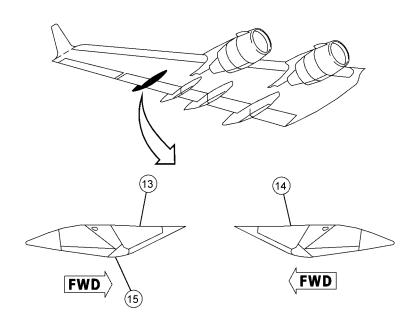


| 2764MP015 16 673JRP 59 | 61.  — | PUSHROD   | INDEX    | PANEL            | SCREW    |
|------------------------|--------|-----------|----------|------------------|----------|
|                        | 63.    | REF DES   | NO.      | NO.              | QTY      |
| 1/   0/3HLP   39       |        | 2764MP015 | 16<br>17 | 673JRP<br>673HLP | 59<br>59 |

| 65. | PUSHROD   | INDEX | PANEL  | SCREW |
|-----|-----------|-------|--------|-------|
| 67. | REF DES   | NO.   | NO.    | QTY   |
|     | 2764MP015 | 18    | 673CBC | 17    |

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| 61. | PUSHROD   | INDEX    | PANEL            | SCREW    |
|-----|-----------|----------|------------------|----------|
| 63. | REF DES   | NO.      | NO.              | QTY      |
|     | 2764MP016 | 13<br>14 | 673MRP<br>673LLP | 44<br>44 |

| 65. | PUSHROD   | INDEX | PANEL  | SCREW |
|-----|-----------|-------|--------|-------|
| 67. | REF DES   | NO.   | NO.    | QTY   |
|     | 2764MP016 | 15    | 673FBC | 16    |

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# WING SPOILER ASSEMBLY (27-61-10)

# **MASTER INPUT CONDITIONS:**

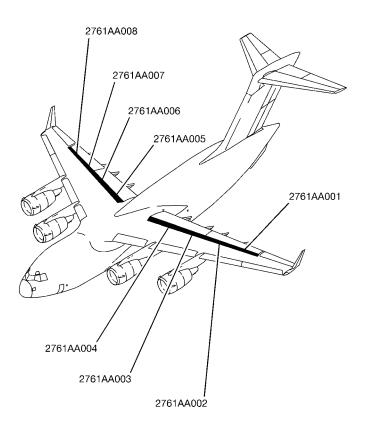
# Reference designators:

| 2761AA001 | Left Wing No. 4 Spoiler Assembly  |
|-----------|-----------------------------------|
| 2761AA002 | Left Wing No. 3 Spoiler Assembly  |
| 2761AA003 | Left Wing No. 2 Spoiler Assembly  |
| 2761AA004 | Left Wing No. 1 Spoiler Assembly  |
| 2761AA005 | Right Wing No. 1 Spoiler Assembly |
| 2761AA006 | Right Wing No. 2 Spoiler Assembly |
| 2761AA007 | Right Wing No. 3 Spoiler Assembly |
| 2761AA008 | Right Wing No. 4 Spoiler Assembly |

# **Applicable functions:**

- -2 Removal.
- -3 Installation.
- -4 Repair.

## Access data:



ICN-88277-G2761001-002-01

# WING SPOILER ASSEMBLY REMOVAL (27-61-10-2)

# **FUNCTIONAL INPUT CONDITIONS:**

| Applicab | ility:  | Task |
|----------|---|------|
| All      |   | All  |
| Addition | al information:   |      |
| This pro | cedure consists of the following tasks:                       |      |
| 2-2.     | Preparation. Removal. Follow-on maintenance.                  |      |
|          | NOTE  | Task |
|          | his is a typical removal task for all wing spoiler ssemblies. | All  |
| Addition | al data:  | Task |
| TO       | 1300i-2-00JG-00-1   | 2-1  |
| TO       | 1300i-2-27JG-50-1   | 2-1  |
| TO 1     | 300i-2-57JG-50-1  | 2-1  |
| Personne | el recommended:   | Task |
| Two      |   | All  |
| Perso    | n (A) performs task.  |      |
| Perso    | n (B) assists person (A).                                     |      |
|          |   |      |

## Safety conditions:

**Task** 

# WARNING

- Spoiler shall not be removed with winds over 15 knots. Failure to comply may cause injury to personnel and damage to equipment.
- All
- Areas below lower wing fixed trailing edge door assembly shall remain clear of personnel when door is in lowered position and suspended from lanyards. Failure to comply may cause injury to personnel or damage to aircraft.

All

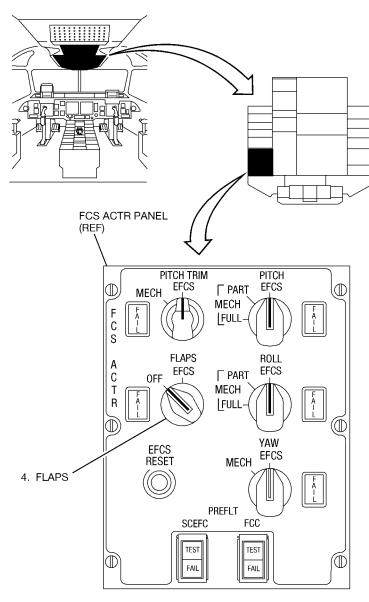
# **Support equipment:**

| <u>Nomenclature</u>             | <u>PN</u>     | <u>Specification</u> | <u>Qty</u> | <u>Task</u> |
|---------------------------------|---------------|----------------------|------------|-------------|
| Adapter Assembly, Hoist         | 17G110031-501 |                      |            |             |
| Adapter                         | 17G111031-503 |                      | 2          | 2-1         |
| Adapter                         | 17G111031-519 |                      | 1          | 2-1         |
| Shield                          | 17G111031-113 |                      | 2          | 2-1         |
| Rope, Guide                     | 17G111031-155 |                      | 2          | 2-1         |
| Adapter Set, Hoisting, Spoilers | 17G110663-1   |                      |            |             |
| Adapter                         | 17G111031-503 |                      | 2          | 2-1         |
| Adapter                         | 17G111031-519 |                      | 1          | 2-1         |
| Shield                          | 17G111031-113 |                      | 2          | 2-1         |
| Rope, Guide                     | 17G111031-155 |                      | 2          | 2-1         |
| Assembly, Strap                 | 17G110012-1   |                      | 3          | 2-1         |

| 27-61-10-2<br>2-98/(2-99 blank) | Nomenclature   | <u>PN</u>   | <u>Specification</u> | Qty | Task o                      |  |
|---------------------------------|--|-------------|----------------------|-----|-----------------------------|--|
| - <b>61</b> -<br>3/(2-9         | Beam, Hoisting                                       | 17G110119-1 |                      | 1   | 2-1                         |  |
| 10-                             | Crane, Portable Floor                                | LRT100      |                      | 1   | All 2                       |  |
| nk)                             | Lock, Aircraft Ground Safety, Flap<br>Control Handle | 17G140025-1 |                      | 1   | 2-1 <b>300i-2-27JG-60-1</b> |  |
|                                 | Semitrailer, Stake                                   | 26608SSPB   |                      | 1   | 2-2                         |  |
|                                 | Sling, Multi-leg                                     | 17G110012-1 |                      | 1   | 2-1                         |  |
|                                 | Wrench, Torque                                       |             | (0-150 in-lb)        | 1   | 2-1                         |  |
|                                 | Supplies:  |             |                      |     |                             |  |
|                                 | <u>Nomenclature</u>                                  | <u>PN</u>   | <u>Specification</u> | Qty | <u>Task</u>                 |  |
|                                 | Tag, Warning   |             |                      | 3   | 2-1                         |  |
|                                 |  |             |                      |     |                             |  |
|                                 |  |             |                      |     |                             |  |

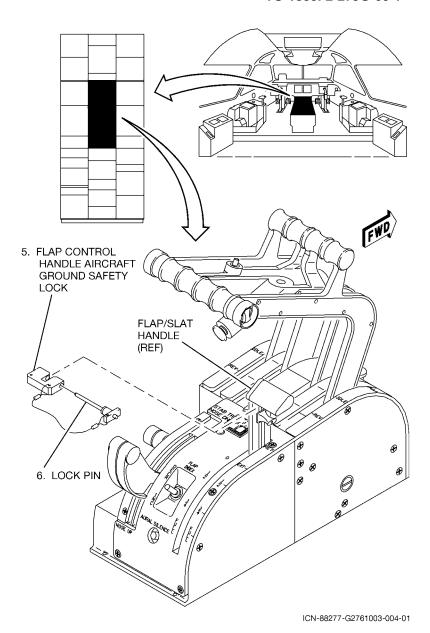
# 2-1. PREPARATION.

- 1. Review "Section 1 (General Information)" of this TO for system general warnings, cautions, and notes.
- 2. Review task "Functional Input Conditions" page for task specific safety conditions.
- 3. Operate flaps system and position flap/slat handle to **FULL** (27-50-03, task 03-1).
- 4. (A) Ensure **FLAPS** switch on **FCS ACTR** panel is **OFF** and attach warning tag.

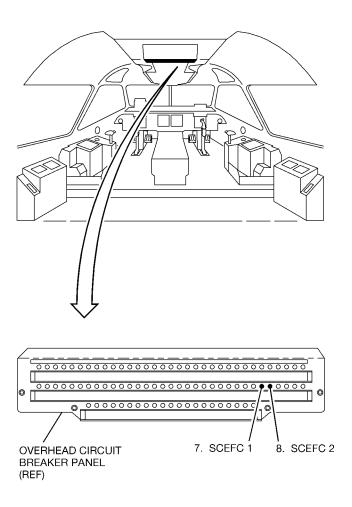


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- 5. (A) Position flap control handle aircraft ground safety lock on flap/slat handle.
- 6. (A) Install lock pin.



- 7. (A) Open **SCEFC 1** circuit breaker on overhead circuit breaker panel, row **H**, column **28**, and attach warning tag.
- 8. (A) Open **SCEFC 2** circuit breaker on overhead circuit breaker panel, row **H**, column **29**, and attach warning tag.



ICN-88277-G2761005-003-01

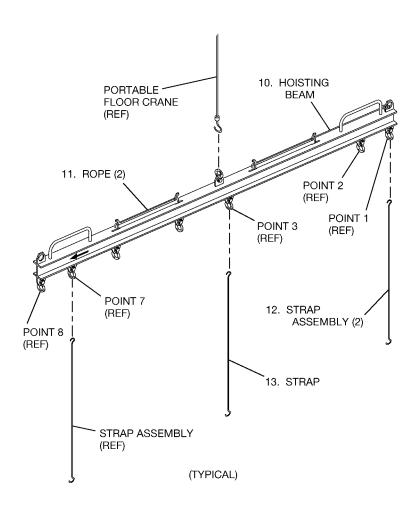
9. Lower lower wing fixed trailing edge door assemblies (57-54-01).

| SPOILER REF DES | DOOR NO. | DOOR REF DES |
|-----------------|----------|--------------|
| 2761AA001       | 565EBD   | 5754CA032    |
| 0704            | 565CBD   | 5754CA030    |
| 2761AA002       | 565DBD   | 5754CA031    |
| 2761AA003       | 565BBD   | 5754CA029    |
| 2701AA003       | 565CBD   | 5754CA030    |
| 2761AA004       | 565ABD   | 5754CA028    |
| 2701AA004       | 565BBD   | 5754CA029    |
| 2761AA005       | 665ABD   | 5754CA037    |
|                 | 665BBD   | 5754CA036    |
| 2761AA006       | 665BBD   | 5754CA036    |
| 2701AA000       | 665CBD   | 5754CA035    |
| 2761AA007       | 665CBD   | 5754CA035    |
| 2101AA001       | 665DBD   | 5754CA034    |
| 2761AA008       | 665EBD   | 5754CA033    |

- 10. (A,B) Attach hoisting beam to portable floor crane.
- 11. (A) Unwrap ropes.
- 12. (A,B) Attach strap assemblies to hoisting beam points as follows:

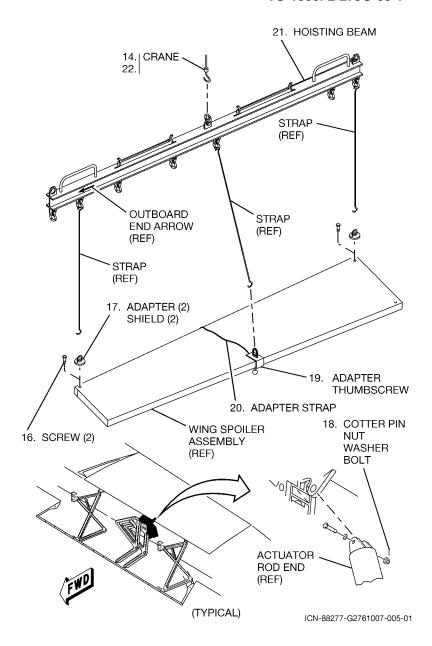
| SPOILER REF DES | WIRE ROPE | WIRE ROPE |
|-----------------|-----------|-----------|
| 2761AA001       | POINT 1   | POINT 7   |
| 2761AA002       | POINT 1   | POINT 7   |
| 2761AA003       | POINT 2   | POINT 7   |
| 2761AA004       | POINT 2   | POINT 8   |
| 2761AA005       | POINT 1   | POINT 7   |
| 2761AA006       | POINT 1   | POINT 7   |
| 2761AA007       | POINT 2   | POINT 7   |
| 2761AA008       | POINT 2   | POINT 8   |

13. (A,B) Attach strap to hoisting beam point 3.



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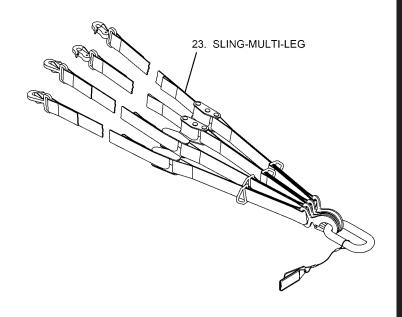
- 14. (A,B) Position crane over wing spoiler assembly.
- 15. Enter fuselage and wing (00-00-01).
- 16. (A) Remove screws.
- (A) Install adapters (PN 17G111031-503) and shields; torque 50-70 in-lb.
- (A) Remove cotter pin, nut, washer, and bolt from actuator rod end.
- 19. (A) Position adapter (PN 17G111031-519) on wing spoiler assembly and tighten thumbscrew.
- 20. (A) Position and tighten adapter strap.
- 21. (A) Position beam outboard end arrow pointing outboard and attach straps to adapters.
- 22. (A,B) Operate crane and remove slack from straps.



#### **NOTE**

If using Multi-leg-Sling (17G110012-1) instead of Hoisting Beam (17G110119-1) attach both outboard point straps at same length and middle strap approximately 10 inches shorter.

- 23. Alternate Multi-Sling Method.
  - Attach Sling, Multiple-Leg (PN 17G110012-1) to portable crane.
  - (A,B) Position crane over wing spoiler assembly.
  - (A) Enter fuselage and wing (00-00-01).
  - (A) Remove screws.
  - (A) Install adapters (PN 17G111031-503) and shields; torque **50-70 in-lb**.
  - (A) Remove cotter pin, nut, washer, and bolt from actuator rod end.
  - (A) Position adapter (PN 17G111031-519) on wing spoiler assembly and tighten thumbscrew.
  - (A) Attach both outboard point straps at same length and middle strap approximately 10 inches shorter than the outboard to adapters.
  - (A,B) Operate crane and remove slack from straps.



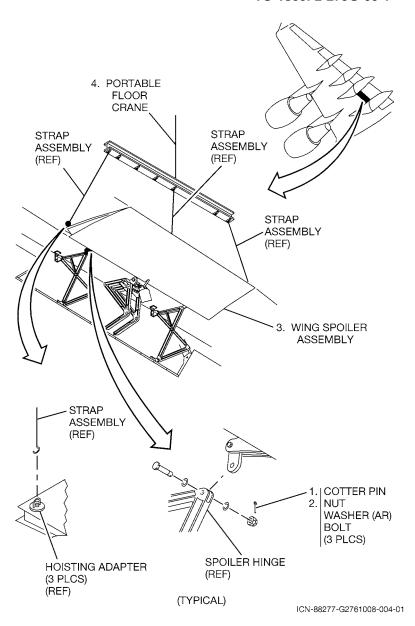
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# 2-2. REMOVAL.

### **NOTE**

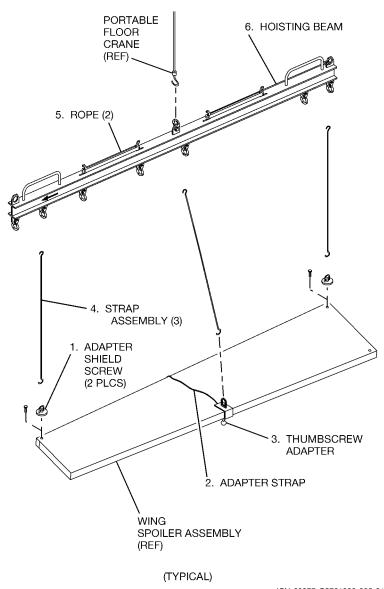
Wing spoiler assemblies weigh approximately 78 to 122 pounds.

- 1. (A) Remove cotter pins from nuts.
- 2. (A) Identify and remove nuts, washers, and bolts from spoiler hinges.
- (A,B) Remove wing spoiler assembly and secure on stake semitrailer.
- 4. (A,B) Operate portable floor crane to relieve tension; disconnect strap assemblies from hoisting adapters.



# 2-3. FOLLOW-ON MAINTENANCE.

- 1. (A) Remove adapters and shields from wing spoiler assembly; install screws.
- 2. (A) Loosen and disconnect adapter strap.
- 3. (A) Loosen thumb screw and remove adapter.
- 4. (A) Remove strap assemblies from hoisting beam.
- 5. (A) Wrap ropes.
- 6. (A,B) Remove hoisting beam from portable floor crane.



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27-61-10-2 2-115/(2-116 blank)

# WING SPOILER ASSEMBLY INSTALLATION (27-61-10-3)

# **FUNCTIONAL INPUT CONDITIONS:**

| Applicat | pility:   | Task |
|----------|---|------|
| All      |   | All  |
| Addition | al information:   |      |
| This pro | ocedure consists of the following tasks:                            |      |
| 3-2.     | Preparation. Installation. Follow-on maintenance.                   |      |
|          | NOTE  | Task |
|          | This is a typical installation task for all wing spoiler ssemblies. | All  |
| Addition | al data:  | Task |
| ТО       | 1300i-2-00JG-00-1   | 3-2  |
| TO       | 1300i-2-27JG-00-1   | 3-3  |
| TO       | 1300i-2-27JG-50-1   | 3-3  |
| TO       | 1300i-2-27JG-60-2   | 3-3  |
| TO       | 1300i-2-57JG-50-1   | 3-3  |
| TO 1     | 300i-23   | 3-2  |
| Personn  | el recommended:   | Task |
| Two      |   | All  |
| Perso    | on (A) performs task.   |      |
| Perso    | on (B) assists person (A).  |      |

## Safety conditions:

**Task** 

# WARNING

- Spoiler shall not be removed with winds over 15 knots. Failure to comply may cause injury to personnel and damage to equipment.
- All
- Areas below lower wing fixed trailing edge door assembly shall remain clear of personnel when door is in lowered position and suspended from lanyards. Failure to comply may cause injury to personnel or damage to aircraft.

All

# **Support equipment:**

| <u>Nomenclature</u>             | PN            | <b>Specification</b> | Qty | <u>Task</u> |
|---------------------------------|---------------|----------------------|-----|-------------|
| Adapter Assembly, Hoist         | 17G110031-501 |                      |     |             |
| Adapter                         | 17G111031-503 |                      | 2   | 3-1         |
| Adapter                         | 17G111031-519 |                      | 1   | 3-1         |
| Shield                          | 17G111031-113 |                      | 2   | 3-1         |
| Rope, Guide                     | 17G111031-155 |                      | 2   | 3-1         |
| Adapter Set, Hoisting, Spoilers | 17G110663-1   |                      |     |             |
| Adapter                         | 17G111031-503 |                      | 2   | 3-1         |
| Adapter                         | 17G111031-519 |                      | 1   | 3-1         |
| Shield                          | 17G111031-113 |                      | 2   | 3-1         |
| Rope, Guide                     | 17G111031-155 |                      | 2   | 3-1         |
| Assembly, Strap                 | 17G110012-1   |                      | 3   | 3-1         |

| 27.         | <u>Nomenclature</u>   | PN          | <b>Specification</b> | Qty | Task 7                             |  |
|-------------|-----------------------|-------------|----------------------|-----|------------------------------------|--|
| 27-61-10-3  | Beam, Hoisting        | 17G110119-1 |                      | 1   | 3-1<br>3-1, 3-2<br>3-1<br>3-1, 3-2 |  |
| <u> 1</u> 0 | Crane, Portable Floor | LRT100      |                      | 1   | 3-1, 3-2                           |  |
| ယ           | Sling, Multi-leg      | 17G110012-1 |                      | 1   | 3-1 <b>■</b> 🧸                     |  |
|             | Wrench, Torque        |             | (0-150 in-lb)        | 1   | 3-1, 3-2                           |  |
|             | Wrench, Torque        |             | (0-600 in-lb)        | 1   | 3-2                                |  |
|             | Wrench, Torque        |             | (0-2400 in-lb)       | 1   | 3-2                                |  |
|             | Supplies:             |             |                      |     |                                    |  |
|             | <u>Nomenclature</u>   | <u>PN</u>   | <u>Specification</u> | Qty | <u>Task</u>                        |  |
|             | Grease, Aircraft      |             | MIL-G-81322          | AR  | 3-3                                |  |
|             | Pin, Cotter           | MS24665-88  |                      | 2   | 3-2                                |  |
|             | Pin, Cotter           | MS24665-309 |                      | 1   | 3-2                                |  |
|             |                       |             |                      |     |                                    |  |
|             |                       |             |                      |     |                                    |  |

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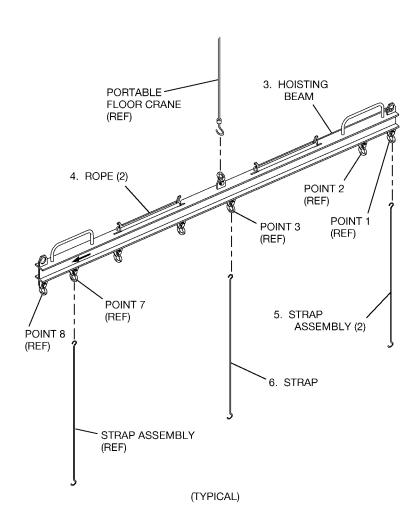
| <u>Nomenclature</u> | <u>PN</u>     | <b>Specification</b> | <u>Qty</u> | <u>Task</u> |
|---------------------|---------------|----------------------|------------|-------------|
| Pin, Cotter         | MS24665-310   |                      | 1          | 3-2         |
| Pin, Cotter         | MS24665-372   |                      | 1          | 3-2         |
| Sealant             | P/S 870 B-1/2 | AMS 3265             | AR         | 3-2         |

## 3-1. PREPARATION.

- 1. Review "Section 1 (General Information)" of this TO for system general warnings, cautions, and notes.
- 2. Review task "Functional Input Conditions" page for task specific safety conditions.
- 3. (A,B) Attach hoisting beam to portable floor crane.
- 4. (A) Unwrap rope.
- 5. (A,B) Attach strap assemblies to hoisting beam points as follows:

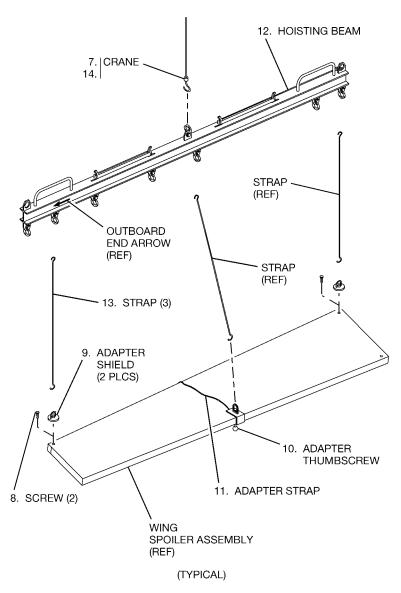
| SPOILER REF DES | WIRE ROPE | WIRE ROPE |
|-----------------|-----------|-----------|
| 2761AA001       | POINT 1   | POINT 7   |
| 2761AA002       | POINT 1   | POINT 7   |
| 2761AA003       | POINT 2   | POINT 7   |
| 2761AA004       | POINT 2   | POINT 8   |
| 2761AA005       | POINT 1   | POINT 7   |
| 2761AA006       | POINT 1   | POINT 7   |
| 2761AA007       | POINT 2   | POINT 7   |
| 2761AA008       | POINT 2   | POINT 8   |

6. (A,B) Attach strap to hoisting beam point 3.



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- 7. (A,B) Position crane over wing spoiler assembly.
- 8. (A) Remove screws.
- (A) Install adapters (PN 17G111031-503) and shields; torque 50-70 in-lb.
- 10. (A) Position adapter (PN 17G111031-519) on wing spoiler assembly and tighten thumbscrew.
- 11. (A) Position and tighten adapter strap.
- 12. (A) Position hoisting beam outboard end arrow pointing outboard.
- 13. (A,B) Attach straps to adapters.
- 14. (A,B) Operate crane and remove slack from straps.

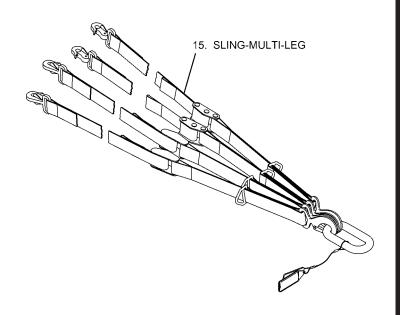


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#### **NOTE**

If using Multi-leg-Sling (17G110012-1) instead of Hoisting Beam (17G110119-1) attach both outboard point straps at same length and middle strap approximately 10 inches shorter.

- 15. Alternate Multi-Sling Method.
  - Attach Sling, Multiple-Leg (PN 17G110012-1) to portable crane.
  - (A,B) Position crane over wing spoiler assembly.
  - (A) Enter fuselage and wing (00-00-01).
  - (A) Remove screws.
  - (A) Install adapters (PN 17G111031-503) and shields; torque **50-70 in-lb**.
  - (A) Remove cotter pin, nut, washer, and bolt from actuator rod end.
  - (A) Position adapter (PN 17G111031-519) on wing spoiler assembly and tighten thumbscrew.
  - (A) Attach both outboard point straps at same length and middle strap approximately 10 inches shorter than the outboard to adapters.
  - (A,B) Operate crane and remove slack from straps.



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#### 3-2. INSTALLATION.



When installing the spoiler, care must be taken to ensure the spoiler fairing panels are positioned below the upper trailing edge of the wing skin. Failure to comply will cause damage to aircraft.

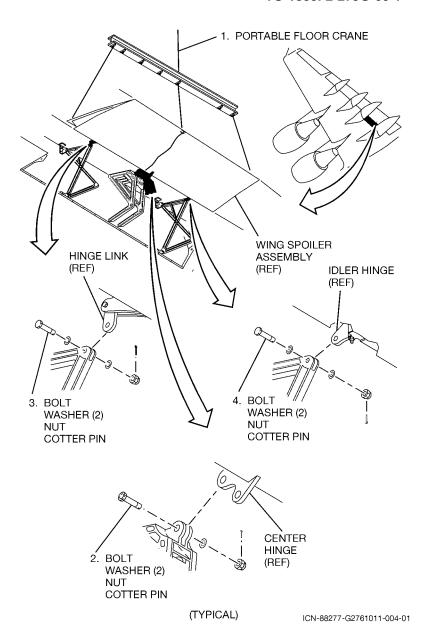
#### **NOTE**

Wing spoiler assemblies weigh approximately 78 to 122 pounds.

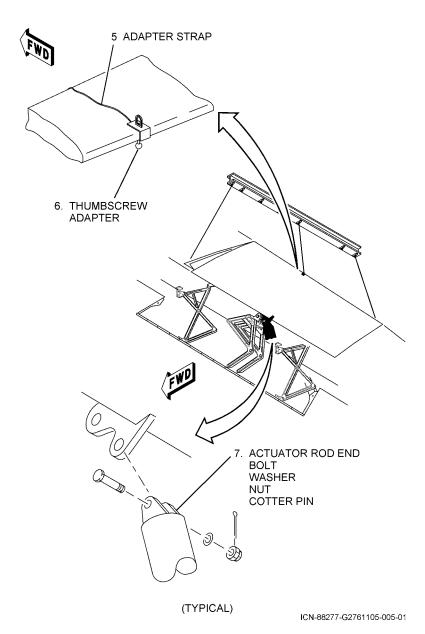
- 1. (A,B) Operate portable floor crane and align wing spoiler assembly on hinge link, idler hinge, and center hinge.
- 2. (A) Install bolt, washer, and nut as identified in center hinge; torque and install cotter pin as follows:

| SPOILER REF DES | TORQUE         | COTTER PIN  |
|-----------------|----------------|-------------|
| 2761AA001       | 600-730 in-lb  | MS24665-309 |
| 2761AA002       | 600-730 in-lb  | MS24665-309 |
| 2761AA003       | 900-1030 in-lb | MS24665-310 |
| 2761AA004       | 900-1030 in-lb | MS24665-310 |
| 2761AA005       | 900-1030 in-lb | MS24665-310 |
| 2761AA006       | 900-1030 in-lb | MS24665-310 |
| 2761AA007       | 600-730 in-lb  | MS24665-309 |
| 2761AA008       | 600-730 in-lb  | MS24665-309 |

- 3. (A) Install bolt, washers, and nut as identified in hinge link; torque **100-140 in-lb** and install cotter pin (PN MS24665-88).
- 4. (A) Install bolt, washers, and nut as identified in idler hinge; torque **100-140 in-lb** and install cotter pin (PN MS24665-88).

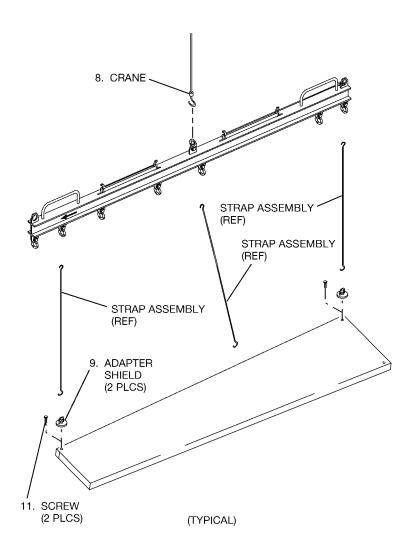


- 5. (A) Loosen and disconnect adapter strap.
- 6. (A) Loosen thumbscrew and remove adapter.
- 7. (A) Position actuator rod end and install bolt, washer, and nut; torque **240-300 in-lb** and install cotter pin (PN MS24665-372).



**27-61-10-3**2-131

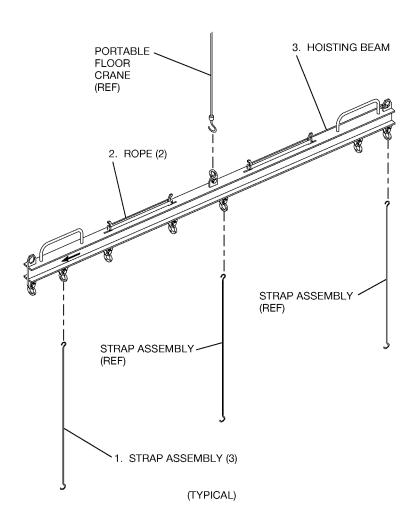
- 8. (A,B) Operate crane to relieve tension; disconnect strap assemblies from hoisting adapters.
- 9. (A) Remove adapters and shields.
- 10. Perform wet fastener installation (TO 1300i-23, Chapter 1, Section III).
- 11. (A) Install screws.
- 12. Exit fuselage and wing (00-00-01).



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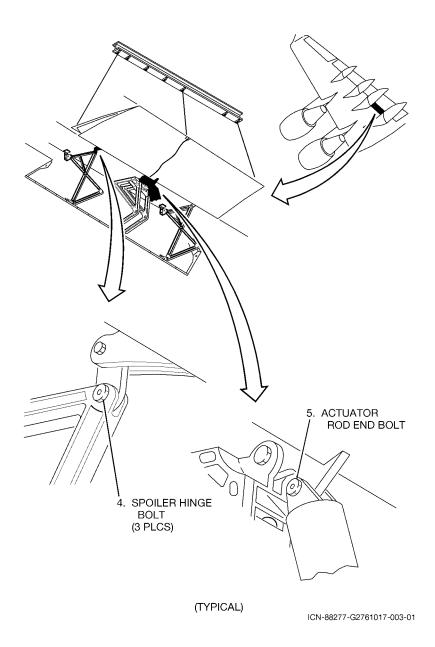
#### 3-3. FOLLOW-ON MAINTENANCE.

- 1. (A) Remove strap assemblies from hoisting beam.
- 2. (A) Wrap ropes.
- 3. (A,B) Remove hoisting beam from portable floor crane.

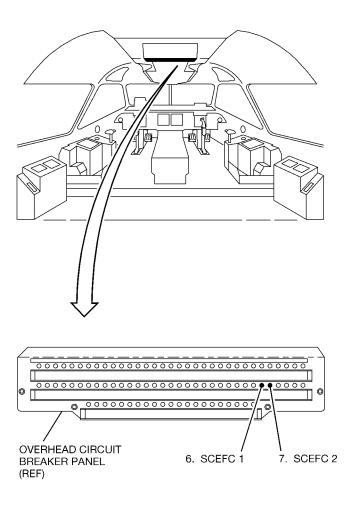


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- 4. (A) Lubricate spoiler hinge bolts with aircraft grease.
- 5. (A) Lubricate actuator rod end bolt with grease.

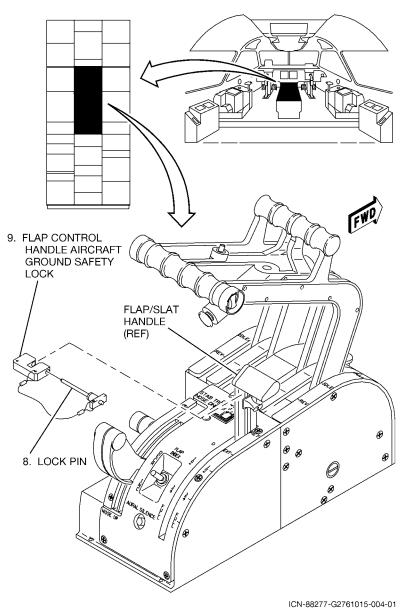


- 6. (A) Remove warning tag and close **SCEFC 1** circuit breaker on overhead circuit breaker panel, row **H**, column **28**.
- 7. (A) Remove warning tag and close **SCEFC 2** circuit breaker on overhead circuit breaker panel, row **H**, column **29**.



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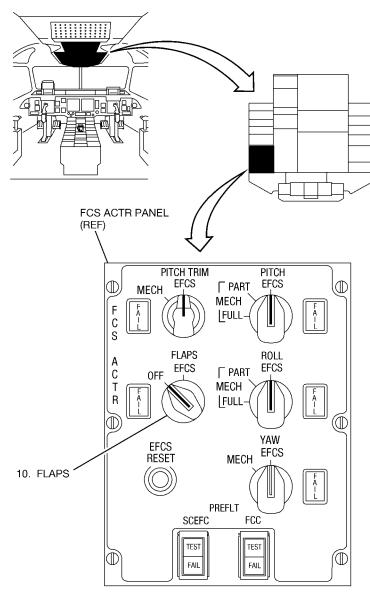
- 8. (A) Remove lock pin from flap control handle aircraft ground safety lock on flap/slat handle.
- 9. (A) Remove ground safety lock.



- 10. (A) Remove warning tag from **FLAPS** switch on **FCS ACTR** panel.
- 11. Perform spoilers system mechanical rigging (27-60-02) as follows:

| SPOILER REF DES | SPOILER/FLAP INTERCONNECT PUSHROD ASSEMBLY TO RIG |
|-----------------|---|
| 2761AA001       | 2764MP012   |
| 2761AA002       | 2764MP011   |
| 2761AA003       | 2764MP010   |
| 2761AA004       | 2764MP009   |
| 2761AA005       | 2764MP013   |
| 2761AA006       | 2764MP014   |
| 2761AA007       | 2764MP015   |
| 2761AA008       | 2764MP016   |

- 12. Operate flaps system and position flap/slat handle to **UP/RET** (27-50-03, task 03-1).
- 13. Perform spoiler linear electro-hydraulic actuator operational checkout. (27-64-10).
- 14. Perform flight controls system major rig (27-00-01, task 01-2).
- 15. Perform spoilers system operational checkout (27-60-01).



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16. Raise lower wing fixed trailing edge door assemblies (57-54-01).

| SPOILER REF DES | DOOR NO. | DOOR REF DES |
|-----------------|----------|--------------|
| 2761AA001       | 565EBD   | 5754CA032    |
| 2761AA002       | 565CBD   | 5754CA030    |
| 2701AAUU2       | 565DBD   | 5754CA031    |
| 2761AA003       | 565BBD   | 5754CA029    |
| 2701AA003       | 565CBD   | 5754CA030    |
| 2761AA004       | 565ABD   | 5754CA028    |
| 2701AA004       | 565BBD   | 5754CA029    |
| 2761AA005       | 665ABD   | 5754CA037    |
| 2701AA005       | 665BBD   | 5754CA036    |
| 2761AA006       | 665BBD   | 5754CA036    |
| 2701AA000       | 665CBD   | 5754CA035    |
| 2761AA007       | 665CBD   | 5754CA035    |
| 2101AAUU1       | 665DBD   | 5754CA034    |
| 2761AA008       | 665EBD   | 5754CA033    |

Task

## WING SPOILER ASSEMBLY REPAIR (27-61-10-4)

#### **FUNCTIONAL INPUT CONDITIONS:**

Applicability:

| All  |
|--|
|  |
| lowing tasks:  |
|  |
| mbly by replacing edge seal for 2, 2761AA003, 2761AA006, A008. |
| mbly by replacing edge seal for A005.                          |
| mbly by replacing idler hinge.                                 |
| mbly by replacing hinge link.                                  |
| mbly by replacing spoiler fairing                              |
|  |
| Task   |
| OTE  |
| sks for all wing spoiler All                                   |
| Task   |
| 4-2,<br>4-3  |
| 4-1,<br>4-4,<br>4-7  |
| 4-6  |
| 4-6  |
|  |

#### Personnel recommended:

One 4-1, 4-2,

4-3, 4-5, 4-7

Task

Two 4-4,

4-6

Person (A) performs task.

Person (B) assists person (A).

#### Safety conditions:

**Task** 

#### WARNING

Areas below lower wing fixed trailing edge door assembly shall remain clear of personnel when door is in lowered position and suspended from lanyards. Failure to comply may cause injury to personnel or damage to aircraft.

4-6

#### **Support equipment:**

| <u>Nomenclature</u> | <u>PN</u> | <u>Specification</u> | <u>Qty</u> | <u>Task</u> |
|---------------------|-----------|----------------------|------------|-------------|
| Wrench, Torque      |           | (0-30 in-lb)         | 1          | 4-4         |
| Wrench, Torque      |           | (0-150 in-lb)        | 1          | 4-4, 4-5    |

#### Supplies:

| Nomenclature   | PN          | Specification | <u>Qty</u> | <u>Task</u> |
|--|-------------|---------------|------------|-------------|
| Grease, Aircraft   |             | MIL-G-81322   | AR         | 4-4, 4-5    |
| Pin, Cotter  | MS24665-88  |               | 1          | 4-4         |
| Pin, Cotter  | MS24665-88  |               | 2          | 4-5         |
| Pin, Cotter  | MS24665-153 |               | 1          | 4-4         |
| Seal, Inboard Edge $\langle \overline{BS} \rangle \rightarrow$ | 17P6P9441   |               | AR         | 4-3         |
|  |             |               |            |             |

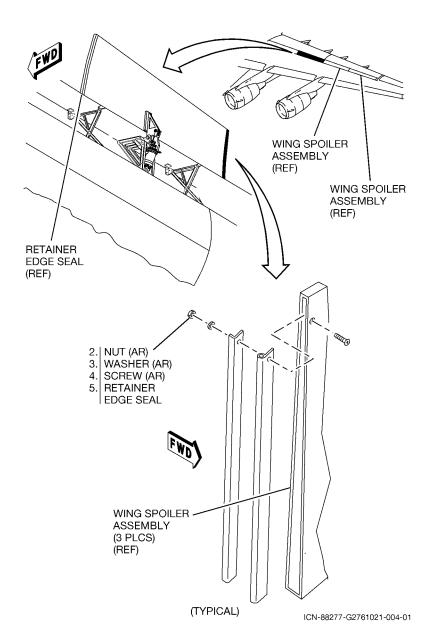
#### 4-1. PREPARATION.

- 1. Review "Section 1 (General Information)" of this TO for system general warnings, cautions, and notes.
- 2. Review task "Functional Input Conditions" page for task specific safety conditions.
- 3. Install spoiler positioning support assembly (05-10-04) as follows:

| SPOILER ASSEMBLY<br>REF DES | TASK          |
|-----------------------------|---------------|
| 2761AA001                   |               |
| 2761AA002                   | 04-1 AND 04-3 |
| 2761AA007                   | 04-1 AND 04-3 |
| 2761AA008                   |               |
| 2761AA003                   |               |
| 2761AA004                   | 04-1 AND 04-2 |
| 2761AA005                   | 04-1 AND 04-2 |
| 2761AA006                   |               |

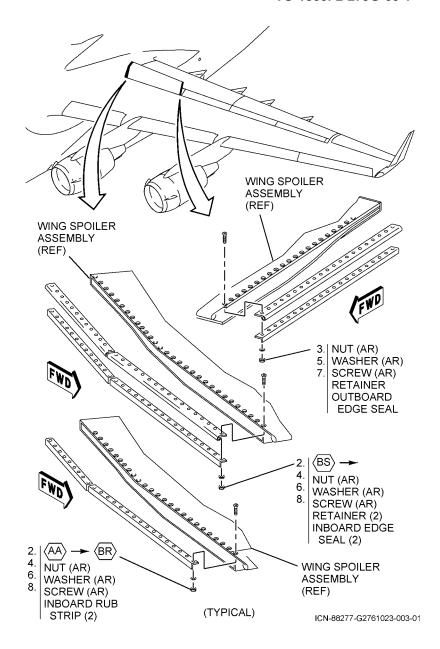
# 4-2. REPAIR WING SPOILER ASSEMBLY BY REPLACING EDGE SEAL FOR 2761AA001, 2761AA002, 2761AA003, 2761AA006, 2761AA007, AND 2761AA008.

- 1. Enter fuselage and wing (00-00-01).
- 2. Remove nuts, washers, screws, retainer, and outboard edge seal (P/N 17P6P9138).
- 3. Position edge seal on retainer, identify and punch holes.
- 4. Position edge seal and retainer on wing spoiler assembly.
- 5. Install screws, washers, and nuts.
- 6. Exit fuselage and wing (00-00-01).



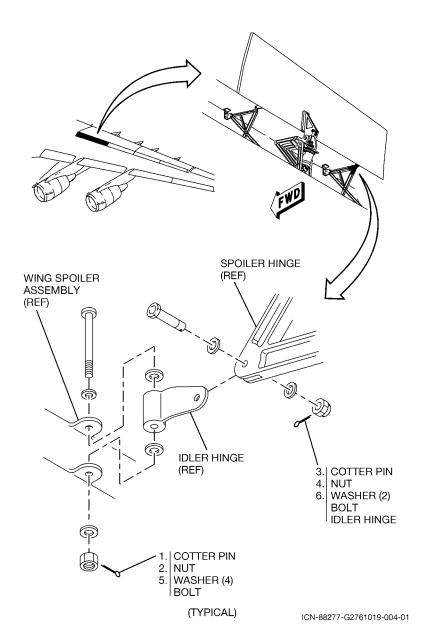
## 4-3. REPAIR WING SPOILER ASSEMBLY BY REPLACING EDGE SEAL FOR 2761AA004 AND 2761AA005.

- 1. Enter fuselage and wing (00-00-01).
- 2.  $\langle AA \rangle \rightarrow \langle BR \rangle$  Remove nuts, washers, screws and inboard rub strips.
- 2.  $\langle \overline{BS} \rangle \rightarrow$  Remove nuts, washers, screws, retainers, and inboard edge seals (P/N 17P6P9441).
- 3. Remove nuts, washers, screws, retainer, and outboard edge seal (P/N 17P6P9138).
- 4.  $\langle \overline{AA} \rangle \rightarrow \langle \overline{BR} \rangle$  Position inboard rub strips; identify and punch holes.
- 4.  $\overline{(BS)} \rightarrow \text{Position inboard edge seals (P/N 17P6P9441) on retainers; identify and punch holes.}$
- 5. Position outboard edge seal (P/N 17P6P9138) on retainer; identify and punch holes.
- 6.  $\langle \overline{AA} \rangle \rightarrow \langle \overline{BR} \rangle$  Position inboard rub strips on wing spoiler assembly.
- 6.  $\overline{(BS)} \rightarrow \text{Position inboard edge seals (P/N 17P6P9441)}$  and retainers on wing spoiler assembly.
- 7. Position outboard edge seal (P/N 17P6P9138) and retainer on wing spoiler assembly.
- 8. Install screws, washers, and nuts.
- 9. Exit fuselage and wing (00-00-01).



### 4-4. REPAIR WING SPOILER ASSEMBLY BY REPLACING IDLER HINGE.

- 1. (A) Remove cotter pin from nut.
- 2. (A) Identify and remove nut, washers, and bolt from wing spoiler assembly.
- 3. (A) Remove cotter pin, nut, washers, bolt, and idler hinge from spoiler hinge.
- 4. (A) Position idler hinge and install bolt, washers, and nut; torque **100-140 in-lb** and install cotter pin (MS24665-88).
- 5. (A) Install bolt, washers, and nut as identified; torque **12 in-lb** and then continue tightening until the cotter pin can be installed (MS24665-153).
- 6. (A) Lubricate spoiler hinge bolt with aircraft grease.



7. Remove spoiler positioning support assembly (05-10-04) as follows:

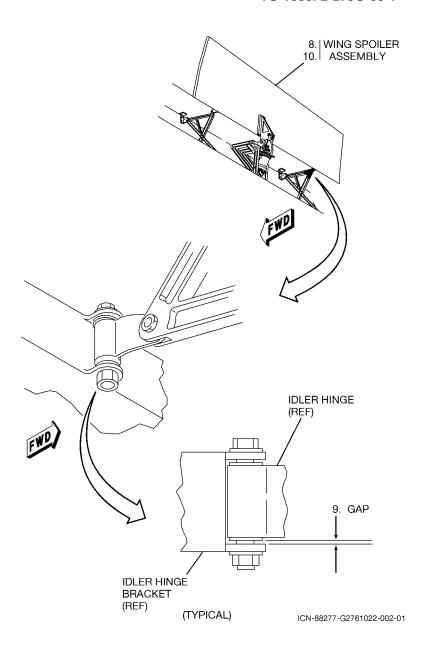
| SPOILER ASSEMBLY<br>REF DES | TASK          |
|-----------------------------|---------------|
| 2761AA001                   |               |
| 2761AA002                   | 04-5 AND 04-6 |
| 2761AA007                   | 04-5 AND 04-6 |
| 2761AA008                   |               |
| 2761AA003                   |               |
| 2761AA004                   | 04-4 AND 04-6 |
| 2761AA005                   | 04-4 AND 04-6 |
| 2761AA006                   |               |

8. (B) Raise wing spoiler assembly until idler hinge contacts idler hinge bracket.

#### **NOTE**

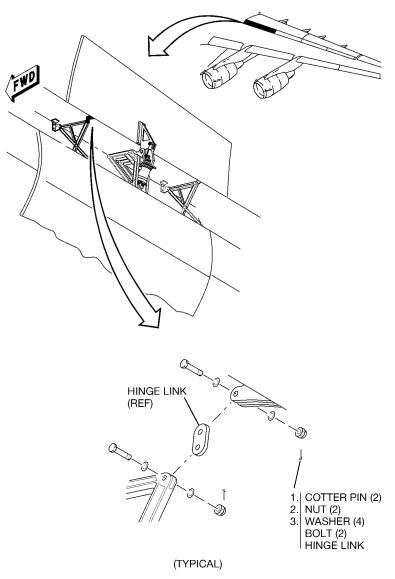
One additional washer (PN S2431218-4C8E) may be added when maximum gap .057 inch is exceeded.

- 9. (A) Measure gap between idler hinge and idler hinge bracket.
  - 0.057 inch maximum gap.
- 10. (B) Lower wing spoiler assembly.



## 4-5. REPAIR WING SPOILER ASSEMBLY BY REPLACING HINGE LINK.

- 1. Remove cotter pins, nuts, washers, bolts, and hinge link.
- 2. Position hinge link and install bolts, washers, and nuts; torque **100-140 in-lb** and install cotter pins.
- 3. Lubricate bolts with aircraft grease.



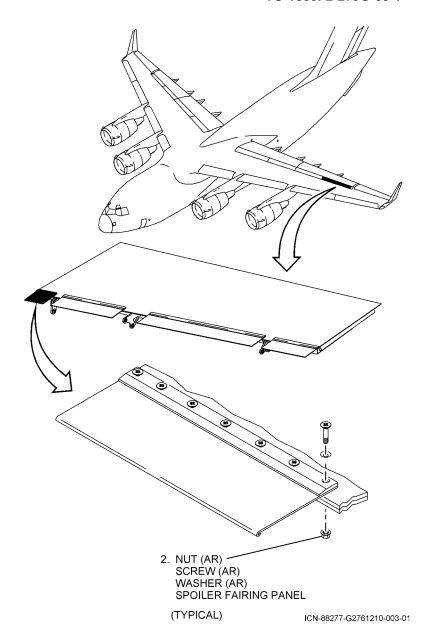
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## 4-6. REPAIR WING SPOILER ASSEMBLY BY REPLACING SPOILER FAIRING PANEL.

1. Lower lower wing fixed trailing edge door assemblies (57-54-01).

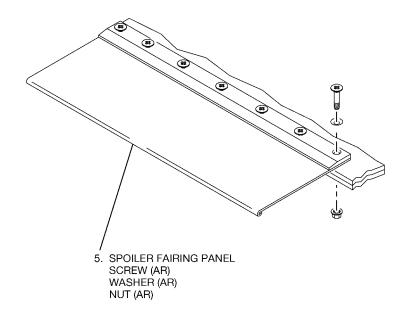
| SPOILER REF DES | DOOR NO. | DOOR REF DES |
|-----------------|----------|--------------|
| 2761AA001       | 565EBD   | 5754CA032    |
| 2761AA002       | 565CBD   | 5754CA030    |
| 2701AA002       | 565DBD   | 5754CA031    |
| 2761AA003       | 565BBD   | 5754CA029    |
| 2701AA003       | 565CBD   | 5754CA030    |
| 2761AA004       | 565ABD   | 5754CA028    |
| 2761AAUU4       | 565BBD   | 5754CA029    |
| 2761AA005       | 665ABD   | 5754CA037    |
| 2701AA003       | 665BBD   | 5754CA036    |
| 2761AA006       | 665BBD   | 5754CA036    |
| 2701AA000       | 665CBD   | 5754CA035    |
| 2761AA007       | 665CBD   | 5754CA035    |
| 2101AA001       | 665DBD   | 5754CA034    |
| 2761AA008       | 665EBD   | 5754CA033    |

2. (A,B) Remove nuts, screws, washers, and spoiler fairing panel.



- 3. Perform edge sealing (TO 1300i-23, Chapter 1, Section III).
- 4. Perform wet fastener installation (TO 1300i-23, Chapter 1, Section III).
- 5. (A,B) Position spoiler fairing panel; install screws, washers, and nuts.
- 6. Lower lower wing fixed trailing edge door assemblies (57-54-01).

| SPOILER REF DES | DOOR NO. | DOOR REF DES |
|-----------------|----------|--------------|
| 2761AA001       | 565EBD   | 5754CA032    |
| 2761AA002       | 565CBD   | 5754CA030    |
|                 | 565DBD   | 5754CA031    |
| 2761AA003       | 565BBD   | 5754CA029    |
|                 | 565CBD   | 5754CA030    |
| 2761AA004       | 565ABD   | 5754CA028    |
|                 | 565BBD   | 5754CA029    |
| 2761AA005       | 665ABD   | 5754CA037    |
| 2701AA005       | 665BBD   | 5754CA036    |
| 2761AA006       | 665BBD   | 5754CA036    |
| 2701AA000       | 665CBD   | 5754CA035    |
| 2761AA007       | 665CBD   | 5754CA035    |
| 2101AA001       | 665DBD   | 5754CA034    |
| 2761AA008       | 665EBD   | 5754CA033    |



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### 4-7. FOLLOW-ON MAINTENANCE.

1. Remove spoiler positioning support assembly (05-10-04) as follows:

| SPOILER ASSEMBLY<br>REF DES | TASK          |  |
|-----------------------------|---------------|--|
| 2761AA001                   |               |  |
| 2761AA002                   | 04-5 AND 04-6 |  |
| 2761AA007                   | 04-5 AND 04-6 |  |
| 2761AA008                   |               |  |
| 2761AA003                   |               |  |
| 2761AA004                   | 04-4 AND 04-6 |  |
| 2761AA005                   | 04-4 AND 04-6 |  |
| 2761AA006                   |               |  |

# SPOILERS SYSTEM REPAIR (27-63-02)

### **GENERAL MAINTENANCE INPUT CONDITIONS:**

| Applicability:  | Task |
|---|------|
| All   | All  |
| Additional information:   |      |
| This procedure consists of the following task:                              |      |
| 02-1. Repair spoilers system by replacing direct lift control thumb switch. |      |
| NOTE  | Task |
| This is a typical spoilers system repair task.                              | All  |
| Additional data:  | Task |
| AFI 21-101  | All  |
| TO 00-20-1  | All  |
| TO 1-1A-14  | All  |
| TO 1300i-2-00GV-00-1  | All  |
| TO 1300i-2-22JG-30-1 TO   | All  |
| 1300i-2-27WD-00-5 TO  | All  |
| 1300i-23  | All  |
| Personnel recommended:  | Task |
| One   | All  |
| Safety conditions:  | Task |
| NA  |      |

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|-------|
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|       |

| Support | equipment: |
|---------|------------|
|         |            |

| Nomenclature Nomenclature |  |  |  |
|---------------------------|--|--|--|
| NI A                      |  |  |  |
| NA                        |  |  |  |

<u>PN</u>

<u>Qty</u>

<u>Task</u>

Supplies:

**Nomenclature** 

Sealant

<u>PN</u>

738RTV

**Specification** MIL-A-46146 Type 1

**Specification** 

<u>Qty</u> AR

<u>Task</u>

All

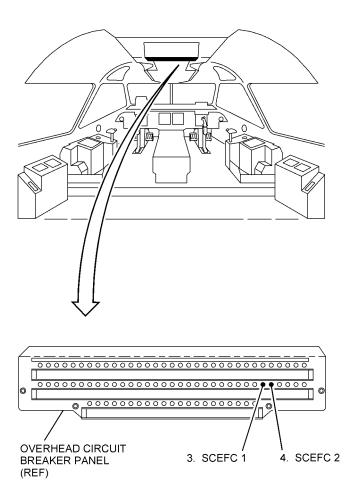
## 02-1. REPAIR SPOILERS SYSTEM BY REPLACING DIRECT LIFT CONTROL THUMB SWITCH.

- 1. Review "Section 1 (General Information)" of this TO for system general warnings, cautions, and notes.
- 2. Review task "General Maintenance Input Conditions" page for task specific safety conditions.

### WARNING

Warning tags shall be attached to all opened circuit breakers as directed by the technical order and an applicable warning statement shall be entered in the AFTO Form/IMT 781A, IAW TO 00-20-1, AFI 21-101 and TO 1300i-2-00GV-00-1, Chapter 5 anytime exiting cockpit circuit breaker area before task completion or there is a delay in maintenance where task cannot be fully accomplished. Failure to comply may cause injury to personnel or damage to aircraft.

- Open SCEFC 1 circuit breaker on overhead circuit breaker panel, row H, column 28.
- 4. Open SCEFC 2 circuit breaker on overhead circuit breaker panel, row H, column 29.



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- 5. Remove screws on throttle lever cover.
- 6. Loosen setscrew.
- 7. Identify and remove direct lift control thumb switch (TO 1-1A-14).

### **NOTE**

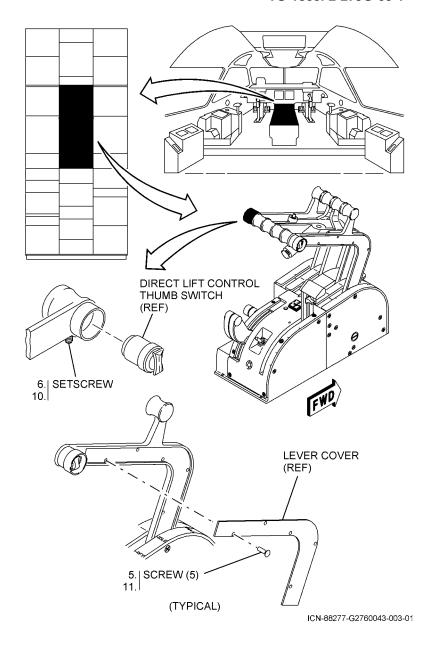
To facilitate maintenance, reference may be made to WD (TO 1300i-2-27WD-00-5, 11-27-63-05 and 11-27-63-06).

8. Perform encapsulation (TO 1300i-23, Chapter 1, Section III).

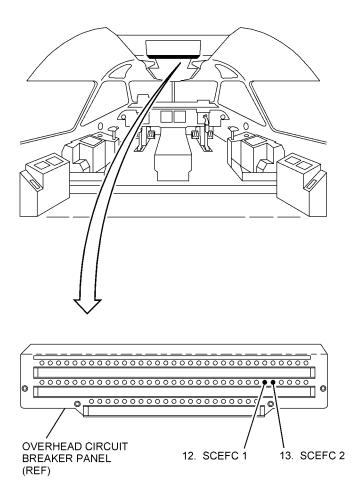
### **NOTE**

Sealant shall be tack free prior to installation of switch.

- 9. Install direct lift control thumb switch (TO 1-1A-14).
- 10. Tighten setscrew.
- 11. Install screws on throttle lever cover.



- 12. Close SCEFC 1 circuit breaker on overhead circuit breaker panel, row H, column 28.
- 13. Close SCEFC 2 circuit breaker on overhead circuit breaker panel, row H, column 29.
- 14. Perform spoiler system operational checkout (27-60-01).



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