE - REMOVAL/INSTALLATION

EFFECTIVITY: ALL

1. General

- A. This section gives the procedures to remove and install the vertical-stabilizer leading edge.
- 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 |
|--------------------|--|-------------|
| 55-35-00-000-801-A | VERTICAL-STABILIZER LEADING EDGE - ALL REMOVAL | |
| 55-35-00-400-801-A | VERTICAL-STABILIZER LEADING EDGE - ALL INSTALLATION | |



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TASK 55-35-00-000-801-A

EFFECTIVITY: ALL

2. VERTICAL-STABILIZER LEADING EDGE - REMOVAL

A. General

(1) This procedure gives the instructions to remove the vertical-stabilizer leading edge.

B. References

| REFERENCE | DESIGNATION |
|-----------------|-------------|
| SRM 51-20-01-PR | - |

C. Zones and Accesses

| ZONE | PANEL/DOOR | LOCATION |
|------|------------|----------------------------------|
| 323 | | Vertical-stabilizer leading edge |

D. Tools and Equipment

| ITEM | DESCRIPTION | PURPOSE | QTY |
|------------------------|-----------------|--------------------------------|-----|
| Commercially available | Workstand | To get access to the work area | |
| Commercially available | Torque wrench | To remove the screws | |
| 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 |
|-----|---------------|----------------------------------|
| 1 | Does the task | Vertical-stabilizer leading edge |



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I. Removal ([Figure 401](#)) ([Figure 402](#))

SUBTASK 020-002-A

- (1) Remove the screws (1) that attach the vertical-stabilizer leading edge (2) to the vertical stabilizer.
- (2) Remove the vertical-stabilizer leading edge (2).
- (3) Remove the old aerodynamic sealant and prepare the surface, according to SRM 51-20-01-PR.

WARNING: BE CAREFUL WHEN YOU USE SOLVENTS BECAUSE THEY ARE A HEALTH AND FIRE HAZARD. USE SAFETY GOGGLES AND PROTECTIVE CLOTHING WHEN YOU HANDLE THEM. DO NOT BREATHE THEIR GASES AND WORK IN A WELL VENTILATED AREA.

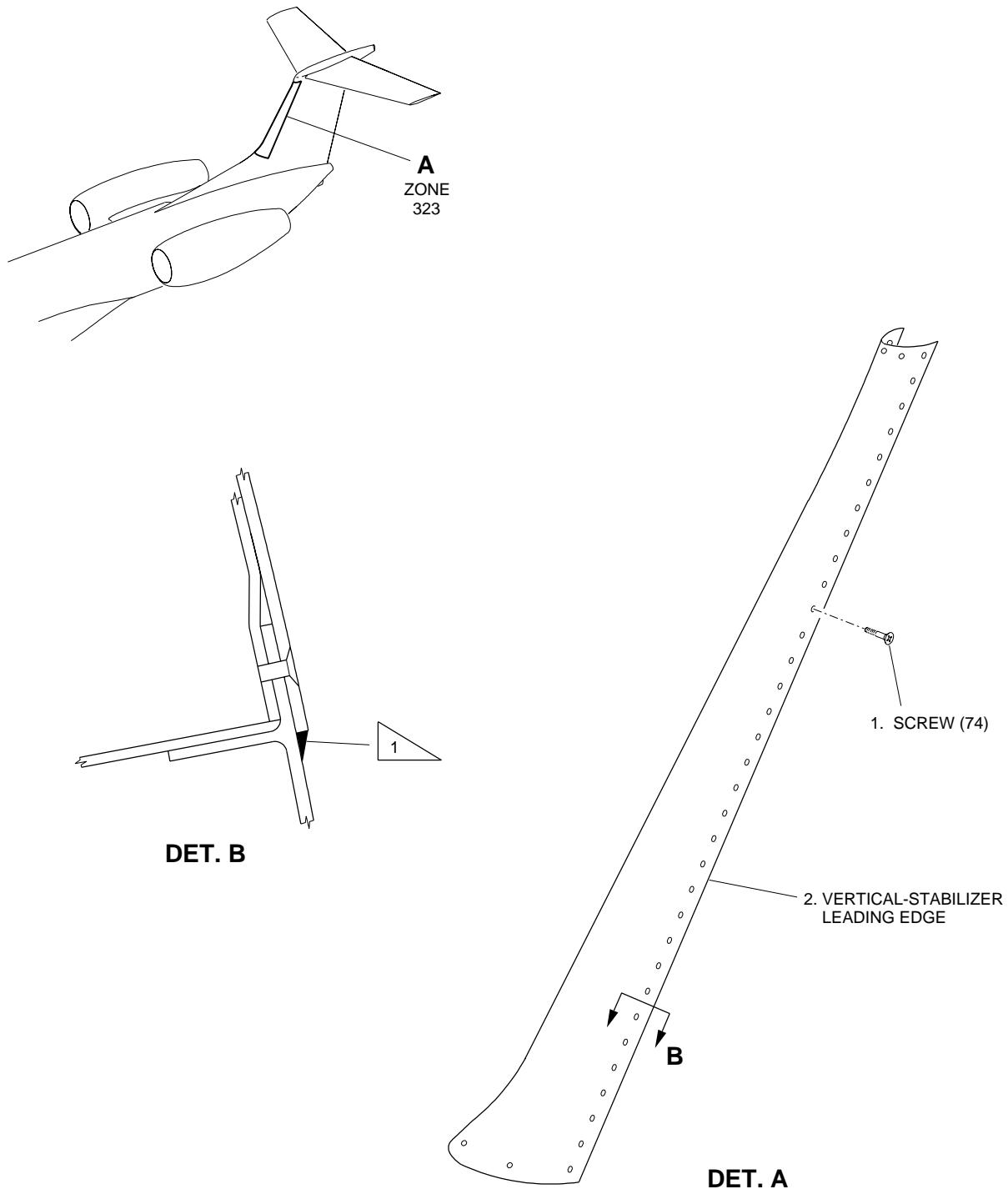
- (4) With a cloth soaked in MEK, clean the surface.
- (5) Examine the bonding metallic plate for general condition. Replace it if necessary. Refer to [Figure 402](#).

NOTE: If it is necessary to replace the bonding metallic plate, use a wooden tool as a wedge for the separation of the bonding metallic plate from the surface of the electric contacts.

EFFECTIVITY: ALL

Vertical-Stabilizer Leading Edge - Removal/Installation

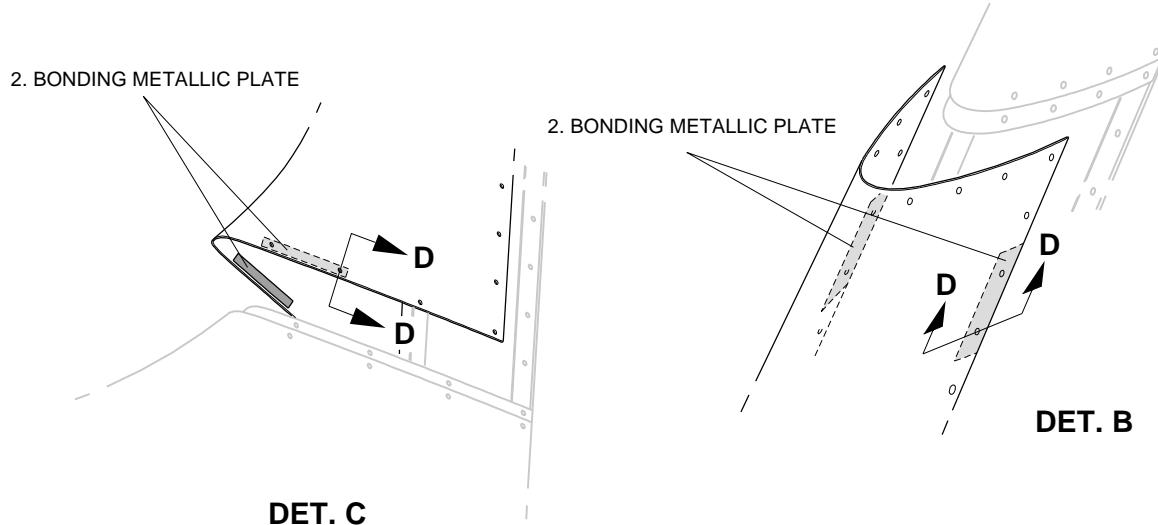
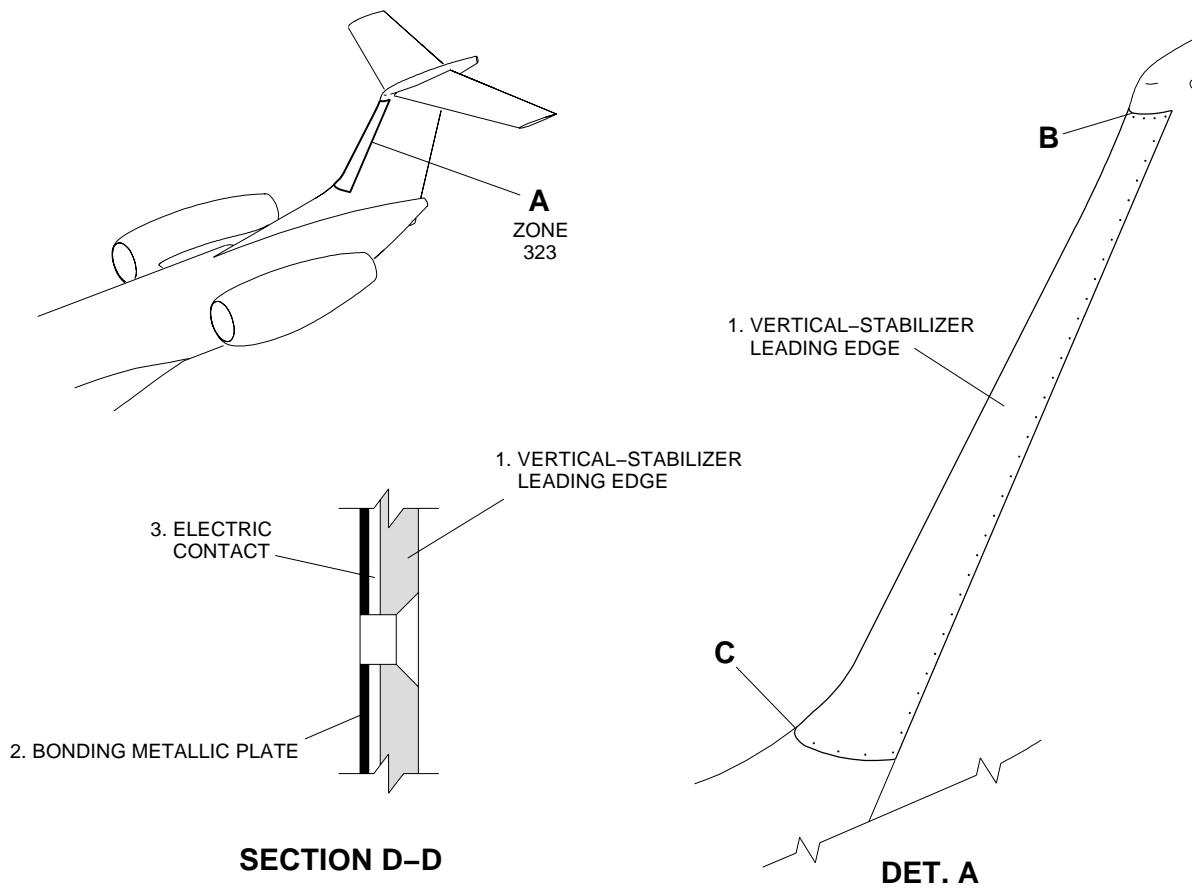
Figure 401



EFFECTIVITY: ALL

Bonding Metallic Plate

Figure 402



EM145AMM55008A.DGN

TASK 55-35-00-400-801-A
EFFECTIVITY: ALL
3. VERTICAL-STABILIZER LEADING EDGE - INSTALLATION
A. General

(1) This procedure gives the instructions to install the vertical-stabilizer leading edge.

B. References

| <i>REFERENCE</i> | <i>DESIGNATION</i> |
|---------------------------------|---|
| AMM MPP 20-10-01/200 | - MAINTENANCE PRACTICES |
| AMM TASK 20-13-21-700-801-A/200 | ELECTRICAL BONDING TEST - STANDARD PROCEDURES |
| IPC 55-35-00 | LEADING EDGE - FIN |
| SRM 51-20-01-PR | - |

C. Zones and Accesses

| <i>ZONE</i> | <i>PANEL/DOOR</i> | <i>LOCATION</i> |
|-------------|-------------------|----------------------------------|
| 323 | | Vertical-stabilizer leading edge |

D. Tools and Equipment

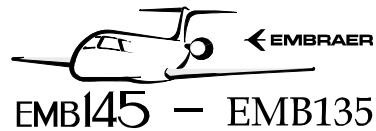
| <i>ITEM</i> | <i>DESCRIPTION</i> | <i>PURPOSE</i> | <i>QTY</i> |
|------------------------|--------------------|--------------------------------|------------|
| Commercially available | Workstand | To get access to the work area | |
| Commercially available | Torque wrench | To tighten the screws | |

E. Auxiliary Items

| <i>ITEM</i> | <i>DESCRIPTION</i> | <i>PURPOSE</i> | <i>QTY</i> |
|------------------------|--------------------|--------------------------------------|------------|
| 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

| <i>SPECIFICATION (BRAND)</i> | <i>DESCRIPTION</i> | <i>QTY</i> |
|------------------------------|-----------------------------|------------|
| MIL-PRF-81733 TYPE II-2 | Sealant, P/S 870 - B 2 | AR |
| 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 |



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(Continued)

| SPECIFICATION (BRAND) | DESCRIPTION | QTY |
|--------------------------|---------------------|-----|
| Commercially available | Scotch Brite Sponge | AR |

G. Expendable Parts

| ITEM | IPC REFERENCE (VENDOR REFERENCE) | QTY |
|------------------------|-------------------------------------|-----|
| Bonding Metallic Plate | IPC 55-35-00 | AR |

H. Persons Recommended

| QTY | FUNCTION | PLACE |
|-----|---------------|----------------------------------|
| 1 | Does the task | Vertical-stabilizer leading edge |

I. Installation (Figure 401) (Figure 402)

SUBTASK 420-002-A

- (1) Install the bonding metallic plate. Refer to (Figure 402):

- (a) With a Scotch Brite sponge, sand the surface of the electric contacts where the bonding metallic plate will be bonded.

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- (b) With a cloth soaked in MEK, clean the area of the electric contacts where the bonding metallic plate will be bonded.

- (c) Remove the release film from the bonding metallic plate.

NOTE: Do not warp or twist the bonding metallic plate.

- (d) Install the bonding metallic plate on the electric contacts.

- (2) Install the vertical-stabilizer leading edge (2).

- (3) Install the screws (1) that attach the vertical-stabilizer leading edge (2) to the vertical stabilizer.

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

- (4) There are different methods to do the aerodynamic sealing between the vertical-stabilizer leading edge (2) and the vertical stabilizer itself. 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 vary according to environmental conditions.
Refer to SRM 51-20-01-PR.

- (b) Acceleration of 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 vary according to environmental conditions.
Refer to SRM 51-20-01-PR.

- (c) Application of aluminum tape after 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 indicated in paragraph (b).
- 3 After 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.

- 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 842-002-A

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