CHAPTER

57

WINGS

MD-80
AIRCRAFT MAINTENANCE MANUAL

CHAPTER 57
WINGS

A = Added, R = Revised, D = Deleted, O = Overflow, C = Customer Originated Change

57-EFFECTIVE PAGES

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GENERAL - DESCRIPTION AND OPERATION

1. General

A. The wing is an all-metal, fully cantilevered, sweptback, single-unit mounted through the lower section of the fuselage. The wing incorporates the ailerons, flaps, slats, spoilers, trailing edge flaps, integral fuel tanks, and supporting structure for the main landing gear.

B. For allowable damage to flap, aileron, and wing trailing edges made of fiberglass, refer to the SRM 51-01, Page 1.

2. Main Frame

A. The main frame consists of a front spar, rear spar, cordwise ribs and bulkheads, and skin panels with spanwise stiffeners. The main frame forms a structural box extending from wingtip to wingtip. The integral fuel tanks are located within the structural box sections of the wing. The front and rear spars provide the main supporting structure for the main landing gear and flight control surface attach fittings.

3. Auxiliary Structure

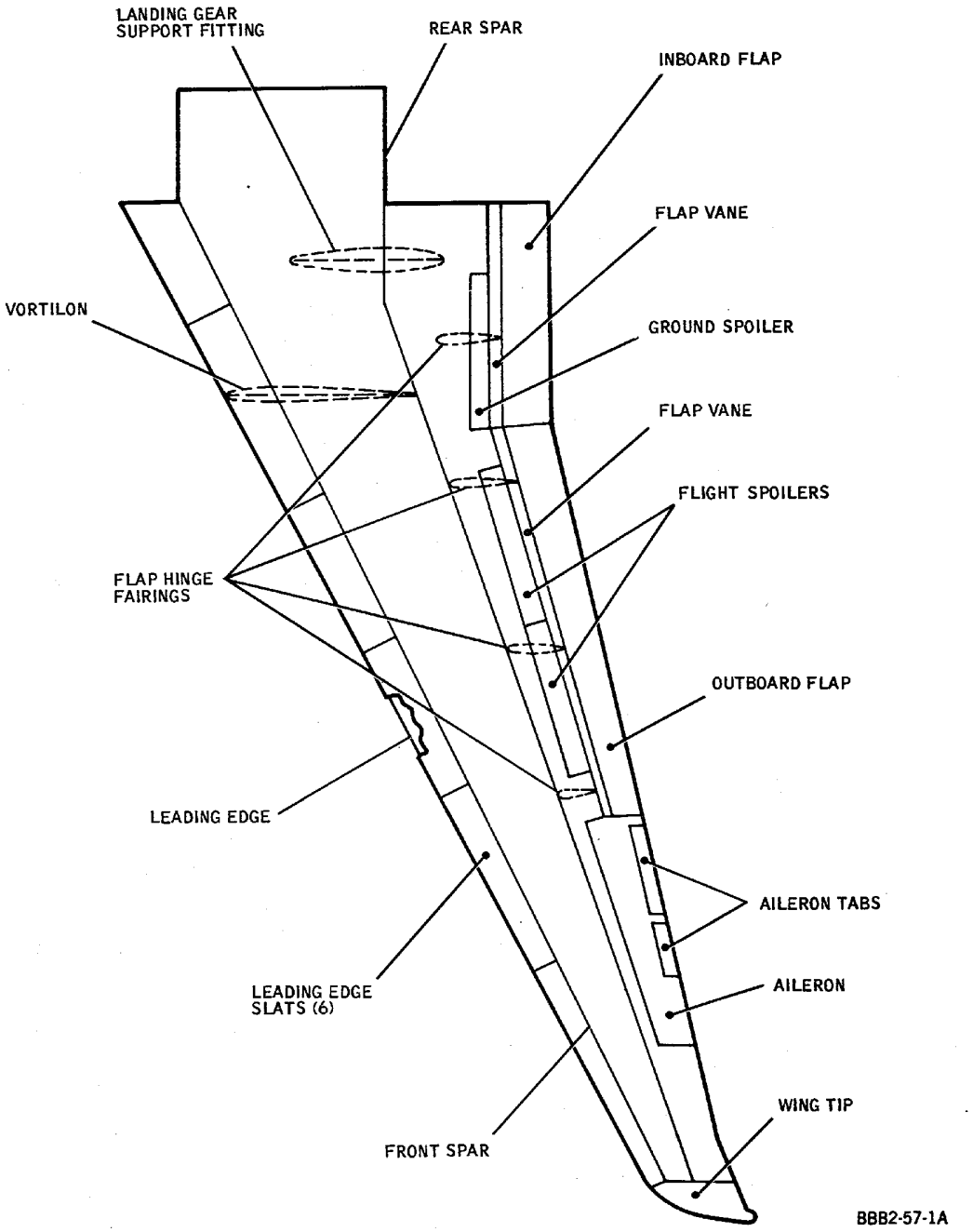
A. The auxiliary structure includes the wingtips, leading edge, and area aft of the rear spar. The leading edge is attached with permanent-type fasteners. The wingtips incorporates position lights, strobe lights, logo light and a landing light. Wingtips are removable for inspection and maintenance.

4. Skin/Plates

A. The plating between the wing spars is tapered, butt-spliced, and flush-riveted on all external surfaces. Access doors to the integral fuel tanks are stressed to carry structural loads.

5. Vent and Drains

A. The wing vent system prevents the accumulation of fuel vapors in the leading edge, wingtips, trailing edge, and main landing gear area. Drains are provided to prevent entrapment of liquids within the wing structure.



Wing -- General
Figure 1/57-00-00-990-801

WINGS - STRUCTURAL INSPECTIONS - INSPECTION/CHECK

1. General

A. This procedure contains MSG-3 task card data.

TASK 57-05-03-211-801

2. Wing, Outer, Rear Spar Web, STA XCW 121.6 - Structure

A. Inspection

SUBTASK 57-05-03-010-012

(1) Gain access as required.

SUBTASK 57-05-03-160-021

(2) Clean inspection area as required.

NOTE: It is expected that the area to be inspected is clean enough to minimize the possibility that accumulated dirt, lint, fibers or grease might hide unsatisfactory conditions that would otherwise be obvious. Any cleaning that is considered necessary should be performed in accordance with accepted procedures in order to minimize the possibility of the cleaning process itself introducing anomalies.

SUBTASK 57-05-03-211-021

(3) Do the detailed inspection.

NOTE: A detailed inspection is an intensive examination of a specific item, installation or assembly, to detect damage, failure or irregularity. Available lighting is normally supplemented with a direct source of good lighting at an intensity deemed appropriate. Inspection aids such as mirrors, magnifying lenses or other means may be necessary. Surface cleaning and elaborate access procedures may also be required.

SUBTASK 57-05-03-916-021

(4) Apply surface treatments and/or corrosion inhibiting compound as required.

NOTE: Protective materials (e.g. corrosion inhibiting compounds, paints, etc.) shall be re-applied if removed to perform the inspection/maintenance task.

SUBTASK 57-05-03-410-012

(5) Install removed panels.

(6) Record corrosion findings.

(a) Corrosion finding: Yes _____ No _____

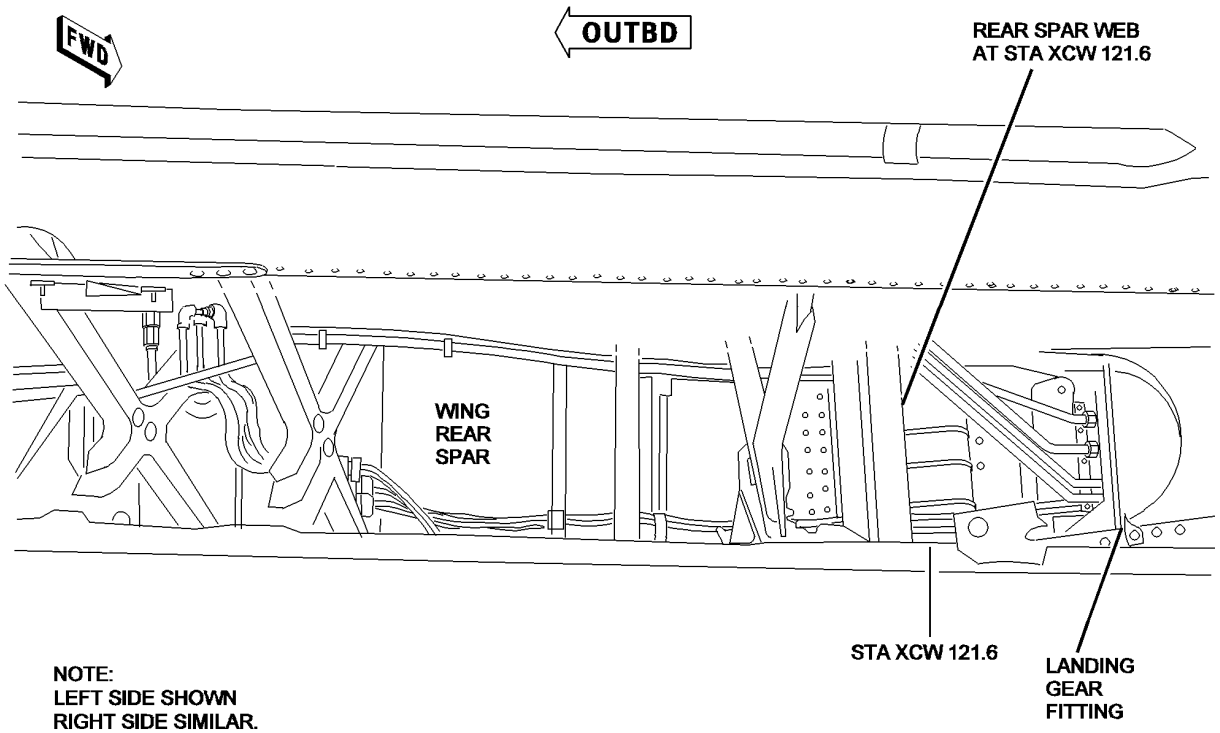
(b) If yes in Step (6(a), record specific area of corrosion on a non-routine form and list the non-routine(s) identification number(s) here _____.

(7) Record structural findings.

(a) Structural finding: Yes _____ No _____

(b) If yes in Step (7(a), record specific area of structural cracking on a non-routine form and list the non-routine(s) identification number(s) here _____.

END OF TASK



REAR SPAR WEB
STA XCW 121.6
VIEW LOOKING FWD

BBB2-57-43
S0000277616V1

Wing, Rear Spar Web STA XCW 121.6
Figure 601/57-05-03-990-809

TASK 57-05-03-211-802

3. Wing, Outer, Lower Tee Cap at Bulkhead, STA XCW 121.6 - Structure

A. Inspection

SUBTASK 57-05-03-010-001

(1) Gain access as required.

SUBTASK 57-05-03-160-001

(2) Clean inspection area as required.

NOTE: It is expected that the area to be inspected is clean enough to minimize the possibility that accumulated dirt, lint, fibers or grease might hide unsatisfactory conditions that would otherwise be obvious. Any cleaning that is considered necessary should be performed in accordance with accepted procedures in order to minimize the possibility of the cleaning process itself introducing anomalies.

SUBTASK 57-05-03-211-001

(3) Do the detailed inspection.

NOTE: A detailed inspection is an intensive examination of a specific item, installation or assembly, to detect damage, failure or irregularity. Available lighting is normally supplemented with a direct source of good lighting at an intensity deemed appropriate. Inspection aids such as mirrors, magnifying lenses or other means may be necessary. Surface cleaning and elaborate access procedures may also be required.

SUBTASK 57-05-03-916-001

(4) Apply surface treatments and/or corrosion inhibiting compound as required.

NOTE: Protective materials (e.g. corrosion inhibiting compounds, paints, etc.) shall be re-applied if removed to perform the inspection/maintenance task.

SUBTASK 57-05-03-410-001

(5) Install removed panels.

(6) Record corrosion findings.

(a) Corrosion finding: Yes _____ No _____

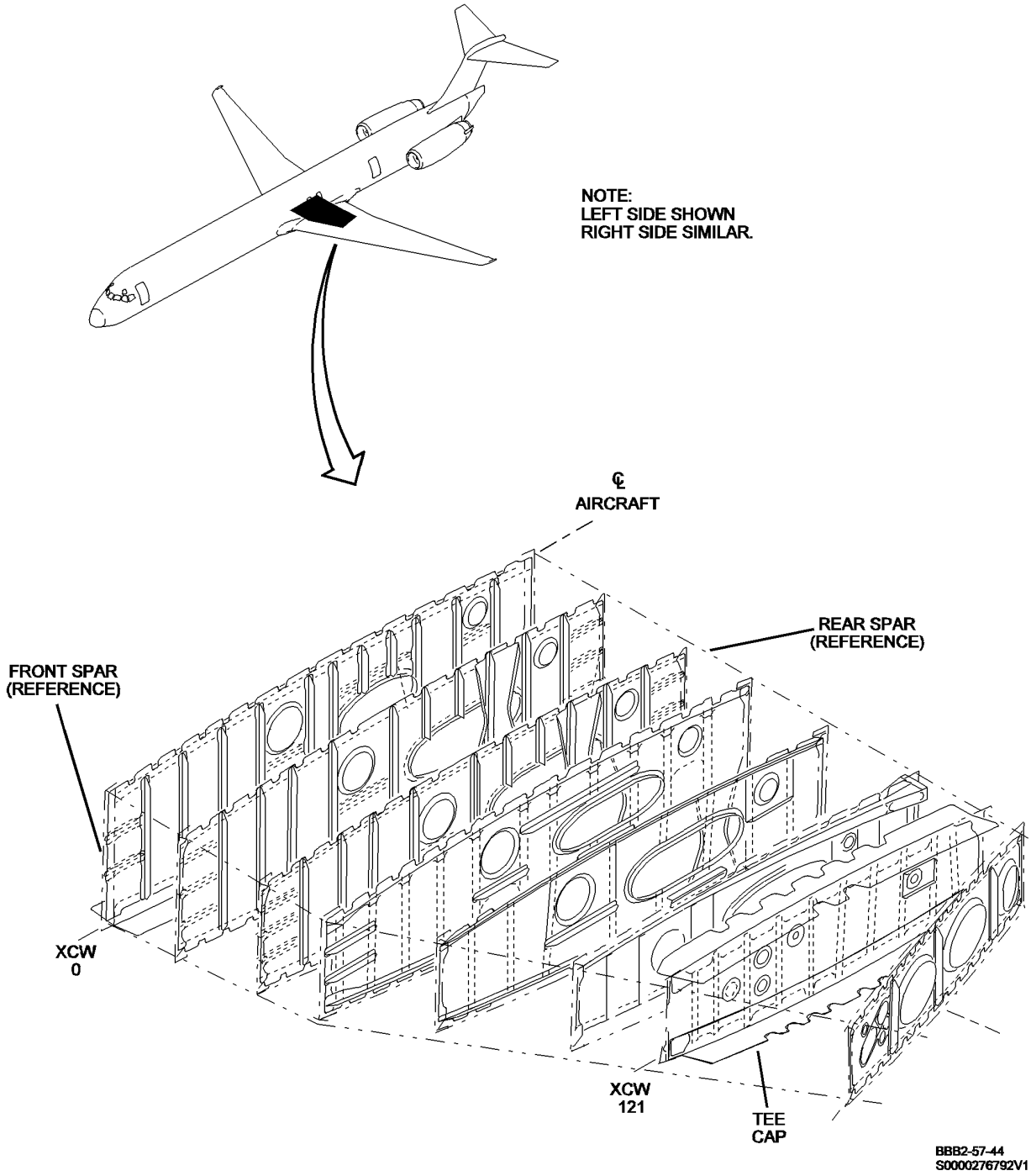
(b) If yes in Step (6(a), record specific area of corrosion on a non-routine form and list the non-routine(s) identification number(s) here _____.

(7) Record structural findings.

(a) Structural finding: Yes _____ No _____

(b) If yes in Step (7(a), record specific area of structural cracking on a non-routine form and list the non-routine(s) identification number(s) here _____.

——— END OF TASK ———



Wing Lower Tee Cap at Bulkhead XCW 121
Figure 602/57-05-03-990-801

TASK 57-05-03-211-803

4. Wing, Outer, Bulkhead XCW 121.5 at Front Spar Jack Point - External Structure

A. Inspection

SUBTASK 57-05-03-010-013

(1) Gain access as required.

SUBTASK 57-05-03-160-022

(2) Clean inspection area as required.

NOTE: It is expected that the area to be inspected is clean enough to minimize the possibility that accumulated dirt, lint, fibers or grease might hide unsatisfactory conditions that would otherwise be obvious. Any cleaning that is considered necessary should be performed in accordance with accepted procedures in order to minimize the possibility of the cleaning process itself introducing anomalies.

SUBTASK 57-05-03-211-022

(3) Do the detailed inspection.

NOTE: A detailed inspection is an intensive examination of a specific item, installation or assembly, to detect damage, failure or irregularity. Available lighting is normally supplemented with a direct source of good lighting at an intensity deemed appropriate. Inspection aids such as mirrors, magnifying lenses or other means may be necessary. Surface cleaning and elaborate access procedures may also be required.

SUBTASK 57-05-03-916-022

(4) Apply surface treatments and/or corrosion inhibiting compound as required.

NOTE: Protective materials (e.g. corrosion inhibiting compounds, paints, etc.) shall be re-applied if removed to perform the inspection/maintenance task.

SUBTASK 57-05-03-410-013

(5) Install removed panels.

(6) Record corrosion findings.

(a) Corrosion finding: Yes _____ No _____

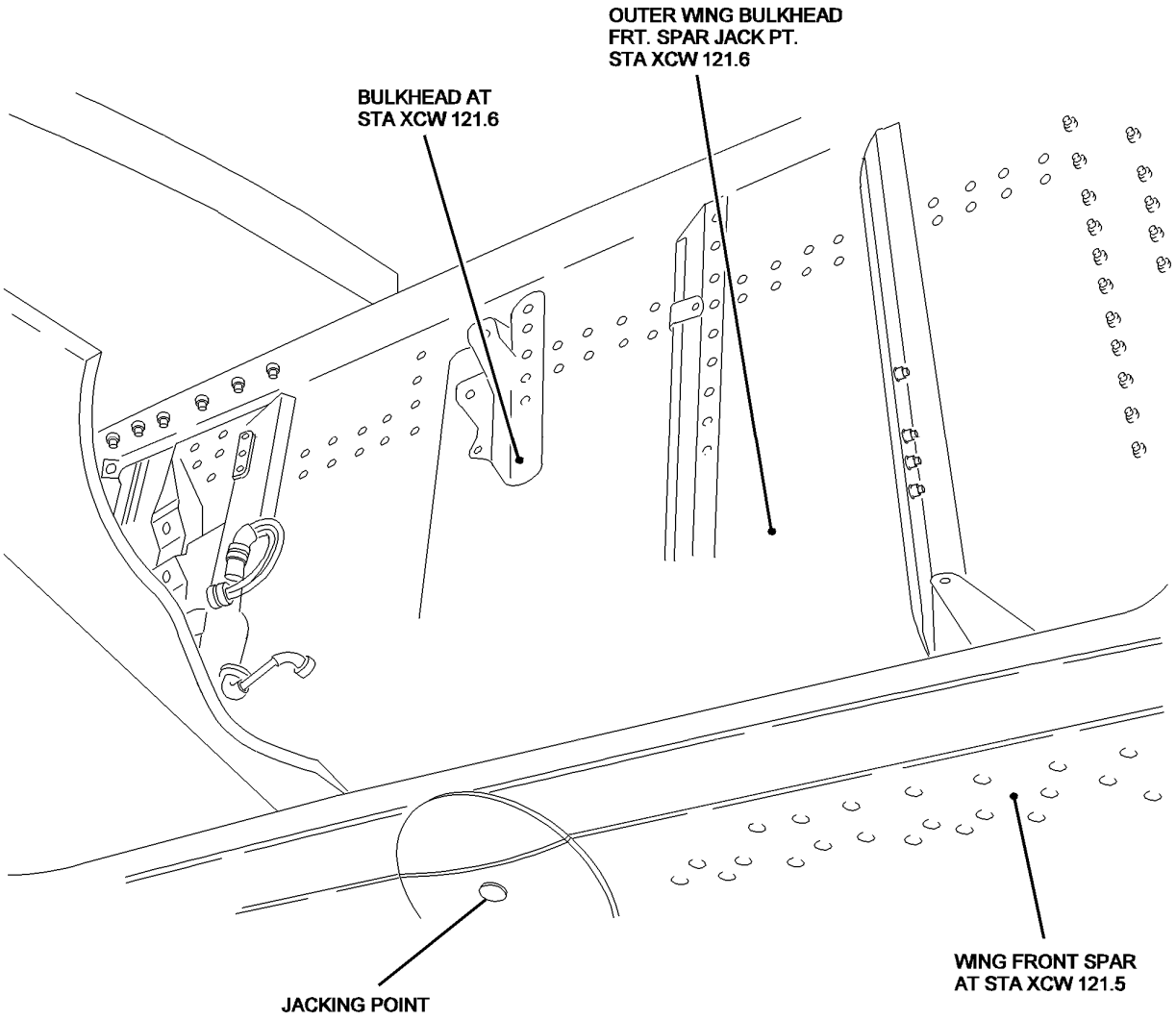
(b) If yes in Step (6(a), record specific area of corrosion on a non-routine form and list the non-routine(s) identification number(s) here _____.

(7) Record structural findings.

(a) Structural finding: Yes _____ No _____

(b) If yes in Step (7(a), record specific area of structural cracking on a non-routine form and list the non-routine(s) identification number(s) here _____.

——— END OF TASK ———



VIEW LOOKING UP AND AFT

NOTE:
LEFT SIDE SHOWN
RIGHT SIDE SIMILAR.

BBB2-57-42
S000277617V1

Wing, Outer Bulkhead XCW 121.5 at Front Spar Jack Point
Figure 603/57-05-03-990-810

TASK 57-05-03-211-804

5. Wing, Outer, Slat Track Cutouts, STA XIS 12.3 - STA XOS 610.3 - Internal Structure

A. Inspection

SUBTASK 57-05-03-010-014

(1) Gain access as required.

SUBTASK 57-05-03-160-023

(2) Clean inspection area as required.

NOTE: It is expected that the area to be inspected is clean enough to minimize the possibility that accumulated dirt, lint, fibers or grease might hide unsatisfactory conditions that would otherwise be obvious. Any cleaning that is considered necessary should be performed in accordance with accepted procedures in order to minimize the possibility of the cleaning process itself introducing anomalies.

SUBTASK 57-05-03-211-023

(3) Do the detailed inspection.

NOTE: A detailed inspection is an intensive examination of a specific item, installation or assembly, to detect damage, failure or irregularity. Available lighting is normally supplemented with a direct source of good lighting at an intensity deemed appropriate. Inspection aids such as mirrors, magnifying lenses or other means may be necessary. Surface cleaning and elaborate access procedures may also be required.

SUBTASK 57-05-03-916-023

(4) Apply surface treatments and/or corrosion inhibiting compound as required.

NOTE: Protective materials (e.g. corrosion inhibiting compounds, paints, etc.) shall be re-applied if removed to perform the inspection/maintenance task.

SUBTASK 57-05-03-410-014

(5) Install removed panels.

(6) Record corrosion findings.

(a) Corrosion finding: Yes _____ No _____

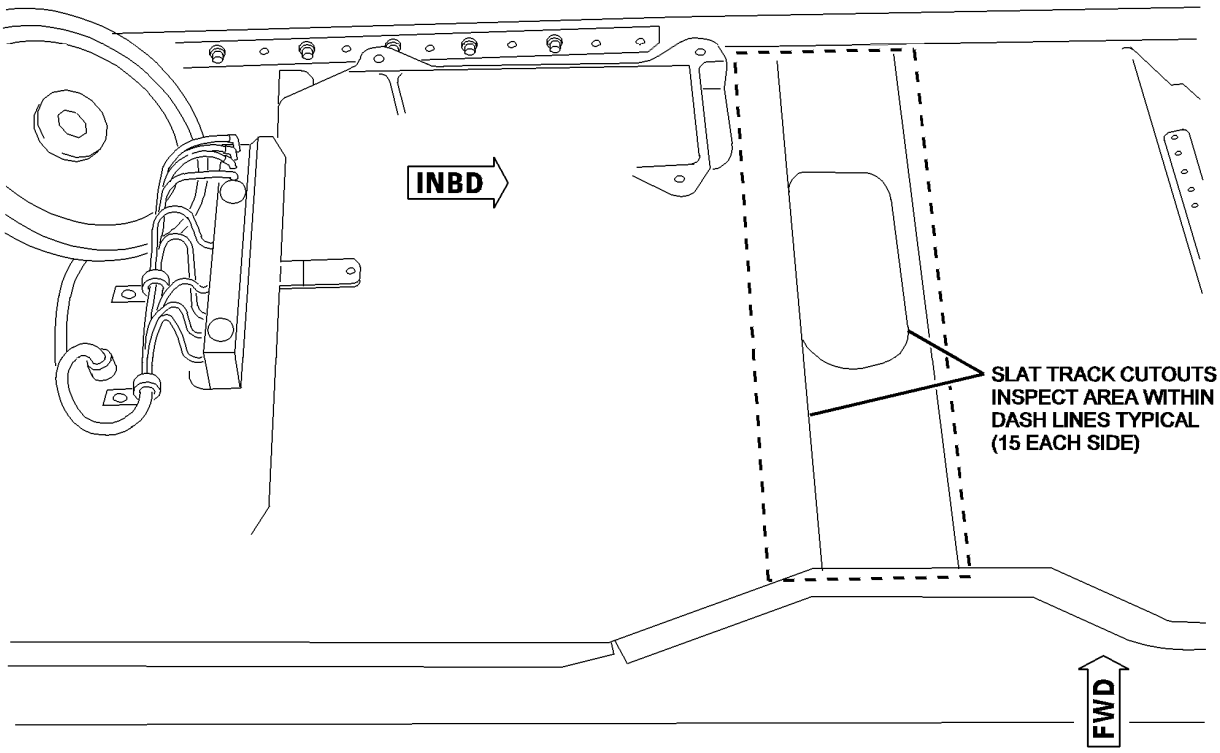
(b) If yes in Step (6(a), record specific area of corrosion on a non-routine form and list the non-routine(s) identification number(s) here _____.

(7) Record structural findings.

(a) Structural finding: Yes _____ No _____

(b) If yes in Step (7(a), record specific area of structural cracking on a non-routine form and list the non-routine(s) identification number(s) here _____.

——— END OF TASK ———



WING FRONT SPAR
VIEW LOOKING UP AND AFT

NOTE:
LEFT SIDE SHOWN
RIGHT SIDE SIMILAR.

BBB2-57-41
S000277621V1

Wing, Slat Track Cutouts
Figure 604/57-05-03-990-811

TASK 57-05-03-211-806

6. Wing, Outer, Rear Spar (Outboard), Forward Face, STA XCW 121.6 - STA XW 536.8 - Structure

A. Inspection

SUBTASK 57-05-03-010-015

(1) Gain access as required.

SUBTASK 57-05-03-160-024

(2) Clean inspection area as required.

NOTE: It is expected that the area to be inspected is clean enough to minimize the possibility that accumulated dirt, lint, fibers or grease might hide unsatisfactory conditions that would otherwise be obvious. Any cleaning that is considered necessary should be performed in accordance with accepted procedures in order to minimize the possibility of the cleaning process itself introducing anomalies.

SUBTASK 57-05-03-211-024

(3) Do the detailed inspection.

NOTE: A detailed inspection is an intensive examination of a specific item, installation or assembly, to detect damage, failure or irregularity. Available lighting is normally supplemented with a direct source of good lighting at an intensity deemed appropriate. Inspection aids such as mirrors, magnifying lenses or other means may be necessary. Surface cleaning and elaborate access procedures may also be required.

SUBTASK 57-05-03-916-024

(4) Apply surface treatments and/or corrosion inhibiting compound as required.

NOTE: Protective materials (e.g. corrosion inhibiting compounds, paints, etc.) shall be re-applied if removed to perform the inspection/maintenance task.

SUBTASK 57-05-03-410-015

(5) Install removed panels.

(6) Record corrosion findings.

(a) Corrosion finding: Yes _____ No _____

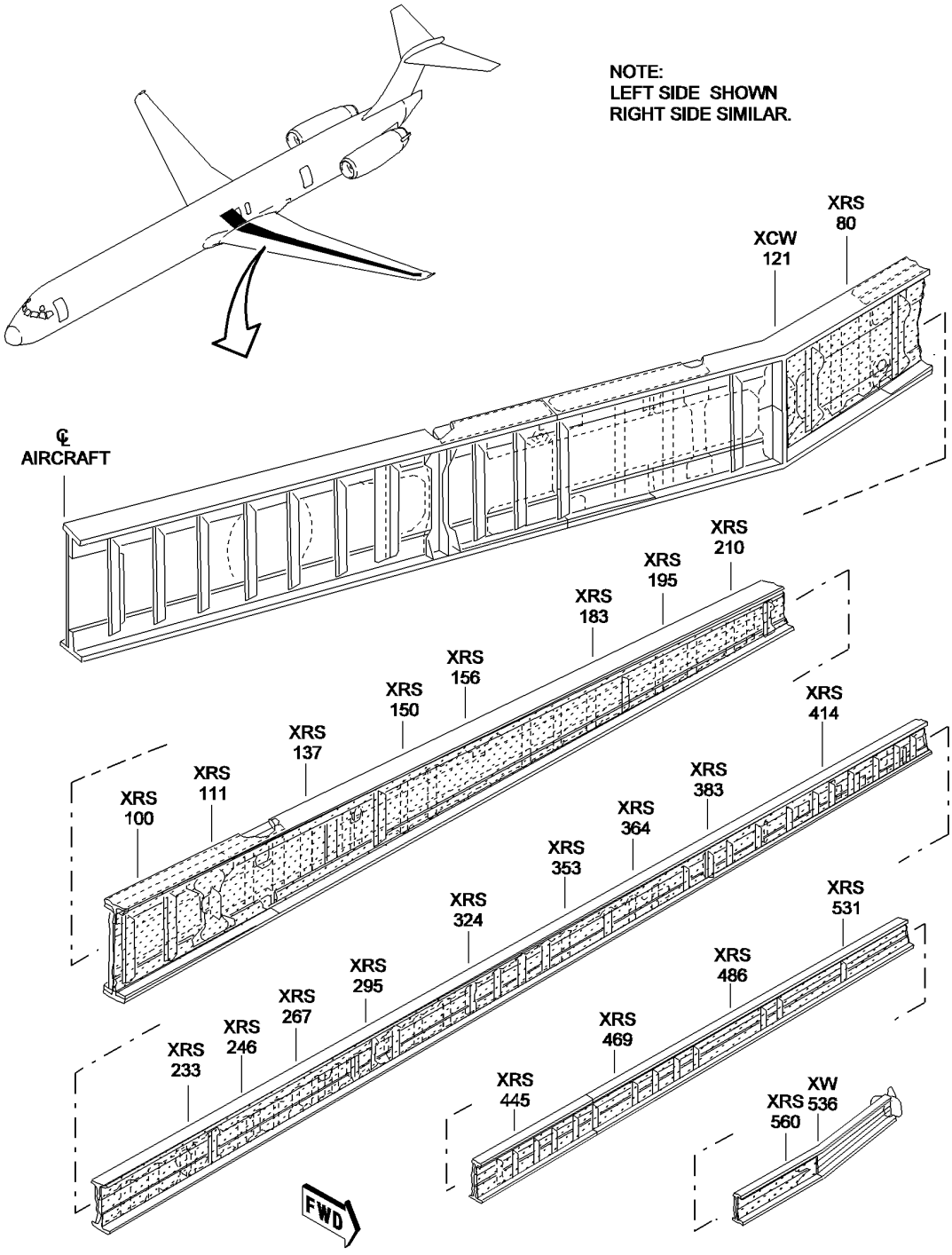
(b) If yes in Step (6(a), record specific area of corrosion on a non-routine form and list the non-routine(s) identification number(s) here _____.

(7) Record structural findings.

(a) Structural finding: Yes _____ No _____

(b) If yes in Step (7(a), record specific area of structural cracking on a non-routine form and list the non-routine(s) identification number(s) here _____.

——— END OF TASK ———



Wing, Outer Rear Spar Forward Face STA XCW 121.6 - STA XW 536.8
Figure 605/57-05-03-990-812

TASK 57-05-03-211-838

7. Outer Wing, Lower Skin Panel, STA XCW 58.6 - STA XW 560.8 External Surfaces

A. Inspection

SUBTASK 57-05-03-160-031

(1) Clean inspection area as required.

NOTE: It is expected that the area to be inspected is clean enough to minimize the possibility that accumulated dirt, lint, fibers or grease might hide unsatisfactory conditions that would otherwise be obvious. Any cleaning that is considered necessary should be performed in accordance with accepted procedures in order to minimize the possibility of the cleaning process itself introducing anomalies.

SUBTASK 57-05-03-211-032

(2) Do the detailed inspection.

NOTE: A detailed inspection is an intensive examination of a specific item, installation or assembly, to detect damage, failure or irregularity. Available lighting is normally supplemented with a direct source of good lighting at an intensity deemed appropriate. Inspection aids such as mirrors, magnifying lenses or other means may be necessary. Surface cleaning and elaborate access procedures may also be required.

SUBTASK 57-05-03-916-031

(3) Apply surface treatments and/or corrosion inhibiting compound as required.

NOTE: Protective materials (e.g. corrosion inhibiting compounds, paints, etc.) shall be re-applied if removed to perform the inspection/maintenance task.

SUBTASK 57-05-03-970-012

(4) Record corrosion findings.

(a) Corrosion finding: Yes _____ No _____

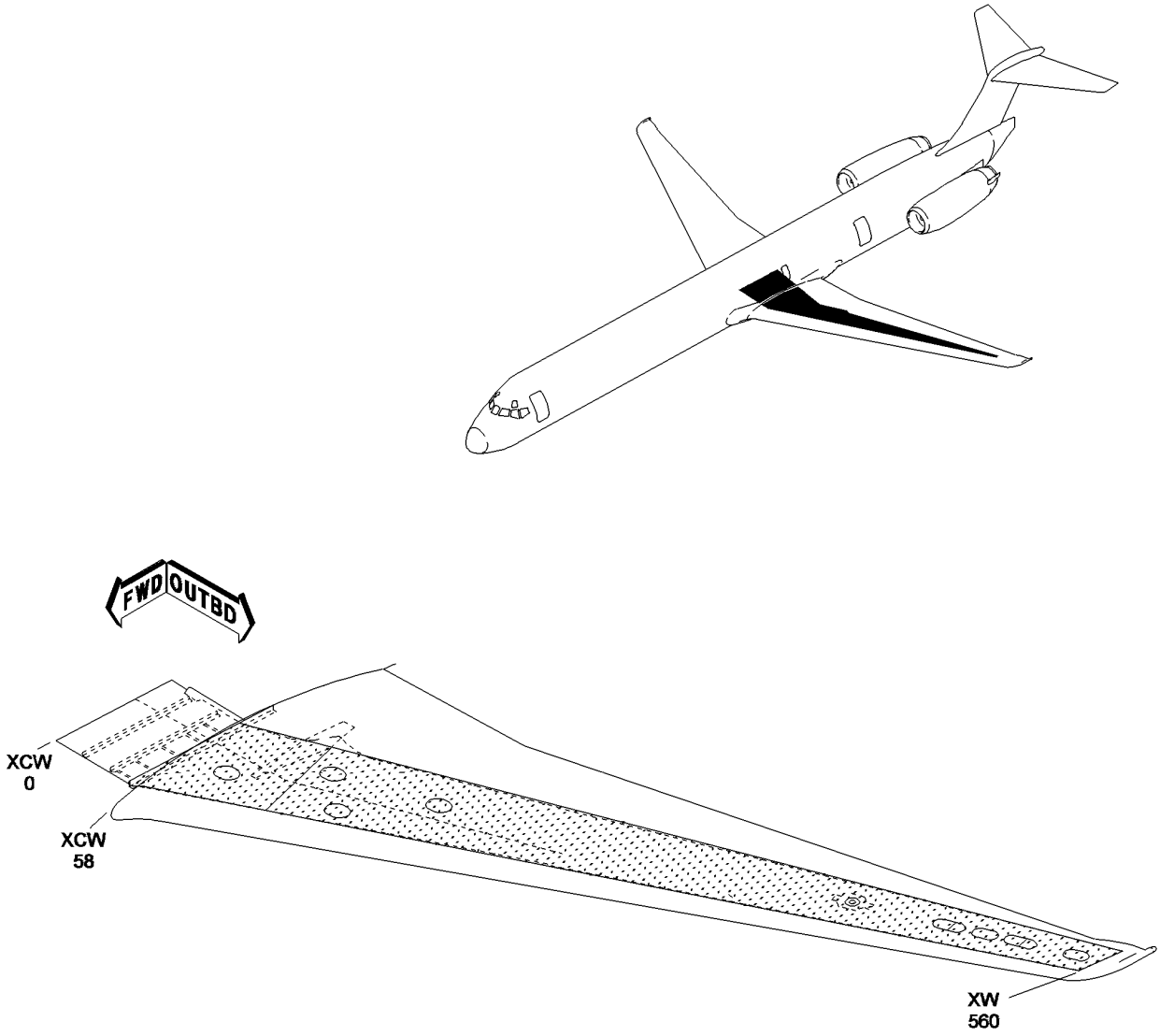
(b) If yes in Step (4(a), record specific area of corrosion on a non-routine form and list the non-routine(s) identification number(s) here _____.

(5) Record structural findings.

(a) Structural finding: Yes _____ No _____

(b) If yes in Step (5(a), record specific area of structural cracking on a non-routine form and list the non-routine(s) identification number(s) here _____.

——— END OF TASK ———



NOTE:
LEFT WING SHOWN
RIGHT WING TYPICAL.

BBB2-57-30
S0000277860V1

Outer Wing Lower Skin Panels
Figure 606/57-05-03-990-837

EFFECTIVITY
WJE ALL

TASK 57-05-03-211-807

8. Wing, Center, Attach Angle (Top Wing to Center Fuselage, Fillet Removed), STA 811 - 927 (MD-87, STA 697 - 813) - Structure

A. Inspection

SUBTASK 57-05-03-010-016

(1) Gain access as required.

SUBTASK 57-05-03-160-025

(2) Clean inspection area as required.

NOTE: It is expected that the area to be inspected is clean enough to minimize the possibility that accumulated dirt, lint, fibers or grease might hide unsatisfactory conditions that would otherwise be obvious. Any cleaning that is considered necessary should be performed in accordance with accepted procedures in order to minimize the possibility of the cleaning process itself introducing anomalies.

SUBTASK 57-05-03-211-025

(3) Do the detailed inspection.

NOTE: A detailed inspection is an intensive examination of a specific item, installation or assembly, to detect damage, failure or irregularity. Available lighting is normally supplemented with a direct source of good lighting at an intensity deemed appropriate. Inspection aids such as mirrors, magnifying lenses or other means may be necessary. Surface cleaning and elaborate access procedures may also be required.

SUBTASK 57-05-03-916-025

(4) Apply surface treatments and/or corrosion inhibiting compound as required.

NOTE: Protective materials (e.g. corrosion inhibiting compounds, paints, etc.) shall be re-applied if removed to perform the inspection/maintenance task.

SUBTASK 57-05-03-410-016

(5) Install removed panels.

(6) Record corrosion findings.

(a) Corrosion finding: Yes _____ No _____

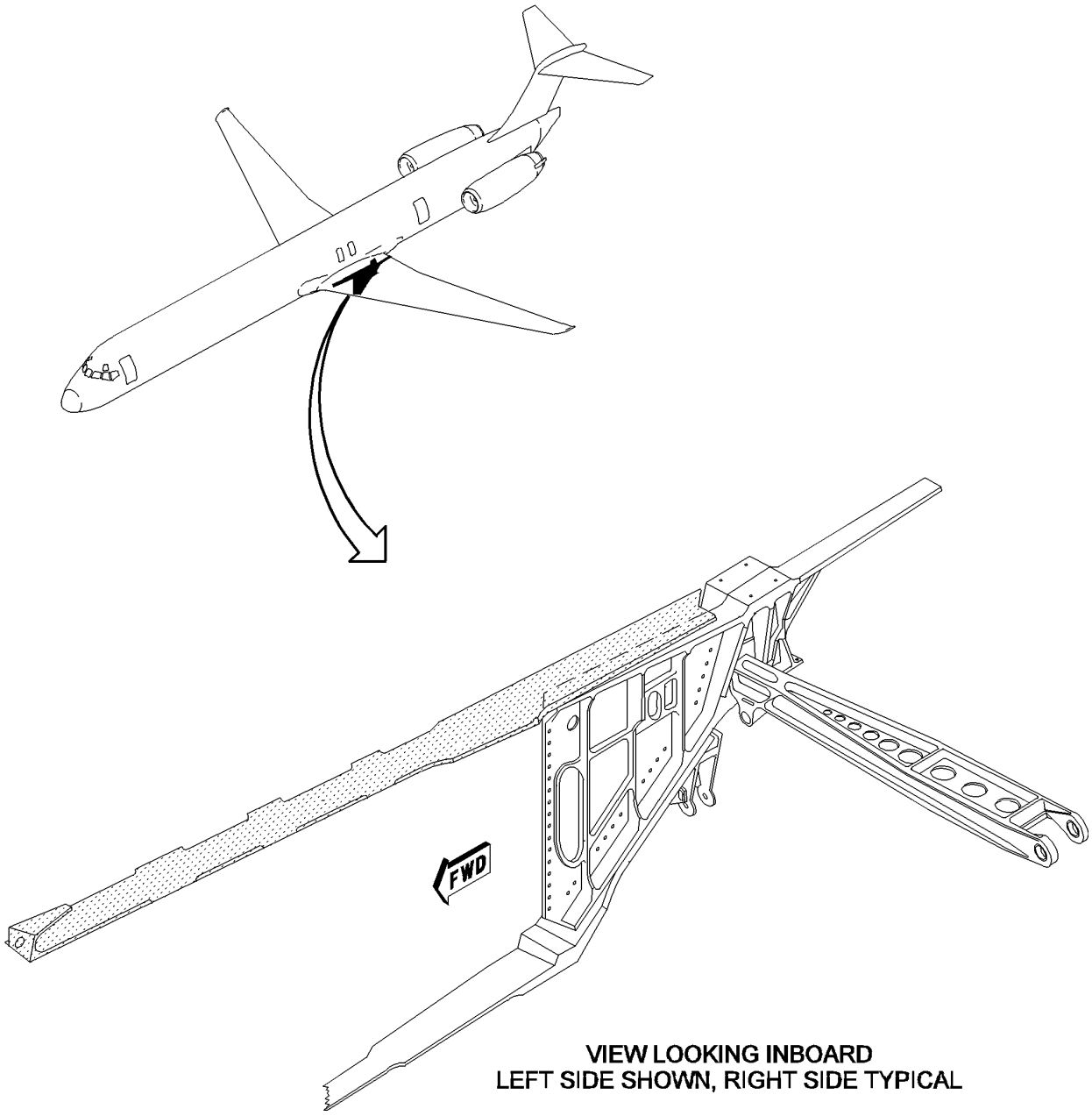
(b) If yes in Step (6(a), record specific area of corrosion on a non-routine form and list the non-routine(s) identification number(s) here _____.

(7) Record structural findings.

(a) Structural finding: Yes _____ No _____

(b) If yes in Step (7(a), record specific area of structural cracking on a non-routine form and list the non-routine(s) identification number(s) here _____.

——— END OF TASK ———



BBB2-57-40
S0000277653V1

Center Wing Attach Angle
Figure 607/57-05-03-990-813

TASK 57-05-03-211-809

9. Wing, Center, Rear Spar Web, Forward Face, STA XCW 58.6 Left to XCW 58.6 Right - Structure

A. Inspection

SUBTASK 57-05-03-010-017

(1) Gain access as required.

SUBTASK 57-05-03-160-026

(2) Clean inspection area as required.

NOTE: It is expected that the area to be inspected is clean enough to minimize the possibility that accumulated dirt, lint, fibers or grease might hide unsatisfactory conditions that would otherwise be obvious. Any cleaning that is considered necessary should be performed in accordance with accepted procedures in order to minimize the possibility of the cleaning process itself introducing anomalies.

SUBTASK 57-05-03-211-026

(3) Do the detailed inspection.

NOTE: A detailed inspection is an intensive examination of a specific item, installation or assembly, to detect damage, failure or irregularity. Available lighting is normally supplemented with a direct source of good lighting at an intensity deemed appropriate. Inspection aids such as mirrors, magnifying lenses or other means may be necessary. Surface cleaning and elaborate access procedures may also be required.

SUBTASK 57-05-03-916-026

(4) Apply surface treatments and/or corrosion inhibiting compound as required.

NOTE: Protective materials (e.g. corrosion inhibiting compounds, paints, etc.) shall be re-applied if removed to perform the inspection/maintenance task.

SUBTASK 57-05-03-410-017

(5) Install removed panels.

(6) Record corrosion findings.

(a) Corrosion finding: Yes _____ No _____

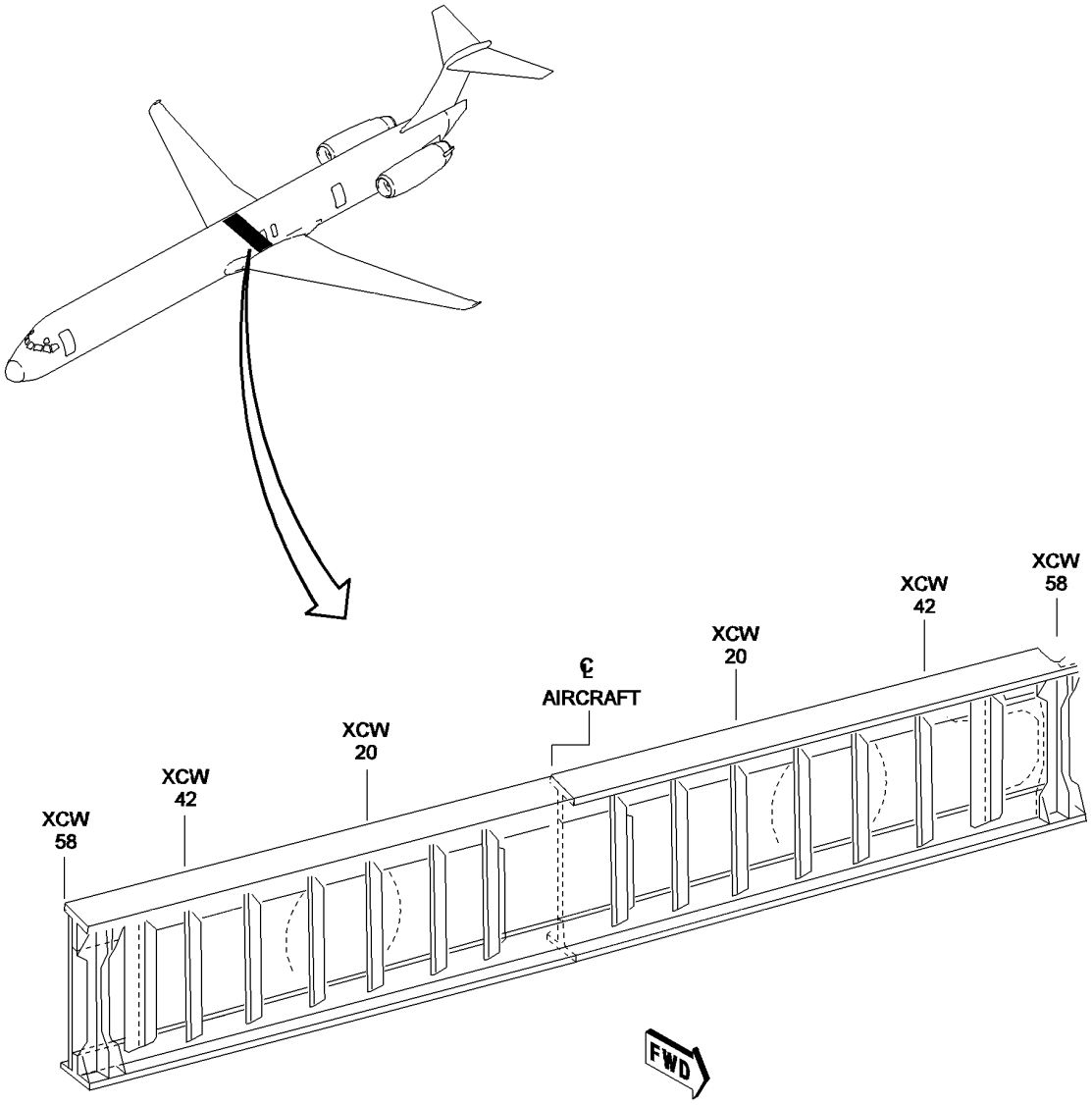
(b) If yes in Step (6(a), record specific area of corrosion on a non-routine form and list the non-routine(s) identification number(s) here _____.

(7) Record structural findings.

(a) Structural finding: Yes _____ No _____

(b) If yes in Step (7(a), record specific area of structural cracking on a non-routine form and list the non-routine(s) identification number(s) here _____.

——— END OF TASK ———



BBB2-57-37
S000277656V1

Center Wing Rear Spar STA XCW 58 Left - STA XCW 58 Right
Figure 608/57-05-03-990-814

TASK 57-05-03-211-834

10. Wing, Center, Rear Spar Web, Forward Face STA XCW 58.6 - XCW 121.6 (Left & Right) - Internal Structure

A. Inspection

SUBTASK 57-05-03-010-004

(1) Gain access as required.

SUBTASK 57-05-03-160-009

(2) Clean inspection area as required.

NOTE: It is expected that the area to be inspected is clean enough to minimize the possibility that accumulated dirt, lint, fibers or grease might hide unsatisfactory conditions that would otherwise be obvious. Any cleaning that is considered necessary should be performed in accordance with accepted procedures in order to minimize the possibility of the cleaning process itself introducing anomalies.

SUBTASK 57-05-03-211-009

(3) Do the detailed inspection.

NOTE: A detailed inspection is an intensive examination of a specific item, installation or assembly, to detect damage, failure or irregularity. Available lighting is normally supplemented with a direct source of good lighting at an intensity deemed appropriate. Inspection aids such as mirrors, magnifying lenses or other means may be necessary. Surface cleaning and elaborate access procedures may also be required.

SUBTASK 57-05-03-916-009

(4) Apply surface treatments and/or corrosion inhibiting compound as required.

NOTE: Protective materials (e.g. corrosion inhibiting compounds, paints, etc.) shall be re-applied if removed to perform the inspection/maintenance task.

SUBTASK 57-05-03-410-004

(5) Install removed panels.

(6) Record corrosion findings.

(a) Corrosion finding: Yes _____ No _____

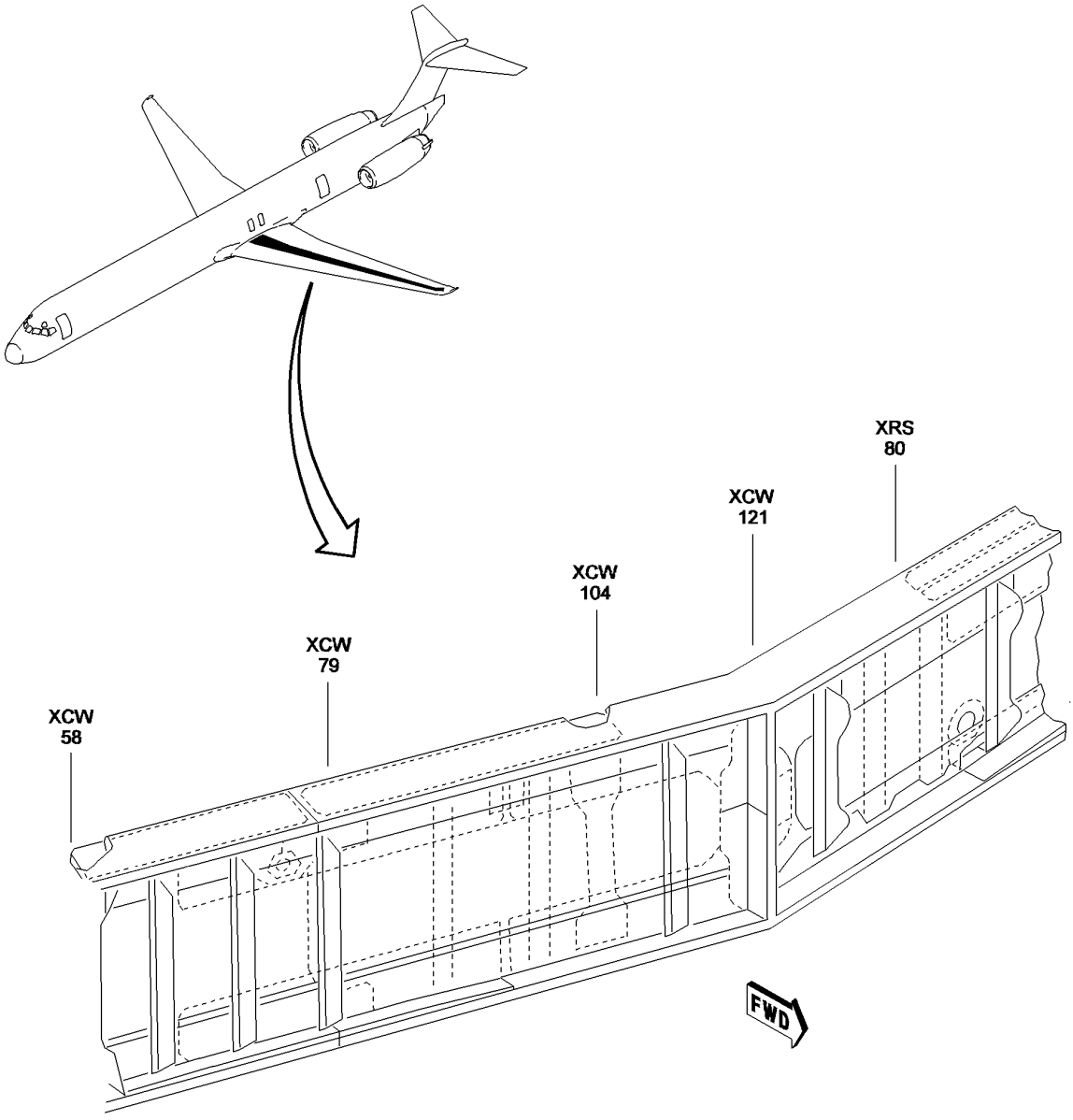
(b) If yes in Step (6(a), record specific area of corrosion on a non-routine form and list the non-routine(s) identification number(s) here _____.

(7) Record structural findings.

(a) Structural finding: Yes _____ No _____

(b) If yes in Step (7(a), record specific area of structural cracking on a non-routine form and list the non-routine(s) identification number(s) here _____.

——— END OF TASK ———



NOTE:
LEFT SIDE SHOWN
RIGHT SIDE TYPICAL.

BBB2-57-38
S0000277660V1

Center Wing, Rear Spar Forward Face STA XCW 58.6 - XCW 121.6
Figure 609/57-05-03-990-815

TASK 57-05-03-211-811

11. Wing, Upper Rear Spar Cap (Dog Leg), STA XCW 79.0 - STA XRS 111.0 - External Structure

A. Inspection

SUBTASK 57-05-03-160-029

(1) Clean inspection area as required.

NOTE: It is expected that the area to be inspected is clean enough to minimize the possibility that accumulated dirt, lint, fibers or grease might hide unsatisfactory conditions that would otherwise be obvious. Any cleaning that is considered necessary should be performed in accordance with accepted procedures in order to minimize the possibility of the cleaning process itself introducing anomalies.

SUBTASK 57-05-03-211-029

(2) Do the detailed inspection.

NOTE: A detailed inspection is an intensive examination of a specific item, installation or assembly, to detect damage, failure or irregularity. Available lighting is normally supplemented with a direct source of good lighting at an intensity deemed appropriate. Inspection aids such as mirrors, magnifying lenses or other means may be necessary. Surface cleaning and elaborate access procedures may also be required.

SUBTASK 57-05-03-916-029

(3) Apply surface treatments and/or corrosion inhibiting compound as required.

NOTE: Protective materials (e.g. corrosion inhibiting compounds, paints, etc.) shall be re-applied if removed to perform the inspection/maintenance task.

SUBTASK 57-05-03-970-010

(4) Record corrosion findings.

(a) Corrosion finding: Yes _____ No _____

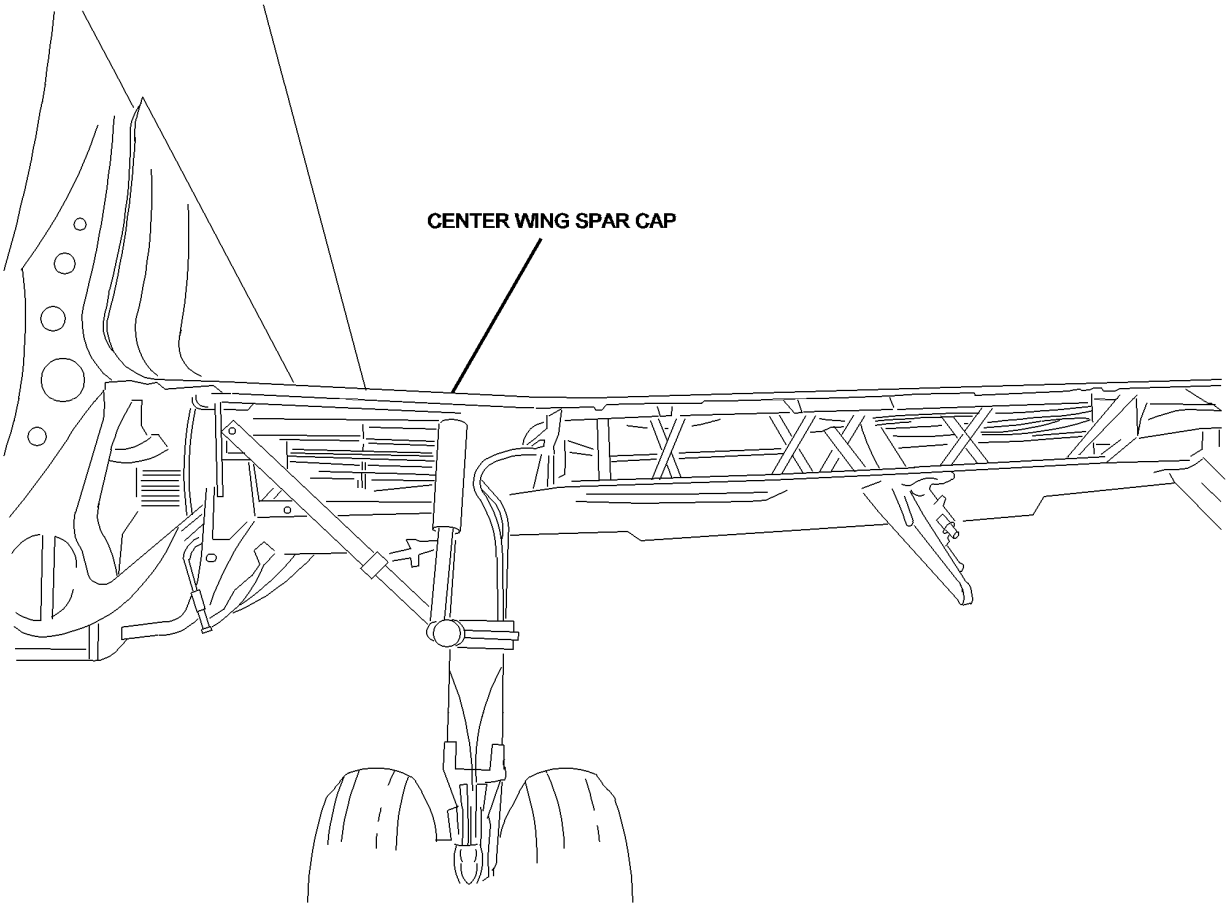
(b) If yes in Step (4(a), record specific area of corrosion on a non-routine form and list the non-routine(s) identification number(s) here _____.

(5) Record structural findings.

(a) Structural finding: Yes _____ No _____

(b) If yes in Step (5(a), record specific area of structural cracking on a non-routine form and list the non-routine(s) identification number(s) here _____.

——— END OF TASK ———



BBB2-57-35
S0000278590V1

Wing Upper Rear Spar Cap
Figure 610/57-05-03-990-830

TASK 57-05-03-211-812

12. Wing, Center, Fitting, Rear Spar, STA XCW 58.6 at Trap Panel/Rear Spar Intersection - Structure

A. Inspection

SUBTASK 57-05-03-160-018

(1) Clean inspection area as required.

NOTE: It is expected that the area to be inspected is clean enough to minimize the possibility that accumulated dirt, lint, fibers or grease might hide unsatisfactory conditions that would otherwise be obvious. Any cleaning that is considered necessary should be performed in accordance with accepted procedures in order to minimize the possibility of the cleaning process itself introducing anomalies.

SUBTASK 57-05-03-211-018

(2) Do the detailed inspection.

NOTE: A detailed inspection is an intensive examination of a specific item, installation or assembly, to detect damage, failure or irregularity. Available lighting is normally supplemented with a direct source of good lighting at an intensity deemed appropriate. Inspection aids such as mirrors, magnifying lenses or other means may be necessary. Surface cleaning and elaborate access procedures may also be required.

SUBTASK 57-05-03-916-018

(3) Apply surface treatments and/or corrosion inhibiting compound as required.

NOTE: Protective materials (e.g. corrosion inhibiting compounds, paints, etc.) shall be re-applied if removed to perform the inspection/maintenance task.

SUBTASK 57-05-03-970-009

(4) Record corrosion findings.

(a) Corrosion finding: Yes _____ No _____

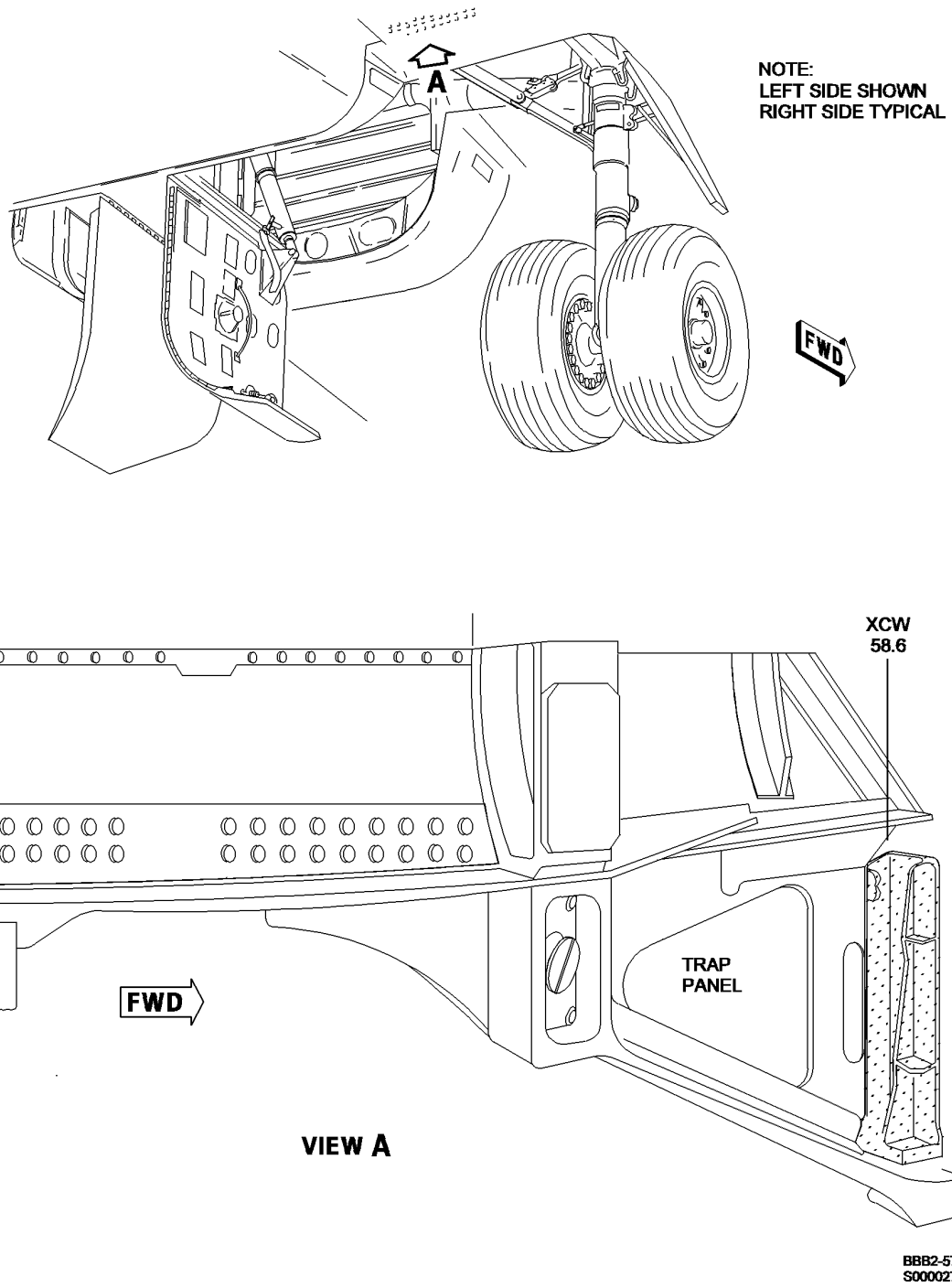
(b) If yes in Step (4(a), record specific area of corrosion on a non-routine form and list the non-routine(s) identification number(s) here _____.

(5) Record structural findings.

(a) Structural finding: Yes _____ No _____

(b) If yes in Step (5(a), record specific area of structural cracking on a non-routine form and list the non-routine(s) identification number(s) here _____.

——— END OF TASK ———



Rear Spar to Trapezoidal Panel Fitting
Figure 611/57-05-03-990-820

TASK 57-05-03-211-813

13. Wing, Center, Splice, Front Spar Cap, STA XCW 92.0 - Structure

A. Inspection

SUBTASK 57-05-03-010-005

(1) Gain access as required.

SUBTASK 57-05-03-160-010

(2) Clean inspection area as required.

NOTE: It is expected that the area to be inspected is clean enough to minimize the possibility that accumulated dirt, lint, fibers or grease might hide unsatisfactory conditions that would otherwise be obvious. Any cleaning that is considered necessary should be performed in accordance with accepted procedures in order to minimize the possibility of the cleaning process itself introducing anomalies.

SUBTASK 57-05-03-211-010

(3) Do the detailed inspection.

NOTE: A detailed inspection is an intensive examination of a specific item, installation or assembly, to detect damage, failure or irregularity. Available lighting is normally supplemented with a direct source of good lighting at an intensity deemed appropriate. Inspection aids such as mirrors, magnifying lenses or other means may be necessary. Surface cleaning and elaborate access procedures may also be required.

SUBTASK 57-05-03-916-010

(4) Apply surface treatments and/or corrosion inhibiting compound as required.

NOTE: Protective materials (e.g. corrosion inhibiting compounds, paints, etc.) shall be re-applied if removed to perform the inspection/maintenance task.

SUBTASK 57-05-03-410-005

(5) Install removed panels.

(6) Record corrosion findings.

(a) Corrosion finding: Yes _____ No _____

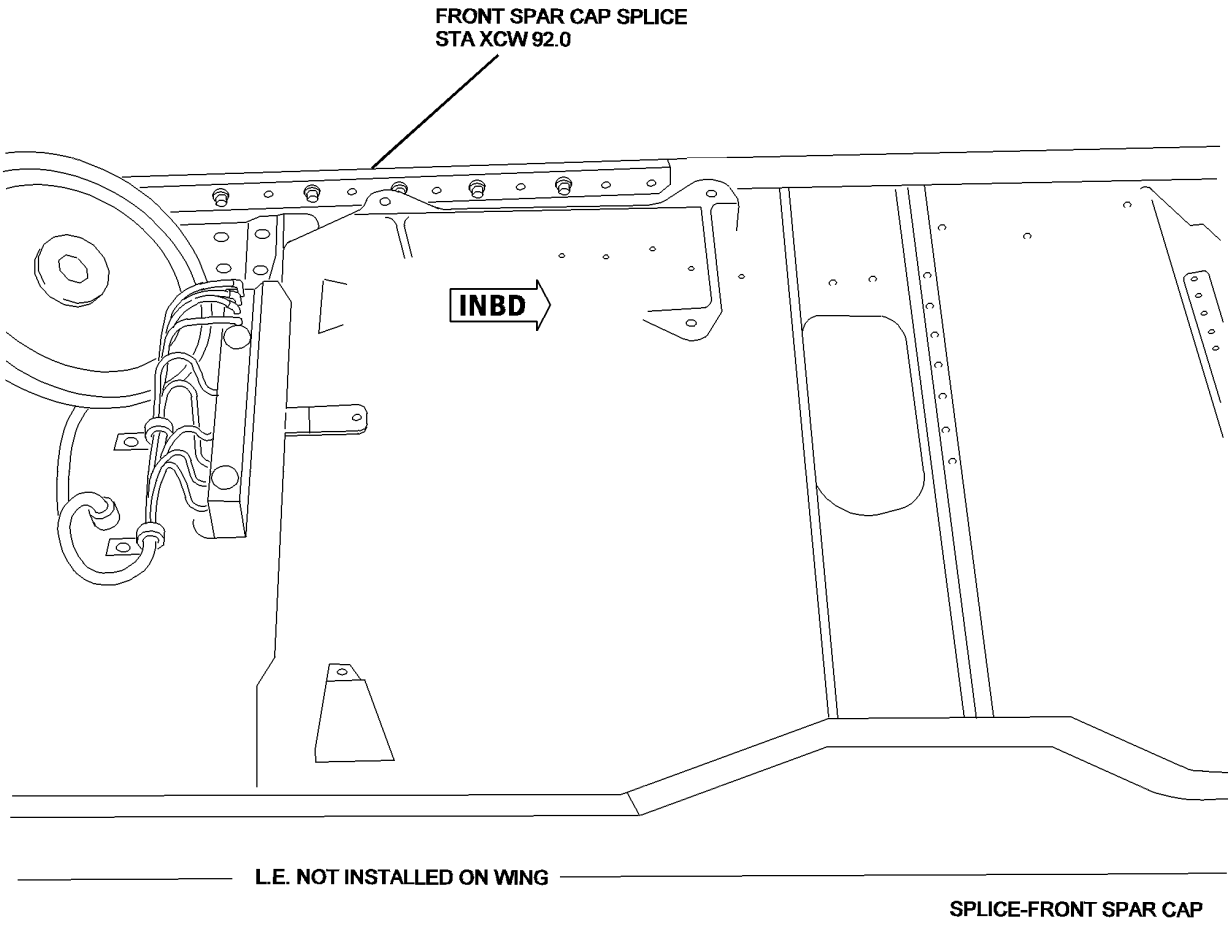
(b) If yes in Step (6(a), record specific area of corrosion on a non-routine form and list the non-routine(s) identification number(s) here _____.

(7) Record structural findings.

(a) Structural finding: Yes _____ No _____

(b) If yes in Step (7(a), record specific area of structural cracking on a non-routine form and list the non-routine(s) identification number(s) here _____.

——— END OF TASK ———



OUTER WING
FRONT SPAR CAP
VIEW LOOKING UP

NOTE:
LEFT SIDE SHOWN
RIGHT SIDE SIMILAR.

BBB2-57-39
S0000277674V1

Wing Front Spar Cap Splice STA 92.0
Figure 612/57-05-03-990-816

TASK 57-05-03-211-815

14. Wing, Center, Front Spar Web, STA XCW 58.6 Left - XCW 58.6 Right, Aft Face, STA 826 (MD-87, STA 712) - Internal Structure

A. Inspection

SUBTASK 57-05-03-010-018

(1) Gain access as required.

SUBTASK 57-05-03-160-027

(2) Clean inspection area as required.

NOTE: It is expected that the area to be inspected is clean enough to minimize the possibility that accumulated dirt, lint, fibers or grease might hide unsatisfactory conditions that would otherwise be obvious. Any cleaning that is considered necessary should be performed in accordance with accepted procedures in order to minimize the possibility of the cleaning process itself introducing anomalies.

SUBTASK 57-05-03-211-027

(3) Do the detailed inspection.

NOTE: A detailed inspection is an intensive examination of a specific item, installation or assembly, to detect damage, failure or irregularity. Available lighting is normally supplemented with a direct source of good lighting at an intensity deemed appropriate. Inspection aids such as mirrors, magnifying lenses or other means may be necessary. Surface cleaning and elaborate access procedures may also be required.

SUBTASK 57-05-03-916-027

(4) Apply surface treatments and/or corrosion inhibiting compound as required.

NOTE: Protective materials (e.g. corrosion inhibiting compounds, paints, etc.) shall be re-applied if removed to perform the inspection/maintenance task.

SUBTASK 57-05-03-410-018

(5) Install removed panels.

(6) Record corrosion findings.

(a) Corrosion finding: Yes _____ No _____

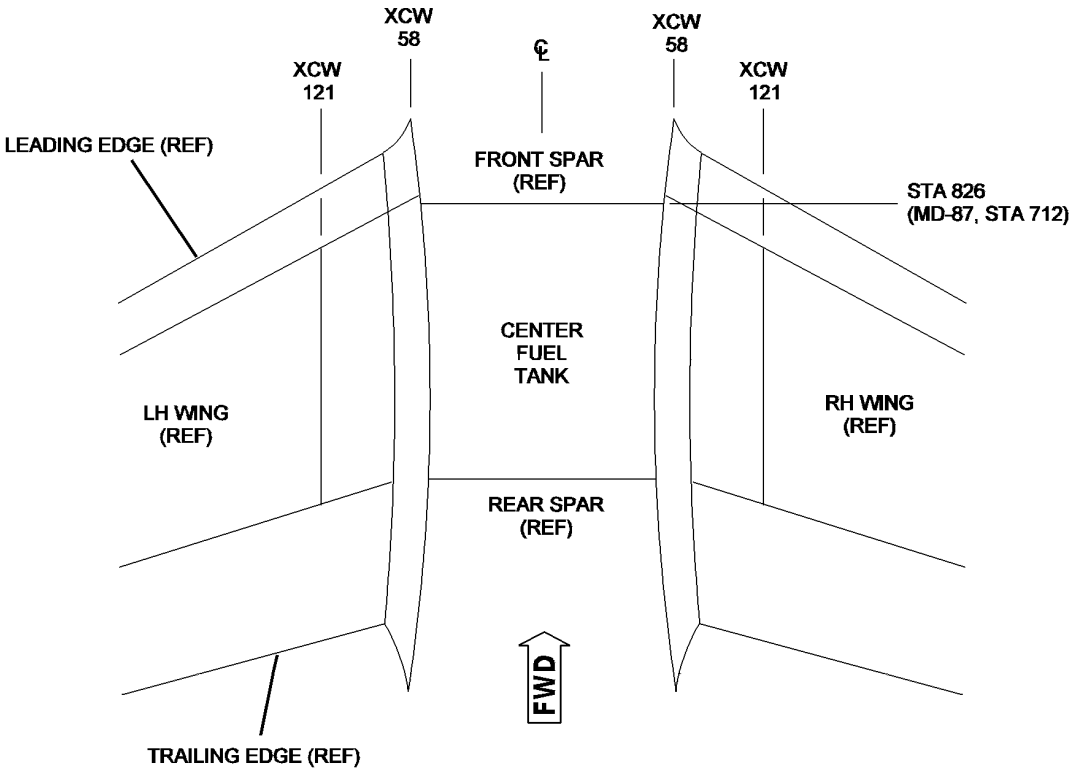
(b) If yes in Step (6(a), record specific area of corrosion on a non-routine form and list the non-routine(s) identification number(s) here _____.

(7) Record structural findings.

(a) Structural finding: Yes _____ No _____

(b) If yes in Step (7(a), record specific area of structural cracking on a non-routine form and list the non-routine(s) identification number(s) here _____.

——— END OF TASK ———



WING CENTER SECTION
VIEW LOOKING DOWN

BBB2-57-25
S0000278534V1

Wing Center Section
Figure 613/57-05-03-990-828

TASK 57-05-03-211-816

15. Plates/Skin, Outer Wing Panel, Upper and Lower Skin STA XCW 58.6 - XCW 111 - Structure

A. Inspection

SUBTASK 57-05-03-010-006

(1) Gain access as required.

SUBTASK 57-05-03-160-012

(2) Clean inspection area as required.

NOTE: It is expected that the area to be inspected is clean enough to minimize the possibility that accumulated dirt, lint, fibers or grease might hide unsatisfactory conditions that would otherwise be obvious. Any cleaning that is considered necessary should be performed in accordance with accepted procedures in order to minimize the possibility of the cleaning process itself introducing anomalies.

SUBTASK 57-05-03-211-012

(3) Do the detailed inspection.

NOTE: A detailed inspection is an intensive examination of a specific item, installation or assembly, to detect damage, failure or irregularity. Available lighting is normally supplemented with a direct source of good lighting at an intensity deemed appropriate. Inspection aids such as mirrors, magnifying lenses or other means may be necessary. Surface cleaning and elaborate access procedures may also be required.

SUBTASK 57-05-03-916-012

(4) Apply surface treatments and/or corrosion inhibiting compound as required.

NOTE: Protective materials (e.g. corrosion inhibiting compounds, paints, etc.) shall be re-applied if removed to perform the inspection/maintenance task.

SUBTASK 57-05-03-410-006

(5) Install removed panels.

(6) Record corrosion findings.

(a) Corrosion finding: Yes _____ No _____

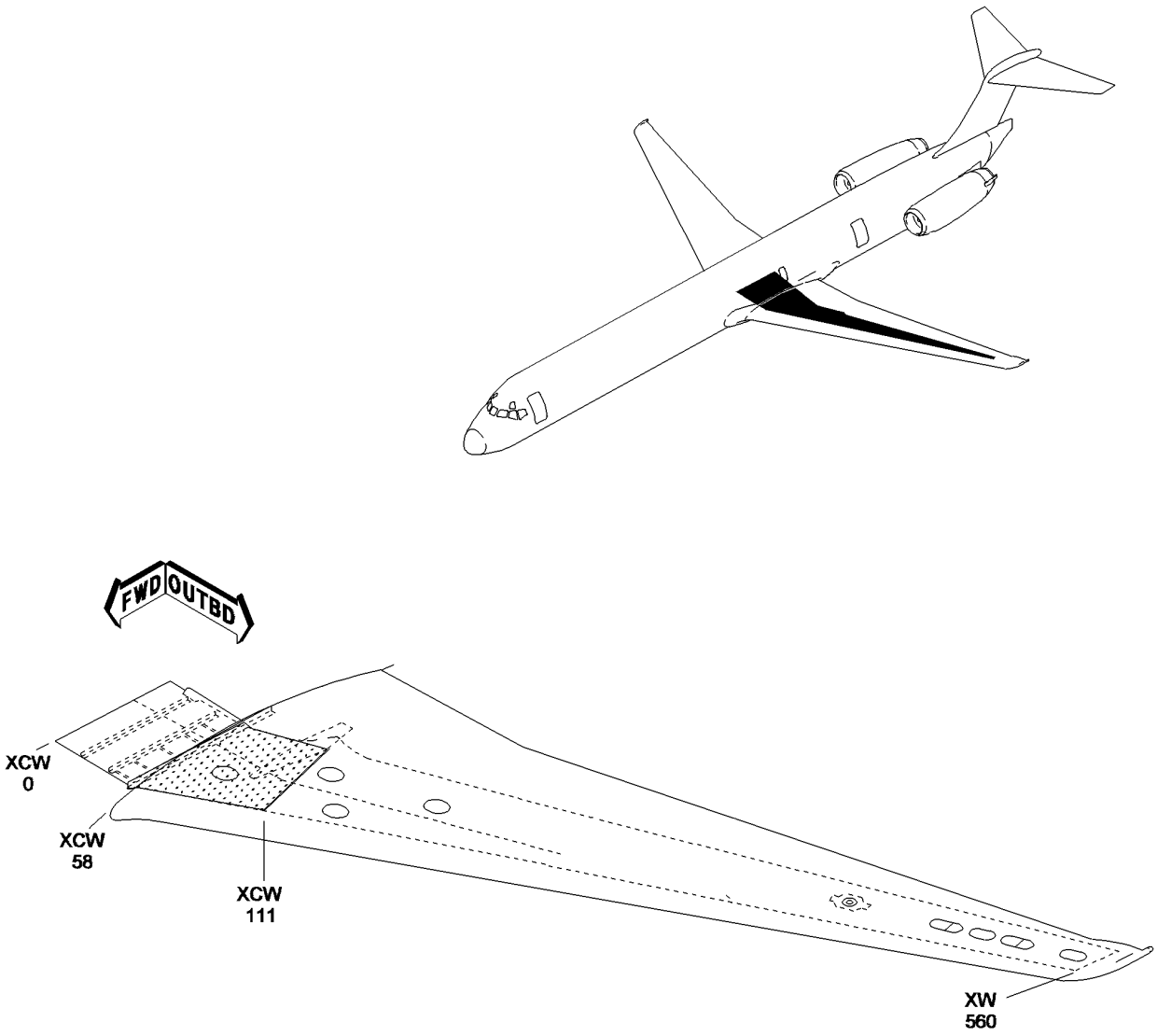
(b) If yes in Step (6(a), record specific area of corrosion on a non-routine form and list the non-routine(s) identification number(s) here _____.

(7) Record structural findings.

(a) Structural finding: Yes _____ No _____

(b) If yes in Step (7(a), record specific area of structural cracking on a non-routine form and list the non-routine(s) identification number(s) here _____.

——— END OF TASK ———



BBB2-57-26
S0000278027V1

Outer Wing Upper and Lower Skin Panels
Figure 614/57-05-03-990-822

TASK 57-05-03-211-817

16. Plates/Skin, Outer Wing Panel, Upper and Lower Skin STA XCW 111 to Tip of Tank - Structure

NOTE: This procedure is a scheduled maintenance task.

A. References

Reference	Title
28-00-00 P/B 201	GENERAL - MAINTENANCE PRACTICES

B. Inspection

SUBTASK 57-05-03-840-001

(1) Make sure fuel tanks are open and are safe for maintenance. (GENERAL - MAINTENANCE PRACTICES, PAGEBLOCK 28-00-00/201)

SUBTASK 57-05-03-010-020

(2) Open access panels.

SUBTASK 57-05-03-160-013

(3) Clean inspection area as required.

NOTE: It is expected that the area to be inspected is clean enough to minimize the possibility that accumulated dirt, lint, fibers or grease might hide unsatisfactory conditions that would otherwise be obvious. Any cleaning that is considered necessary should be performed in accordance with accepted procedures in order to minimize the possibility of the cleaning process itself introducing anomalies.

SUBTASK 57-05-03-211-013

(4) Do the detailed inspection.

NOTE: A detailed inspection is an intensive examination of a specific item, installation or assembly, to detect damage, failure or irregularity. Available lighting is normally supplemented with a direct source of good lighting at an intensity deemed appropriate. Inspection aids such as mirrors, magnifying lenses or other means may be necessary. Surface cleaning and elaborate access procedures may also be required.

SUBTASK 57-05-03-970-007

(5) Record corrosion findings.

(a) Corrosion finding: Yes _____ No _____

(b) If yes in Step (5)(a), record specific area of corrosion on a non-routine form and list the non-routine(s) identification number(s) here _____.

(6) Record structural findings.

(a) Structural finding: Yes _____ No _____

(b) If yes in Step (6)(a), record specific area of structural cracking on a non-routine form and list the non-routine(s) identification number(s) here _____.

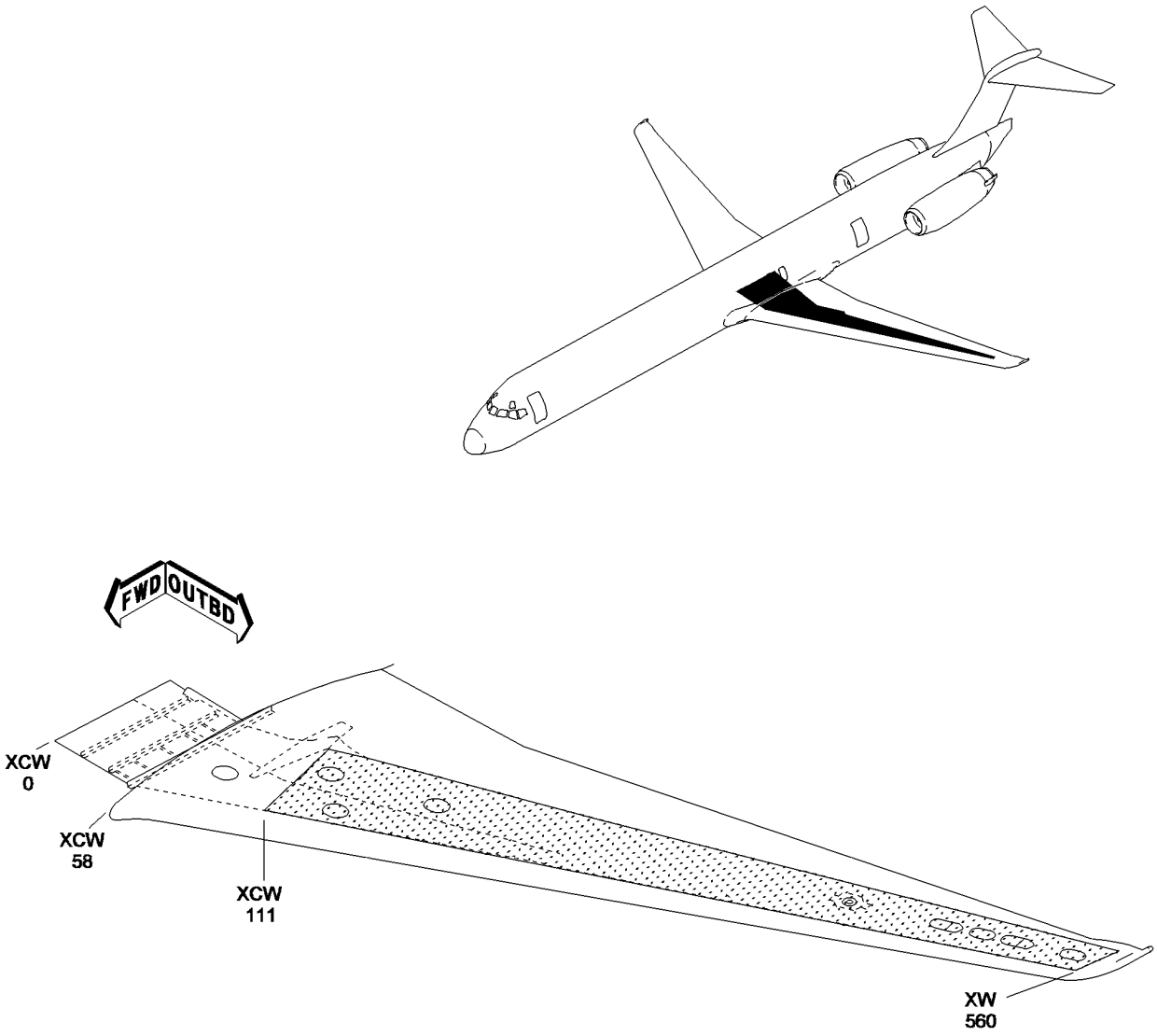
SUBTASK 57-05-03-840-002

(7) Restore the fuel tanks to normal configuration after maintenance. (GENERAL - MAINTENANCE PRACTICES, PAGEBLOCK 28-00-00/201)

SUBTASK 57-05-03-410-020

(8) Close access panels.

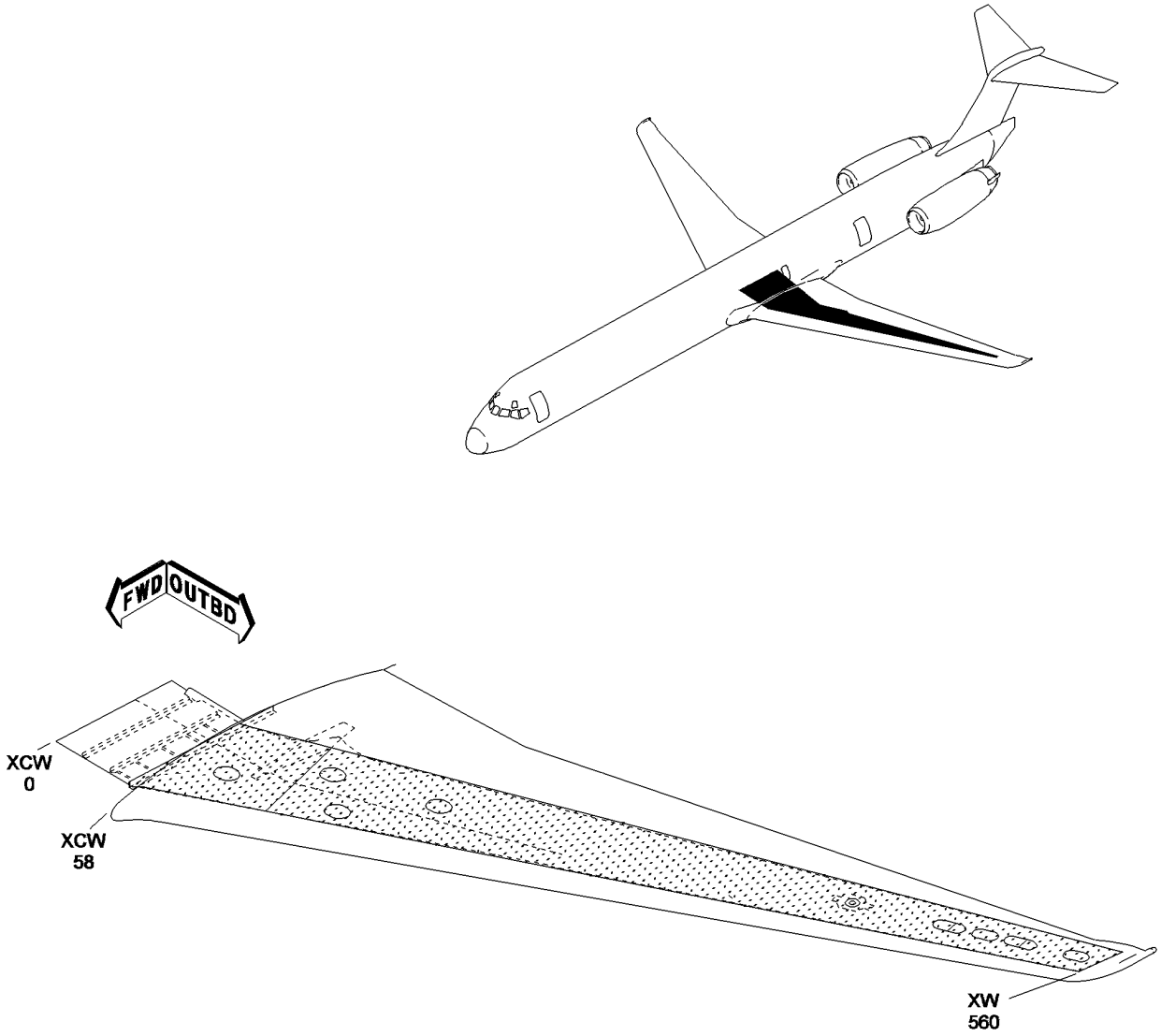
END OF TASK



NOTE:
LEFT WING SHOWN
RIGHT WING TYPICAL.

BBB2-57-27
S0000278033V1

Outer Wing Upper Skin Panels
Figure 615/57-05-03-990-823



NOTE:
LEFT WING SHOWN
RIGHT WING TYPICAL.

BBB2-57-30
S0000277860V1

Outer Wing Lower Skin Panels
Figure 616/57-05-03-990-832

TASK 57-05-03-211-818

17. Outer Wing, Upper Skin Panel, STA XCW 70.0 - XW 560.0 External Surfaces

A. Inspection

SUBTASK 57-05-03-160-011

(1) Clean inspection area as required.

NOTE: It is expected that the area to be inspected is clean enough to minimize the possibility that accumulated dirt, lint, fibers or grease might hide unsatisfactory conditions that would otherwise be obvious. Any cleaning that is considered necessary should be performed in accordance with accepted procedures in order to minimize the possibility of the cleaning process itself introducing anomalies.

SUBTASK 57-05-03-211-011

(2) Do the detailed inspection.

NOTE: A detailed inspection is an intensive examination of a specific item, installation or assembly, to detect damage, failure or irregularity. Available lighting is normally supplemented with a direct source of good lighting at an intensity deemed appropriate. Inspection aids such as mirrors, magnifying lenses or other means may be necessary. Surface cleaning and elaborate access procedures may also be required.

SUBTASK 57-05-03-916-011

(3) Apply surface treatments and/or corrosion inhibiting compound as required.

NOTE: Protective materials (e.g. corrosion inhibiting compounds, paints, etc.) shall be re-applied if removed to perform the inspection/maintenance task.

SUBTASK 57-05-03-970-006

(4) Record corrosion findings.

(a) Corrosion finding: Yes _____ No _____

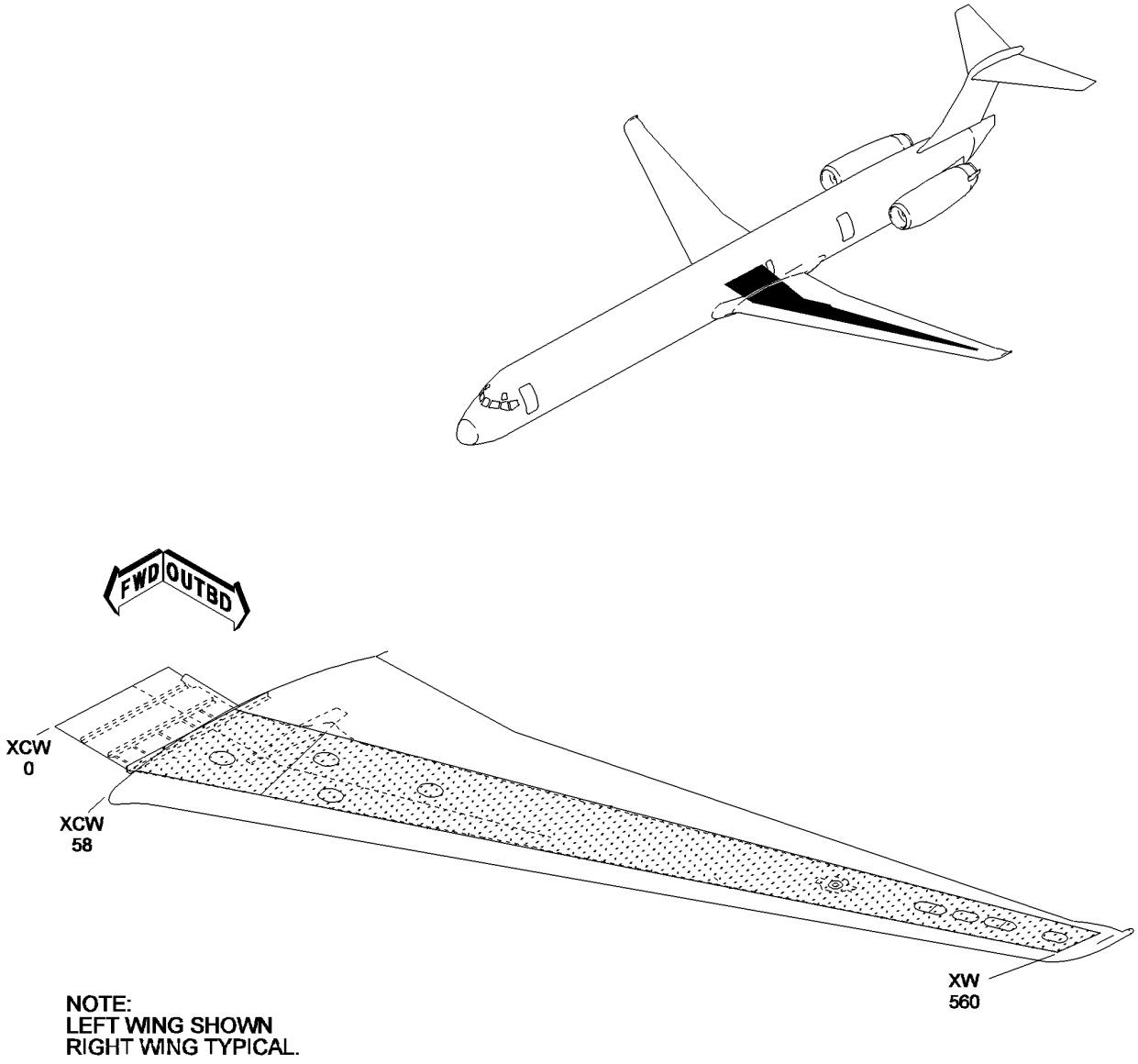
(b) If yes in Step (4(a), record specific area of corrosion on a non-routine form and list the non-routine(s) identification number(s) here _____.

(5) Record structural findings.

(a) Structural finding: Yes _____ No _____

(b) If yes in Step (5(a), record specific area of structural cracking on a non-routine form and list the non-routine(s) identification number(s) here _____.

——— END OF TASK ———



Wing Upper Skin Panels
Figure 617/57-05-03-990-817

EFFECTIVITY
WJE 401-412, 414-427, 429, 861-866, 868, 869, 871, 872, 875-881, 883, 884, 886, 887, 891-893; WJE 873, 874 PRE MD80-30-071 AND PRE MD80-30-078

WJE ALL

TASK 57-05-03-211-819

18. Plates/Skin, Outer Wing Upper, Cutouts, Upper Wing Door, STA XCW 58.6 - XCW 111 - Internal Structure

A. Inspection

SUBTASK 57-05-03-010-007

(1) Gain access as required.

SUBTASK 57-05-03-160-014

(2) Clean inspection area as required.

NOTE: It is expected that the area to be inspected is clean enough to minimize the possibility that accumulated dirt, lint, fibers or grease might hide unsatisfactory conditions that would otherwise be obvious. Any cleaning that is considered necessary should be performed in accordance with accepted procedures in order to minimize the possibility of the cleaning process itself introducing anomalies.

SUBTASK 57-05-03-211-014

(3) Do the detailed inspection.

NOTE: A detailed inspection is an intensive examination of a specific item, installation or assembly, to detect damage, failure or irregularity. Available lighting is normally supplemented with a direct source of good lighting at an intensity deemed appropriate. Inspection aids such as mirrors, magnifying lenses or other means may be necessary. Surface cleaning and elaborate access procedures may also be required.

SUBTASK 57-05-03-916-014

(4) Apply surface treatments and/or corrosion inhibiting compound as required.

NOTE: Protective materials (e.g. corrosion inhibiting compounds, paints, etc.) shall be re-applied if removed to perform the inspection/maintenance task.

SUBTASK 57-05-03-410-007

(5) Install removed panels.

(6) Record corrosion findings.

(a) Corrosion finding: Yes _____ No _____

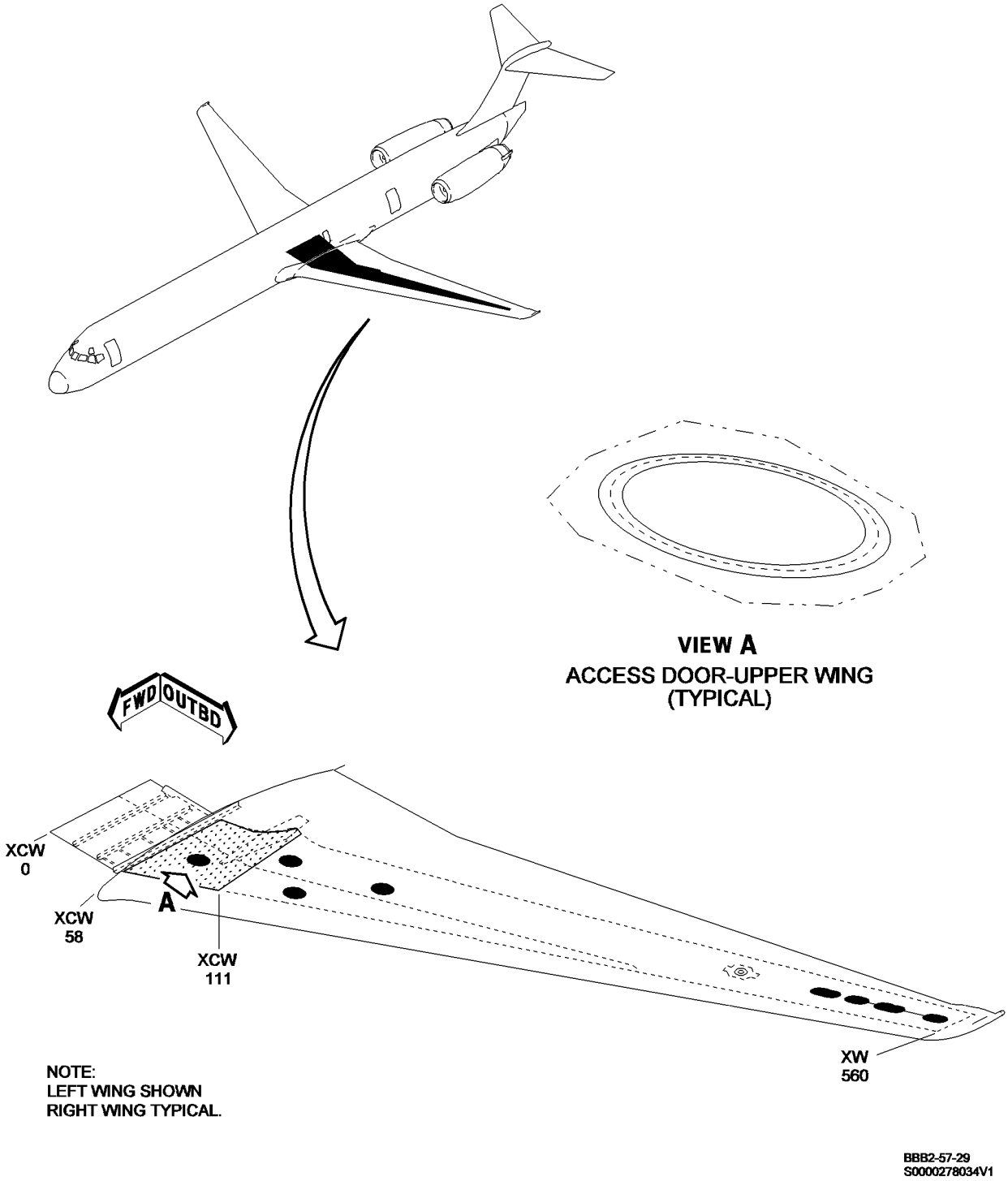
(b) If yes in Step (6(a), record specific area of corrosion on a non-routine form and list the non-routine(s) identification number(s) here _____.

(7) Record structural findings.

(a) Structural finding: Yes _____ No _____

(b) If yes in Step (7(a), record specific area of structural cracking on a non-routine form and list the non-routine(s) identification number(s) here _____.

——— END OF TASK ———



Outer Wing Door Cutouts STA XCW 56 - STA XCW 111
Figure 618/57-05-03-990-824

TASK 57-05-03-211-820

19. Plates/Skin, Outer Wing Upper, Cutouts, Upper Wing Door, STA XCW 111 to Tip of Tank - Internal Structure

A. Inspection

SUBTASK 57-05-03-010-008

(1) Gain access as required.

SUBTASK 57-05-03-160-015

(2) Clean inspection area as required.

NOTE: It is expected that the area to be inspected is clean enough to minimize the possibility that accumulated dirt, lint, fibers or grease might hide unsatisfactory conditions that would otherwise be obvious. Any cleaning that is considered necessary should be performed in accordance with accepted procedures in order to minimize the possibility of the cleaning process itself introducing anomalies.

SUBTASK 57-05-03-211-015

(3) Do the detailed inspection.

NOTE: A detailed inspection is an intensive examination of a specific item, installation or assembly, to detect damage, failure or irregularity. Available lighting is normally supplemented with a direct source of good lighting at an intensity deemed appropriate. Inspection aids such as mirrors, magnifying lenses or other means may be necessary. Surface cleaning and elaborate access procedures may also be required.

SUBTASK 57-05-03-916-015

(4) Apply surface treatments and/or corrosion inhibiting compound as required.

NOTE: Protective materials (e.g. corrosion inhibiting compounds, paints, etc.) shall be re-applied if removed to perform the inspection/maintenance task.

SUBTASK 57-05-03-410-008

(5) Install removed panels.

(6) Record corrosion findings.

(a) Corrosion finding: Yes _____ No _____

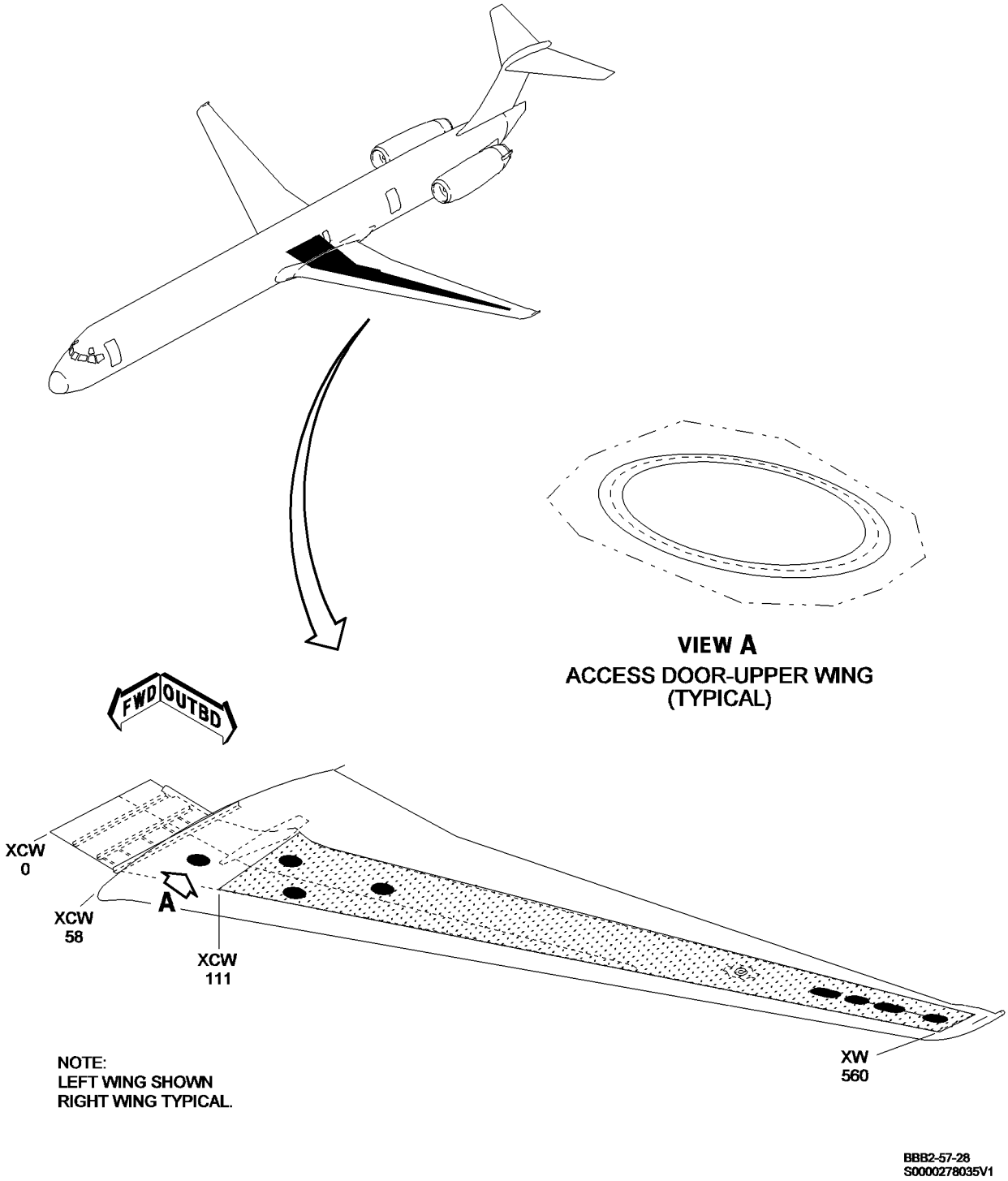
(b) If yes in Step (6(a), record specific area of corrosion on a non-routine form and list the non-routine(s) identification number(s) here _____.

(7) Record structural findings.

(a) Structural finding: Yes _____ No _____

(b) If yes in Step (7(a), record specific area of structural cracking on a non-routine form and list the non-routine(s) identification number(s) here _____.

——— END OF TASK ———



Outer Wing Door Cutouts STA XCW 111 to Tip of Tank
Figure 619/57-05-03-990-825

TASK 57-05-03-211-821

20. Outer Wing, Lower Skin Panel, STA XCW 70.0 - XW 560.0 External Surfaces

A. Inspection

SUBTASK 57-05-03-160-016

(1) Clean inspection area as required.

NOTE: It is expected that the area to be inspected is clean enough to minimize the possibility that accumulated dirt, lint, fibers or grease might hide unsatisfactory conditions that would otherwise be obvious. Any cleaning that is considered necessary should be performed in accordance with accepted procedures in order to minimize the possibility of the cleaning process itself introducing anomalies.

SUBTASK 57-05-03-211-016

(2) Do the detailed inspection.

NOTE: A detailed inspection is an intensive examination of a specific item, installation or assembly, to detect damage, failure or irregularity. Available lighting is normally supplemented with a direct source of good lighting at an intensity deemed appropriate. Inspection aids such as mirrors, magnifying lenses or other means may be necessary. Surface cleaning and elaborate access procedures may also be required.

SUBTASK 57-05-03-916-016

(3) Apply surface treatments and/or corrosion inhibiting compound as required.

NOTE: Protective materials (e.g. corrosion inhibiting compounds, paints, etc.) shall be re-applied if removed to perform the inspection/maintenance task.

SUBTASK 57-05-03-970-008

(4) Record corrosion findings.

(a) Corrosion finding: Yes _____ No _____

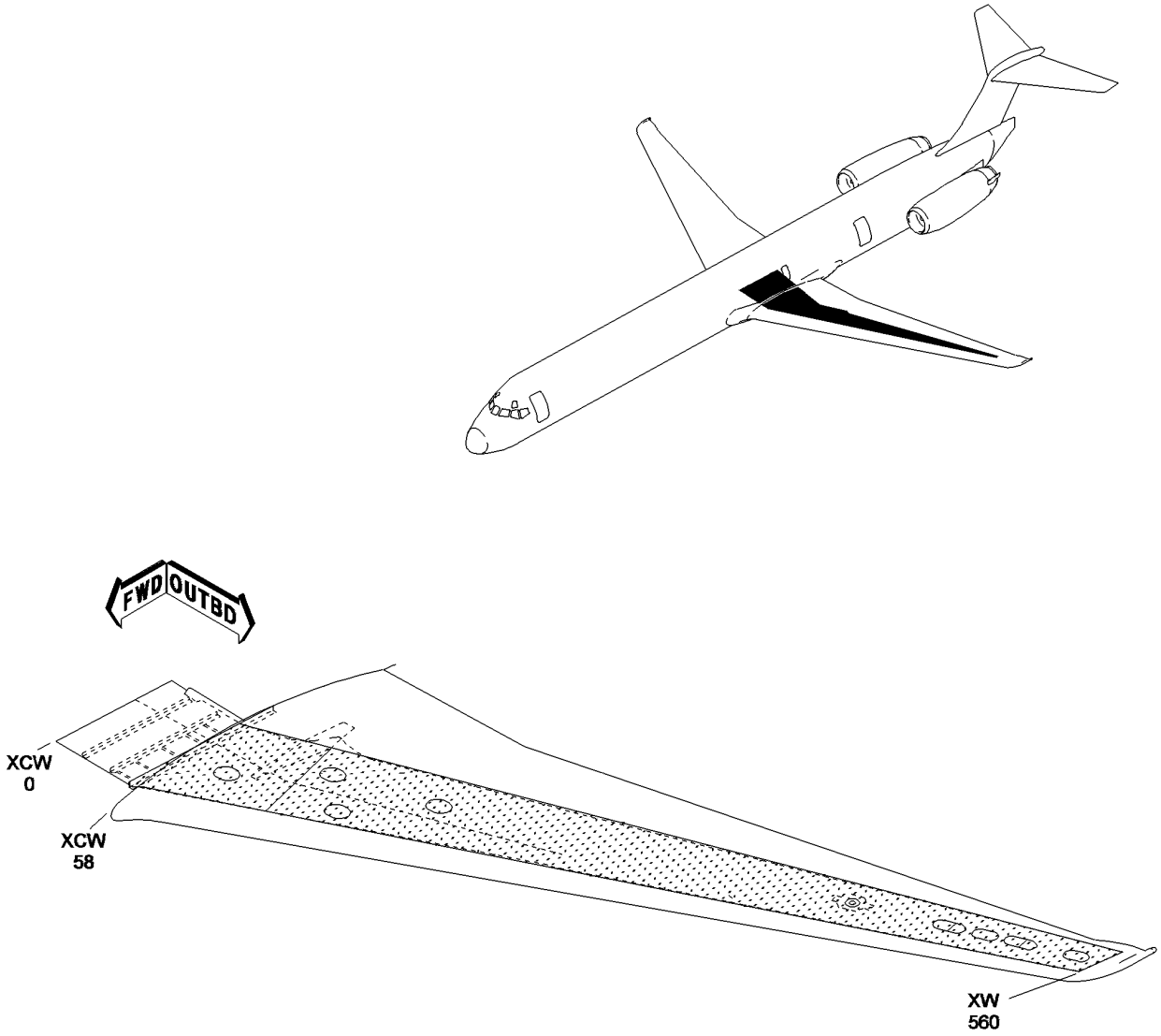
(b) If yes in Step (4(a), record specific area of corrosion on a non-routine form and list the non-routine(s) identification number(s) here _____.

(5) Record structural findings.

(a) Structural finding: Yes _____ No _____

(b) If yes in Step (5(a), record specific area of structural cracking on a non-routine form and list the non-routine(s) identification number(s) here _____.

——— END OF TASK ———



NOTE:
LEFT WING SHOWN
RIGHT WING TYPICAL.

BBB2-57-30
S0000277860V1

Outer Wing Lower Skin Panels
Figure 620/57-05-03-990-821

TASK 57-05-03-211-822

21. Plates/Skin, Center Wing Upper, Panels, Upper Skin, STA XCW 121 Left - STA XCW 121 Right - Internal Structure

A. Inspection

SUBTASK 57-05-03-010-009

(1) Gain access as required.

SUBTASK 57-05-03-160-017

(2) Clean inspection area as required.

NOTE: It is expected that the area to be inspected is clean enough to minimize the possibility that accumulated dirt, lint, fibers or grease might hide unsatisfactory conditions that would otherwise be obvious. Any cleaning that is considered necessary should be performed in accordance with accepted procedures in order to minimize the possibility of the cleaning process itself introducing anomalies.

SUBTASK 57-05-03-211-017

(3) Do the detailed inspection.

NOTE: A detailed inspection is an intensive examination of a specific item, installation or assembly, to detect damage, failure or irregularity. Available lighting is normally supplemented with a direct source of good lighting at an intensity deemed appropriate. Inspection aids such as mirrors, magnifying lenses or other means may be necessary. Surface cleaning and elaborate access procedures may also be required.

SUBTASK 57-05-03-916-017

(4) Apply surface treatments and/or corrosion inhibiting compound as required.

NOTE: Protective materials (e.g. corrosion inhibiting compounds, paints, etc.) shall be re-applied if removed to perform the inspection/maintenance task.

SUBTASK 57-05-03-410-009

(5) Install removed panels.

(6) Record corrosion findings.

(a) Corrosion finding: Yes _____ No _____

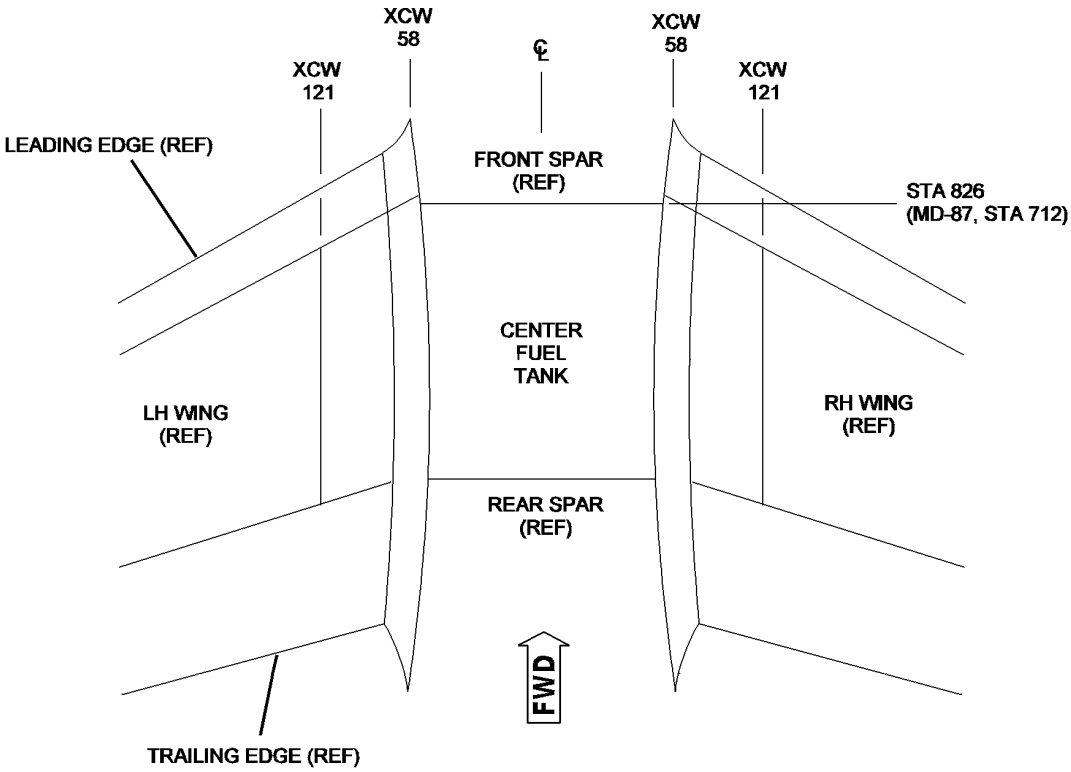
(b) If yes in Step (6(a), record specific area of corrosion on a non-routine form and list the non-routine(s) identification number(s) here _____.

(7) Record structural findings.

(a) Structural finding: Yes _____ No _____

(b) If yes in Step (7(a), record specific area of structural cracking on a non-routine form and list the non-routine(s) identification number(s) here _____.

——— END OF TASK ———



WING CENTER SECTION
VIEW LOOKING DOWN

BBB2-57-25
S0000278534V1

Center Wing Center Section
Figure 621/57-05-03-990-826

TASK 57-05-03-211-823

22. Plates/Skin, Center Wing Upper, Cutouts, Door, STA XCW 121 Left - STA XCW 121 Right - Structure

A. Inspection

SUBTASK 57-05-03-010-019

(1) Gain access as required.

SUBTASK 57-05-03-160-028

(2) Clean inspection area as required.

NOTE: It is expected that the area to be inspected is clean enough to minimize the possibility that accumulated dirt, lint, fibers or grease might hide unsatisfactory conditions that would otherwise be obvious. Any cleaning that is considered necessary should be performed in accordance with accepted procedures in order to minimize the possibility of the cleaning process itself introducing anomalies.

SUBTASK 57-05-03-211-028

(3) Do the detailed inspection.

NOTE: A detailed inspection is an intensive examination of a specific item, installation or assembly, to detect damage, failure or irregularity. Available lighting is normally supplemented with a direct source of good lighting at an intensity deemed appropriate. Inspection aids such as mirrors, magnifying lenses or other means may be necessary. Surface cleaning and elaborate access procedures may also be required.

SUBTASK 57-05-03-916-028

(4) Apply surface treatments and/or corrosion inhibiting compound as required.

NOTE: Protective materials (e.g. corrosion inhibiting compounds, paints, etc.) shall be re-applied if removed to perform the inspection/maintenance task.

SUBTASK 57-05-03-410-019

(5) Install removed panels.

(6) Record corrosion findings.

(a) Corrosion finding: Yes _____ No _____

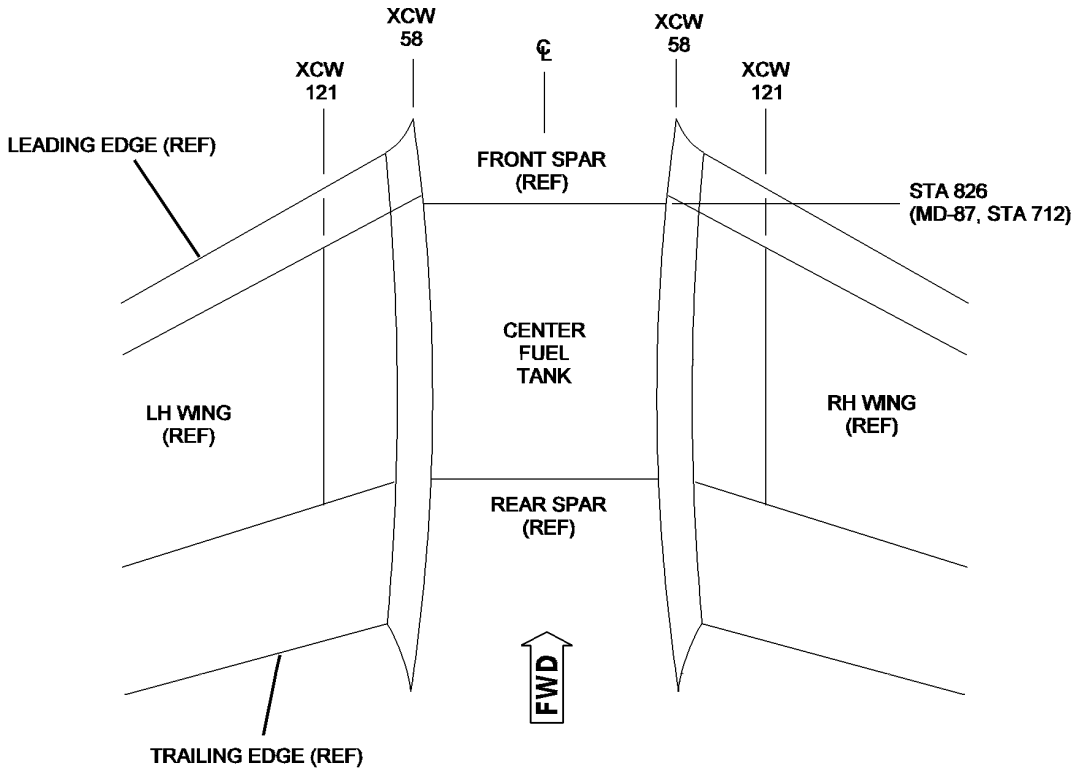
(b) If yes in Step (6(a), record specific area of corrosion on a non-routine form and list the non-routine(s) identification number(s) here _____.

(7) Record structural findings.

(a) Structural finding: Yes _____ No _____

(b) If yes in Step (7(a), record specific area of structural cracking on a non-routine form and list the non-routine(s) identification number(s) here _____.

——— END OF TASK ———



WING CENTER SECTION
VIEW LOOKING DOWN

BBB2-57-25
S0000278534V1

Center Wing Center Section
Figure 622/57-05-03-990-829

TASK 57-05-03-211-824

23. Plates/Skin, Center Wing Lower, Panel, Lower Skin, STA XCW 121 Left - STA XCW 121 Right - Structure

A. Inspection

SUBTASK 57-05-03-010-011

(1) Gain access as required.

SUBTASK 57-05-03-160-020

(2) Clean inspection area as required.

NOTE: It is expected that the area to be inspected is clean enough to minimize the possibility that accumulated dirt, lint, fibers or grease might hide unsatisfactory conditions that would otherwise be obvious. Any cleaning that is considered necessary should be performed in accordance with accepted procedures in order to minimize the possibility of the cleaning process itself introducing anomalies.

SUBTASK 57-05-03-211-020

(3) Do the detailed inspection.

NOTE: A detailed inspection is an intensive examination of a specific item, installation or assembly, to detect damage, failure or irregularity. Available lighting is normally supplemented with a direct source of good lighting at an intensity deemed appropriate. Inspection aids such as mirrors, magnifying lenses or other means may be necessary. Surface cleaning and elaborate access procedures may also be required.

SUBTASK 57-05-03-916-020

(4) Apply surface treatments and/or corrosion inhibiting compound as required.

NOTE: Protective materials (e.g. corrosion inhibiting compounds, paints, etc.) shall be re-applied if removed to perform the inspection/maintenance task.

SUBTASK 57-05-03-410-011

(5) Install removed panels.

(6) Record corrosion findings.

(a) Corrosion finding: Yes _____ No _____

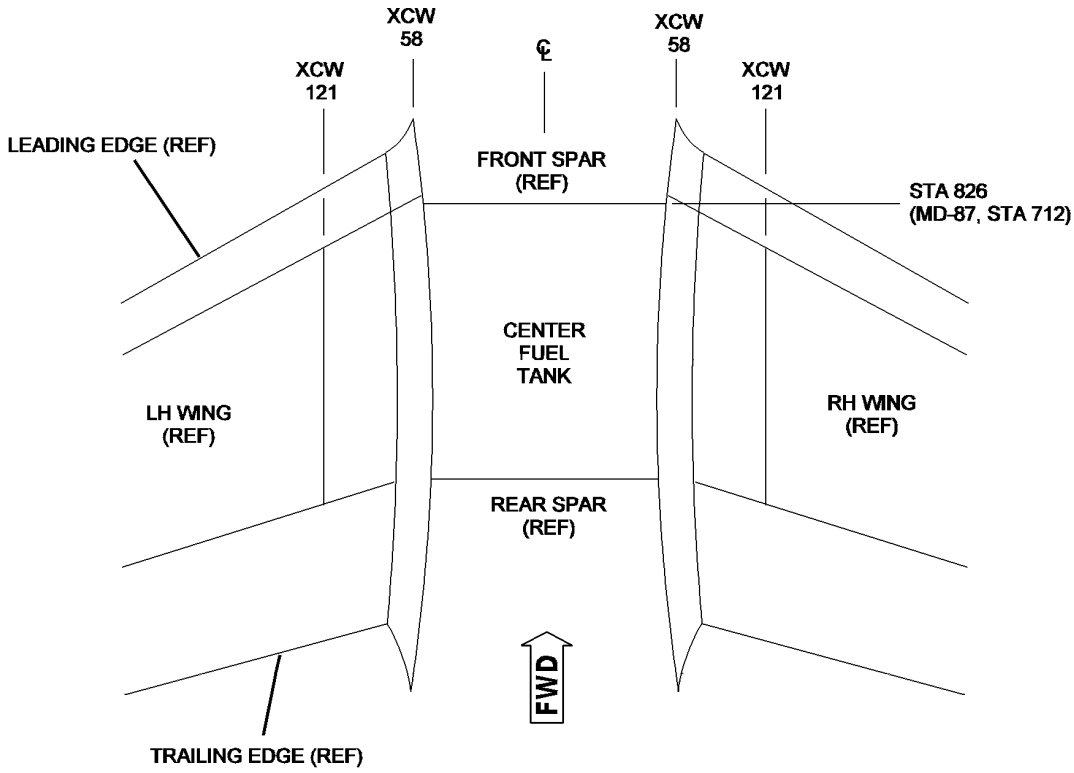
(b) If yes in Step (6(a), record specific area of corrosion on a non-routine form and list the non-routine(s) identification number(s) here _____.

(7) Record structural findings.

(a) Structural finding: Yes _____ No _____

(b) If yes in Step (7(a), record specific area of structural cracking on a non-routine form and list the non-routine(s) identification number(s) here _____.

——— END OF TASK ———



WING CENTER SECTION
VIEW LOOKING DOWN

BBB2-57-25
S0000278534V1

Center Wing Center Section
Figure 623/57-05-03-990-827

TASK 57-05-03-211-835

24. Lower Wing Skin (SB MD80-57-239)

A. Inspection

SUBTASK 57-05-03-211-030

(1) Do a detailed inspection of the wing lower skin panels per the latest revision of service bulletin MD80-57-239.

(a) For repair and inspection procedures refer to the latest revision of service bulletin MD80-57-239.

——— END OF TASK ———

TASK 57-05-03-211-826

25. Attach Fittings, Landing Gear, Support Fitting, Main Landing Gear, STA XCW 104.5 Aft. Surface - Structure

A. Inspection

SUBTASK 57-05-03-160-004

(1) Clean inspection area as required.

NOTE: It is expected that the area to be inspected is clean enough to minimize the possibility that accumulated dirt, lint, fibers or grease might hide unsatisfactory conditions that would otherwise be obvious. Any cleaning that is considered necessary should be performed in accordance with accepted procedures in order to minimize the possibility of the cleaning process itself introducing anomalies.

SUBTASK 57-05-03-211-004

(2) Do the detailed inspection.

NOTE: A detailed inspection is an intensive examination of a specific item, installation or assembly, to detect damage, failure or irregularity. Available lighting is normally supplemented with a direct source of good lighting at an intensity deemed appropriate. Inspection aids such as mirrors, magnifying lenses or other means may be necessary. Surface cleaning and elaborate access procedures may also be required.

SUBTASK 57-05-03-916-004

(3) Apply surface treatments and/or corrosion inhibiting compound as required.

NOTE: Protective materials (e.g. corrosion inhibiting compounds, paints, etc.) shall be re-applied if removed to perform the inspection/maintenance task.

SUBTASK 57-05-03-970-003

(4) Record corrosion findings.

(a) Corrosion finding: Yes _____ No _____

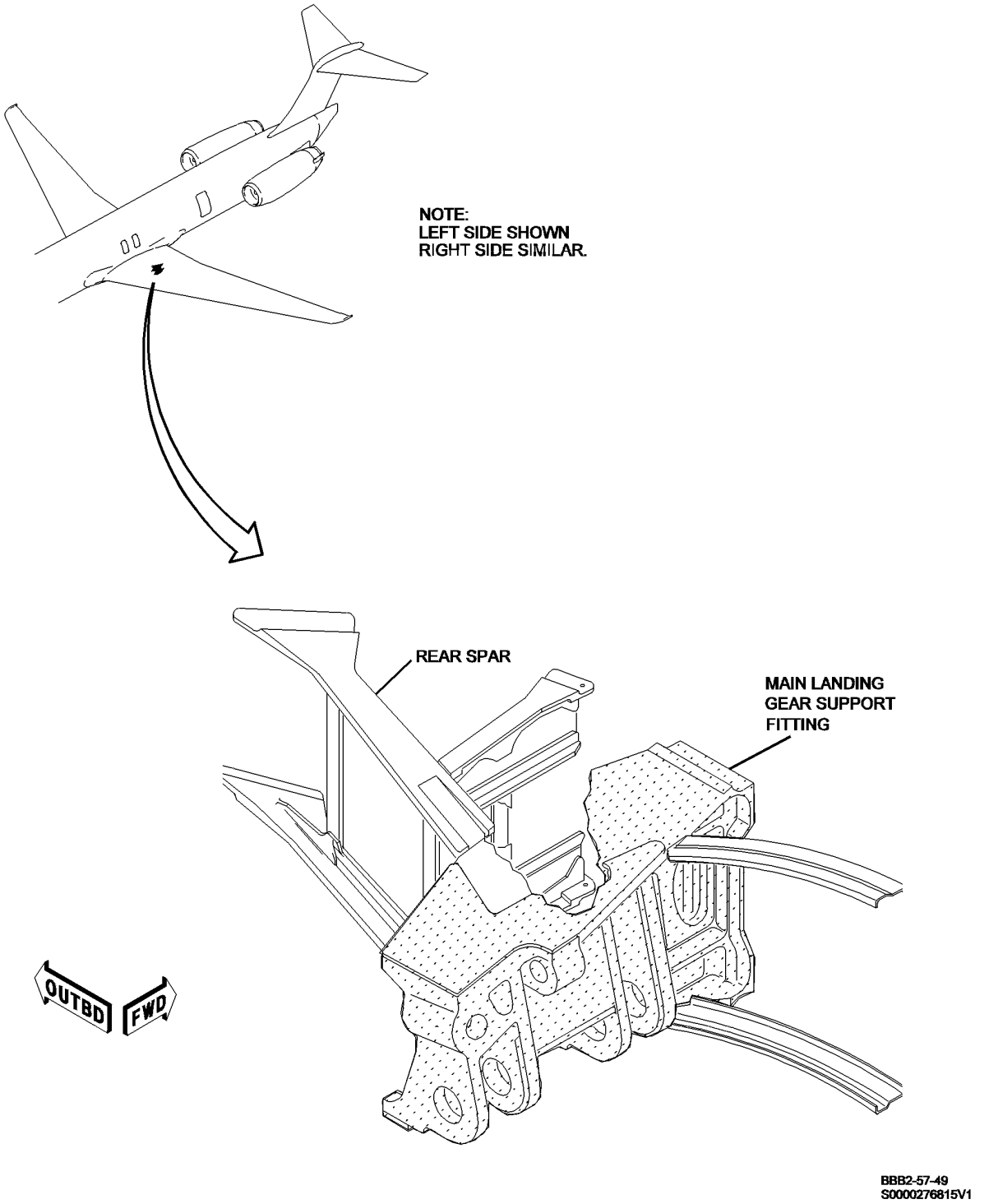
(b) If yes in Step (4(a), record specific area of corrosion on a non-routine form and list the non-routine(s) identification number(s) here _____.

(5) Record structural findings.

(a) Structural finding: Yes _____ No _____

(b) If yes in Step (5(a), record specific area of structural cracking on a non-routine form and list the non-routine(s) identification number(s) here _____.

——— END OF TASK ———



Main Landing Gear Support Fitting
Figure 624/57-05-03-990-804

TASK 57-05-03-211-827

26. Attach Fittings, Flight Surface, Hinges, Aft Flap, STA's XRS 111.5, 164.0, 267.0, & 353.0 - Structure

A. Inspection

SUBTASK 57-05-03-160-003

(1) Clean inspection area as required.

NOTE: It is expected that the area to be inspected is clean enough to minimize the possibility that accumulated dirt, lint, fibers or grease might hide unsatisfactory conditions that would otherwise be obvious. Any cleaning that is considered necessary should be performed in accordance with accepted procedures in order to minimize the possibility of the cleaning process itself introducing anomalies.

SUBTASK 57-05-03-211-003

(2) Do the detailed inspection.

NOTE: A detailed inspection is an intensive examination of a specific item, installation or assembly, to detect damage, failure or irregularity. Available lighting is normally supplemented with a direct source of good lighting at an intensity deemed appropriate. Inspection aids such as mirrors, magnifying lenses or other means may be necessary. Surface cleaning and elaborate access procedures may also be required.

SUBTASK 57-05-03-916-003

(3) Apply surface treatments and/or corrosion inhibiting compound as required.

NOTE: Protective materials (e.g. corrosion inhibiting compounds, paints, etc.) shall be re-applied if removed to perform the inspection/maintenance task.

SUBTASK 57-05-03-970-002

(4) Record corrosion findings.

(a) Corrosion finding: Yes _____ No _____

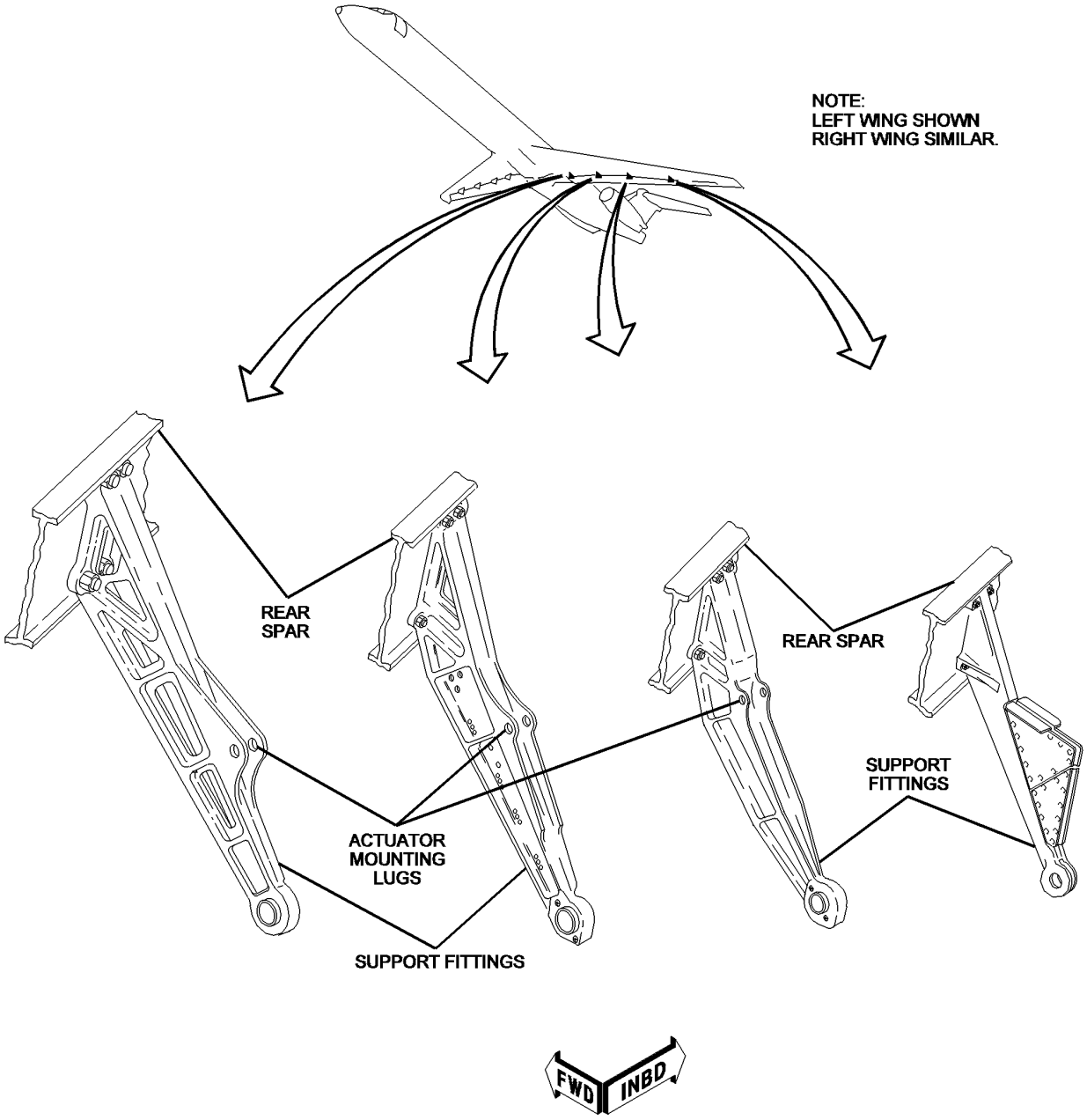
(b) If yes in Step (4(a), record specific area of corrosion on a non-routine form and list the non-routine(s) identification number(s) here _____.

(5) Record structural findings.

(a) Structural finding: Yes _____ No _____

(b) If yes in Step (5(a), record specific area of structural cracking on a non-routine form and list the non-routine(s) identification number(s) here _____.

——— END OF TASK ———



Flap Hinge Attach Fittings at STA XRS 111.5, 164.0, 267.0 & 353.0
Figure 625/57-05-03-990-803

TASK 57-05-03-211-828

27. Attach Fittings, Flight Surface, Studs, Wing Flap, STA's XRS 111.5, 164.0, 267.0, & 353.0 - Visible Structure

A. Inspection

SUBTASK 57-05-03-160-002

(1) Clean inspection area as required.

NOTE: It is expected that the area to be inspected is clean enough to minimize the possibility that accumulated dirt, lint, fibers or grease might hide unsatisfactory conditions that would otherwise be obvious. Any cleaning that is considered necessary should be performed in accordance with accepted procedures in order to minimize the possibility of the cleaning process itself introducing anomalies.

SUBTASK 57-05-03-211-002

(2) Do the detailed inspection.

NOTE: A detailed inspection is an intensive examination of a specific item, installation or assembly, to detect damage, failure or irregularity. Available lighting is normally supplemented with a direct source of good lighting at an intensity deemed appropriate. Inspection aids such as mirrors, magnifying lenses or other means may be necessary. Surface cleaning and elaborate access procedures may also be required.

SUBTASK 57-05-03-916-002

(3) Apply surface treatments and/or corrosion inhibiting compound as required.

NOTE: Protective materials (e.g. corrosion inhibiting compounds, paints, etc.) shall be re-applied if removed to perform the inspection/maintenance task.

SUBTASK 57-05-03-970-001

(4) Record corrosion findings.

(a) Corrosion finding: Yes _____ No _____

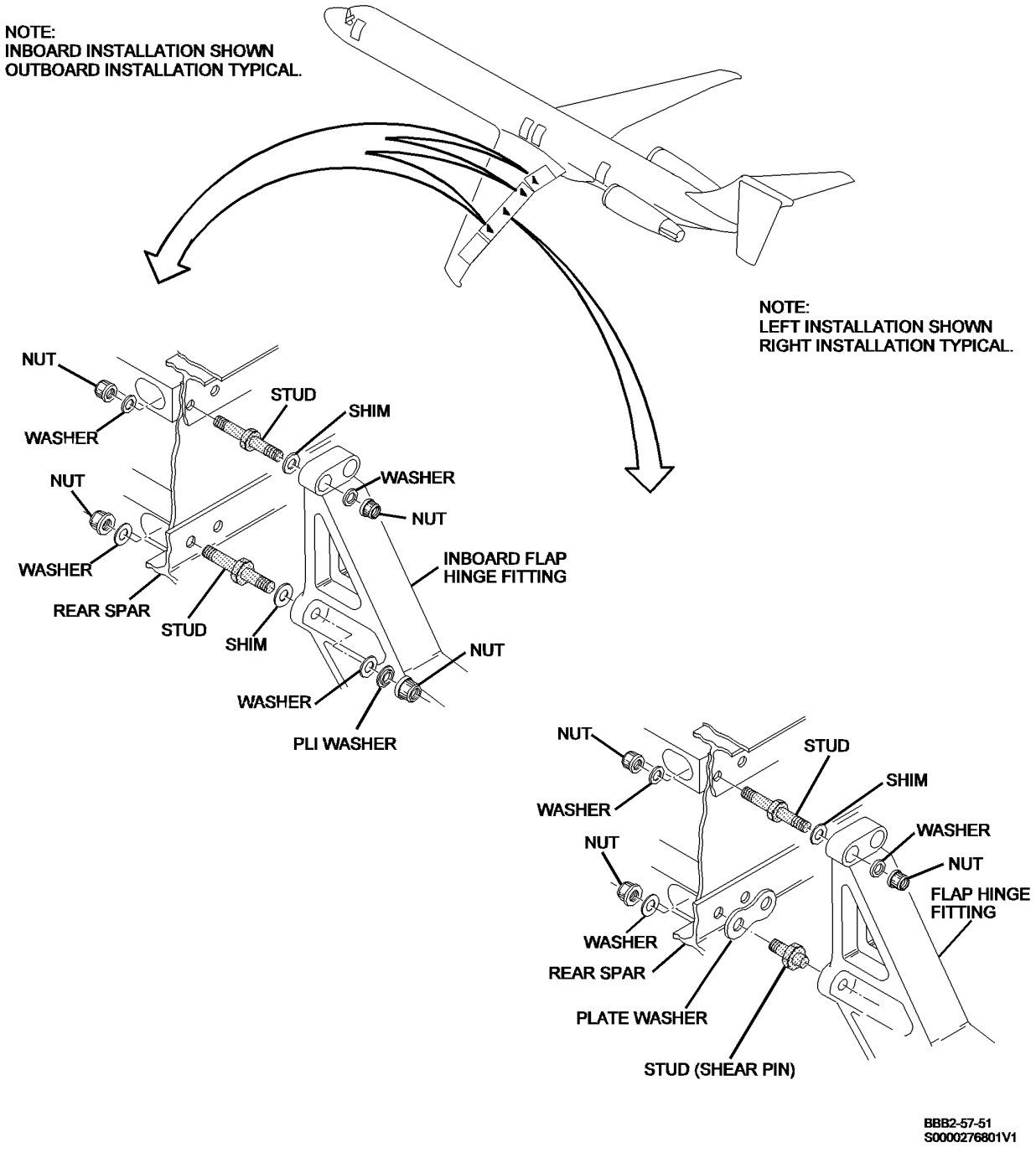
(b) If yes in Step (4(a), record specific area of corrosion on a non-routine form and list the non-routine(s) identification number(s) here _____.

(5) Record structural findings.

(a) Structural finding: Yes _____ No _____

(b) If yes in Step (5(a), record specific area of structural cracking on a non-routine form and list the non-routine(s) identification number(s) here _____.

——— END OF TASK ———



Wing Flap Studs at STA XRS 111.5, 164.0, 267.0, & 353.0
Figure 626/57-05-03-990-802

TASK 57-05-03-211-829

28. Attach Fittings, Flight Surface, Fitting Spoiler Drive, STA XTE 206.0 & STA XTE 297.0 - Visible Structure

A. Inspection

SUBTASK 57-05-03-160-005

(1) Clean inspection area as required.

NOTE: It is expected that the area to be inspected is clean enough to minimize the possibility that accumulated dirt, lint, fibers or grease might hide unsatisfactory conditions that would otherwise be obvious. Any cleaning that is considered necessary should be performed in accordance with accepted procedures in order to minimize the possibility of the cleaning process itself introducing anomalies.

SUBTASK 57-05-03-211-005

(2) Do the detailed inspection.

NOTE: A detailed inspection is an intensive examination of a specific item, installation or assembly, to detect damage, failure or irregularity. Available lighting is normally supplemented with a direct source of good lighting at an intensity deemed appropriate. Inspection aids such as mirrors, magnifying lenses or other means may be necessary. Surface cleaning and elaborate access procedures may also be required.

SUBTASK 57-05-03-916-005

(3) Apply surface treatments and/or corrosion inhibiting compound as required.

NOTE: Protective materials (e.g. corrosion inhibiting compounds, paints, etc.) shall be re-applied if removed to perform the inspection/maintenance task.

SUBTASK 57-05-03-970-004

(4) Record corrosion findings.

(a) Corrosion finding: Yes _____ No _____

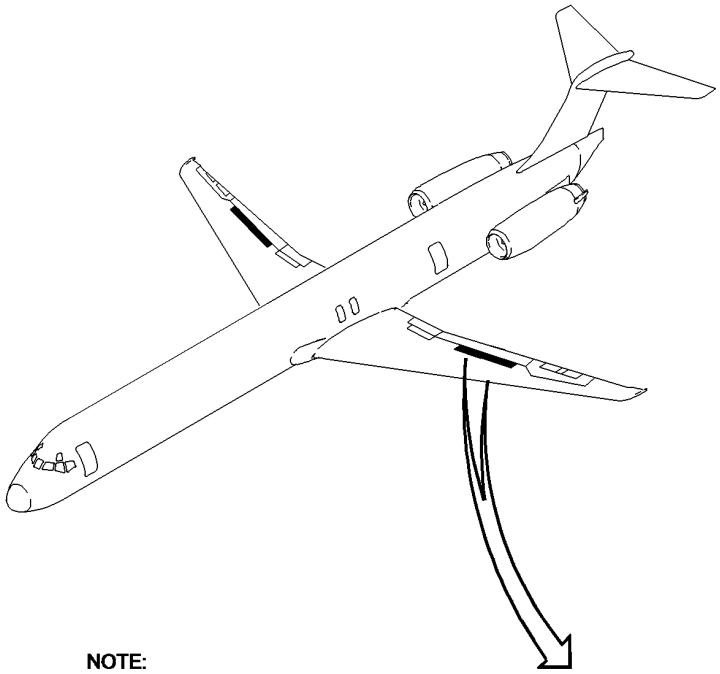
(b) If yes in Step (4(a), record specific area of corrosion on a non-routine form and list the non-routine(s) identification number(s) here _____.

(5) Record structural findings.

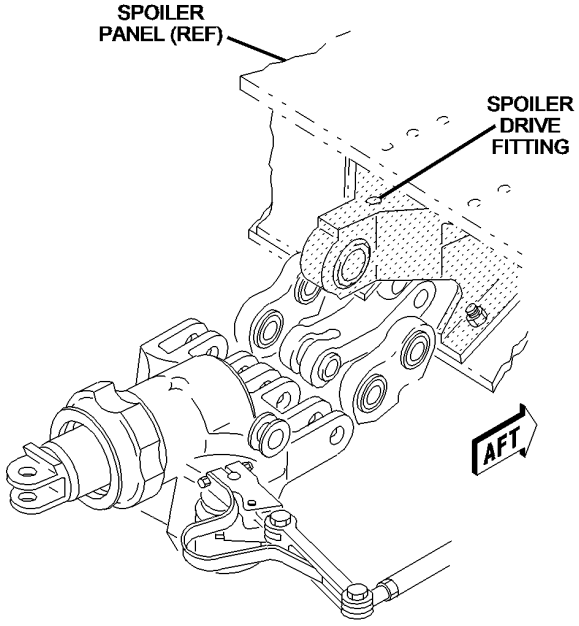
(a) Structural finding: Yes _____ No _____

(b) If yes in Step (5(a), record specific area of structural cracking on a non-routine form and list the non-routine(s) identification number(s) here _____.

——— END OF TASK ———



NOTE:
LEFT WING SHOWN
RIGHT WING TYPICAL



BBB2-57-48
S0000276816V1

Flight Spoiler Drive Fitting at STA XTE 206.0 & 297.0
Figure 627/57-05-03-990-805

TASK 57-05-03-211-830

29. Flaps, Inboard Flaps, STA XIFI 0.7 - XIFI 127.3 - Internal Structure

A. Inspection

SUBTASK 57-05-03-010-010

(1) Gain access as required.

SUBTASK 57-05-03-160-019

(2) Clean inspection area as required.

NOTE: It is expected that the area to be inspected is clean enough to minimize the possibility that accumulated dirt, lint, fibers or grease might hide unsatisfactory conditions that would otherwise be obvious. Any cleaning that is considered necessary should be performed in accordance with accepted procedures in order to minimize the possibility of the cleaning process itself introducing anomalies.

SUBTASK 57-05-03-211-019

(3) Do the detailed inspection.

NOTE: A detailed inspection is an intensive examination of a specific item, installation or assembly, to detect damage, failure or irregularity. Available lighting is normally supplemented with a direct source of good lighting at an intensity deemed appropriate. Inspection aids such as mirrors, magnifying lenses or other means may be necessary. Surface cleaning and elaborate access procedures may also be required.

SUBTASK 57-05-03-916-019

(4) Apply surface treatments and/or corrosion inhibiting compound as required.

NOTE: Protective materials (e.g. corrosion inhibiting compounds, paints, etc.) shall be re-applied if removed to perform the inspection/maintenance task.

SUBTASK 57-05-03-410-010

(5) Install removed panels.

(6) Record corrosion findings.

(a) Corrosion finding: Yes _____ No _____

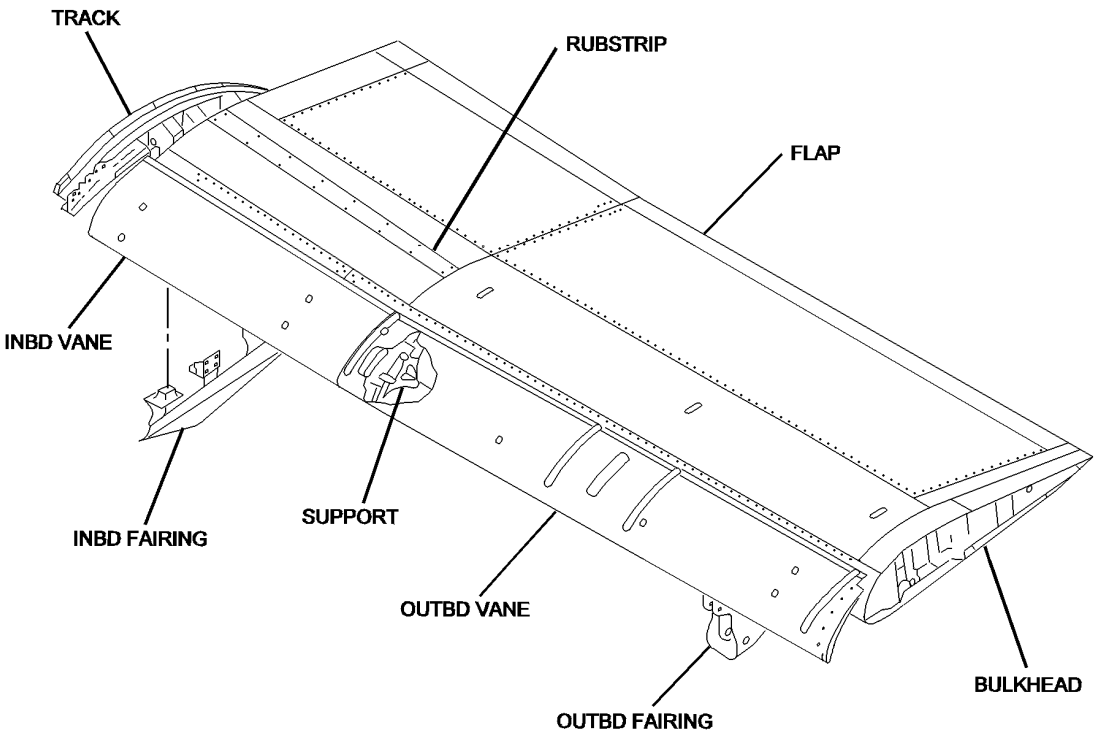
(b) If yes in Step (6(a), record specific area of corrosion on a non-routine form and list the non-routine(s) identification number(s) here _____.

(7) Record structural findings.

(a) Structural finding: Yes _____ No _____

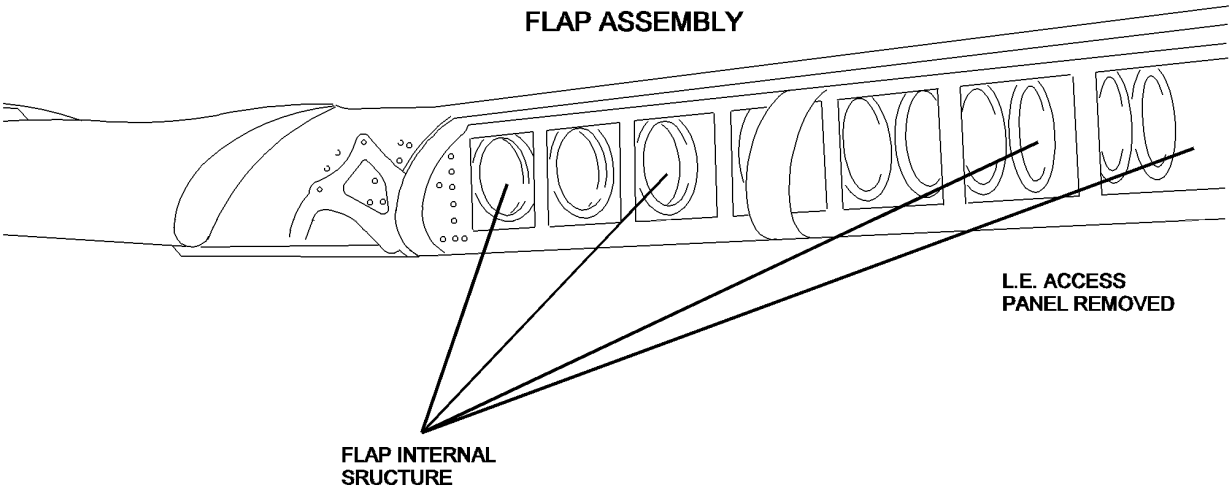
(b) If yes in Step (7(a), record specific area of structural cracking on a non-routine form and list the non-routine(s) identification number(s) here _____.

——— END OF TASK ———



BBB2-57-33
S0000277828V1

Inboard Flap and Vane
Figure 628/57-05-03-990-818



NOTE:
LEFT SIDE SHOWN
RIGHT SIDE SIMILAR.

BBB2-57-32
S0000277832V1

Inboard Flap Internal Structure
Figure 629/57-05-03-990-819

TASK 57-05-03-211-831

30. Flaps, Fittings, Flap Support, STA's XW 154.0, 251.0, & 333.0 - Structure

A. Inspection

SUBTASK 57-05-03-160-006

(1) Clean inspection area as required.

NOTE: It is expected that the area to be inspected is clean enough to minimize the possibility that accumulated dirt, lint, fibers or grease might hide unsatisfactory conditions that would otherwise be obvious. Any cleaning that is considered necessary should be performed in accordance with accepted procedures in order to minimize the possibility of the cleaning process itself introducing anomalies.

SUBTASK 57-05-03-211-006

(2) Do the detailed inspection.

NOTE: A detailed inspection is an intensive examination of a specific item, installation or assembly, to detect damage, failure or irregularity. Available lighting is normally supplemented with a direct source of good lighting at an intensity deemed appropriate. Inspection aids such as mirrors, magnifying lenses or other means may be necessary. Surface cleaning and elaborate access procedures may also be required.

SUBTASK 57-05-03-916-006

(3) Apply surface treatments and/or corrosion inhibiting compound as required.

NOTE: Protective materials (e.g. corrosion inhibiting compounds, paints, etc.) shall be re-applied if removed to perform the inspection/maintenance task.

SUBTASK 57-05-03-970-005

(4) Record corrosion findings.

(a) Corrosion finding: Yes _____ No _____

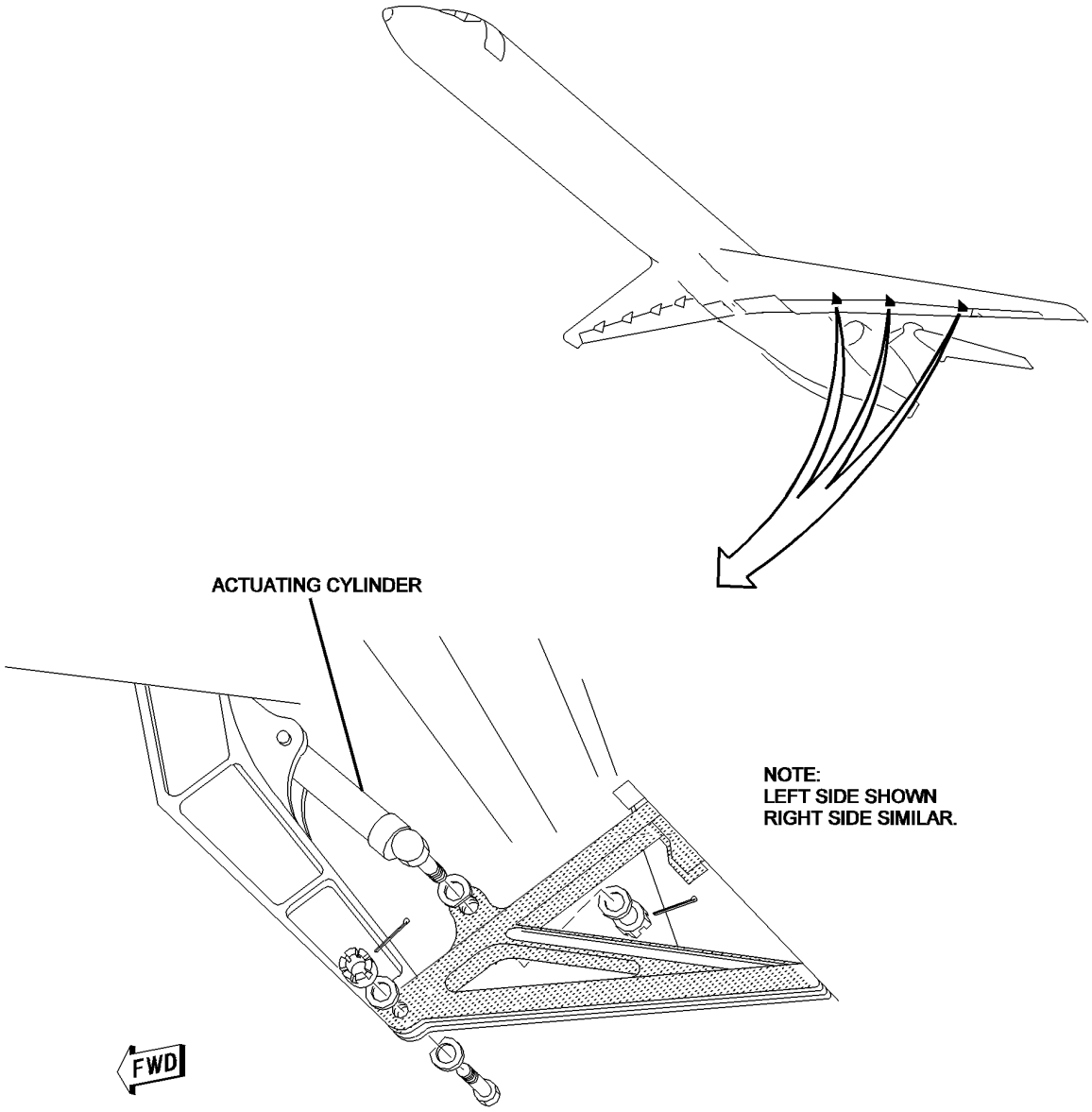
(b) If yes in Step (4(a), record specific area of corrosion on a non-routine form and list the non-routine(s) identification number(s) here _____.

(5) Record structural findings.

(a) Structural finding: Yes _____ No _____

(b) If yes in Step (5(a), record specific area of structural cracking on a non-routine form and list the non-routine(s) identification number(s) here _____.

——— END OF TASK ———



BBB2-57-45
S0000277094V1

Flap Support Fittings
Figure 630/57-05-03-990-806

TASK 57-05-03-211-832

31. Flap Vanes, Attach Bracket - Structure

A. Inspection

SUBTASK 57-05-03-010-002

(1) Remove two inch diameter bonded metal plates.

SUBTASK 57-05-03-160-007

(2) Clean inspection area as required.

NOTE: It is expected that the area to be inspected is clean enough to minimize the possibility that accumulated dirt, lint, fibers or grease might hide unsatisfactory conditions that would otherwise be obvious. Any cleaning that is considered necessary should be performed in accordance with accepted procedures in order to minimize the possibility of the cleaning process itself introducing anomalies.

SUBTASK 57-05-03-211-007

(3) Do the detailed inspection.

NOTE: A detailed inspection is an intensive examination of a specific item, installation or assembly, to detect damage, failure or irregularity. Available lighting is normally supplemented with a direct source of good lighting at an intensity deemed appropriate. Inspection aids such as mirrors, magnifying lenses or other means may be necessary. Surface cleaning and elaborate access procedures may also be required.

SUBTASK 57-05-03-916-007

(4) Apply surface treatments and/or corrosion inhibiting compound as required.

NOTE: Protective materials (e.g. corrosion inhibiting compounds, paints, etc.) shall be re-applied if removed to perform the inspection/maintenance task.

SUBTASK 57-05-03-410-002

(5) Install two inch diameter bonded metal plates.

(6) Record corrosion findings.

(a) Corrosion finding: Yes _____ No _____

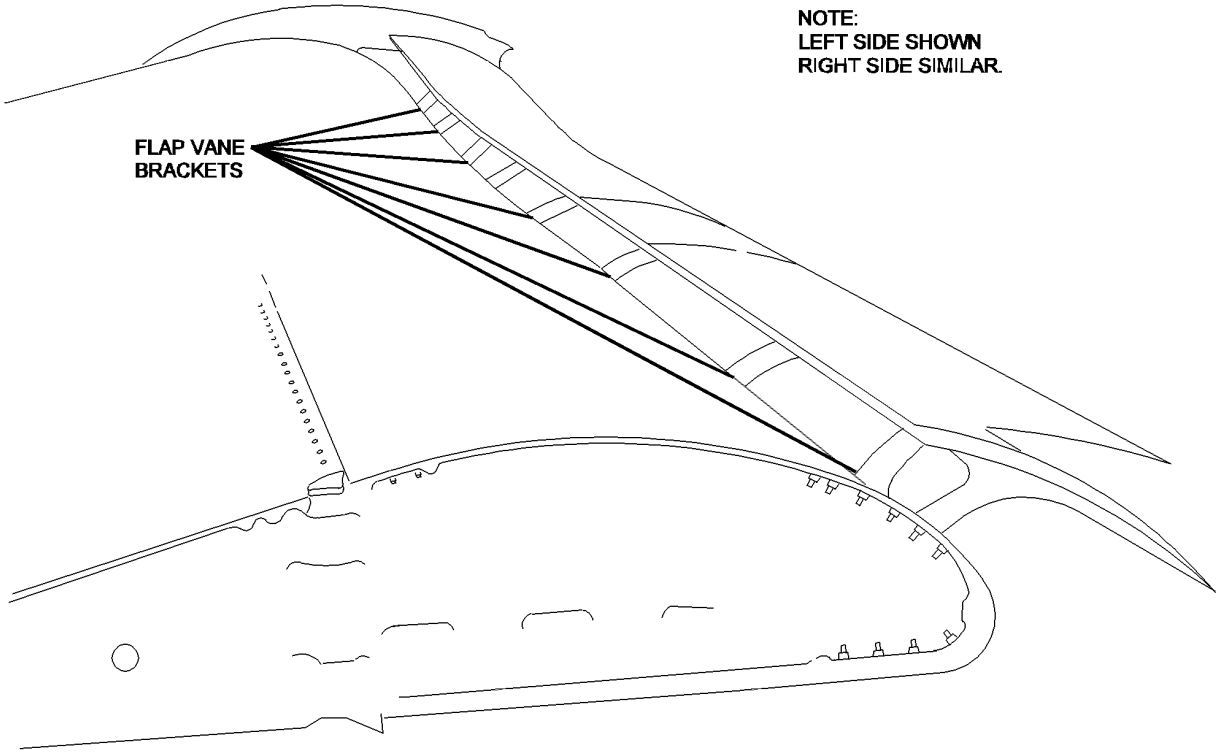
(b) If yes in Step (6(a), record specific area of corrosion on a non-routine form and list the non-routine(s) identification number(s) here _____.

(7) Record structural findings.

(a) Structural finding: Yes _____ No _____

(b) If yes in Step (7(a), record specific area of structural cracking on a non-routine form and list the non-routine(s) identification number(s) here _____.

——— END OF TASK ———



BBB2-57-47
S0000277150V1

Flap Vane Attach Brackets
Figure 631/57-05-03-990-807

TASK 57-05-03-211-833

32. Flex Joint, Wing Flap, Support Fittings/Attach Structure

A. Inspection

SUBTASK 57-05-03-010-003

(1) Gain access as required.

SUBTASK 57-05-03-160-008

(2) Clean inspection area as required.

NOTE: It is expected that the area to be inspected is clean enough to minimize the possibility that accumulated dirt, lint, fibers or grease might hide unsatisfactory conditions that would otherwise be obvious. Any cleaning that is considered necessary should be performed in accordance with accepted procedures in order to minimize the possibility of the cleaning process itself introducing anomalies.

SUBTASK 57-05-03-211-008

(3) Do the detailed inspection.

NOTE: A detailed inspection is an intensive examination of a specific item, installation or assembly, to detect damage, failure or irregularity. Available lighting is normally supplemented with a direct source of good lighting at an intensity deemed appropriate. Inspection aids such as mirrors, magnifying lenses or other means may be necessary. Surface cleaning and elaborate access procedures may also be required.

SUBTASK 57-05-03-916-008

(4) Apply surface treatments and/or corrosion inhibiting compound as required.

NOTE: Protective materials (e.g. corrosion inhibiting compounds, paints, etc.) shall be re-applied if removed to perform the inspection/maintenance task.

SUBTASK 57-05-03-410-003

(5) Install removed panels.

(6) Record corrosion findings.

(a) Corrosion finding: Yes _____ No _____

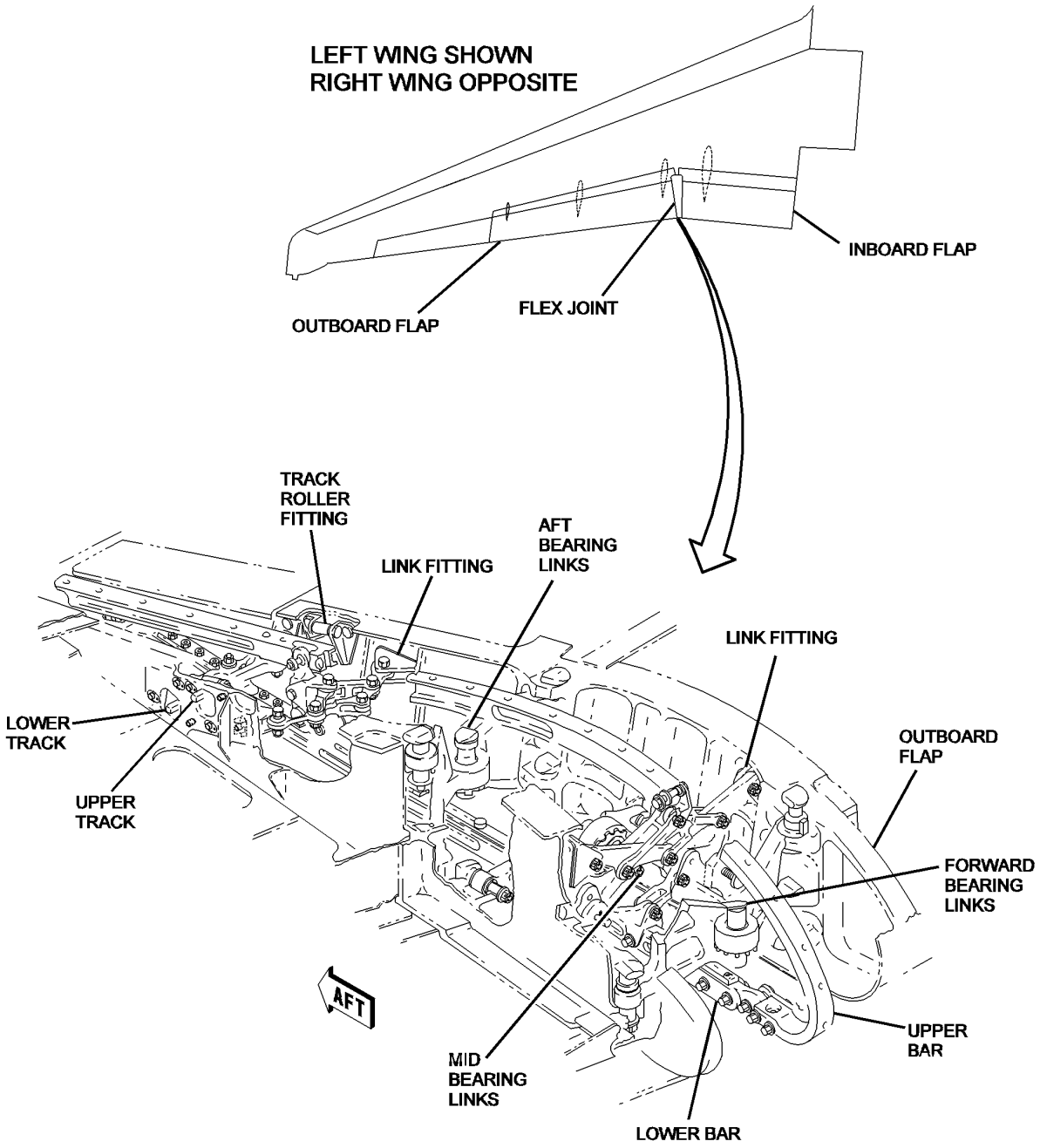
(b) If yes in Step (6(a), record specific area of corrosion on a non-routine form and list the non-routine(s) identification number(s) here _____.

(7) Record structural findings.

(a) Structural finding: Yes _____ No _____

(b) If yes in Step (7(a), record specific area of structural cracking on a non-routine form and list the non-routine(s) identification number(s) here _____.

——— END OF TASK ———



Flap Flex Joint
Figure 632/57-05-03-990-808

WJE 873, 874 POST MD80-30-071 OR POST MD80-30-078

TASK 57-05-03-211-836

33. Outer Wing, Upper Skin Panel, STA XCW 70.0 - XCW 115.0 and XW 179.5 - XW 560.0 External Surfaces (Area Not Covered by Wing Heater Blanket)

A. Inspection

SUBTASK 57-05-03-160-030

(1) Clean inspection area as required.

NOTE: It is expected that the area to be inspected is clean enough to minimize the possibility that accumulated dirt, lint, fibers or grease might hide unsatisfactory conditions that would otherwise be obvious. Any cleaning that is considered necessary should be performed in accordance with accepted procedures in order to minimize the possibility of the cleaning process itself introducing anomalies.

SUBTASK 57-05-03-211-031

(2) Do the detailed inspection.

NOTE: A detailed inspection is an intensive examination of a specific item, installation or assembly, to detect damage, failure or irregularity. Available lighting is normally supplemented with a direct source of good lighting at an intensity deemed appropriate. Inspection aids such as mirrors, magnifying lenses or other means may be necessary. Surface cleaning and elaborate access procedures may also be required.

SUBTASK 57-05-03-916-030

(3) Apply surface treatments and/or corrosion inhibiting compound as required.

NOTE: Protective materials (e.g. corrosion inhibiting compounds, paints, etc.) shall be re-applied if removed to perform the inspection/maintenance task.

SUBTASK 57-05-03-970-011

(4) Record corrosion findings.

(a) Corrosion finding: Yes _____ No _____

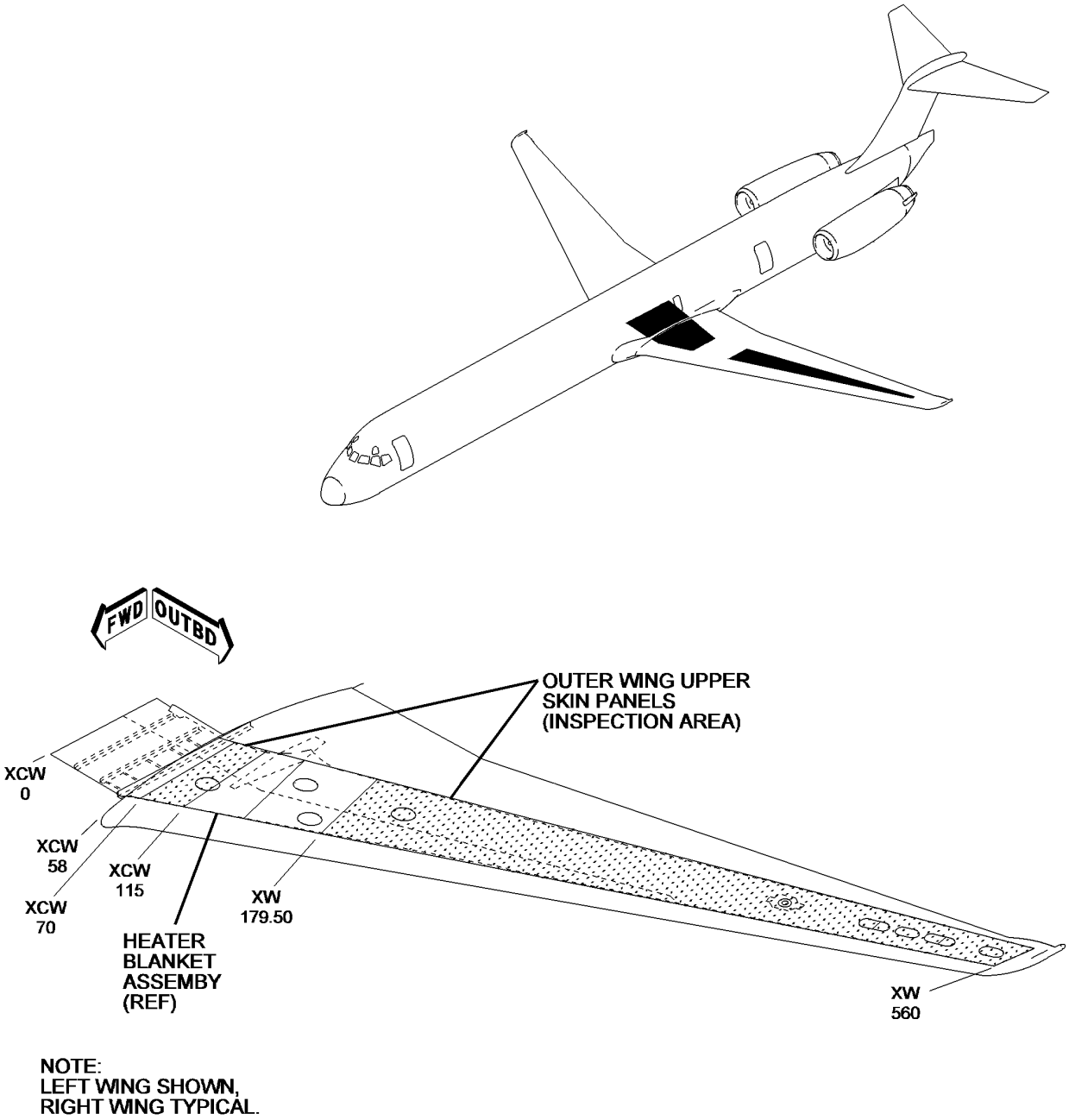
(b) If yes in Step (4(a), record specific area of corrosion on a non-routine form and list the non-routine(s) identification number(s) here _____.

(5) Record structural findings.

(a) Structural finding: Yes _____ No _____

(b) If yes in Step (5(a), record specific area of structural cracking on a non-routine form and list the non-routine(s) identification number(s) here _____.

——— END OF TASK ———



Outer Wing Upper Skin Panel STA XCW70.00-XCW 115.0 and XW179.5-XW560
Figure 633/57-05-03-990-835

EFFECTIVITY
WJE 873, 874 POST MD80-30-071 OR POST MD80-30-078

TASK 57-05-03-280-801

34. Outer Wing Upper Skin Panel, Sta. Xcw 115.00 to Sta. Xw 179.50 (Area Covered by Wing Heater Blanket)

NOTE: This procedure is a scheduled maintenance task.

A. References

Reference	Title
SRM NDT 07-05	NON-DESTRUCTIVE TESTING FOR WING SKIN CRACK UNDER NOFOD OVER-WING ICE PROTECTION SYSTEM HEATER

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

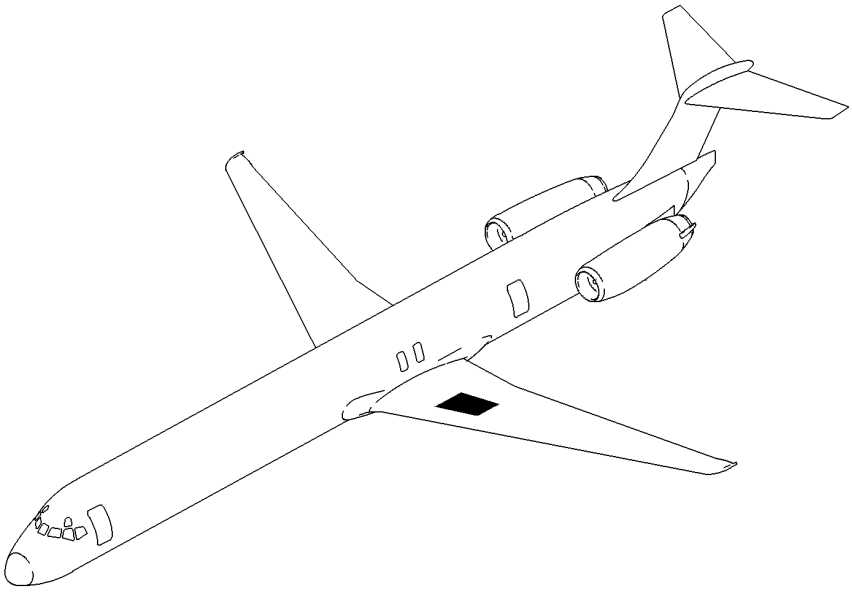
Reference	Description
SPL-14000	Tester - Non Destructive (NDT) **MD80-83** Part #: MAUS V Supplier: 1Q535

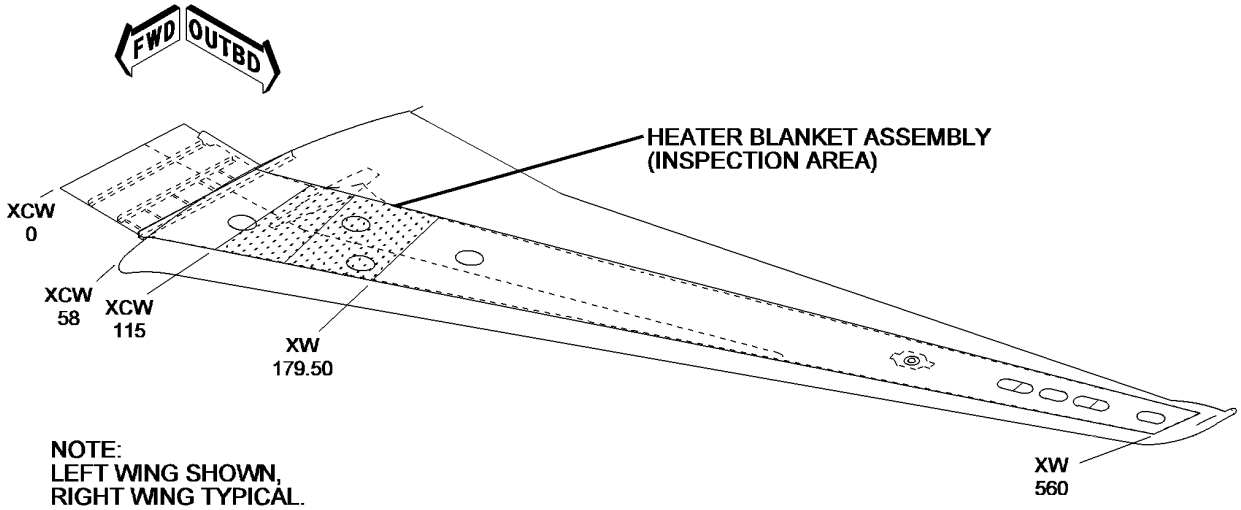
C. Special Detailed Inspection of the Upper Wing Skin, Sta Xcw 115.00 to Xw 179.50 (Area Covered by Wing Heater Blanket)

SUBTASK 57-05-03-280-001

(1) Do a special detailed inspection of the upper wing skin from Sta Xcw 115.00 to Xw 179.50 through the heater blanket per SRM NDT 07-05 using non destructive tester, SPL-14000.

——— END OF TASK ———





BBB2-57-54
S0000506902V1

Outer Wing Upper Skin Pane XCW115.00 to XW179.50
Figure 634/57-05-03-990-836

EFFECTIVITY
WJE 873, 874 POST MD80-30-071 OR POST MD80-30-078

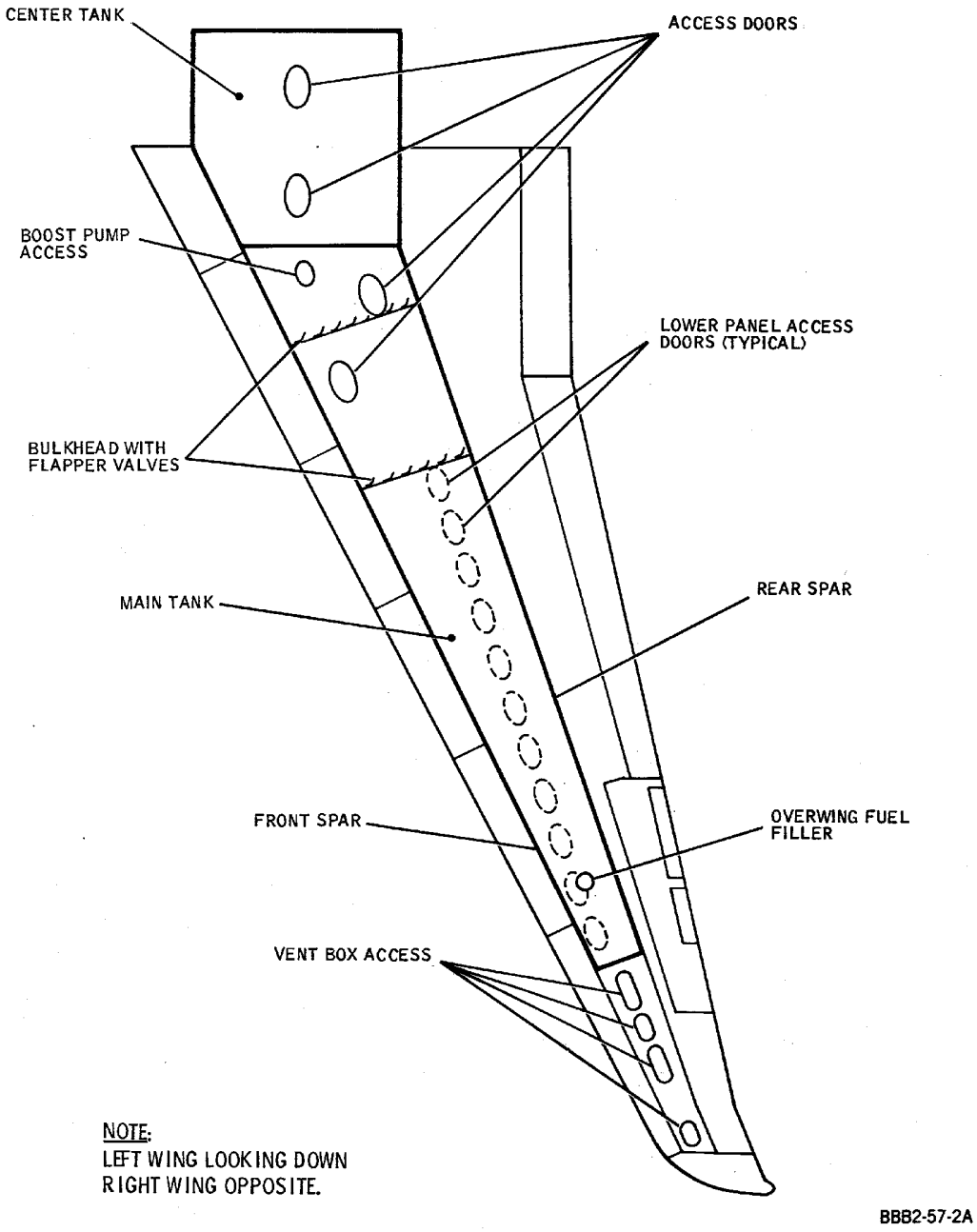
MAIN FRAME - DESCRIPTION AND OPERATION

1. General

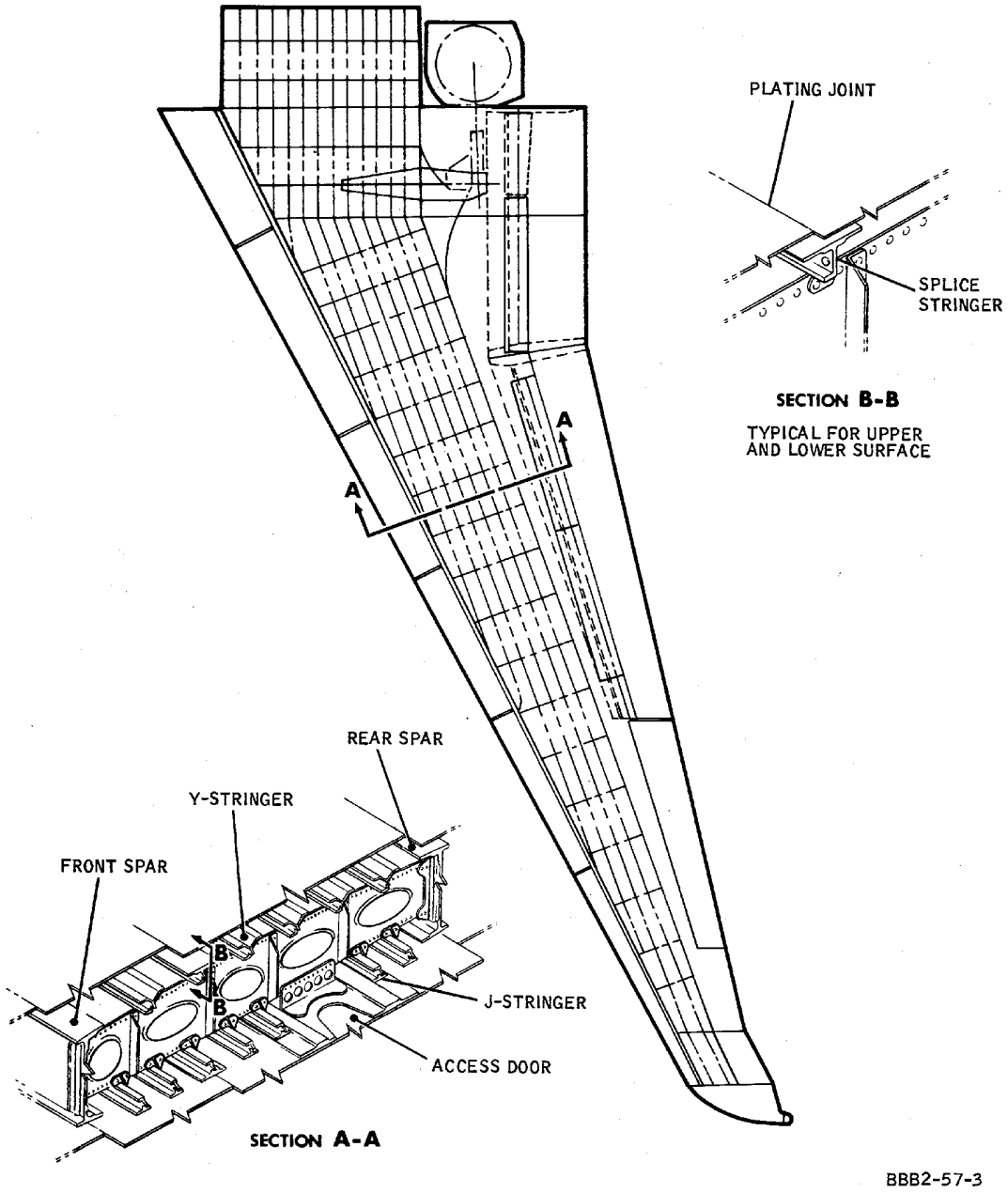
A. The wing main frame consists of two spanwise spars, spanwise panel stiffeners and chordwise ribs and bulkheads. The wing spars consist of extruded spar caps, sheet spar webs, and extruded spar web stiffeners, except near the wing tip, where the sheet metal web is eliminated by overlap-ping of the two spar caps. The ribs and bulkheads between the spars are of rolled sheet and extruded stiffeners. Various types of ribs and bulkheads provide chordwise support to the wing. Bulkheads serve as hinge attach points for the ailerons, spoilers and flaps. (Figure 2)

B. The boundaries of the integral fuel tanks are formed by the front and rear spars and liquid tight, solid sheet bulkheads. Flapper valves incorporated in two ribs, of each wing, prevent rapid shift of fuel spanwise and form a gravity-supplied fuel reservoir in the inboard end of each wing tank.

C. Metal-to-metal joining forms a seal of the integral fuel tanks. Seals and sealing compounds are used as a secondary method of sealing fuel tanks. A final brushed on sealant forms the primary seal. The complete interior surface of the tank is covered with a protective coating to prevent corrosion. Access for inspection and maintenance of the fuel tanks and system components is gained through stressed access doors.



Wing Integral Fuel Tanks
Figure 1/57-10-00-990-801



Wing Structure Main Frame
Figure 2/57-10-00-990-802

AUXILIARY STRUCTURE - DESCRIPTION AND OPERATION

1. General

A. The auxiliary structure of the wing is the area forward of the front spar and aft of the rear spar except for control surfaces. The wing leading edge consists of a fixed portion and extendable full span slats. The slats extend the length of the leading edge of the wing. The slats are independently lowered to the takeoff position during initial extension of the flaps. The slats are lowered to the scheduled position as a function of flap extension.

2. Leading Edge

A. The fixed leading edge consists of skin and formers and contains frictionless rollers that completely cage the slat tracks to insure reliable extension and retraction of the slats. Access is provided at each track station for the inspection and servicing of the slat track support rollers and operating mechanisms.

B. Fuel dams and fuel drain holes are located at various points along the wing leading edge. The dams divert any fuel entering the leading edge to drain holes in the lower surface.

C. The leading edge slats consist of six segments supported on tracks and rollers. The upper surface and nose section of the slats are of double skin construction attached to chordwise ribs which incorporate thermal anti-icing.

D. The refueling system components and piping are housed in the right wing leading edge and are attached to the front spar. Fuel dams are installed in the wing leading edge to prevent fuel flow inboard or outboard of the refueling area, in the event of fuel line failure.

3. Wingtip

A. The wingtip is a faired assembly that completes the contour of the outer wing. The wingtip is removable for repair and/or replacement.

B. The tip is of all-metal construction consisting of ribs, channels, doublers, gussets, and plating. The landing light, logo light, position lights, and strobe lights, and compass flux valve are housed within the wingtip. The compass flux valve is attached to the wing structure and extends into the wingtip.

4. Trailing Edge

A. The wing trailing edge is constructed of honeycomb panels and aluminum sheets supported by ribs. The lower surfaces aft of the rear spar and forward of the ailerons and flaps have hinged panels. The panels are hinged on the forward edge and provide access to maintenance and inspection. Non-magenetic fasteners are used within a 5-foot radius of the flux valve to prevent interference with flux valve calibration. (SRM 57-00, Page 1).

B. Fuel dams and fuel drain holes are located at various points in the wing trailing edge. The dams divert any fuel entering the trailing edge to drain holes in the lower surface.

5. Articulated Bent Up Trailing Edge

A. Articulated bent up trailing edge (BUTE) panels are installed on the lower surface of each wing as the aft portion of the hinged trailing edge panels. The BUTE panels are hinged near the center of the trailing edge panels and deflect upwards against stops as the flaps are extended. The panels deflect back to the faired position as the flaps are retracted.

6. Vortilon

A. A vortilon (aerodynamic fence) is installed on the lower surface of each wing. The vortilon is constructed in two removable sections joined together with a connecting access fairing. The sections are attached with screws to formers outboard of the landing gear.

WINGTIP - MAINTENANCE PRACTICES

1. General

A. The removal and installation procedure for wingtips are identical. Access to electrical connectors is through the wingtip electrical access door.

B. A test of the position lights and landing lights must be performed following installation of the wingtip.

2. Equipment and Materials

NOTE: Equivalent substitutes may be used instead of the following listed items:

NOTE: It is possible that some materials in the Equipment and Materials List cannot be used for some or all of their necessary applications. Before you use the materials, make sure the types, quantities, and applications of the materials necessary are legally permitted in your location. All persons must obey all applicable federal, state, local, and provincial laws and regulations when it is necessary to work with these materials.

Table 201

Name and Number	Manufacturer
Sealant, Pro-Seal 735 QPL 1819	Coast Pro-Seal Co., Los Angeles, California
Nonmetallic Scraper	Commercially Available

3. Removal/Installation Wingtip

A. Remove Wingtip

WARNING: TAG AND USE SAFETY CLIPS TO SAFETY THE CIRCUIT BREAKERS. IF THE CIRCUIT BREAKERS ARE NOT OPENED, TAGGED, AND SAFETIED, INJURY TO PERSONS AND DAMAGE TO EQUIPMENT CAN OCCUR.

(1) Open these circuit breakers and install safety tags:

UPPER EPC, LIGHTS - LEFT AC BUS

Row	Col	Number	Name
K	10	B1-727	STROBE
K	12	B1-13	LEFT WING LANDING
K	13	B1-14	LEFT WING LANDING LIGHT CONTROL

UPPER EPC, LIGHTS - RIGHT AC BUS

Row	Col	Number	Name
L	12	B1-15	RIGHT WING LANDING
L	13	B1-16	RIGHT WING LANDING LIGHT CONTROL

(2) Disconnect strobe, logo, position, and landing light electrical connectors.

NOTE: Temporarily stow electrical connectors to prevent interference with wingtip during removal.

CAUTION: COMPASS FLUX VALVE IS MOUNTED ON WING STRUCTURE AND EXTENDS INTO WINGTIP. USE EXTREME CARE DURING REMOVAL OF WINGTIP TO PREVENT DAMAGE TO FLUX VALVE.

(3) Remove wingtip.

(4) Remove major part of old weather seal from butt joint surfaces using nonmetallic scraper.

NOTE: A thin, even coat of weather seal remaining on butt joint surfaces is permissible.

B. Install Wingtip

WARNING: TAG AND USE SAFETY CLIPS TO SAFETY THE CIRCUIT BREAKERS. IF THE CIRCUIT BREAKERS ARE NOT OPENED, TAGGED, AND SAFETIED, INJURY TO PERSONS AND DAMAGE TO EQUIPMENT CAN OCCUR.

(1) Make sure that these circuit breakers are open and have safety tags:

UPPER EPC, LIGHTS - LEFT AC BUS

Row	Col	Number	Name
K	10	B1-727	STROBE
K	12	B1-13	LEFT WING LANDING
K	13	B1-14	LEFT WING LANDING LIGHT CONTROL

UPPER EPC, LIGHTS - RIGHT AC BUS

Row	Col	Number	Name
L	12	B1-15	RIGHT WING LANDING
L	13	B1-16	RIGHT WING LANDING LIGHT CONTROL

CAUTION: NONMAGNETIC STAINLESS STEEL SCREWS SHALL BE USED TO ATTACH WINGTIP, TO PREVENT INTERFERENCE WITH CALIBRATION OF COMPASS FLUX VALVE.

(2) Install wingtip.

(3) Connect strobe, logo, position, and landing light electrical connectors.

(4) Remove the safety tags and close these circuit breakers:

UPPER EPC, LIGHTS - LEFT AC BUS

Row	Col	Number	Name
K	10	B1-727	STROBE
K	12	B1-13	LEFT WING LANDING
K	13	B1-14	LEFT WING LANDING LIGHT CONTROL

UPPER EPC, LIGHTS - RIGHT AC BUS

Row	Col	Number	Name
L	12	B1-15	RIGHT WING LANDING
L	13	B1-16	RIGHT WING LANDING LIGHT CONTROL

(5) Perform operational check of strobe, logo, position, and landing lights. Switches are located on glareshield panel.

WARNING: POLYSULFIDE ALUMINIZED SEALANT IS AN AGENT THAT IS FLAMMABLE, EXPLOSIVE, POISONOUS, AND AN IRRITANT. MAKE SURE ALL PERSONS OBEY THE PRECAUTIONS WHEN POLYSULFIDE ALUMINIZED SEALANT IS USED.

- GAS/AIR MIXTURES MORE THAN THE LOWER EXPLOSIVE LIMIT (LEL) CAN CAUSE AN EXPLOSION IF HIGH HEAT, SPARKS, OR FLAMES SUPPLY IGNITION.
- USE IN AN AREA OPEN TO THE AIR.
- CLOSE THE CONTAINER WHEN NOT USED.
- DO NOT GET POLYSULFIDE ALUMINIZED SEALANT IN THE EYES, ON THE SKIN, OR ON YOUR CLOTHES.
- DO NOT BREATHE THE GAS.

(WARNING PRECEDES)

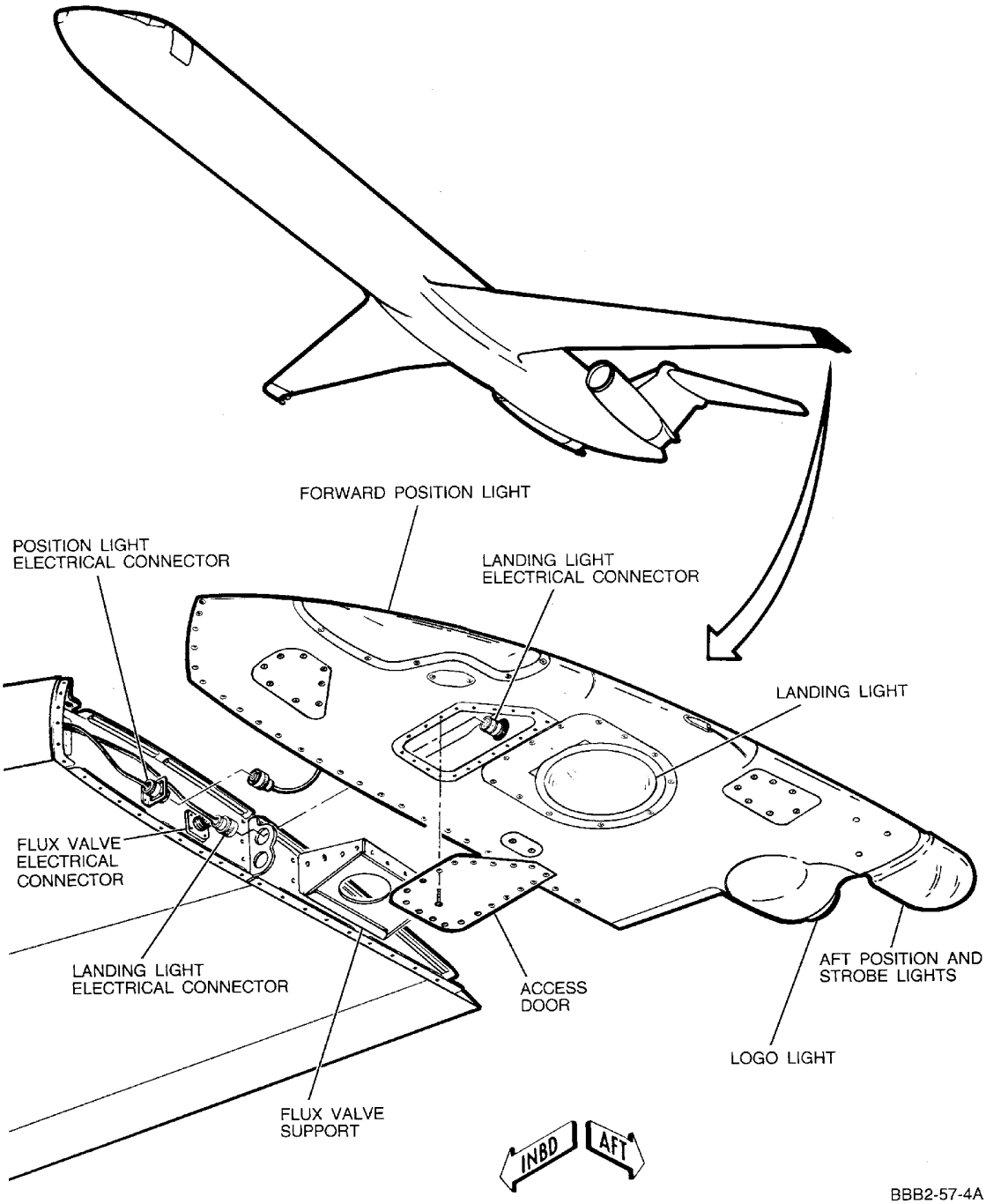
WARNING: REFER TO THE APPLICABLE MANUFACTURER'S OR SUPPLIER'S MSDS FOR:

- MORE PRECAUTIONARY DATA
- APPROVED SAFETY EQUIPMENT
- EMERGENCY MEDICAL AID.

TALK WITH THE LOCAL SAFETY DEPARTMENT OR AUTHORITIES FOR THE PROCEDURES TO DISCARD THIS HAZARDOUS AGENT.

(6) Weather seal butt joints with aluminized sealant, Pro-Seal 735, after installation.

(7) Make certain that drain holes in wingtip lower surface are open.



Wingtip -- Removal/Installation
Figure 201/57-20-02-990-801

BENT UP TRAILING EDGE PANELS - MAINTENANCE PRACTICES

1. General

A. The articulated bent up trailing edge (BUTE) consists of three panels; inboard, center and outer. The three BUTE panels are hinged to the lower trailing edge panels of the wing. Removal and installation procedures for the BUTE panels on each wing are identical.

2. Removal/Installation BUTE Panels

A. Remove BUTE Panels

(1) Lower wing flaps to full-down position. (PAGEBLOCK 27-50-00/501)

(2) Depressurize left and right hydraulic systems. (PAGEBLOCK 29-00-00/201)

(3) Remove torsion bar retainers.

(4) Support BUTE panel and remove hinge pins.

(5) Carefully remove BUTE panel from wing lower trailing edge panel.

B. Install BUTE Panels

(1) Make certain wing flaps are in full-down position and left and right hydraulic systems are depressurized. (FLAPS - ADJUSTMENT/TEST, PAGEBLOCK 27-50-00/501, GENERAL - MAINTENANCE PRACTICES, PAGEBLOCK 29-00-00/201)

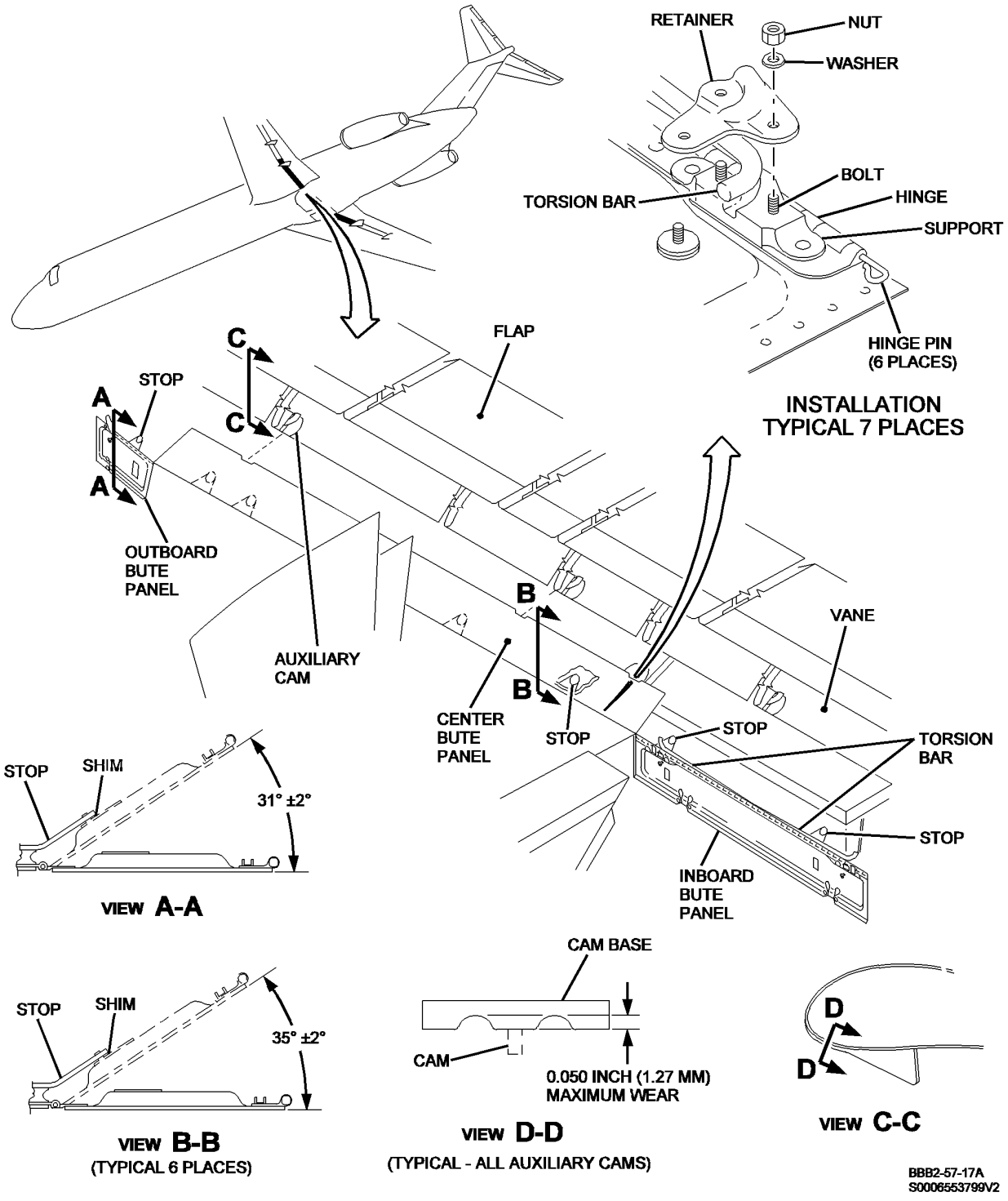
(2) Position BUTE panel and carefully align hinge half with wing lower trailing edge panel hinge half. Install hinge pins.

(3) Position retainer on end of torsion bar and attach retainer to BUTE panel.

(4) Check rotation angle of BUTE panel.

NOTE: Measure angle of BUTE panel at stop only. Angle of BUTE panel may be adjusted by addition or deletion of shims at stop.

(5) Operate flaps and check that flaps and BUTE panels mate properly without binding of rollers or surfaces.



Bent Up Trailing Edge Panels -- Removal/Installation
Figure 201/57-20-03-990-801

3. Inspection/Check BUTE Doors

A. Check BUTE Doors

(1) Check BUTE hinge and hinge pin for wear. BUTE door should operate without binding. If worn hinge causes BUTE door to bind, replace hinge.

(2) Check lower skin for wear in area contacted by each roller.

NOTE: Evidence of BUTE door lower skin wear in areas contacted by rollers indicates approximately 0.050 inch (1.27 mm) wear on rollers, roller axles, or holes in roller supports. Wear of 0.050 inch (1.27 mm) may result from accumulative wear of all affected parts.

(3) Check auxiliary cam for wear spots. If wear exceeds 0.0625 inch (1.587 mm), in depth, polish out area and blend to linear contour. Wear on auxiliary cam surface is limited to wear on auxiliary cam base. (SRM 57)

(4) Check auxiliary cam base for excessive wear. Total wear of cam base should not exceed 0.050 inch (1.27 mm).

(5) Cam surfaces with gouges or nicks should be blended out with a large radius. Maximum allowable depth of rework is 0.0625 inch (1.587 mm). (SRM 57)

NOTE: Special attention should be given the inboard aluminum cam.

(6) Check roller mounting holes in supports. Worn or elongated holes which cause rollers to bind should be replaced.

(7) Check roller for wear. Approximately 0.050 inch (1.27 mm) wear on roller axle will cause roller to wear on skin. Roller worn through chrome plating approximately 0.003 inch (0.0762 mm) should be replaced.

(8) Rollers should be kept properly lubricated. (FLIGHT CONTROLS - LUBRICATION, PAGEBLOCK 12-21-02/301)

(9) If roller is being replaced, lubricate new roller and shaft with a brush coat of grease. (FLIGHT CONTROLS - LUBRICATION, PAGEBLOCK 12-21-02/301)

BENT UP TRAILING EDGE PANELS - INSPECTION/CHECK

1. General

A. This procedure contains task card data.

TASK 57-20-03-211-801

2. Articulated Bent Up Trailing Edge (BUTE) Doors Inspection

NOTE: This procedure is a scheduled maintenance task.

A. References

Reference	Title
12-21-02 P/B 301	FLIGHT CONTROLS - LUBRICATION
27-50-00 P/B 501	FLAPS - ADJUSTMENT/TEST
29-00-00 P/B 201	GENERAL - MAINTENANCE PRACTICES
SRM 57	Structural Repair Manual

B. Tools/Equipment

Reference	Description
STD-858	Tag - DO NOT OPERATE

C. Prepare for the Bent Up Trailing Edge (BUTE) Doors Inspection

SUBTASK 57-20-03-860-001

(1) Put the flaps to the 40° position. (FLAPS - ADJUSTMENT/TEST, PAGEBLOCK 27-50-00/501)

(2) Depressurize left and right hydraulic systems. (PAGEBLOCK 29-00-00/201)

(3) Put a DO NOT OPERATE tag, STD-858 to the flap/slat handle.

D. Detailed Inspection of the Bent Up Trailing Edge (BUTE) Doors Rollers and Hinges for Wear and Condition

SUBTASK 57-20-03-220-001

(1) Check BUTE hinge and hinge pin for wear. BUTE door should operate without binding. If worn hinge causes BUTE door to bind, replace hinge.

(2) Check lower skin for wear in area contacted by each roller.

NOTE: Evidence of BUTE door lower skin wear in areas contacted by rollers indicates approximately 0.050 inch (1.27 mm) wear on rollers, roller axles, or holes in roller supports. Wear of 0.050 inch (1.27 mm) may result from accumulative wear of all affected parts.

(3) Check auxiliary cam for wear spots. If wear exceeds 0.0625 inch (1.587 mm) in depth, polish out area and blend to linear contour. Wear on auxiliary cam surface is limited to wear on auxiliary cam base. (SRM 57)

(4) Check auxiliary cam base for excessive wear. Total wear of cam base should not exceed 0.050 inch (1.27 mm).

(5) Cam surfaces with gouges or nicks should be blended out with a large radius. Maximum allowable depth of rework is 0.0625 inch (1.587 mm). (SRM 57)

NOTE: Special attention should be given the inboard aluminum cam.

(6) Check roller mounting holes in supports. Worn or elongated holes which cause rollers to bind should be replaced.

(7) Check roller for wear. Approximately 0.050 inch (1.27 mm) wear on roller axle will cause roller to wear on skin. Roller worn through chrome plating approximately 0.003 inch (0.0762 mm) should be replaced.

(8) Rollers should be kept properly lubricated. (FLIGHT CONTROLS - LUBRICATION, PAGEBLOCK 12-21-02/301)

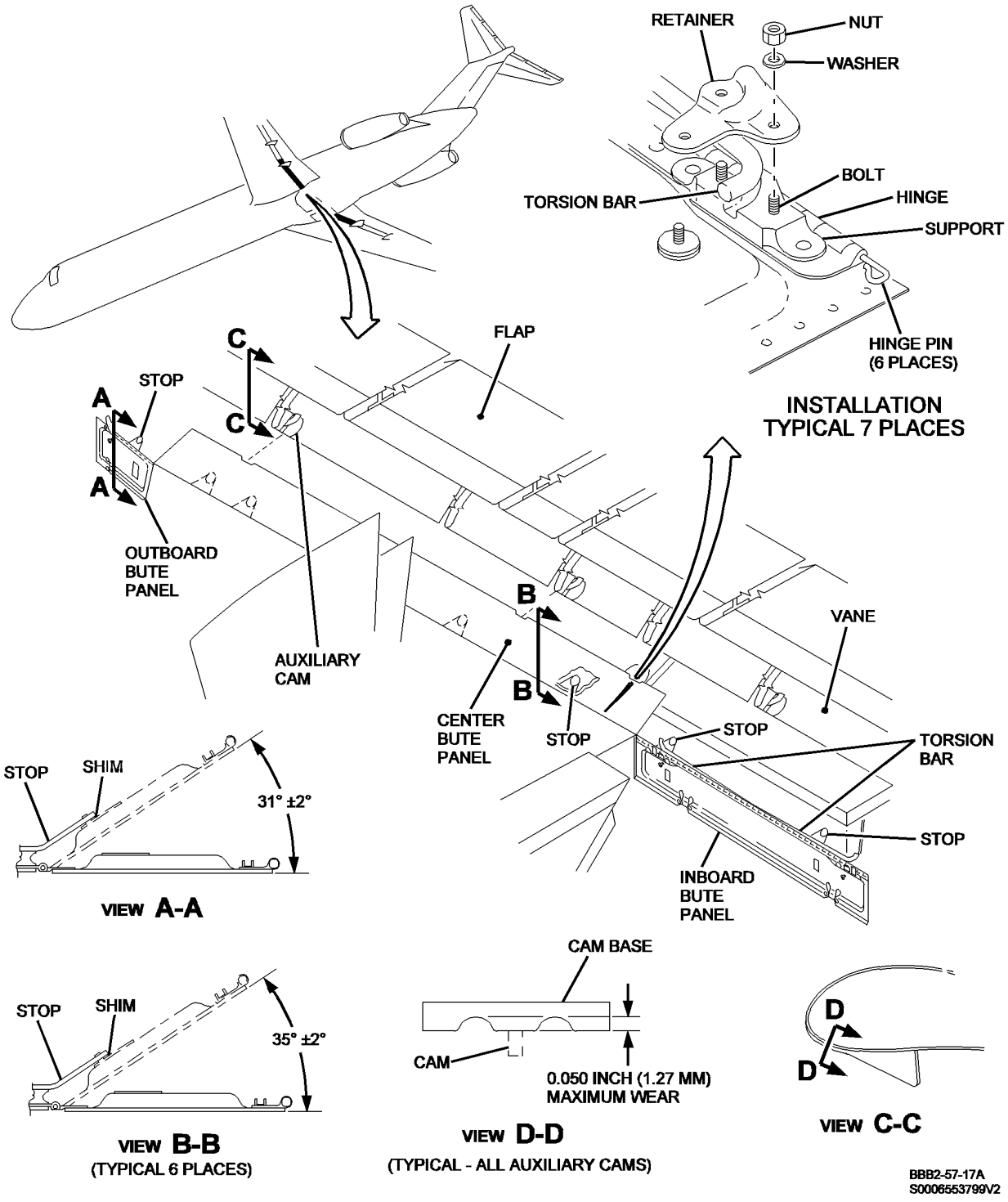
(9) If roller is being replaced, lubricate new roller and shaft with a brush coat of grease. (FLIGHT CONTROLS - LUBRICATION, PAGEBLOCK 12-21-02/301)

SUBTASK 57-20-03-942-001

(10) Remove all the tools and equipment from the work area. Make sure the area is clean.

(11) Remove the DO NOT OPERATE tag from the flap/slat handle.

——— END OF TASK ———



Bent Up Trailing Edge Doors
Figure 601/57-20-03-990-802

AIR FLOW CONTROLS - MAINTENANCE PRACTICES

1. General

A. A vortilon (aerodynamic fence) is installed on the lower surface of each wing.

B. The vortilon consists of a nose section, access fairing and aft fairing section. The vortilon is attached to the wing structure with screws.

2. Removal/Installation Vortilon

A. Remove Vortilon Sections

(1) Remove vortilon nose section. (Figure 201)

(2) Remove vortilon access fairing.

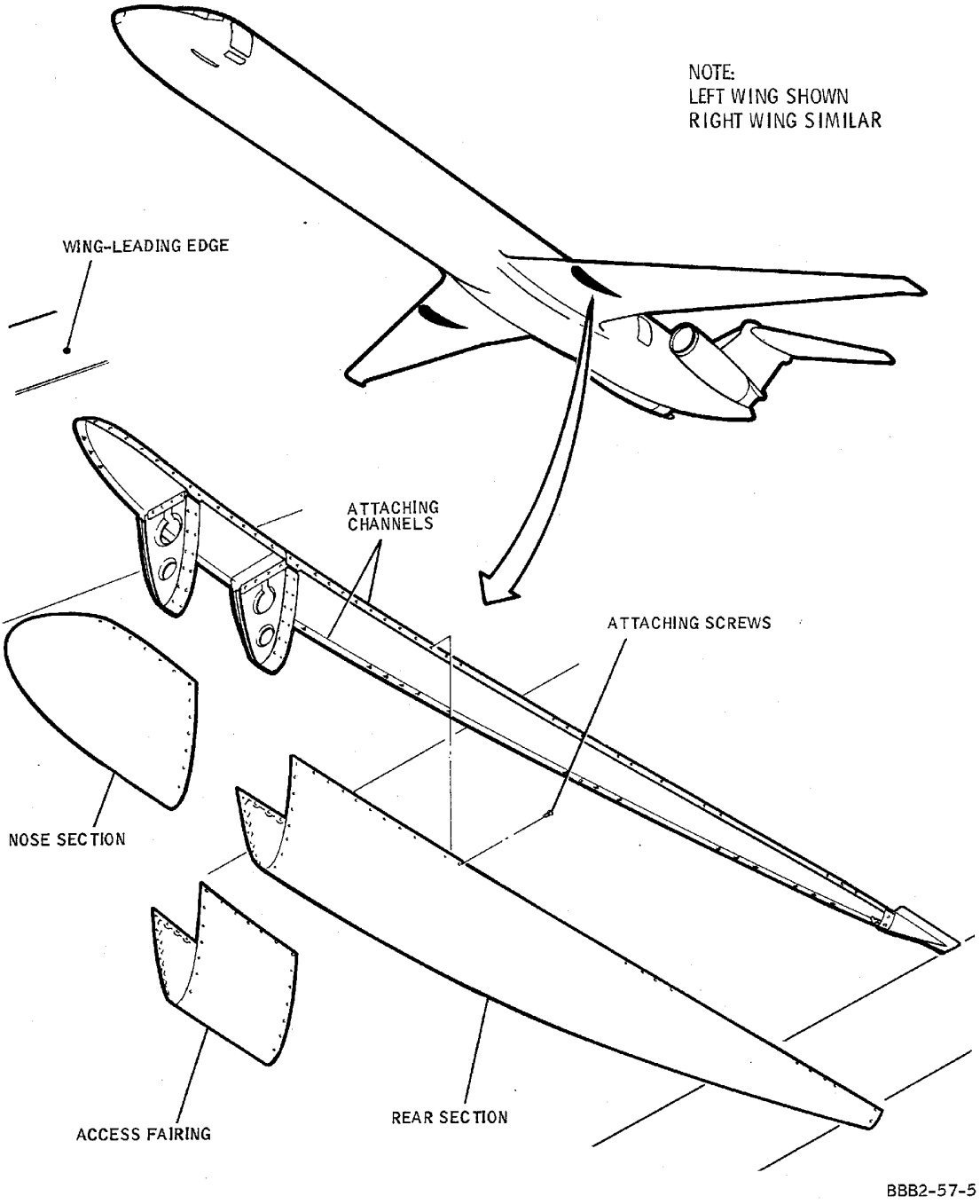
(3) Remove vortilon aft fairing section.

B. Install Vortilon Sections

(1) Install vortilon aft fairing section. (Figure 201)

(2) Install vortilon nose section.

(3) Install vortilon access fairing.



Vortilon - Removal/Installation
Figure 201/57-20-04-990-801

PLATES/SKIN - DESCRIPTION AND OPERATION

1. General

A. The plates/skin consist of the exterior surfaces of the wing. The exterior surfaces include the center and outer wing, leading edge, trailing edge, wingtip, access doors, and doublers.

2. Center and Outer Wing

A. The forward and aft skin panels, between the front and rear spars, are fabricated from heat-treated aluminum alloy plating. The inner surfaces are machined tapered from the inboard to the outboard end. The thickness of the skin is increased around the fuel tank access door cutouts and in the areas over the main landing gear fitting and inboard splice.

B. External doublers are installed on the outer surface of the upper and lower skin panels, above and below the main landing gear fitting. The doublers extend from the rear spar to the center of the wing panel providing additional strength for the landing gear fitting.

C. The skin panels attach to the front and rear spar caps and are joined together with a spanwise butt splice. The skin panels are reinforced by Y-section and J-section stringers.

D. The upper and lower wing panel access doors are stressed to carry structural loads. A seal attached to the inner surface of the fuel tank access doors prevents fuel from leaking between the door and skin. For instructions to install and seal fuel tank access doors, refer to GENERAL - MAINTENANCE PRACTICES, PAGEBLOCK 28-00-00/201.

3. Leading Edge

A. Machined leading edge skins are installed over the leading edge structure forward of the front spar. Beaded panels are installed over the upper area of the leading edge structure, under skin, to provide additional strength against buckling. Openings are provided in the leading edge skin for slat tracks and access doors for maintenance purposes.

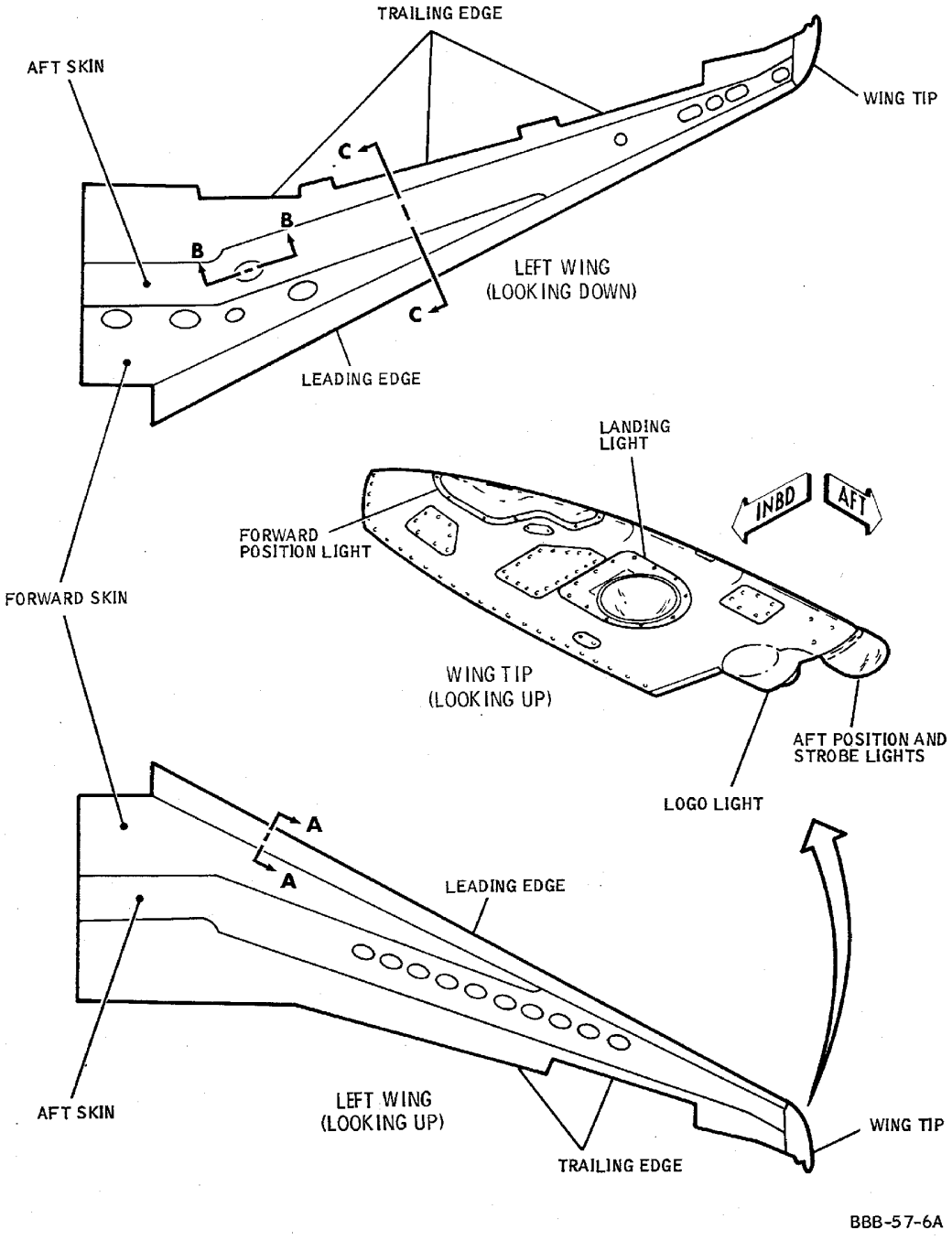
4. Trailing Edge

A. The trailing edge skin panels are located between the rear and auxiliary spars and the control surfaces. The panels are of bonded aluminum or glass faced nomex honeycomb construction.

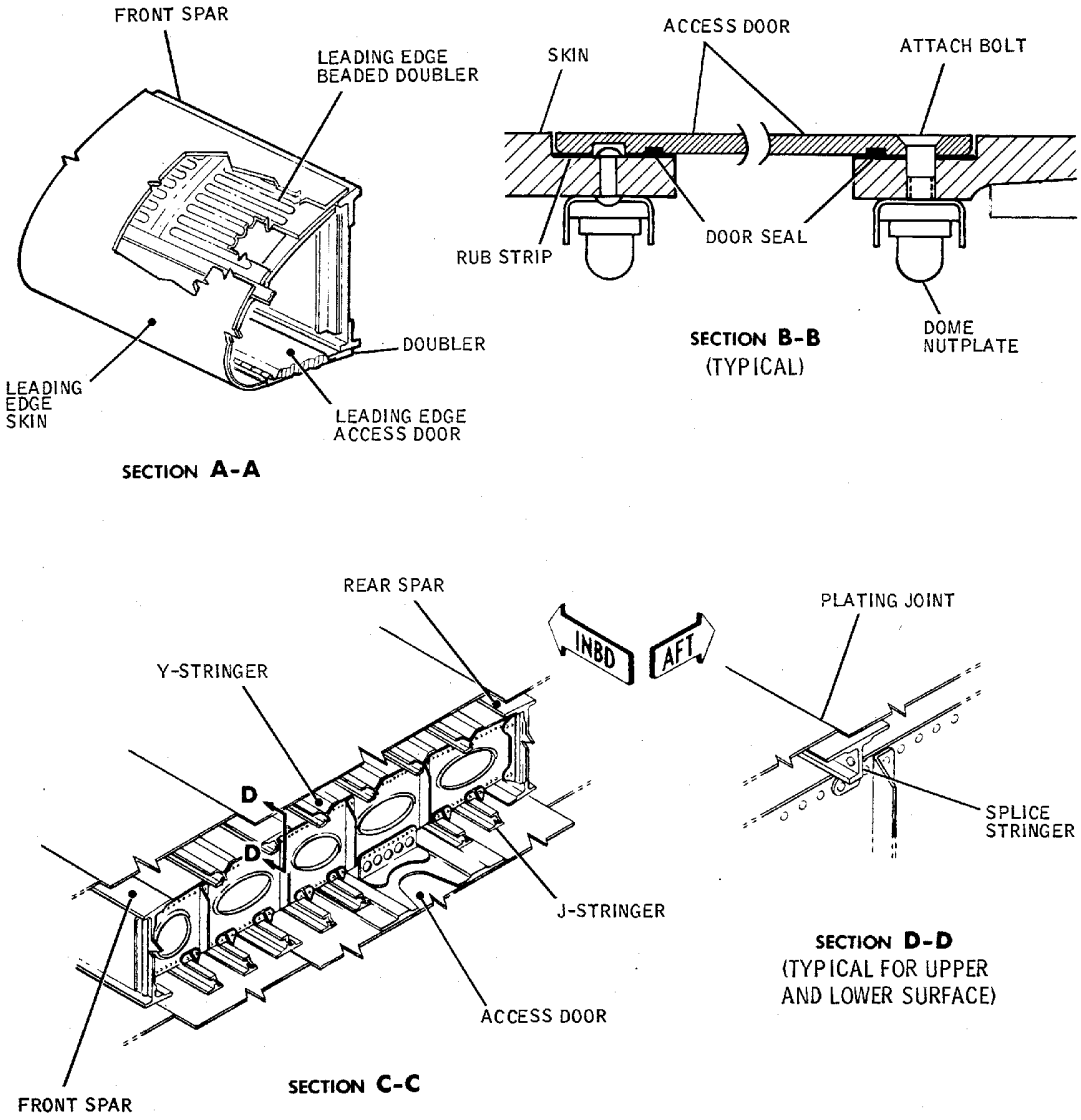
5. Wingtip

A. Sheet aluminum skins form the wingtip. U-shaped skins cover the structure in the constant section. A V-shaped trailing edge is attached to the wingtip structure inboard of the logo light.

B. Doors in the upper and lower skin provide access for maintenance purposes.



Wing Skins
Figure 1/57-30-00-990-801 (Sheet 1 of 2)



Wing Skins
Figure 1/57-30-00-990-801 (Sheet 2 of 2)

WING FUEL VENT BOX ACCESS DOORS - MAINTENANCE PRACTICES

1. General

A. The wing left and right fuel vent box access doors must be removed to gain access to the fuel standpipe and vent lines in the wing tip area. Removal/installation procedures for both doors are identical.

B. A thin coat of sealant is used on the faying surfaces of the vent box doors, and depending on condition, it may be necessary to repair the sealant prior to installation.

2. Equipment and Materials

NOTE: Equivalent substitutes may be used instead of the following items:

NOTE: It is possible that some materials in the Equipment and Materials List cannot be used for some or all of their necessary applications. Before you use the materials, make sure the types, quantities, and applications of the materials necessary are legally permitted in your location. All persons must obey all applicable federal, state, local, and provincial laws and regulations when it is necessary to work with these materials.

Table 201

Name and Number	Manufacturer
Sealant, PR1422-B2 QPL 2082	PRC-Desoto International, Inc. Glendale, CA.
Sealant DPM 5896-3, or DPM 5896-6 only	PRC-Desoto International, Inc. Glendale, CA. #PS-870, C-12/20, DMQR No. 1081A or C-48/168, DMQR No. 1290.
Scraper, Nonmetallic	Commercially available
Solvent, Isopropyl Alcohol	DPM 530, (TT-I-735, Grade A)

3. Removal/Installation - Vent Box Access Door Sealant

A. Remove Access Door

(1) Production personnel are responsible for originating a NON-ROUTINE BEFORE a fuel vent box access door is removed for any reason. The purpose for having a NON-ROUTINE written at this time is for accountability of access doors removed. Additionally, it provides Inspector/Designee personnel with the opportunity, during the time work is being accomplished, to assure that a clearance-to-close is available in a timely manner. A separate NON-ROUTINE card is required each time an access door is removed. Vent box access door numbers will be entered on the NON-ROUTINE.

(2) Remove vent box access door.

(3) Remove old sealant with nonmetallic scraper.

(4) Clean faying edges of door and wing with cloth moistened with solvent (isopropyl alcohol).

B. Install Access Door

WARNING: FASTENER REDUCED VISCOSITY SEALANT IS AN AGENT THAT IS FLAMMABLE, POISONOUS, AND AN IRRITANT. MAKE SURE ALL PERSONS OBEY THE PRECAUTIONS WHEN FASTENER REDUCED VISCOSITY SEALANT IS USED.

- DO NOT USE IN AREAS WHERE THERE IS HIGH HEAT, SPARKS, OR FLAMES.
- USE IN AN AREA OPEN TO THE AIR.
- CLOSE THE CONTAINER WHEN NOT USED.
- DO NOT GET FASTENER REDUCED VISCOSITY SEALANT IN THE EYES, ON THE SKIN, OR ON YOUR CLOTHES.
- DO NOT BREATHE THE GAS.

WARNING: REFER TO THE APPLICABLE MANUFACTURER'S OR SUPPLIER'S MSDS FOR:

- MORE PRECAUTIONARY DATA
- APPROVED SAFETY EQUIPMENT
- EMERGENCY MEDICAL AID.

TALK WITH THE LOCAL SAFETY DEPARTMENT OR AUTHORITIES FOR THE PROCEDURES TO DISCARD THIS HAZARDOUS AGENT.

(1) Apply uniform coat of sealant DPM 5896-3 or DPM 5896-6, to faying surface of access door.

WARNING: INTEGRAL FUEL TANKS SEALING COMPOUND (POLYSULFIDE SEALANT B1/2 AND B2) IS AN AGENT THAT IS POISONOUS AND AN IRRITANT. MAKE SURE ALL PERSONS OBEY ALL OF THE PRECAUTIONS WHEN INTEGRAL FUEL TANKS SEALING COMPOUND IS USED.

- GAS/AIR MIXTURES MORE THAN THE LOWER EXPLOSIVE LIMIT (LEL) CAN CAUSE AN EXPLOSION IF HIGH HEAT, SPARKS, OR FLAMES SUPPLY IGNITION.
- USE IN AN AREA OPEN TO THE AIR.
- CLOSE THE CONTAINER WHEN NOT USED.
- DO NOT GET INTEGRAL FUEL TANKS SEALING COMPOUND IN THE EYES, ON THE SKIN, OR ON YOUR CLOTHES.
- DO NOT BREATHE THE GAS.

WARNING: REFER TO THE APPLICABLE MANUFACTURER'S OR SUPPLIER'S MSDS FOR:

- MORE PRECAUTIONARY DATA
- APPROVED SAFETY EQUIPMENT
- EMERGENCY MEDICAL AID.

TALK WITH THE LOCAL SAFETY DEPARTMENT OR AUTHORITIES FOR THE PROCEDURES TO DISCARD THIS HAZARDOUS AGENT.

CAUTION: SEALANT BEAD SHOULD NOT EXCEED 1/8 INCH DIAMETER AND MUST NOT GET INTO SCREW HOLES.

(2) Apply a small bead of sealant, PR1422-B2, at juncture of door doubler and edge of upper fuselage skin.

(3) Carefully position door and start all screws making certain each screw engages at least one thread.

(4) Apply small amount of sealant, PR1422-B2, in countersink under head of each screw.

(5) Tighten screws alternating from side to side and end to end.

(6) Fill gap between door and skin cutout with sealant, PR1422-B2, and fair material smoothly.

(7) Remove surplus sealant using clean cotton cloth dampened with solvent (isopropyl alcohol).

WING FUEL TANK ACCESS DOOR SEAL - MAINTENANCE PRACTICES

1. General

A. Each wing fuel tank access door incorporates a molded seal which is bonded in the seal retaining groove machined in the inner surface of the door. Procedure for replacing seals on all fuel tank access doors is identical.

2. Equipment and Materials

NOTE: Equivalent substitutes may be used instead of the following items.

NOTE: It is possible that some materials in the Equipment and Materials List cannot be used for some or all of their necessary applications. Before you use the materials, make sure the types, quantities, and applications of the materials necessary are legally permitted in your location. All persons must obey all applicable federal, state, local, and provincial laws and regulations when it is necessary to work with these materials.

Table 201

Name and Number	Manufacturer
Adhesive, EC 776 (MIL-S-4383) DPM 842-2	Minnesota Mining & Mfg. Co. Los Angeles, CA
Cloth, lint-free cotton	
Solvent MIL-PRF-680 DPM 518	

3. Removal/Installation Fuel Tank Access Door Seal

A. Remove Seal

(1) Remove fuel tank access door.

CAUTION: TO PREVENT DAMAGE TO ACCESS DOOR SEAL RETAINING GROOVE, EXERCISE CAUTION WHEN REMOVING SEAL.

(2) Using non-metallic scraper, remove old seal and sealant from seal retaining groove.

WARNING: USE THE HAZARDOUS MATERIAL WARNINGS GIVEN BELOW FOR THE STEPS THAT FOLLOW.

THE HAZARDOUS MATERIAL WARNINGS ARE LISTED AFTER THE INTRODUCTION SECTION IN THE FRONT OF THE AMM.

Hazardous Material Warnings

HAZMAT 1097, SOLVENT/MIL-PRF-680 TYPE 1 (DPM 518)

HAZMAT 1000, REFER TO MSDS

(3) Thoroughly clean all residue of old seal and sealant from retaining groove using clean, lint-free cloth moistened with solvent MIL-PRF-680. After cleaning door, wipe off all traces of solvent using clean cotton cloth.

(4) Wipe faying surface of new seal with clean, cotton cloth dampened with solvent MIL-PRF-680 and allow seal to dry for approximately 30 minutes.

WARNING: USE THE HAZARDOUS MATERIAL WARNINGS GIVEN BELOW FOR THE STEPS THAT FOLLOW.

THE HAZARDOUS MATERIAL WARNINGS ARE LISTED AFTER THE INTRODUCTION SECTION IN THE FRONT OF THE AMM.

Hazardous Material Warnings

(WARNING PRECEDES)

HAZMAT 1507, COATING/FUEL RESISTANT (DPM842-2)

HAZMAT 1000, REFER TO MSDS

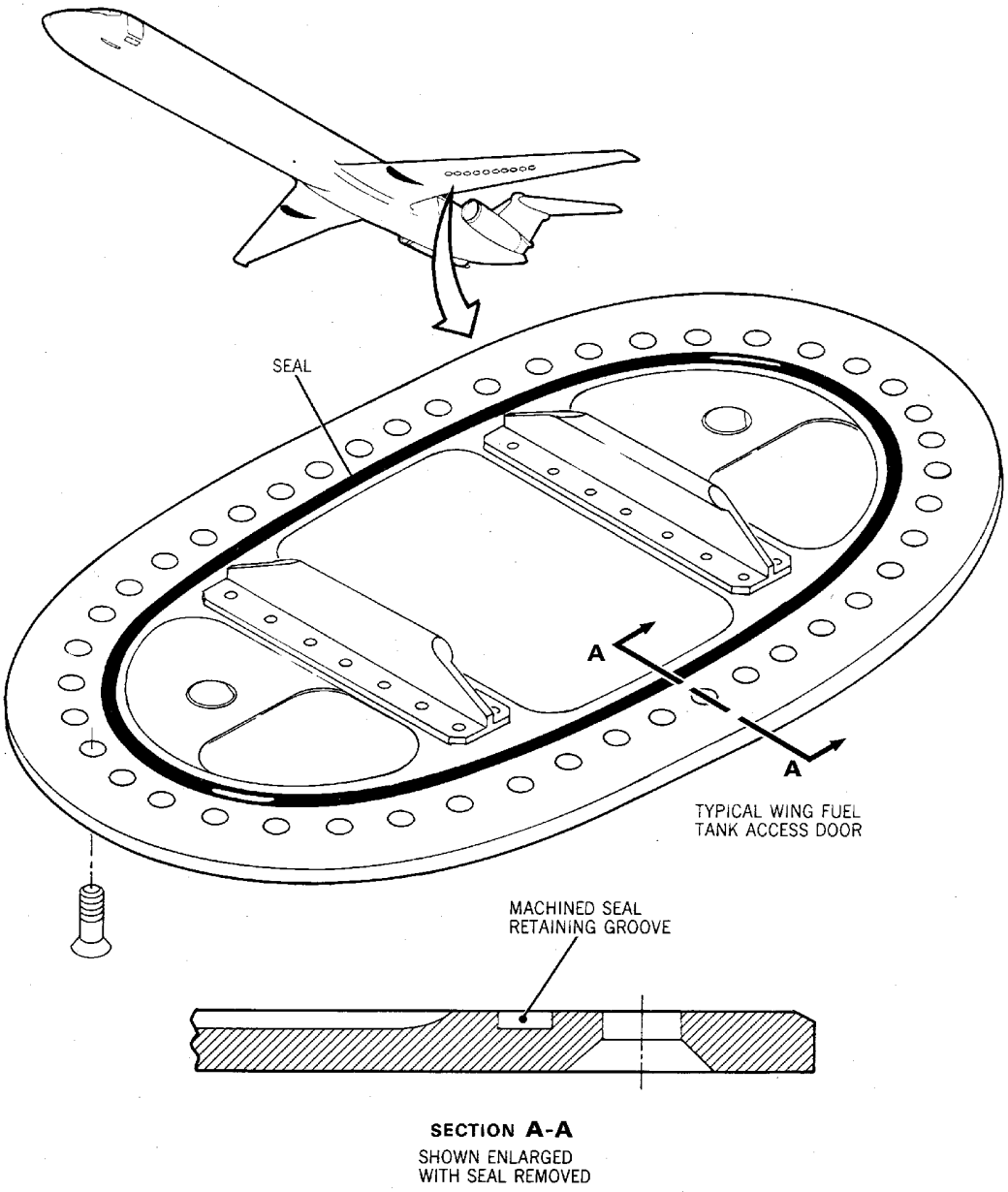
(5) Apply a light uniform coat of adhesive, EC 776, to faying surfaces of access door seal retaining groove. Allow adhesive to air dry for approximately 30 minutes.

(6) Reactivate adhesive, EC776, using a soft bristle brush dampened with solvent MIL-PRF-680.

CAUTION: DO NOT STRETCH SEAL DURING INSTALLATION. IF STRETCHED, SEAL WILL NOT FIT IN RETAINING GROOVE PROPERLY.

(7) Press seal uniformly into retaining groove immediately after reactivating adhesive.

(8) Allow adhesive, EC 776, bond to cure approximately 30 minutes before installing door.



Wing Tank Access Door Seal -- Removal/Installation
Figure 201/57-30-03-990-801

4. Installation of Fuel Tank Access Door

A. For procedure to install fuel tank access door, refer to GENERAL - MAINTENANCE PRACTICES, PAGEBLOCK 28-00-00/201.

OVERWING ESCAPE WALKWAY - MAINTENANCE PRACTICES

1. General

A. The overwing escape walkways are located on the upper left and right surfaces of the inner wing adjacent to the overwing emergency exits. The walkways consist of slip resistant materials outlined by Scotchcal tape and provide marked escape routes from overwing emergency exits. Removal and replacement of left and right overwing escape walkways is identical.

2. Equipment and Materials

NOTE: Equivalent substitutes may be used instead of the following listed items:

NOTE: Some materials in the Equipment and Materials list may not be permitted to be used in your location. Persons in each location must make sure they are permitted to use these materials. All persons must obey all applicable federal, state, local, and provincial regulations for their location.

Table 201

Name and Number	Manufacturer
Air cap, MB-4039-62	DeVilbiss Co., 6811 East Slauson Ave., Los Angeles, Calif.
Butyl acetate Fed Spec TT-B-838	
Cheesecloth	
Cotton wipers (Type 1, class A select white)	Sandler Brothers, 3621 Medford St., Los Angeles, Calif.
Scotchlite edge sealer, 4150	Minnesota Mining and Manufacturing Co. 6411 Randolph Street, Los Angeles, Calif.
Fluid nozzle, AV-4042-AS-110	DeVilbiss Co., 6811 East Slauson Ave., Los Angeles, Calif.
1,1,1 tri- chloroethane (DPM 5792)	
Methyl-isobutyl ketone (Fed Spec TT-M-268)	
Needle, MBC-4035-CS	DeVilbiss Co., 6811 East Slauson Ave., Los Angeles, Calif.
Paper, poly- ethylen coated (Nopaco No. 1)	Noland Paper Co., 6600 Valley View St., Buena Park, Calif.
Pretreatment coating, P-204	Andrew Brown Co., 5431 South District Boulevard, Los Angeles Calif.
Primer (Polyurethane)	Advance Coatings & Chemical Co. El Monte, Calif.
Spray gun, MBC No. 514	DeVilbiss Co., 6811 EAst Slauson Avenue, Los Angeles, Calif.
Tape (black pressure sensi- tive premasked face) Scotchcal No. 5690	Minnesota Mining and Manufacturing Co., Los Angeles, Calif.
Tape (polyethylene coated) Mystik No. 1	Mistik Adhesive Products, Inc., 1260 South Central Ave., Glendale, Calif.
Coating (poly- urethan, color DN7803 flat black) AA92-B-2	U.S. Paint, Lacquer & Chemical Co. St. Louis, MO
Coating, Walkway (polyurethane, color DN3635 gray) 822X361	DeSoto Inc. Berkeley, Calif.
Walnut shells (crushed), AD-9	AGRA Shell Co., 4560 East 25 St., Los Angeles, Calif.

3. Removal/Installation Overwing Escape Walkway

A. Remove Worn Walkway

(1) Mask off areas adjacent to walkway using polyethylene coated paper and polyethylene coated masking tape.

(2) Cover all gaps between skin and access doors with strips of polyethylene coated masking tape. (Figure 201)

CAUTION: EXERCISE CARE WHEN REMOVING SCOTCHCAL TAPE TO PREVENT SCRATCHING WING SKIN.

(3) Insert nonmetallic tool between Scotchcal tape outline and wing skin where tape is loose enough to be removed in this manner.

(4) Remove remaining Scotchcal tape after softening with toluene.

(5) Strip and clean slip resistant coating from walkway in accordance with AIRFRAME - CLEANING/PAINTING, PAGEBLOCK 51-00-00/701.

B. Install Escape Walkway

CAUTION: AIRCRAFT SHOULD NOT BE FLOWN IN INCLEMENT WEATHER AND FOOT TRAFFIC SHOULD BE KEPT OFF WALKWAY FOR 12 HOURS.

(1) Apply Scotchcal tape as follows:

(a) Remove paper backing from adhesive side of tape.

NOTE: Do not remove protective covering from face of tape.

(b) Align one end of tape and press in position on wing skin. (Figure 201)

CAUTION: MAKE CERTAIN TAPE CONTACTS WING SKIN FIRMLY AND THAT AIR IS NOT ENTRAPPED UNDER TAPE.

(c) Hold other end of tape taut and progresively apply to wing skin and firmly rub in place.

(2) Mask as necessary.

(3) Apply pretreatment coating in accordance with AIRFRAME - CLEANING/PAINTING, PAGEBLOCK 51-00-00/701.

(4) Prepare primer mix as follows:

(a) Add one part by volume butyl acetate and one part by volume methyl-isobutyl-ketone and stir thoroughly to four parts by volume of NO. 14 primer.

(b) Strain primer mixture through two layers of cheesecloth to prevent clogging spray gun.

(5) Apply one uniform coat of primer mixture and allow to dry at ambient temperature.

(6) Thoroughly mix one gallon (3.8 liters) of walkway coating (822X361) and 1.6 pounds (725 grams) of crushed walnut shells.

NOTE: Do not thin or strain this mixture.

(7) Apply uniform wet cross coat of walkway coating (822X361) and walnut shell mixture using spray gun at 45 to 55 psi (310.5 to 379.5 kPa) air pressure and 10 to 15 psi (69 to 103.5 kPa) tank.

(8) Allow to dry approximately 30 minutes at ambient temperature.

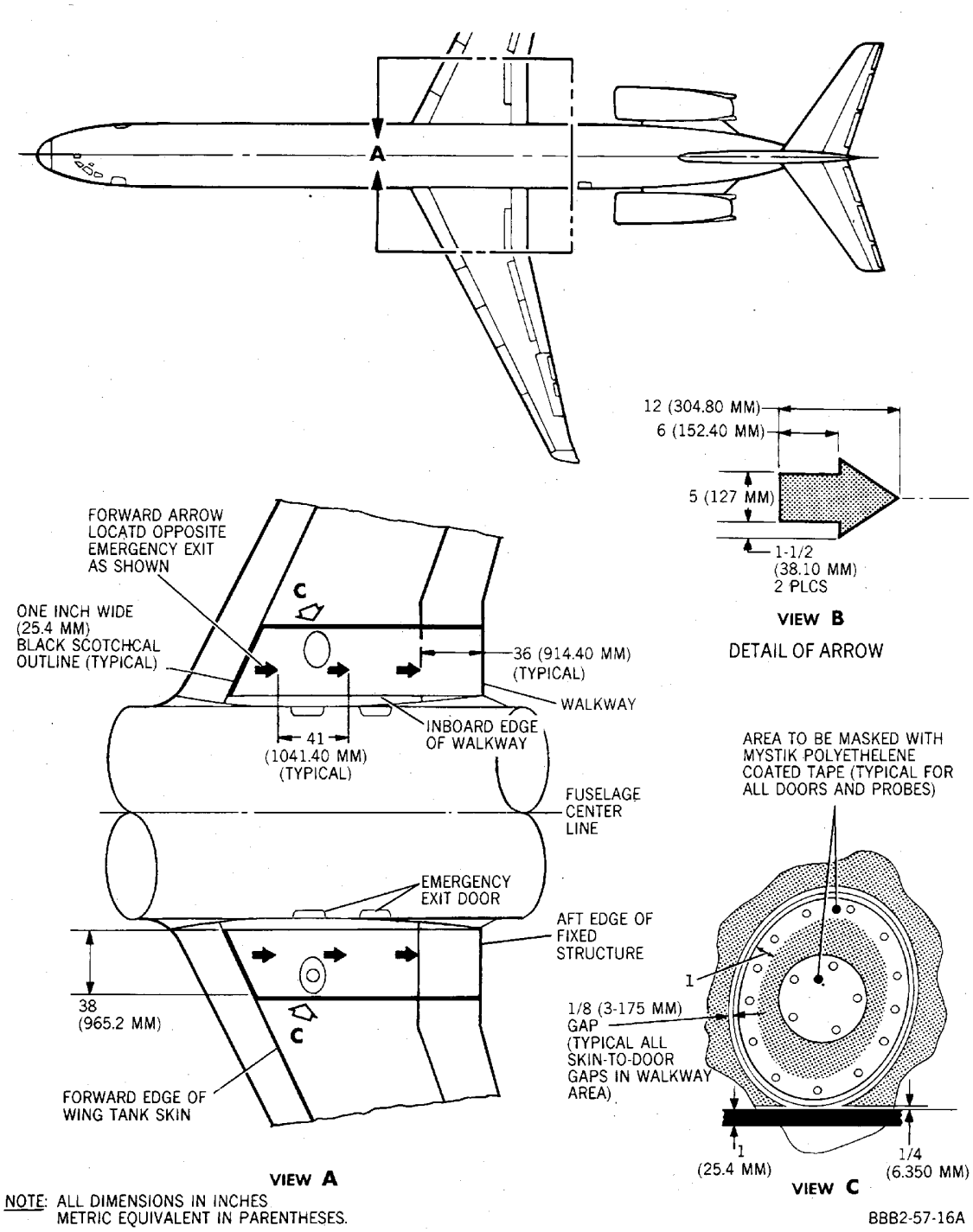
(9) Apply second uniform wet cross coat.

(10) Remove all masking including protective covering from face of Scotchcal tape outline while topcoat is still wet.

(11) Allow topcoat to dry approximately 12 hours at ambient temperature.

(12) Stencil directional arrows on slip resistant topcoat using coating (AA92-B-2). (Figure 201)

(13) Apply Scotchlite edge sealer to outside edges of Scotchcal tape outline to insure adequate weather seal.



Overwing Escape Walkway
Figure 201/57-30-04-990-801

ATTACH FITTINGS - DESCRIPTION AND OPERATION

1. General

A. The attach fittings of each wing consists of supports for the moveable control surfaces, main landing gear, and minor brackets to support lines, cables, and similar components within the wing. The major fittings are the main landing gear, flap hinge, aileron hinge, and spoiler hinge fittings.

2. Attach Fittings

A. The main landing gear attach fittings are installed in the trailing edge section of each inboard wing and attached to the wing rear spar and wing bulkhead. An integral lug, on the inboard side of the fitting, provides for the attachment of the main landing gear side brace. (Figure 1)

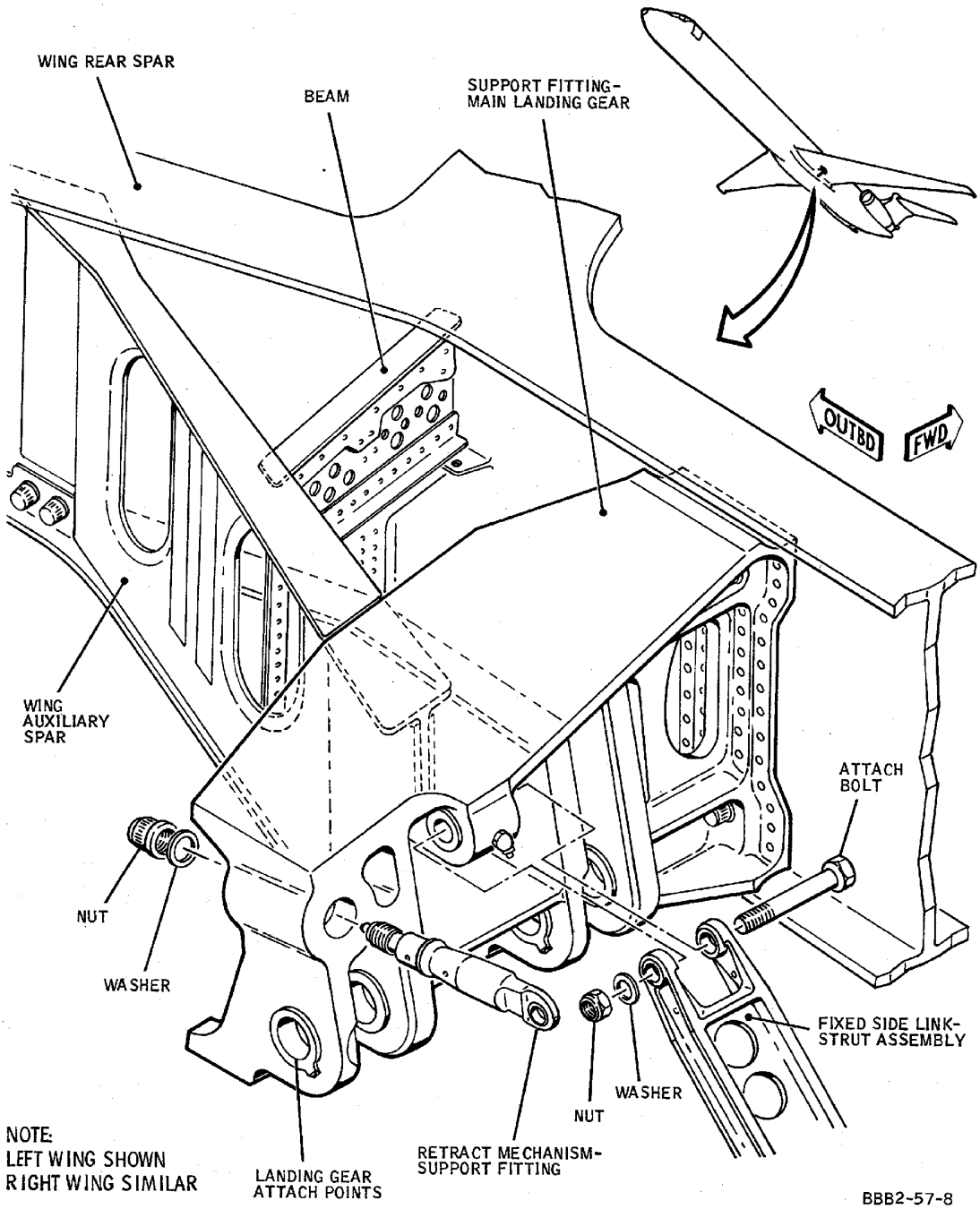
B. The inboard flap is supported by a track at the inboard end and by a hinge fitting near the outboard end. The track, at the inboard end, moves on rollers attached to the fuselage. The outboard hinge fitting is attached to the wing rear spar, out-board of the main landing gear attach fitting. Integral lugs of the hinge fitting provide for mounting of the flap actuator. (Figure 2)

C. The outboard flap is supported by three hinge fittings attached to the wing rear spar. Integral lugs of the inboard and center fittings provide for mounting of the flap actuators. The out-board fitting incorporates a stop for the flap in the full up position. (Figure 2)

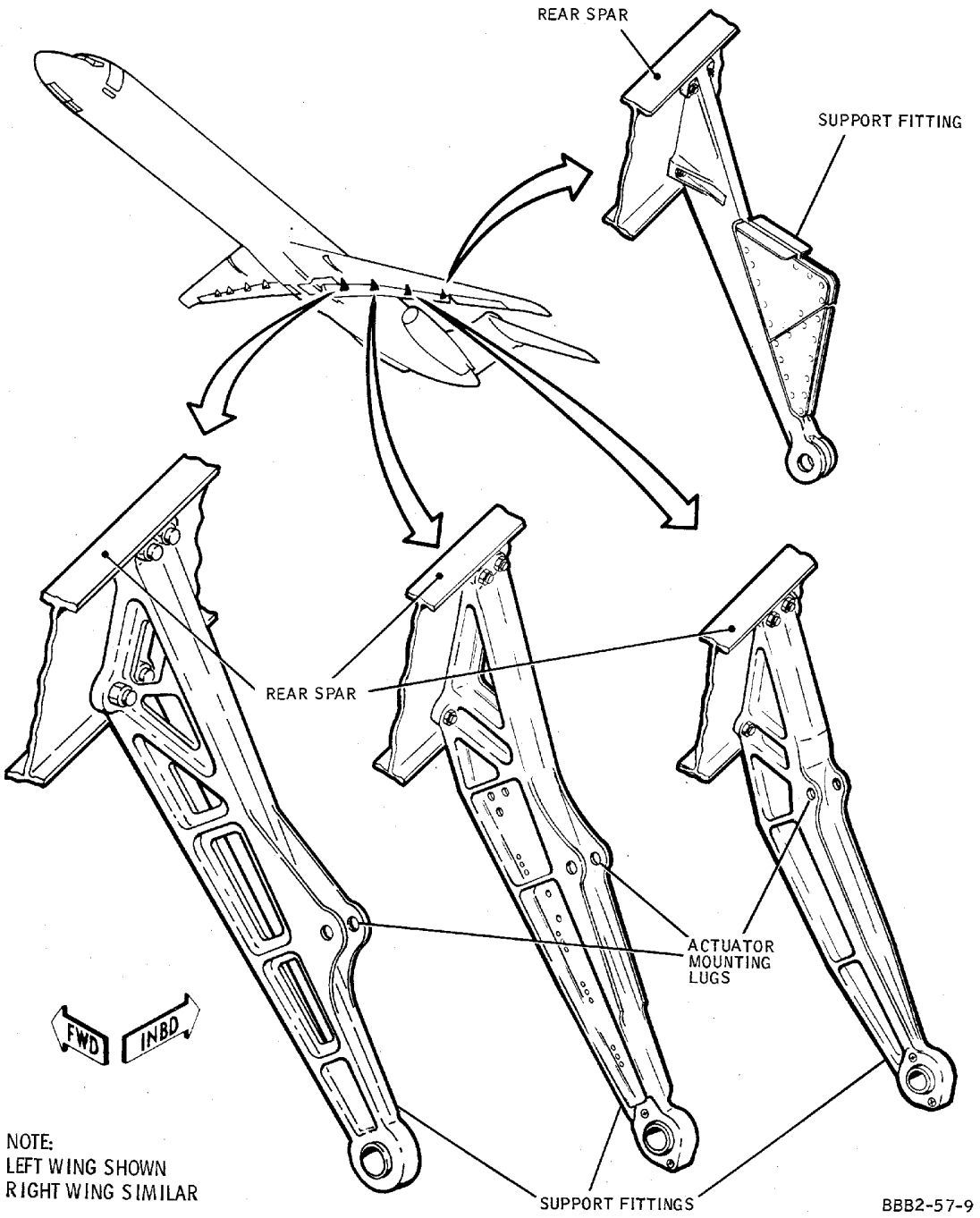
D. The inboard and outboard flaps are attached to each other by three sets of scissor-links. The scissor-links are attached to integral lugs on the flap end ribs.

E. Four aileron hinge fittings are attached to the rear spar of each wing. Three of the fittings are almost identical in construction. The fourth fitting, in addition to providing a hinge point, also provides support for the aileron sector and load-feel crank brackets. (Figure 3)

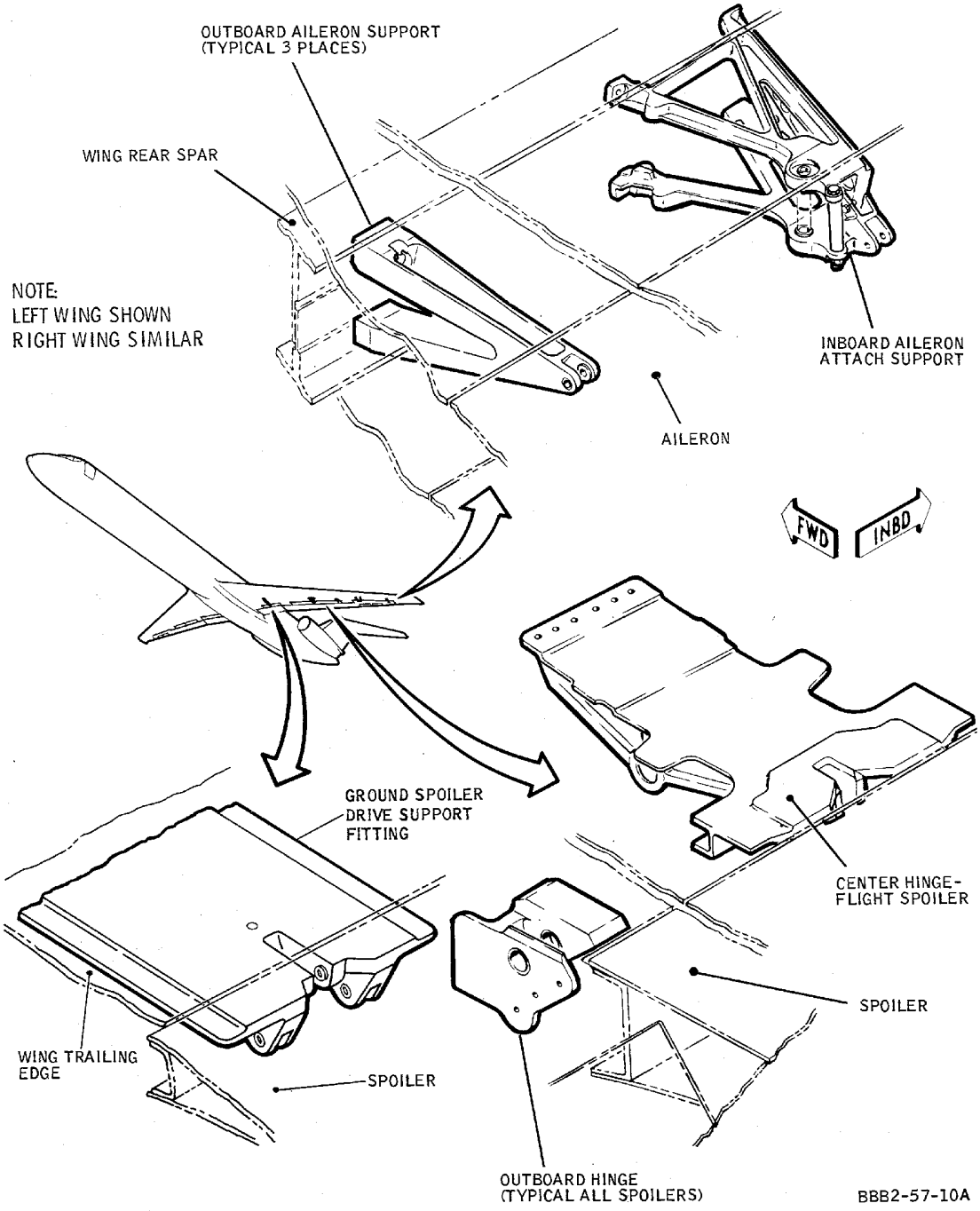
F. Spoiler attach fittings, integral parts of the wing trailing edge structure, provide hinge support for the flight and ground spoilers. The center fitting for each spoiler incorporates mounting lugs for the spoiler actuating mechanism. The outer hinge attach points for the spoilers consist of bushings pressed into a special fitting in ribs of the trailing edge structure. (Figure 3)



Main Landing Gear Attach Fitting
Figure 1/57-40-00-990-801



Flap Attach Fittings
Figure 2/57-40-00-990-802



Aileron and Spoiler Attach Fittings
Figure 3/57-40-00-990-803

WING FLAP HINGE FITTINGS - MAINTENANCE PRACTICES

1. General

A. Four wing flap hinge fittings are attached to the rear spar of each wing. One of the fittings support the outboard end of the inboard flap. The three remaining fittings support the outboard flap.

B. The flap hinge fittings may be removed without removing the flaps. The flaps must be fully extended and adequately supported before hinge fittings can be removed.

WARNING: TO PREVENT INJURY TO PERSONNEL, ALL SAFETY PRECAUTIONS RELATIVE TO WORKING IN FUEL TANKS MUST BE OBSERVED.

C. If a hinge fitting is removed to replace a failed attaching stud, all four studs at that fitting must be replaced. Access to the studs is through the wing fuel tanks.

2. Equipment and Materials

NOTE: Equivalent substitutes may be used instead of the following items:

NOTE: Some materials in the Equipment and Materials list may not be permitted to be used in your location. Persons in each location must make sure they are permitted to use these materials. All persons must obey all applicable federal, state, local, and provincial regulations for their location.

Table 201

Name and Number	Manufacturer
Sealant, PR 1431	Products Research & Chemicals Corp.
Sealant, PR 1422B-2	
Adhesive, EA9309.3NA, DPM 3279-3	PRC DeSoto International Inc, Glendale CA
Parker-O-Lube	Parker Seal Co.
Brush, Non-metallic	
Torque Wrench (0 - 300 inch- pounds range)	
Torque Wrench (500 - 1200 inch- pounds range)	
Torque Wrench 1000 - 6000 inch- pounds range)	
Torque Wrench (6000 - 13,000 inch-pounds range)	

3. Removal/Installation - Wing Flap Hinge Fittings

A. Remove Inboard Wing Flap Hinge Fitting (Station XW 105.021)

(1) If necessary, for access to the hinge fitting, install cable block, then disconnect applicable cables that follows:

- Aileron control tab cables
- Aileron trim tab cables
- Aileron bus system cables
- Inboard spoiler actuator mechanical control cables
- Outboard spoiler actuator mechanical control cables
- Flap bus system cables.

(2) Lower inboard flap to fully extended position and support adequately.

(3) Remove flap hinge fitting fairing.

(4) Remove flap hydraulic actuator. (PAGEBLOCK 27-52-02/201)

(5) Disconnect flap actuator hydraulic lines at forward end of hinge fitting and remove as required.

(6) Remove wire bundle and hydraulic line clamps as necessary.

(7) Remove flap hinge fitting anti-rotation bolt. Retain bolt, washer and nut for installation.

(8) Remove flap hinge fitting attaching nuts. Identify and retain shims for installation.

(9) Remove flap hinge fitting.

Table 202 Torque Values (1 of 4)

STUDS TO REAR SPAR	TORQUE VALUE IN INCH-POUNDS			
STUD LOCATION ON FITTING	STUDS AT XW 105.021	STUDS AT XW 154.584	STUDS AT XW 251.683	STUDS AT XW 333.148
UPPER	3830-4105	1370-1640	1370-1640	740-820
LOWER INBOARD	8725-11,560	8470-9730	6080-6980	1650-1900
LOWER OUTBOARD	8725-11,560	14,500- 15,700	11,420-12,710	1950-2150

Table 203 Torque Values (2 of 4)

HINGE FITTING NUTS TO STUDS	TORQUE VALUE IN INCH-POUNDS			
STUD LOCATION ON FITTING	STUDS AT XW 105.021	STUDS AT XW 154.584	STUDS AT XW 251.683	STUDS AT XW 333.148
UPPER	1845-2120	600-1000	600-1000	240-280

Table 204 PRELOAD INDICATION WASHER (PLI) (3 0f 4)

PRELOAD INDICATION WASHER (PLI)				
STUD LOCATION ON FITTING	STUDS AT XW 105.021	STUDS AT XW 154.584	STUDS AT XW 251.683	STUDS AT XW 333.148
NOTE: PRELOAD INDICATION WASHER (PLI) (as applicable) PAGEBLOCK 20-10-14/201				
WJE ALL; AIRCRAFT WITH PRODUCTION CUT-IN OR WITH SB 67-160, 57-177, 57-178 INCORPORATED				
LOWER INBOARD	PLI-12-46.5	PLI-12- 40.3		62525-6- 12.4
LOWER OUTBOARD	PLI-12-46.5	PLI-16- 74.3		62525-8- 22.7
WJE ALL				

Table 205 Torque Values (4 of 4)

ANTI-ROTATION BOLTS	TORQUE VALUE IN INCH-POUNDS		
	STATION XW 105.021	STATION XW 154.584	STATION XW 251-683
	1050-1760	2000-2500	2000-2500

(10) Using brush with non-metallic bristles, clean exposed end of flap hinge fitting mounting studs and check for cracks, corrosion or damage.

NOTE: If one stud has failed, all four studs must be replaced.

B. Install Inboard Wing Flap Hinge Fitting (Station XW 105.021)

(1) Clean mounting surfaces of old adhesive and sealant.

(2) Bond shims to spar beam with adhesive, EA9309.3NA, in exact position in which they were removed.

WARNING: FAYING SURFACE SEALANT IS AN AGENT THAT IS FLAMMABLE, POISONOUS, AND AN IRRITANT. MAKE SURE ALL PERSONS OBEY THE PRECAUTIONS WHEN FAYING SURFACE SEALANT IS USED.

- GAS/AIR MIXTURES MORE THAN THE LOWER EXPLOSIVE LIMIT (LEL) CAN CAUSE AN EXPLOSION IF HIGH HEAT, SPARKS, OR FLAMES SUPPLY IGNITION.
- USE IN AN AREA OPEN TO THE AIR.
- CLOSE THE CONTAINER WHEN NOT USED.
- DO NOT GET FAYING SURFACE SEALANT IN THE EYES, ON THE SKIN, OR ON YOUR CLOTHES.
- DO NOT BREATHE THE GAS.

WARNING: REFER TO THE APPLICABLE MANUFACTURER'S OR SUPPLIERS MSDS FOR:

- MORE PRECAUTIONARY DATA.
- APPROVED SAFETY EQUIPMENT.
- EMERGENCY MEDICAL AID.
- TALK WITH THE LOCAL SAFETY DEPARTMENT OR AUTHORITIES FOR THE PROCEDURES TO DISCARD THIS HAZARDOUS AGENT.

(3) Apply a faying surface of sealant, PR 1422B-2, on surfaces of shims, washers, PLI washers, stud shoulders, and face of flap hinge fitting.

(4) Apply sealant, PR 1422B-2, on inside surface of hinge fitting attaching stud hole, and build a small fillet around stud hole on side from which stud is to be inserted.

(5) Position flap hinge fitting on spar beam. Install attaching washers, PLI washers and nuts. Tighten nuts. (Table 202) (Table 203) (Table 204)

NOTE: Wet install flap hinge fitting on rear spar mounting studs.

(6) Apply a fillet of sealant, PR 1422B-2, to encapsulate washers, nuts and end of studs.

(7) Install flap hydraulic actuator. (PAGEBLOCK 27-52-02/201)

(8) Lightly coat flap hinge fitting anti-rotation bolt with lubricant, Parker-O-Lube, and install bolt. Tighten nut. (Table 205)

(9) Install flap hydraulic actuator lines.

(10) Install wire bundle and hydraulic line clamps.

(11) Connect control cables disconnected to remove applicable flap hinge as follows:

(a) Connect cable(s) at their applicable turnbuckles.

(b) Remove cable blocks on connected cables.

(c) Adjust applicable cable system to correct tension. (AILERON AND TAB - ADJUSTMENT/TEST, PAGEBLOCK 27-10-00/501) (FLAPS - ADJUSTMENT/TEST, PAGEBLOCK 27-50-00/501)

(12) Adjust and check operation of inboard wing flap. (PAGEBLOCK 27-51-01/601) (FLAPS - ADJUSTMENT/TEST, PAGEBLOCK 27-50-00/501)

(13) Install flap hinge fitting fairing.

C. Remove Outboard Wing Flap Hinge Fitting (Station XW 154.584)

(1) Lower outboard flap to fully extended position and support adequately.

(2) Remove flap hinge fitting fairing.

(3) Remove flap hydraulic actuator. (PAGEBLOCK 27-52-02/201)

(4) Disconnect flap actuator hydraulic lines at forward end of hinge fitting and remove as necessary.

(5) Remove flap position indicating transmitter. (PAGEBLOCK 27-54-01/201)

(6) Remove pulley brackets and bellcrank from hinge fitting.

(7) Remove flap hinge fitting anti-rotation bolt. Retain bolt, washer and nut for installation.

(8) Remove hinge fitting attaching nuts. Identify and retain shims for installation.

(9) Remove flap hinge fitting.

(10) Using brush with non-metallic bristles, clean exposed end of flap hinge fitting mounting studs and check for cracks, corrosion or damage.

NOTE: If one stud has failed, all four studs must be replaced.

D. Install Outboard Wing Flap Hinge Fitting (Station XW 154.584)

NOTE: If an alternate bearing is installed at flap hinge station XW 154.584 per AOL 9-1460, static ground bonding straps must be installed.

(1) Clean mounting surfaces of old adhesive and sealant.

(2) Bond shims to spar beam with adhesive, EA9309.3NA, in exact position in which they were removed.

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- GAS/AIR MIXTURES MORE THAN THE LOWER EXPLOSIVE LIMIT (LEL) CAN CAUSE AN EXPLOSION IF HIGH HEAT, SPARKS, OR FLAMES SUPPLY IGNITION.
- USE IN AN AREA OPEN TO THE AIR.
- CLOSE THE CONTAINER WHEN NOT USED.
- DO NOT GET FAYING SURFACE SEALANT IN THE EYES, ON THE SKIN, OR ON YOUR CLOTHES.
- DO NOT BREATHE THE GAS.

WARNING: REFER TO THE APPLICABLE MANUFACTURER'S OR SUPPLIERS MSDS FOR:

- MORE PRECAUTIONARY DATA.
- APPROVED SAFETY EQUIPMENT.
- EMERGENCY MEDICAL AID.
- TALK WITH THE LOCAL SAFETY DEPARTMENT OR AUTHORITIES FOR THE PROCEDURES TO DISCARD THIS HAZARDOUS AGENT.

(3) Apply a faying surface of sealant, PR 1422B-2, on surfaces of shims, washers, PLI washers, stud shoulders, and face of flap hinge fitting.

(4) Apply sealant, PR 1422B-2, on inside surface of hinge fitting attaching stud hole, and build a small fillet around stud hole on side from which stud is to be inserted.

(5) Position flap hinge fitting on spar beam. Install attaching washers, PLI washers and nuts. Tighten nuts. (Table 202) (Table 203) (Table 204)

NOTE: Wet install flap hinge fitting on rear spar mounting studs.

(6) Apply a fillet of sealant , PR 1422B-2, to encapsulate washers, nuts and end of studs.

(7) Lightly coat flap hinge fitting anti-rotation bolt with lubricant, Parker-O-Lube, and install bolt. Tighten nut. (Table 205)

(8) Install flap position indicating transmitter pulley brackets and bellcrank on flap hinge fitting.

(9) Install flap position indicating transmitter. (PAGEBLOCK 27-54-01/201)

(10) Install flap hydraulic actuator. (PAGEBLOCK 27-52-02/201)

(11) Install flap actuator hydraulic lines.

(12) Connect control cables disconnected to remove applicable flap hinge as follows:

(a) Connect cable(s) at their applicable turnbuckles.

(b) Remove cable blocks on connected cables.

(c) Adjust applicable cable system to correct tension. (AILERON AND TAB - ADJUSTMENT/TEST, PAGEBLOCK 27-10-00/501) (FLAPS - ADJUSTMENT/TEST, PAGEBLOCK 27-50-00/501)

(13) Adjust and check operation of wing outboard flaps. (PAGEBLOCK 27-51-01/601)

E. Remove Outboard Wing Flap Hinge Fitting (Station XW 251.683)

(1) If necessary, for access to the hinge fitting, install cable blocks and disconnect applicable cables that follows:

- Aileron control tab cables
- Aileron trim tab cables
- Aileron bus system cables
- Outboard spoiler actuator mechanical control cables.

(2) Lower outboard flap to fully extended position and support adequately.

(3) Remove flap hinge fitting fairing.

(4) Remove flap hydraulic actuator. (PAGEBLOCK 27-52-02/201)

(5) Remove wire bundle and hydraulic line clamps as necessary.

(6) Disconnect flap actuator hydraulic lines at forward end of hinge fitting and remove as necessary.

(7) Remove flap hinge fitting anti-rotation bolt. Retain bolt, washer and nut for installation.

(8) Remove flap hinge fitting attaching nuts. Identify and retain shims for installation.

(9) Remove flap hinge fitting.

(10) Using brush with non-metallic bristles, clean exposed end of flap hinge fitting mounting studs and check for cracks, corrosion or damage.

NOTE: If one stud has failed, all four studs must be replaced.

F. Install Outboard Wing Flap Hinge Fitting (Station XW 251.683)

NOTE: If an alternate bearing is installed at flap hinge station XW 251. 683 per AOL 9-1460, static ground bonding straps must be installed.

(1) Clean mounting surfaces of old adhesive and sealant.

(2) Bond shims to spar beam with adhesive, EA9309.3NA, in exact position in which they were removed.

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- USE IN AN AREA OPEN TO THE AIR.
- CLOSE THE CONTAINER WHEN NOT USED.
- DO NOT GET FAYING SURFACE SEALANT IN THE EYES, ON THE SKIN, OR ON YOUR CLOTHES.
- DO NOT BREATHE THE GAS.

WARNING: REFER TO THE APPLICABLE MANUFACTURER'S OR SUPPLIERS MSDS FOR:

- MORE PRECAUTIONARY DATA.
- APPROVED SAFETY EQUIPMENT.
- EMERGENCY MEDICAL AID.
- TALK WITH THE LOCAL SAFETY DEPARTMENT OR AUTHORITIES FOR THE PROCEDURES TO DISCARD THIS HAZARDOUS AGENT.

(3) Apply a faying surface of sealant, PR 1422B-2, on surfaces of shims, washers, PLI washers as applicable, stud shoulders, and face of flap hinge fitting.

(4) Apply sealant, PR 1422B-2, on inside surface of hinge fitting attaching stud hole, and build a small fillet around stud hole on side from which stud is to be inserted.

(5) Position flap hinge fitting on spar beam. Install washers, PLI washers as applicable, and nuts. Tighten nuts. (Table 202) (Table 203) (Table 204)

NOTE: Wet install flap hinge fitting on rear spar mounting studs.

(6) Apply a fillet of sealant, PR 1422B-2, to encapsulate washers, nuts and end of studs.

(7) Lightly coat flap hinge fitting anti-rotation bolt with lubricant, Parker-O-Lube, and install bolt. Tighten nut. (Table 205)

(8) Install flap hydraulic actuator. (PAGEBLOCK 27-52-02/201)

(9) Install flap actuator hydraulic lines.

(10) Install wire bundle and hydraulic line clamps.

(11) Connect control cables disconnected to remove applicable flap hinge as follows:

(a) Connect cable(s) at their applicable turnbuckles.

(b) Remove cable blocks on connected cables.

(c) Adjust applicable cable system to correct tension. (AILERON AND TAB - ADJUSTMENT/TEST, PAGEBLOCK 27-10-00/501) (FLAPS - ADJUSTMENT/TEST, PAGEBLOCK 27-50-00/501)

(12) Adjust and check operation of wing outboard flaps. (PAGEBLOCK 27-51-01/601)

(13) Install flap hinge fitting fairing.

G. Remove Outboard Wing Flap Hinge Fitting (Station XW 333.148)

(1) If necessary, for access to the hinge fitting, install cable blocks and disconnect applicable cables that follows:

- Aileron control tab cables
- Aileron trim tab cables
- Aileron bus system cables.

(2) Lower outboard flap to fully extended position and support adequately.

(3) Remove flap hinge fitting fairing.

(4) Remove flap hinge fitting anti-rotation bolt. Retain bolt, washer and nut for installation.

(5) Remove flap hinge fitting attaching nuts. Identify and retain shims for installation.

(6) Remove flap hinge fitting.

(7) Using brush with non-metallic bristles, clean exposed end of flap hinge fitting mounting studs and check for cracks, corrosion or damage.

NOTE: If one stud has failed, all four studs must be replaced.

H. Install Outboard Wing Flap Hinge Fitting (Station XW 333.148)

(1) Clean mounting surfaces of old adhesive and sealant.

(2) Bond shims to spar beam with adhesive, EA9309.3NA, in exact position in which they were removed.

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- GAS/AIR MIXTURES MORE THAN THE LOWER EXPLOSIVE LIMIT (LEL) CAN CAUSE AN EXPLOSION IF HIGH HEAT, SPARKS, OR FLAMES SUPPLY IGNITION.
- USE IN AN AREA OPEN TO THE AIR.
- CLOSE THE CONTAINER WHEN NOT USED.
- DO NOT GET FAYING SURFACE SEALANT IN THE EYES, ON THE SKIN, OR ON YOUR CLOTHES.
- DO NOT BREATHE THE GAS.

WARNING: REFER TO THE APPLICABLE MANUFACTURER'S OR SUPPLIERS MSDS FOR:

- MORE PRECAUTIONARY DATA.
- APPROVED SAFETY EQUIPMENT.
- EMERGENCY MEDICAL AID.
- TALK WITH THE LOCAL SAFETY DEPARTMENT OR AUTHORITIES FOR THE PROCEDURES TO DISCARD THIS HAZARDOUS AGENT.

(3) Apply a faying surface of sealant, PR 1422B-2, on surfaces of shims, washers, PLI washers, stud shoulders, and face of flap hinge fitting.

(4) Apply sealant, PR 1422B-2, on inside surface of hinge fitting attaching stud hole, and build a small fillet around stud hole on side from which stud is to be inserted.

(5) Position flap hinge fitting on spar beam. Install attaching washers, PLI washers and nuts. Tighten nuts. (Table 202) (Table 203) (Table 204)

NOTE: Wet install flap hinge fitting on rear spar mounting studs.

(6) Apply a fillet of sealant, PR 1422B-2, to encapsulate washers, nuts and end of studs.

(7) Lightly coat flap hinge fitting anti-rotation bolt with lubricant, Parker-O-Lube, and install bolt. Tighten nut. (Table 205)

(8) Seal hinge cavity with aluminized sealant MC632B-2 (DMS 1819) or PR 1422-2 to fair both inboard and outboard sides.

(9) Connect control cables disconnected to remove applicable flap hinge as follows:

(a) Connect cable(s) at their applicable turnbuckles.

(b) Remove cable blocks on connected cables.

(c) Adjust applicable cable system to correct tension. (AILERON AND TAB - ADJUSTMENT/TEST, PAGEBLOCK 27-10-00/501) (FLAPS - ADJUSTMENT/TEST, PAGEBLOCK 27-50-00/501)

(10) Adjust and check operation of wing outboard flaps. (PAGEBLOCK 27-51-01/601)

(11) Install flap hinge fitting fairing.

WARNING: TO PREVENT INJURY TO PERSONNEL, ALL PRECAUTIONS RELATIVE TO WORKING IN FUEL TANKS MUST BE OBSERVED.

I. Replace Wing Flap Hinge Fitting Mounting Studs (Station XW 105.021, 154.584, 251.683, 333.148)

NOTE: If one stud has failed, all four studs must be replaced.

(1) Defuel tank in which work is to be accomplished. (DEFUELING - SERVICING, PAGEBLOCK 12-11-01/301)

(2) Prepare tank for entrance. (GENERAL - MAINTENANCE PRACTICES, PAGEBLOCK 28-00-00/201)

(3) Enter tank and remove nuts, barrel nuts, washers, and studs.

(4) Clean and prepare surface. (SRM 51-22-01, Page 1)

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- USE IN AN AREA OPEN TO THE AIR.
- CLOSE THE CONTAINER WHEN NOT USED.
- DO NOT GET FAYING SURFACE SEALANT IN THE EYES, ON THE SKIN, OR ON YOUR CLOTHES.
- DO NOT BREATHE THE GAS.

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- MORE PRECAUTIONARY DATA.
- APPROVED SAFETY EQUIPMENT.
- EMERGENCY MEDICAL AID.
- TALK WITH THE LOCAL SAFETY DEPARTMENT OR AUTHORITIES FOR THE PROCEDURES TO DISCARD THIS HAZARDOUS AGENT.

(5) Apply a faying surface of sealant, PR 1422, on surfaces of washers, and stud shoulders.

NOTE: If the work can not be completed within 2 hours, then use DMS 2013 instead of PR 1422.

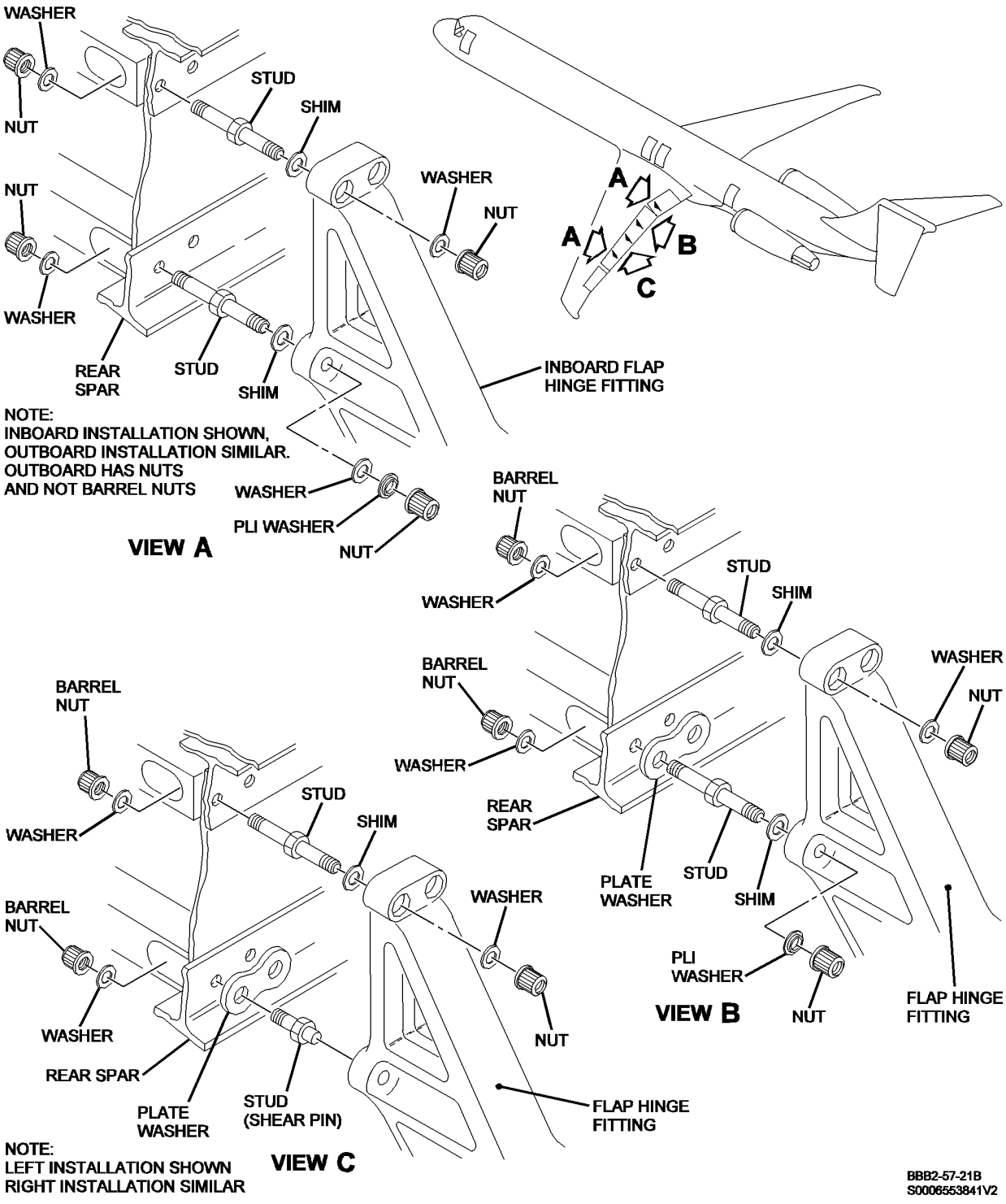
(6) Apply sealant, PR 1422B-2, on inner surface of stud holes and build a small fillet around hole on side from which stud is to be inserted.

(7) Install studs, washers, nuts and barrel nuts. Tighten stud nuts to torque specified in torque tables. (Table 202) (Table 203) (Table 204)(Table 205)

(8) Apply a fillet of sealant, PR 1422B-2, to encapsulate washers, nuts, and end of studs.

(9) Remove tools, equipment, loose hardware, and debris from maintenance area.

(10) Secure fuel tank. (GENERAL - MAINTENANCE PRACTICES, PAGEBLOCK 28-00-00/201)



Wing Flap Hinge Fittings - Removal/Installation
Figure 201/57-40-01-990-801

EFFECTIVITY
WJE ALL; AIRCRAFT WITH PRODUCTION CUT-IN OR WITH SB 67-160, 57-177, 57-178 INCORPORATED

RETRACT MECHANISM SUPPORT FITTING - MAINTENANCE PRACTICES

1. General

A. This procedure has the removal and installation of the retract mechanism support fitting.

B. The retract mechanism support fitting is mounted on the main landing gear support fitting.

C. The removal and installation procedures for the left and right retract mechanism support fittings are identical.

D. Access to the retract mechanism support fitting is through the main landing gear inboard doors.

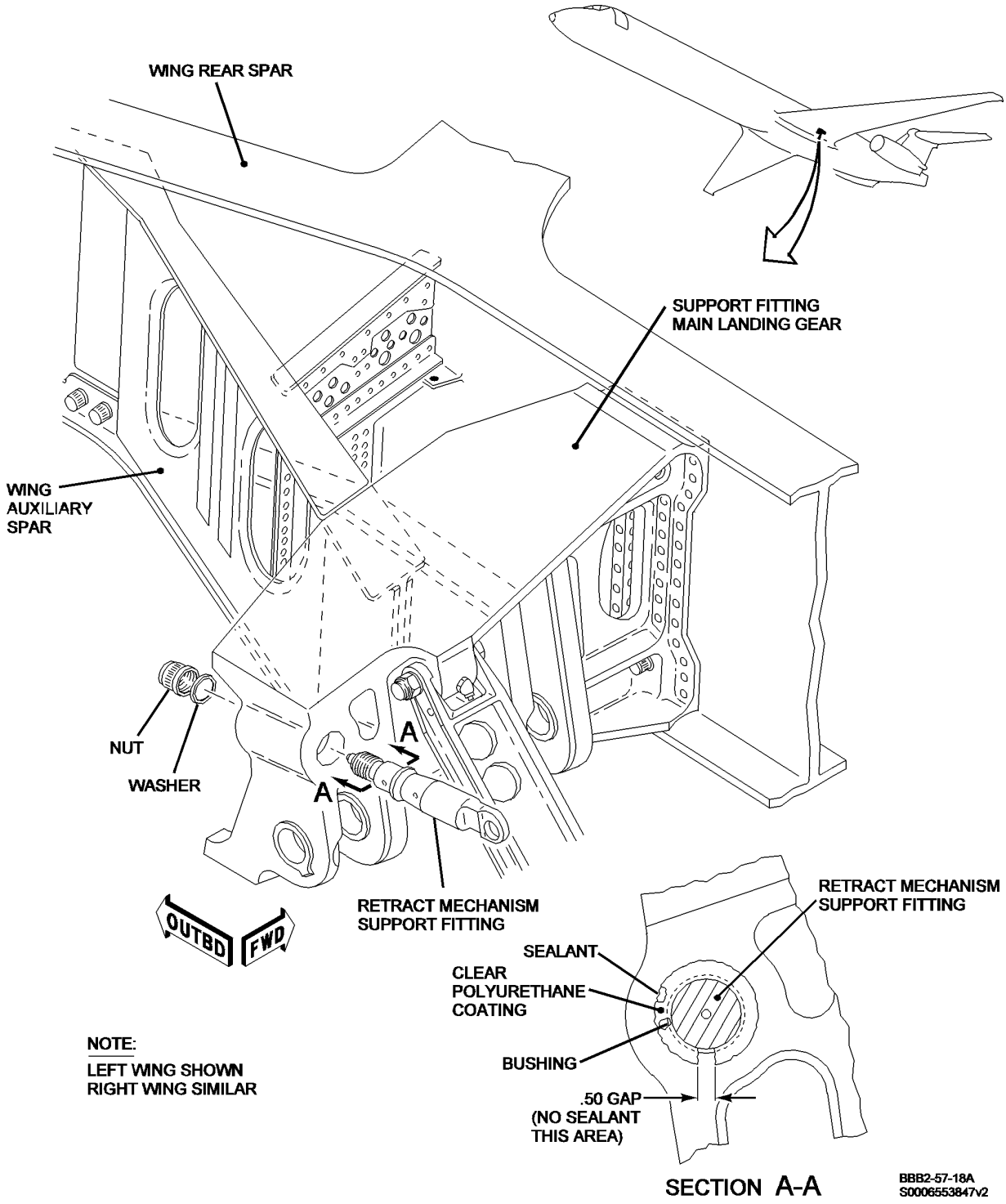
2. Equipment and Materials

NOTE: Equivalent substitutes may be used instead of the following items:

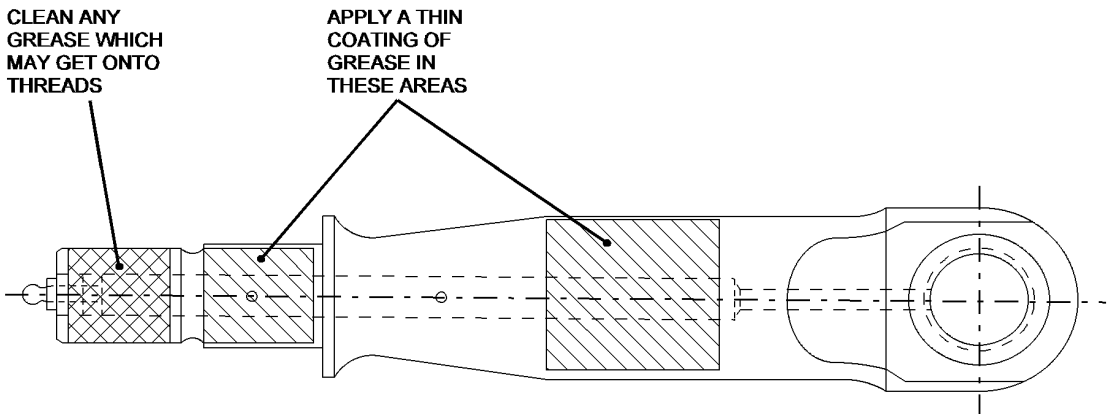
NOTE: It is possible that some materials in the Equipment and Materials List cannot be used for some or all of their necessary applications. Before you use the materials, make sure the types, quantities, and applications of the materials necessary are legally permitted in your location. All persons must obey all applicable federal, state, local, and provincial laws and regulations when it is necessary to work with these materials.

Table 201

Name and Number	Manufacturer
Safety locks, MLG door, 3936851-1	
Grease Lubricant DPM 5348 MIL-PRF-81322 (Mobile 28)	Exxon Mobil Oil Corp., Fairfax, VA
Clear Polyurethane Coating DPM 2389-3	W.L.S. Coating Inc., L.A., CA
Solvent DPM 518 MIL-PRF-680	Arco Corp., L.A., CA
Sealant DPM 2292-6 PR1422 B2	PRC-De Soto Int'l, Inc.
Clean Cloth DMS 1820, Type 1	Commercial
Cleaner/solvent DPM 6380-4	



Retracted Mechanism Support Fitting -- Removal/Installation
Figure 201/57-40-02-990-801



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Retracted Mechanism Support Fitting - Removal/Installation
Figure 202/57-40-02-990-803

3. **Removal/Installation Retract Mechanism Support Fitting**

WARNING: TO PREVENT INJURY TO PERSONNEL, MAKE CERTAIN LANDING GEAR CONTROL LEVER IS IN DOWN POSITION BEFORE ACCOMPLISHING FOLLOWING PROCEDURE.

A. Remove Retract Mechanism Support Fitting (Figure 201)

(1) Place ground maintenance bypass lever in bypass position, open main gear inboard doors, install main landing gear door safety locks, and place bypass lever in normal (stowed) position.

(2) Check that all landing gear lockpins are installed.

(3) Depressurize right hydraulic power system. (PAGEBLOCK 29-00-00/201)

(4) Remove main landing gear actuating cylinder. (PAGEBLOCK 32-32-02/201)

(5) Remove nut and washer and retract mechanism support fitting.

B. Install Retract Mechanism Support Fitting

WARNING: MIL-PRF-680 TYPE 1 SOLVENT IS AN AGENT THAT IS FLAMMABLE AND POISONOUS. MAKE SURE ALL PERSONS OBEY ALL OF THE PRECAUTIONS WHEN MIL-PRF-680 TYPE 1 SOLVENT IS USED.

- DO NOT USE IN AREAS WHERE THERE IS HIGH HEAT, SPARKS, OR FLAMES.
- USE IN AN AREA OPEN TO THE AIR.
- CLOSE THE CONTAINER WHEN NOT USED.
- DO NOT GET MIL-PRF-680 TYPE 1 SOLVENT IN THE EYES, ON THE SKIN, OR ON YOUR CLOTHES.
- DO NOT BREATHE THE GAS.

WARNING: REFER TO THE APPLICABLE MANUFACTURER'S OR SUPPLIERS MSDS FOR:

- MORE PRECAUTIONARY DATA.
- APPROVED SAFETY EQUIPMENT.
- EMERGENCY MEDICAL AID.
- TALK WITH THE LOCAL SAFETY DEPARTMENT OR AUTHORITIES FOR THE PROCEDURES TO DISCARD THIS HAZARDOUS AGENT.

(1) Using clean cotton cloth and solvent MIL-PRF-680, clean cavity of main landing gear support fitting and retract mechanism support fitting. Wipe dry with clean cotton cloth.

WARNING: GREASE LUBRICANT IS AN AGENT THAT IS AN IRRITANT. MAKE SURE ALL PERSONS OBEY ALL OF THE PRECAUTIONS WHEN GREASE LUBRICANT IS USED.

- DO NOT USE IN AREAS WHERE THERE IS HIGH HEAT, SPARKS, OR FLAMES.
- USE IN AN AREA OPEN TO THE AIR.
- CLOSE THE CONTAINER WHEN NOT USED.
- DO NOT GET GREASE LUBRICANT IN THE EYES, ON THE SKIN, OR ON YOUR CLOTHES.
- DO NOT BREATHE THE GAS.

(2) Apply grease lubricant (MIL-PRF-81322 Mobile 28) to the fitting assembly.

(3) Apply grease lubricant (MIL-PRF-81322 Mobile 28) to the retract mechanism support fitting.

(4) Install retract mechanism support fitting.

WARNING: HANDWIPE CLEANER/SOLVENT IS AN AGENT THAT IS FLAMMABLE AND AN IRRITANT. MAKE SURE ALL PERSONS OBEY THE PRECAUTIONS WHEN HANDWIPE CLEANER/SOLVENT IS USED.

- DO NOT USE IN AREAS WHERE THERE IS HIGH HEAT, SPARKS, OR FLAMES.
- USE IN AN AREA OPEN TO THE AIR.
- CLOSE THE CONTAINER WHEN NOT USED.
- DO NOT GET HANDWIPE CLEANER/SOLVENT IN THE EYES, ON THE SKIN, OR ON YOUR CLOTHES.
- DO NOT BREATHE THE GAS.

(5) Clean the new nut and supporting fitting treads fully using a clean cotton cloth and cleaner/solvent (DPM 6380-4 or equivalent).

(6) Install the washer and the new nut.

WARNING: MIL-PRF-680 TYPE 1 SOLVENT IS AN AGENT THAT IS FLAMMABLE AND POISONOUS. MAKE SURE ALL PERSONS OBEY ALL OF THE PRECAUTIONS WHEN MIL-PRF-680 TYPE 1 SOLVENT IS USED.

- DO NOT USE IN AREAS WHERE THERE IS HIGH HEAT, SPARKS, OR FLAMES.
- USE IN AN AREA OPEN TO THE AIR.
- CLOSE THE CONTAINER WHEN NOT USED.
- DO NOT GET MIL-PRF-680 TYPE 1 SOLVENT IN THE EYES, ON THE SKIN, OR ON YOUR CLOTHES.
- DO NOT BREATHE THE GAS.

(7) Using clean cotton cloth and solvent MIL-PRF-680, remove unwanted material from the retract mechanism support fitting threads and nut threads. Wipe dry with clean cotton cloth.

(8) Check locking torque of the new retract mechanism support fitting nut. Minimum locking torque should be 117 in-lb (13 N·m).

(9) If the new nut does not keep the required locking torque value before it makes contact with fitting surface, replace the nut.

(10) Tighten support fitting nut to torque of 230 ft-lb (312 N·m) to 250 ft-lb (339 N·m) and apply torque stripe.

(11) Apply torque stripe.

WARNING: LOW SPECIFIC GRAVIY SEALANT IS AN AGENT THAT IS POISONOUS AND AN OXIDIZER. MAKE SURE ALL PERSONS OBEY THE PRECAUTIONS WHEN LOW SPECIFIC GRAVITY SEALANT IS USED.

- DO NOT USE IN AREAS WHERE THERE IS HIGH HEAT, SPARKS, OR FLAMES.
- USE IN AN AREA OPEN TO THE AIR.
- CLOSE THE CONTAINER WHEN NOT USED.
- DO NOT GET LOW SPECIFIC GRAVITY SEALANT IN THE EYES, ON THE SKIN, OR ON YOUR CLOTHES.
- DO NOT BREATHE THE GAS.

(WARNING PRECEDES)

WARNING: REFER TO THE APPLICABLE MANUFACTURER'S OR SUPPLIERS MSDS FOR:

- MORE PRECAUTIONARY DATA.
- APPROVED SAFETY EQUIPMENT.
- EMERGENCY MEDICAL AID.
- TALK WITH THE LOCAL SAFETY DEPARTMENT OR AUTHORITIES FOR THE PROCEDURES TO DISCARD THIS HAZARDOUS AGENT.

(12) Apply fillet seal around bushing with PR 1422 sealant.

NOTE: Do not seal 0.50 inch at bottom of fitting.

WARNING: POLYURETHANE COATING IS AN AGENT THAT IS FLAMMABLE, EXPLOSIVE, POISONOUS, AND AN IRRITANT. MAKE SURE ALL PERSONS OBEY THE PRECAUTIONS WHEN POLYURETHANE COATING IS USED.

- GAS/AIR MIXTURES MORE THAN THE LOWER EXPLOSIVE LIMIT (LEL) CAN CAUSE AN EXPLOSION IF HIGH HEAT, SPARKS, OR FLAMES SUPPLY IGNITION.
- USE IN AN AREA OPEN TO THE AIR.
- CLOSE THE CONTAINER WHEN NOT USED.
- DO NOT GET POLYURETHANE COATING IN THE EYES, ON THE SKIN, OR ON YOUR CLOTHES.
- DO NOT BREATHE THE GAS.

WARNING: REFER TO THE APPLICABLE MANUFACTURER'S OR SUPPLIERS MSDS FOR:

- MORE PRECAUTIONARY DATA.
- APPROVED SAFETY EQUIPMENT.
- EMERGENCY MEDICAL AID.
- TALK WITH THE LOCAL SAFETY DEPARTMENT OR AUTHORITIES FOR THE PROCEDURES TO DISCARD THIS HAZARDOUS AGENT.

(13) Apply overcoat of clear polyurethane coating on top of sealant.

(14) Install main landing gear actuating cylinder. (PAGEBLOCK 32-32-02/201)

(15) Place ground maintenance bypass lever in bypass position, remove main landing gear door safety locks, close main gear inboard doors, and place bypass lever in normal (stowed) position.

FLIGHT SURFACES - DESCRIPTION AND OPERATION

1. General

A. The flight control surfaces attached to the wing include the ailerons, flaps, leading edge slats, and flight spoilers. The flight surfaces are sealed to prevent liquids from entering but incorporate drain holes in the lower surface to remove any moisture which may accumulate within the structure. All of the flight control surfaces are similar in construction and consist of spars, ribs and skins with doublers.

2. Flight Surfaces

A. Ailerons

(1) Aluminum ailerons - are of all metal construction except the trailing edge which is fiberglass. The aileron consists of a spanwise spar, chordwise ribs and skins with bonded scalloped doublers. The ailerons are mounted on truss-type brackets attached to the wing rear spar. The aileron hinges incorporate roller-type bearings which are replaceable without removing the aileron. A control tab and a trim tab are incorporated in the trailing edge of each aileron. The tabs are of all metal construction. The area between the tab skins is filled with aluminum honeycomb material. Mass balance of the aileron, required for flutter prevention, is a integral part of the aileron. (Figure 1)

(2) Composite ailerons - are fabricated from composite material (laminated carbon epoxy). The aileron consists of spanwise spars, full depth honeycomb core and skins with doublers. The ailerons are mounted on truss-type brackets attached to the wing rear spar. The aileron hinges incorporate roller-type bearings which are replaceable without removing the aileron. A control tab and a trim tab are incorporated in the trailing edge of each aileron. The tabs are fabricated from composite material (laminated carbon epoxy). Mass balance of the aileron, required for flutter prevention, is an integral part of the aileron. (Figure 2)

(3) The composite aileron installation is designed to allow installation of aluminum ailerons on aircraft originally configurated for composite ailerons with minimal rework.

B. The flaps are installed in the trailing edge portion of the wing, inboard of the ailerons. The flaps are constructed with an internal framework of spars, ribs and skins with bonded doublers. The leading edge of the flaps is removable in sections to provide access for replacement and to permit structural inspection. The entire section aft of the spar may be removed in six sections. These sections are attached to the spar with screws and are joined to each other with links, at the trailing edge, to provide expansion joints. Replaceable wear strips are provided where the flaps contact the seals, fuselage, or wing structure. The flap vanes are constructed of ribs at both ends and at the support points covered with aluminum skin. The area between the skins is filled with aluminum honeycomb material. (Figure 3)

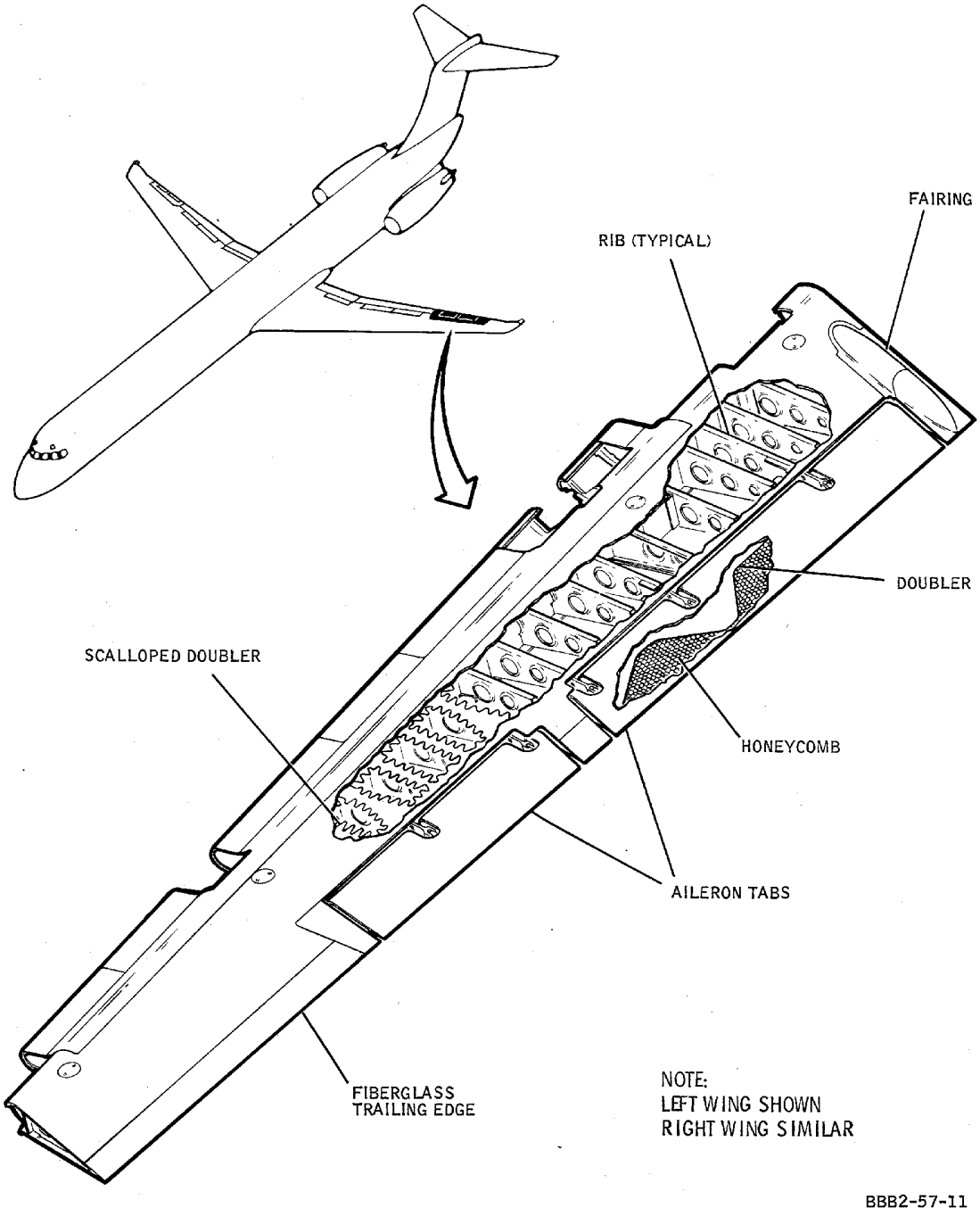
C. The wing leading edge slats consist of six segments supported on tracks and rollers. Each segment can be removed independently. The upper surface and nose section of the slats is of double skin construction attached to chordwise ribs incorporating thermal anti-icing.

D. Spoilers

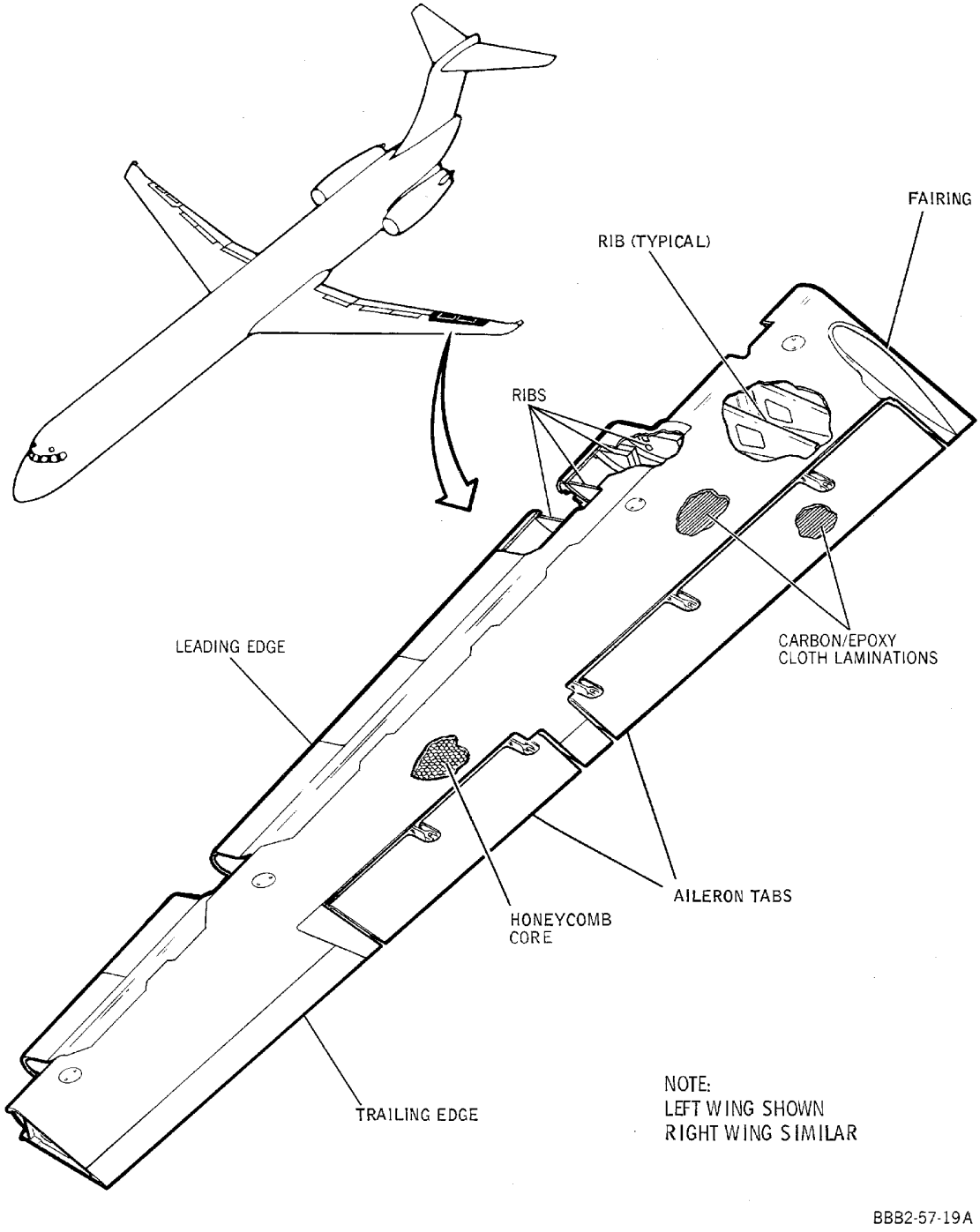
(1) Aluminum spoilers - two flight spoilers and one ground spoiler are installed on the upper trailing edge of each wing, immediately forward of the flaps. The flight spoilers operate in conjunction with the ailerons for lateral control. The flight spoilers also serve as speed brakes in flight and on the ground. The flight spoilers operate together with the ground spoilers to reduce speed during the landing roll. The spoiler panel is constructed of spanwise channels, ribs at both ends and support points, and skins with bonded doublers in the center section and both ends. The area between the skins is filled with aluminum honeycomb material. Hinge points are provided at the forward end of the ribs. (Figure 4)

(2) Composite Spoilers - two flight spoilers and one ground spoiler are installed on the upper trailing edge of each wing, immediately forward of the flaps. The flight spoilers operate in conjunction with the ailerons for lateral control. The flight spoilers also serve as speed brakes in flight and on the ground. The flight spoilers operate together with the ground spoilers to reduce speed during the landing roll. The spoiler panel is fabricated from composite material (laminated carbon epoxy), and consists of spanwise spars, ribs at both ends and support points, and skins. The area between the skins is filled with polyamide honeycomb paper. Hinge points are provided at the forward end of the ribs. (Figure 5)

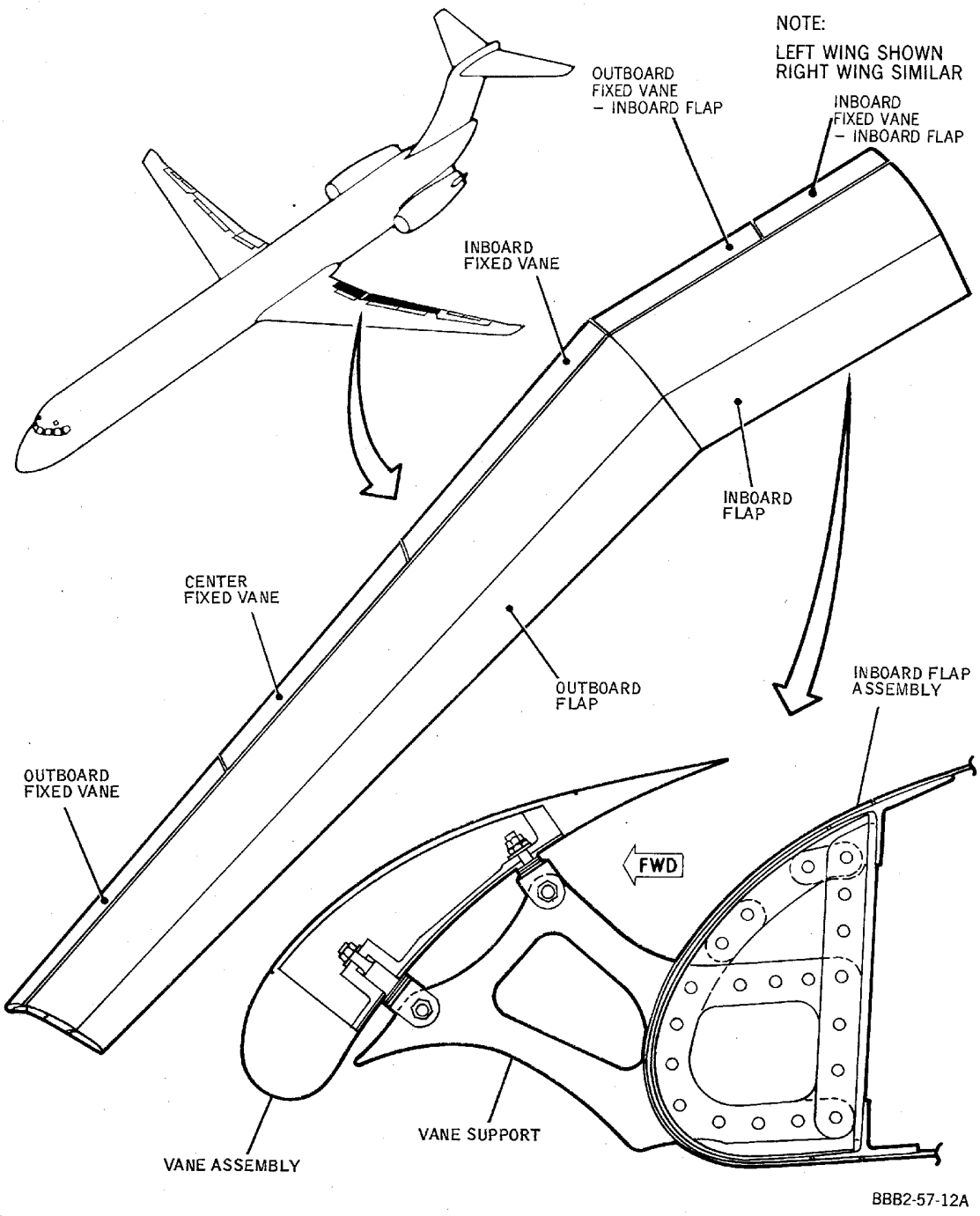
NOTE: See SPOILER, SECTION 27-60 for instructions on replacement of the spacers on the lower surface of the flight spoilers.



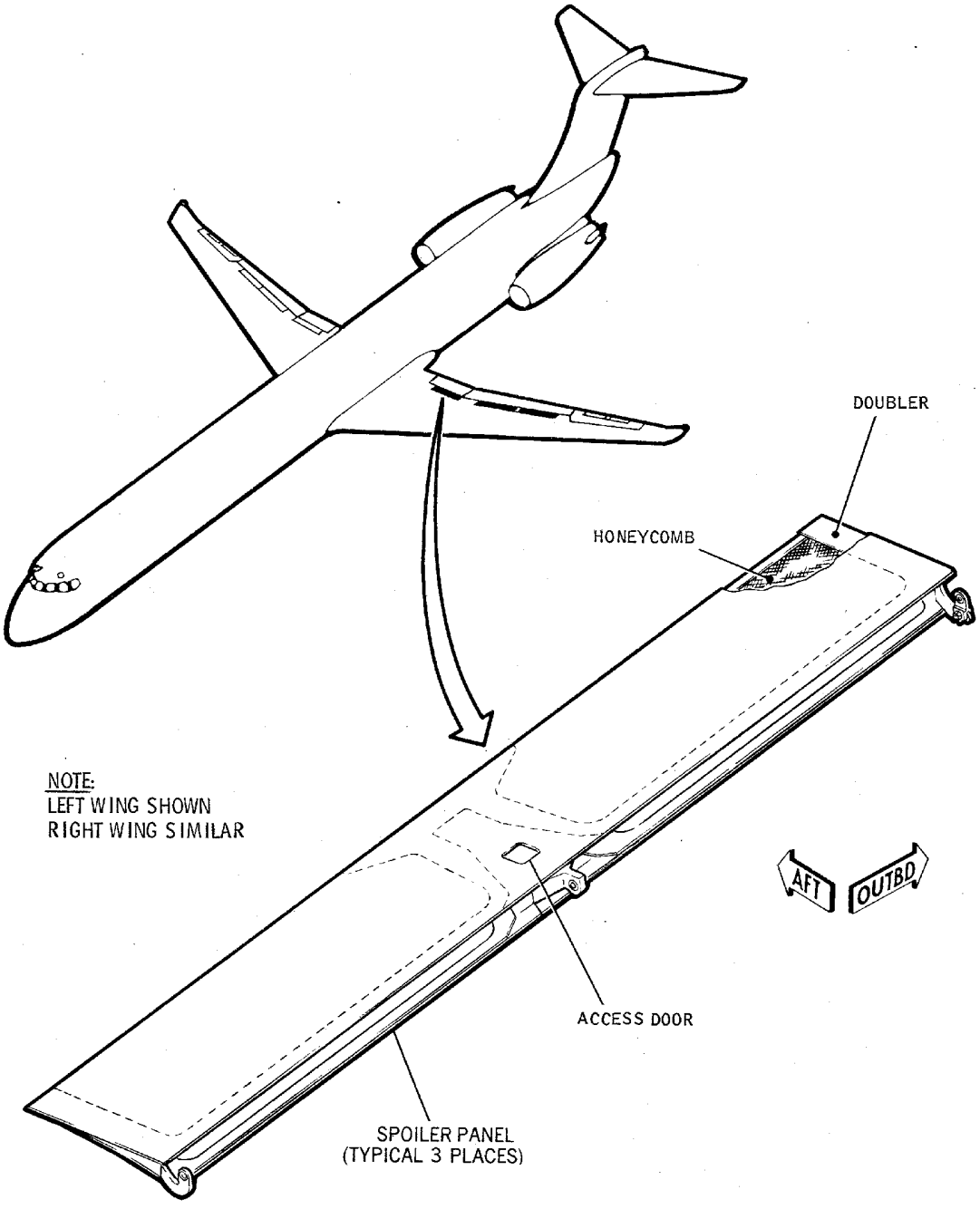
Wing Aileron -- Aluminum
Figure 1/57-50-00-990-801



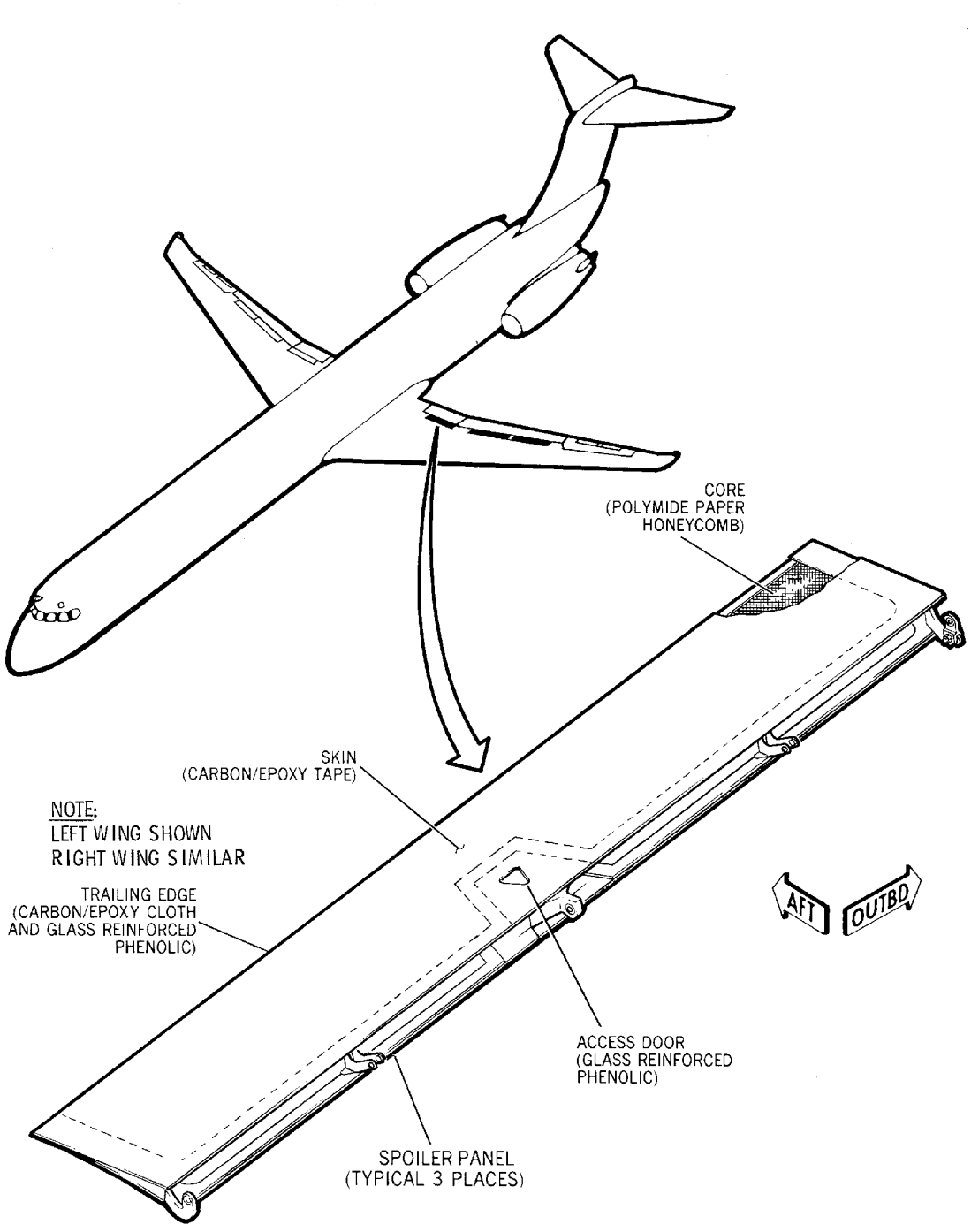
Wing Aileron -- Composite
Figure 2/57-50-00-990-802



Wing Flap
Figure 3/57-50-00-990-803



Spoiler Panel -- Aluminum
Figure 4/57-50-00-990-804



Spoiler Panel -- Composite
Figure 5/57-50-00-990-805