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**ALERT**

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**Number:** 777-78A0094  
Original Issue: July 29, 2014  
ATA System: 7830

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**SUBJECT:** EXHAUST (Trent 800 Engines) - Thrust Reverser System - Thrust Reverser Inner Wall Replacement

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**Summary**

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**SUBJECT:** EXHAUST (Trent 800 Engines) - Thrust Reverser System - Thrust Reverser Inner Wall Replacement

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THIS BULLETIN IS SENT TO THE OPERATORS OF RECORD OF THE AIRPLANES SHOWN IN PARAGRAPH 1.A., EFFECTIVITY. IF AN AIRPLANE HAS BEEN LEASED OR SOLD, SEND THIS SERVICE BULLETIN TO THE NEW OPERATOR. IF APPLICABLE SPARES HAVE BEEN SOLD, SEND THIS SERVICE BULLETIN TO THE NEW OWNER.

**CONCURRENT REQUIREMENTS**

Refer to Paragraph 1.B., Concurrent Requirements.

**BACKGROUND**

This service bulletin will ensure that the Thrust Reversers (TRs) on Rolls-Royce Trent 800 engines have inner walls which contain no residual thermal damage. Later events have revealed that inner walls which have operated without thermal protection system (TPS) and IP8 related improvements may contain residual thermal damage. Some thermal damage is not detectable via current inspection methods or repairs conducted prior to Boeing Service Letter 777-SL-78-026 or SRM 54-32-01, Repair #6 may not have removed all of the existing thermal damage. Residual thermal degradation could cause structural pieces of the inner wall to separate from the TR in flight. A separated piece of the TR could cause damage to other airplane areas, or cause injury to persons on the ground. A separated TR piece at departure could cause a runway excursion because of thrust asymmetry from forward thrust on a Refused Take Off (RTO).

Eighteen 777 Rolls-Royce TR events related to thermal damage of the TR inner wall have occurred since 2003. The events have included Air Turn Backs (ATB), In Flight Shut Downs (IFSD), TR inner wall panel collapses, engine fire loop messages, and TR inner wall panel sections and parts departing the airplane. No hull loss or personal injury has occurred from these events.

This service bulletin provides instructions to perform maintenance records checks and detailed inspections of the TR inner wall to determine if the TR inner wall should be replaced. This service bulletin also provides instructions for replacement of the TR inner wall. This service bulletin also provides instructions to update the airplane scheduled maintenance program to incorporate 777 Airworthiness Limitation (AWL) 78-AWL-01 and 78-AWL-02.

Boeing Service Related Problem (SRP) 777-SRP-78-0076 is related to this service bulletin.

This table is provided to operators for planning purposes only. Refer to the applicable sections for more information.

**BOEING SERVICE BULLETIN 777-78A0094**

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| <b>Planning Data</b>   | <b>Affected</b> | <b>Reference</b>  |
|--|-----------------|---|
| Spares Affected  | Yes             | Paragraph 1.A.2., Spares Affected                                     |
| AD Related   | Yes             | Paragraph 1.E., Compliance and Paragraph 1.F., Approval               |
| Weight and Balance Change  | No              | Paragraph 1.H., Weight and Balance Changes                            |
| Electrical Load Changed  | No              | Paragraph 1.I., Electrical Load Data                                  |
| Publications Affected  | Yes             | Paragraph 1.K., Publications Affected                                 |
| Airplane Flight Operations Affected (Flight Crew Operations Manual and/or FAA Approved Airplane Flight Manual) | No              | Paragraph 1.K., Publications Affected                                 |
| Kits/Parts Required  | Yes             | Paragraph 2.C.1., Kits/Parts  |
| Operator Supplied Parts/Material   | Yes             | Paragraph 2.C.2., Parts and Materials Supplied by the Operator        |
| Special Tooling Required   | Yes             | Paragraph 2.F., Special Tooling Necessary to do this Service Bulletin |

| <b>Service History</b>                  |  |
|---|--|
| <b>Year of Event // Cycles // Hours</b> | <b>Report</b>  |
| 2003 // 5,871 // 17,982                 | Engine 2 Left Hand (LH) TR half. Shorted fire loop fault messages (intermittent) received during descent. Extensive delamination found during ground inspection.   |
| 2004 // 4,600 // 13,100                 | Engine 1 LH TR half. Extensive delamination found during ground inspection during planned engine change.   |
| 2004 // 6,160 // 15,472                 | Engine 2 LH TR half. Damage seen on arrival. Large portion of inner wall missing. Debris on runway. Nozzle outer sleeve not found.   |
| 2004 // 6,600 // 16,600                 | Engine 1 LH TR half. Panel collapsed during takeoff. Parts liberated. Air Turn Back (ATB) performed. Nozzle outer sleeve landed on vehicle.  |
| 2006 // 2,450 // 13,124                 | Engine 2 Right Hand (RH) TR half. Exhaust Gas Temperature (EGT) fluctuation during climb out and fire loop fault messages. Flight continued. Damage found during ground inspection.                                |
| 2006 // 5,782 // 37,687                 | Engine 1 RH TR half. Panel collapsed during takeoff. Parts liberated. ATB performed.   |
| 2007 // 7,627 // 26,963                 | Engine 2 RH TR half. Engine fire warning after takeoff. In Flight Shut Down (IFSD) and ATB performed. Extensive delamination found during ground inspection.   |
| 2007 // 9,770 // 34,895                 | Engine 2 RH TR half. Intermittent status message "LOOP 1 ENG R" and "OVERHEAT CIRCUIT R", but no warning messages. Damage seen on arrival. Large portion of inner wall missing. Debris on takeoff runway.          |
| 2008 // 3,865 // 28,213                 | Engine 1 RH TR. During climb, status messages "ENG EEC R", "TRIM AIR PRSOV R+L", "OVERHEAT CIRCUIT L1", and "FIRE LOOP ENG L". ATB performed. Inner wall panel collapse and damage found during ground inspection. |

Original Issue: July 29, 2014

| Service History                  |  |
|----------------------------------|--|
| Year of Event // Cycles // Hours | Report   |
| 2009 // 5,616 // 37,245          | Engine 2 RH TR half. Fire detection advisory message at take off, flight continued. Damage found during ground inspection.                                 |
| 2010 // 4,702 // 35,471          | Engine 2 LH TR half. Indication on take off. Thud heard 5 hrs into flights. PDA, nozzle inner and outer walls liberated.                                   |
| 2010 // 7,719 // 38,952          | Crew notified that debris had been collected from the departing runway. Flight diverted. PDA (nozzle intact).  |
| 2011 // 12,308 // 58,335         | Engine 2, LH TR half. Nozzle outer sleeve recovered from departing airport.  |
| 2011 // 8,751 // 40,482          | Engine 1, LH TR half. Flight diverted. Inner wall collapsed. Aft cowl intact. Nozzle outer sleeve severely damaged but not liberated.                      |
| 2012 // 7,838 // 50,004          | Engine 2, LH TR half. Inner wall collapse during climbout - flight returned to departure airport. PDA - aft cowl & portions of inner wall.                 |
| 2013 // 11,927 // 40,317         | Engine 2, RH TR half. Inner wall collapse during takeoff roll - flight returned to departure airport. PDA - Debris including aft cowl recovered on runway. |
| 2013 // 8,597 // 51,844          | Engine 2, RH TR half. Flight continued to destination. PDA - portions of inner wall.   |
| 2013 // 7,241 // 58,668          | Engine 1, RH TR half. Flight returned to departure airport. PDA - aft portions of the TR inner wall.   |

**ACTION (PRR 62402-R)****All Airplanes**

1. Install a serviceable left and right Thrust Reverser (TR) half on left and right engines.

**NOTE:** A serviceable TR half is defined as one that has met all the requirements of Paragraph 3.B., Work Instructions, Work Packages 3 (left TR half) or 4 (right TR half) of this service bulletin.

2. Update airplane scheduled maintenance program to incorporate 777 Airworthiness Limitation (AWL) 78-AWL-01 and 78-AWL-02 from the most current published 777 MPD Section 9.

**For each TR half**

1. **Group 1, Configuration 1-2:**

Do a maintenance records check for replacement of the Inner Wall (IW) concurrently with or after incorporation of Boeing Service Bulletin (SB) 777-78-0071 or 777-78-0082.

2. **Group 1, Configuration 3:**

Install the Thermal Protection System (TPS).

3. **Group 1, Configuration 4:**

Modify the aft cowl and install the TPS.

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4. **Group 1, Configuration 1-2:**  
Do a maintenance records check for incorporation of Boeing SB 777-75A0002 and Rolls-Royce SB RB.211-75-G765 on engines the TR half has operated on.
  
5. **Group 1, Configuration 1-2:**  
Do a maintenance records check for installation of IW part number 315W5100-63 or 315W5100-64.

**EFFECTIVITY**

777-200 and 777-300 Airplanes with Rolls-Royce Model RB211 Trent 800 engines. Refer to Paragraph 1.A.1., Airplanes, for the list of affected airplanes.

Refer to Paragraph 1.A.2., Spares Affected for the list of affected components.

**COMPLIANCE**

The Federal Aviation Administration (FAA) will possibly release an Airworthiness Directive related to this service bulletin. The Airworthiness Directive will make the compliance tasks and times given in this service bulletin mandatory.

Refer to Paragraph 1.E., Compliance.

**INDUSTRY SUPPORT INFORMATION**

Boeing warranty remedies are available for airplanes in warranty as of December 8, 2004. Please refer to Paragraph 2.B., Industry Support Information.

**MANPOWER**

| <b>Engines</b>  | <b>Total Task Hours</b> | <b>Elapsed Hours</b> |
|---|-------------------------|----------------------|
| Left Thrust Reverser  | 26.00 (a)               | 14.00 (a)            |
| Right Thrust Reverser   | 26.00 (a)               | 14.00 (a)            |
| (a) Time given for the inner wall replacement must be added to total shown if inner wall is to be replaced. |                         |                      |

**MATERIAL INFORMATION**

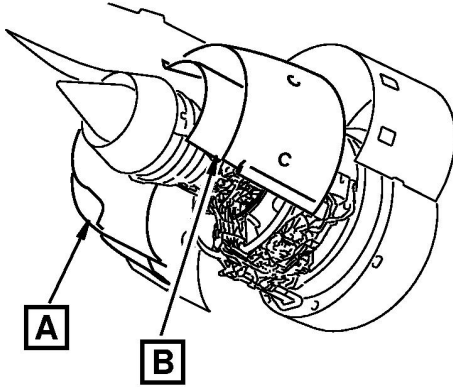
Boeing Supplied Kits/Parts.

Refer to Paragraph 2.A., Material - Price and Availability.



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ALL AIRPLANES

- UPDATE AIRPLANE SCHEDULED MAINTENANCE PROGRAM TO INCORPORATE 777 AIRWORTHINESS LIMITATION (AWL) 78-AWL-01 AND 78-AWL-02.

- INSTALL A SERVICEABLE LEFT AND RIGHT THRUST REVERSER (TR) HALF ON LEFT AND RIGHT ENGINE.

NOTE: A SERVICEABLE TR HALF IS DEFINED AS ONE THAT HAS MET ALL THE REQUIREMENTS OF PARAGRAPH 3.B., WORK INSTRUCTIONS, WORK PACKAGES 3 (LEFT TR HALF) OR 4 (RIGHT TR HALF) OF THIS SERVICE BULLETIN.

FOR EACH TR HALF

GROUP 1, CONFIGURATION 1-2:

-DO A MAINTENANCE RECORDS CHECK FOR REPLACEMENT OF THE INNER WALL (IW) CONCURRENTLY WITH OR AFTER INCORPORATION OF BOEING SERVICE BULLETIN (SB) 777-78-0071 OR 777-78-0082.

GROUP 1, CONFIGURATION 3:

-INSTALL THE THERMAL PROTECTION SYSTEM (TPS).

GROUP 1, CONFIGURATION 4:

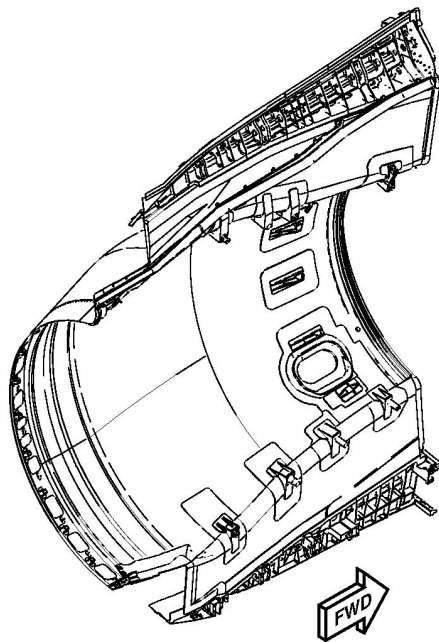
-MODIFY THE AFT COWL AND INSTALL THE TPS.

GROUP 1, CONFIGURATION 1-2:

-DO A MAINTENANCE RECORDS CHECK FOR INCORPORATION OF BOEING SB 777-75A0002 AND ROLLS-ROYCE SB RB.211-75-G765 ON ENGINES THE TR HALF HAS OPERATED ON.

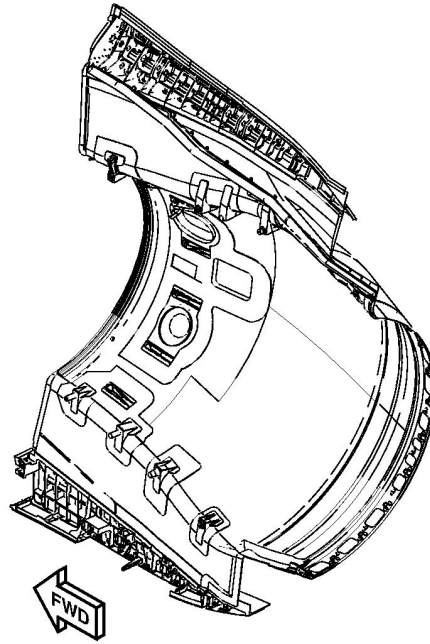
GROUP 1, CONFIGURATION 1-2:

-DO A MAINTENANCE RECORDS CHECK FOR INSTALLATION OF IW PART NUMBER 315W5100-63 OR 315W5100-64.



THRUST REVERSER INNER WALL  
(LEFT SIDE SHOWN)

**A**



THRUST REVERSER INNER WALL  
(RIGHT SIDE SHOWN)

**B**

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THIS BULLETIN IS SENT TO THE OPERATORS OF RECORD OF THE AIRPLANES SHOWN IN PARAGRAPH 1.A., EFFECTIVITY. IF AN AIRPLANE HAS BEEN LEASED OR SOLD, SEND THIS SERVICE BULLETIN TO THE NEW OPERATOR. IF APPLICABLE SPARES HAVE BEEN SOLD, SEND THIS SERVICE BULLETIN TO THE NEW OWNER.

**1. PLANNING INFORMATION**

**A. Effectivity**

1. Airplanes

Refer to Service Bulletin Index D624W001 Part 3 for Airplane Variable Number, Line Number, and Serial Number data.

This service bulletin is applicable to 777-200/300 Airplanes with Rolls-Royce Trent 800 engines, line numbers 1-796 in 1 Group. The Variable Numbers and Group Information for the applicable airplanes is given below. Refer to PRR 62402-R for data about this change.

**NOTE:** The airplanes shown in the effectivity below had the configuration of Thrust Reverser (TR) described in this service bulletin at delivery or by the incorporation of Boeing service bulletin 777-78-0071 or 777-78-0082. Installation of spare TRs since delivery or the incorporation of Boeing service bulletin 777-78-0071 or 777-78-0082, could put these configurations of TR on airplanes not shown in the effectivity below. Or, rotation of parts between airplanes could put these configurations of TR on airplanes with a different group relationship to that shown in the effectivity below. Check maintenance records to make sure the work in accordance with this service bulletin is accomplished on applicable TRs.

**BOEING SERVICE BULLETIN 777-78A0094**

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| <b>GROUP</b> | <b>CONFIGURATION</b> | <b>DESCRIPTION</b>  |
|--------------|----------------------|---|
| 1            | -                    | 777-200 and 777-300 airplanes with Rolls-Royce engines  |
|              | 1                    | Thrust reversers that installed TPS by incorporation of Boeing Service Bulletin 777-78-0071   |
|              | 2                    | Thrust reversers that installed TPS and modified the aft cowl by incorporation of Boeing Service Bulletin 777-78-0082   |
|              | 3                    | Thrust reversers with inner wall part number 315W5101-(all dash number after -1) for the left TR and part number 315W5102-(all dash numbers after -1) for the right TR that have not installed TPS by incorporation of Boeing Service Bulletin 777-78-0071. |
|              | 4                    | Thrust reversers with inner wall part number 315W5101-1 for the left TR and part number 315W5102-1 for the right TR that have not installed TPS and have not modified the aft cowl by incorporation of Boeing Service Bulletin 777-78-0082.                 |

Airplane Models:

777-200, 777-300

| <b>Variable Number</b> | <b>Group</b> |
|------------------------|--------------|
| WA001                  | 1            |
| WA086 - WA093          | 1            |
| WA101 - WA104          | 1            |
| WA196 - WA198          | 1            |
| WB031 - WB046          | 1            |
| WB101 - WB106          | 1            |
| WB161 - WB177          | 1            |
| WB181 - WB194          | 1            |
| WB201 - WB215          | 1            |
| WB231 - WB247          | 1            |
| WB416 - WB439          | 1            |
| WB446 - WB453          | 1            |
| WB501 - WB512          | 1            |
| WB601 - WB606          | 1            |
| WB611 - WB622          | 1            |
| WB631 - WB638          | 1            |

| <b>Variable Number</b> | <b>Group</b> |
|------------------------|--------------|
| WB646 - WB649          | 1            |
| WC051 - WC073          | 1            |
| WC101 - WC104          | 1            |
| WC456 - WC459          | 1            |
| WC486 - WC493          | 1            |
| WC531 - WC536          | 1            |
| WC566 - WC567          | 1            |
| WC571 - WC574          | 1            |

**2. Spares Affected**

Examine your spares supply for the parts or components identified below. If any parts or components are found, refer to Paragraph 3.B., Work Instructions for the recommended action.

| <b>Part Number</b>                                    |
|---|
| All RR Thrust Reversers with part numbers 315W5001-() |

**B. Concurrent Requirements**

The service bulletins listed below must be done before or at the same time as this service bulletin:

| <b>Company</b>     | <b>Service Bulletin</b>                 | <b>Description</b>   |
|--------------------|---|--|
| The Boeing Company | 777-78-0071, Revision 01 or Revision 02 | Thermal Insulation Blankets and Thermal Protection System Change           |
| The Boeing Company | 777-78-0082, Original Issue             | Thrust Reverser Aft Cowl Modification and Thermal Protection System Change |

**C. Reason**

This service bulletin will ensure that the Thrust Reversers (TRs) on Rolls-Royce Trent 800 engines have inner walls which contain no residual thermal damage. Later events have revealed that inner walls which have operated without thermal protection system (TPS) and IP8 related improvements may contain residual thermal damage. Some thermal damage is not detectable via current inspection methods or repairs conducted prior to Boeing Service Letter 777-SL-78-026 or SRM 54-32-01, Repair #6 may not have removed all of the existing thermal damage. Residual thermal degradation could cause structural pieces of the inner wall to separate from the TR in flight. A separated piece of the TR could cause damage to other airplane areas, or cause injury to persons on the ground. A separated TR piece at departure could cause a runway excursion because of thrust asymmetry from forward thrust on a Refused Take Off (RTO).

**BOEING SERVICE BULLETIN 777-78A0094**

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Eighteen 777 Rolls-Royce TR events related to thermal damage of the TR inner wall have occurred since 2003. The events have included such things as Air Turn Backs (ATB), In Flight Shut Downs (IFSD), TR inner wall panel collapse, engine fire loop messages, and TR inner wall panel sections and parts have departed the airplane. No hull loss or personal injury has occurred from these events.

This service bulletin provides instructions to perform maintenance records checks and detailed inspections of the TR inner wall to determine if the TR inner wall should be replaced. This service bulletin also provides instructions for replacement of the TR inner wall.

Boeing Service Related Problem (SRP) 777-SRP-78-0076 is related to this service bulletin.

This table is provided to operators for planning purposes only. Refer to the applicable sections for more information.

| <b>Service History</b>                  |  |
|---|--|
| <b>Year of Event // Cycles // Hours</b> | <b>Report</b>  |
| 2003 // 5,871 // 17,982                 | Engine 2 Left Hand (LH) TR half. Shorted fire loop fault messages (intermittent) received during descent. Extensive delamination found during ground inspection.   |
| 2004 // 4,600 // 13,100                 | Engine 1 LH TR half. Extensive delamination found during ground inspection during planned engine change.   |
| 2004 // 6,160 // 15,472                 | Engine 2 LH TR half. Damage seen on arrival. Large portion of inner wall missing. Debris on runway. Nozzle outer sleeve not found.   |
| 2004 // 6,600 // 16,600                 | Engine 1 LH TR half. Panel collapsed during takeoff. Parts liberated. Air Turn Back (ATB) performed. Nozzle outer sleeve landed on vehicle.  |
| 2006 // 2,450 // 13,124                 | Engine 2 Right Hand (RH) TR half. Exhaust Gas Temperature (EGT) fluctuation during climb out and fire loop fault messages. Flight continued. Damage found during ground inspection.                                |
| 2006 // 5,782 // 37,687                 | Engine 1 RH TR half. Panel collapsed during takeoff. Parts liberated. ATB performed.   |
| 2007 // 7,627 // 26,963                 | Engine 2 RH TR half. Engine fire warning after takeoff. In Flight Shut Down (IFSD) and ATB performed. Extensive delamination found during ground inspection.   |
| 2007 // 9,770 // 34,895                 | Engine 2 RH TR half. Intermittent status message "LOOP 1 ENG R" and "OVERHEAT CIRCUIT R", but no warning messages. Damage seen on arrival. Large portion of inner wall missing. Debris on takeoff runway.          |
| 2008 // 3,865 // 28,213                 | Engine 1 RH TR. During climb, status messages "ENG EEC R", "TRIM AIR PRSOV R+L", "OVERHEAT CIRCUIT L1", and "FIRE LOOP ENG L". ATB performed. Inner wall panel collapse and damage found during ground inspection. |
| 2009 // 5,616 // 37,245                 | Engine 2 RH TR half. Fire detection advisory message at take off, flight continued. Damage found during ground inspection.   |
| 2010 // 4,702 // 35,471                 | Engine 2 LH TR half. Indication on take off. Thud heard 5 hrs into flights. PDA, nozzle inner and outer walls liberated.   |
| 2010 // 7,719 // 38,952                 | Crew notified that debris had been collected from the departing runway. Flight diverted. PDA (nozzle intact).  |

| Service History                  |  |
|----------------------------------|--|
| Year of Event // Cycles // Hours | Report   |
| 2011 // 12,308 // 58,335         | Engine 2, LH TR half. Nozzle outer sleeve recovered from departing airport.  |
| 2011 // 8,751 // 40,482          | Engine 1, LH TR half. Flight diverted. Inner wall collapsed. Aft cowl intact. Nozzle outer sleeve severely damaged but not liberated.                      |
| 2012 // 7,838 // 50,004          | Engine 2, LH TR half. Inner wall collapse during climbout - flight returned to departure airport. PDA - aft cowl & portions of inner wall.                 |
| 2013 // 11,927 // 40,317         | Engine 2, RH TR half. Inner wall collapse during takeoff roll - flight returned to departure airport. PDA - Debris including aft cowl recovered on runway. |
| 2013 // 8,597 // 51,844          | Engine 2, RH TR half. Flight continued to destination. PDA - portions of inner wall.   |
| 2013 // 7,241 // 58,668          | Engine 1, RH TR half. Flight returned to departure airport. PDA - aft portions of the TR inner wall.   |

#### D. Description

##### All Airplanes

1. Install a serviceable left and right Thrust Reverser (TR) half on left and right engines.

**NOTE:** A serviceable TR half is defined as one that has met all the requirements of Paragraph 3.B., Work Instructions, Work Packages 3 (left TR half) or 4 (right TR half) of this service bulletin.

2. Update airplane scheduled maintenance program to incorporate 777 Airworthiness Limitation (AWL) 78-AWL-01 and 78-AWL-02 from the most current published 777 MPD Section 9.

##### For each TR half

1. **Group 1, Configuration 1-2:**  
Do a maintenance records check for replacement of the Inner Wall (IW) concurrently with or after incorporation of Boeing Service Bulletin (SB) 777-78-0071 or 777-78-0082.
2. **Group 1, Configuration 3:**  
Install the Thermal Protection System (TPS).
3. **Group 1, Configuration 4:**  
Modify the aft cowl and install the TPS.
4. **Group 1, Configuration 1-2:**  
Do a maintenance records check for incorporation of Boeing SB 777-75A0002 and Rolls-Royce SB RB.211-75-G765 on engines the TR half has operated on.
5. **Group 1, Configuration 1-2:**  
Do a maintenance records check for installation of IW part number 315W5100-63 or 315W5100-64.

The work in this service bulletin is done in the maintenance zone(s) given below.

| Affected Maintenance Zones |                    |
|----------------------------|--------------------|
| Model                      | Zone               |
| 777-200, 777-300           | 415, 416, 425, 426 |

**E. Compliance**

The Federal Aviation Administration (FAA) will possibly release an Airworthiness Directive related to this service bulletin. The Airworthiness Directive will make the compliance tasks and times given in this service bulletin mandatory.

Airplanes that have completed this SB will be restricted to installing TRs that are serviceable units, as defined by this SB, to maintain compliance with this SB. After completing this SB, airplanes that install TRs that are not serviceable units, as defined by this SB, are no longer in compliance with this SB.

Thrust reversers modified by this service bulletin must be restricted for use on engines that have incorporated Rolls-Royce Service Bulletin RB.211-75-G765.

Do the required actions in accordance with Paragraph 3. Accomplishment Instructions.

**Table 1: WORK PACKAGE 1 AND 2 - THRUST REVERSER REMOVAL AND INSTALLATION - AIRPLANE WORK**

| Condition  | Action   | Compliance Time  | Repeat Interval (Not to Exceed) |
|--|--|--|---------------------------------|
| All Airplanes  | Install serviceable TR left and right halves on the left and right engines in accordance with Paragraph 3.B., Work Instructions, Work Packages 1 and 2, Steps 1 and 2 (a). | Within 5 years after the Original Issue date of this Service Bulletin. | -                               |
| (a) A serviceable left half TR is defined as one that has met all the requirements of Paragraph 3.B., Work Instructions, Work Package 3 of this service bulletin. A serviceable right half TR is defined as one that has met all the requirements of Paragraph 3.B., Work Instructions, Work Package 4 of this service bulletin. |  |  |                                 |

**Table 2: WORK PACKAGE 3 - THRUST REVERSER LEFT HALF - COMPONENT WORK**

| Condition  | Action  | Compliance Time | Repeat Interval (Not to Exceed) |
|--|---|-----------------|---------------------------------|
| Each left TR half  | Do Paragraph 3.B., Work Instructions, Work Package 3 of this service bulletin (a) (b) | -               | -                               |
| (a) For each TR half, accomplishment of Paragraph 3.B., Work Instructions, Work Package 3 of this service bulletin terminates the 2000 Flight Cycle repeat inspections of the TR inner wall from Service Bulletin 777-78-0071, Paragraph 3.B., Work Packages 2 and 3, and Service Bulletin 777-78-0082, Paragraph 3.B., Work Packages 4 and 5. |   |                 |                                 |



**Table 2: WORK PACKAGE 3 - THRUST REVERSER LEFT HALF - COMPONENT WORK**

| <b>Condition</b>   | <b>Action</b> | <b>Compliance Time</b> | <b>Repeat Interval (Not to Exceed)</b> |
|--|---------------|------------------------|--|
| (b) Thrust reversers that have completed Paragraph 3.B., Work Instructions, Work Package 3 of this service bulletin are subject to 777 Airworthiness Limitation (AWL) 78-AWL-01 and 78-AWL-02 from the most current published 777 MPD Section 9. |               |                        |  |

**Table 3: WORK PACKAGE 4 - THRUST REVERSER RIGHT HALF - COMPONENT WORK**

| <b>Condition</b>   | <b>Action</b>   | <b>Compliance Time</b> | <b>Repeat Interval (Not to Exceed)</b> |
|--|---|------------------------|--|
| Each right TR half   | Do Paragraph 3.B., Work Instructions, Work Package 4 of this service bulletin (a) (b) | -                      | -                                      |
| (a) For each TR half, accomplishment of Paragraph 3.B., Work Instructions, Work Package 4 of this service bulletin terminates the 2000 Flight Cycle repeat inspections of the TR inner wall from Service Bulletin 777-78-0071, Paragraph 3.B., Work Packages 2 and 3, and Service Bulletin 777-78-0082, Paragraph 3.B., Work Packages 4 and 5. |   |                        |  |
| (b) Thrust reversers that have completed Paragraph 3.B., Work Instructions, Work Package 4 of this service bulletin are subject to 777 Airworthiness Limitation (AWL) 78-AWL-01 and 78-AWL-02 from the most current published 777 MPD Section 9.   |   |                        |  |

**Table 4: WORK PACKAGE 5 - THRUST REVERSER THERMAL PROTECTION SYSTEM AIRPLANE SCHEDULED MAINTENANCE PROGRAM CHANGE**

| <b>Condition</b>  | <b>Action</b>   | <b>Compliance Time</b>  | <b>Repeat Interval (Not to Exceed)</b> |
|---|---|---|--|
| All Airplanes   | Update airplane scheduled maintenance program to incorporate 777 Airworthiness Limitation (AWL) 78-AWL-01 and 78-AWL-02 from the most current published 777 MPD Section 9, in accordance with Paragraph 3.B., Work Instructions, Work Package 5 (a) | Within 180 days after the Original Issue date of this Service Bulletin. | -                                      |
| (a) Accomplishment of this Service Bulletin terminates the 12 month repeat inspections of the IP and HP bleed valves from Service Bulletin 777-78-0082, Paragraph 3.B., Work Package 3. |   |   |  |

**F. Approval**

This service bulletin was examined by the Federal Aviation Administration (FAA). The changes specified in this service bulletin comply with the applicable regulations and are FAA approved, as well as European Aviation Safety Agency (EASA)/Joint Aviation Authorities (JAA) approved for all EASA/JAA approved airplanes listed in the service bulletin effectivity. This service bulletin and its approval were based on the airplane in its original Boeing delivery configuration or as modified by other approved Boeing changes.

In addition, the Manager of the FAA Seattle Aircraft Certification Office approves the action (i.e. inspection or modification) defined in this service bulletin as an alternative method of compliance to the requirements of paragraph (g) and (h) of AD 2005-07-24. All provisions of AD 2005-07-24 that are not specifically referenced in the above statement remain fully applicable and must be complied with.

If an airplane has a non-Boeing modification or repair that affects a component or system also affected by this service bulletin, the operator is responsible for obtaining appropriate regulatory agency approval before incorporating this service bulletin.

**G. Manpower**

The table below shows an estimate of the task hours necessary to do this change for each TR half. This estimate is for direct labor only, done by an experienced crew. Adjust the estimate with operator task hour data if necessary. The estimate does not include lost time. These are some examples of lost time:

- Time to adjust to the workplace
- Time to schedule the work
- Time to inspect the work
- Time to cure the materials
- Time to make the parts
- Time to find the tools.

**Left Thrust Reverser**

| <b>Task</b>                 | <b>Number of Persons</b> | <b>Task Hours</b> | <b>Elapsed Hours</b> |
|-----------------------------|--------------------------|-------------------|----------------------|
| Remove Thrust Reverser Half | 3                        | 9.00              | 3.00                 |
| Remove Insulation Blankets  | 1                        | 3.25              | 3.25                 |
| Figure 1                    | 1                        | 0.50 (a)          | 0.50 (a)             |
| Figure 3                    | 1                        | 1.25 (a)          | 1.25 (a)             |
| Figure 5                    | 2                        | 7.00 (a)          | 3.50 (a)             |
| Figure 7                    | 1                        | 1.30 (a)          | 1.30 (a)             |
| Figure 9                    | 1                        | 1.50              | 1.50                 |
| Replace Inner Wall          | 5                        | 180.00(a)         | 36.00(a)             |
| Install Insulation Blankets | 1                        | 3.25              | 3.25                 |

**Left Thrust Reverser**

| <b>Task</b>   | <b>Number of Persons</b> | <b>Task Hours</b> | <b>Elapsed Hours</b> |
|---|--------------------------|-------------------|----------------------|
| Install Thrust Reverser Half  | 3                        | 9.00              | 3.00                 |
| <b>TOTAL FOR EACH THRUST REVERSER HALF</b>  |                          | <b>26.00</b>      | <b>14.00</b>         |
| (a) Time given for inner wall replacement must be added to total shown if inner wall is to be replaced. |                          |                   |                      |

**Right Thrust Reverser**

| <b>Task</b>   | <b>Number of Persons</b> | <b>Task Hours</b> | <b>Elapsed Hours</b> |
|---|--------------------------|-------------------|----------------------|
| Remove Thrust Reverser Half   | 3                        | 9.00              | 3.00                 |
| Remove Insulation Blankets  | 1                        | 3.25              | 3.25                 |
| Figure 2  | 1                        | 0.50 (a)          | 0.50 (a)             |
| Figure 4  | 1                        | 1.25 (a)          | 1.25 (a)             |
| Figure 6  | 2                        | 7.00 (a)          | 3.50 (a)             |
| Figure 8  | 1                        | 1.30 (a)          | 1.30 (a)             |
| Figure 10   | 1                        | 1.50              | 1.50                 |
| Replace Inner Wall  | 5                        | 180.00(a)         | 36.00(a)             |
| Install Insulation Blankets   | 1                        | 3.25              | 3.25                 |
| Install Thrust Reverser Half  | 3                        | 9.00              | 3.00                 |
| <b>TOTAL FOR EACH THRUST REVERSER HALF</b>  |                          | <b>26.00</b>      | <b>14.00</b>         |
| (a) Time given for inner wall replacement must be added to total shown if inner wall is to be replaced. |                          |                   |                      |

**H. Weight and Balance Changes**

**Group 1, Configuration 1-2:**

None.

**Group 1, Configuration 3:**

| <b>Engine</b> | <b>Change in Weight (Pounds)</b> | <b>Change in Moment (Pound-Inches)</b> |
|---------------|----------------------------------|--|
| Each engine   | +45.2                            | +48066.4                               |

**Group 1, Configuration 4:**

| <b>Engine</b> | <b>Change in Weight (Pounds)</b> | <b>Change in Moment (Pound-Inches)</b> |
|---------------|----------------------------------|--|
| Each engine   | +43.1                            | +45811.0                               |

**I. Electrical Load Data**

Not changed.

**J. References**

1. Existing Data:
  - a. Engineering Change Memo PRR 62402-R
  - b. Boeing Service Bulletin 777-78-0071, 777-78-0082
  - c. Boeing Service Letter 777-SL-51-013
  - d. Boeing Service Related Problem (SRP) 777-SRP-78-0076
  - e. Service Bulletin Index D624W001
  - f. Standard Overhaul Practices Manual (SOPM) 20-30-03, 20-50-01, 20-50-07, 20-50-18, 20-50-19, 20-50-20
  - g. Standard Wiring Practices Manual (SWPM) 20-10-11, 20-10-12, 20-10-19
  - h. 777 Aircraft Maintenance Manual (AMM) 78-31-00, 78-31-01, 78-31-06, 78-31-10
  - i. 777 Maintenance Planning Data (MPD) Section 9
  - j. 777 Non-Destructive Testing (NDT) Manual Part 4, 78-30-01, Part 4, 78-30-02, Part 4, 78-30-03
  - k. 777-200 Structural Repair Manual (SRM) 51-20-08, 51-40-05
  - l. 777-300 Structural Repair Manual (SRM) 51-40-05
  - m. Rolls-Royce Service Bulletin RB.211-75-G765
2. Data Supplied with this Service Bulletin:
  - a. Drawings:

| <b>Drawing No</b> | <b>Title</b>                                      | <b>Sheet</b> | <b>DCN/REV</b> | <b>ADCN</b> |
|-------------------|---|--------------|----------------|-------------|
| 315T3558          | FASTENER INSTL. ADJ. CLAMPING FORCE POSITIVE LOCK | 1            | G              | -           |

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| <b>Drawing No</b> | <b>Title</b>                                 | <b>Sheet</b> | <b>DCN/REV</b> | <b>ADCN</b> |
|-------------------|--|--------------|----------------|-------------|
| 315W5105          | TRACK BEAM INSTALLATION                      | 12           | -              | -           |
|                   |  | 13           | C              | -           |
|                   |  | PSDL         | B              | -           |
| 315W5150          | AFT COWL INST.                               | 19           | -              | -           |
|                   |  | 20           | -              | -           |
|                   |  | 21           | -              | -           |
|                   |  | PSDL         | -              | -           |
| 315W5163          | KIT - RETROFIT, AFT COWL                     | 3            | -              | -           |
|                   |  | 4            | -              | -           |
|                   |  | PSDL         | -              | -           |
| 315W5319          | RETAINER INSTALLATION, UPPER BIFUR, FIRESEAL | 21           | A              | -           |
|                   |  | 22           | A              | -           |
|                   |  | PSDL         | C              | -           |
| 315W5469          | RETAINER INSTL - FIRE SEAL, LOWER            | 10           | A              | -           |
|                   |  | PSDL         | B              | -           |

3. Installation Drawings Used in the Preparation of this Service Bulletin:

| <b>Drawing Number</b> | <b>Title</b>                                  |
|-----------------------|---|
| 300W5000              | AERODYNAMIC SMOOTHNESS REQTS - NACELLE, STRUT |
| 315W5105              | TRACK BEAM INSTALLATION                       |
| 315W5150              | AFT COWL INST.                                |
| 315W5319              | RETAINER INSTALLATION, UPPER BIFUR, FIRESEAL  |
| 315W5469              | RETAINER INSTL - FIRE SEAL, LOWER BIFURCATION |

The table above lists applicable drawings used to prepare this service bulletin. The drawings are not necessary to make the specified changes, and are not supplied with this service bulletin. The drawings may not be applicable to all airplane configurations or operators.

**K. Publications Affected**

1. Publications:

| <b>Publication</b>            | <b>Chapter-Section</b> |
|-------------------------------|------------------------|
| 777 Maintenance Planning Data | Section 09             |

2. Damage Tolerance Based Structural Inspections:

Boeing has evaluated the repairs and/or changes in this service bulletin for effects on Fatigue Critical Structure (FCS) and for changes to Damage Tolerance Inspections (DTI) required in the Maintenance Program. This service bulletin does not affect FCS, therefore DTIs are not necessary.

**L. Interchangeability and Intermixability of Parts**

Refer to Paragraph 2.C., Parts Necessary for Each Airplane, for interchangeability and intermixability information.

**M. Software Accomplishment Summary**

Not affected.

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**2. MATERIAL INFORMATION****A. Material - Price and Availability**

The operator can supply the parts and materials shown in the kits in Paragraph 2.C., Parts Necessary for Each Airplane, and Paragraph 2.D., Parts Necessary to Change Spares. As an alternative, operators can purchase the kits from Boeing Spares. The Boeing price data shown below is given for planning purposes. Supply data can be given if requested. The kits are subject to the terms and conditions of the Boeing standard purchase order acknowledgment. Prices are in United States Dollars. Terms: Net 30 days

Reference this service bulletin and submit your purchase order by one of these methods:

1. Order on-line via ATA Spec 2000 or The Boeing PART Page
2. Fax to (206) 662-7145

**REFER TO THE BOEING PART PAGE ON MYBOEINGFLEET.COM OR CONTACT FIRST RESPONDER AT FR@BOEING.COM FOR THE LATEST REORDER LEAD TIME (ROLT) AND PRICE INFORMATION**

| Kit/Part Number | Name   | Date       | QTY | ROLT as of the original issue date of this Service Bulletin (Calendar Days) | Unit Price as of the original issue date of this Service Bulletin (US Dollars) |
|-----------------|--|------------|-----|---|--|
| 005W3567-1      | TOP KIT - LEFT SIDE ROLLS-ROYCE TR INNER WALL REPLACEMENT  | 05/19/2014 | 1   | 612   | \$33,053.00  |
|                 |  | 07/16/2014 | 20  |   |  |
|                 |  | 07/30/2014 | 20  |   |  |
|                 |  | 08/13/2014 | 20  |   |  |
|                 |  | 08/27/2014 | 20  |   |  |
|                 |  | 09/11/2014 | 19  |   |  |
| 005W3567-2      | TOP KIT - RIGHT SIDE ROLLS-ROYCE TR INNER WALL REPLACEMENT | 05/19/2014 | 1   | 612   | \$33,053.00  |
|                 |  | 07/16/2014 | 20  |   |  |
|                 |  | 07/30/2014 | 20  |   |  |
|                 |  | 08/13/2014 | 20  |   |  |
|                 |  | 08/27/2014 | 20  |   |  |
|                 |  | 09/11/2014 | 19  |   |  |

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| Kit/Part Number | Name                                 | Date       | QTY | ROLT as of the original issue date of this Service Bulletin (Calendar Days) | Unit Price as of the original issue date of this Service Bulletin (US Dollars) |
|-----------------|--------------------------------------|------------|-----|---|--|
| 315W5100-63 (a) | INNER WALL - SPARES - 777 RR ENGINES | 04/22/2013 | 8   | -   | \$367,598.00   |
|                 |                                      | 05/20/2013 | 8   |   |  |
|                 |                                      | 06/18/2013 | 8   |   |  |
|                 |                                      | 07/17/2013 | 8   |   |  |
|                 |                                      | 08/14/2013 | 8   |   |  |
|                 |                                      | 09/12/2013 | 8   |   |  |
|                 |                                      | 10/10/2013 | 8   |   |  |
|                 |                                      | 11/07/2013 | 8   |   |  |
|                 |                                      | 12/09/2013 | 8   |   |  |
|                 |                                      | 01/15/2014 | 8   |   |  |
|                 |                                      | 02/12/2014 | 8   |   |  |
|                 |                                      | 03/12/2014 | 8   |   |  |
|                 |                                      | 04/09/2014 | 8   |   |  |
|                 |                                      | 05/07/2014 | 8   |   |  |
|                 |                                      | 06/05/2014 | 8   |   |  |
|                 |                                      | 07/03/2014 | 8   |   |  |
|                 |                                      | 08/01/2014 | 8   |   |  |
|                 |                                      | 08/29/2014 | 8   |   |  |
|                 |                                      | 09/29/2014 | 8   |   |  |
|                 |                                      | 10/27/2014 | 8   |   |  |
|                 |                                      | 11/24/2014 | 8   |   |  |
| 01/02/2015      | 8                                    |            |     |   |  |
| 01/30/2015      | 8                                    |            |     |   |  |
| 02/27/2015      | 8                                    |            |     |   |  |
| 03/27/2015      | 8                                    |            |     |   |  |
| 04/24/2015      | 8                                    |            |     |   |  |
| 05/22/2015      | 8                                    |            |     |   |  |
| 06/22/2015      | 8                                    |            |     |   |  |
| 07/21/2015      | 8                                    |            |     |   |  |

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|-----------------|------|------------|-----|---|--|
|                 |      | 08/18/2015 | 8   |   |  |
|                 |      | 09/16/2015 | 8   |   |  |
|                 |      | 10/14/2015 | 8   |   |  |
|                 |      | 11/11/2015 | 8   |   |  |
|                 |      | 12/11/2015 | 8   |   |  |
|                 |      | 01/19/2016 | 8   |   |  |
|                 |      | 02/16/2016 | 8   |   |  |
|                 |      | 03/15/2016 | 8   |   |  |
|                 |      | 04/12/2016 | 4   |   |  |

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| <b>Kit/Part Number</b> | <b>Name</b>                          | <b>Date</b> | <b>QTY</b> | <b>ROLT as of the original issue date of this Service Bulletin (Calendar Days)</b> | <b>Unit Price as of the original issue date of this Service Bulletin (US Dollars)</b> |
|------------------------|--------------------------------------|-------------|------------|--|---|
| 315W5100-64 (b)        | INNER WALL - SPARES - 777 RR ENGINES | 04/22/2013  | 8          | -  | \$367,598.00  |
|                        |                                      | 05/20/2013  | 8          |  |   |
|                        |                                      | 06/18/2013  | 8          |  |   |
|                        |                                      | 07/17/2013  | 8          |  |   |
|                        |                                      | 08/14/2013  | 8          |  |   |
|                        |                                      | 09/12/2013  | 8          |  |   |
|                        |                                      | 10/10/2013  | 8          |  |   |
|                        |                                      | 11/07/2013  | 8          |  |   |
|                        |                                      | 12/09/2013  | 8          |  |   |
|                        |                                      | 01/15/2014  | 8          |  |   |
|                        |                                      | 02/12/2014  | 8          |  |   |
|                        |                                      | 03/12/2014  | 8          |  |   |
|                        |                                      | 04/09/2014  | 8          |  |   |
|                        |                                      | 05/07/2014  | 8          |  |   |
|                        |                                      | 06/05/2014  | 8          |  |   |
|                        |                                      | 07/03/2014  | 8          |  |   |
|                        |                                      | 08/01/2014  | 8          |  |   |
|                        |                                      | 08/29/2014  | 8          |  |   |
|                        |                                      | 09/29/2014  | 8          |  |   |
|                        |                                      | 10/27/2014  | 8          |  |   |
|                        |                                      | 11/24/2014  | 8          |  |   |
| 01/02/2015             | 8                                    |             |            |  |   |
| 01/30/2015             | 8                                    |             |            |  |   |
| 02/27/2015             | 8                                    |             |            |  |   |
| 03/27/2015             | 8                                    |             |            |  |   |
| 04/24/2015             | 8                                    |             |            |  |   |
| 05/22/2015             | 8                                    |             |            |  |   |
| 06/22/2015             | 8                                    |             |            |  |   |
| 07/21/2015             | 8                                    |             |            |  |   |

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| Kit/Part Number  | Name | Date       | QTY | ROLT as of the original issue date of this Service Bulletin (Calendar Days) | Unit Price as of the original issue date of this Service Bulletin (US Dollars) |
|--|------|------------|-----|---|--|
|  |      | 08/18/2015 | 8   |   |  |
|  |      | 09/16/2015 | 8   |   |  |
|  |      | 10/14/2015 | 8   |   |  |
|  |      | 11/11/2015 | 8   |   |  |
|  |      | 12/11/2015 | 8   |   |  |
|  |      | 01/19/2016 | 8   |   |  |
|  |      | 02/16/2016 | 8   |   |  |
|  |      | 03/15/2016 | 8   |   |  |
|  |      | 04/12/2016 | 4   |   |  |
| (a) The 315W5100-63 inner wall contains the 315W5101-316 bond panel. |      |            |     |   |  |
| (b) The 315W5100-64 inner wall contains the 315W5102-316 bond panel. |      |            |     |   |  |

**B. Industry Support Information**

Boeing warranty remedies are available for 777 airplanes in warranty as of December 8, 2004. For task hour reimbursement for airplanes in warranty as of that date, send a warranty claim to Boeing Warranty & Product Assurance Contracts. The kits for airplanes in warranty as of that date will be supplied at no charge. Send a purchase order for the kits to Boeing Material Management. Please refer to this service bulletin number and reference the airplane variable numbers in your purchase order. The warranty remedies will expire eight years from the original issue date of this service bulletin.

**C. Parts Necessary for Each Airplane**

1. Kits/Parts

To get the kits/parts shown below, refer to Paragraph 2.A., Material - Price and Availability.

**NOTE:** One top kit and the items shown in Paragraph 2.C.2., Parts and Materials Supplied by the Operator, are necessary for each thrust reverser half.

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| Kit 005W3567                                  |     |    |  |                      |       |
|---|-----|----|--|----------------------|-------|
| New Part Number                               | QTY |    | Name   | Existing Part Number | Notes |
|   | -1  | -2 |  |                      |       |
| 005W3567-1                                    | -   | .  | TOP KIT - LEFT SIDE ROLLS-ROYCE TR INNER WALL REPLACEMENT  |                      |       |
| 005W3567-2                                    | .   | -  | TOP KIT - RIGHT SIDE ROLLS-ROYCE TR INNER WALL REPLACEMENT |                      |       |
| 2ASPFF-V06-09AC<br>(2MAFFF-V06-09AC optional) | 1   | 1  | PIN  |                      |       |
| 2ASPFF-V06-11AC<br>(2MAFFF-V06-11AC optional) | 2   | 2  | PIN  |                      |       |
| 2ASPFF-V06-12AC<br>(2MAFFF-V06-12AC optional) | 1   | 1  | PIN  |                      |       |
| 2ASPFF-V06-13AC<br>(2MAFFF-V06-13AC optional) | 2   | 2  | PIN  |                      |       |
| 2ASPFF-V06-15AC<br>(2MAFFF-V06-15AC optional) | 1   | 1  | PIN  |                      |       |
| 2ASPFP-V06-09AC                               | 2   | 2  | PIN  |                      |       |
| 2ASPP-S-V06                                   | 8   | 8  | SLEEVE   |                      |       |
| 2MAFP-S-V06                                   | 8   | 8  | SLEEVE   |                      |       |
| ASP-LC-MV06                                   | 51  | 51 | LOCK COLLAR  |                      |       |
| ASP-LC-MV08                                   | 6   | 6  | LOCK COLLAR  |                      |       |
| ASPF-S-V06AC                                  | 43  | 43 | SLEEVE   |                      |       |
| ASPF-S-V08N7AC                                | 6   | 6  | SLEEVE   |                      |       |
| ASPFF-V06-06AC<br>(MAFFF-V06-06AC optional)   | 30  | 30 | PIN  |                      |       |
| ASPFF-V06-08AC<br>(MAFFF-V06-08AC optional)   | 6   | 6  | PIN  |                      |       |

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| <b>Kit 005W3567</b>                          |            |           |                      |                             |              |
|--|------------|-----------|----------------------|-----------------------------|--------------|
| <b>New Part Number</b>                       | <b>QTY</b> |           | <b>Name</b>          | <b>Existing Part Number</b> | <b>Notes</b> |
|  | <b>-1</b>  | <b>-2</b> |                      |                             |              |
| ASPFF-V08-22N7AC (MAFFF-V08-22N7AC optional) | 2          | 2         | PIN                  |                             |              |
| ASPFF-V08-23N7AC (MAFFF-V08-23N7AC optional) | 4          | 4         | PIN                  |                             |              |
| ASFPF-V06-24AC                               | 6          | 6         | PIN                  |                             |              |
| BACB30LK3K3                                  | 10         | 10        | BOLT, PAN HD, CROSS  |                             |              |
| BACB30MY8K5                                  | 5          | 5         | BOLT                 |                             |              |
| BACB30MY8K6                                  | 2          | 2         | BOLT, HEX DRIVE      |                             |              |
| BACB30NW6K11                                 | 3          | 3         | HEX DRIVE BOLT       |                             |              |
| BACB30NW6K15                                 | 1          | 1         | BOLT                 |                             |              |
| BACB30NW6K19                                 | 3          | 3         | BOLT, 100 DEG HEX D  |                             |              |
| BACB30NW6K21                                 | 3          | 3         | BOLT                 |                             |              |
| BACB30NW6K22                                 | 2          | 2         | BOLT, 100 DEG HEX D  |                             |              |
| BACB30NW6K23                                 | 85         | 85        | BOLT                 |                             |              |
| BACB30NW6K24                                 | 36         | 36        | BOLT                 |                             |              |
| BACB30NW6K26                                 | 2          | 2         | BOLT, 100 DEG HEAD   |                             |              |
| BACB30NW6K6                                  | 1          | 1         | HI-LOK               |                             |              |
| BACB30NW6K7                                  | 16         | 16        | BOLT                 |                             |              |
| BACB30NW8K22                                 | 20         | 20        | BOLT, 100 DEG HEX D  |                             |              |
| BACB30NW8K23                                 | 1          | 1         | BOLT TITANIUM        |                             |              |
| BACB30NW8K24                                 | 33         | 33        | BOLT, 100 DEG SHR HD |                             |              |
| BACB30NW8K25                                 | 62         | 62        | BOLT, HEX DRIVE      |                             |              |
| BACB30NW8K28                                 | 1          | 1         | BOLT, HEX-DRIVE      |                             |              |
| BACB30NY6K6                                  | 34         | 34        | BOLT                 |                             |              |
| BACB30NY6K7                                  | 4          | 4         | HI-LOK               |                             |              |

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| <b>Kit 005W3567</b>    |            |           |                                |                             |              |
|------------------------|------------|-----------|--------------------------------|-----------------------------|--------------|
| <b>New Part Number</b> | <b>QTY</b> |           | <b>Name</b>                    | <b>Existing Part Number</b> | <b>Notes</b> |
|                        | <b>-1</b>  | <b>-2</b> |                                |                             |              |
| BACB30NY6K8            | 2          | 2         | BOLT, 100 DEG<br>HEX DR        |                             |              |
| BACB30NY6K9            | 2          | 2         | BOLT, 100 DEG<br>HEX DR        |                             |              |
| BACB30VF3K2            | 1          | 1         | BOLT                           |                             |              |
| BACB30VF4K5            | 4          | 4         | BOLT, BLIND, 100<br>DEG RED HD |                             |              |
| BACB30VF4K6            | 4          | 4         | BOLT                           |                             |              |
| BACB30VT6K6            | 3          | 3         | BOLT                           |                             |              |
| BACB30VT8K5            | 85         | 85        | BOLT                           |                             |              |
| BACF3W05P9N9           | 2          | 2         | FILLER                         |                             |              |
| BACN10JP4DCD           | 13         | 13        | NUTPLATE                       |                             |              |
| BACN10YR3CM            | 50         | 50        | NUT                            |                             |              |
| BACN10YT3CSA           | 45         | 45        | NUT, SELF-LOCK,<br>HEX         |                             |              |
| BACN10YT4CD            | 126        | 126       | NUT, SELF-LOCK,<br>HEX         |                             |              |
| BACN10ZV3              | 3          | 3         | NUT                            |                             |              |
| BACN10ZV4              | 89         | 89        | NUT SELF-LOCK-<br>ING          |                             |              |
| BACR15BA3D3C           | 26         | 26        | RIVET                          |                             |              |
| BACR15CE4M3            | 1          | 1         | RIVET, 100 DEG                 |                             |              |
| BACR15CE4M5            | 1          | 1         | RIVET, 100 DEG                 |                             |              |
| BACR15CE4M7            | 1          | 1         | RIVET, 100 DEG                 |                             |              |
| BACS12FA08K3           | 8          | 8         | FAIRING SCREWS                 |                             |              |
| BACS12GU3K7            | 8          | 8         | SCREW, CAP                     |                             |              |
| BACS12GU4K24           | 10         | 10        | SCREW                          |                             |              |
| BACS40R012C120F        | 10         | 10        | SHIM, LAMINAT-<br>ED           |                             |              |
| BACS40R012W031         | 1          | 1         | SHIM                           |                             |              |
| BACS40R024L050         | 24         | 24        | SHIM, LAMINAT-<br>ED           |                             |              |
| BACS40V012C130         | 10         | 10        | SHIM, LAMINAT-<br>ED           |                             |              |

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| <b>Kit 005W3567</b>    |            |           |                 |                             |              |
|------------------------|------------|-----------|-----------------|-----------------------------|--------------|
| <b>New Part Number</b> | <b>QTY</b> |           | <b>Name</b>     | <b>Existing Part Number</b> | <b>Notes</b> |
|                        | <b>-1</b>  | <b>-2</b> |                 |                             |              |
| BACS40V018F029         | 1          | 1         | SHIM, LAMINATED |                             |              |
| BACS40V024B265         | 1          | 1         | SHIM, LAMINATED |                             |              |
| BACS40V024C264         | 5          | 5         | SHIM            |                             |              |
| CSR902B-4-3            | 2          | 2         | RIVET           |                             |              |
| CSR922C-6EA-5          | 10         | 10        | RIVET           |                             |              |
| CSR922C-6EA-6          | 30         | 30        | RIVET           |                             |              |
| CSR922C-6EA-8          | 6          | 6         | RIVET           |                             |              |
| CSR922C-8EA-7          | 2          | 2         | RIVET           |                             |              |
| KFN522DL3              | 97         | 97        | NUT ASSY        |                             |              |
| NAS1149D0332J          | 10         | 10        | WASHER          |                             |              |
| NAS1149V0316M          | 99         | 99        | WASHER, PLAIN   |                             |              |
| NAS1149V0363M          | 50         | 50        | WASHER, PLAIN   |                             |              |

**2. Parts and Materials Supplied by the Operator**

The following parts or materials are necessary to do the change in this service bulletin. Parts and materials in the manuals given in Paragraph 1.J., References, can also be necessary. Examine operator part and material supply to make sure all necessary parts and materials are available.

| <b>Part Number / Specification</b> | <b>QTY</b> | <b>Name</b>                          | <b>Notes</b>  |
|------------------------------------|------------|--------------------------------------|---|
| 315W5100-63                        | 1          | INNER WALL - SPARES - 777 RR ENGINES |   |
| 315W5100-64                        | 1          | INNER WALL - SPARES - 777 RR ENGINES |   |
| 315W5103-1                         | 1          | PLATE - SPLICE, UPR INNER WALL       | As required, if existing part needs to be replaced.   |
| 315W5103-2                         | 1          | PLATE - SPLICE, UPR INNER WALL       | As required, if existing part needs to be replaced.   |
| BMS 5-63, Type 1 or 2, Class B     | 1 Qt       | SEALANT                              | (a)   |
| Aluminum Sheet                     | 1          | Aluminum Sheet                       | Any 2000, 6000, or 7000 series aluminum sheet, any temper other than annealed 1 inch x 14 inch, thickness 0.040 - 0.063 inch thick. |

| <b>Part Number / Specification</b>  | <b>QTY</b> | <b>Name</b> | <b>Notes</b> |
|---|------------|-------------|--------------|
| BMS 5-45, Class B   | 1          | SEALANT     | (a)          |
| (a) Refer to the Qualified Products List at the end of the Boeing Material Specification (BMS) for supplier data. |            |             |              |

3. Parts Modified and Reidentified

None.

4. Parts Removed and Not Replaced

None.

**D. Parts Necessary to Change Spares**

To get the kits/parts shown below, refer to Paragraph 2.A., Material - Price and Availability.

| <b>Part Number</b> | <b>Name</b>  | <b>QTY</b> |
|--------------------|--|------------|
| 005W3567-1         | TOP KIT - LEFT SIDE ROLLS-ROYCE TR INNER WALL REPLACEMENT  | 1          |
| 005W3567-2         | TOP KIT - RIGHT SIDE ROLLS-ROYCE TR INNER WALL REPLACEMENT | 1          |
| 315W5100-63        | INNER WALL - SPARES - 777 RR ENGINES                       | 1          |
| 315W5100-64        | INNER WALL - SPARES - 777 RR ENGINES                       | 1          |

**E. Special Tooling - Price and Availability**

The operator can supply the tools shown in Paragraph 2.F., Special Tooling Necessary to do this Service Bulletin. Tool price and supply data are not given.

**F. Special Tooling Necessary to do this Service Bulletin**

Refer to Appendix B for specifications required for the design/build of tooling required for the installation of the TR inner wall.



### 3. ACCOMPLISHMENT INSTRUCTIONS

#### A. GENERAL INFORMATION

**CAUTION:** KEEP THE WORK AREA, WIRES AND ELECTRICAL BUNDLES CLEAN OF METAL PARTICLES OR CONTAMINATION WHEN YOU USE TOOLS. UNWANTED MATERIAL, METAL PARTICLES OR CONTAMINATION CAUGHT IN WIRE BUNDLES CAN CAUSE DAMAGE TO THE BUNDLES. DAMAGED WIRE BUNDLES CAN CAUSE SPARKS OR OTHER ELECTRICAL DAMAGE.

- NOTE:**
1. Manual titles are referred to by acronyms. Refer to Paragraph 1.J., References, for definition of the acronyms.
  2. Obey all of the warnings and cautions given in the specified manual sections.
  3. The work instructions are divided into work packages. Task Hours and Elapsed Hours for each package are given in Paragraph 1.G., Manpower. You can do each work package independently.
  4. Unless shown differently, these dimensions and tolerances are used:
    - Linear dimensions are in inches
    - Tolerance on linear dimensions, other than rivet and bolt edge margins, is plus or minus 0.03 inch
    - Tolerance on rivet and bolt edge margin is plus or minus 0.05 inch
    - Angular tolerance is plus or minus 2 degrees
    - Hole dimensions for standard solid rivets and fasteners are in Structural Repair Manual (SRM) Chapter 51
    - Torque Values:
      - Values for structural fasteners are given in 777 Structural Repair Manual, Chapter 51.
      - Values for airframe maintenance tasks are included in Chapter 20 of 777 Airplane Maintenance Manual (AMM).
      - Values for electrical maintenance tasks are included in Chapter 20 of Standard Wiring Practices Manual (SWPM).
      - Values for engine maintenance tasks are included in Chapter 70 of 777 Airplane Maintenance Manual (AMM).
      - Non-standard torque values for maintenance tasks are included in the applicable installation step.
  5. Use the approved fastener and process material substitutions in accordance with SRM Chapter 51.
  6. The approved fastener and process material substitutions in accordance with Appendix F supersede those in SRM Chapter 51.
  7. Refer to the SWPM 20-10-11 and SWPM 20-10-12 for the wire installation procedures, and SWPM 20-10-19 for the wire separation requirements, as accepted procedures.

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8. The necessary conditions for selection of clamp type and size are included in SWPM 20-10-12. If any wire bundle support clamp specified in this service bulletin does not make a correct fit on the wire bundle, refer to SWPM 20-10-12 as an accepted procedure to select a clamp that fits correctly.
9. If the length of any fastener specified in this service bulletin does not meet installation standards given in SRM Chapter 51, then a fastener of the same specification, or an approved substitute, with a length which meets the installation standards given in SRM Chapter 51 may be used. In addition, washers may be installed for fastener grip length in accordance with SRM Chapter 51. Refer to SOPM 20-50-01 for alternate full threaded fasteners (screws) needed for installation in this service bulletin.
10. A Detailed Inspection is defined as: 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, etc. may be necessary. Surface cleaning and elaborate procedures may be required.
11. A General Visual Inspection is defined as: A visual examination of an interior or exterior area, installation or assembly to detect obvious damage, failure or irregularity. This level of inspection is made from within touching distance unless otherwise specified. A mirror may be necessary to enhance visual access to all exposed surfaces in the inspection area. This level of inspection is made under normally available lighting conditions such as daylight, hangar lighting, flashlight or drop-light and may require removal or opening of access panels or doors. Stands, ladders or platforms may be required to gain proximity to the area being checked.
12. These work instructions refer to procedures included in other Boeing documents. When the words "refer to" are used and the operator has an accepted alternative procedure, the accepted alternative procedure can be used. When the words "in accordance with" are included in the instruction, the procedure in the Boeing document must be used.
13. Boeing Service Letter 777-SL-51-013, Damage Reporting and Repair Plan/Design Guidelines, is an acceptable procedure to request information from Boeing for additional structural repair instructions. The Service Letter describes what information must be provided to Boeing before a structural repair can be provided. More information can be found in Boeing Service Letters 777-SL-78-026 and 777-SL-78-027.
14. Refer to Appendix D and E for logic diagram(s). Logic diagrams are provided as an aid only. Information contained in Paragraph 1.E., Compliance is the primary source for compliance times. Information in Paragraph 3.B., Work Instructions is the primary source for tasks required for compliance.
15. The instructions in Paragraph 3.B., Work Instructions and the figures can include operation of tools or test equipment. Boeing Engineering Tool Drawings, the Illustrated Tool and Equipment Manual, and the Special Tool and Ground Handling Drawing Index contain data on versions of the tools or test equipment that you can use. It is permitted to use replaced tools. It is not permitted to use superseded tools.

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16. If it is necessary to remove more parts for access, you can remove those parts. If you can get access without removing identified parts, it is not necessary to remove all of the identified parts. Jacking and shoring limitations must be observed.
17. Where the work instructions include installation of a kept part, a new or serviceable part with the same part number can be installed as an alternative to the kept part.
18. This service bulletin includes functional test procedures for the systems changed by this service bulletin. More functional tests can possibly be necessary in accordance with standard maintenance practices because of interruption to other airplane systems.
19. Some Boeing parts are supplied in a temporary configuration. Those parts are identified with a 'U', 'W', or 'Y' in place of the '-' (dash) in the part number. It is permitted to install parts identified with a 'U', 'W', or 'Y' as an alternative to the '-' (dash) part number. Boeing Drawing 005W0900 contains more data.
20. If shading is used, shaded areas in Figures are to separate the non-critical and non-authoritative information from the critical and authoritative information.
21. When more than one OPTION is given for a CONDITION, do only one of the OPTION numbers. When more than one ACTION is given for a CONDITION number or an OPTION number, do all of the ACTION numbers for that CONDITION number or OPTION number.
22. The compliance times for the actions in Paragraph 3.B., WORK INSTRUCTIONS are in Paragraph 1.E., Compliance.
23. Some steps in the Work Instructions are identified as Required for Compliance (RC). If this service bulletin is mandated by an Airworthiness Directive (AD), then the steps identified as RC must be done to comply with the AD. Alternative procedures for steps not identified with RC can be used if the RC steps can still be done as specified, and the airplane can be put back in a serviceable condition. An Alternative Method of Compliance (AMOC) is not necessary for deviations to steps that are not identified as RC.
24. When drilling holes for fasteners that will be wet installed, use lubricants in accordance with SOPM 20-50-07 for metal and SOPM 20-50-18 for composite parts. After drilling and or countersinking operations are complete, clean residual lubricant from surfaces to be sealed, including countersinks but excluding fastener holes.
25. When removing the inner wall from the thrust reverser, remove all shims, fay surface seals, and fillet seals that may stay attached to the faying surfaces or edges of the mating parts. Remove fay surface seals and fillet seals in accordance with SOPM 20-50-19.
26. The inner wall replacement instructions and tooling appendix provide the NSTA, NBL, and NWL for tooling interfaces and feature requirements. When installing the TR and Inner Wall in the tooling fixture, it is critical that the relative three dimensional position of all components is maintained.
27. Install ASP/MAF fasteners in accordance with 315T3558.
28. Install shims in accordance with SOPM 20-50-20.

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29. Ensure the inner wall is properly supported at all times to avoid damaging parts or the locating tool.

## B. WORK INSTRUCTIONS

### **WORK PACKAGE 1 - THRUST REVERSER LEFT HALF - REMOVAL AND INSTALLATION - AIRPLANE WORK**

1. Remove the Thrust Reverser (TR) left half from the engine. Refer to 777 AMM 78-31-01 as an accepted procedure.

**NOTE:** If a serviceable TR left half is installed on the engine, it is not necessary to remove it. Proceed to Step 3.

**NOTE:** A serviceable TR left half is defined as one that has met all the requirements of Paragraph 3.B., Work Instructions, Work Package 3 of this service bulletin.

2. RC - Install a serviceable Thrust Reverser (TR) left half on engine. Refer to 777 AMM 78-31-01 as an accepted procedure.

**NOTE:** A serviceable TR left half is defined as one that has met all the requirements of Paragraph 3.B., Work Instructions, Work Package 3 of this service bulletin.

3. Put the airplane back to a serviceable condition.

### **WORK PACKAGE 2 - THRUST REVERSER RIGHT HALF - REMOVAL AND INSTALLATION - AIRPLANE WORK**

1. Remove the Thrust Reverser (TR) right half from the engine. Refer to 777 AMM 78-31-01 as an accepted procedure.

**NOTE:** If a serviceable TR right half is installed on the engine, it is not necessary to remove it. Proceed to Step 3.

**NOTE:** A serviceable TR right half is defined as one that has met all the requirements of Paragraph 3.B., Work Instructions, Work Package 4 of this service bulletin.

2. RC - Install a serviceable Thrust Reverser (T/R) right half on engine. Refer to 777 AMM 78-31-01 as an accepted procedure.

**NOTE:** A serviceable TR right half is defined as one that has met all the requirements of Paragraph 3.B., Work Instructions, Work Package 4 of this service bulletin.

3. Put the airplane back to a serviceable condition.

### **RC - WORK PACKAGE 3 - THRUST REVERSER LEFT HALF - COMPONENT WORK**

1. **Group 1, Configuration 1-2:**

Do PART 1: MAINTENANCE RECORDS CHECK FOR REPLACEMENT OF LEFT TR HALF IW CONCURRENTLY OR AFTER INCORPORATION OF BOEING SERVICE BULLETIN 777-78-00071 OR 777-78-0082

2. **Group 1, Configuration 3:**  
Install TPS in accordance with Boeing Service Bulletin 777-78-0071, Revision 02, Work Package 1 and Work Package 4 and Work Package 6, except install a new inner wall (315W5100-63) in accordance with Part 8 of this Service Bulletin in lieu of Steps 3-17 in Boeing Service Bulletin 777-78-0071, Revision 02, Work Package 1.
3. **Group 1, Configuration 4:**  
Modify the aft cowl and install TPS in accordance with Boeing Service Bulletin 777-78-0082, Original Issue, Work Package 1 and Work Package 6, except install a new inner wall (315W5100-63) in accordance with Part 8 of this Service Bulletin in lieu of Step 6 in SB 777-78-0082, Original Issue, Work Package 6.
4. **Group 1, Configuration 1-2:**  
Do PART 2: MAINTENANCE RECORDS CHECK OF LEFT TR HALF FOR INCORPORATION OF BOEING SERVICE BULLETIN 777-75A0002 ON ENGINES THE TR HALF HAS OPERATED ON.
5. **Group 1, Configuration 1-2:**  
Do PART 3: MAINTENANCE RECORDS CHECK OF LEFT TR HALF FOR INSTALLATION OF INNER WALL PART NUMBER 315W5100-63.
6. Mark the TR identification plate with the service bulletin number, service bulletin revision level and the work package number to show the change was done. Refer to SOPM 20-50-10 as an accepted procedure.

**RC - WORK PACKAGE 4 - THRUST REVERSER RIGHT HALF - COMPONENT WORK**

1. **Group 1, Configuration 1-2:**  
Do PART 4: MAINTENANCE RECORDS CHECK FOR REPLACEMENT OF RIGHT TR HALF IW CONCURRENTLY OR AFTER INCORPORATION OF BOEING SERVICE BULLETIN 777-78-00071 OR 777-78-0082
2. **Group 1, Configuration 3:**  
Install TPS in accordance with Boeing Service Bulletin 777-78-0071, Revision 02, Work Package 1 and Work Package 4 and Work Package 6, except install a new inner wall (315W5100-64) in accordance with Part 9 of this Service Bulletin in lieu of Steps 3-17 in Boeing Service Bulletin 777-78-0071, Revision 02, Work Package 1.
3. **Group 1, Configuration 4:**  
Modify the aft cowl and install TPS in accordance with 777-78-0082, Original Issue, Work Package 2 and Work Package 6, except install a new inner wall (315W5100-64) in accordance with Part 9 of this Service Bulletin in lieu of Step 6 in SB 777-78-0082, Original Issue, Work Package 6.
4. **Group 1, Configuration 1-2:**  
Do PART 5: MAINTENANCE RECORDS CHECK OF RIGHT TR HALF FOR INCORPORATION OF BOEING SERVICE BULLETIN 777-75A0002 AND ROLLS-ROYCE SERVICE BULLETIN RB.211-75-G765 ON ENGINES THE TR HALF HAS OPERATED ON.
5. **Group 1, Configuration 1-2:**  
Do PART 6: MAINTENANCE RECORDS CHECK OF RIGHT TR HALF FOR INSTALLATION OF INNER WALL PART NUMBER 315W5100-64.

6. Mark the TR identification plate with the service bulletin number, service bulletin revision level and the work package number to show the change was done. Refer to SOPM 20-50-10 as an accepted procedure.

**RC - WORK PACKAGE 5 - THRUST REVERSER THERMAL PROTECTION SYSTEM AIRPLANE SCHEDULED MAINTENANCE PROGRAM CHANGE**

1. Update airplane scheduled maintenance program to incorporate 777 Airworthiness Limitation (AWL) 78-AWL-01 and 78-AWL-02 from the most current published 777 MPD Section 9.

**Group 1, Configuration 1-2:**

**RC - PART 1: MAINTENANCE RECORDS CHECK FOR REPLACEMENT OF LEFT TR HALF IW CONCURRENTLY OR AFTER INCORPORATION OF BOEING SERVICE BULLETIN 777-78-0071 OR 777-78-0082**

1. Do a maintenance records check to determine if the IW was replaced concurrently or after incorporation of Boeing Service Bulletin 777-78-0071 or 777-78-0082
  - a. CONDITION 1: LEFT TR HALF INNER WALL WAS NOT REPLACED CONCURRENTLY OR AFTER INCORPORATION OF BOEING SERVICE BULLETIN 777-78-0071 or BOEING SERVICE BULLETIN 777-78-0082.
    - (1) ACTION 1: Do PART 8: LEFT TR HALF INNER WALL REPLACEMENT
    - (2) ACTION 2: No further action. This TR half inner wall meets the requirements of Parts 1, 2, and 3.
  - b. CONDITION 2: LEFT TR HALF INNER WALL WAS REPLACED CONCURRENTLY OR AFTER INCORPORATION OF BOEING SERVICE BULLETIN 777-78-0071 or BOEING SERVICE BULLETIN 777-78-0082.
    - (1) ACTION 1: No further action for Part 1. This TR half inner wall meets the requirements of Part 1.

**Group 1, Configuration 1-2:**

**RC - PART 2: MAINTENANCE RECORDS CHECK OF LEFT TR HALF FOR INCORPORATION OF BOEING SERVICE BULLETIN 777-75A0002 ON ENGINES THE TR HALF HAS OPERATED ON.**

1. Do a maintenance records check to determine if the left TR half inner wall has always flown on an engine that has incorporated Boeing Service Bulletin 777-75A0002.
  - a. CONDITION 3: LEFT TR HALF INNER WALL HAS ALWAYS OPERATED ON AN ENGINE WITH BOEING SERVICE BULLETIN 777-75A0002 INCORPORATED.
    - (1) ACTION 1: No further action for Part 2. This TR half inner wall meets the requirements of Part 2
  - b. CONDITION 4: LEFT TR HALF INNER WALL HAS NOT ALWAYS OPERATED ON AN ENGINE WITH BOEING SERVICE BULLETIN 777-75A0002 INCORPORATED.
    - (1) ACTION 1: Go to Step 2 - Do a detailed inspection of the left TR half inner wall for previous composite repairs.

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2. Do a detailed inspection of the left TR half inner wall for previous composite repairs.
  - a. **CONDITION 5: NO PREVIOUS COMPOSITE REPAIRS FOUND**
    - (1) **ACTION 1: Go to Step 4 - Do PART 10: THRUST REVERSER INNER WALL SURFACE COLOR DETAILED INSPECTION on the entire TR inner wall.**
  - b. **CONDITION 6: ANY PREVIOUS COMPOSITE REPAIR FOUND. PREVIOUS COMPOSITE REPAIR IS DETERMINED TO EXCEED THE ALLOWABLE REPAIR LIMITS IN APPENDIX A.**
    - (1) **ACTION 1: Do PART 8: LEFT TR HALF INNER WALL REPLACEMENT**
    - (2) **ACTION 2: No further action. This TR half inner wall meets the requirements of Parts 1, 2, and 3.**
  - c. **CONDITION 7: ANY PREVIOUS COMPOSITE REPAIR FOUND. PREVIOUS COMPOSITE REPAIR IS DETERMINED TO BE WITHIN THE ALLOWABLE REPAIR LIMITS IN APPENDIX A.**
    - (1) **ACTION 1: Go to Step 3 - Do a maintenance records check to determine if the previous composite repair was performed in accordance with the limitations and procedures in SRM 54-32-01, Repair 6 or Boeing approved resin injection repair after October 22, 2013.**
3. Do a maintenance records check to determine if the previous composite repair was performed in accordance with the limitations and procedure in SRM 54-32-01, Repair 6 or Boeing approved resin injection repair after October 22, 2013.
  - a. **CONDITION 8: PREVIOUS COMPOSITE REPAIR WAS PERFORMED IN ACCORDANCE WITH THE LIMITATIONS AND PROCEDURES IN SRM 54-32-01, REPAIR 6 OR BOEING APPROVED RESIN INJECTION REPAIR AFTER OCTOBER 22, 2013.**
    - (1) **ACTION 1: Go to Step 4 - Do PART 10: THRUST REVERSER INNER WALL SURFACE COLOR DETAILED INSPECTION on the entire TR inner wall.**
  - b. **CONDITION 9: PREVIOUS COMPOSITE REPAIR WAS NOT PERFORMED IN ACCORDANCE WITH THE LIMITATIONS AND PROCEDURES IN SRM 54-32-01, REPAIR 6, OR BOEING APPROVED RESIN INJECTION REPAIR AFTER OCTOBER 22, 2013.**
    - (1) **(OPTION 1) ACTION 1: Re-do the repair in accordance with the limitations and procedures in SRM 54-32-01, Repair 6 or Boeing approved potted through bolt clickbond repair after June 24, 2014.**
    - (2) **(OPTION 1) ACTION 2: Go to Step 4 - Do PART 10: THRUST REVERSER INNER WALL SURFACE COLOR DETAILED INSPECTION**
    - (3) **(OPTION 2) ACTION 1: Do PART 8: LEFT TR HALF INNER WALL REPLACEMENT**
    - (4) **(OPTION 2) ACTION 2: No further action. This TR half inner wall meets the requirements of Part 1, 2, and 3.**
4. Do PART 10: THRUST REVERSER INNER WALL SURFACE COLOR DETAILED INSPECTION on the entire TR inner wall.

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- a. CONDITION 10: THRUST REVERSER INNER WALL PASSES THE THRUST REVERSER INNER WALL SURFACE COLOR DETAILED INSPECTION
  - (1) ACTION 1: No further action for Part 2. This TR half inner wall meets the requirements of Part 2.
- b. CONDITION 11: THRUST REVERSER INNER WALL DOES NOT PASS THE THRUST REVERSER INNER WALL SURFACE COLOR DETAILED INSPECTION.
  - (1) (OPTION 1) ACTION 1: Do PART 7: NDT OF TR HALF INNER WALL of the failed areas.
  - (2) (OPTION 1) ACTION 2: Contact Boeing for repair of inner wall and do the repair.
  - (3) (OPTION 1) ACTION 3: No further action for Part 2. This TR half inner wall meets the requirements of Part 2
  - (4) (OPTION 2) ACTION 1: Do PART 8: LEFT TR HALF INNER WALL REPLACEMENT
  - (5) (OPTION 2) ACTION 2: No further action. This TR half inner wall meets the requirements of Part 1, 2, and 3.

**Group 1, Configuration 1-2:****RC - PART 3: MAINTENANCE RECORDS CHECK FOR INSTALLATION OF LEFT TR HALF INNER WALL PART NUMBER 315W5100-63.**

- 1. Do a maintenance records check to determine if the left TR half inner wall was replaced with part number 315W5100-63.
  - a. CONDITION 12: LEFT TR HALF INNER WALL WAS REPLACED WITH PART NUMBER 315W5100-63.
    - (1) ACTION 1: No further action for Part 3. This TR half inner wall meets the requirements of Part 3.
  - b. CONDITION 13: LEFT TR HALF INNER WALL WAS NOT REPLACED WITH PART NUMBER 315W5100-63
    - (1) ACTION 1: Go to Step 2 - Do PART 7: NDT OF TR HALF INNER WALL at reworked clickbond areas. Refer to FIGURE 9 for re-worked click bond locations.
- 2. Do PART 7: NDT OF TR HALF INNER WALL at reworked clickbond areas. Refer to FIGURE 9 for re-worked click bond locations.
  - a. CONDITION 14: ANY DISBOND OR DELAMINATION FOUND ON LEFT TR HALF INNER WALL
    - (1) (OPTION 1) ACTION 1: Repair the inner wall in accordance with the limitations and procedures in SRM 54-32-01, Repair 6 or Boeing approved potted through bolt clickbond repair after June 24, 2014.
    - (2) (OPTION 1) ACTION 2: Go to Step 3 - Do a detailed inspection of the clickbond areas for previous repairs.



- (3) (OPTION 2) ACTION 1: Do PART 8: LEFT TR HALF INNER WALL REPLACEMENT
- (4) (OPTION 2) ACTION 2: No further action. This TR half inner wall meets the requirements of Parts 1, 2, and 3.
- b. CONDITION 15: NO DISBONDS OR DELAMINATIONS FOUND ON LEFT TR HALF INNER WALL
  - (1) ACTION 1: Go to Step 3 - Do a detailed inspection of the clickbond areas for previous repairs.
- 3. Do a detailed inspection of the clickbond areas for previous repairs. Refer to FIGURE 9 for re-worked click bond locations.
  - a. CONDITION 16: NO PREVIOUS REPAIRS FOUND
    - (1) ACTION 1: No further action for part 3. This TR half inner wall meets the requirements of Part 3
  - b. CONDITION 17: ANY PREVIOUS REPAIR IS FOUND.
    - (1) ACTION 1: Go to Step 4 - Do a maintenance records check to determine if the previous non-thermal repair was performed in accordance with the limitations and procedures in SRM 54-32-01, Repair 6 or Boeing approved resin injection repair after October 22, 2013.
- 4. Do a maintenance records check to determine if the previous non-thermal repair was performed in accordance with the limitations and procedures in SRM 54-32-01, Repair 6 or Boeing approved resin injection repair after October 22, 2013.
  - a. CONDITION 18: PREVIOUS REPAIR WAS PERFORMED IN ACCORDANCE WITH THE LIMITATIONS AND PROCEDURES IN SRM 54-32-01, REPAIR 6 OR BOEING APPROVED RESIN INJECTIONS REPAIR AFTER OCTOBER 22, 2013.
    - (1) ACTION 1: No further action for Part 3. This TR half inner wall meets the requirements of Part 3
  - b. CONDITION 19: PREVIOUS REPAIR WAS NOT PERFORMED IN ACCORDANCE WITH THE LIMITATIONS AND PROCEDURES IN SRM 54-32-01, REPAIR 6 OR BOEING APPROVED RESIN INJECTIONS REPAIR AFTER OCTOBER 22, 2013.
    - (1) (OPTION 1) ACTION 1: Re-do the repair in accordance with the limitations and procedures in SRM 54-32-01, Repair 6 or Boeing approved potted through bolt clickbond repair after June 24, 2014.
    - (2) (OPTION 1) ACTION 2: No further action for Part 3. This TR half inner wall meets the requirements of Part 3
    - (3) (OPTION 2) ACTION 1: Do PART 8: LEFT TR HALF INNER WALL REPLACEMENT
    - (4) (OPTION 2) ACTION 2: No further action. This TR half inner wall meets the requirements of Parts 1, 2, and 3

**Group 1, Configuration 1-2:****RC - PART 4: MAINTENANCE RECORDS CHECK FOR REPLACEMENT OF RIGHT TR HALF IW CONCURRENTLY OR AFTER INCORPORATION OF BOEING SERVICE BULLETIN 777-78-0071 OR BOEING SERVICE BULLETIN 777-78-0082**

1. Do a maintenance records check to determine if the right TR half IW was replaced concurrently or after incorporation of Boeing Service Bulletin 777-78-0071 or Boeing Service Bulletin 777-78-0082
  - a. CONDITION 20: RIGHT TR HALF INNER WALL WAS NOT REPLACED CONCURRENTLY OR AFTER INCORPORATION OF BOEING SERVICE BULLETIN 777-78-0071 or BOEING SERVICE BULLETIN 777-78-0082.
    - (1) ACTION 1: Do PART 9: RIGHT TR HALF INNER WALL REPLACEMENT.
    - (2) ACTION 2: No further action. This TR half inner wall meets the requirements of Parts 4, 5, and 6.
  - b. CONDITION 21: RIGHT TR HALF INNER WALL WAS REPLACED CONCURRENTLY OR AFTER INCORPORATION OF BOEING SERVICE BULLETIN 777-78-0071 or BOEING SERVICE BULLETIN 777-78-0082.
    - (1) ACTION 1: No further action for Part 4. This TR half inner wall meets the requirements of Part 4.

**Group 1, Configuration 1-2:****RC - PART 5: MAINTENANCE RECORDS CHECK OF RIGHT TR HALF FOR INCORPORATION OF BOEING SERVICE BULLETIN 777-75A0002 AND ROLLS-ROYCE SERVICE BULLETIN RB.211-75-G765 ON ENGINES THE TR HALF HAS OPERATED ON.**

1. Do a maintenance records check to determine if the TR has always flown on an engine that has incorporated Boeing Service Bulletin 777-75A0002 and Rolls-Royce Service Bulletin RB.211-75-G765.
  - a. CONDITION 22: RIGHT TR HALF INNER WALL HAS ALWAYS OPERATED ON AN ENGINE WITH BOEING SERVICE BULLETIN 777-75A0002 AND ROLLS-ROYCE SERVICE BULLETIN RB.211-75-G765 INCORPORATED.
    - (1) ACTION 1: No further action for Part 5. This TR half inner wall meets the requirements of Part 5.
  - b. CONDITION 23: RIGHT TR HALF INNER WALL HAS NOT ALWAYS OPERATED ON AN ENGINE WITH BOEING SERVICE BULLETIN 777-75A0002 AND ROLLS-ROYCE SERVICE BULLETIN RB.211-75-G765 INCORPORATED.
    - (1) ACTION 1: Go to Step 2 - Do a detailed inspection of the right TR half inner wall for previous composite repairs.
  - c. CONDITION 24: RIGHT TR HALF INNER WALL HAS ALWAYS OPERATED ON AN ENGINE WITH BOEING SERVICE BULLETIN 777-75A0002, BUT HAS NOT ALWAYS OPERATED ON AN ENGINE WITH ROLLS-ROYCE SERVICE BULLETIN RB.211-75-G765 INCORPORATED.

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- (1) ACTION 1: Go to Step 5 - Do a detailed inspection of the IP8.2 zone on the right TR half inner wall for previous composite repairs. Refer to Appendix G for location of the IP8.2 zone.
2. Do a detailed inspection of the right TR half inner wall for previous composite repairs.
  - a. CONDITION 25: NO PREVIOUS COMPOSITE REPAIRS FOUND
    - (1) ACTION 1: Go to Step 4 - Do PART 10: THRUST REVERSER INNER WALL SURFACE COLOR DETAILED INSPECTION on the entire TR inner wall.
  - b. CONDITION 26: ANY PREVIOUS COMPOSITE REPAIR FOUND. PREVIOUS COMPOSITE REPAIR IS DETERMINED TO EXCEED THE ALLOWABLE REPAIR LIMITS IN APPENDIX A.
    - (1) ACTION 1: Do PART 9: RIGHT TR HALF INNER WALL REPLACEMENT
    - (2) ACTION 2: No further action. This TR half inner wall meets the requirements of Parts 4, 5, and 6.
  - c. CONDITION 27: ANY PREVIOUS COMPOSITE REPAIR FOUND. PREVIOUS COMPOSITE REPAIR IS DETERMINED TO BE WITHIN THE ALLOWABLE REPAIR LIMITS IN APPENDIX A.
    - (1) ACTION 1: Go to Step 3 - Do a maintenance records check to determine if the previous composite repairs were performed in accordance with the limitations and procedures in SRM 54-32-01, REPAIR 6 or Boeing approved resin injection repair after October 22, 2013.
3. Do a maintenance records check to determine if the previous composite repairs were performed in accordance with the limitations and procedures in SRM 54-32-01, REPAIR 6 or Boeing approved resin injection repair after October 22, 2013.
  - a. CONDITION 28: PREVIOUS COMPOSITE REPAIR WAS PERFORMED IN ACCORDANCE WITH THE LIMITATIONS AND PROCEDURES IN SRM 54-32-01, REPAIR 6 OR BOEING APPROVED RESIN INJECTION REPAIR AFTER OCTOBER 22, 2013.
    - (1) ACTION 1: Go to Step 4 - Do PART 10: THRUST REVERSER INNER WALL SURFACE COLOR DETAILED INSPECTION on the entire TR inner wall.
  - b. CONDITION 29: PREVIOUS REPAIR WAS NOT PERFORMED IN ACCORDANCE WITH THE LIMITATIONS AND PROCEDURES IN SRM 54-32-01, REPAIR 6 OR BOEING APPROVED RESIN INJECTION REPAIR AFTER OCTOBER 22, 2013.
    - (1) (OPTION 1) ACTION 1: Re-do the repair in accordance with the limitations and procedures in SRM 54-32-01, REPAIR 6 or Boeing approved potted through bolt clickbond repair after June 24, 2014.
    - (2) (OPTION 1) ACTION 2: Go to Step 4 - Do PART 10: THRUST REVERSER INNER WALL SURFACE COLOR DETAILED INSPECTION
    - (3) (OPTION 2) ACTION 1: Do PART 9: RIGHT TR HALF INNER WALL REPLACEMENT

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- (4) (OPTION 2) ACTION 2: No further action. This TR half inner wall meets the requirements of Part 4, 5, and 6
- 4. Do PART 10: THRUST REVERSER INNER WALL SURFACE COLOR DETAILED INSPECTION on the entire TR inner wall.
  - a. CONDITION 30: THRUST REVERSER INNER WALL PASSES THE THRUST REVERSER INNER WALL SURFACE COLOR DETAILED INSPECTION
    - (1) ACTION 1: No further action for Part 5. This TR half inner wall meets the requirements of Part 5
  - b. CONDITION 31: THRUST REVERSER INNER WALL DOES NOT PASS THE THRUST REVERSER INNER WALL SURFACE COLOR DETAILED INSPECTION.
    - (1) (OPTION 1) ACTION 1: Do PART 7: NDT OF TR HALF INNER WALL at failed areas.
    - (2) (OPTION 1) ACTION 2: Contact Boeing for repair of inner wall and do the repair.
    - (3) (OPTION 1) ACTION 3: No further action for Part 5. This TR half inner wall meets the requirements of Part 5.
    - (4) (OPTION 2) ACTION 1: Do PART 9: RIGHT TR HALF INNER WALL REPLACEMENT
    - (5) (OPTION 2) ACTION 2: No further action. This TR half inner wall meets the requirements of Part 4, 5, and 6.
- 5. Do a detailed inspection of the IP8.2 zone of the right TR half inner wall for previous composite repairs. Refer to Appendix G for location of the IP8.2 zone.
  - a. CONDITION 32: NO PREVIOUS COMPOSITE REPAIRS FOUND
    - (1) ACTION 1: Go to Step 7 - Do PART 10: THRUST REVERSER INNER WALL SURFACE COLOR DETAILED INSPECTION on IP8.2 zone. Refer to Appendix G for the location of the IP8.2 zone.
  - b. CONDITION 33: ANY PREVIOUS COMPOSITE REPAIR FOUND. PREVIOUS COMPOSITE REPAIR IS DETERMINED TO BE THERMALLY RELATED IN ACCORDANCE WITH THE LIMITATIONS AND PROCEDURES IN APPENDIX A.
    - (1) ACTION 1: Do PART 9: RIGHT TR HALF INNER WALL REPLACEMENT
    - (2) ACTION 2: No further action. This TR half inner wall meets the requirements of Parts 4, 5, and 6.
  - c. CONDITION 34: ANY PREVIOUS COMPOSITE REPAIR FOUND. PREVIOUS COMPOSITE REPAIRS ARE DETERMINED TO BE NOT THERMALLY RELATED IN ACCORDANCE WITH THE LIMITATIONS AND PROCEDURES IN APPENDIX A.
    - (1) ACTION 1: Go to Step 6 - Do a maintenance records check to determine if the previous composite non-thermal repairs were performed in accordance with the limitations and procedures in SRM 54-32-01, REPAIR 6 or Boeing approved resin injection repair after October 22, 2013.

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6. Do a maintenance records check to determine if the previous composite non-thermal repairs were performed in accordance with the limitations and procedures in SRM 54-32-01, REPAIR 6 or Boeing approved resin injection repair after October 22, 2013.
  - a. **CONDITION 35: PREVIOUS COMPOSITE REPAIR WAS PERFORMED IN ACCORDANCE WITH THE LIMITATIONS AND PROCEDURES IN SRM 54-32-01, REPAIR 6 OR BOEING APPROVED RESIN INJECTION REPAIR AFTER OCTOBER 22, 2013.**
    - (1) **ACTION 1: Go to Step 7 - Do PART 10: THRUST REVERSER INNER WALL SURFACE COLOR DETAILED INSPECTION on the IP8.2 zone. Refer to Appendix G for the location of the IP8.2 zone.**
  - b. **CONDITION 36: PREVIOUS REPAIR WAS NOT PERFORMED IN ACCORDANCE WITH THE LIMITATIONS AND PROCEDURES IN SRM 54-32-01, REPAIR 6 OR BOEING APPROVED RESIN INJECTION REPAIR AFTER OCTOBER 22, 2013.**
    - (1) **(OPTION 1) ACTION 1: Re-do the repair in accordance with the limitations and procedures in SRM 54-32-01, REPAIR 6 or Boeing approved potted through bolt clickbond repair after June 24, 2014.**
    - (2) **(OPTION 1) ACTION 2: Go to Step 7 - Do PART 10: THRUST REVERSER INNER WALL SURFACE COLOR DETAILED INSPECTION in the IP8.2 zone. Refer to Appendix G for location of the IP8.2 zone.**
    - (3) **(OPTION 2) ACTION 1: Do PART 9: RIGHT TR HALF INNER WALL REPLACEMENT**
    - (4) **(OPTION 2) ACTION 2: No further action. This TR half inner wall meets the requirements of Part 4, 5, and 6**
7. **Do PART 10: THRUST REVERSER INNER WALL SURFACE COLOR DETAILED INSPECTION on the IP8.2 zone. Refer to Appendix G for the location of the IP8.2 zone.**
  - a. **CONDITION 37: THRUST REVERSER INNER WALL PASSES THE THRUST REVERSER INNER WALL SURFACE COLOR DETAILED INSPECTION ON THE IP8.2 ZONE.**
    - (1) **ACTION 1: No further action for Part 5. This TR half inner wall meets the requirements of Part 5**
  - b. **CONDITION 38: THRUST REVERSER INNER WALL DOES NOT PASS THE THRUST REVERSER INNER WALL SURFACE COLOR DETAILED INSPECTION ON THE IP8.2 ZONE.**
    - (1) **(OPTION 1) ACTION 1: Do PART 7: NDT OF TR HALF INNER WALL at failed areas.**
    - (2) **(OPTION 1) ACTION 2: Contact Boeing for repair of inner wall and do the repair.**
    - (3) **(OPTION 1) ACTION 3: No further action for Part 5. This TR half inner wall meets the requirements of Part 5.**
    - (4) **(OPTION 2) ACTION 1: Do PART 9: RIGHT TR HALF INNER WALL REPLACEMENT**
    - (5) **(OPTION 2) ACTION 2: No further action. This TR half inner wall meets the requirements of Part 4, 5, and 6.**

**Group 1, Configuration 1-2:****RC - PART 6: MAINTENANCE RECORDS CHECK FOR INSTALLATION OF RIGHT TR HALF INNER WALL PART NUMBER 315W5100-64.**

1. Do a maintenance records check to determine if the right TR half inner wall was replaced with part number 315W5100-64.
  - a. CONDITION 39: RIGHT TR HALF INNER WALL WAS REPLACED WITH PART NUMBER 315W5100-64.
    - (1) ACTION 1: No further action for Part 6. This TR half inner wall meets the requirements of Part 6.
  - b. CONDITION 40: RIGHT TR HALF INNER WALL WAS NOT REPLACED WITH PART NUMBER 315W5100-64
    - (1) ACTION 1: Go to Step 2 - Do PART 7: NDT OF TR HALF INNER WALL at re-worked click bond areas. Refer to FIGURE 10 for location of re-worked click bonds
2. Do PART 7: NDT OF TR HALF INNER WALL at re-worked click bond areas. Refer to FIGURE 10 for location of re-worked click bonds
  - a. CONDITION 41: ANY DISBOND OR DELAMINATION FOUND ON RIGHT TR HALF INNER WALL
    - (1) (OPTION 1) ACTION 1: Repair the inner wall in accordance with the limitations and procedures in SRM 54-32-01, REPAIR 6 or Boeing approved potted through bolt clickbond repair after June 24, 2014.
    - (2) (OPTION 1) ACTION 2: Go to Step 3 - Do a detailed inspection of the re-worked clickbond areas for previous repairs.
    - (3) (OPTION 2) ACTION 1: Do PART 9: RIGHT HALF TR INNER WALL REPLACEMENT
    - (4) (OPTION 2) ACTION 2: No further action. This TR half inner wall meets the requirements of Part 4, 5, and 6
  - b. CONDITION 42: NO DISBONDS OR DELAMINATIONS FOUND ON RIGHT TR HALF INNER WALL
    - (1) ACTION 1: Go to Step 3 - Do a detailed inspection of the clickbond areas for previous repairs.
3. Do a detailed inspection of the re-worked clickbond areas for previous repairs. Refer to FIGURE 10 for the location of the re-worked click bonds.
  - a. CONDITION 43: NO PREVIOUS REPAIRS FOUND
    - (1) ACTION 1: No further action for Part 6. This TR half inner wall meets the requirements of Part 6
  - b. CONDITION 44: ANY PREVIOUS REPAIR IS FOUND

- (1) ACTION 1: Go to Step 4 - Do a maintenance records check to determine if the previous composite non-thermal repairs were performed in accordance with the limitations and procedures in SRM 54-32-01, REPAIR 6 or Boeing approved resin injection repair after October 22, 2013
- 4. Do a maintenance records check to determine if the previous composite non-thermal repairs were performed in accordance with the limitations and procedures in SRM 54-32-01, REPAIR 6 or Boeing approved resin injection repair after October 22, 2013.
  - a. CONDITION 45: PREVIOUS REPAIR WAS PERFORMED IN ACCORDANCE WITH THE LIMITATIONS AND PROCEDURES IN SRM 54-32-01, REPAIR 6 OR BOEING APPROVED RESIN INJECTION REPAIR AFTER OCTOBER 22, 2013.
    - (1) ACTION 1: No further action for Part 6. This TR half inner wall meets the requirements of Part 6
  - b. CONDITION 46: PREVIOUS REPAIR WAS NOT PERFORMED IN ACCORDANCE WITH THE LIMITATIONS AND PROCEDURES IN SRM 54-32-01, REPAIR 6 OR BOEING APPROVED RESIN INJECTION REPAIR AFTER OCTOBER 22, 2013.
    - (1) (OPTION 1) ACTION 1: Re-do the repair in accordance with the limitations and procedures in SRM 54-32-01, REPAIR 6 or Boeing approved potted through bolt clickbond repair after June 24, 2014.
    - (2) (OPTION 1) ACTION 2: No further action for Part 6. This TR half inner wall meets the requirements of Part 6
    - (3) (OPTION 2) ACTION 1: Do PART 9: RIGHT TR HALF INNER WALL REPLACEMENT
    - (4) (OPTION 2) ACTION 2: No further action. This TR half inner wall meets the requirements of Part 4, 5, and 6.

**Group 1, Configuration 1-2:**  
**PART 7: NDT OF TR HALF INNER WALL**

1. Open the TR half. Refer to 777 AMM 78-31-00 as an accepted procedure to open the TR half. Operators may remove the TR half if desired. Refer to 777 AMM 78-31-01 as an accepted procedure.
2. Remove and keep the insulation blankets from the TR half inner wall. Refer to 777 AMM 78-31-06 as an accepted procedure to remove the insulation blankets.

**NOTE:** The aft most upper blanket stud can rotate like a defective bonded stud when the nut is turned. Make sure the head of the bolt is held, if necessary, to remove the nut and washer. The blanket can be damaged if this blanket attachment is not removed correctly.

3. Solvent clean the inner wall panel. Refer to SOPM 20-30-03 as an accepted procedure to solvent clean the inner wall.

**NOTE:** In addition to the acceptable solvents found in SOPM 20-30-03, Isopropyl Alcohol can also be used.

- a. Do not remove marks on the inner wall that have recorded information that should be kept for inspectors or other personnel.
4. RC - Do a Nondestructive Test (NDT) of the specified areas. Look for delaminations and disbonds of the inner wall panel. Use a one inch grid pattern to scan the specified areas.
  - a. Do an NDT of field core areas (four ply areas) in accordance with 777 NDT Part 4, 78-30-02 (Through Transmission Ultrasonic, (TTU)), or Low Frequency Bond Test, 777 NDT Part 4, 78-30-03. Refer to 777 NDT Part 4, 78-30-03 for locations of ply build up areas.
  - b. Do an NDT of ply build-up areas (greater than 4 plies) with 777 NDT Part 4, 78-30-01 (High Frequency Bond Test), 777 NDT Part 4, 78-30-02 (Through Transmission Ultrasonic, (TTU)), or 777 NDT Part 4, 78-30-03 (Low Frequency Bond Test). Refer to 777 NDT Part 4, 78-30-03 for locations of ply build up areas.

### **RC - PART 8 - LEFT TR HALF INNER WALL REPLACEMENT**

1. **Group 1, Configuration 1-2:**  
Remove the left TR half from the engine. Refer to 777 AMM 78-31-01 as an acceptable procedure.
2. **Group 1, Configuration 1-2:**  
Remove and keep the insulation blankets from the TR half inner wall. Refer to 777 AMM 78-31-06 as an accepted procedure.

**NOTE:** The aft most upper blanket stud can rotate like a defective bonded stud when the nut is turned. Make sure the head of the bolt is held, if necessary, to remove the nut and washer. The blanket can be damaged if this blanket attachment is not removed correctly.

3. Remove the translating sleeve from the left TR half. Refer to 777 AMM 78-31-10 as an acceptable procedure.
4. Remove and keep the upper bifurcation bulb seal and three forward inner wall bulb seals. Refer to 777 AMM 78-31-05 as an acceptable procedure.
5. **Group 1, Configuration 1, 3:**  
Remove and keep the 315W5329 retainer assembly, 315W5323 filler, 315W5328 flame shield assembly, and 315W5322 retainers from the inner wall, 315W5300 hinge beam, and aft cowl. Refer to 315W5319 SH21 and 315W5150 SH20.

**NOTE:** Do not remove the 315W5322 retainers from the 315W5328 flame shield assembly or 315W5329 retainer assembly.

6. **Group 1, Configuration 2:**  
Remove and keep the 315W5329 retainer assembly, 315W5323 filler, 315W5328 flame shield assembly, and 315W5322 retainers from the inner wall, 315W5300 hinge beam, and aft cowl. Refer to 315W5319 SH21 and 315W5163 SH3.

**NOTE:** Do not remove the 315W5322 retainers from the 315W5328 flame shield assembly or 315W5329 retainer assembly.

7. Remove and save the 315W5333 seal deflector from the inner wall. Refer to 315W5319 SH 21.



8. Install the left TR half into the locating tool by fixing the TR outer v-blade, hinge beam, and latch beam to the tool fixture. Refer to APPENDIX B for tooling guidance.
  - a. Fix the aft edge of the outer v-blade to the tooling fixture at NSTA 218.31 at a minimum of 3 locations separated by a minimum of 45 degrees. Ensure clamping is in its free state, and not up against a hard point on the tool to avoid preloading the inner wall during assembly.
 

**NOTE:** Locate using unworn sections of the aft edge of the outer v-blade. Missing surface finish is acceptable, provided no corrosion.
  - b. Fix the NWL and NBL of the hinge beam to the tooling fixture at minimum two of the three locations below. See Appendix B for tooling guidance.
    - (1) Fix the center line of the No. 2 hinge at NWL 160.18 and NBL 16.10
    - (2) Fix the center line of the No. 3 hinge at NWL 160.18 and NBL 16.10
    - (3) Fix the center line of the No. 4 hinge at NWL 160.18 and NBL 16.10
  - c. Fix the NWL of the latch beam to the tooling fixture at a minimum two of the three locations below. See Appendix B for tooling guidance
    - (1) Fix the center line of the No. 2 latch pin hole at NWL 37.60.
    - (2) Fix the center line of the No. 3 latch pin hole at NWL 39.65.
    - (3) Fix the center line of the No. 4 latch pin hole at NWL 39.65.
  - d. Fix the NBL of the latch beam to the tooling fixture using a minimum of one of the two methods below. See Appendix B for tooling guidance
    - (1) Fix the same latch pin holes used in c. at NBL 1.75.
    - (2) Remove the tension latch wear plates and shims on the latch beam and fix a minimum three of the five machined compression pad fittings at NBL 0.14. Refer to 777 AMM 78-31-01 as an acceptable procedure to remove the compressions pads and shims.

**CAUTION:** ENSURE THE INNER WALL IS PROPERLY SUPPORTED AT ALL TIMES TO AVOID DAMAGING THE PARTS OR LOCATING TOOL

9. **Group 1, Configuration 1, 3:**  
Remove and keep the aft cowl with 315W5009 stud assembly and two BACF3W05P9N9 fillers by removing all fasteners common to the aft cowl and the inner wall and all fasteners common to the aft cowl and 315W5106 aft closeout assembly. Refer to 315W5150 SH19-21.
10. **Group 1, Configuration 2:**  
Remove and keep the aft cowl with 315W5009 stud assembly and two BACF3W05P9N9 fillers by removing all fasteners common to the aft cowl and the inner wall and all fasteners common to the aft cowl and 315W5106 aft closeout assembly. Refer to 315W5163 SH03-04.
11. If installed, remove and save the 315W5473 wear pad fitting. Refer to 315W5469 SH10.

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12. Remove and keep the 315W5106 aft closeout assembly by removing all fasteners common to the aft closeout assembly and inner wall and all fasteners common to the aft closeout assembly and 315W5400 latch beam. Refer to 315W5105 SH13.

**CAUTION:** ENSURE THE INNER WALL IS PROPERLY SUPPORTED AT ALL TIMES TO AVOID DAMAGING THE PARTS OR LOCATING TOOL

13. Remove and keep the 315W5103 upper splice and two 315W5009 brackets by removing the upper and lower row of splice plate fasteners. Refer to 315W5105 SH12.
14. Remove and keep the two 315W5104 lower splice plates and five 315W5009 brackets by removing the upper and lower rows of splice plate fasteners. Refer to 315W5105 SH13.
15. Remove the inner wall by removing all remaining fasteners common to the inner wall and 315W5300 hinge beam and all remaining fasteners common to the inner wall and 315W5400 latch beam. Refer to 315W5105 SH12-13.
16. Do a detailed inspection of the countersunk holes in the 315W5103 upper splice plate in accordance with FIGURE 1. Rework the upper splice plate and 315W5300 hinge beam fastener holes if required in accordance with FIGURE 1.
17. Do a detailed inspection of the countersunk holes in the 315W5104 lower splice plate in accordance with FIGURE 1. Rework the lower splice plate and 315W5400 latch beam fastener holes if required in accordance with FIGURE 1.
18. Install nutplates in the hinge beam and latch beam in accordance with FIGURE 3.

**CAUTION:** DO NOT DRILL ANY HOLES INTO THE INNER WALL AT THIS TIME

**CAUTION:** ENSURE THE INNER WALL IS PROPERLY SUPPORTED AT ALL TIMES TO AVOID DAMAGING THE PARTS OR LOCATING TOOL

19. Locate the fore-aft position of the new 315W5100-63 inner wall assembly by locating the inner wall v-blade to the locating tool. Refer to APPENDIX B for tooling guidance.

**NOTE:** The nominal distance between the upper surface of the inner wall and hinge beam is 0.19. The nominal distance between the lower surface of the inner wall and latch beam is 0.23. These dimensions are provided as reference only to help with inner wall position.

**NOTE:** The hinge beam forward fire seal retainer may not align properly with the inner wall upper bifurcation fire seal retainer. The forward fire seal retainers should not be used to locate the inner wall panel.

**NOTE:** The leading edge of the Inner Wall panel may extend beyond the Hinge Beam, even with the inner wall panel properly aligned. The forward edge of the inner wall panel should not be used to locate the inner wall panel.

20. Clamp the inner v-blade to the tooling fixture at a minimum of 3 locations separated by a minimum of 45 degrees. Refer to APPENDIX B for tooling guidance. Ensure clamping is in its free state, and not up against a hard point on the tool to avoid preloading the inner wall during assembly.
21. Do a detailed inspection of the leading edge of the inner wall panel at the upper bifurcation in accordance with FIGURE 5.

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- a. If the inner wall panel does not extend beyond the edge of the hinge beam, no action is required.
  - b. If the inner wall panel extends beyond the edge of the hinge beam up to 0.125, trim the leading edge of the inner wall panel in accordance with FIGURE 5.
  - c. If the inner wall panel extends beyond the edge of the hinge beam more than 0.125, contact Boeing for repair and do that repair.
22. Locate the 315W5103 upper splice plate to the new inner wall by temporarily installing the splice plate to the 315W5300 hinge beam using existing fastener holes common to the splice plate and hinge beam only. Refer to 315W5105 SH12.
23. Locate the 315W5104 lower splice plates to the new inner wall by temporarily installing the splice plates to the 315W5400 latch beam using existing fastener holes common to the splice plates and latch beam only. Refer to 315W5105 SH13.
24. Do these steps at the same time:.
- a. Check faying surfaces between the new inner wall and the hinge beam for gaps and shim as required in accordance with 315W5105 SH12 FL2. Use shims BACS40V024C264.
  - b. Check the faying surfaces between the 315W5103 upper splice plate and hinge beam and shim as required in accordance with 315W5105 SH12 FL2. Use shims BACS40V024C264.
  - c. Check the faying surfaces between the 315W5103 upper splice plate and new inner wall for gaps and shim as required in accordance with 315W5105 SH12 FL2. Use shims BACS40V024C264.
25. Do these steps at the same time:.
- a. Check faying surfaces between the new inner wall and the latch beam for gaps and shim as required in accordance with 315W5105 SH13 FL2. Use shims BACS40V024C264.
  - b. Check the faying surfaces between the 315W5104 lower splice plates and the inner wall for gaps and shim as required in accordance with 315W5105 SH13 FL4. Use shims BACS40V024C264.
  - c. Check the faying surfaces between the 315W5104 lower splice plate and latch beam for gaps and shim as required in accordance with 315W5105 SH13 FL7. Use shims BACS40R\*\*\*B\*\*\*F.
26. Locate the 315W5106 aft closeout assembly to the new inner wall by temporarily installing the aft closeout assembly to the 315W5400 latch beam.
27. Do these steps at the same time:.
- a. Check the faying surfaces between the 315W5106 aft closeout assembly and latch beam for gaps and shim as required in accordance with 315W5105 SH13 FL7. Use shims BACS40R\*\*\*B\*\*\*F.
  - b. Check the faying surfaces between the 315W5106 aft closeout assembly and the inner wall panel for gaps and shim as required in accordance with 315W5105 SH13 FL2. Use shims BACS40V024C264.

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28. Temporarily install the 315W5329 retainer assembly, 315W5323 filler, 315W5328 flame shield assembly, and 315W5322 retainers to the inner wall and 315W5300 hinge beam. Refer to 315W5319 SH21..

**CAUTION:** ENSURE THE INNER WALL IS PROPERLY SUPPORTED AT ALL TIMES TO AVOID DAMAGING THE PARTS OR LOCATING TOOL

29. **Group 1, Configuration 1, 3:**  
Temporarily install the aft cowl to the 315W5106 aft closeout assembly using fastener holes common to the aft cowl and aft closeout assembly only. Refer to 315W5150 SH20.
30. **Group 1, Configuration 1, 3:**  
Temporarily install the aft cowl to the 315W5328 flame shield and 315W5322 retainer using fastener holes common to the aft cowl, flame shield, and retainer only. Refer to 315W5150 SH20.

**NOTE:** There is a tooling hole in the new inner wall that may be used to help position the aft cowl assembly. Do not drill this hole to full diameter at this step.

31. **Group 1, Configuration 1, 3:**  
Do these steps at the same time:
- Check the faying surfaces between the aft cowl and the 315W5106 aft closeout assembly for gaps and shim as required in accordance with 315W5150 SH20 FL4. Use shims BACS40R012W031.
  - Ensure that the aero smoothness requirements are met at the interface between the aft cowl and the inner wall. Refer to Appendix B, Sheet 12, View A-A. If the aero smoothness requirements cannot be met, contact Boeing for disposition and do Boeing disposition. Do not fill the gap between the aft cowl and inner wall panel at this step.

32. **Group 1, Configuration 1, 3:**  
Clamp the aft cowl to the inner wall and 315W5106 aft closeout assembly.

33. **Group 1, Configuration 1, 3:**  
Remove and keep the 315W5329 retainer assembly, 315W5323 filler, 315W5328 flame shield assembly and the 315W5322 retainers from the inner wall, 315W5300 hinge beam, and aft cowl. Refer to 315W5319 SH21 and 315W5150 SH20.

34. **Group 1, Configuration 2:**  
Temporarily install the aft cowl to the 315W5106 aft closeout assembly using fastener holes common to the aft cowl and aft closeout assembly only. Refer to 315W5163 SH03.

35. **Group 1, Configuration 2:**  
Temporarily install the aft cowl to the 315W5328 flame shield and 315W5322 retainer using fastener holes common to the aft cowl, flame shield, and retainer only. Refer to 315W5163 SH03.

**NOTE:** There is a tooling hole in the new inner wall that may be used to help position the aft cowl assembly. Do not drill this hole to full diameter at this step.

36. **Group 1, Configuration 2:**  
Do these steps at the same time:

- a. Check the faying surfaces between the aft cowl and the 315W5106 aft closeout assembly for gaps and shim as required in accordance with 315W5163 SH03 FL4. Use shims BACS40R012W031
  - b. Ensure that the aero smoothness requirements are met at the interface between the aft cowl and the inner wall. Refer to Appendix B, Sheet 12, View A-A. If the aero smoothness requirements cannot be met, contact Boeing for disposition and do Boeing disposition. Do not fill the gap between the aft cowl and inner wall panel at this step.
37. **Group 1, Configuration 2:**  
Clamp the aft cowl to the inner wall and 315W5106 aft closeout assembly.
38. **Group 1, Configuration 2:**  
Remove and keep the 315W5329 retainer assembly, 315W5323 filler, 315W5328 flame shield assembly and the 315W5322 retainers from the inner wall, 315W5300 hinge beam, and aft cowl. Refer to 315W5319 SH21 and 315W5163 SH03.
39. If existing, temporarily install the 315W5473 wear pad fitting to the latch beam using the fastener hole common to the wear pad fitting and the latch beam only.
40. Do these steps at the same time:
- a. Check the gap between the 315W5473 wear pad fitting and the inner wall panel and shim as required in accordance with 315W5469 SH10 FL5. Use shim BACS40R\*\*\*L\*\*\*.
  - b. Check the gap between the 315W5473 wear pad fitting and the latch beam and shim as required in accordance with 315W5469 SH10 FL8. Use shim BACS40R\*\*\*C\*\*\*.
41. **Group 1, Configuration 1, 3:**  
Back drill fastener holes in the new inner wall common to the aft cowl in accordance with the 315W5150 SH19-21 fastener hole requirements.
42. **Group 1, Configuration 2:**  
Back drill fastener holes in the new inner wall common to the aft cowl in accordance with the 315W5163 SH03-04 fastener hole requirements.
43. Back drill fastener holes in the new inner wall common to the hinge beam and the 315W5103 upper splice plate in accordance with the 315W5105 SH12 fastener hole requirements.
44. Back drill fastener holes in the new inner wall common to the 315W5400 latch beam and the 315W5104 lower splice plates in accordance with the 315W5105 SH13 fastener hole requirements.
45. Back drill fastener holes in the new inner wall common to the 315W5106 aft closeout assembly in accordance with the 315W5105 SH12 fastener hole requirements.
46. If installed, back drill fastener holes in the new inner wall common to the 315W5473 wear pad fitting in accordance with the 315W5469 SH10 fastener hole requirements.
47. Remove and keep the splice plates, aft closeout, aft cowl, wear pad fitting (if installed) and inner wall in order to deburr the holes drilled in the previous steps. Refer to 777-200 SRM 51-20-08 as an accepted procedure.
48. Re-install the inner wall into the tool in accordance with Steps 19-20.

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49. Apply a fay surface seal between the inner wall and hinge beam and inner wall and 315W5103 upper splice plate in accordance with 315W5105 SH12 FL1.
50. Install the nine countersunk fasteners common to the 315W5103 upper splice plate and the 315W5300 hinge beam in accordance with FIGURE 7.
51. Install the two 315W5009 brackets and all remaining fasteners common to the new inner wall and the 315W5300 hinge beam in accordance with the fastener callouts and torque requirements given in 315W5105 SH12. Install the 315W5009 brackets last because the brackets restrict access for other fasteners in this installation. Wet install all fasteners with BMS5-63 per SOPM 20-50-19 Method 3.
52. Apply a fay surface seal between the inner wall and latch beam and inner wall and 315W5104 lower splice plates in accordance with 315W5105 SH13 FL1.
53. Install the 4 countersunk fasteners common to the 315W5104 lower splice plate and the 315W5400 latch beam in accordance with FIGURE 7.
54. Install the five 315W5009 brackets and all remaining fasteners common to the new inner wall and the 315W5400 latch beam in accordance with the fastener callouts and torque requirements given in 315W5105 SH13. Wet install all fasteners with BMS5-63 per SOPM 20-50-19 Method 3.
55. Apply a fay surface seal between the aft closeout assembly and the inner wall and between the aft closeout assembly and the latch beam in accordance with 315W5105 SH13 FL1.
56. Install the 315W5106 aft closeout to the 315W5400 latch beam and inner wall in accordance with the fastener callouts, torque requirements, and flag note requirements given in 315W5105 SH13. Wet install all fasteners with BMS5-63 per SOPM 20-50-19 Method 3.
57. Fill the gap between the 315W5104 lower splice plates and 315W5400 latch beam in accordance with 315W5105 FL3.
58. Fill the gap between the 315W5106 aft closeout assembly and the inner wall in accordance with 315W5105 SH13 FL5.
59. Apply a fay surface seal to the faying surfaces of the 315W5323 filler, 315W5324 fire seal standoff, and 315W5328 flame shield in accordance with 315W5319 SH21 FL1.
60. Do these steps at the same time:
  - a. Install the 315W5329 retainer assembly, 315W5323 filler, 315W5328 flame shield assembly and the 315W5322 retainers to the inner wall and 315W5300 hinge beam in accordance with the fastener callouts, torque requirements and flag note requirements given in 315W5319 SH21.
  - b. Seal the gap between the 315W5328 flame shield assembly and the inner wall in accordance with 315W5319 SH21 FL8.
61. Apply a continuous fillet seal along both edges of the 315W5323 filler and 315W5329 flame shield in accordance with 315W5319 SH21 FL2.

62. **Group 1, Configuration 1, 3:**  
Fill gap and apply fay seal between 315W5009 stud assembly and the inner wall in accordance with 315W5150 SH21 FL2.
63. **Group 1, Configuration 1, 3:**  
Install the aft cowl to the inner wall, 315W5106 aft closeout assembly in accordance with the fastener callouts, torque requirements, and flag note requirements given in 315W5150 SH19-21. Use BACF3W05P9N9 fillers to install the two fasteners through the ramp section of the inner wall panel in accordance with 315W5150 SH21. Wet install all fasteners in composites per BAC5063 with BMS5-63 per SOPM 20-50-19 Method 3.
64. **Group 1, Configuration 1, 3:**  
Fill the gap between the inner wall and the aft cowl in accordance with 315W5150 SH19 FL3.
65. **Group 1, Configuration 1, 3:**  
Install the aft cowl to 315W5328 flame shield and 315W5322 retainer in accordance with the fastener callout given in 315W5150 SH20. Wet install all fasteners in composites per BAC5063 with BMS5-63 per SOPM 20-50-19 Method 3.
66. **Group 1, Configuration 2:**  
Fill gap and apply fay seal between 315W5009 stud assembly and the inner wall in accordance with 315W5163 SH04 FL2.
67. **Group 1, Configuration 2:**  
Install the aft cowl to the inner wall, 315W5106 aft closeout assembly in accordance with the fastener callouts, torque requirements, and flag note requirements given in 315W5163 SH03-04. Use BACF3W05P9N9 fillers to install the two fasteners through the ramp section of the inner wall panel in accordance with 315W5163 SH04. Wet install all fasteners in composites per BAC5063 with BMS5-63 per SOPM 20-50-19 Method 3.
68. **Group 1, Configuration 2:**  
Fill the gap between the inner wall and the aft cowl in accordance with 315W5163 SH03 FL3.
69. **Group 1, Configuration 2:**  
Install the aft cowl to 315W5328 flame shield and 315W5322 retainer in accordance with the fastener callout given in 315W5163 SH03. Wet install all fasteners in composites per BAC5063 with BMS5-63 per SOPM 20-50-19 Method 3.
70. Apply a surface fay seal between the 315W5473 wear pad, 315W5400 latch beam, and inner wall in accordance with 315W5469 SH10 FL1 if the 315W5473 wear pad is present.
71. Install the 315W5473 wear pad to the 315W5400 latch beam and inner wall in accordance with the fastener callouts, torque requirements, and flag note requirements given in 315W5469 SH10. Wet install all fasteners in composites per BAC5063 with BMS5-63 per SOPM 20-50-19 Method 3.
72. Remove the left TR half from the tooling fixture.
73. Apply a fay surface seal between the 315W5333 deflector and the inner wall in accordance with 315W5319 SH21 FL1.
74. Install the 315W5333 seal deflector to the inner wall in accordance with the fastener callouts and torque requirements given in 315W5319 SH21.

**NOTE:** The 315W5333 deflector can be installed after the insulation blankets are installed.

75. Install the upper bifurcation bulb seal and three forward inner wall bulb seals. Refer to 777 AMM 78-31-05 as an acceptable procedure.
76. Install the 315W5114-27, 315W5114-29 and 315W5114-31 insulation blanket seals. Refer to 315W5006 SH34-36 as an acceptable procedure.
77. If the tension latch wear pads were removed from the latch beam in Step 7, install the tension latch wear plates and shims on the latch beam. Refer to 777 AMM 78-31-01 as an acceptable procedure.
78. Install the translating sleeve on the left TR half. Refer to 777 AMM 78-31-10 as an acceptable procedure.
79. **Group 1, Configuration 1-2:**  
Install the insulation blankets on the left TR half . Refer to 777 AMM 78-31-06 as an accepted procedure.

**NOTE:** The aft most upper blanket stud can rotate like a defective bonded stud when the nut is turned. Make sure the head of the bolt is held, if necessary, to remove the nut and washer. The blanket can be damaged if this blanket attachment is not removed correctly.

#### **RC - PART 9 - RIGHT TR HALF INNER WALL REPLACEMENT**

1. **Group 1, Configuration 1-2:**  
Remove the right TR half from the engine. Refer to 777 AMM 78-31-01 as an acceptable procedure.
2. **Group 1, Configuration 1-2:**  
Remove and keep the insulation blankets from the TR half inner wall. Refer to 777 AMM 78-31-06 as an accepted procedure.

**NOTE:** The aft most upper blanket stud can rotate like a defective bonded stud when the nut is turned. Make sure the head of the bolt is held, if necessary, to remove the nut and washer. The blanket can be damaged if this blanket attachment is not removed correctly.

3. Remove the translating sleeve from the right TR half. Refer to 777 AMM 78-31-10 as an acceptable procedure.
4. Remove and keep the upper bifurcation bulb seal and three forward inner wall bulb seals. Refer to 777 AMM 78-31-05 as an acceptable procedure.
5. **Group 1, Configuration 1, 3:**  
Remove and keep the 315W5329 retainer assembly, 315W5323 filler, 315W5328 flame shield assembly, and 315W5322 retainers from the inner wall, 315W5300 hinge beam, and aft cowl. Refer to 315W5319 SH21 and 315W5150 SH20.

**NOTE:** Do not remove the 315W5322 retainers from the 315W5328 flame shield assembly or 315W5329 retainer assembly.

6. **Group 1, Configuration 2:**  
Remove and keep the 315W5329 retainer assembly, 315W5323 filler, 315W5328 flame shield assembly, and 315W5322 retainers from the inner wall, 315W5300 hinge beam, and aft cowl. Refer to 315W5319 SH21 and 315W5163 SH3.



**NOTE:** Do not remove the 315W5322 retainers from the 315W5328 flame shield assembly or 315W5329 retainer assembly.

7. Remove and save the 315W5333 seal deflector from the inner wall. Refer to 315W5319 SH 21.
8. Install the right TR half into the locating tool by fixing the TR outer v-blade, hinge beam, and latch beam to the tool fixture. Refer to APPENDIX B for tooling guidance.
  - a. Fix the aft edge of the outer v-blade to the tooling fixture at NSTA 218.31 at a minimum of 3 locations separated by a minimum of 45 degrees. Ensure clamping is in its free state, and not up against a hard point on the tool to avoid preloading the inner wall during assembly.

**NOTE:** Locate using unworn sections of the aft edge of the outer v-blade. Missing surface finish is acceptable, provided no corrosion.

- b. Fix the NWL and NBL of the hinge beam to the tooling fixture at minimum two of the three locations below. See Appendix B for tooling guidance.
  - (1) Fix the center line of the No. 2 hinge at NWL 160.18 and NBL 16.10
  - (2) Fix the center line of the No. 3 hinge at NWL 160.18 and NBL 16.10
  - (3) Fix the center line of the No. 4 hinge at NWL 160.18 and NBL 16.10
- c. Fix the NWL of the latch beam to the tooling fixture at a minimum two of the three locations below. See Appendix B for tooling guidance
  - (1) Fix the center line of the No. 2 latch pin hole at NWL 37.60.
  - (2) Fix the center line of the No. 3 latch pin hole at NWL 39.65.
  - (3) Fix the center line of the No. 4 latch pin hole at NWL 39.65.
- d. Fix the NBL of the latch beam to the tooling fixture using a minimum of one of the two methods below. See Appendix B for tooling guidance
  - (1) Fix the same latch pin holes used in c. at NBL 1.75.
  - (2) Remove the tension latch wear plates and shims on the latch beam and fix a minimum three of the five machined compression pad fittings at NBL 0.14. Refer to 777 AMM 78-31-01 as an acceptable procedure to remove the compressions pads and shims.

**CAUTION:** ENSURE THE INNER WALL IS PROPERLY SUPPORTED AT ALL TIMES TO AVOID DAMAGING THE PARTS OR LOCATING TOOL

9. **Group 1, Configuration 1, 3:**  
Remove and keep the aft cowl with 315W5009 stud assembly and two BACF3W05P9N9 fillers by removing all fasteners common to the aft cowl and the inner wall and all fasteners common to the aft cowl and 315W5106 aft closeout assembly. Refer to 315W5150 SH19-21.

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10. **Group 1, Configuration 2:**  
Remove and keep the aft cowl with 315W5009 stud assembly and two BACF3W05P9N9 fillers by removing all fasteners common to the aft cowl and the inner wall and all fasteners common to the aft cowl and 315W5106 aft closeout assembly. Refer to 315W5163 SH03-04.
11. If installed, remove and save the 315W5473 wear pad fitting. Refer to 315W5469 SH10.
12. Remove and keep the 315W5106 aft closeout assembly by removing all fasteners common to the aft closeout assembly and inner wall and all fasteners common to the aft closeout assembly and 315W5400 latch beam. Refer to 315W5105 SH13.

**CAUTION:** ENSURE THE INNER WALL IS PROPERLY SUPPORTED AT ALL TIMES TO AVOID DAMAGING THE PARTS OR LOCATING TOOL

13. Remove and keep the 315W5103 upper splice and two 315W5009 brackets by removing the upper and lower row of splice plate fasteners. Refer to 315W5105 SH12.
14. Remove and keep the two 315W5104 lower splice plates and five 315W5009 brackets by removing the upper and lower rows of splice plate fasteners. Refer to 315W5105 SH13.
15. Remove the inner wall by removing all remaining fasteners common to the inner wall and 315W5300 hinge beam and all remaining fasteners common to the inner wall and 315W5400 latch beam. Refer to 315W5105 SH12-13.
16. Do a detailed inspection of the countersunk holes in the 315W5103 upper splice plate in accordance with FIGURE 2. Rework the upper splice plate and 315W5300 hinge beam fastener holes if required in accordance with FIGURE 2.
17. Do a detailed inspection of the countersunk holes in the 315W5104 lower splice plate in accordance with FIGURE 2. Rework the lower splice plate and 315W5400 latch beam fastener holes if required in accordance with FIGURE 2.
18. Install nutplates in the hinge beam and latch beam in accordance with FIGURE 4.

**CAUTION:** DO NOT DRILL ANY HOLES INTO THE INNER WALL AT THIS TIME

**CAUTION:** ENSURE THE INNER WALL IS PROPERLY SUPPORTED AT ALL TIMES TO AVOID DAMAGING THE PARTS OR LOCATING TOOL

19. Locate the fore-aft position of the new 315W5100-63 inner wall assembly by locating the inner wall v-blade to the locating tool. Refer to APPENDIX B for tooling guidance.

**NOTE:** The nominal distance between the upper surface of the inner wall and hinge beam is 0.19. The nominal distance between the lower surface of the inner wall and latch beam is 0.23. These dimensions are provided as reference only to help with inner wall position.

**NOTE:** The hinge beam forward fire seal retainer may not align properly with the inner wall upper bifurcation fire seal retainer. The forward fire seal retainers should not be used to locate the inner wall panel.

**NOTE:** The leading edge of the Inner Wall panel may extend beyond the Hinge Beam, even with the inner wall panel properly aligned. The forward edge of the inner wall panel should not be used to locate the inner wall panel.

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20. Clamp the inner v-blade to the tooling fixture at a minimum of 3 locations separated by a minimum of 45 degrees. Refer to APPENDIX B for tooling guidance. Ensure clamping is in its free state, and not up against a hard point on the tool to avoid preloading the inner wall during assembly.
21. Do a detailed inspection of the leading edge of the inner wall panel at the upper bifurcation in accordance with FIGURE 6.
  - a. If the inner wall panel does not extend beyond the edge of the hinge beam, no action is required.
  - b. If the inner wall panel extends beyond the edge of the hinge beam up to 0.125, trim the leading edge of the inner wall panel in accordance with FIGURE 6.
  - c. If the inner wall panel extends beyond the edge of the hinge beam more than 0.125, contact Boeing for repair and do that repair.
22. Locate the 315W5103 upper splice plate to the new inner wall by temporarily installing the splice plate to the 315W5300 hinge beam using existing fastener holes common to the splice plate and hinge beam only. Refer to 315W5105 SH12.
23. Locate the 315W5104 lower splice plates to the new inner wall by temporarily installing the splice plates to the 315W5400 latch beam using existing fastener holes common to the splice plates and latch beam only. Refer to 315W5105 SH13.
24. Do these steps at the same time:.
  - a. Check faying surfaces between the new inner wall and the hinge beam for gaps and shim as required in accordance with 315W5105 SH12 FL2. Use shims BACS40V024C264.
  - b. Check the faying surfaces between the 315W5103 upper splice plate and hinge beam and shim as required in accordance with 315W5105 SH12 FL2. Use shims BACS40V024C264.
  - c. Check the faying surfaces between the 315W5103 upper splice plate and new inner wall for gaps and shim as required in accordance with 315W5105 SH12 FL2. Use shims BACS40V024C264.
25. Do these steps at the same time:.
  - a. Check faying surfaces between the new inner wall and the latch beam for gaps and shim as required in accordance with 315W5105 SH13 FL2. Use shims BACS40V024C264.
  - b. Check the faying surfaces between the 315W5104 lower splice plates and the inner wall for gaps and shim as required in accordance with 315W5105 SH13 FL4. Use shims BACS40V024C264.
  - c. Check the faying surfaces between the 315W5104 lower splice plate and latch beam for gaps and shim as required in accordance with 315W5105 SH13 FL7. Use shims BACS40R\*\*\*B\*\*\*F.
26. Locate the 315W5106 aft closeout assembly to the new inner wall by temporarily installing the aft closeout assembly to the 315W5400 latch beam.
27. Do these steps at the same time:.

- a. Check the faying surfaces between the 315W5106 aft closeout assembly and latch beam for gaps and shim as required in accordance with 315W5105 SH13 FL7. Use shims BACS40R\*\*\*B\*\*\*F.
  - b. Check the faying surfaces between the 315W5106 aft closeout assembly and the inner wall panel for gaps and shim as required in accordance with 315W5105 SH13 FL2. Use shims BACS40V024C264.
28. Temporarily install the 315W5329 retainer assembly, 315W5323 filler, 315W5328 flame shield assembly, and 315W5322 retainers to the inner wall and 315W5300 hinge beam. Refer to 315W5319 SH21.

**CAUTION:** ENSURE THE INNER WALL IS PROPERLY SUPPORTED AT ALL TIMES TO AVOID DAMAGING THE PARTS OR LOCATING TOOL

29. **Group 1, Configuration 1, 3:**  
Temporarily install the aft cowl to the 315W5106 aft closeout assembly using fastener holes common to the aft cowl and aft closeout assembly only. Refer to 315W5150 SH20.
30. **Group 1, Configuration 1, 3:**  
Temporarily install the aft cowl to the 315W5328 flame shield and 315W5322 retainer using fastener holes common to the aft cowl, flame shield, and retainer only. Refer to 315W5150 SH20.

**NOTE:** There is a tooling hole in the new inner wall that may be used to help position the aft cowl assembly. Do not drill this hole to full diameter at this step.

31. **Group 1, Configuration 1, 3:**  
Do these steps at the same time:
- a. Check the faying surfaces between the aft cowl and the 315W5106 aft closeout assembly for gaps and shim as required in accordance with 315W5150 SH20 FL4. Use shims BACS40R012W031.
  - b. Ensure that the aero smoothness requirements are met at the interface between the aft cowl and the inner wall. Refer to Appendix B, Sheet 12, View A-A. If the aero smoothness requirements cannot be met, contact Boeing for disposition and do Boeing disposition. Do not fill the gap between the aft cowl and inner wall panel at this step.
32. **Group 1, Configuration 1, 3:**  
Clamp the aft cowl to the inner wall and 315W5106 aft closeout assembly.
33. **Group 1, Configuration 1, 3:**  
Remove and keep the 315W5329 retainer assembly, 315W5323 filler, 315W5328 flame shield assembly and the 315W5322 retainers from the inner wall, 315W5300 hinge beam, and aft cowl. Refer to 315W5319 SH21 and 315W5150 SH20.
34. **Group 1, Configuration 2:**  
Temporarily install the aft cowl to the 315W5106 aft closeout assembly using fastener holes common to the aft cowl and aft closeout assembly only. Refer to 315W5163 SH03.
35. **Group 1, Configuration 2:**  
Temporarily install the aft cowl to the 315W5328 flame shield and 315W5322 retainer using fastener holes common to the aft cowl, flame shield, and retainer only. Refer to 315W5163 SH03.

**NOTE:** There is a tooling hole in the new inner wall that may be used to help position the aft cowl assembly. Do not drill this hole to full diameter at this step.

36. **Group 1, Configuration 2:**  
Do these steps at the same time:
- a. Check the faying surfaces between the aft cowl and the 315W5106 aft closeout assembly for gaps and shim as required in accordance with 315W5163 SH03 FL4. Use shims BACS40R012W031
  - b. Ensure that the aero smoothness requirements are met at the interface between the aft cowl and the inner wall. Refer to Appendix B, Sheet 12, View A-A. If the aero smoothness requirements cannot be met, contact Boeing for disposition and do Boeing disposition. Do not fill the gap between the aft cowl and inner wall panel at this step.
37. **Group 1, Configuration 2:**  
Clamp the aft cowl to the inner wall and 315W5106 aft closeout assembly.
38. **Group 1, Configuration 2:**  
Remove and keep the 315W5329 retainer assembly, 315W5323 filler, 315W5328 flame shield assembly and the 315W5322 retainers from the inner wall, 315W5300 hinge beam, and aft cowl. Refer to 315W5319 SH21 and 315W5163 SH03.
39. If existing, temporarily install the 315W5473 wear pad fitting to the latch beam using the fastener hole common to the wear pad fitting and the latch beam only.
40. Do these steps at the same time:
- a. Check the gap between the 315W5473 wear pad fitting and the inner wall panel and shim as required in accordance with 315W5469 SH10 FL5. Use shim BACS40R\*\*\*L\*\*\*.
  - b. Check the gap between the 315W5473 wear pad fitting and the latch beam and shim as required in accordance with 315W5469 SH10 FL8. Use shim BACS40R\*\*\*C\*\*\*.
41. **Group 1, Configuration 1, 3:**  
Back drill fastener holes in the new inner wall common to the aft cowl in accordance with the 315W5150 SH19-21 fastener hole requirements.
42. **Group 1, Configuration 2:**  
Back drill fastener holes in the new inner wall common to the aft cowl in accordance with the 315W5163 SH03-04 fastener hole requirements.
43. Back drill fastener holes in the new inner wall common to the hinge beam and the 315W5103 upper splice plate in accordance with the 315W5105 SH12 fastener hole requirements.
44. Back drill fastener holes in the new inner wall common to the 315W5400 latch beam and the 315W5104 lower splice plates in accordance with the 315W5105 SH13 fastener hole requirements.
45. Back drill fastener holes in the new inner wall common to the 315W5106 aft closeout assembly in accordance with the 315W5105 SH12 fastener hole requirements.
46. If installed, back drill fastener holes in the new inner wall common to the 315W5473 wear pad fitting in accordance with the 315W5469 SH10 fastener hole requirements.

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47. Remove and keep the splice plates, aft closeout, aft cowl, wear pad fitting (if installed) and inner wall in order to deburr the holes drilled in the previous steps. Refer to 777-200 SRM 51-20-08 as an accepted procedure.
48. Re-install the inner wall into the tool in accordance with Steps 19-20.
49. Apply a fay surface seal between the inner wall and hinge beam and inner wall and 315W5103 upper splice plate in accordance with 315W5105 SH12 FL1.
50. Install the nine countersunk fasteners common to the 315W5103 upper splice plate and the 315W5300 hinge beam in accordance with FIGURE 8.
51. Install the two 315W5009 brackets and all remaining fasteners common to the new inner wall and the 315W5300 hinge beam in accordance with the fastener callouts and torque requirements given in 315W5105 SH12. Install the 315W5009 brackets last because the brackets restrict access for other fasteners in this installation. Wet install all fasteners with BMS5-63 per SOPM 20-50-19 Method 3.
52. Apply a fay surface seal between the inner wall and latch beam and inner wall and 315W5104 lower splice plates in accordance with 315W5105 SH13 FL1.
53. Install the 4 countersunk fasteners common to the 315W5104 lower splice plate and the 315W5400 latch beam in accordance with FIGURE 8.
54. Install the five 315W5009 brackets and all remaining fasteners common to the new inner wall and the 315W5400 latch beam in accordance with the fastener callouts and torque requirements given in 315W5105 SH13. Wet install all fasteners with BMS5-63 per SOPM 20-50-19 Method 3.
55. Apply a fay surface seal between the aft closeout assembly and the inner wall and between the aft closeout assembly and the latch beam in accordance with 315W5105 SH13 FL1.
56. Install the 315W5106 aft closeout to the 315W5400 latch beam and inner wall in accordance with the fastener callouts, torque requirements, and flag note requirements given in 315W5105 SH13. Wet install all fasteners with BMS5-63 per SOPM 20-50-19 Method 3.
57. Fill the gap between the 315W5104 lower splice plates and 315W5400 latch beam in accordance with 315W5105 FL3.
58. Fill the gap between the 315W5106 aft closeout assembly and the inner wall in accordance with 315W5105 SH13 FL5.
59. Apply a fay surface seal to the faying surfaces of the 315W5323 filler, 315W5324 fire seal standoff, and 315W5328 flame shield in accordance with 315W5319 SH21 FL1.
60. Do these steps at the same time:
  - a. Install the 315W5329 retainer assembly, 315W5323 filler, 315W5328 flame shield assembly and the 315W5322 retainers to the inner wall and 315W5300 hinge beam in accordance with the fastener callouts, torque requirements and flag note requirements given in 315W5319 SH21.
  - b. Seal the gap between the 315W5328 flame shield assembly and the inner wall in accordance with 315W5319 SH21 FL8.

61. Apply a continuous fillet seal along both edges of the 315W5323 filler and 315W5329 flame shield in accordance with 315W5319 SH21 FL2.
62. **Group 1, Configuration 1, 3:**  
Fill gap and apply fay seal between 315W5009 stud assembly and the inner wall in accordance with 315W5150 SH21 FL2.
63. **Group 1, Configuration 1, 3:**  
Install the aft cowl to the inner wall, 315W5106 aft closeout assembly in accordance with the fastener callouts, torque requirements, and flag note requirements given in 315W5150 SH19-21. Use BACF3W05P9N9 fillers to install the two fasteners through the ramp section of the inner wall panel in accordance with 315W5150 SH21. Wet install all fasteners in composites per BAC5063 with BMS5-63 per SOPM 20-50-19 Method 3.
64. **Group 1, Configuration 1, 3:**  
Fill the gap between the inner wall and the aft cowl in accordance with 315W5150 SH19 FL3.
65. **Group 1, Configuration 1, 3:**  
Install the aft cowl to 315W5328 flame shield and 315W5322 retainer in accordance with the fastener callout given in 315W5150 SH20. Wet install all fasteners in composites per BAC5063 with BMS5-63 per SOPM 20-50-19 Method 3.
66. **Group 1, Configuration 2:**  
Fill gap and apply fay seal between 315W5009 stud assembly and the inner wall in accordance with 315W5163 SH04 FL2.
67. **Group 1, Configuration 2:**  
Install the aft cowl to the inner wall, 315W5106 aft closeout assembly in accordance with the fastener callouts, torque requirements, and flag note requirements given in 315W5163 SH03-04. Use BACF3W05P9N9 fillers to install the two fasteners through the ramp section of the inner wall panel in accordance with 315W5163 SH04. Wet install all fasteners in composites per BAC5063 with BMS5-63 per SOPM 20-50-19 Method 3.
68. **Group 1, Configuration 2:**  
Fill the gap between the inner wall and the aft cowl in accordance with 315W5163 SH03 FL3.
69. **Group 1, Configuration 2:**  
Install the aft cowl to 315W5328 flame shield and 315W5322 retainer in accordance with the fastener callout given in 315W5163 SH03. Wet install all fasteners in composites per BAC5063 with BMS5-63 per SOPM 20-50-19 Method 3.
70. Apply a surface fay seal between the 315W5473 wear pad, 315W5400 latch beam, and inner wall in accordance with 315W5469 SH10 FL1 if the 315W5473 wear pad is present.
71. Install the 315W5473 wear pad to the 315W5400 latch beam and inner wall in accordance with the fastener callouts, torque requirements, and flag note requirements given in 315W5469 SH10. Wet install all fasteners in composites per BAC5063 with BMS5-63 per SOPM 20-50-19 Method 3.
72. Remove the right TR half from the tooling fixture.
73. Apply a fay surface seal between the 315W5333 deflector and the inner wall in accordance with 315W5319 SH21 FL1.

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74. Install the 315W5333 seal deflector to the inner wall in accordance with the fastener callouts and torque requirements given in 315W5319 SH21.

**NOTE:** The 315W5333 deflector can be installed after the insulation blankets are installed.

75. Install the upper bifurcation bulb seal and three forward inner wall bulb seals. Refer to 777 AMM 78-31-05 as an acceptable procedure.
76. Install the 315W5114-27, 315W5114-29 and 315W5114-31 insulation blanket seals. Refer to 315W5006 SH34-36 as an acceptable procedure.
77. If the tension latch wear pads were removed from the latch beam in Step 7, install the tension latch wear plates and shims on the latch beam. Refer to 777 AMM 78-31-01 as an acceptable procedure.
78. Install the translating sleeve on the right TR half. Refer to 777 AMM 78-31-10 as an acceptable procedure.
79. **Group 1, Configuration 1-2:**  
Install the insulation blankets on the right TR half . Refer to 777 AMM 78-31-06 as an accepted procedure.

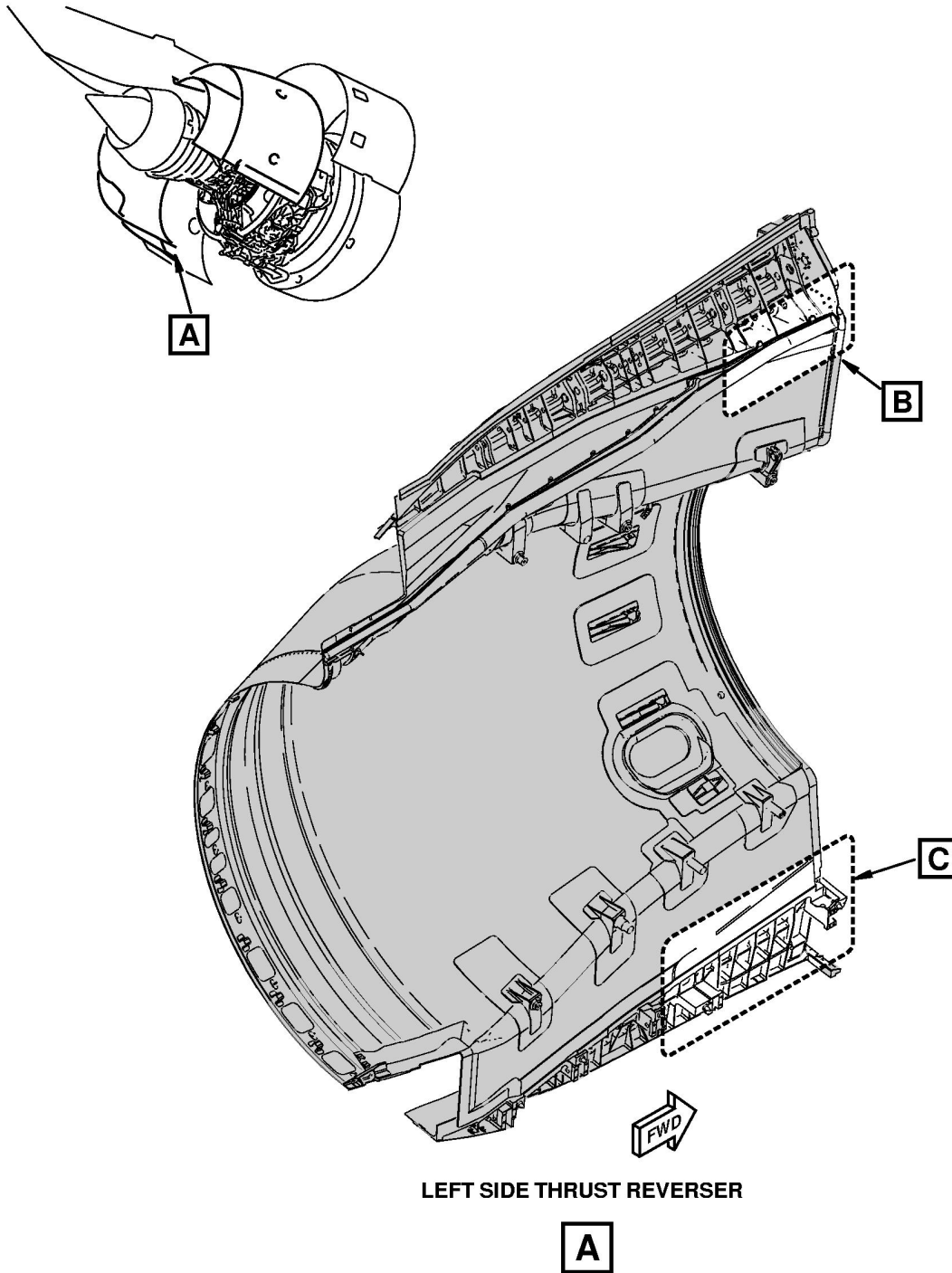
**NOTE:** The aft most upper blanket stud can rotate like a defective bonded stud when the nut is turned. Make sure the head of the bolt is held, if necessary, to remove the nut and washer. The blanket can be damaged if this blanket attachment is not removed correctly.

**Group 1, Configuration 1-2:**

**RC - PART 10 - THRUST REVERSER INNER WALL SURFACE COLOR INSPECTION**

1. Do a detailed inspection of the inner wall using the Thrust Reverser Inner Wall Surface Color Inspection on the TR half inner wall. Compare the darkness of the Color Chip Standard (P/N: 315W5110-5) to the Color Chip Calibration (P/N: 315W5110-6) and perform the inner Wall Surface Color Inspection using Color Chip Standard (P/N 315W5110-5). Refer to 777 AMM 78-31-01 as an accepted procedure.
  - a. If the inner wall primer of all the inspection zones are lighter in color than the Color Chip Standard after completion of the Thrust Reverser Inner Wall Surface Color Inspection on the TR half inner wall, it is considered that the inner wall passed the Thrust Reverser Inner Wall Surface Color Inspection.
  - b. If the inner wall primer of any inspection zone is darker in color than the Color Chip Standard after completion of the Thrust Reverser Inner Wall Surface Color Inspection on the TR half inner wall, it is considered that the inner wall failed the Thrust Reverser Inner Wall Surface Color Inspection.





LEFT SIDE THRUST REVERSER

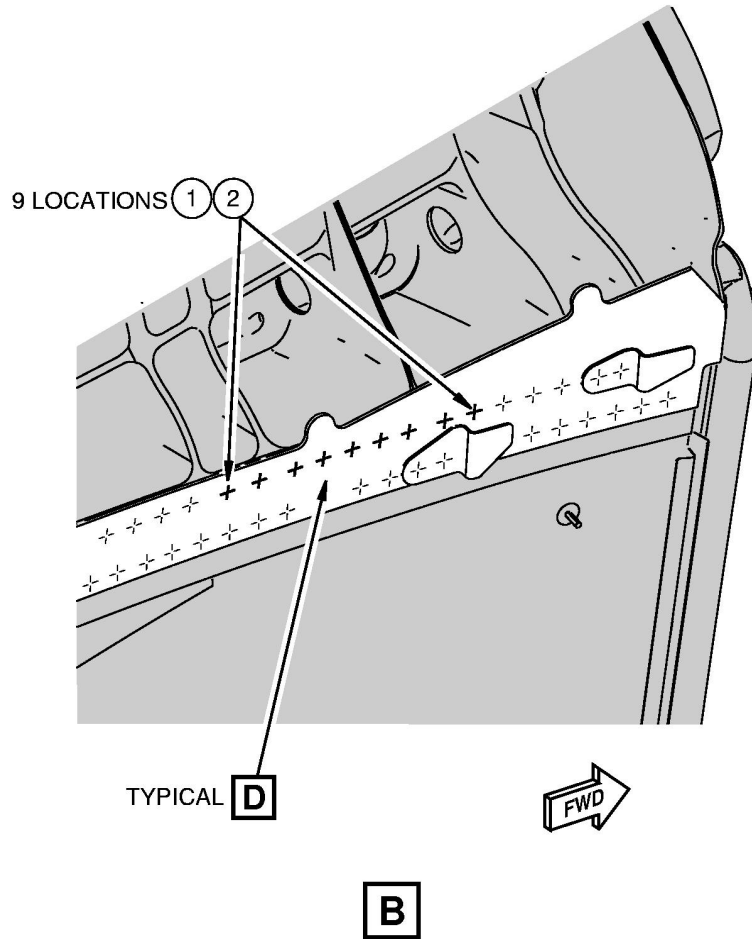
FIGURE 1: LEFT TR HALF SPLICE PLATE FASTENER HOLE DETAILED INSPECTION  
(SHEET 1 OF 4)

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**FIGURE 1: LEFT TR HALF SPLICE PLATE FASTENER HOLE DETAILED INSPECTION  
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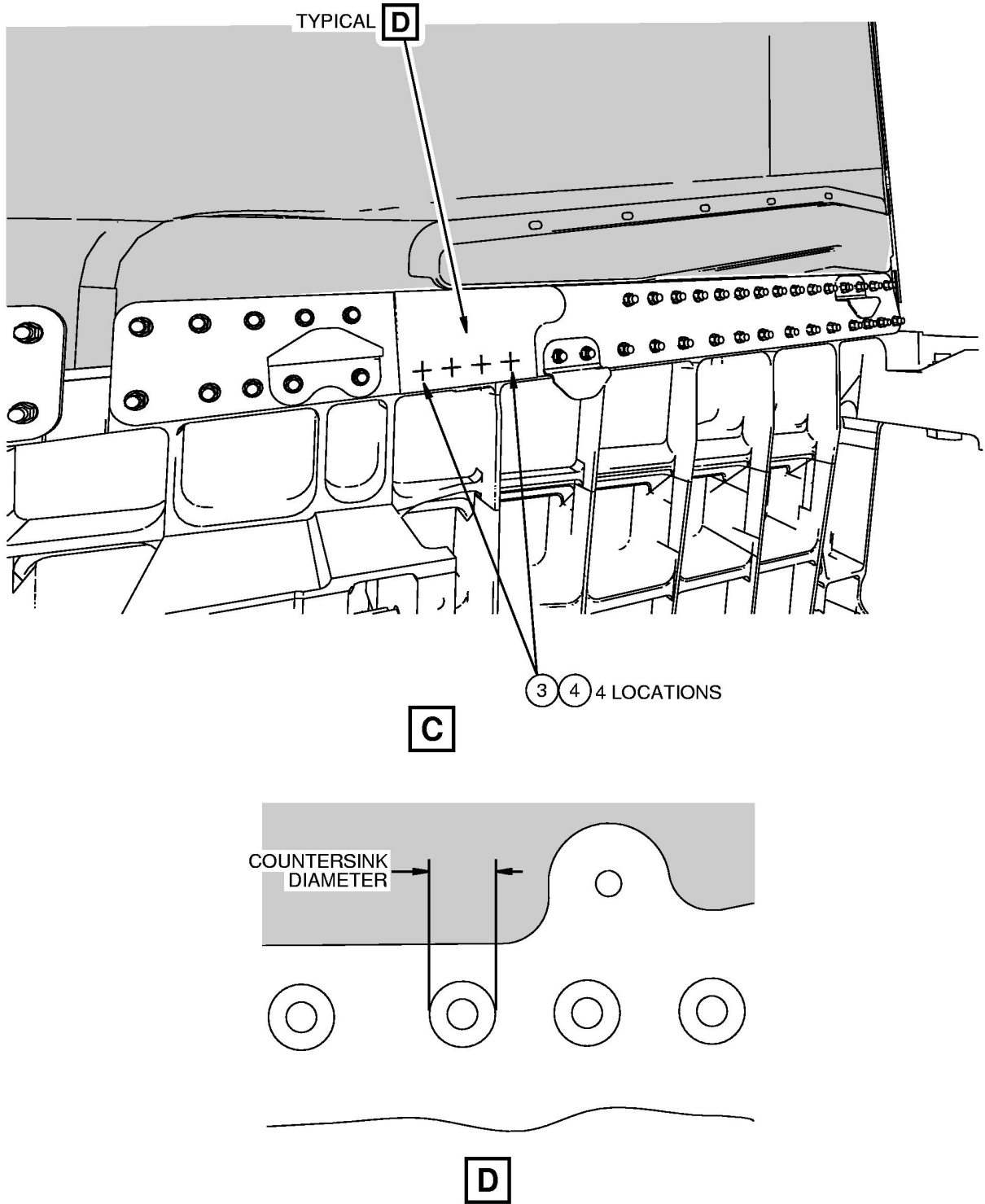


FIGURE 1: LEFT TR HALF SPLICE PLATE FASTENER HOLE DETAILED INSPECTION (SHEET 3 OF 4)

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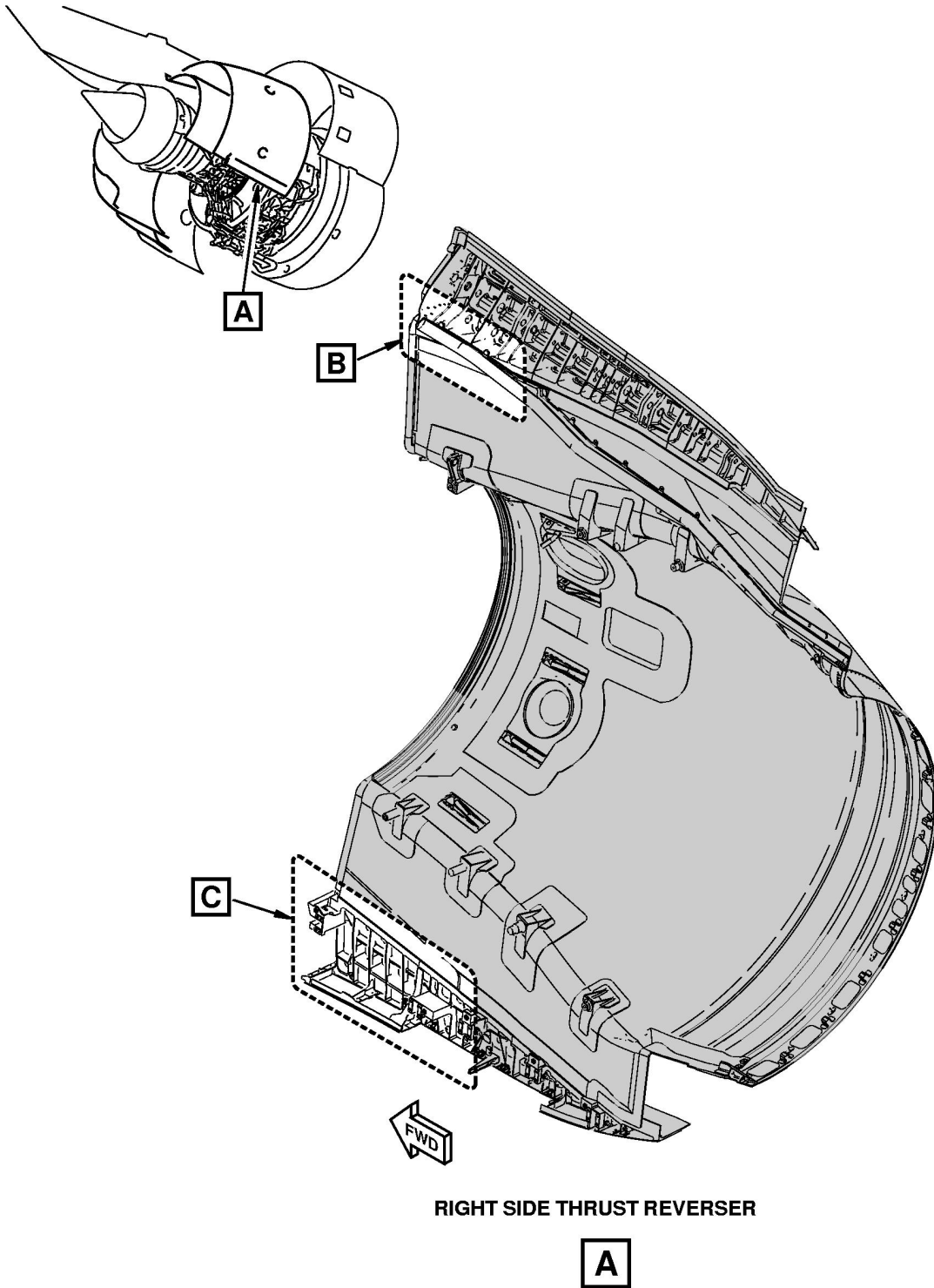
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The step numbers shown below agree with the numbers shown in the circle symbols in the figure. The QTY numbers shown below are the number of parts necessary for each TR half.

| Step | Task    | Name | Identification | Qty | More Data   |
|------|---------|------|----------------|-----|---|
| 1    | Inspect | HOLE | -              | 9   | Do a detailed inspection of the 9 near side countersunk holes for countersink diameter.   |
| 2    | Ream    | HOLE | -              | 9   | If any of the countersink diameters are larger than 0.45, ream out the fastener holes common to the splice plate and the hinge beam to 0.278 - 0.281 to accommodate oversize fasteners. |
| 3    | Inspect | HOLE | -              | 4   | Do a detailed inspection of the 4 near side countersunk holes for countersink diameter.   |
| 4    | Ream    | HOLE | -              | 4   | If any of the countersink diameters are larger than 0.45, ream out the fastener holes common to the splice plate and the latch beam to 0.278 - 0.281 to accommodate oversize fasteners. |

**FIGURE 1: LEFT TR HALF SPLICE PLATE FASTENER HOLE DETAILED INSPECTION  
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RIGHT SIDE THRUST REVERSER

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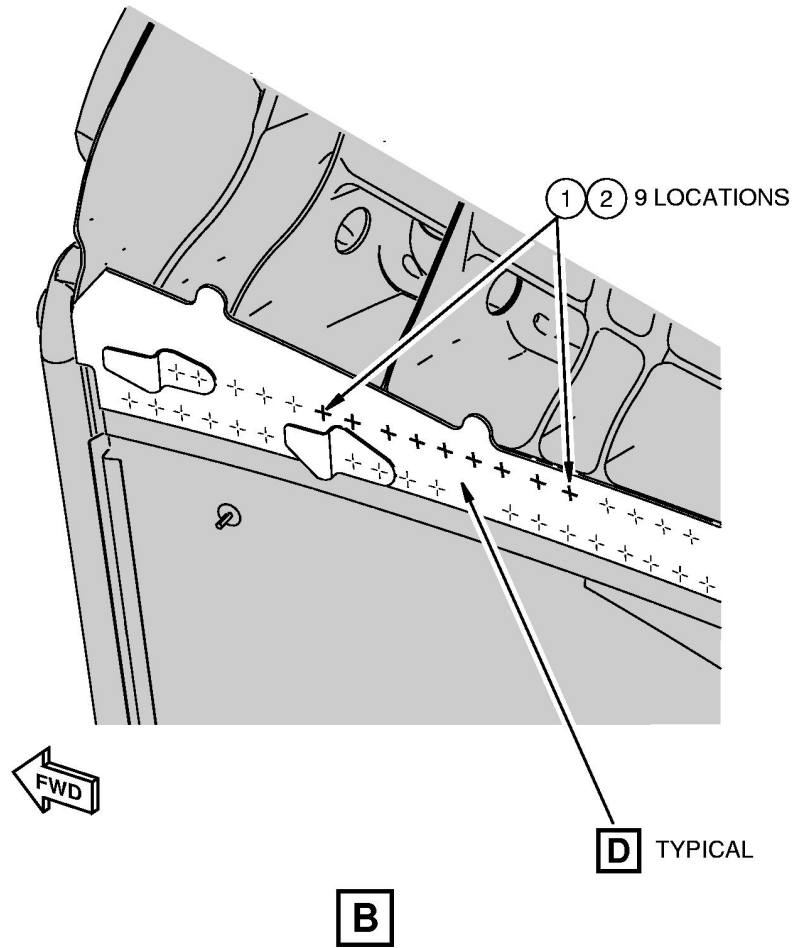
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FIGURE 2: RIGHT TR HALF SPLICE PLATE FASTENER HOLE DETAILED INSPECTION (SHEET 1 OF 4)

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**FIGURE 2: RIGHT TR HALF SPLICE PLATE FASTENER HOLE DETAILED INSPECTION  
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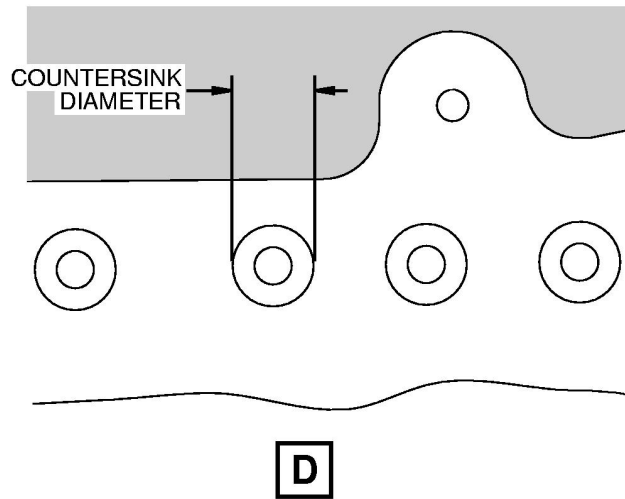
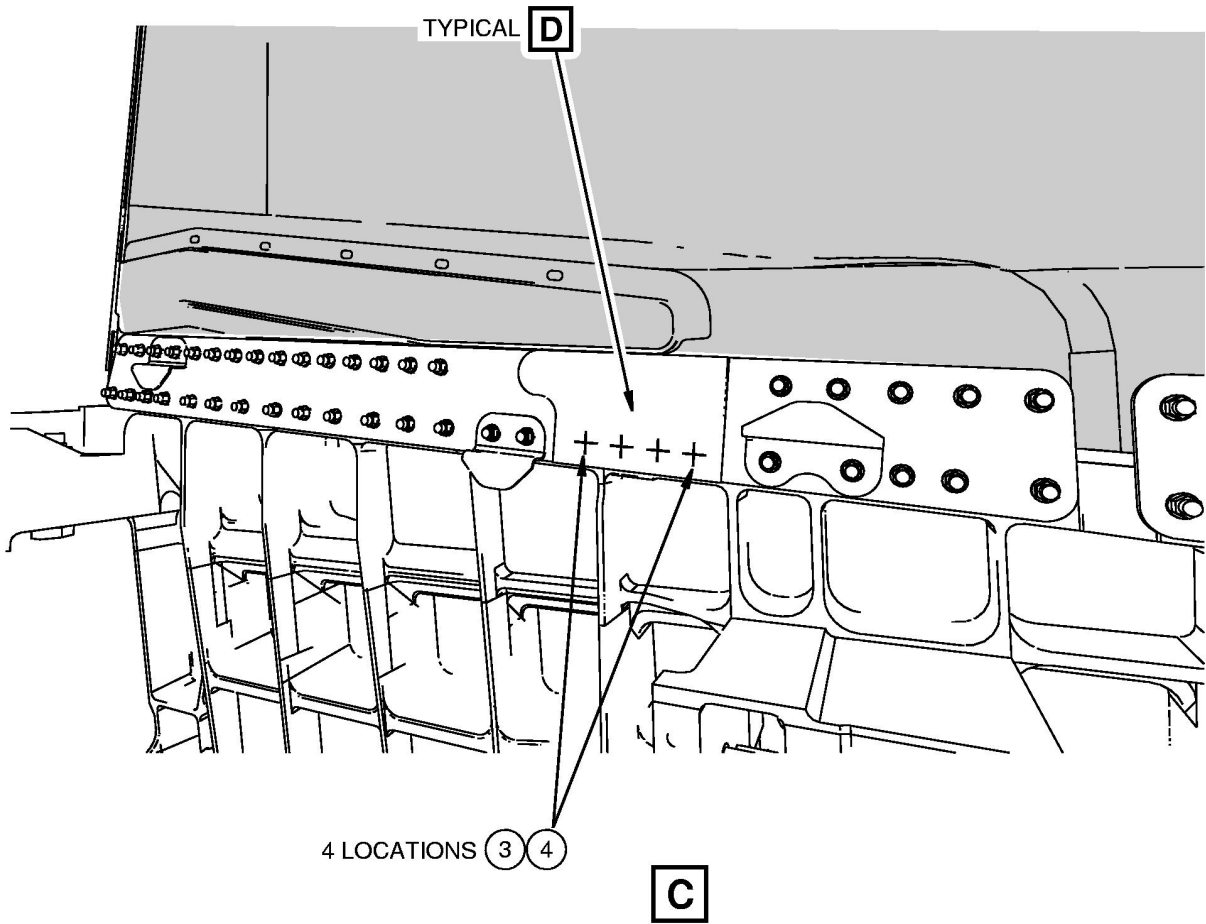


FIGURE 2: RIGHT TR HALF SPLICE PLATE FASTENER HOLE DETAILED INSPECTION (SHEET 3 OF 4)

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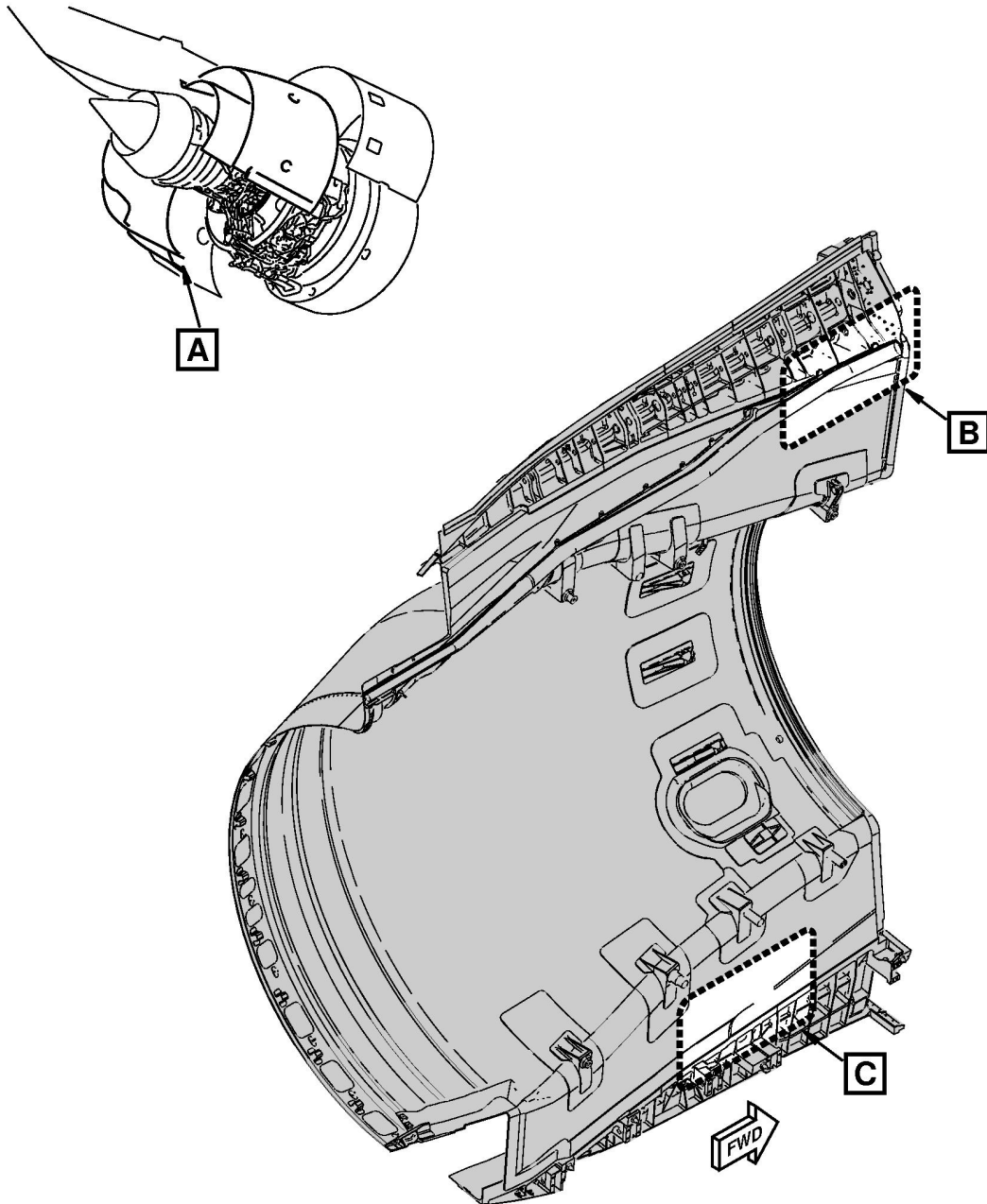
The step numbers shown below agree with the numbers shown in the circle symbols in the figure. The QTY numbers shown below are the number of parts necessary for each TR half.

| <b>Step</b> | <b>Task</b> | <b>Name</b> | <b>Identification</b> | <b>Qty</b> | <b>More Data</b>  |
|-------------|-------------|-------------|-----------------------|------------|---|
| 1           | Inspect     | HOLE        | -                     | 9          | Do a detailed inspection of the 9 near side countersunk holes for countersink diameter.   |
| 2           | Ream        | HOLE        | -                     | 9          | If any of the countersink diameters are larger than 0.45, ream out the fastener holes common to the splice plate and the hinge beam to 0.278 - 0.281 to accommodate oversize fasteners. |
| 3           | Inspect     | HOLE        | -                     | 4          | Do a detailed inspection of the 4 near side countersunk holes for countersink diameter.   |
| 4           | Ream        | HOLE        | -                     | 4          | If any of the countersink diameters are larger than 0.45, ream out the fastener holes common to the splice plate and the latch beam to 0.278 - 0.281 to accommodate oversize fasteners. |

**FIGURE 2: RIGHT TR HALF SPLICE PLATE FASTENER HOLE DETAILED INSPECTION  
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LEFT SIDE THRUST REVERSER

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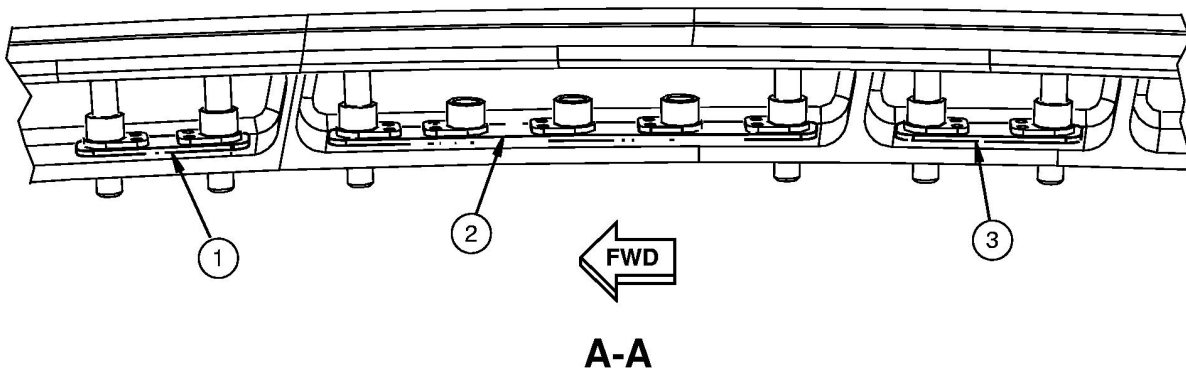
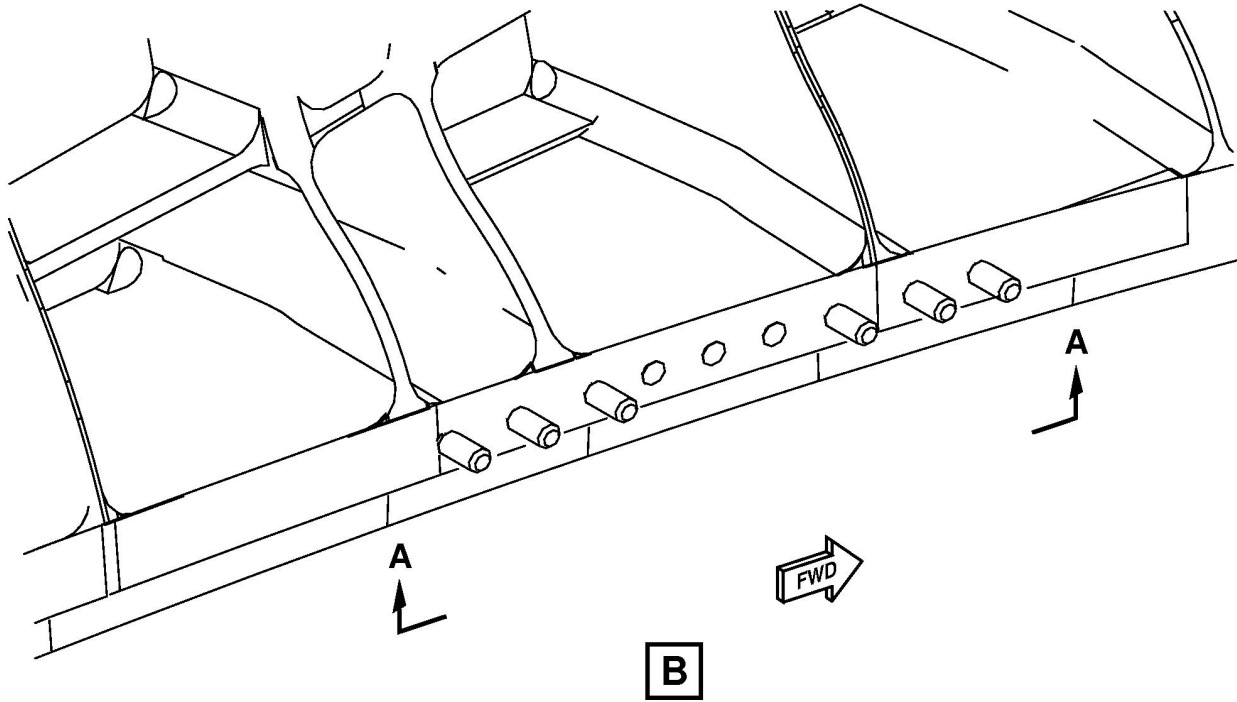
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FIGURE 3: LEFT SIDE HINGE BEAM AND LATCH BEAM NUTPLATE INSTALLATION  
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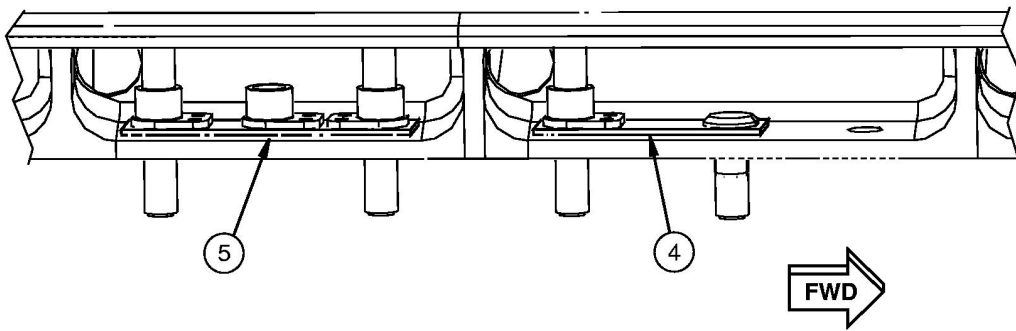
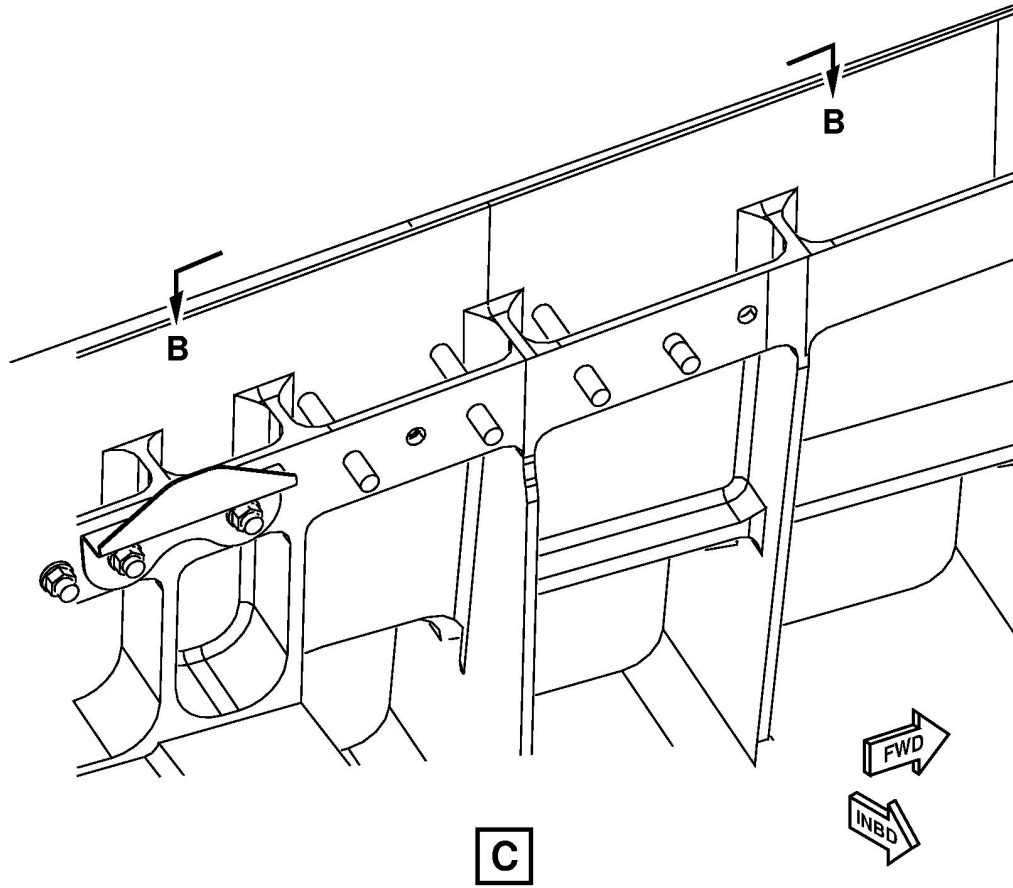
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**FIGURE 3: LEFT SIDE HINGE BEAM AND LATCH BEAM NUTPLATE INSTALLATION  
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**FIGURE 3: LEFT SIDE HINGE BEAM AND LATCH BEAM NUTPLATE INSTALLATION  
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The step numbers shown below agree with the numbers shown in the circle symbols in the figure. The QTY numbers shown below are the number of parts necessary for each TR half.

| <b>Step</b> | <b>Task</b>   | <b>Name</b>                          | <b>Identification</b> | <b>Qty</b> | <b>More Data</b>  |
|-------------|---------------|--------------------------------------|-----------------------|------------|---|
| 1           | Install (New) | HINGE BEAM FORWARD NUTPLATE RETAINER | -                     | 1          | Fabricate nutplate retainer in accordance with Appendix C   |
|             | Apply         | SEALANT                              | BMS 5-63              | -          | Apply a faying surface seal. Refer to SOPM 20-50-19 as an accepted procedure.   |
|             | Apply         | SCREW                                | BACS12GU4K24          | 2          | Temporary fasteners to hold the nutplate retainer in place. Note: the temporary fasteners should be bottomed all the way to hold the nut plate in place |
| 2           | Install (New) | HINGE BEAM CENTER NUTPLATE RETAINER  | -                     | 1          | Fabricate nutplate retainer in accordance with Appendix C   |
|             | Apply         | SEALANT                              | BMS 5-63              | -          | Apply a faying surface seal. Refer to SOPM 20-50-19 as an accepted procedure.   |
|             | Apply         | SCREW                                | BACS12GU4K24          | 2          | Temporary fasteners to hold the nutplate retainer in place. Note: the temporary fasteners should be bottomed all the way to hold the nut plate in place |

**FIGURE 3: LEFT SIDE HINGE BEAM AND LATCH BEAM NUTPLATE INSTALLATION  
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| <b>Step</b> | <b>Task</b>   | <b>Name</b>                          | <b>Identification</b> | <b>Qty</b> | <b>More Data</b>  |
|-------------|---------------|--------------------------------------|-----------------------|------------|---|
| 3           | Install (New) | HINGE BEAM AFT NUTPLATE RETAINER     | -                     | 1          | Fabricate nutplate retainer in accordance with Appendix C   |
|             | Apply         | SEALANT                              | BMS 5-63              | -          | Apply a faying surface seal. Refer to SOPM 20-50-19 as an accepted procedure.   |
|             | Apply         | SCREW                                | BACS12GU4K24          | 2          | Temporary fasteners to hold the nutplate retainer in place. Note: the temporary fasteners should be bottomed all the way to hold the nut plate in place |
| 4           | Install (New) | LATCH BEAM FORWARD NUTPLATE RETAINER | -                     | 1          | Fabricate nutplate retainer in accordance with Appendix C   |
|             | Apply         | SEALANT                              | BMS 5-63              | -          | Apply a faying surface seal. Refer to SOPM 20-50-19 as an accepted procedure.   |
|             | Apply         | SCREW                                | BACS12GU4K24          | 2          | Temporary fasteners to hold the nutplate retainer in place. Note: the temporary fasteners should be bottomed all the way to hold the nut plate in place |

**FIGURE 3: LEFT SIDE HINGE BEAM AND LATCH BEAM NUTPLATE INSTALLATION  
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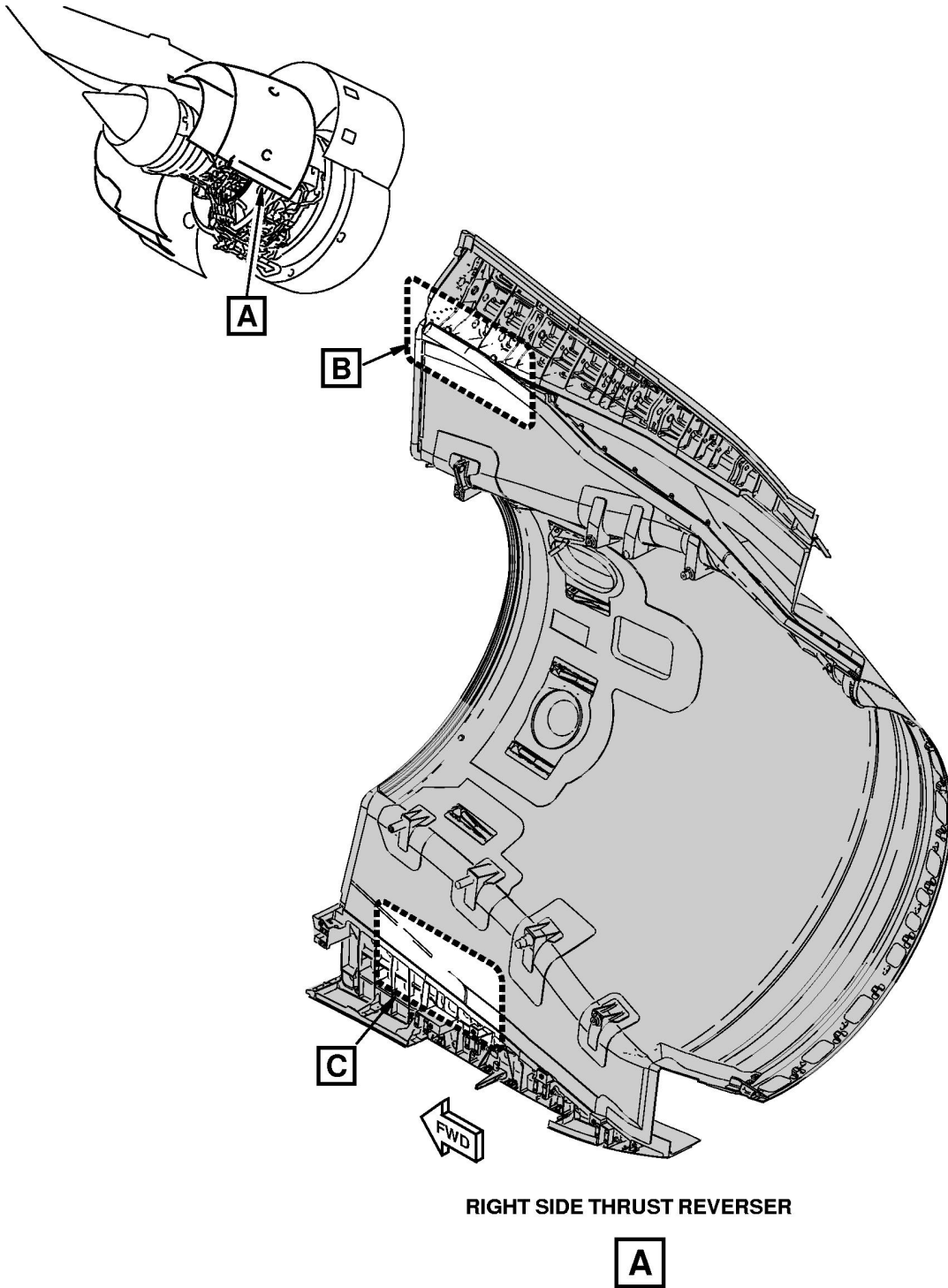
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| <b>Step</b> | <b>Task</b>   | <b>Name</b>                         | <b>Identification</b> | <b>Qty</b> | <b>More Data</b>   |
|-------------|---------------|-------------------------------------|-----------------------|------------|--|
| 5           | Install (New) | LATCH BEAM AFT<br>NUTPLATE RETAINER | -                     | 1          | Fabricate nutplate<br>retainer in accor-<br>dance with Appendix<br>C   |
|             | Apply         | SEALANT                             | BMS 5-63              | -          | Apply a faying sur-<br>face seal. Refer to<br>SOPM 20-50-19 as<br>an accepted proce-<br>dure.  |
|             | Apply         | SCREW                               | BACS12GU4K24          | 2          | Temporary fasteners<br>to hold the nutplate<br>retainer in place.<br>Note: the temporary<br>fasteners should be<br>bottomed all the way<br>to hold the nut plate<br>in place |

**FIGURE 3: LEFT SIDE HINGE BEAM AND LATCH BEAM NUTPLATE INSTALLATION  
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RIGHT SIDE THRUST REVERSER

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FIGURE 4: RIGHT SIDE HINGE BEAM AND LATCH BEAM NUTPLATE INSTALLATION  
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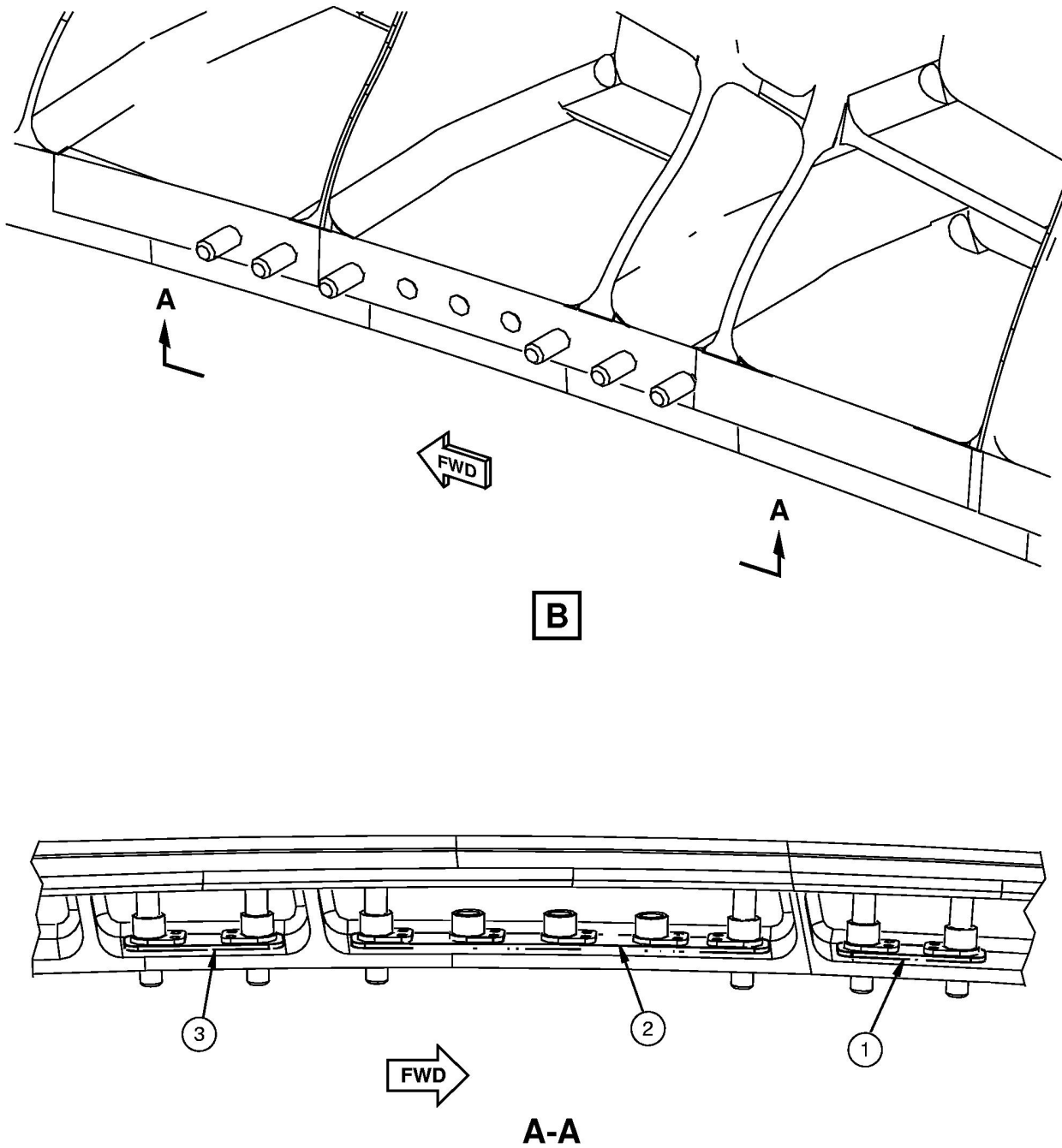


FIGURE 4: RIGHT SIDE HINGE BEAM AND LATCH BEAM NUTPLATE INSTALLATION  
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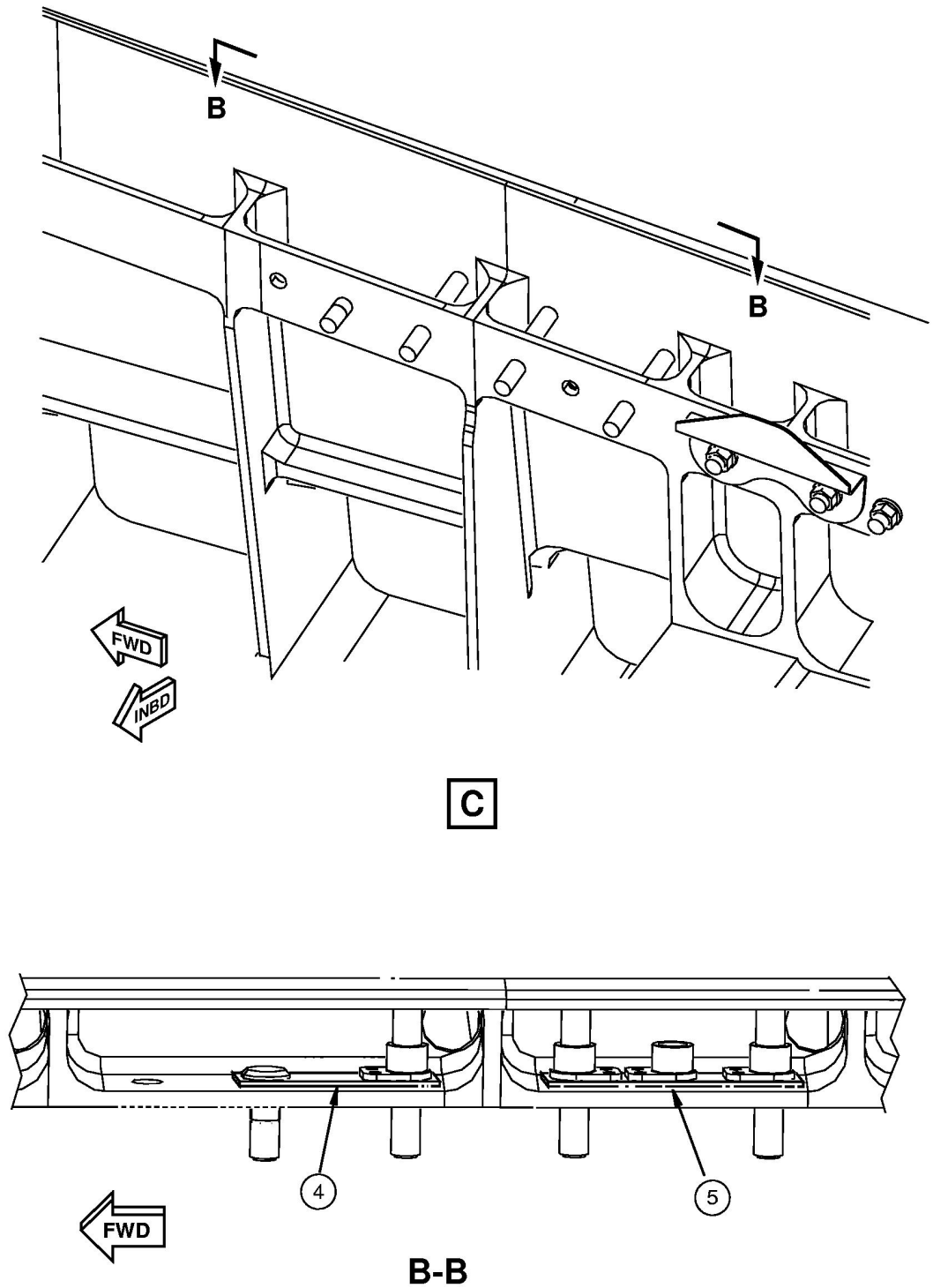
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**FIGURE 4: RIGHT SIDE HINGE BEAM AND LATCH BEAM NUTPLATE INSTALLATION  
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| <b>Step</b> | <b>Task</b>   | <b>Name</b>                          | <b>Identification</b> | <b>Qty</b> | <b>More Data</b>  |
|-------------|---------------|--------------------------------------|-----------------------|------------|---|
| 1           | Install (New) | HINGE BEAM FORWARD NUTPLATE RETAINER | -                     | 1          | Fabricate nutplate retainer in accordance with Appendix C   |
|             | Apply         | SEALANT                              | BMS 5-63              | -          | Apply a faying surface seal. Refer to SOPM 20-50-19 as an accepted procedure.   |
|             | Apply         | SCREW                                | BACS12GU4K24          | 2          | Temporary fasteners to hold the nutplate retainer in place. Note: the temporary fasteners should be bottomed all the way to hold the nut plate in place |
| 2           | Install (New) | HINGE BEAM CENTER NUTPLATE RETAINER  | -                     | 1          | Fabricate nutplate retainer in accordance with Appendix C   |
|             | Apply         | SEALANT                              | BMS 5-63              | -          | Apply a faying surface seal. Refer to SOPM 20-50-19 as an accepted procedure.   |
|             | Apply         | SCREW                                | BACS12GU4K24          | 2          | Temporary fasteners to hold the nutplate retainer in place. Note: the temporary fasteners should be bottomed all the way to hold the nut plate in place |

**FIGURE 4: RIGHT SIDE HINGE BEAM AND LATCH BEAM NUTPLATE INSTALLATION  
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| Step | Task          | Name                                 | Identification | Qty | More Data   |
|------|---------------|--------------------------------------|----------------|-----|---|
| 3    | Install (New) | HINGE BEAM AFT NUTPLATE RETAINER     | -              | 1   | Fabricate nutplate retainer in accordance with Appendix C   |
|      | Apply         | SEALANT                              | BMS 5-63       | -   | Apply a faying surface seal. Refer to SOPM 20-50-19 as an accepted procedure.   |
|      | Apply         | SCREW                                | BACS12GU4K24   | 2   | Temporary fasteners to hold the nutplate retainer in place. Note: the temporary fasteners should be bottomed all the way to hold the nut plate in place |
| 4    | Install (New) | LATCH BEAM FORWARD NUTPLATE RETAINER | -              | 1   | Fabricate nutplate retainer in accordance with Appendix C   |
|      | Apply         | SEALANT                              | BMS 5-63       | -   | Apply a faying surface seal. Refer to SOPM 20-50-19 as an accepted procedure.   |
|      | Apply         | SCREW                                | BACS12GU4K24   | 2   | Temporary fasteners to hold the nutplate retainer in place. Note: the temporary fasteners should be bottomed all the way to hold the nut plate in place |

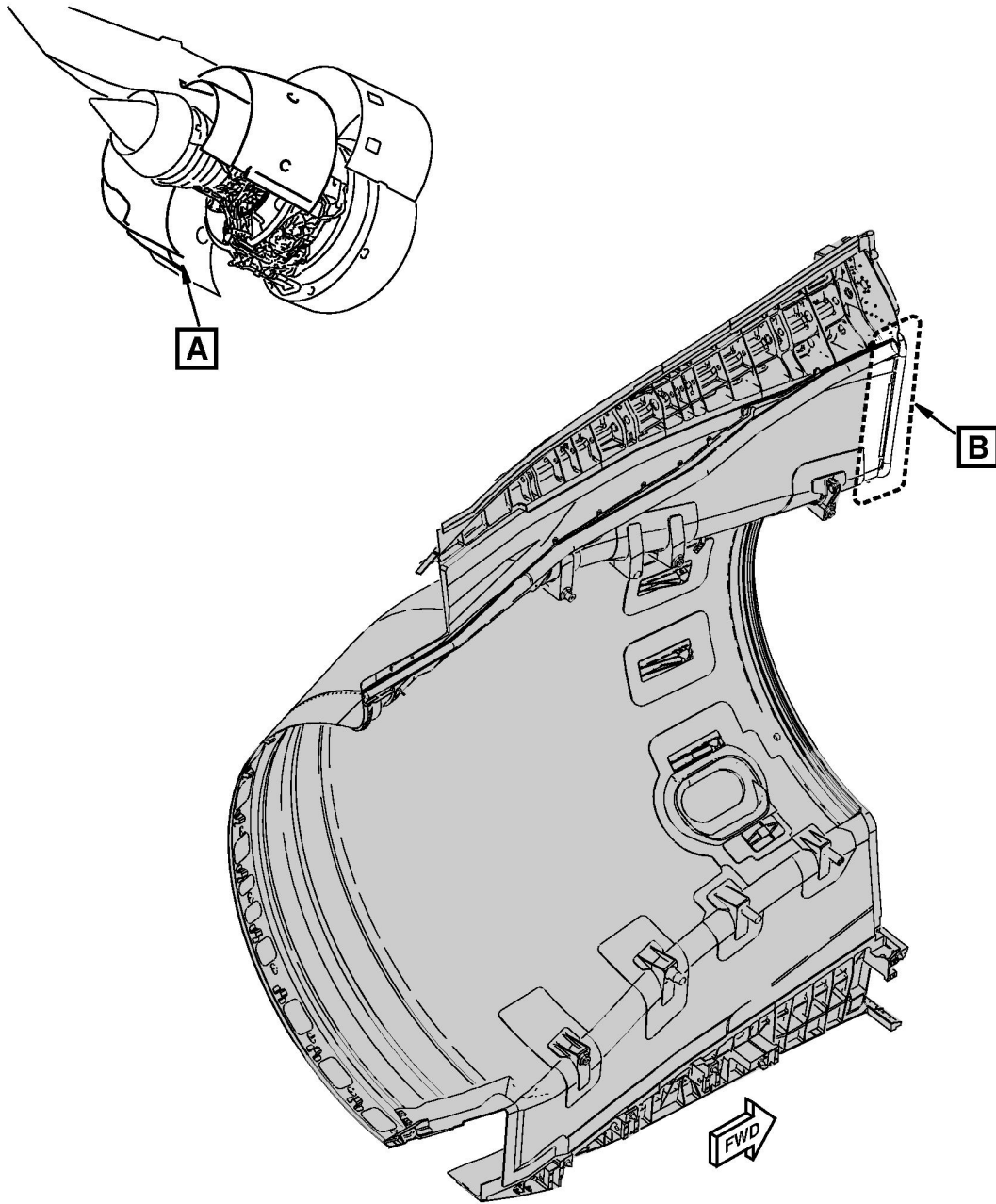
**FIGURE 4: RIGHT SIDE HINGE BEAM AND LATCH BEAM NUTPLATE INSTALLATION  
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| Step | Task          | Name                                | Identification | Qty | More Data  |
|------|---------------|-------------------------------------|----------------|-----|--|
| 5    | Install (New) | LATCH BEAM AFT<br>NUTPLATE RETAINER | -              | 1   | Fabricate nutplate<br>retainer in accor-<br>dance with Appendix<br>C   |
|      | Apply         | SEALANT                             | BMS 5-63       | -   | Apply a faying sur-<br>face seal. Refer to<br>SOPM 20-50-19 as<br>an accepted proce-<br>dure.  |
|      | Apply         | SCREW                               | BACS12GU4K24   | 2   | Temporary fasteners<br>to hold the nutplate<br>retainer in place.<br>Note: the temporary<br>fasteners should be<br>bottomed all the way<br>to hold the nut plate<br>in place |

**FIGURE 4: RIGHT SIDE HINGE BEAM AND LATCH BEAM NUTPLATE INSTALLATION  
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LEFT SIDE THRUST REVERSER

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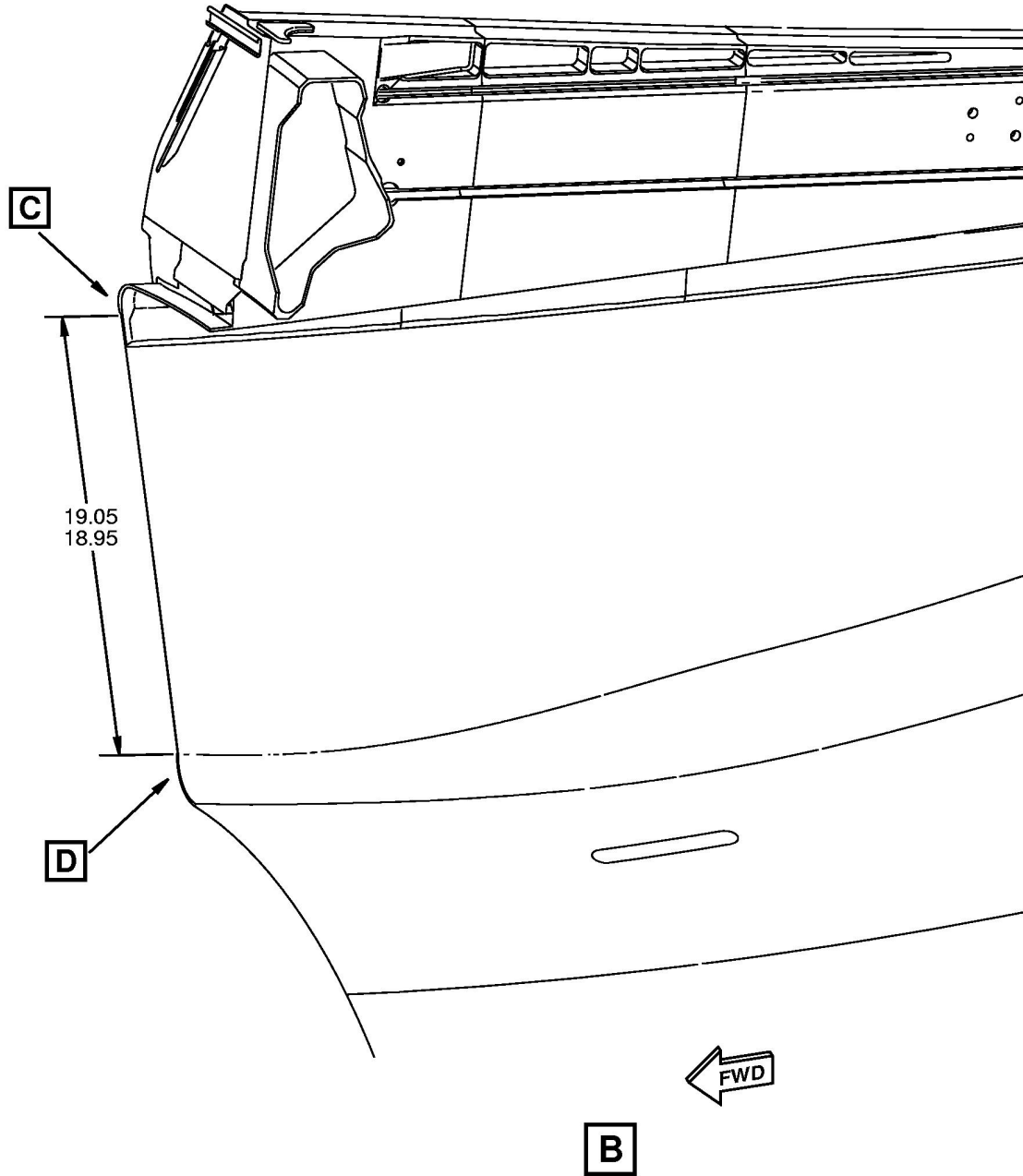
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FIGURE 5: LEFT TR HALF INNER WALL FORWARD EDGE INSPECTION AND TRIMMING  
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**FIGURE 5: LEFT TR HALF INNER WALL FORWARD EDGE INSPECTION AND TRIMMING  
(SHEET 2 OF 4)**

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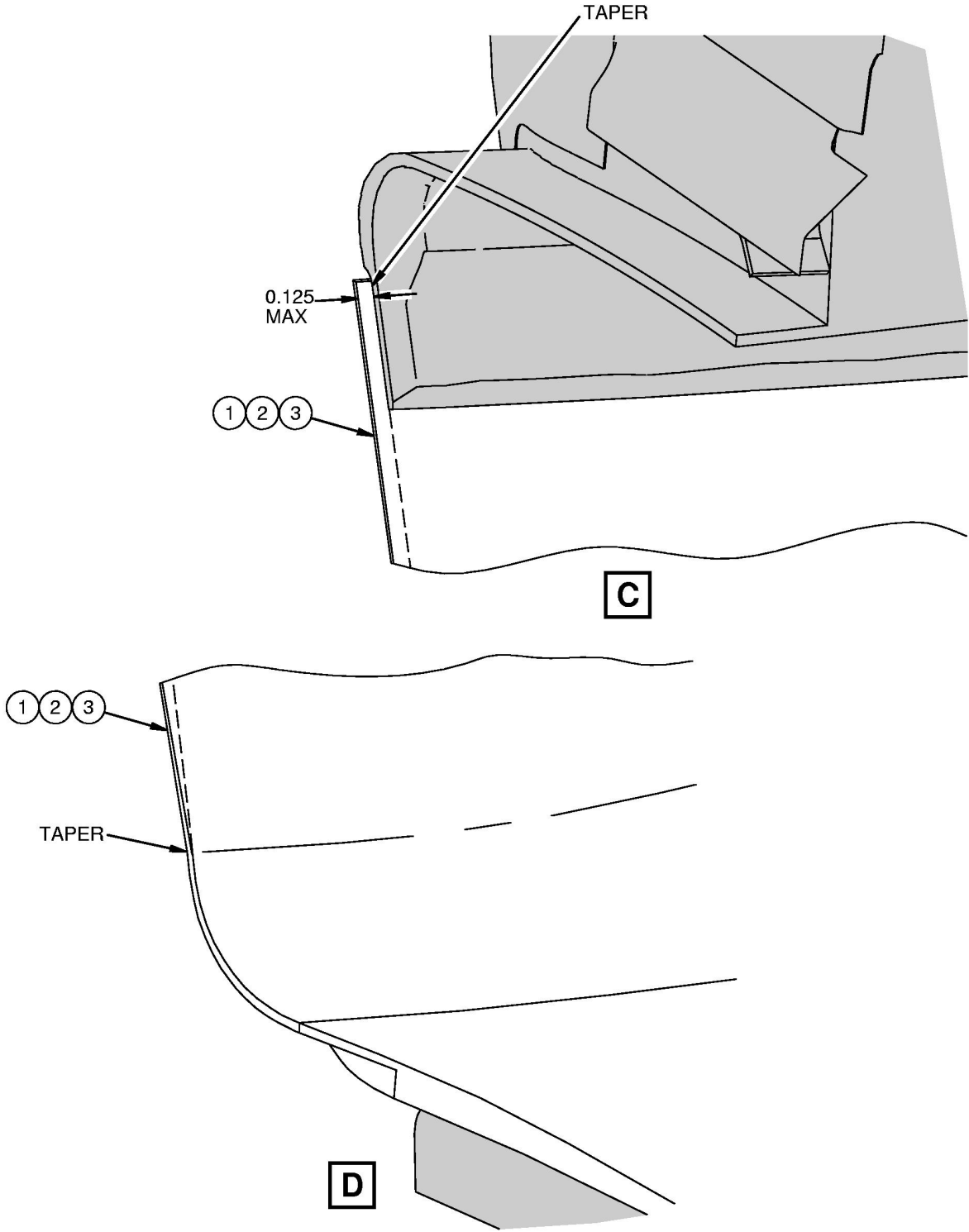


FIGURE 5: LEFT TR HALF INNER WALL FORWARD EDGE INSPECTION AND TRIMMING (SHEET 3 OF 4)

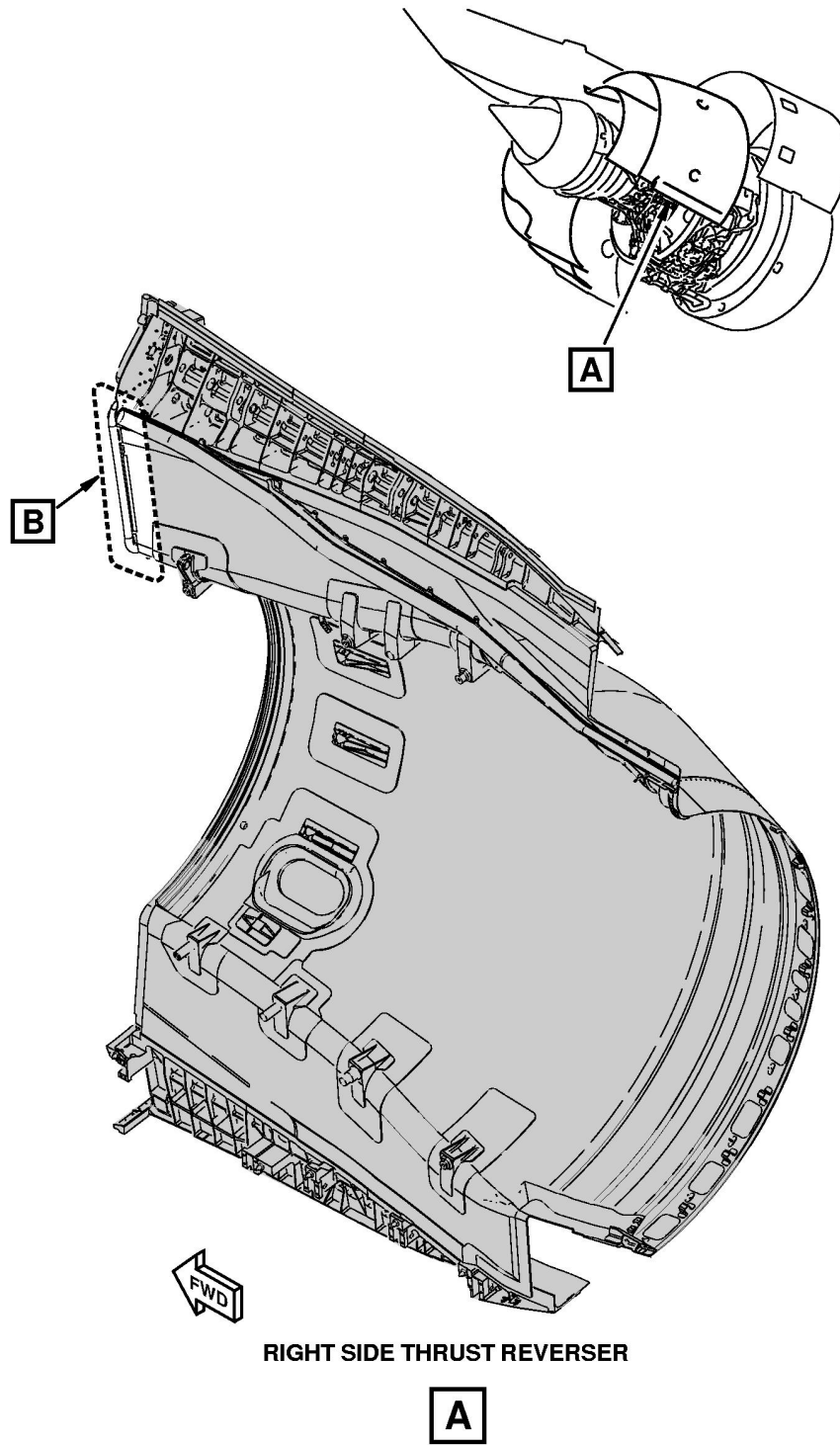
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| Step  | Task    | Name                    | Identification | Qty | More Data  |
|---|---------|-------------------------|----------------|-----|--|
| 1   | Inspect | LEFT TR HALF INNER WALL | -              | -   | Do a detailed inspection of the forward edge of the left TR half inner wall to determine if it extends beyond the edge of the hinge beam. (a) (b) (c)  |
| 2   | Cut     | LEFT TR HALF INNER WALL | -              | -   | Trim the left TR half inner wall as shown in Views C and D. Trim the inner wall panel flush with the hinge beam (shown in View C) and tapering to zero at the start of the bifurcation radius (shown in View D). Refer to 777-200 SRM 51-20-08 as an accepted procedure. |
| 3   | Apply   | SEALANT                 | -              | -   | Seal the trimmed edge of the left TR half inner wall with BMS 5-92, Type 1. Refer to SOPM 20-50-19, Edge Sealing Method 1 as an accepted procedure.  |
| (a) If the inner wall panel does not extend beyond the edge of the hinge beam, no further action is required for this figure.                           |         |                         |                |     |  |
| (b) If the inner wall panel extends beyond the edge of the hinge beam up to 0.125, continue to Step 2 to trim the leading edge of the inner wall panel. |         |                         |                |     |  |
| (c) If the inner wall panel extends beyond the edge of the hinge beam more than 0.125, contact Boeing for repair and do that repair.                    |         |                         |                |     |  |

**FIGURE 5: LEFT TR HALF INNER WALL FORWARD EDGE INSPECTION AND TRIMMING  
(SHEET 4 OF 4)**

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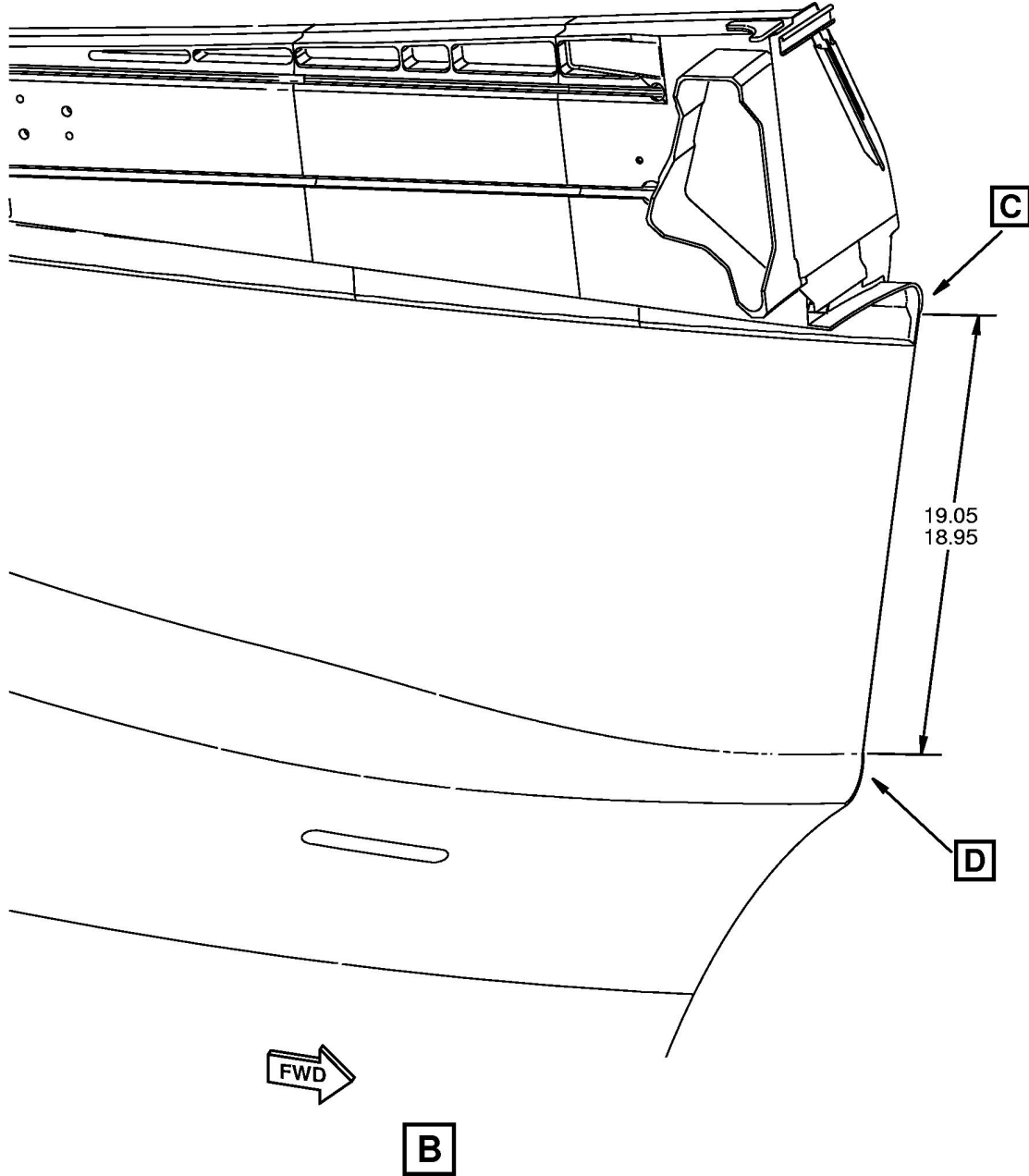
**FIGURE 6: RIGHT TR HALF INNER WALL FORWARD EDGE INSPECTION AND TRIMMING  
(SHEET 1 OF 4)**

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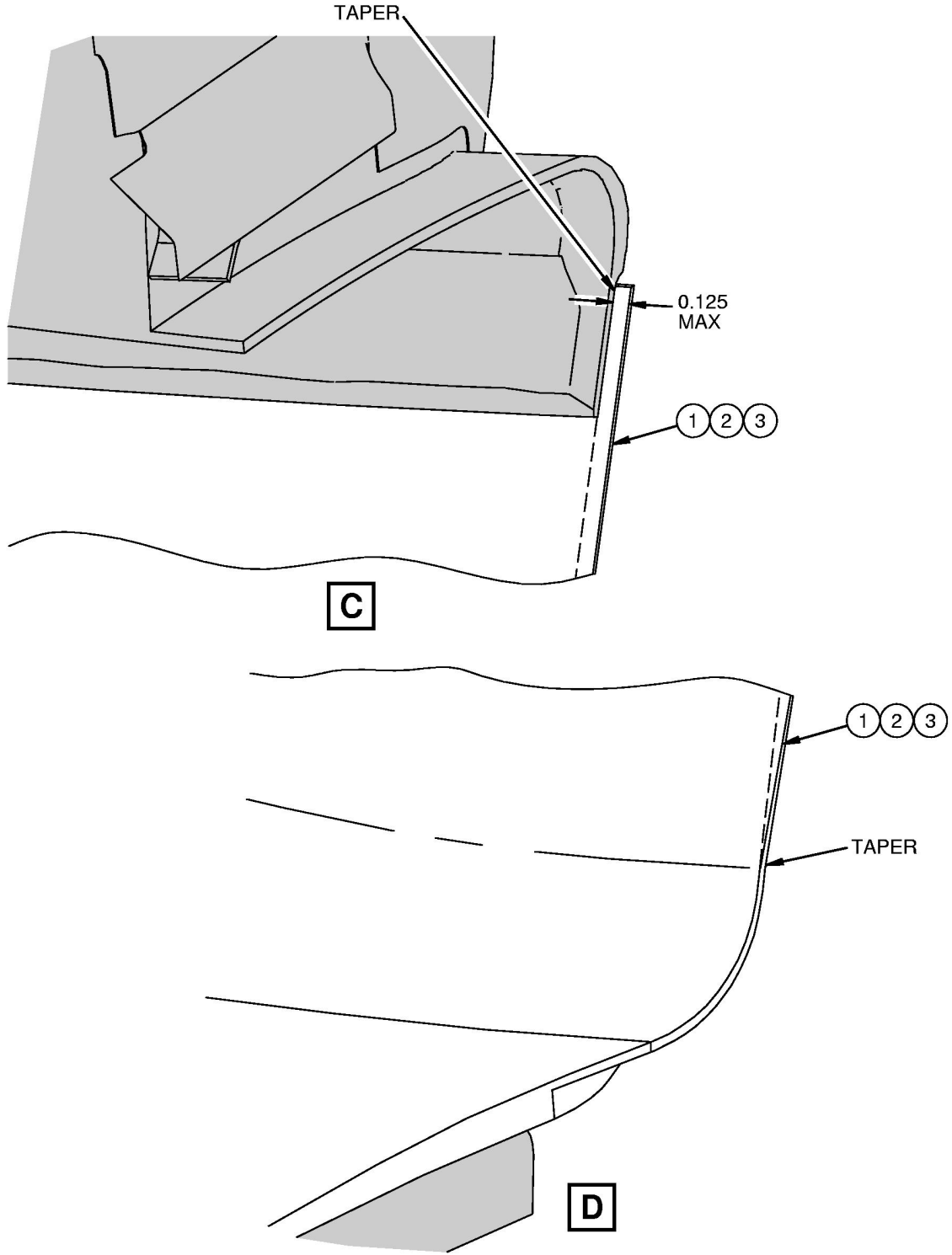
2327863

**FIGURE 6: RIGHT TR HALF INNER WALL FORWARD EDGE INSPECTION AND TRIMMING  
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**FIGURE 6: RIGHT TR HALF INNER WALL FORWARD EDGE INSPECTION AND TRIMMING  
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| Step  | Task    | Name                     | Identification | Qty | More Data   |
|---|---------|--------------------------|----------------|-----|---|
| 1   | Inspect | RIGHT TR HALF INNER WALL | -              | -   | Do a detailed inspection of the forward edge of the right TR half inner wall to determine if it extends beyond the edge of the hinge beam. (a) (b) (c)  |
| 2   | Cut     | RIGHT TR HALF INNER WALL | -              | -   | Trim the right TR half inner wall as shown in Views C and D. Trim the inner wall panel flush with the hinge beam (shown in View C) and tapering to zero at the start of the bifurcation radius (shown in View D). Refer to 777-200 SRM 51-20-08 as an accepted procedure. |
| 3   | Apply   | SEALANT                  | -              | -   | Seal the trimmed edge of the right TR half inner wall with BMS 5-92, Type 1. Refer to SOPM 20-50-19, Edge Sealing Method 1 as an accepted procedure.  |
| (a) If the inner wall panel does not extend beyond the edge of the hinge beam, no further action is required for this figure.                           |         |                          |                |     |   |
| (b) If the inner wall panel extends beyond the edge of the hinge beam up to 0.125, continue to Step 2 to trim the leading edge of the inner wall panel. |         |                          |                |     |   |
| (c) If the inner wall panel extends beyond the edge of the hinge beam more than 0.125, contact Boeing for repair and do that repair.                    |         |                          |                |     |   |

**FIGURE 6: RIGHT TR HALF INNER WALL FORWARD EDGE INSPECTION AND TRIMMING  
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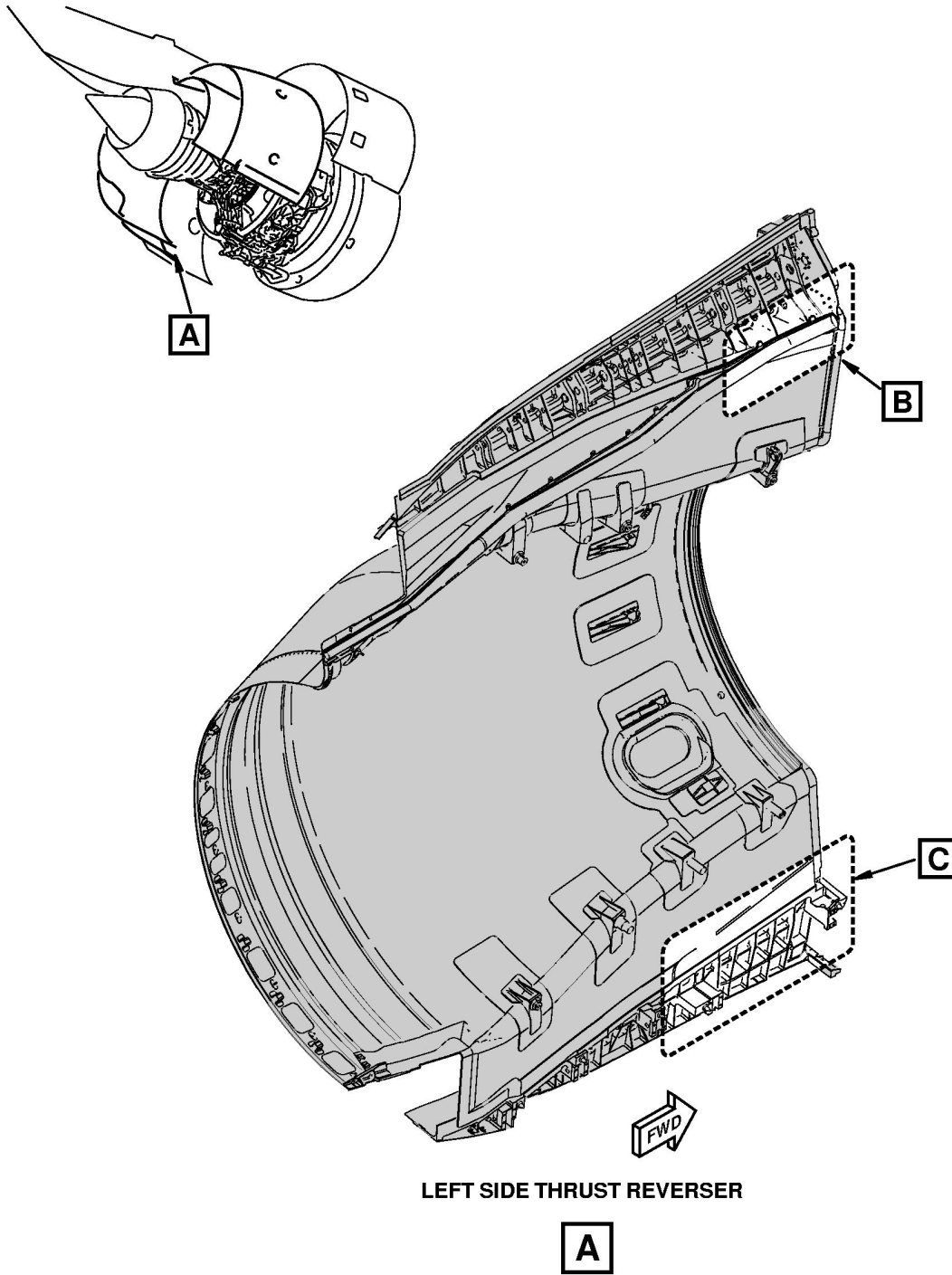


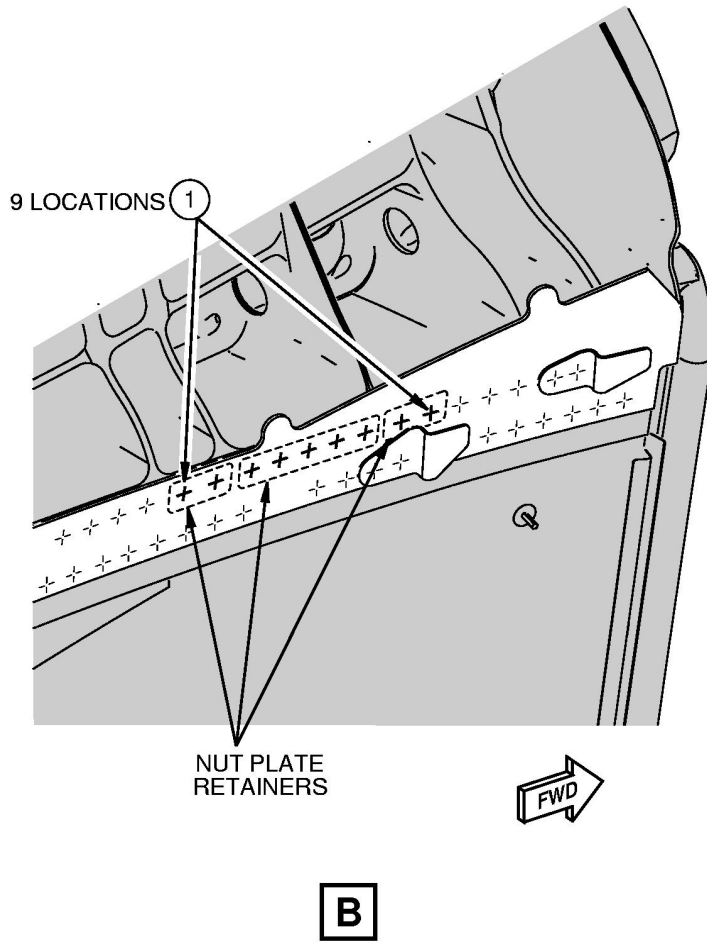
FIGURE 7: LEFT TR HALF SPLICE PLATE FASTENER INSTALLATION (SHEET 1 OF 4)

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**FIGURE 7: LEFT TR HALF SPLICE PLATE FASTENER INSTALLATION  
(SHEET 2 OF 4)**

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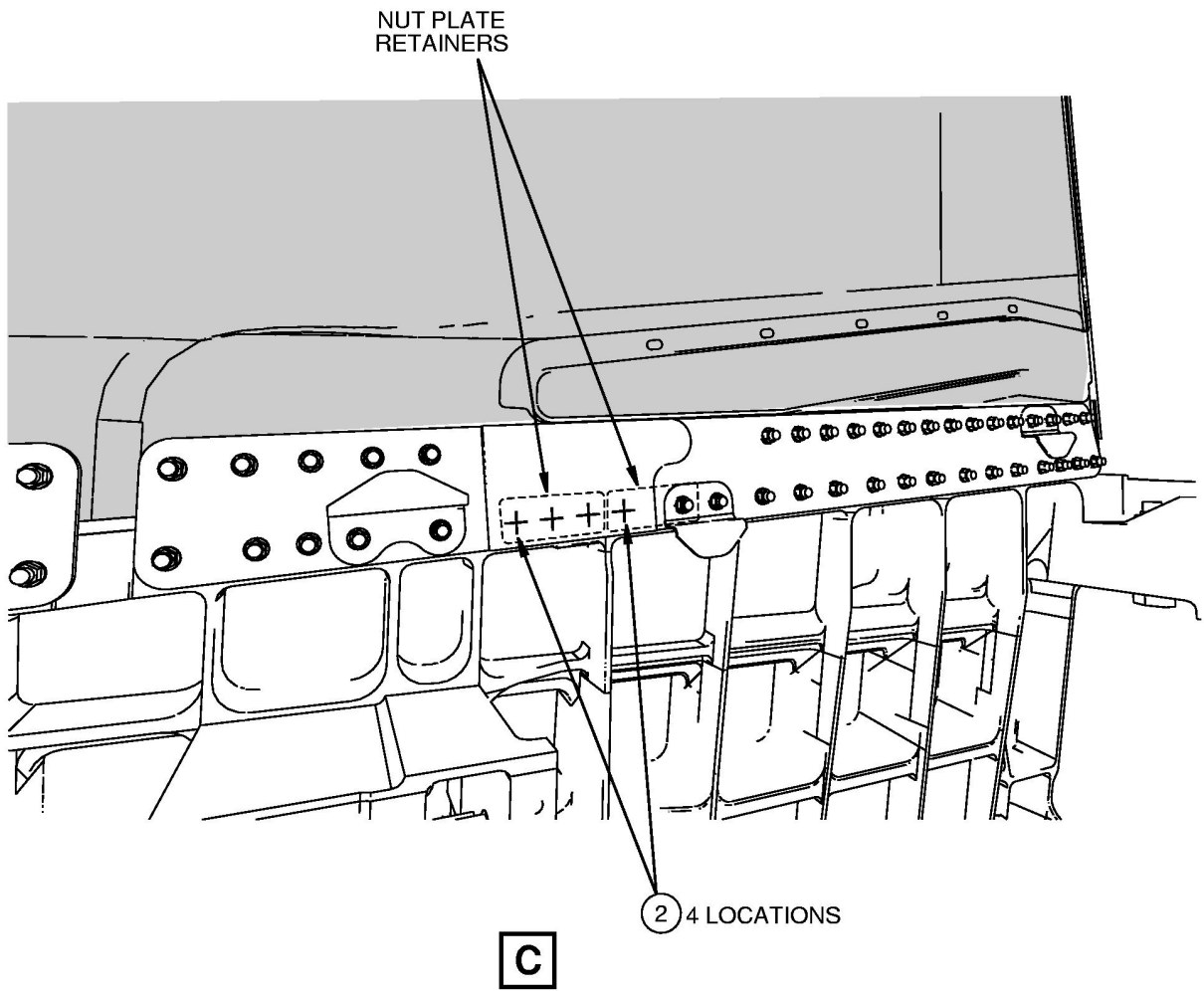


FIGURE 7: LEFT TR HALF SPLICE PLATE FASTENER INSTALLATION  
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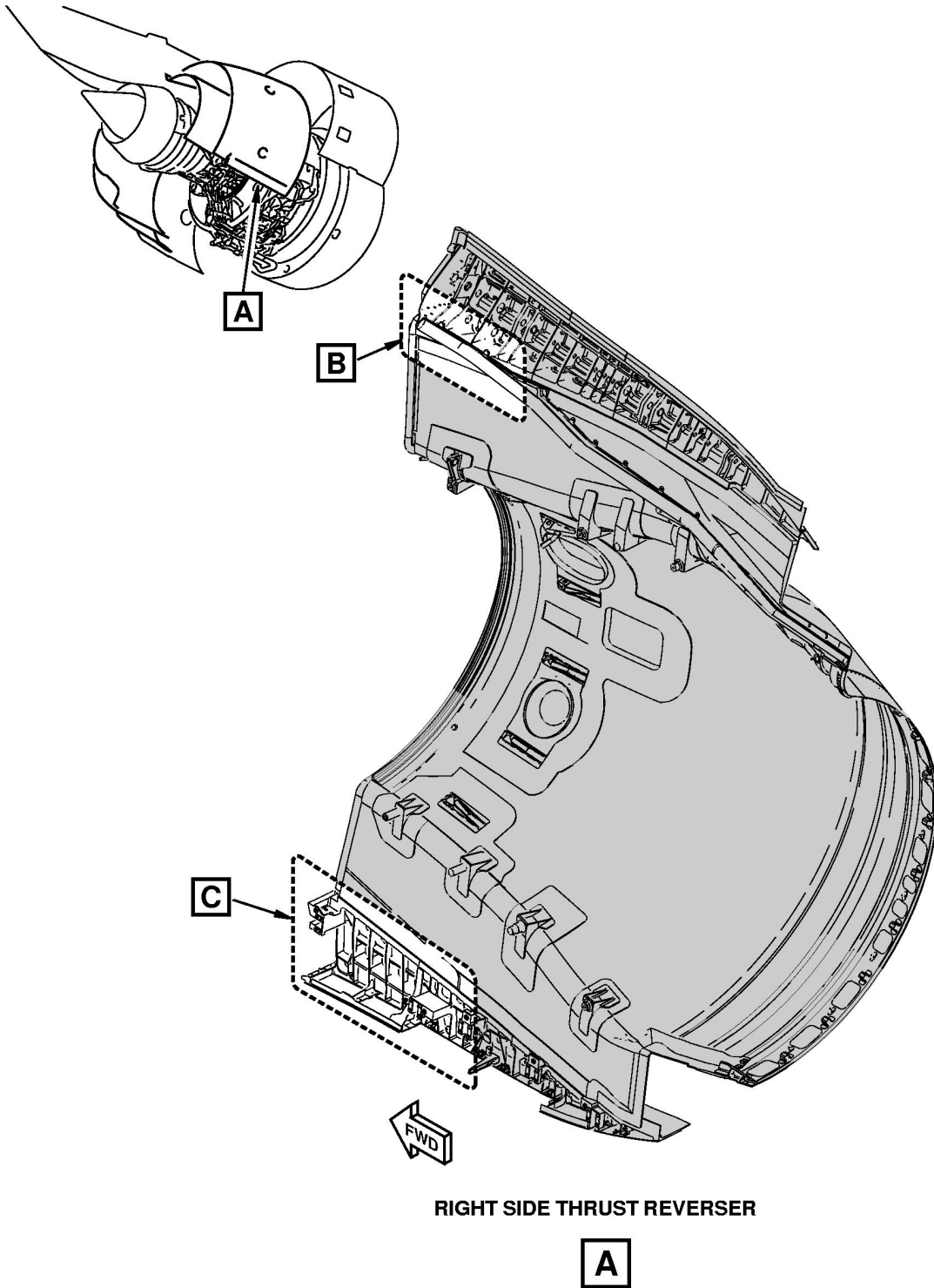
2327940

The step numbers shown below agree with the numbers shown in the circle symbols in the figure. The QTY numbers shown below are the number of parts necessary for each TR half.

| <b>Step</b>  | <b>Task</b>   | <b>Name</b> | <b>Identification</b> | <b>Qty</b> | <b>More Data</b>   |
|--|---------------|-------------|-----------------------|------------|--|
| 1  | Remove        | FASTENER    | -                     | 9          | Remove the temporary fasteners one at a time as the new fasteners are installed. At least one temporary fastener must remain in place until the first new fastener is installed. |
|  | Install (New) | FASTENER    | -                     | 9          | (a) (b)  |
| 2  | Remove        | FASTENER    | -                     | 4          | Remove the temporary fasteners one at a time as the new fasteners are installed. At least one temporary fastener must remain in place until the first new fastener is installed. |
|  | Install (New) | FASTENER    | -                     | 4          | (a) (b)  |
| (a) If all the countersink diameters are less than or equal to 0.45, install fastener type BACB30VF4K(). |               |             |                       |            |  |
| (b) If any of the countersink diameters are larger than 0.45, install fastener type BACB30XD4K()Y.       |               |             |                       |            |  |

**FIGURE 7: LEFT TR HALF SPLICE PLATE FASTENER INSTALLATION  
(SHEET 4 OF 4)**





RIGHT SIDE THRUST REVERSER

A

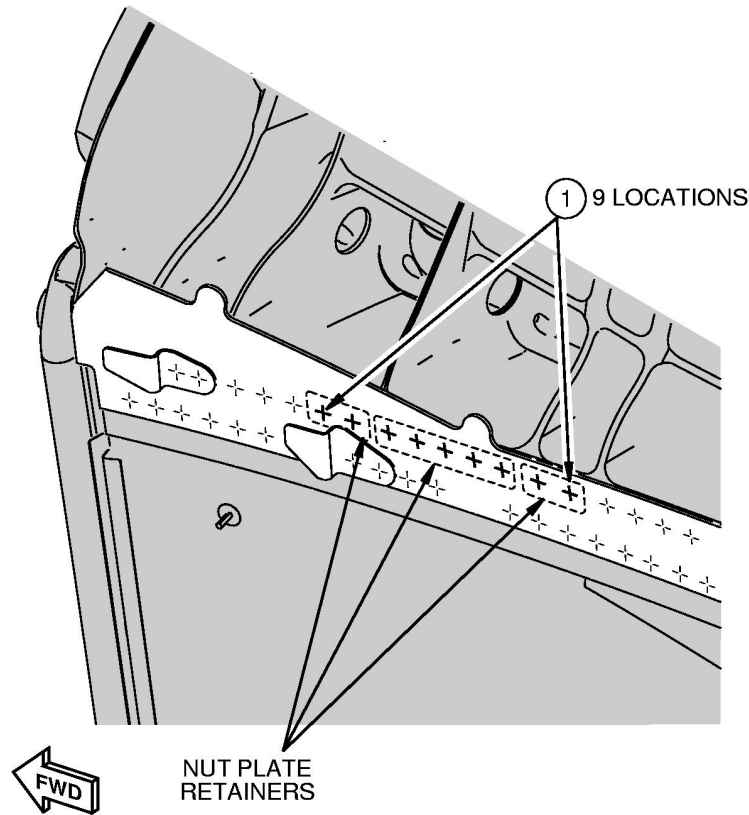
2256852

FIGURE 8: RIGHT TR HALF SPLICE PLATE FASTENER INSTALLATION (SHEET 1 OF 4)

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**B**

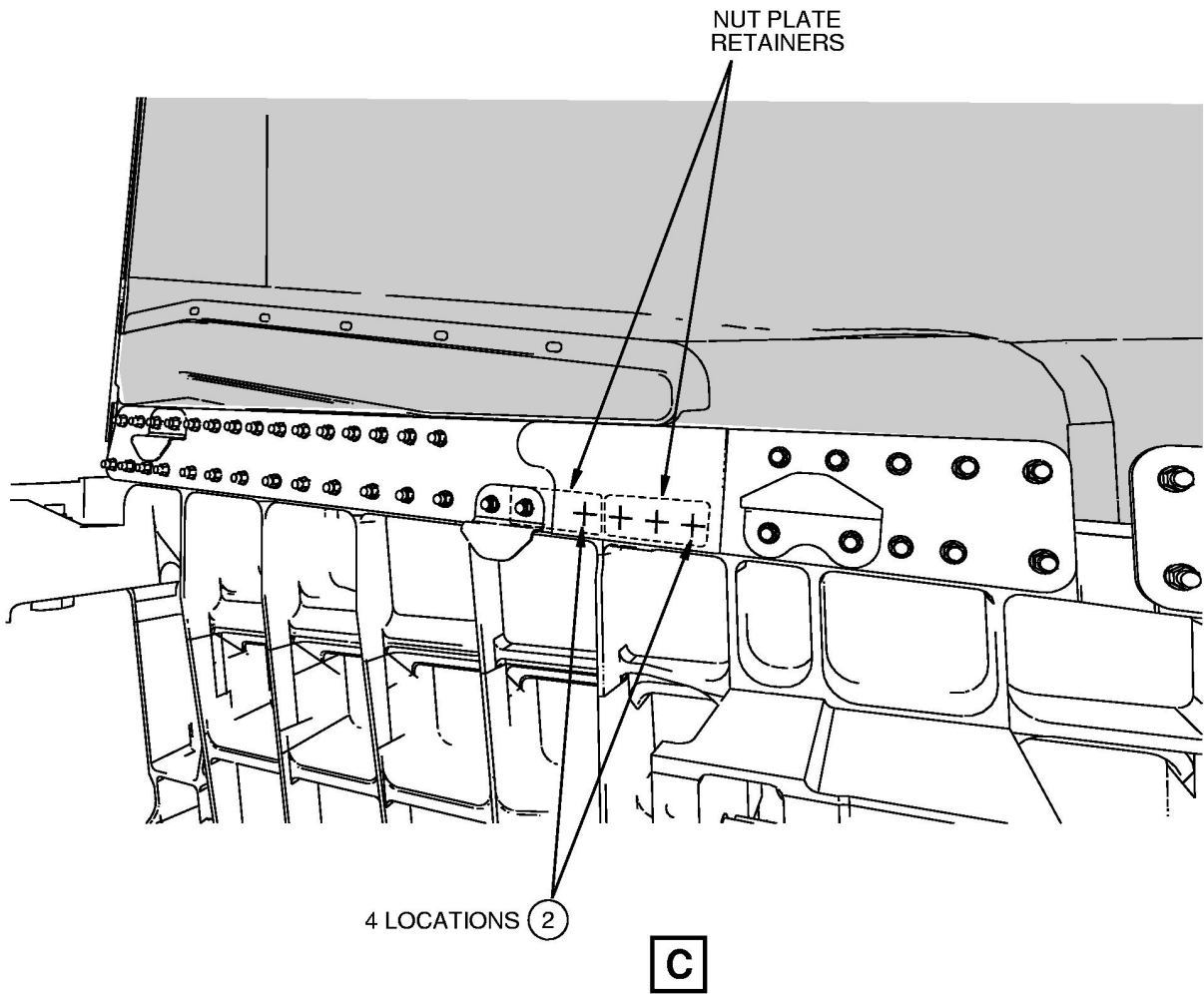
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**FIGURE 8: RIGHT TR HALF SPLICE PLATE FASTENER INSTALLATION  
(SHEET 2 OF 4)**

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**FIGURE 8: RIGHT TR HALF SPLICE PLATE FASTENER INSTALLATION  
(SHEET 3 OF 4)**

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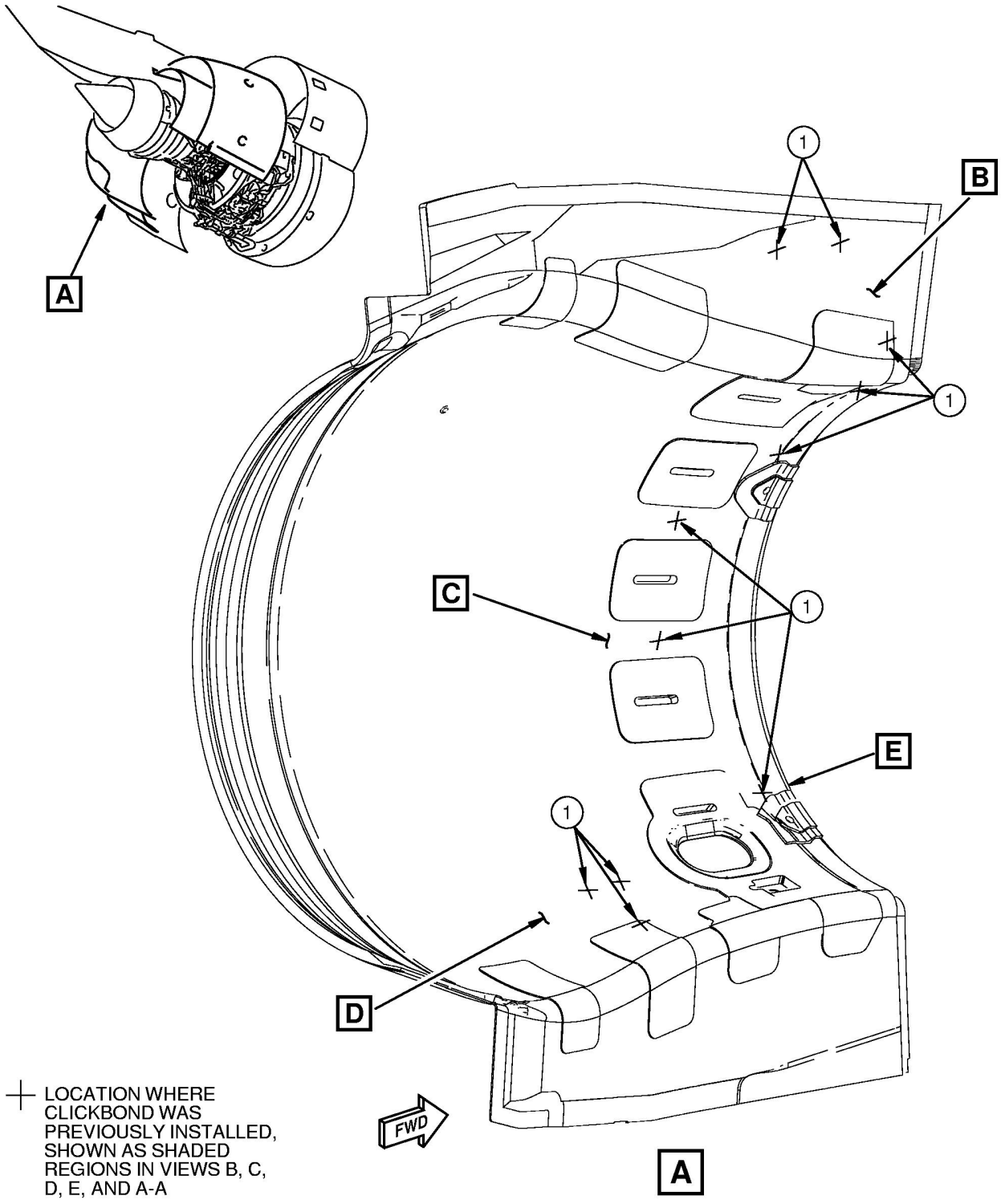
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The step numbers shown below agree with the numbers shown in the circle symbols in the figure. The QTY numbers shown below are the number of parts necessary for each TR half.

| <b>Step</b>  | <b>Task</b>   | <b>Name</b> | <b>Identification</b> | <b>Qty</b> | <b>More Data</b>   |
|--|---------------|-------------|-----------------------|------------|--|
| 1  | Remove        | FASTENER    | -                     | 9          | Remove the temporary fasteners one at a time as the new fasteners are installed. At least one temporary fastener must remain in place until the first new fastener is installed. |
|  | Install (New) | FASTENER    | -                     | 9          | (a) (b)  |
| 2  | Remove        | FASTENER    | -                     | 4          | Remove the temporary fasteners one at a time as the new fasteners are installed. At least one temporary fastener must remain in place until the first new fastener is installed. |
|  | Install (New) | FASTENER    | -                     | 4          | (a) (b)  |
| (a) If all the countersink diameters are less than or equal to 0.45, install fastener type BACB30VF4K(). |               |             |                       |            |  |
| (b) If any of the countersink diameters are larger than 0.45, install fastener type BACB30XD4K()Y.       |               |             |                       |            |  |

**FIGURE 8: RIGHT TR HALF SPLICE PLATE FASTENER INSTALLATION  
(SHEET 4 OF 4)**



**FIGURE 9: LEFT SIDE INNER WALL CHANGED CLICK BOND LOCATIONS (SHEET 1 OF 7)**

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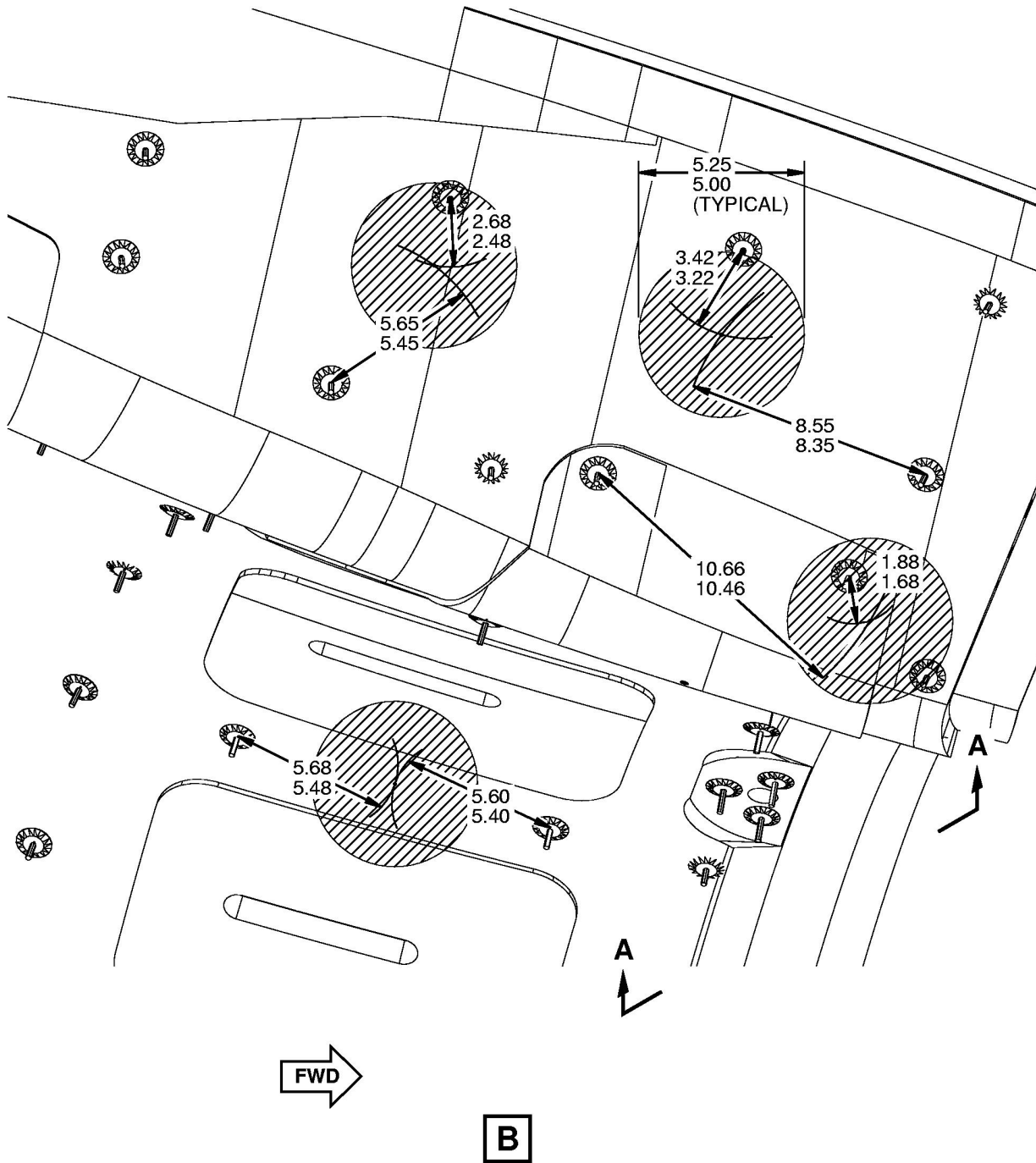


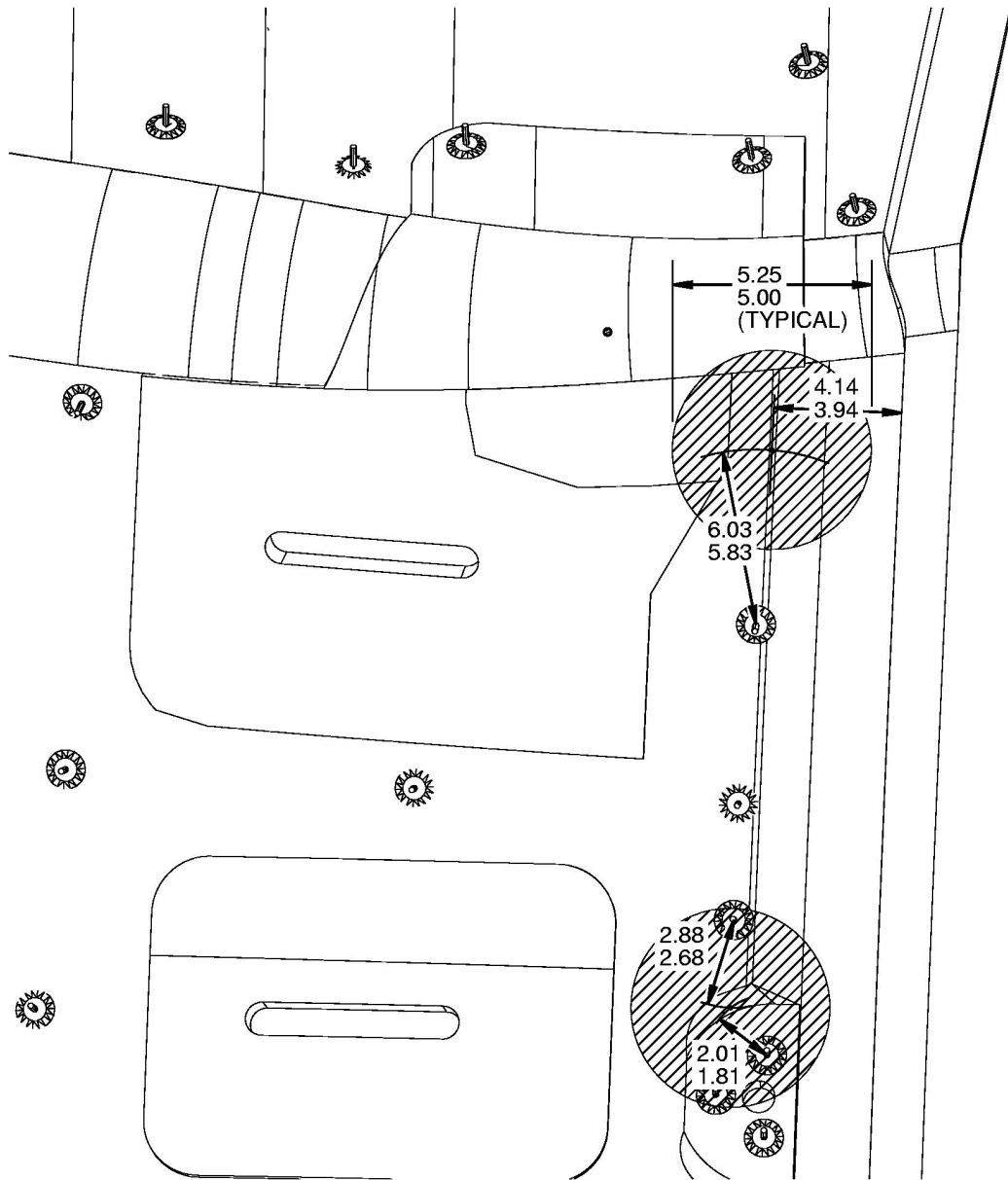
FIGURE 9: LEFT SIDE INNER WALL CHANGED CLICK BOND LOCATIONS (SHEET 2 OF 7)

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FIGURE 9: LEFT SIDE INNER WALL CHANGED CLICK BOND LOCATIONS (SHEET 3 OF 7)

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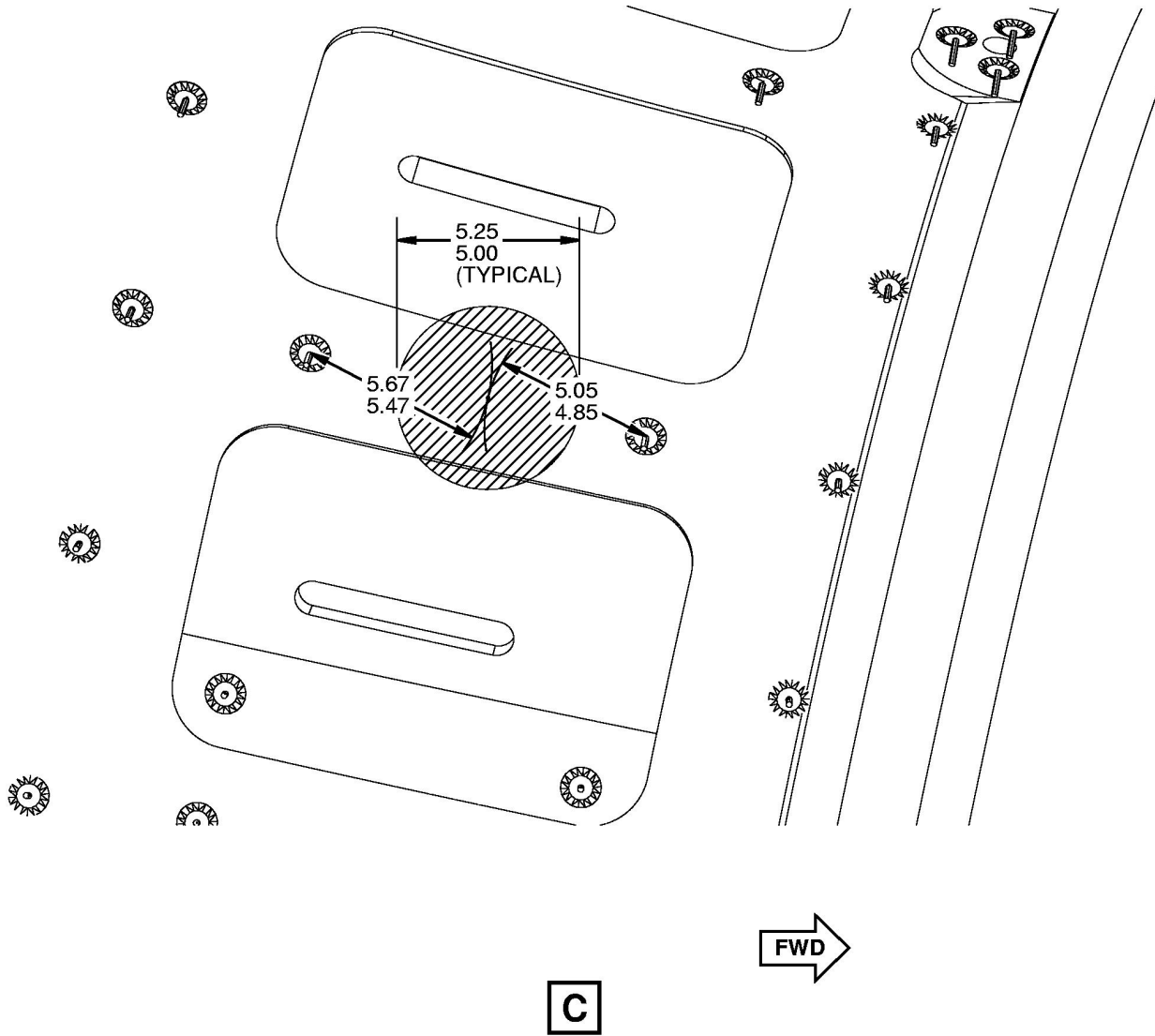


FIGURE 9: LEFT SIDE INNER WALL CHANGED CLICK BOND LOCATIONS (SHEET 4 OF 7)

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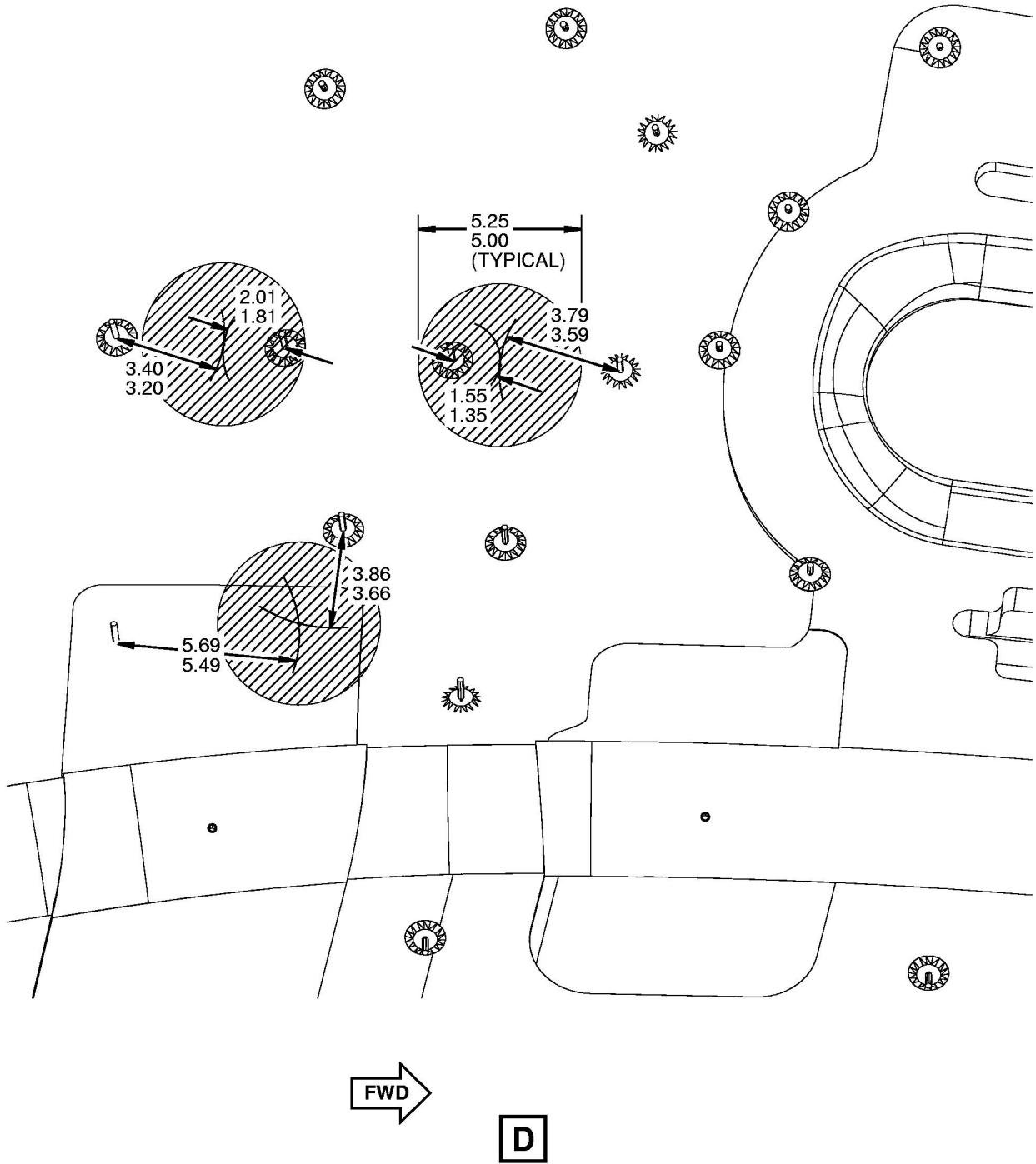
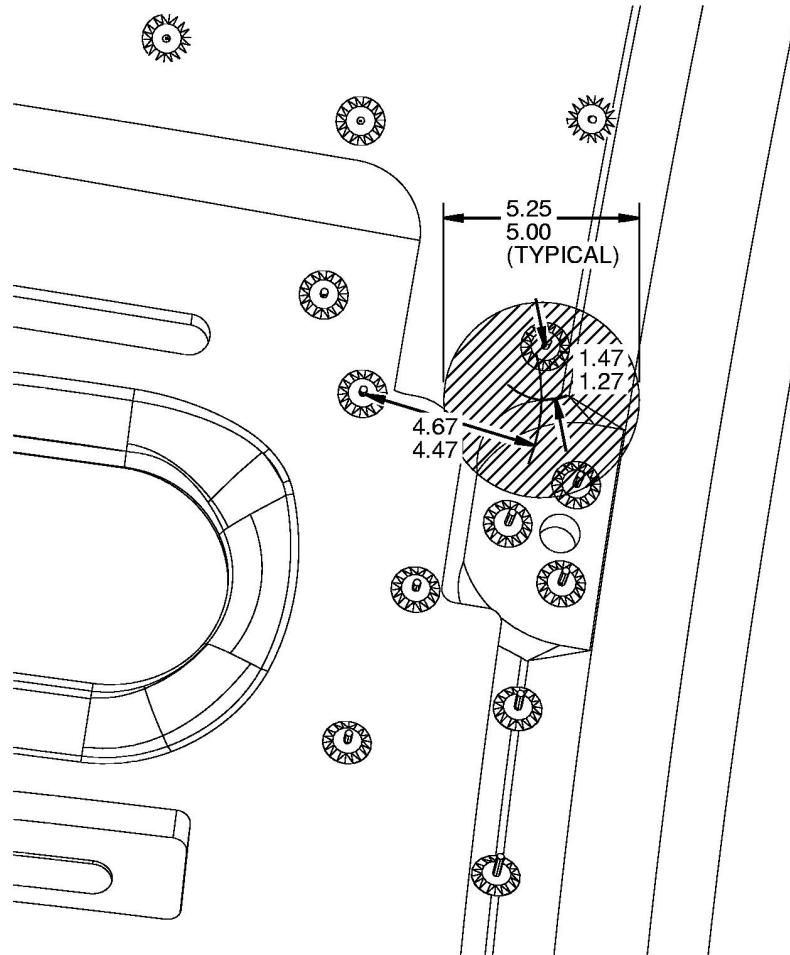


FIGURE 9: LEFT SIDE INNER WALL CHANGED CLICK BOND LOCATIONS (SHEET 5 OF 7)

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**E**

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**FIGURE 9: LEFT SIDE INNER WALL CHANGED CLICK BOND LOCATIONS  
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The step numbers shown below agree with the numbers shown in the circle symbols in the figure. The QTY numbers shown below are the number of parts necessary for each TR half.

| <b>Step</b>  | <b>Task</b> | <b>Name</b> | <b>Identification</b> | <b>Qty</b> | <b>More Data</b>  |
|--|-------------|-------------|-----------------------|------------|---|
| 1  | Inspect     | CLICK BOND  | -                     | -          | Do an NDT in accordance with Paragraph 3.B., Part 7 of the areas around the changed click bonds for delaminations and disbonds. (a) (b) |
| (a) To find location of inspection area - Measure the noted distances from the clickbonds shown in the views, where the dimensions intersect, mark a 5.00-5.25 inch circle for the inspection area.  |             |             |                       |            |   |
| (b) Do not remove clickbonds or fittings to inspect underneath them. If part of an inspection area falls under a clickbond or fitting, stop the inspection at the edge of the click bond or fitting. |             |             |                       |            |   |

**FIGURE 9: LEFT SIDE INNER WALL CHANGED CLICK BOND LOCATIONS  
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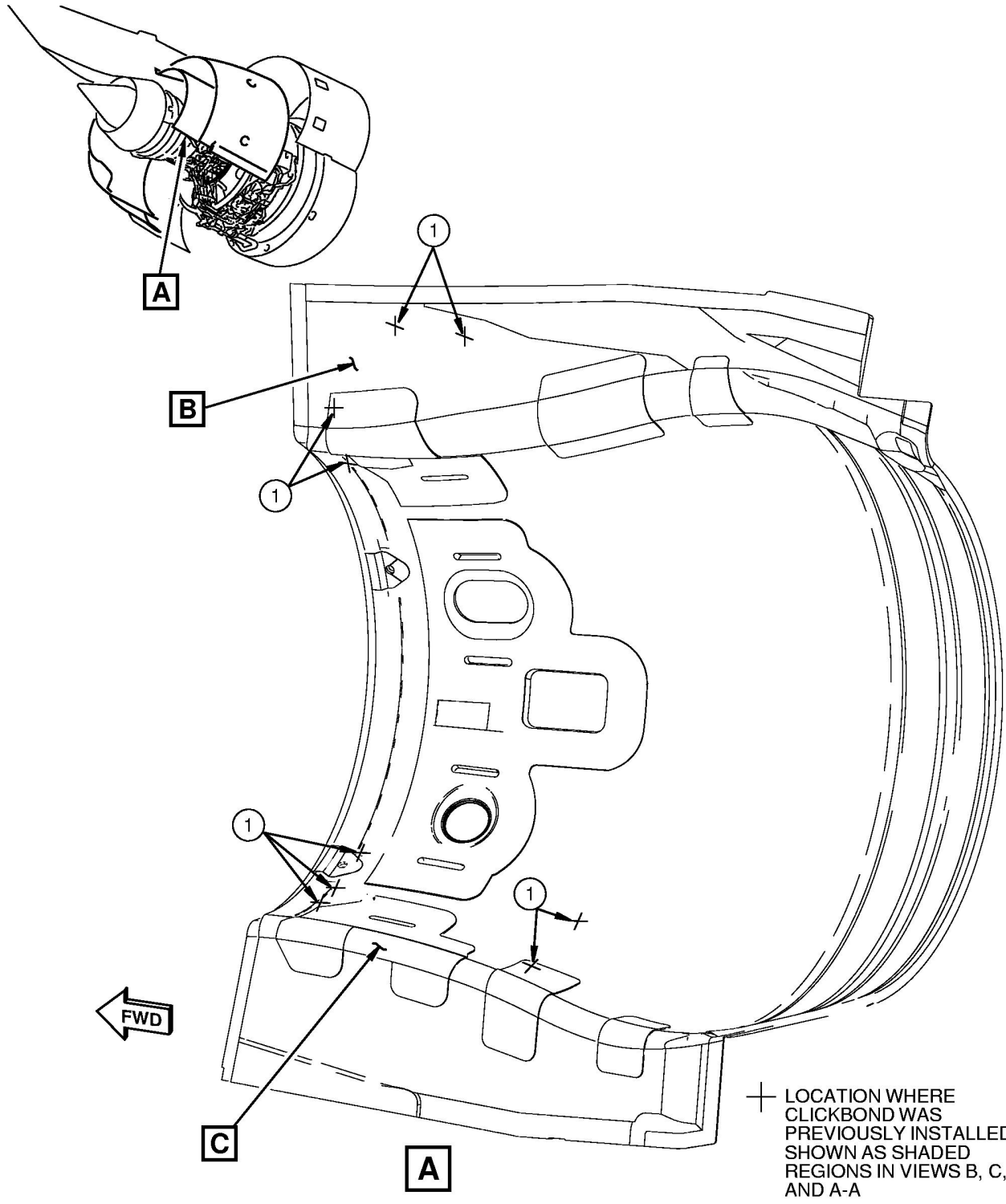
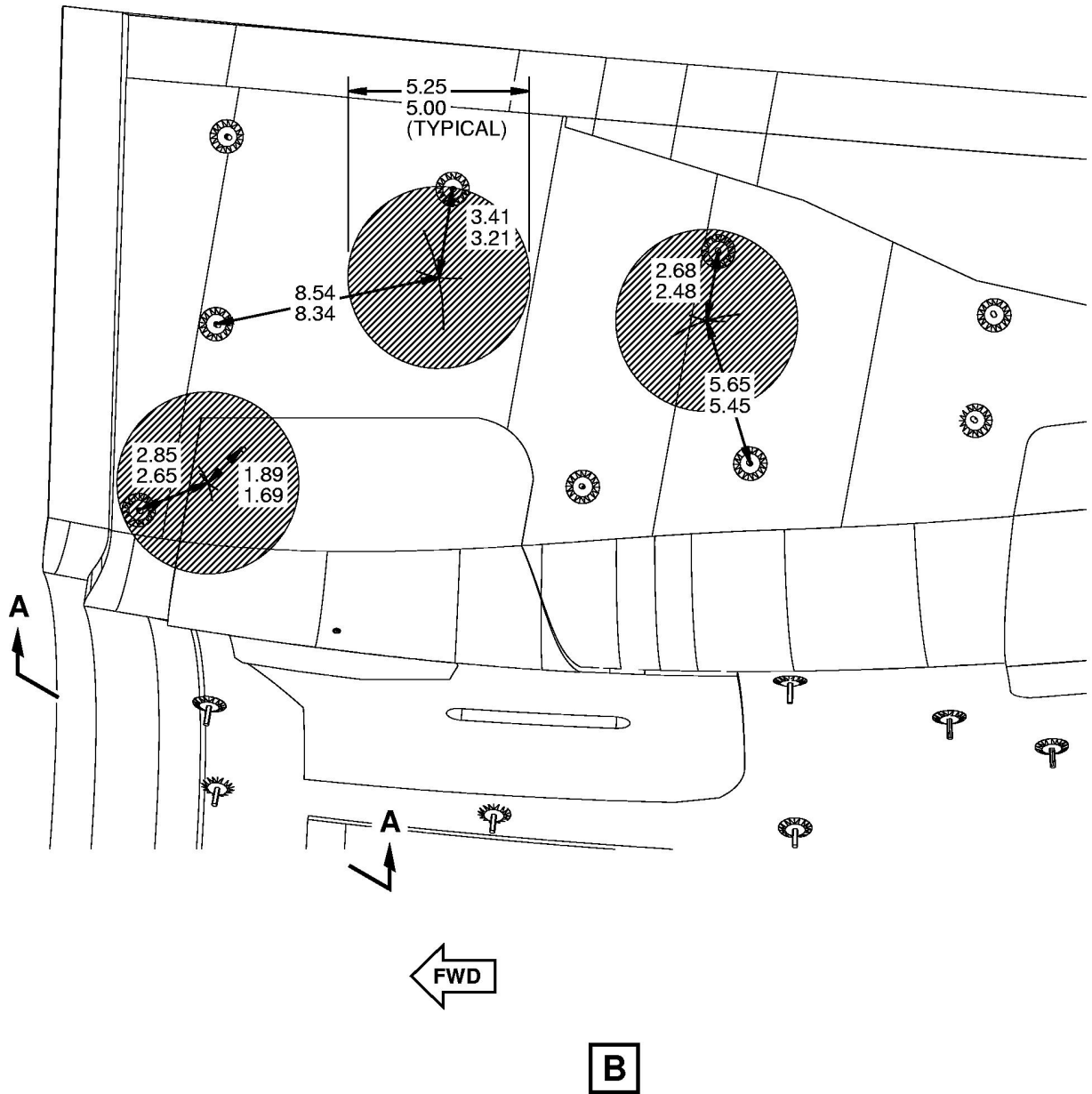


FIGURE 10: RIGHT SIDE INNER WALL CHANGED CLICK BOND LOCATIONS (SHEET 1 OF 5)

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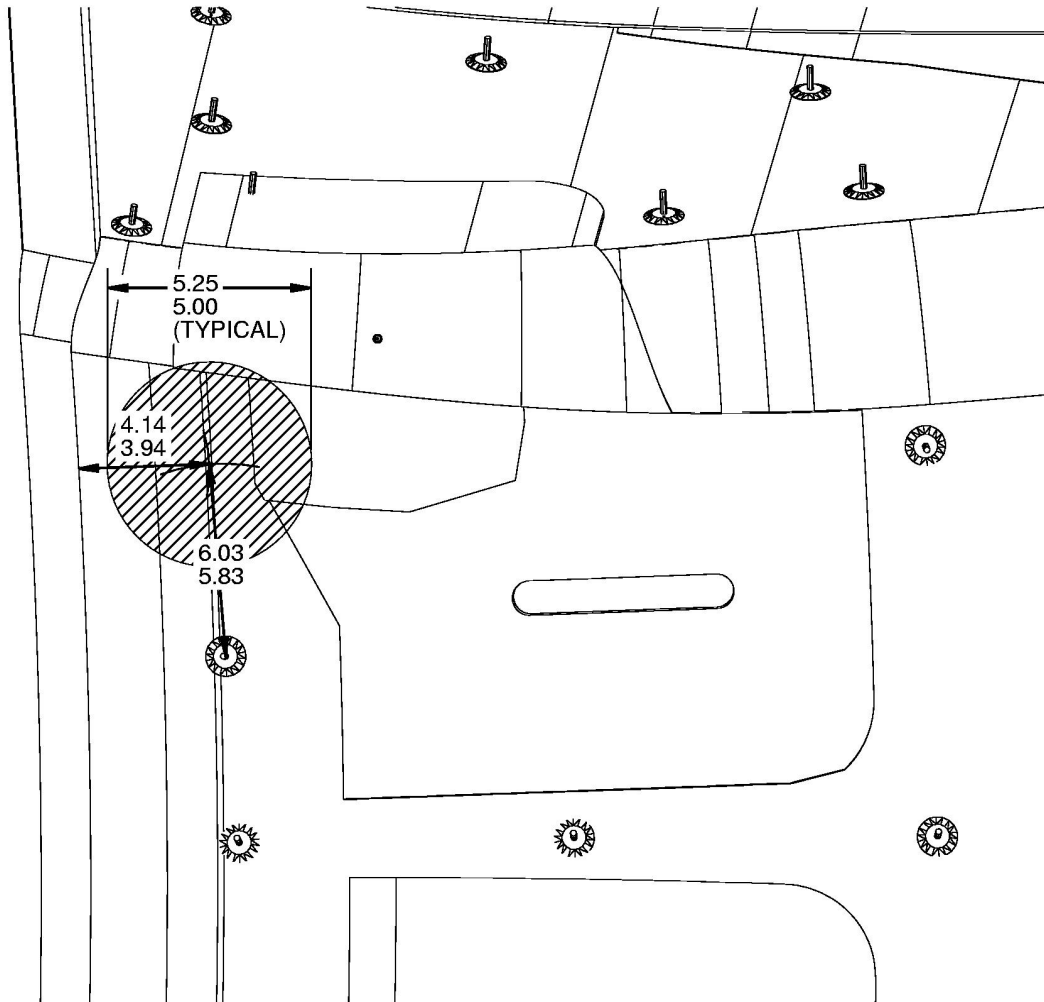
**FIGURE 10: RIGHT SIDE INNER WALL CHANGED CLICK BOND LOCATIONS (SHEET 2 OF 5)**

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FIGURE 10: RIGHT SIDE INNER WALL CHANGED CLICK BOND LOCATIONS (SHEET 3 OF 5)

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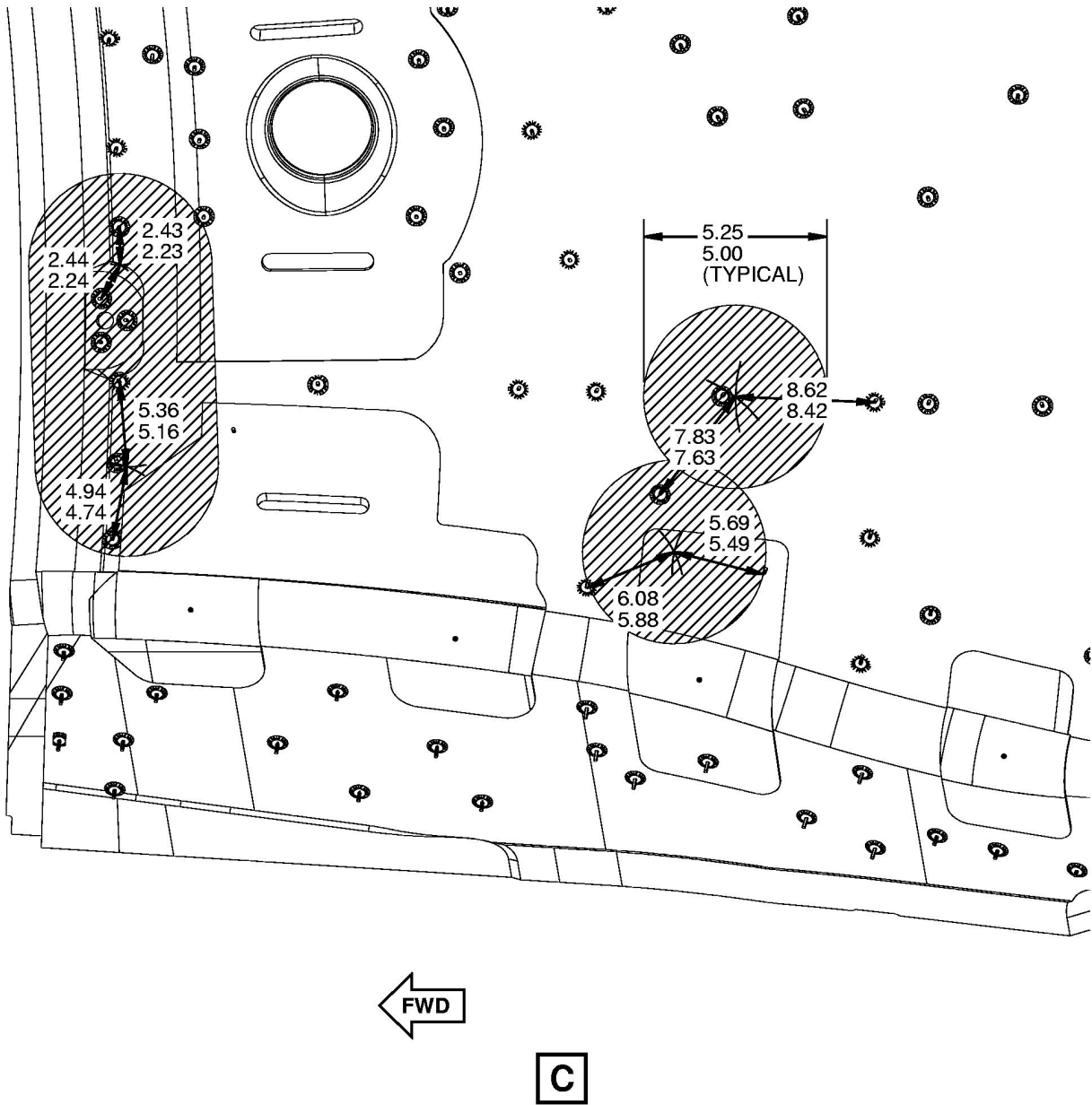


FIGURE 10: RIGHT SIDE INNER WALL CHANGED CLICK BOND LOCATIONS (SHEET 4 OF 5)

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The step numbers shown below agree with the numbers shown in the circle symbols in the figure. The QTY numbers shown below are the number of parts necessary for each TR half.

| <b>Step</b>  | <b>Task</b> | <b>Name</b> | <b>Identification</b> | <b>Qty</b> | <b>More Data</b>  |
|--|-------------|-------------|-----------------------|------------|---|
| 1  | Inspect     | CLICK BOND  | -                     | -          | Do an NDT in accordance with Paragraph 3.B., Part 7 of the areas around the changed click bonds for delaminations and disbonds. (a) (b) |
| (a) To find location of inspection area - Measure the noted distances from the clickbonds shown in the views, where the dimensions intersect, mark a 5.00-5.25 inch circle for the inspection area.  |             |             |                       |            |   |
| (b) Do not remove clickbonds or fittings to inspect underneath them. If part of an inspection area falls under a clickbond or fitting, stop the inspection at the edge of the click bond or fitting. |             |             |                       |            |   |

**FIGURE 10: RIGHT SIDE INNER WALL CHANGED CLICK BOND LOCATIONS  
(SHEET 5 OF 5)**

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1. Repairs are not allowed in the "keep out zone" as defined in Views A, B, D and E, except for Boeing approved resin injection clickbond repairs after October 22, 2013.
2. Repairs are allowed in the 4 ply zone defined in Views A, B, D and E.
  - a. For disbonds under a click bond:
    - (1) Maximum 2.5" dia prior to taper sanding. Determine damage size before taper sanding in accordance with the limitations and procedures in SRM 54-32-01 - Repair 6.
    - (2) Maximum of 5 click bond repairs allowed.
    - (3) No two adjacent click bond repairs allowed.
  - b. Determine if the damage is thermally related. A sign of thermal damage is a minimum of one of the signs that follow:
    - (1) A change in the color of the primer, BMS 10-103 Type I, from the initial color, on the solid facesheet of the thrust reverser inner wall assembly. If the primer color has changed from white to brown or black, that is a sign of thermal damage.
    - (2) An aluminum compression fitting whose surface color has changed from white to brown or yellow. If the compression fitting surface color has changed from white to brown or yellow, do a conductivity check as given in AMM TASK 78-31-06-200-801-R00 and NDT Part 6, 51-00-11.
    - (3) If the damage on the compression fitting fastener holes are more than the limits that are shown in SRM 54-32-01, Repair 5 Table 206 and Table 207, that is a sign of thermal damage.
    - (4) If there is an initial repair because of thermal damage.
  - c. For repairs of damage that is not thermally related:
    - (1) Maximum area allowed for a single repair is 50 square inches after taper sanding. Determine damage size before taper sanding in accordance with the limitations and procedures in SRM 54-32-01 - Repair 6.
    - (2) Maximum total combined area allowed is 150 square inches after taper sanding. Determine damage size before taper sanding in accordance with the limitations and procedures in SRM 54-32-01 - Repair 6.
    - (3) If two repairs overlap after taper sanding, the two repair areas become one single repair area.
  - d. For damage that is thermally related in the 4 ply area:
    - (1) Replace TR inner wall in accordance with Part 8 or Part 9.
3. Repairs are allowed for thermal damage in the lower aft corner of the inner wall ("Brown Spot") in the region defined in Views C and F.

**APPENDIX A: ALLOWABLE REPAIR LIMITS  
(SHEET 1 OF 8)**

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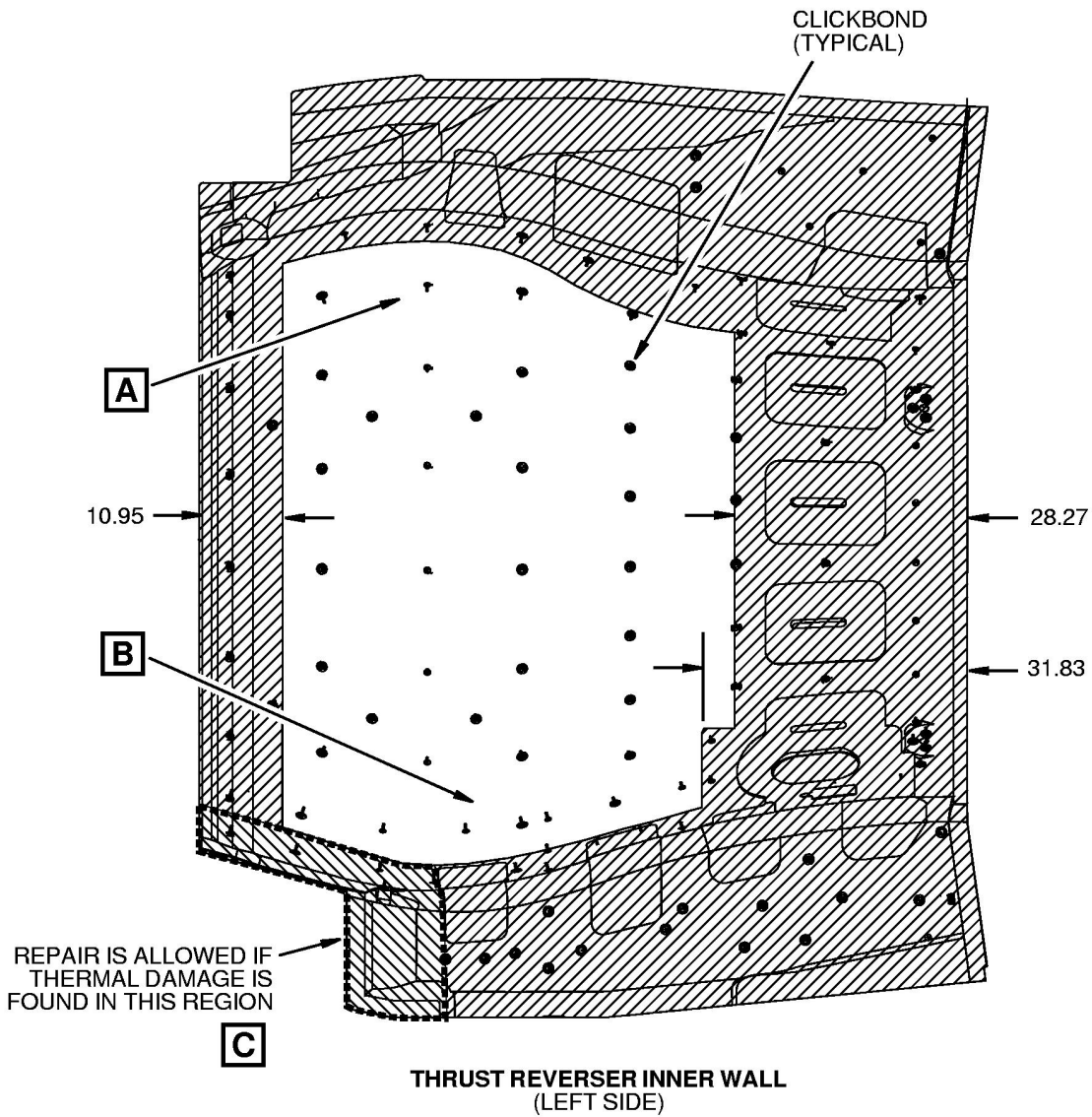
- a. Maximum size is 2.5" x 12" or 30 square inches, before taper sanding. Determine damage size before taper sanding in accordance with the limitations and procedures in SRM 54-32-01 - Repair 6.
- b. For this region, contact Boeing for repair instructions.




**APPENDIX A: ALLOWABLE REPAIR LIMITS  
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-  "BROWN SPOT" ZONE - REPAIRS ALLOWED IN THIS AREA
-  4 PLY ZONE - REPAIRS ALLOWED IN THIS AREA
-  EDGE KEEP-OUT ZONE - REPAIR IS NOT ALLOWED

ALL DIMENSIONS ARE A CONSTANT PARALLEL OFFSET MEASURED ON THE CURVED SURFACE

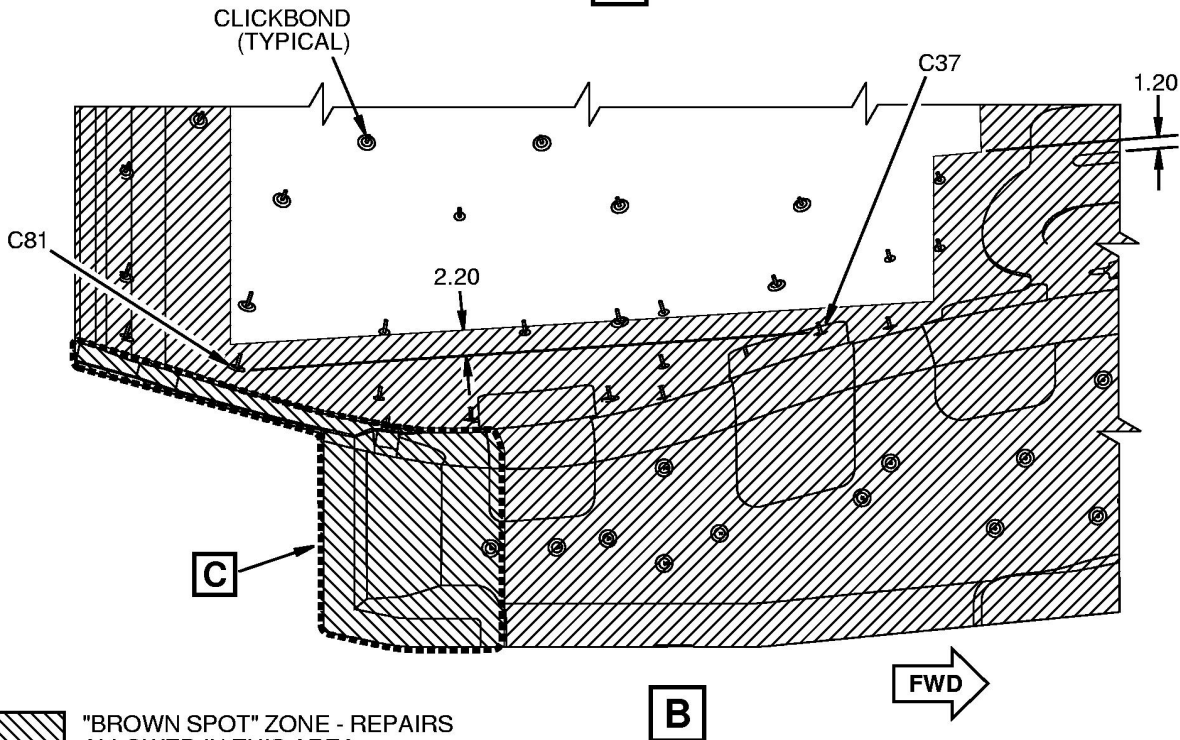
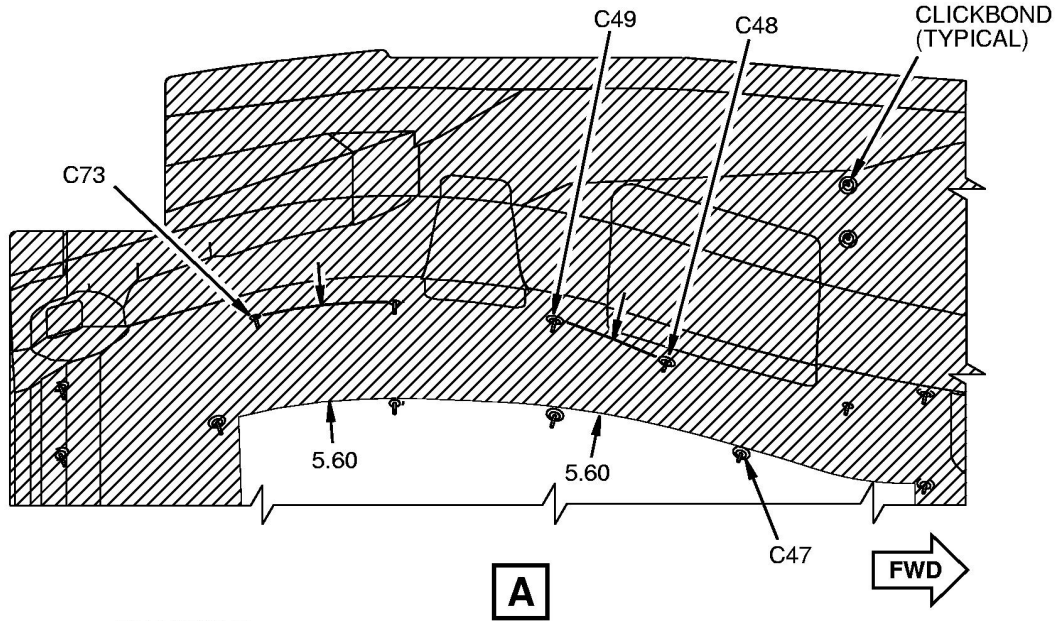
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

**APPENDIX A: ALLOWABLE REPAIR LIMITS (SHEET 3 OF 8)**

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-  "BROWN SPOT" ZONE - REPAIRS ALLOWED IN THIS AREA
-  4 PLY ZONE - REPAIRS ALLOWED IN THIS AREA
-  EDGE KEEP-OUT ZONE - REPAIR IS NOT ALLOWED

DIMENSIONS MEASURED FROM THE NOTED CLICKBOND LOCATIONS

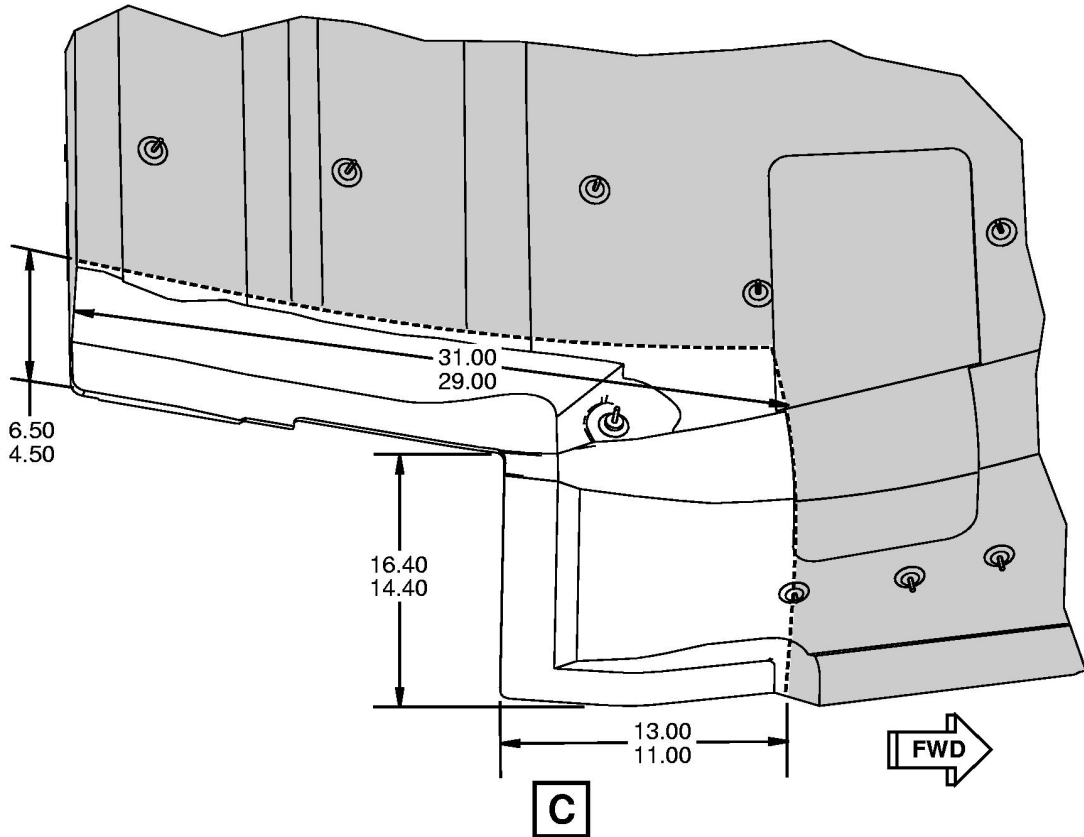
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**APPENDIX A: ALLOWABLE REPAIR LIMITS  
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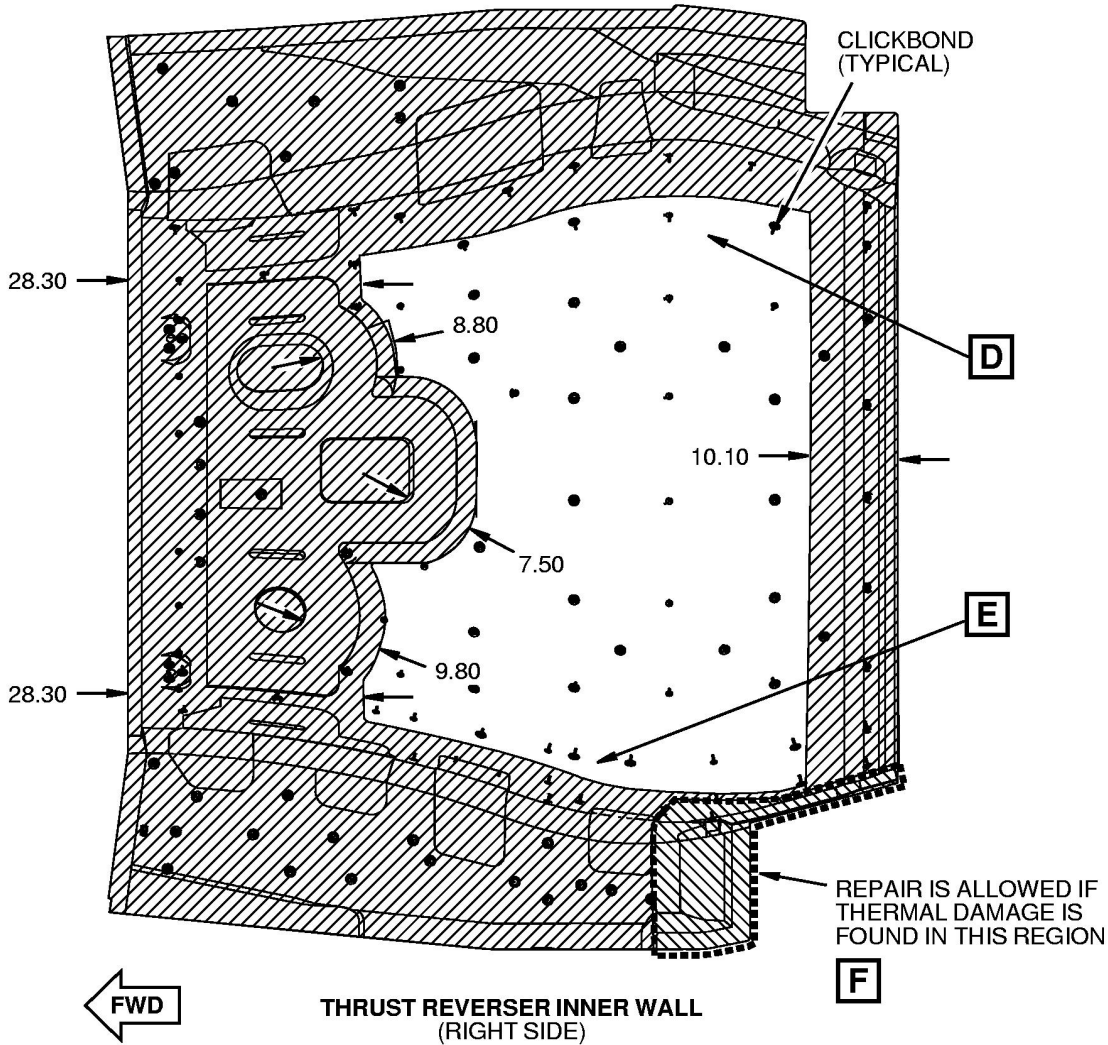
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**APPENDIX A: ALLOWABLE REPAIR LIMITS  
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-  "BROWN SPOT" ZONE - REPAIRS ALLOWED IN THIS AREA
-  4 PLY ZONE - REPAIRS ALLOWED IN THIS AREA
-  EDGE KEEP-OUT ZONE - REPAIR IS NOT ALLOWED

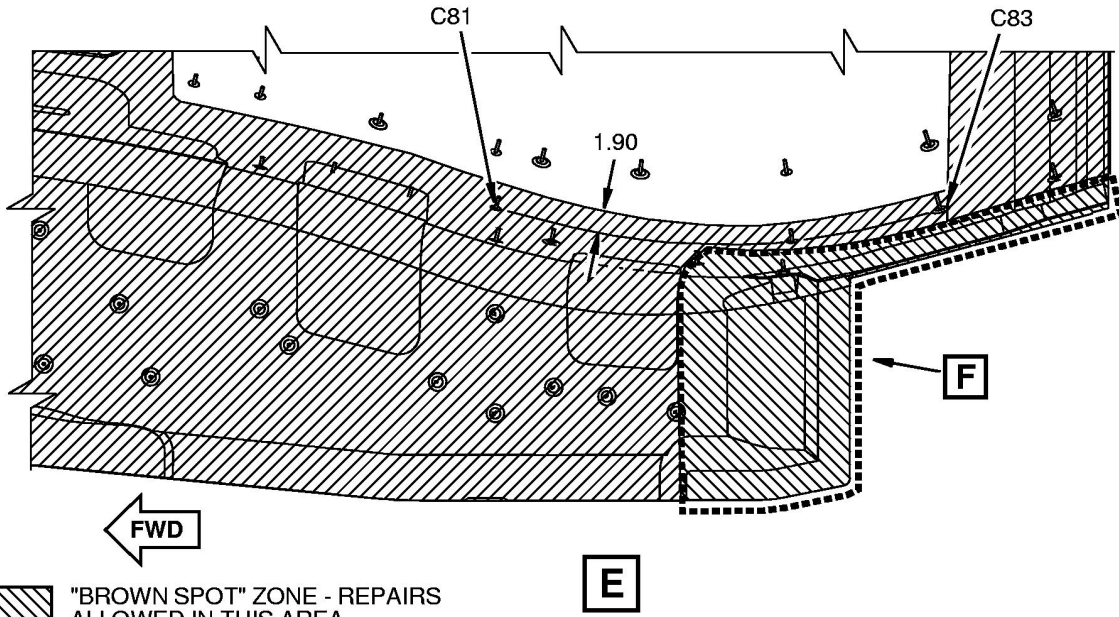
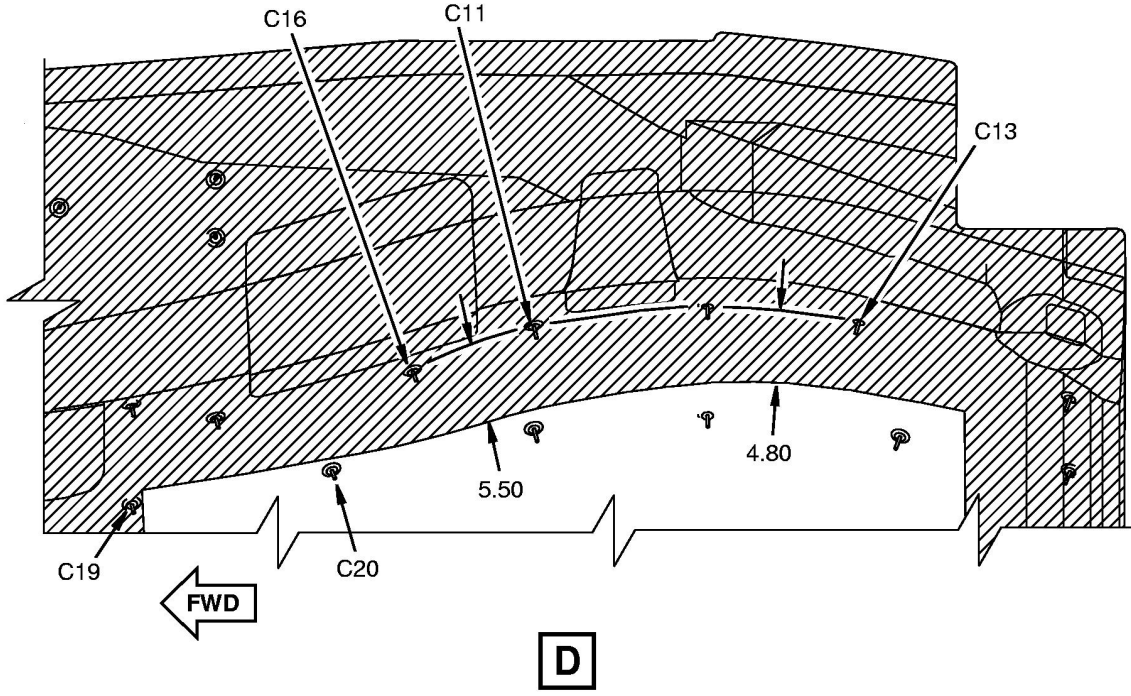
ALL DIMENSIONS ARE A CONSTANT PARALLEL OFFSET MEASURED ON THE CURVED SURFACE




2257362

**APPENDIX A: ALLOWABLE REPAIR LIMITS (SHEET 6 OF 8)**

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-  "BROWN SPOT" ZONE - REPAIRS ALLOWED IN THIS AREA
-  4 PLY ZONE - REPAIRS ALLOWED IN THIS AREA
-  EDGE KEEP-OUT ZONE - REPAIR IS NOT ALLOWED

ALL DIMENSIONS ARE A CONSTANT PARALLEL OFFSET MEASURED ON THE CURVED SURFACE

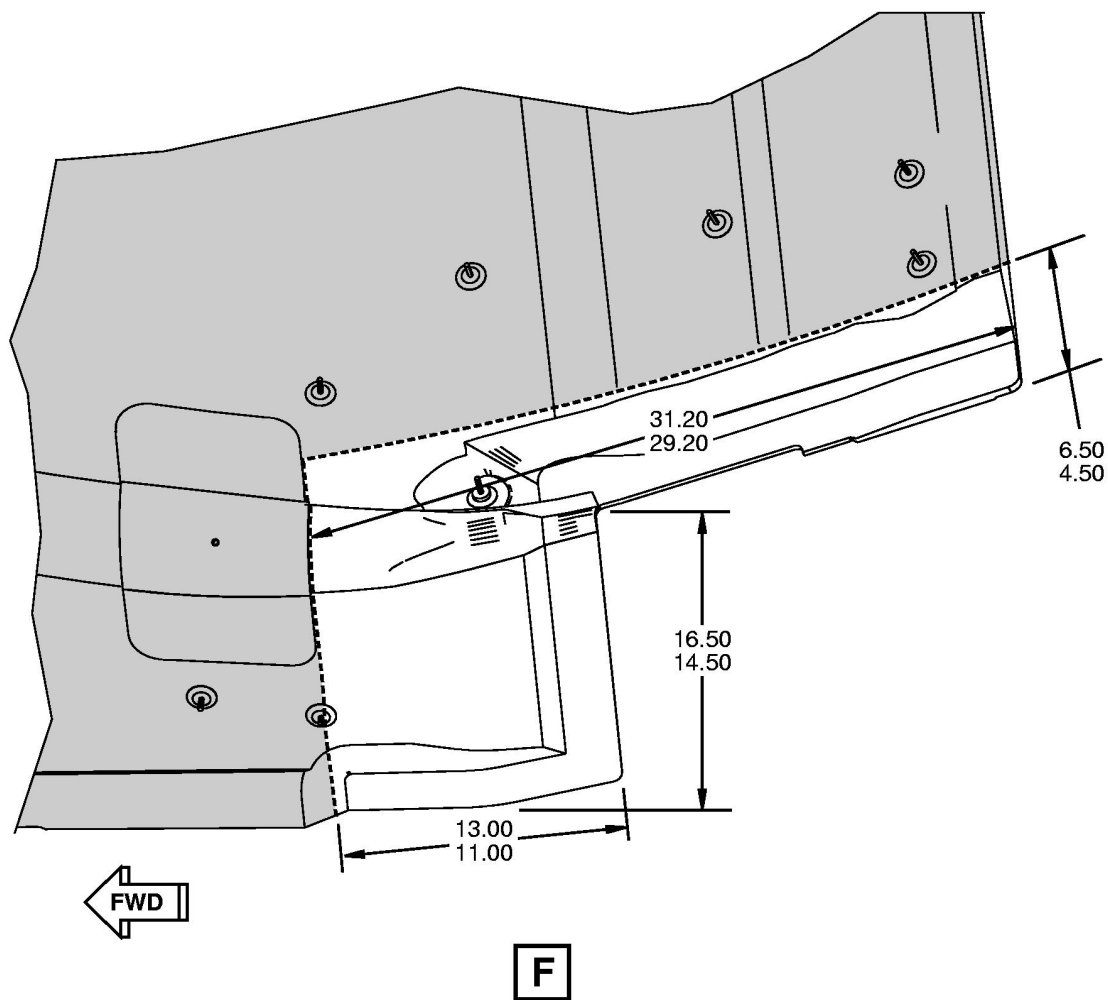
**APPENDIX A: ALLOWABLE REPAIR LIMITS  
(SHEET 7 OF 8)**

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2257553



2257628

**APPENDIX A: ALLOWABLE REPAIR LIMITS  
(SHEET 8 OF 8)**

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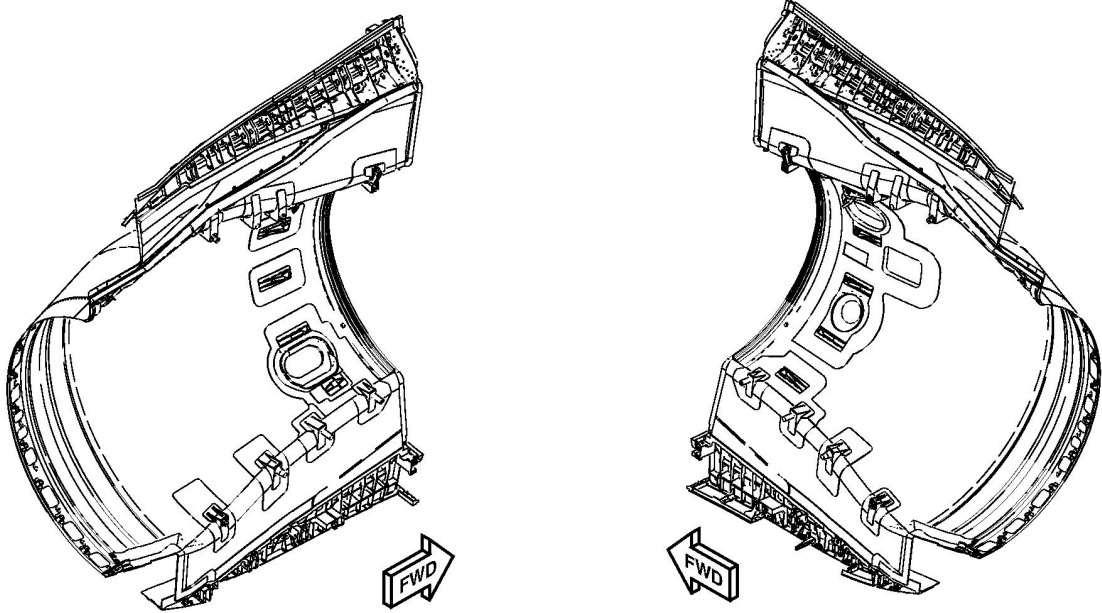
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ALERT

ALERT

Refer to the following illustrations for dimensional guidance for tooling necessary for the removal and installation of the thrust reverser (TR) inner wall.



**THRUST REVERSER**  
(LEFT SIDE SHOWN)

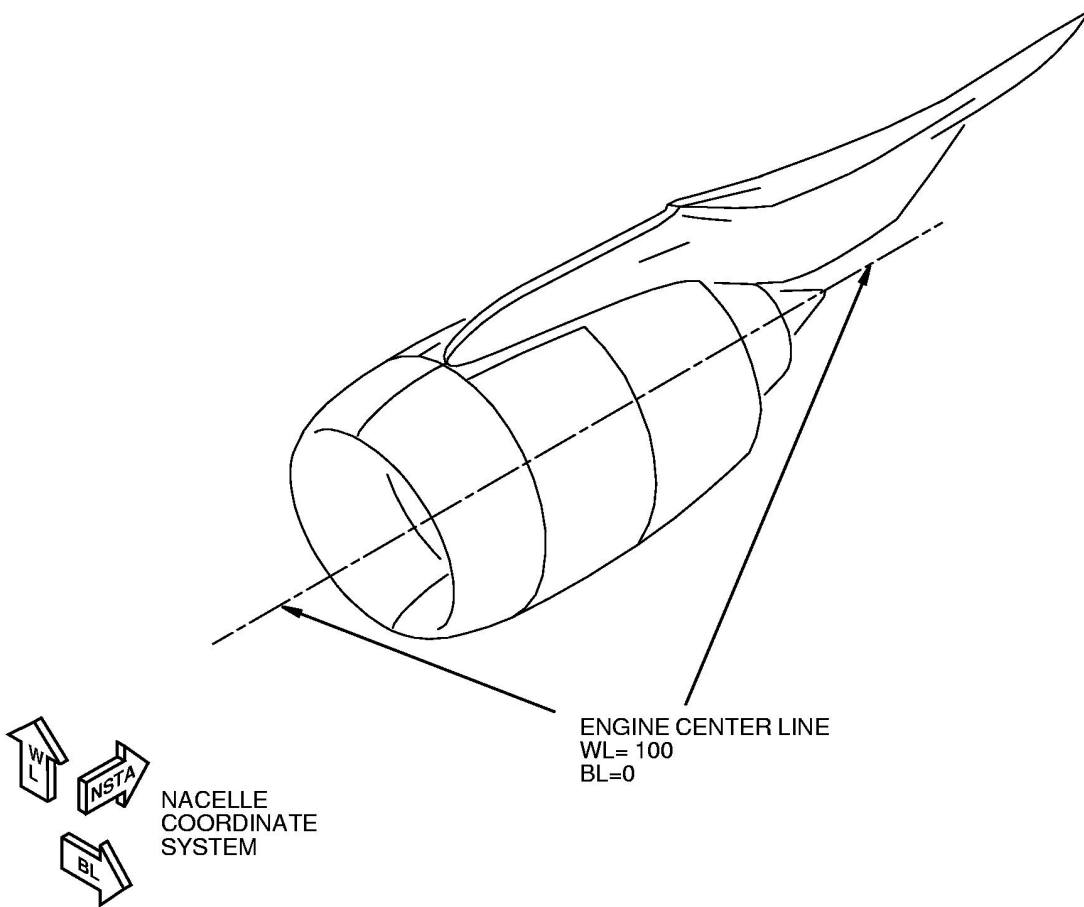
**THRUST REVERSER**  
(RIGHT SIDE SHOWN)

2257634

**APPENDIX B: TOOLING DIMENSIONS**  
**(SHEET 1 OF 12)**

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**NACELLE COORDINATE ORIENTATION**

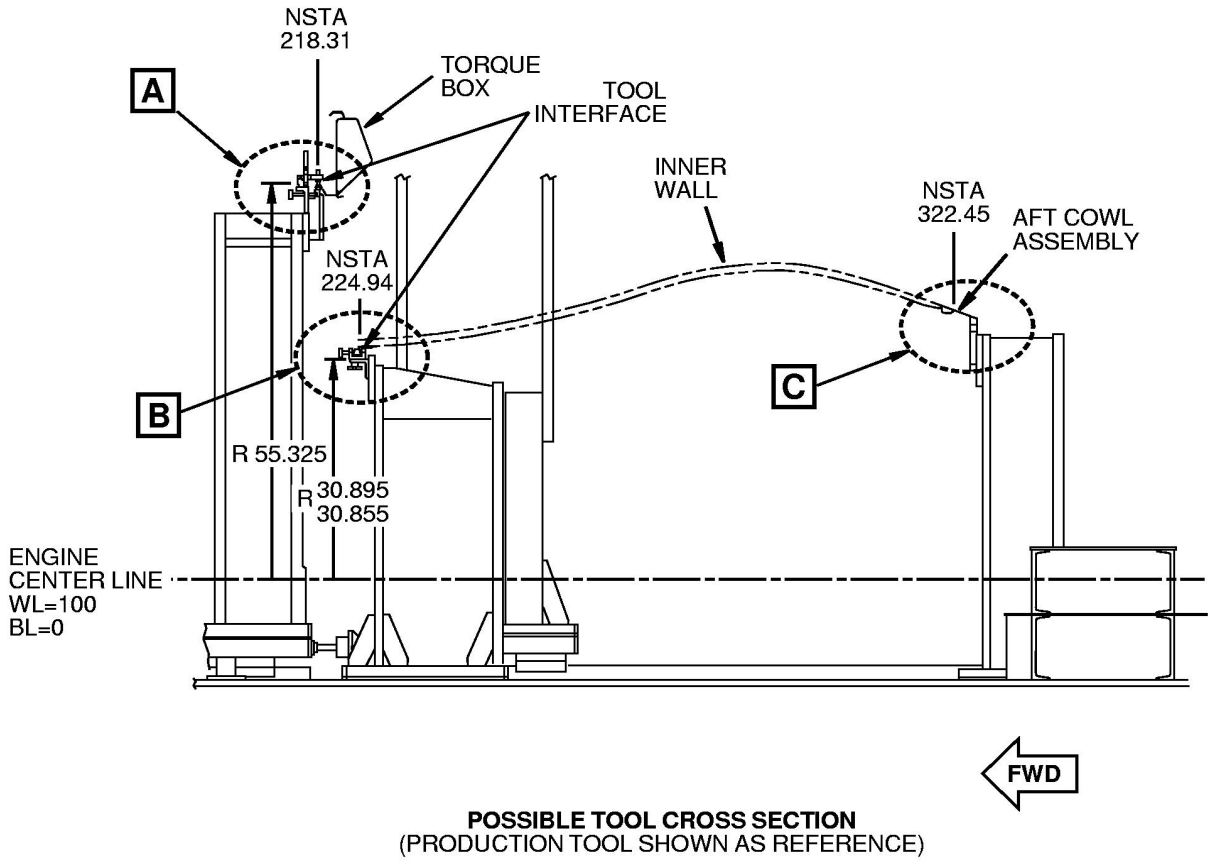
2257649

**APPENDIX B: TOOLING DIMENSIONS  
(SHEET 2 OF 12)**

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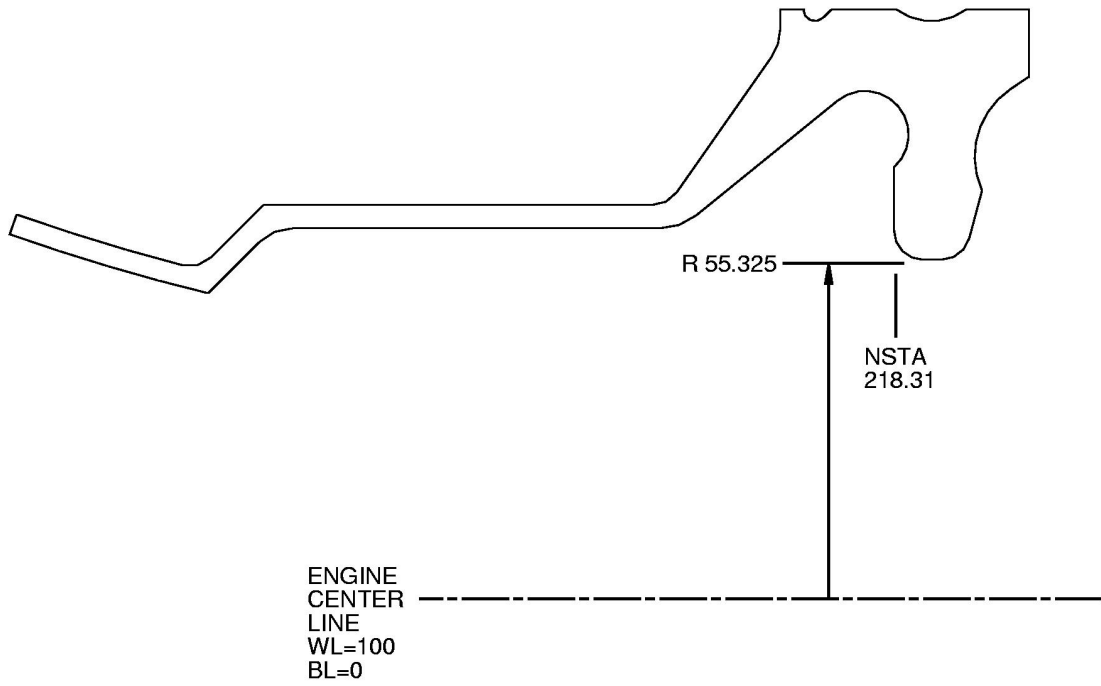
2257707

**APPENDIX B: TOOLING DIMENSIONS**  
**(SHEET 3 OF 12)**

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OUTER V-BLADE TOOLING INTERFACE

**A**

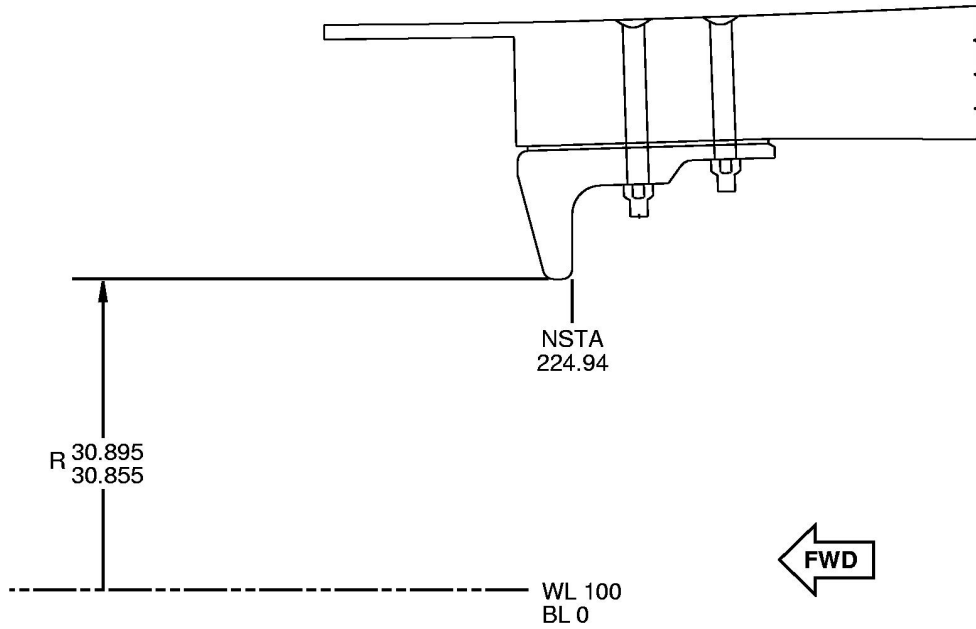
2257715

APPENDIX B: TOOLING DIMENSIONS  
(SHEET 4 OF 12)

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INNER V-BLADE TOOLING INTERFACE  
(TYPICAL)

**B**

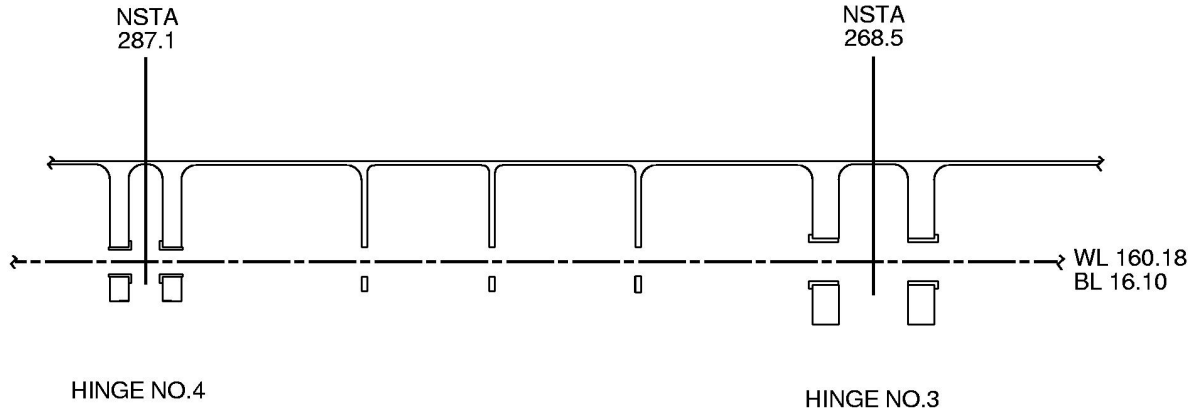
2258648

APPENDIX B: TOOLING DIMENSIONS  
(SHEET 5 OF 12)

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UPPER HINGE BEAM TOOLING INTERFACE

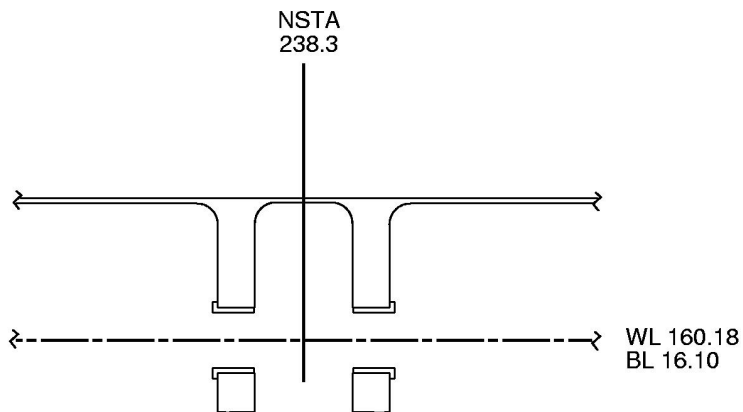
2258689

APPENDIX B: TOOLING DIMENSIONS  
(SHEET 6 OF 12)

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HINGE NO.2

UPPER HINGE BEAM TOOLING INTERFACE

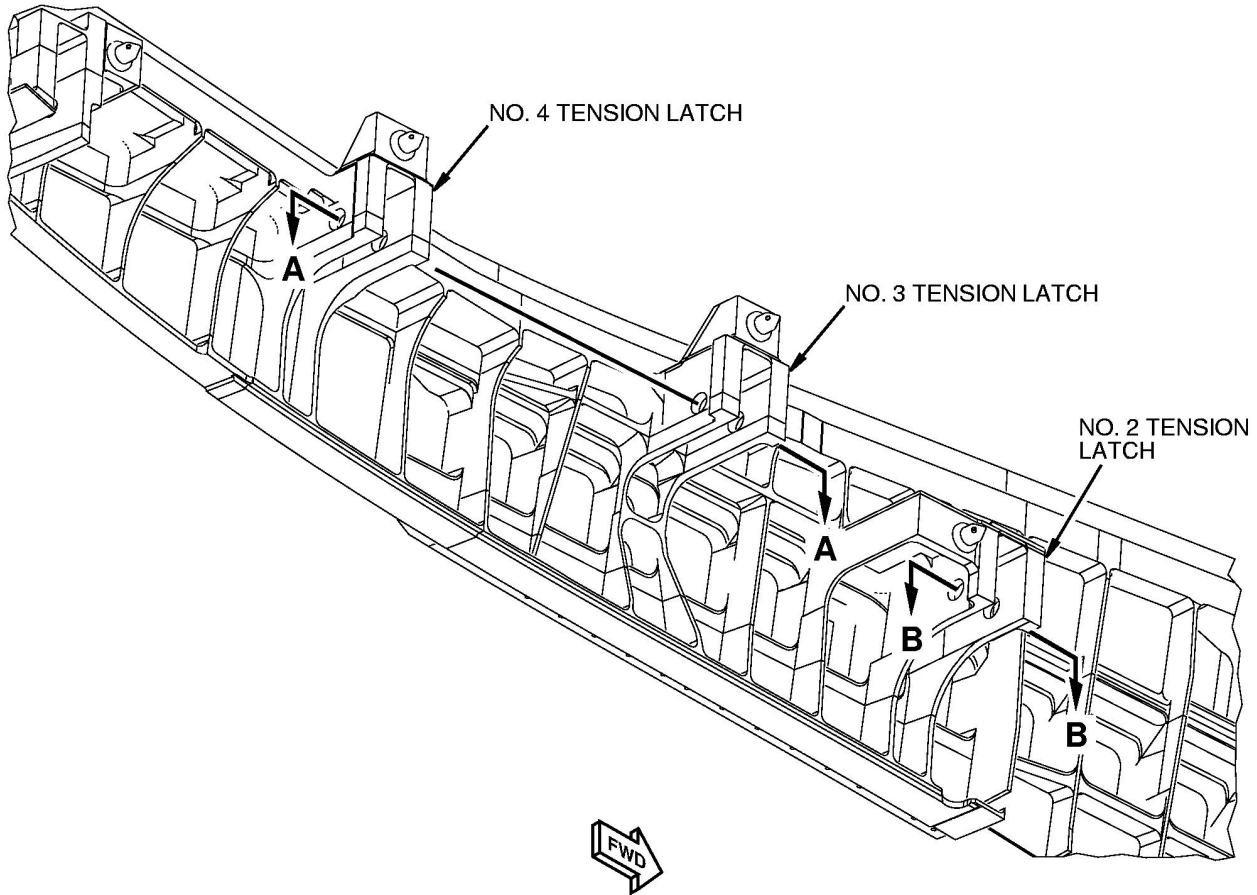
2258694

APPENDIX B: TOOLING DIMENSIONS  
(SHEET 7 OF 12)

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LEFT THRUST REVERSER LATCH BEAM SHOWN  
(RIGHT THRUST REVERSER LATCH BEAM OPPOSITE)

2332897

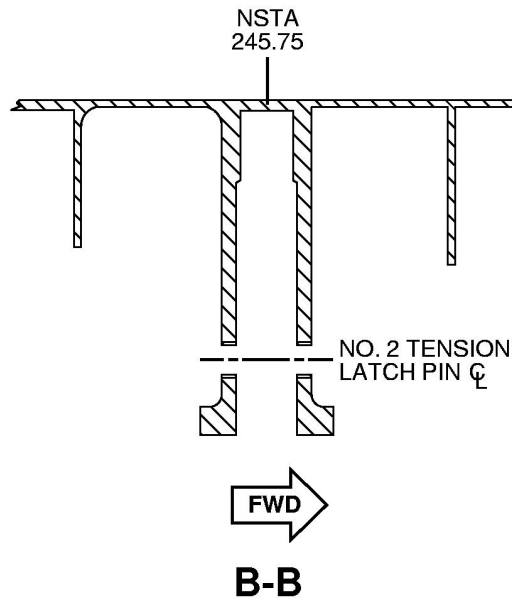
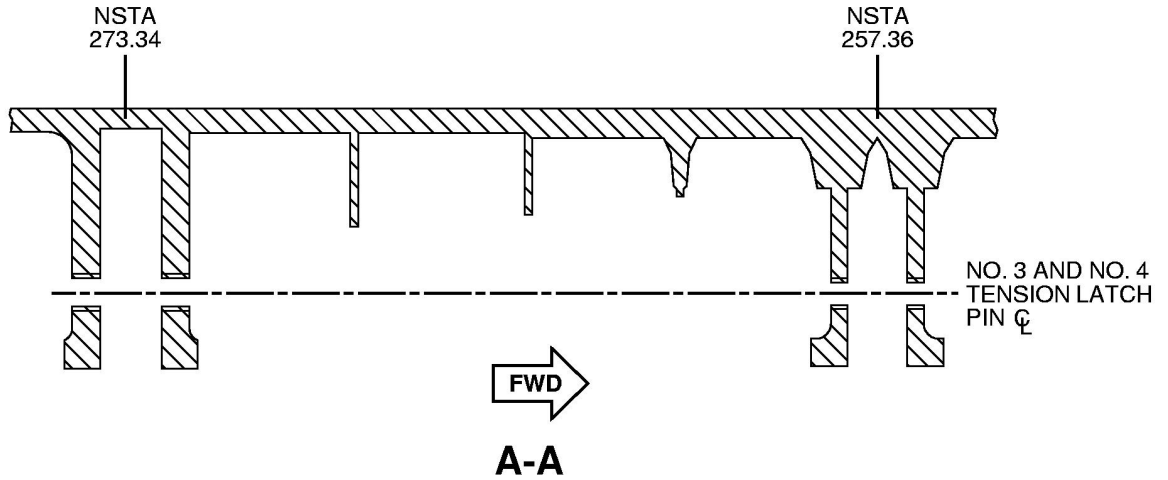
APPENDIX B: TOOLING DIMENSIONS  
(SHEET 8 OF 12)

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| TENSION LATCH PIN | PIN Ø |       |
|-------------------|-------|-------|
|                   | NBL   | NWL   |
| NO. 2             | 1.75  | 37.60 |
| NO. 3             | 1.75  | 39.65 |
| NO. 4             | 1.75  | 39.65 |

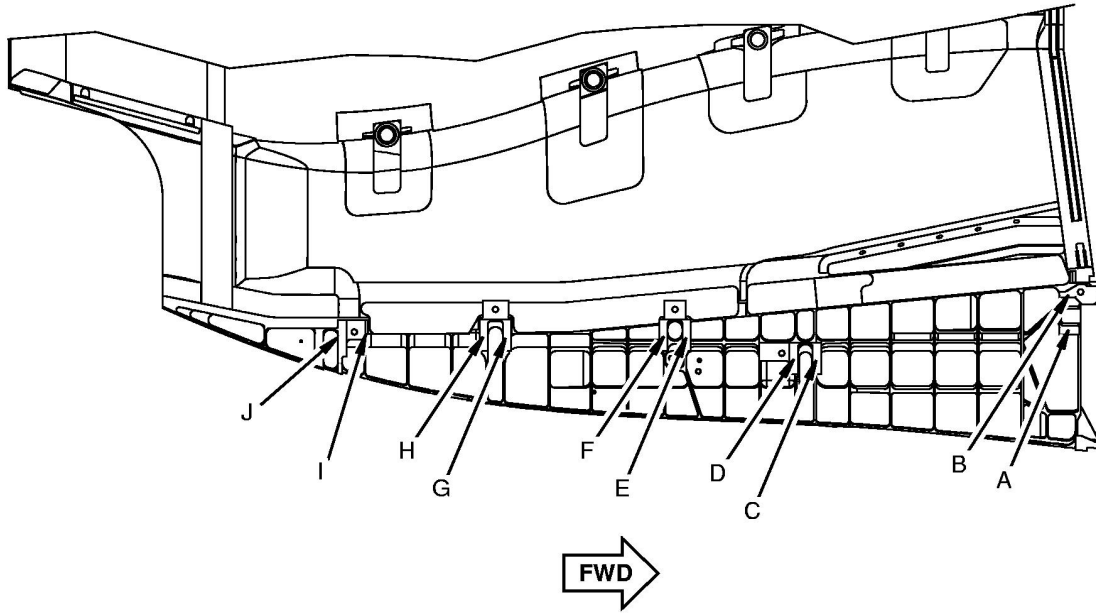
2332911

**APPENDIX B: TOOLING DIMENSIONS  
(SHEET 9 OF 12)**

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**LEFT THRUST REVERSER SHOWN**  
(RIGHT THRUST REVERSER OPPOSITE)

|   | NBL       |
|---|-----------|
| A | 0.1400(a) |
| B | 0.1400(a) |
| C | 0.1400(a) |
| D | 0.1400(a) |
| E | 0.1400(a) |
| F | 0.1400(a) |
| G | 0.1400(a) |
| H | 0.1400(a) |
| I | 0.1400(a) |
| J | 0.1400(a) |

(a) 0.1400 DIMENSION IS TO THE LATCH BEAM SURFACE WITH SHIMS AND WEAR PLATES REMOVED

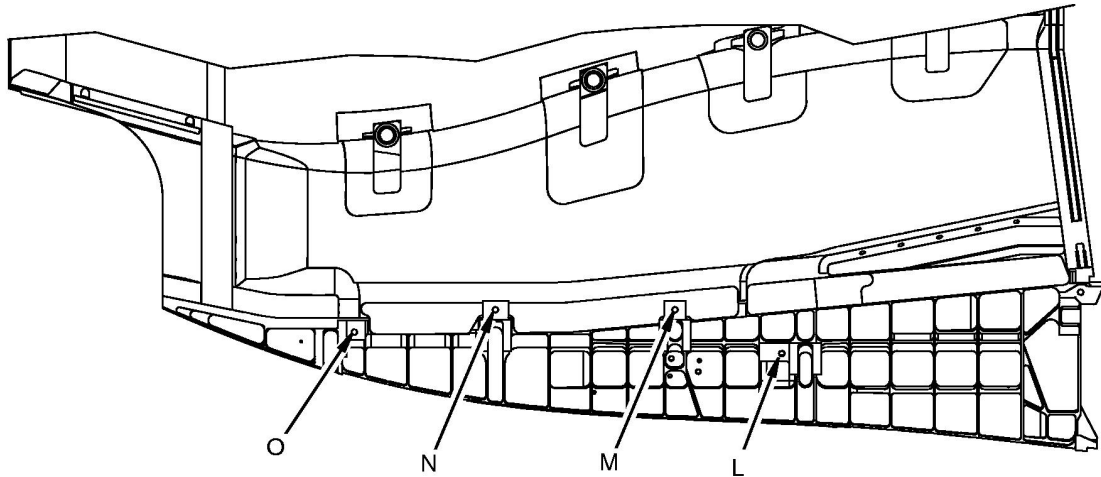
2258726

**APPENDIX B: TOOLING DIMENSIONS**  
**(SHEET 10 OF 12)**

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**LEFT THRUST REVERSER SHOWN**  
(RIGHT THRUST REVERSER OPPOSITE)

LOCATION OF SHEAR PINS

|   | NSTA     | NWL     |
|---|----------|---------|
| L | 247.8500 | 38.4500 |
| M | 257.3600 | 42.3500 |
| N | 273.3400 | 42.3500 |
| O | 285.9000 | 40.3500 |

**CENTER POINTS FOR ALIGNMENT PINS**

**APPENDIX B: TOOLING DIMENSIONS**  
(SHEET 11 OF 12)

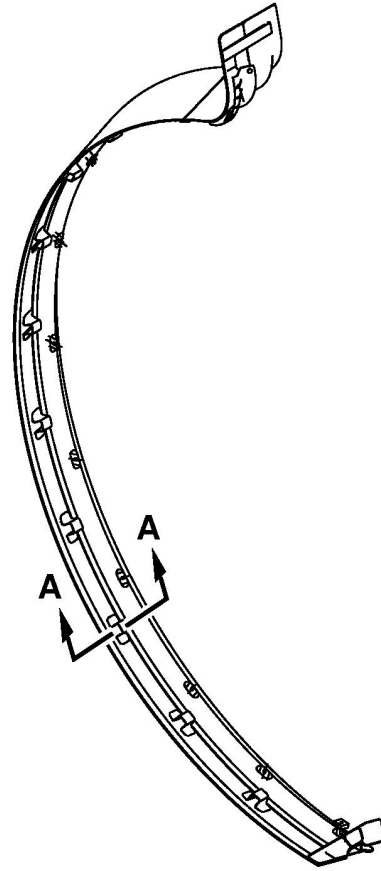
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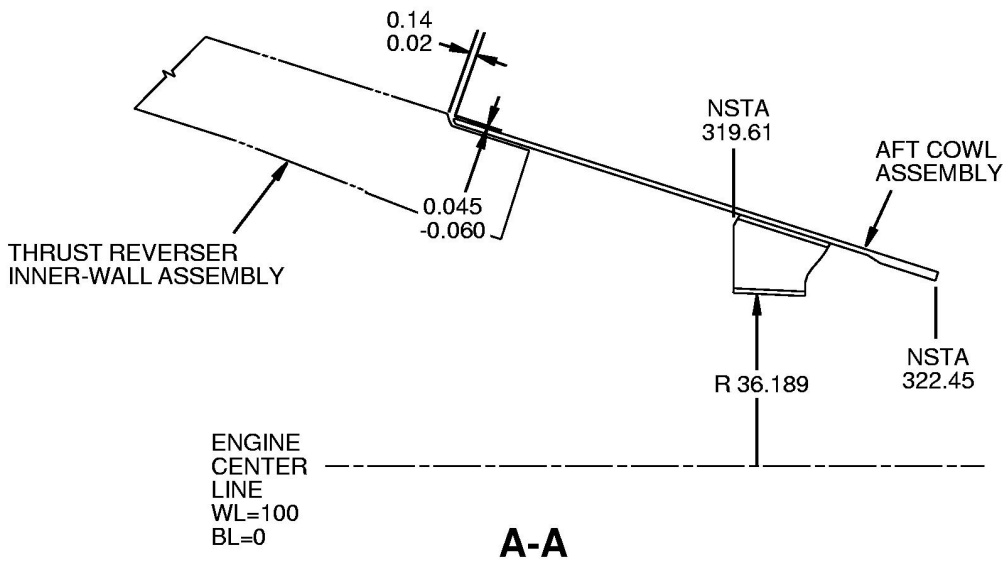
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AFT COWL MUST FOLLOW AERO SMOOTHNESS REQUIREMENTS. ALL OTHER AFT INTERFACE CALLOUTS ARE REFERENCE



C



REFERENCE FOR CHECKING AFT COWL, NOT REQUIRED FOR INNER-WALL REPLACEMENT. HAS BEEN USED TO DETERMINE OUT OF TOLERANCE DETAIL PARTS. CLEARANCE OF 0.13 TO ENGINE NOMINALLY

2258783

APPENDIX B: TOOLING DIMENSIONS (SHEET 12 OF 12)

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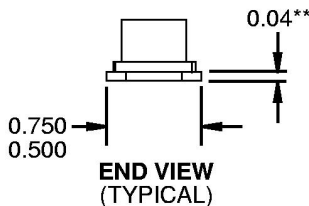
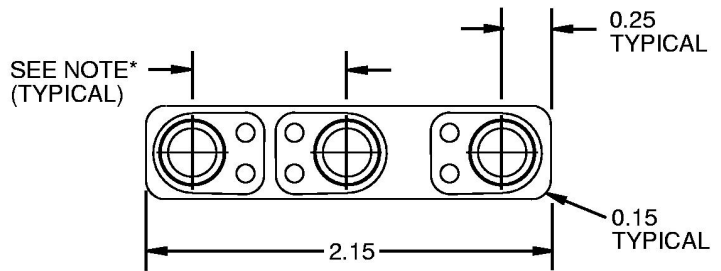
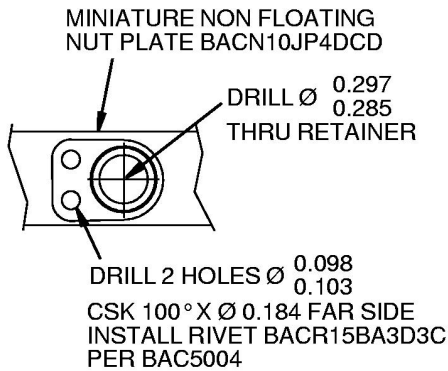
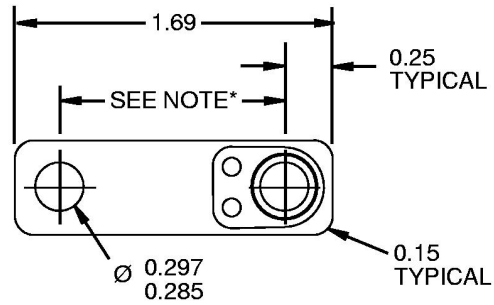
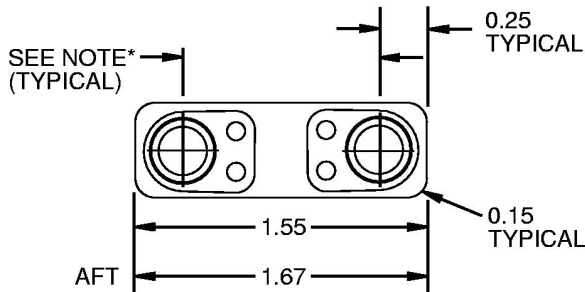
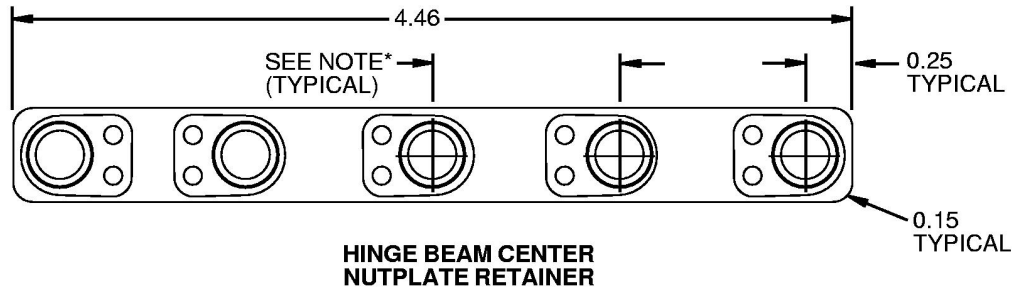
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ALERT

ALERT

Refer to the following illustration for fabrication instructions for nutplate retainers used in hidden areas.



RETAINER:  
MATERIAL- 2000, 6000, 7000 SERIES ALUMINUM SHEET, ANY TEMPER OTHER THAN ANNEALED, 0.040- 0.065 THICK.

FINISH- APPLY CHEMICAL CONVERSION COATING TO ALL SURFACES IN ACCORDANCE WITH MIL-C-5541, CLASS 1A OR BAC 5719, CLASS A OR CLASS C. PLUS APPLY ONE COAT OF BMS 10-11, TYPE 1 PRIMER IN ACCORDANCE WITH BAC 5736.

\* NOTE - ALL  $\varnothing$  0.279-0.291 HOLES ARE TO BE LOCATED FROM THE EXISTING FASTENER PATTERN IN HINGE BEAM AND LATCH BEAM.

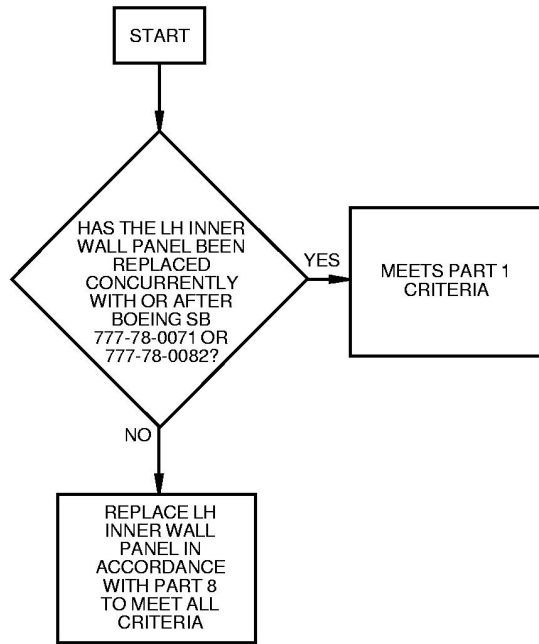
\*\* NOTE - OPTIONAL TO SUBSTITUTE 0.050-0.063 THK SHEET. PERMISSIBLE TO INCREASE FASTENER GRIP LENGTHS TO ACCOUNT FOR ADDED THICKNESS.

2258973

**APPENDIX C: NUTPLATE RETAINER FABRICATION  
(SHEET 1 OF 1)**

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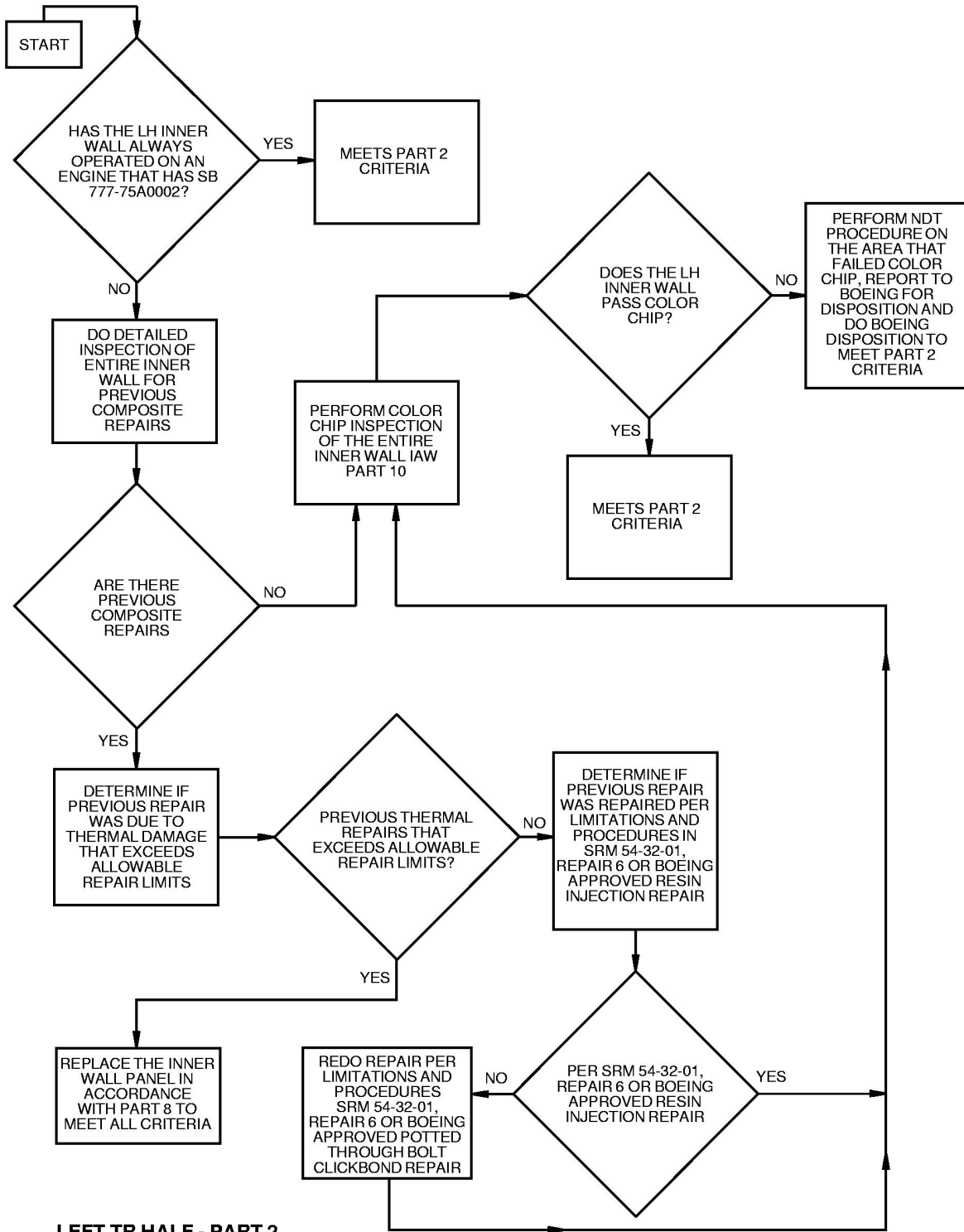
Refer to the following Flowchart to determine if the inner wall should be replaced.



LEFT TR HALF - PART 1

2295013

APPENDIX D: LEFT SIDE INNER WALL FLOWCHART  
(SHEET 1 OF 3)

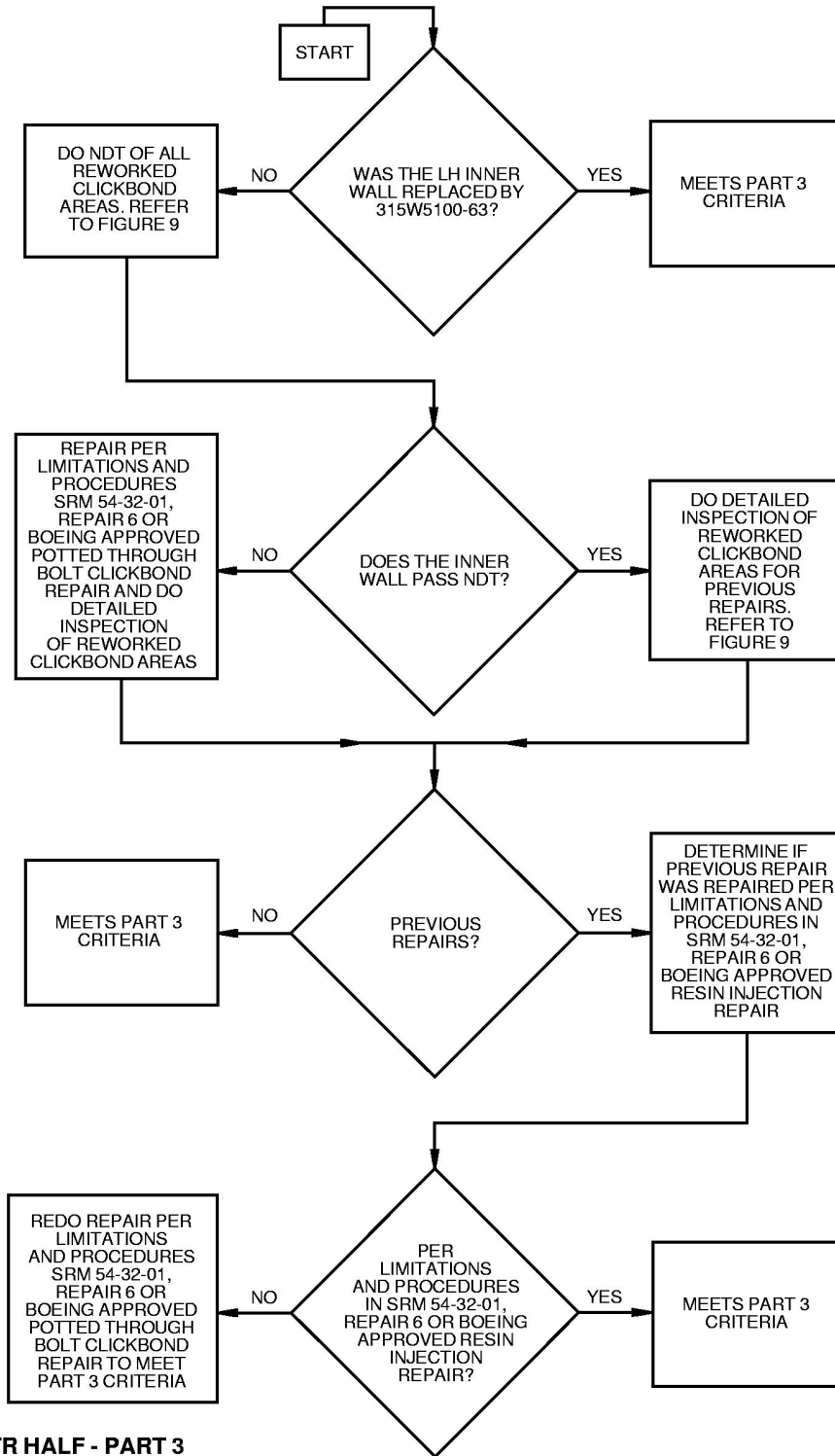


LEFT TR HALF - PART 2

2308770

APPENDIX D: LEFT SIDE INNER WALL FLOWCHART (SHEET 2 OF 3)

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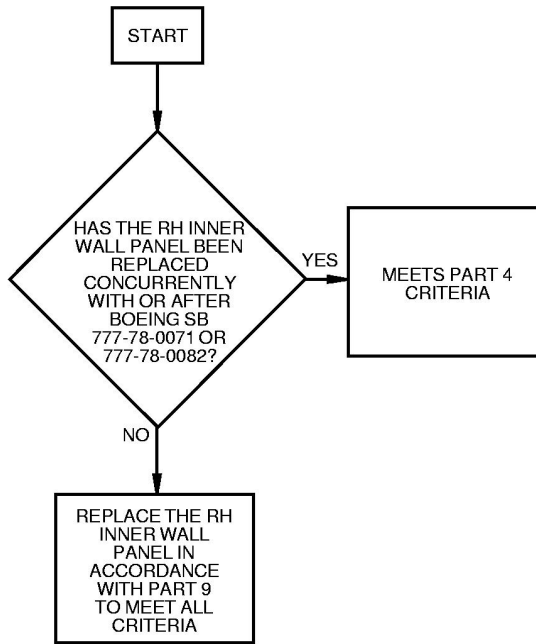
LEFT TR HALF - PART 3

2308798

APPENDIX D: LEFT SIDE INNER WALL FLOWCHART  
(SHEET 3 OF 3)



Refer to the following Flowchart to determine if the inner wall should be replaced.



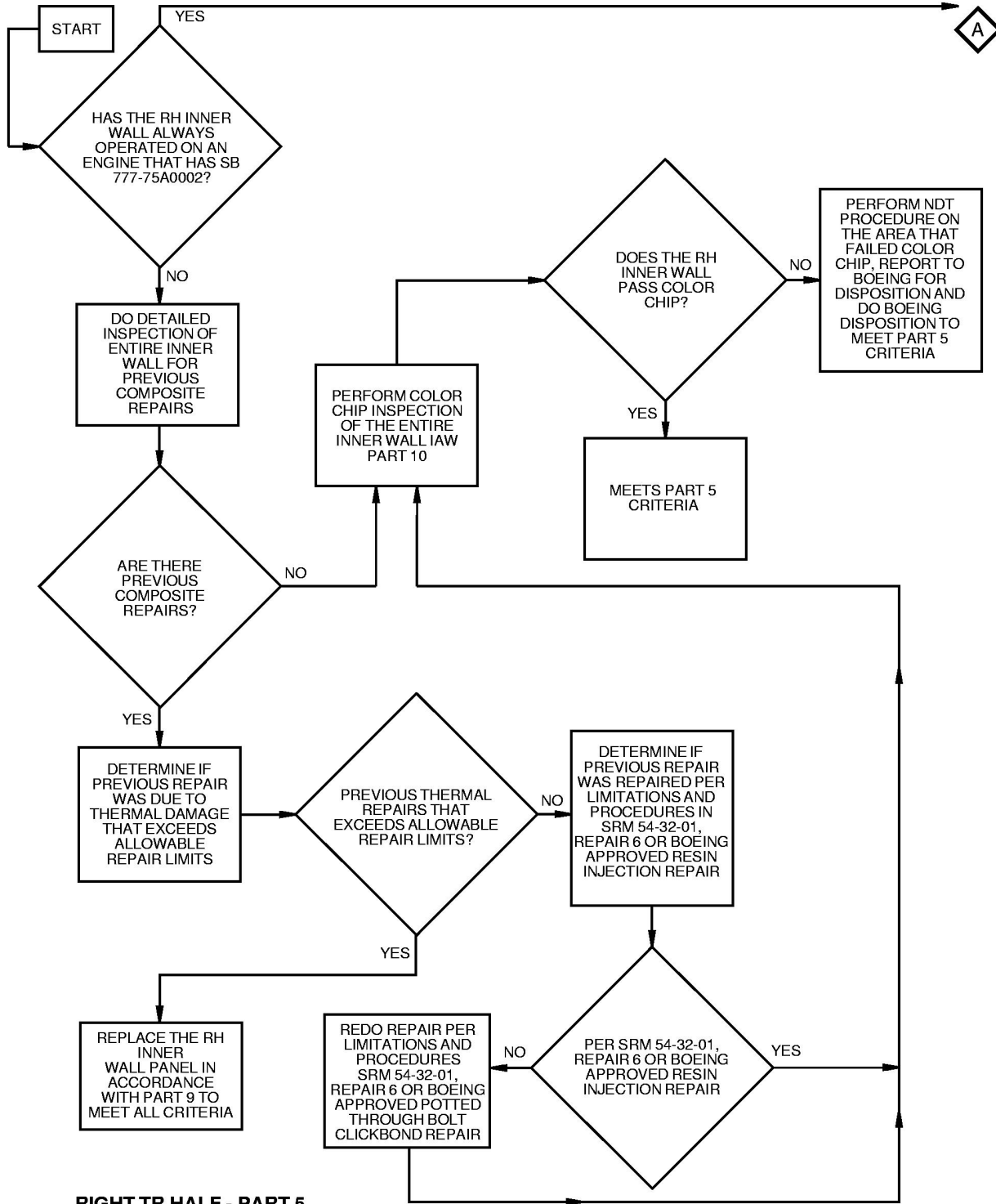
RIGHT TR HALF - PART 4

2258986

APPENDIX E: RIGHT SIDE INNER WALL FLOWCHART (SHEET 1 OF 4)

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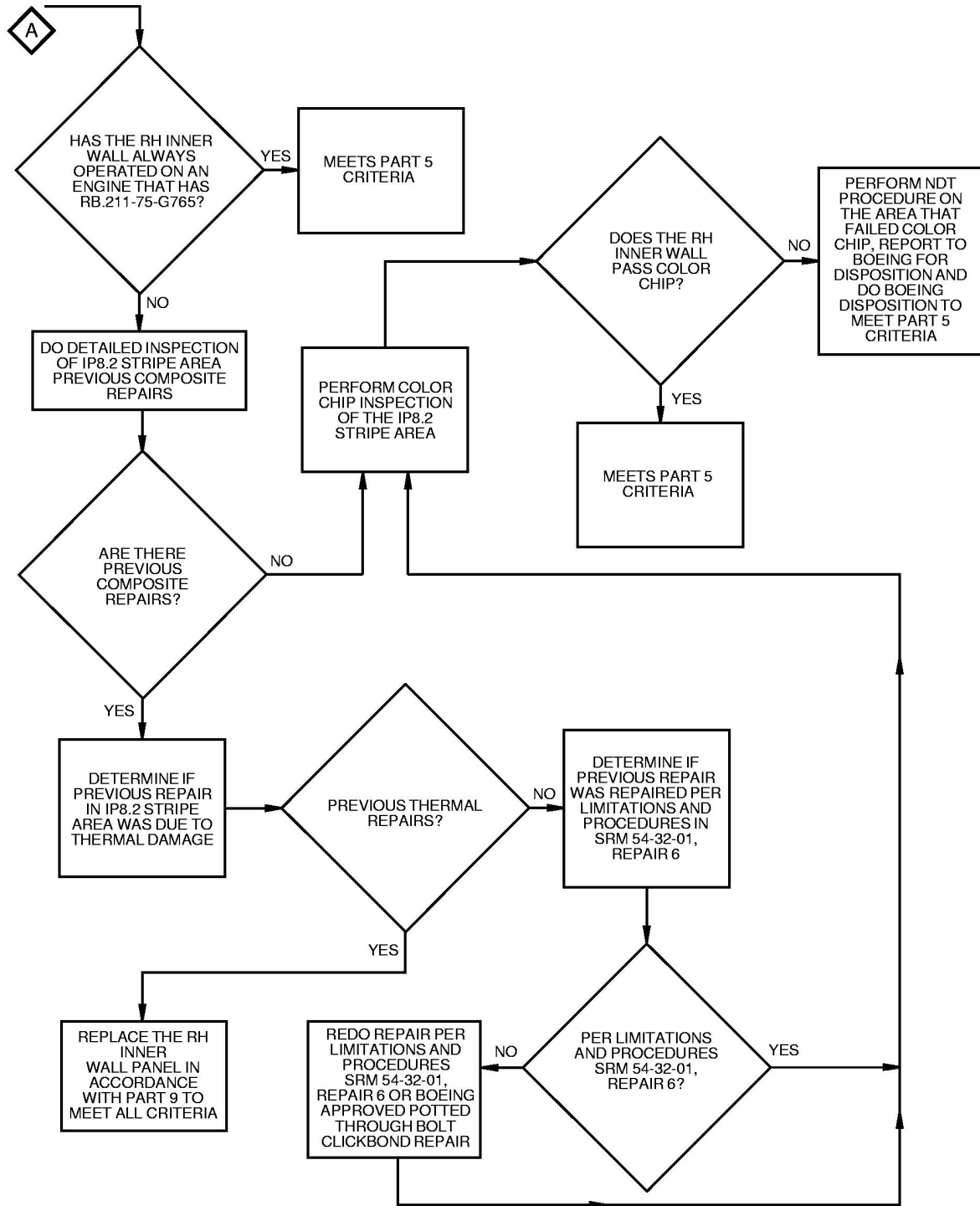
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RIGHT TR HALF - PART 5

2308814

APPENDIX E: RIGHT SIDE INNER WALL FLOWCHART  
(SHEET 2 OF 4)



RIGHT TR HALF - PART 5 (CONT.)

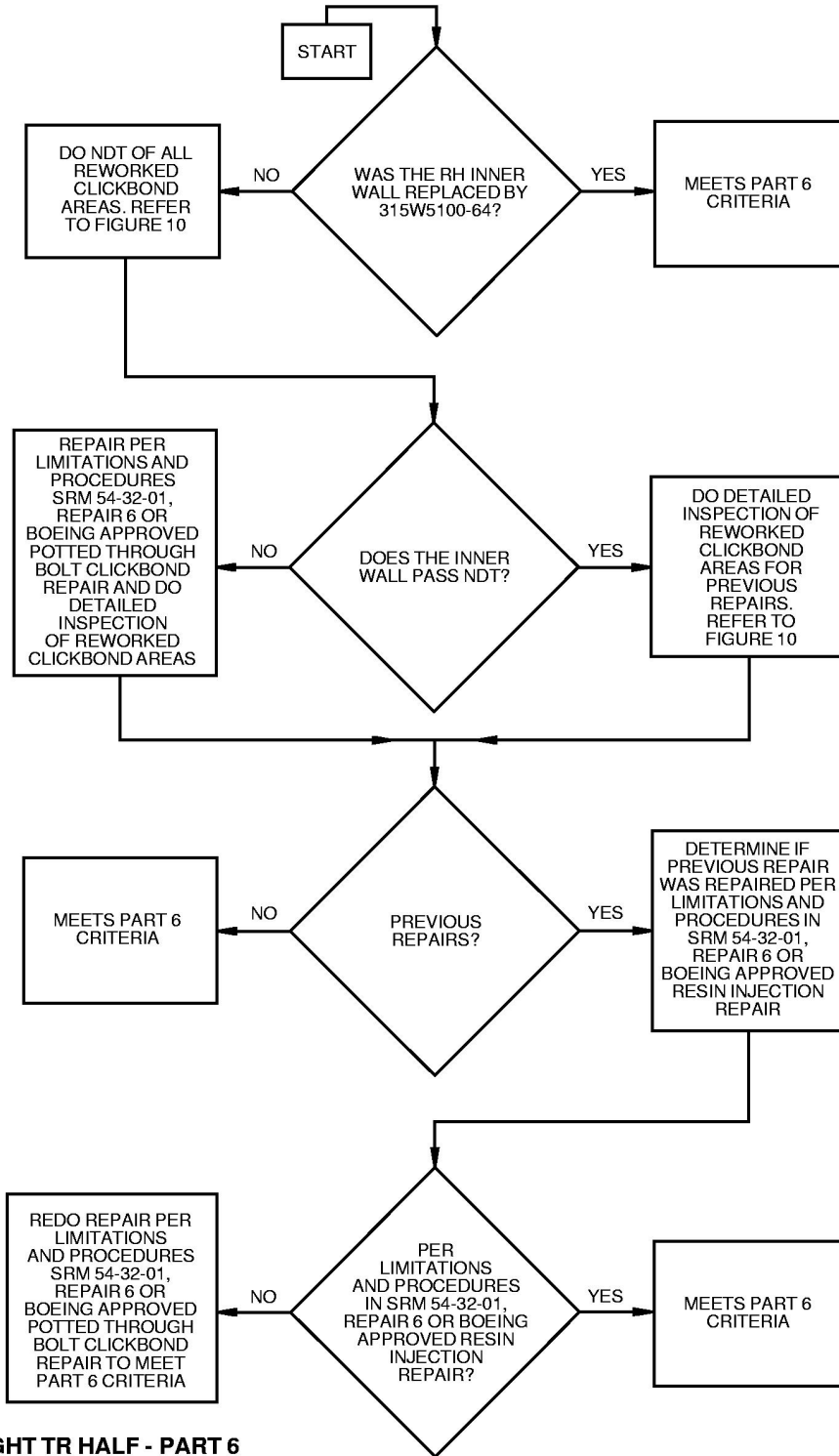
2308823

APPENDIX E: RIGHT SIDE INNER WALL FLOWCHART (SHEET 3 OF 4)

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RIGHT TR HALF - PART 6

2308824

APPENDIX E: RIGHT SIDE INNER WALL FLOWCHART (SHEET 4 OF 4)

**Structure Definitions for Holes**

1. For this work package 'permanent structure' is typically defined as the upper hinge beam, lower latch beam, aft cowl, inner wall and aft closeout assembly.
2. For this work package 'non-permanent structure' is typically defined as upper and lower splice plates and insulation blanket support brackets.

**General Visual Inspection - Dimensional Surface Defect Criteria and Alignment Conditions for Holes**

1. Each hole in the 'permanent structure' and/or 'non-permanent structure' must agree with the acceptable dimensional surface defect criteria in accordance with 777-200 SRM 51-40-05, 777-300 SRM 51-40-05.
2. Each hole in the 'permanent structure' and/or 'non-permanent structure' that goes through more than one surface must agree with the alignment conditions in accordance with 777-200 SRM 51-40-05, 777-300 SRM 51-40-05.

**Oversizing Holes**

1. If a hole in the 'permanent structure' and/or 'non-permanent structure' does not agree with the acceptable dimensional surface defect criteria and alignment conditions in accordance with 777-200 SRM 51-40-05, 777-300 SRM 51-40-05, each one can be corrected or repaired to a maximum of second oversize related to its initial nominal size.
2. 'Non-permanent structure' must be replaced if any hole cannot be corrected or repaired because it is at the maximum oversize, or if any hole cannot be aligned with a related hole in the 'permanent structure' that is at its maximum oversize. Any hole in the 'permanent structure' that cannot be corrected or repaired because it is at the maximum oversize, contact The Boeing Company for repair instructions and do the repair to the 'permanent structure'. Refer to Boeing Service Letter 777-SL-51-013.
3. If a hole in kept 'non-permanent structure' is necessary to be corrected or repaired, it is recommended that it is oversized away from the 'permanent structure' to which it is related.
4. If a hole in the 'non-permanent structure' is necessary to be corrected or repaired, it is recommended that a related 'permanent structure' hole, that is not at its maximum oversize, is oversized to correct or repair a hole in 'non-permanent structure' during the last drilling/reaming of a hole.
5. First and second oversized (X) and (Y) fastener substitutions are allowed. Substitutions are restricted to the following list. If the length of any fastener specified in this service bulletin does not meet installation standards given in 777-200 SRM 51-40-02, 777-300 SRM 51-40-02., then a fastener of the same specification, or an approved substitute, with a length which meets the installation standards given in 777-200 SRM 51-40-02, 777-300 SRM 51-40-02. may be used. In addition, washers may be installed for fastener grip length in accordance with 777-200 SRM 51-40-02, 777-300 SRM 51-40-02.

| Drawing Fastener | Allowable Substitution |
|------------------|------------------------|
| BACB30NW()K()    | BACB30VU()K()          |
| BACB30VT()K()    | BACB30MY()K()          |
| BACB30MY()K()    | BACB30VT()K()          |

**APPENDIX F: HOLES AND DRILLING - CONDITIONS, PROCEDURES, DEFINITIONS AND TOOLS  
(SHEET 1 OF 2)**

Original Issue: July 29, 2014

| Drawing Fastener | Allowable Substitution                              |
|------------------|---|
| BACR15BA()D()    | BACR15BA()D()C, BACR15BA()DD(), MS20426D, MS20426DD |
| 2ASPFF-V06-()AC  | 2MAFFF-V06-()AC                                     |
| ASPFF-V06-()AC   | MAFFF-V06-()AC                                      |
| ASPFF-V08-()N7AC | MAFFF-V06-()N7AC                                    |

### **Drilling/Reaming Tools**

1. During drilling, use a bushing tool as a guide to get holes that are not larger than the drill/reamer size. Also use the bushing tool to hold the drill perpendicular to the surface.

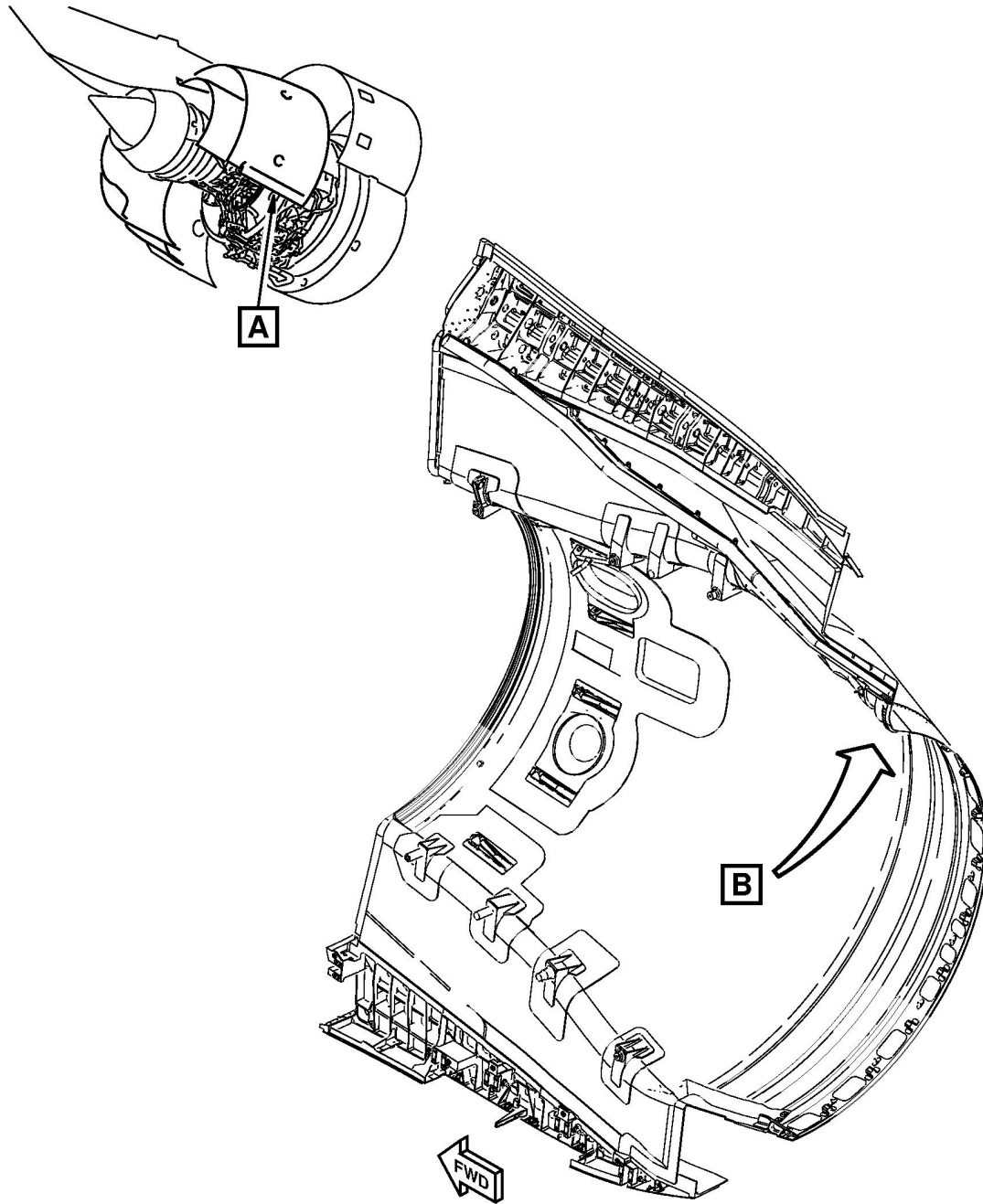
## **APPENDIX F: HOLES AND DRILLING - CONDITIONS, PROCEDURES, DEFINITIONS AND TOOLS (SHEET 2 OF 2)**

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ALERT

ALERT

The following illustration shows the IP8.2 zone to be inspected using the Thrust Reverser Inner Wall Surface Color Inspection. Refer to 777 AMM 78-31-01 for inspection requirements.



RIGHT SIDE THRUST REVERSER

A

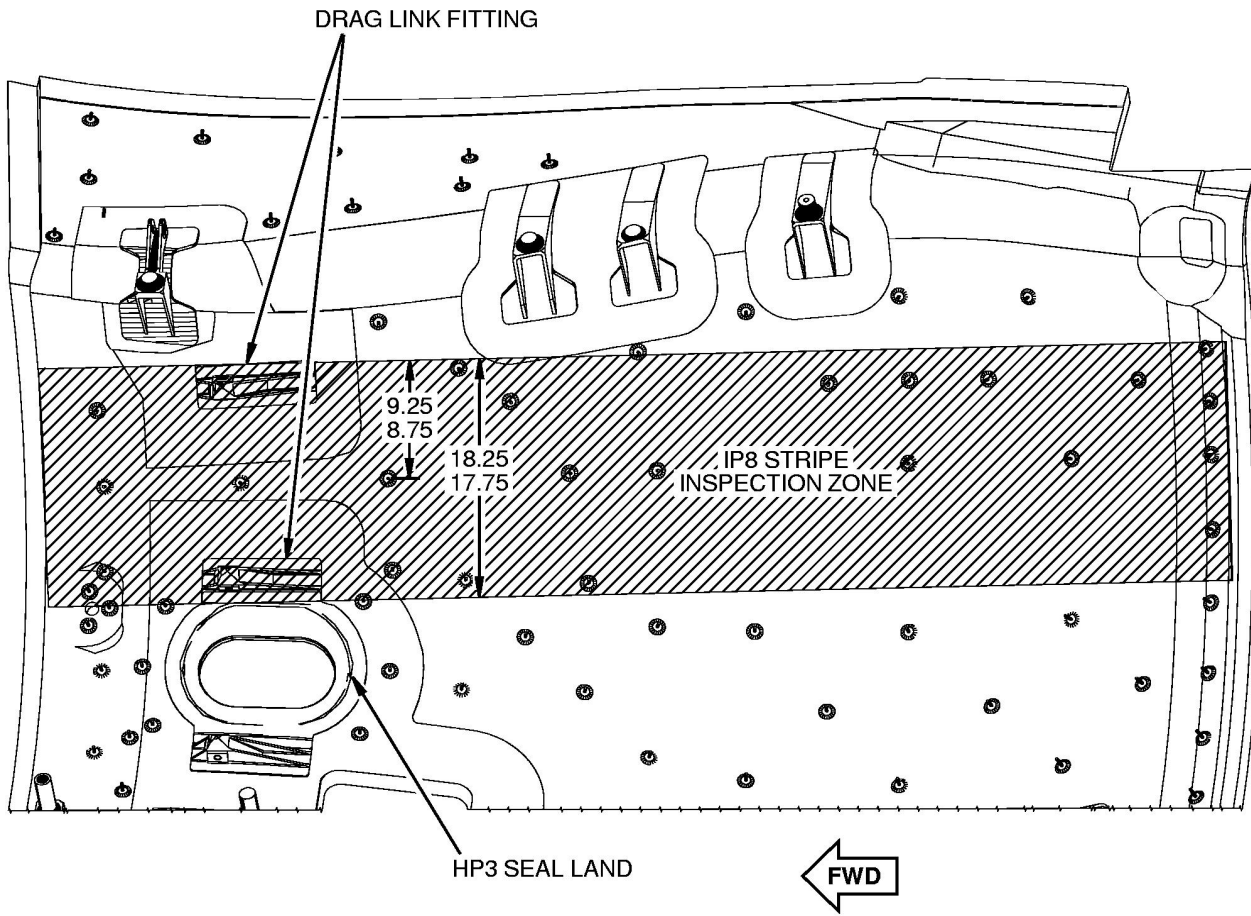
2308793

APPENDIX G: THRUST REVERSER INNER WALL SURFACE COLOR INSPECTION IP8.2 ZONE  
(SHEET 1 OF 2)

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THRUST REVERSER INNER WALL SURFACE COLOR INSPECTION IP 8.2 ZONE

**B**

2308797

**NOTE:** Inspection of metallic drag link fittings and HP3 seal land is not required.

**APPENDIX G: THRUST REVERSER INNER WALL SURFACE COLOR INSPECTION IP8.2 ZONE (SHEET 2 OF 2)**

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