

SERVICE BULLETIN REVISION TRANSMITTAL SHEET

**CL-600-2C10, CL-600-2D15 and CL-600-2D24
CANADAIR REGIONAL JET (CRJ) AIRCRAFT**

SERVICE BULLETIN 670BA-28-011

**SUBJECT: Fuel System – Vent System – Installation of a Boot Around the Connecting
Fuel Pipe to the Climb Vent Loop Coupling (SFAR 88)**

This page transmit:
Revision C of Service Bulletin 670BA-28-011
pages 1 thru 58, dated 05 Jun/2008.

<p>The changes in this revision have no effect on aircraft that have incorporated a previous issue of this service bulletin.</p>

Reason:

Revised Accomplishment Instructions, paragraph 2., to:

Remove o-ring (13) and sleeve (12) from the figure 8 and from the instructions.

This revision also includes small editorial changes that do not have an effect on the technical content.

Document Instructions:

Discard the copy of Service Bulletin 670BA-28-011, Revision B, dated Jul 04/2007.
Replace with the copy attached.

Service Bulletin History:

Initial issue, Nov 07/2005.

Revision A, Jan 22/2007.

Revision B, Jul 04/2007.

SERVICE BULLETIN

Technical
Publications

THIS SERVICE BULLETIN IS SENT TO EACH OPERATOR. IF THE OPERATOR HAS LEASED AIRCRAFT, THIS SERVICE BULLETIN MUST BE SENT TO THE LESSEE. IF THE OPERATOR HAS SOLD AIRCRAFT OR TRANSFERRED SPARES IN THE LAST SIX MONTHS, THIS SERVICE BULLETIN MUST BE SENT TO THE NEW OWNER UNLESS CONFIRMATION WAS RECEIVED THAT BOMBARDIER REGIONAL AIRCRAFT DIVISION HAS INCLUDED THE NEW OPERATOR ON THE DISTRIBUTION LIST.

ATA SYSTEM: 28-12

NUMBER: 670BA-28-011

SUBJECT: Fuel System – Vent System – Installation of a Boot Around the Connecting Fuel Pipe to the Climb Vent Loop Coupling (SFAR 88)

1. PLANNING INFORMATION

A. Effectivity

(1) Aircraft Affected:

Service Bulletin: CL-600-2C10 Canadair Regional Jet (CRJ)
Aircraft Serial Numbers 10003 thru 10169.

Production: This change will be incorporated before delivery on
Aircraft Serial Numbers 10002, 10170 and
subsequent.

Service Bulletin: CL-600-2D24 Canadair Regional Jet (CRJ)
Aircraft Serial Numbers 15001 thru 15025.

Production: This change will be incorporated before delivery on
Aircraft Serial Numbers 15026 and subsequent.

NOTE: The instructions in this service bulletin are only applicable to the systems and parts installed at the time of delivery of the aircraft or as changed by Bombardier Aerospace Service Bulletin(s). Before you do this bulletin, examine all STC, STA or equivalent action changes to make sure this bulletin can be completed.

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B. Reason

(1) Condition

An analysis shows that if a leak occurs in the climb vent-loop, fuel can spill on the wing anti-ice ducts.

(2) Evidence

This was found at the analysis of the fuel system for SFAR 88.

(3) Objective/Benefit

This service bulletin gives the instructions to do the installation of a boot and drain tube under the climb vent loop. When this service bulletin is done, it will prevent fuel to flow on the adjacent wing anti-ice system if a leak occur on the climb vent loop. This will increase the safety of the fuel system.

C. Description

Circuit breakers are opened. The aircraft is defueled. The electrical power and the access panels are removed from the aircraft. The Main and the APU batteries are disconnected. The fuel tanks are prepared for access. The bleed-air leak detection loops are disconnected. Wing anti-ice supply duct are removed.

Drain fittings are installed on the fairings. Some blankets are cut. Brackets and standoffs are installed. The longeron is modified to increase the diameter of the hole. A Type 1 fluorescent penetrant inspection is done. The flange inside the hole of the longeron is roto-peened. The overwing vent ducts and drain tubes are installed. The wing anti-ice duct is installed.

The access panels are installed. The circuit breakers are closed. The electrical power is apply from the aircraft. The main and the APU batteries are connected. A leak test of the wing anti-ice ducts is done.

D. Compliance

Recommended Service Bulletin.

Bombardier Aerospace recommends that this service bulletin be done no more than 4500 flight hours from the release date on this service bulletin unless otherwise directed by the airworthiness authority of the operator.

E. Approval

The technical content of this service bulletin has been approved under the authority of the TCCA Design Approval Organization No: DAO #93-Q-02.

F. Manpower

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Man-hours given below are an estimate for direct labor done by an experienced crew on an aircraft prepared for maintenance.

This estimate does not include the time necessary for:

- Administrative functions such as planning, liaison, familiarization, and report writing.
- Non productive elapsed time such as rest time, having meals, and crew shift changes.
- Elapsed time such as for paint to dry, sealant to cure, and fuel tank venting.
- Preparation for modification (unless specified in the accomplishment instructions) such as cleaning and getting parts, tools, consumables, and ground equipment.
- Quality assurance inspections, troubleshooting and/or correction of discrepancies found when a task is done.
- All other activities that are not considered by Bombardier Aerospace as directly related to the accomplishment of this procedure.

It will take an estimated 22.0 man-hours to complete this service bulletin. The man-hours are divided as shown in the table that follows (elapsed cure time is not included in the man-hour summary given below)

TASK	MAN-HOURS	MAX. PERSONS	ELAPSED TIME
(1) Job Set-Up	5.0	2	2.5 [1]
(2) Procedure	11.0	2	5.5
(3) Test	1.0	2	0.5
(4) Job Close-Out	5.0	2	2.5
(5) Cure Time	N/A	N/A	24.0 [2]
[1] The elapsed time to remove the fuel fumes is not included and can be different for each aircraft.			
[2] Refer to SRM Chapter 51-23-00 for accelerated cure times.			

Bombardier Aerospace does not cover the labor costs for this service bulletin.

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G. Material – Price and Availability

- (1) The kit in the table that follows is available from Bombardier Aerospace Regional Aircraft. Refer to the paragraphs below for the terms and conditions.

NOTE: For a list of the kit contents, refer to paragraph 3.A.

For Aircraft that have not incorporated the Initial issue and Revision A of this service bulletin and that have not yet ordered kits

KIT NUMBER	NAME	TERMS AND CONDITIONS
670BA28011K1A	SFAR 88 – Shrouding of Fuel Climb Vent Interface	Refer to paragraph 1.G.(2)

For Aircraft that have not incorporated the Initial issue and Revision A of this service bulletin but that have ordered kits

KIT NUMBER	NAME	TERMS AND CONDITIONS
670BA28011K500	Delta kit for kit 670BA28011K1	Refer to paragraph 1.G.(2)

- (2) A minimum quantity of kits is available as of the release date of this service bulletin. More kits will be available six months after the date that the purchase order is received from the operator.

Please send a chargeable purchase order to the address below to schedule the kit(s):

Bombardier Aerospace
Customer Account Service Team (CAST) – Kit Group
123 Garratt Blvd, N42-24
Downsview, Ontario
Canada M3K 1Y5
Fax: 416-375-3060
Phone: 416-375-3920

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Please speak with a representative of the Customer Account Service Team (CAST) for the kit price. The prices quoted are subject to the standard terms and conditions of Bombardier Aerospace Regional Aircraft. Quotations are subject to acceptance in the 30 days that follow the release date on this service bulletin. After 30 days, the price will be given on request. Prices are quoted in United States Dollars, free carrier, at Lester B. Pearson International Airport, Toronto, Ontario, Canada.

- (3) Refer to paragraph 3.C. for a list of consumables for this service bulletin.

H. Tooling – Price and Availability

- (1) The tool kit in the table that follows is available from Bombardier Aerospace Regional Aircraft. Refer to the paragraph(s) below for terms and conditions.

NOTE: For a list of the kit contents, refer to paragraph 3.A.

KIT NUMBER	NAME	TERMS AND CONDITIONS
670BA28011K90	Modification of the Longerons, Tooling	Refer to paragraph 1.H.(2)

- (2) A minimum quantity of kits is available as of the release date of this service bulletin. More kits will be available six months after the date that the purchase order is received from the operator.

Please send a chargeable purchase order to the address below to schedule the kit(s):

Bombardier Aerospace
Customer Account Service Team (CAST) – Kit Group
123 Garratt Blvd, N42-24
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- (3) Refer to paragraph 3.D. for a list of special tools and equipment for this service bulletin.

I. Weight and Balance

For Aircraft CL-600-2C10 Canadair Regional Jet (CRJ)

WEIGHT	ARM	MOMENT [1]
2.10 (lb)	693.80 (inches)	1.457 (1000 lb-in)
0.95 (kg)	17.62 (m)	0.017 (1000 kg-m)
[1] The value in the Moment column is divided by 1000. Refer to the Weight & Balance Manual CSP B-041.		

For Aircraft CL-600-2D24 Canadair Regional Jet (CRJ)

WEIGHT	ARM	MOMENT [1]
2.10 (lb)	783.80 (inches)	1.646 (1000 lb-in)
0.95 (kg)	19.91 (m)	0.019 (1000 kg-m)
[1] The value in the Moment column is divided by 1000. Refer to the Weight & Balance Manual CSP C-041.		

J. Electrical Load Data

Not changed.

K. References

- Restriction and/or Special Instruction (RSI), C-28-0574-00, Revision B.
- Modification Summary 670T11834, Revision E.
- Modification Summary BA670T31168, Revision B.
- Aircraft Maintenance Manual (AMM), CSP B-001, Revision 18.
- Nondestructive Testing Manual (NDT), CSP B-010, Revision 4.
- Structural Repair Manual (SRM), CSP B-008, Revision 13.

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- For Bombardier Aerospace reference only: PCA 70896 and ECR BA670-0896.

L. Other Publications Affected

- Aircraft Illustrated Parts Catalog (IPC), CSP B-006.
- Aircraft Maintenance Manual (AMM), CSP B-001.

M. Relationship Chart

PRE-SB PART NUMBER	NAME	POST-SB PART NUMBER
SH670-35730-951	Longeron	KBA670-62100-3
SH670-35730-3		KBA670-62100-5
SH670-35730-5		KBA670-62100-7
SH670-35730-7		KBA670-62100-7
SH670-35730-952	Longeron	KBA670-62100-4
SH670-35730-4		KBA670-62100-6
SH670-35730-6		KBA670-62100-8
SH670-35730-8		KBA670-62100-8
BA670-10011-1	Blanket	BA670-10010-2001 or BA690-10010-2001
BA670-10011-2	Blanket	BA670-10010-2002 or BA690-10010-2002
BA670-10017-1	Blanket	BA670-10010-2003 or BA690-10010-2003

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2. ACCOMPLISHMENT INSTRUCTIONS

A. Job Set-Up

NOTE: This procedure is applicable to the left and right sides. The procedure that follows is written for the left side. The differences are given.

(1) Reference Information

REFERENCE	DESIGNATION
AMM 12-00-00-867-801	Standard Aircraft Configuration for Maintenance
AMM 12-11-28-650-804	Suction Defueling
AMM 12-11-28-650-805	Gravity Defueling
AMM 24-00-00-861-801	Connect Electrical Power to the Aircraft
AMM 24-00-00-861-802	Remove Electrical Power from the Aircraft
AMM 24-00-00-910-801	Electrical/Electronic Safety Precautions
AMM 24-00-00-910-802	Electrostatic Discharge Safety Precautions
AMM 24-32-00-040-801	Disconnect the Main Battery
AMM 24-32-00-040-802	Disconnect the APU Battery
AMM 24-32-00-440-801	Connect the Main Battery
AMM 24-32-00-440-802	Connect the APU Battery
AMM 28-00-00-910-801	Fuel Safety Precautions
AMM 28-11-00-840-801	Prepare Fuel Tank for Access
AMM 28-11-00-840-802	Removal of Fuel Fumes
AMM 28-11-01-000-802	Removal of the Aluminum Access Panel
AMM 28-11-01-400-802	Installation of the Aluminum Access Panel

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REFERENCE	DESIGNATION
AMM 28-12-13-000-803	Removal of the Climb Vent Tubes
AMM 30-11-00-790-801	Leak Test of the Wing Anti-Ice Ducts
AMM 30-11-06-000-801	Removal of the Supply Duct
AMM 30-11-06-400-801	Installation of the Supply Duct
AMM 36-21-00-910-801	Bleed-air Loop and Component Safety Practices
AMM 53-82-81-000-802	Removal of the Left Forward Wing-to-Fuselage Fairing (191BB)
AMM 53-82-81-000-803	Removal of the Right Forward Wing-to-Fuselage Fairing (192BB)
AMM 53-82-81-400-802	Installation of the Left Forward Wing-to-Fuselage Fairing (191BB)
AMM 53-82-81-400-803	Installation of the Right Forward Wing-to-Fuselage Fairing (192BB)
AMM 53-82-82-000-801	Removal of the Overwing Fairing, FS697 – FS735 (171AL/172AR)
AMM 53-82-82-400-801	Installation of the Overwing Fairing, FS697 – FS735 (171AL/172AR)
AMM 53-82-85-000-801	Removal of the Forward Underwing Fairing (193AL/193AR)
AMM 53-82-85-400-801	Installation of the Forward Underwing Fairing (193AL/193AR)
AMM 57-41-05-000-803	Removal of the Panel Assembly from SS15.50 to SS39.00 (521AB/621AB)
AMM 57-41-05-400-803	Installation of the Panel Assembly from SS15.50 to SS39.00 (521AB/621AB)
NDT 51-20-008-230	Liquid Penetrant – Inspection Procedures

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(2) Standard Practices Information

REFERENCE	DESIGNATION
AMM 20-21-00-910-801	Torquing of Threaded Fasteners
AMM 20-30-00-910-806	Hose Clamps
AMM 20-30-00-910-807	Wiggings Type Tube Connections
AMM 20-51-00-000-802	Removal of Lockwire
AMM 20-51-00-000-807	Removal of Safety Cables
AMM 51-22-67-340-801	Cementing of Standoff (Clickbond Fasteners)
AMM 51-23-00-390-806	Fillet Sealing
AMM 51-23-00-390-810	Wet Installation of Fasteners
AMM 51-23-00-390-812	Brushcoat Sealing of Fasteners
AMM 51-26-00-110-801	Solvent Cleaning
SRM 51-21-11-001-001	Alodine Solution Treatment
SRM 51-23-00-001-001	Pressure, Environmental, Fuel Tank and Firewall Sealing
SRM 51-24-11-001-001	Shot Peening
SRM 51-25-06-001-001	Fluid-Resistant Epoxy Primer
SRM 51-25-16-001-001	Fluid-Resistant (FR) Polyurethane Topcoat
SRM 51-25-52-001-001	Composite-Laminate Coatings
SRM 51-26-00-001-001	Cleaning
SRM 51-40-11-001-001	Preparation of Fastener Holes
SRM 51-42-06-001-001	Solid Rivets
SRM 51-42-10-001-001	Blind Rivets

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(3) Tolerances Information

Linear Tolerances		Angular Tolerance
0.XX in. (0.XX mm)	0.X in. (0.X mm)	+/-0°30"
+/-0.03 in.	+/-0.1 in.	
+/-0.76 mm	+/-2.5 mm	

NOTE: The tolerances above apply to the dimensions given in this service bulletin except if specified differently.

- (4) Make sure that the aircraft is in standard configuration for maintenance (AMM 12-00-00-867-801).

WARNING: OBEY ALL FUEL SAFETY PRECAUTIONS WHEN YOU DO WORK ON THE FUEL SYSTEM AND FUEL SYSTEM COMPONENTS. IF YOU DO NOT OBEY THE SAFETY PRECAUTIONS, YOU CAN CAUSE INJURY TO PERSONS AND DAMAGE TO EQUIPMENT.

- (5) Obey all the fuel safety precautions (AMM 28-00-00-910-801).

- (6) Obey all the electrostatic discharge safety precautions (AMM 24-00-00-910-802).

- (7) Defuel the fuel tanks (AMM 12-11-28-650-804) or (AMM 12-11-28-650-805).

- (8) Remove electrical power from the aircraft (AMM 24-00-00-861-802).

WARNING: OBEY ALL THE SAFETY PRECAUTIONS WHEN YOU DO MAINTENANCE ON OR NEAR ELECTRICAL/ELECTRONIC EQUIPMENT. YOU CAN CAUSE INJURY TO PERSONS AND/OR DAMAGE TO EQUIPMENT.

- (9) Obey all the electrical/electronic safety precautions (AMM 24-00-00-910-801).

- (10) Open, safety, and tag the circuit breakers that follows:

CB-PANEL	CB NO.	NAME
CBP-1	D7	A/ICE CONT CH A

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CB-PANEL	CB NO.	NAME
CBP-1	K6	ACS CONT 2 CH A
CBP-1	L1	ACS CONT 1 CH A
CBP-1	M6	L FUEL PUMP
CBP-1	M7	L FUEL PUMP CONT
CBP-1	M11	FUEL SYS CONT
CBP-1	N7	APU CONT
CBP-1	N8	FUEL GRAVITY XFLOW
CBP-1	N9	L XFER FUEL SOV
CBP-1	N10	APU FUEL PUMP
CBP-1 LOWER	R7	FUEL SOV R ENG
CBP-1 LOWER	R8	FUEL SOV L ENG
CBP-1 LOWER	S5	CROSSFLOW PUMP
CBP-2	G9	R FUEL PUMP
CBP-2	G10	R FUEL PUMP CONT
CBP-2	J4	ACS CONT 1 CH B
CBP-2	K6	ACS R MAN
CBP-2	P8	R XFER FUEL SOV
CBP-2 LOWER	T1	A/ICE CONT CH B
CBP-2 LOWER	T7	ACS CONT 2 CH B
CBP-2 LOWER	T8	ACS L MAN
CBP-2 LOWER	U11	FUEL SYS CONT
CBP-5	A3	APU BATT CONT
CBP-5	B4	FUEL DEFL

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CB-PANEL	CB NO.	NAME
CBP-5	B5	EMER REFL

(11) Disconnect the main battery (AMM 24-32-00-040-801).

(12) Disconnect the APU battery (AMM 24-32-00-040-802).

(13) Prepare the fuel tank for access (AMM 28-11-00-840-801).

(14) Remove the access panels that follow:

For the left side:

PANEL	NAME	REFERENCE
193AL	Forward Underwing Fairing	AMM 53-82-85-000-801
171AL	Overwing Fairing, FS697 – FS735	AMM 53-82-82-000-801
191BB	Left Forward Wing-to-Fuselage Fairing	AMM 53-82-81-000-802
511BB	Aluminum Access Panel	AMM 28-11-01-000-802
521AB	Panel Assembly from SS15.50 to SS39.00	AMM 57-41-05-000-803
611AB	Aluminum Access Panel	AMM 28-11-01-000-802

For the right side:

PANEL	NAME	REFERENCE
193AR	Forward Underwing Fairing	AMM 53-82-85-000-801
172AR	Overwing Fairing, FS697 – FS735	AMM 53-82-82-000-801
192BB	Right Forward Wing-to-Fuselage Fairing	AMM 53-82-81-000-803
511AB	Aluminum Access Panel	AMM 28-11-01-000-802
611BB	Aluminum Access Panel	AMM 28-11-01-000-802
621AB	Panel Assembly from SS15.50 to SS39.00	AMM 57-41-05-000-803

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WARNING: MAKE SURE THAT THERE ARE NO PERSONS IN THE FUEL TANK IF THE FUME CONCENTRATION IS MORE THAN THE LIMIT.

(15) Remove the fuel fumes from the fuel tanks (AMM 28-11-00-840-802).

(16) Obey all the bleed-air loop and component safety practices (AMM 36-21-00-910-801).

Refer to Figure 1.

(17) Put on the side the bleed-air leak-detection loops from SS15.50 to FS708.00 as follows:

WARNING: WHEN YOU CUT THE LOCKWIRE, USE EYE PROTECTION. PIECES THAT BREAK OFF CAN CAUSE INJURY.

WARNING: WHEN YOU CUT THE SAFETY CABLE, USE EYE PROTECTION. PIECES THAT BREAK OFF CAN CAUSE INJURY.

- (a) Remove and discard the lockwire or safety cable from the loop connectors (1) and (2), and electrical connectors (3) and (4).
- (b) Disconnect the loop connector (2) from the electrical connector (3).
- (c) Disconnect the electrical connector (4) from the loop connector (1).
- (d) Remove the nut (6) and washers (5) from the loop connector (1).
- (e) Remove the loop connector (1) from the bracket.
- (f) Put protective covers on the loop connectors (1) and (2), and on the electrical connectors (3) and (4).
- (g) Unlock the quick release screws (7) from bracket on the rib at SS15.55 up to FS708.00, as shown on View B.
- (h) Remove the bleed-air leak-detection loops from the opened dual mounting clips.
- (i) Remove the grommets (8) from the bleed-air leak-detection loops.
- (j) Carefully stow the bleed-air leak-detection loops.

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(18) Remove the wing anti-ice supply duct (9) (AMM 30-11-06-000-801).

B. Procedure

Refer to Figure 2.

NOTE: This procedure is applicable to the left and right sides. The procedure that follows is written for the left side. The differences are given.

- (1) Install the drain fittings (2) and (3) on the left fairing (1) as follows:
 - (a) With an indelible marker, put a line on the internal surface of the left fairing (1) at 4.29 in. (108.97 mm) from the inboard edge of the left fairing (1) as shown on View B.
 - (b) With an indelible marker, put marks on the internal surface of the left fairing (1) at 6.73 in. (170.94 mm) and 5.22 in. (132.59 mm) from the aft edge of the left fairing (1) as shown on View B.
 - (c) Put a backup block on the external face of the left fairing (1) at the marked location.
 - (d) Hold the backup block with clamps.

NOTE: Protection between the clamps and the left fairing (1) can be used to prevent damage.

CAUTION: BE CAREFUL WHEN YOU DRILL COMPOSITES. YOU CAN CAUSE DAMAGE TO THE WIRE MESH, THE COMPOSITE SURFACE PLIES, OR THE ALUMINUM FACING THAT IS BELOW. IF YOU DO NOT DO THIS, YOU CAN MAKE THE PARTS WEAKER OR DECREASE THE LIGHTNING PROTECTION.

- (e) Drill two pilot holes to a diameter of 0.098 in. (2.49 mm) through the left fairing (1) at the intersection of the two lines.
- (f) Increase the diameter of the two pilot holes of the left fairing (1) to 0.270 to 0.275 in. (6.86 to 6.99 mm).
- (g) Temporarily install the drain fittings (2) and (3) on the left fairing (1).
- (h) Hold the drain fittings (2) and (3) in position with double-sided tape.
- (i) Backdrill three holes to a diameter of 0.129 to 0.132 in. (3.28 to 3.35 mm) from the drain fittings (2) and (3) to the left fairing (1).

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- (j) Remove the drain fittings (2) and (3) and the backup block from the left fairing (1).
- (k) Remove the double-sided tape from the drain fittings (2) and (3).
- (l) Do a countersink on the six rivet holes on the external face of the left fairing (1) for the countersink blind fastener (4).
- (m) Remove the burrs and sharp edges on the drain fittings (2) and (3).
- (n) Lightly sand the edge wall of the holes of the fairing (1) to remove the burrs and sharp edges.
- (o) Clean the drain fittings (2) and (3) and left fairing (1) at the location of the drilled holes with clean, dry, lint-free cloths, moist with Isopropyl Alcohol or equivalent.
- (p) Apply epoxy on the edge wall of the holes on the left fairing (1).
- (q) Apply primer CMS565-01 on the bare area on the left fairing (1) and on the drain fittings (2) and (3).

NOTE: Do not apply primer into the rivets holes.

- (r) Apply polyurethane topcoat, color grey #16473 CMS565-02, on the left fairing (1) and on the drain fittings (2) and (3).

NOTE: Do not apply topcoat into the rivets holes.

- (s) Install the drain fittings (2) and (3) on the internal face of the left fairing (1) as follows:
 - 1 Apply faying surface sealant on the mating surface of the drain fittings (2) and (3).
 - 2 Put the drain fittings (2) and (3) in position.
 - 3 Hold the drain fittings (2) and (3) in position with Cleco-type fasteners.
 - 4 Wet install the countersink blind fasteners (4).
 - 5 Make sure that the countersink blind fasteners (4) are installed flush with the external skin of the left fairing (1).
 - 6 Make sure that there is a continuous bead of sealant all around drain fittings (2) and (3) on the internal face of the left fairing (1).

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- 7 Carefully remove all unwanted sealant around the drain fittings (2) and (3).

NOTE: Use a spatula and/or a phenolic or plastic scraper.

- 8 Make sure that there is no sealant inside the drain fittings (2) and (3).
- 9 Apply primer CMS565-01 on the countersink blind fasteners (4).
- 10 Apply polyurethane topcoat, color grey #16473 CMS565-02 on the countersink blind fasteners (4).

Refer to Figure 3.

- (2) Install the drain fittings (2) and (3) on the right fairing (1) as follows:
 - (a) With an indelible marker, put a line on the internal surface of the right fairing (1) at 5.58 in. (141.73 mm) from the inboard edge of the fairing (1) as shown on View B.
 - (b) With an indelible marker, put marks on the internal surface of the fairing (1) at 4.48 in. (113.79 mm) and 5.98 in. (151.89 mm) from the aft edge of the fairing (1) as shown on View B.

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- (c) Make sure to have a clearance of 0.10 in (2.54 mm) between the drain fitting (2) and the drain fittings (5), as shown on View B.
- (d) Make sure to have a clearance of 0.10 in (2.54 mm) between the drain fitting (3) and the drain fittings (2) and (5), as shown on Views B and C-C.
- (e) With an indelible marker, put marks on the internal surface of the right fairing (1) at the center of the drain fittings (2) and (3).

For all Aircraft

- (f) Put a backup block on the external face of the right fairing (1) at the location of the drain fittings (2) and (3).
- (g) Hold the backup block with clamps.

NOTE: Protection between the clamps and the left fairing (1) can be used to prevent damaged.

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CAUTION: BE CAREFUL WHEN YOU DRILL COMPOSITES. YOU CAN CAUSE DAMAGE TO THE WIRE MESH, THE COMPOSITE SURFACE PLIES, OR THE ALUMINUM FACING THAT IS BELOW. IF YOU DO NOT DO THIS, YOU CAN MAKE THE PARTS WEAKER OR DECREASE THE LIGHTNING PROTECTION.

- (h) Drill two pilot holes to a diameter of 0.098 in. (2.49 mm) through the right fairing (1) at the intersection of the two lines.
- (i) Increase the diameter of the two pilot holes of the right fairing (1) to 0.270 to 0.275 in. (6.86 to 6.99 mm).
- (j) Temporarily install the drain fittings (2) and (3) on the right fairing (1).
- (k) Hold the drain fittings (2) and (3) in position with double-sided tape.
- (l) Backdrill three holes to a diameter of 0.129 to 0.132 in. (3.28 to 3.35 mm) from the drain fittings (2) and (3) to the right fairing (1).
- (m) Remove the drain fittings (2) and (3) and the backup block from the right fairing (1).
- (n) Remove the double-sided tape from the drain fittings (2) and (3).
- (o) Do a countersink of the six rivet holes on the external face of the right fairing (1) for the countersink blind fastener (4).
- (p) Remove the burrs and sharp edges of the right fairing (1) and the drain fittings (2) and (3).
- (q) Lightly sand the edge wall of the holes of the fairing (1) to remove the burrs and sharp edges.
- (r) Clean the drain fittings (2) and (3) and right fairing (1) at the location of the drilled holes with clean, dry, lint-free cloths, moist with Isopropyl Alcohol or equivalent.
- (s) Apply epoxy on the edge wall of the holes on the left fairing (1).
- (t) Apply primer CMS565-01 on the bare area on the right fairing (1) and on the drain fittings (2) and (3).

NOTE: Do not apply primer into the rivets holes.

- (u) Apply polyurethane topcoat, color grey #16473 CMS565-02, on the right fairing (1) and on the drain fittings (2) and (3).

NOTE: Do not apply topcoat into the rivets holes.

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- (v) Install the drain fittings (2) and (3) on the internal face of the right fairing (1) as follows:
- 1 Apply faying surface sealant on the mating surface of the drain fittings (2) and (3).
 - 2 Put the drain fittings (2) and (3) in position.
 - 3 Hold the drain fittings (2) and (3) in position with Cleco-type fasteners.
 - 4 Wet install the countersink blind fasteners (4) on the drain fittings (2) and (3).
 - 5 Make sure that the countersink blind fasteners (4) are installed flush with the external skin of the right fairing (1).
 - 6 Make sure that there is a continuous bead of sealant all around drain fittings (2) and (3) on the internal face of the right fairing (1).
 - 7 Carefully remove all unwanted sealant around the drain fittings (2) and (3).

NOTE: Use a spatula and/or a phenolic or plastic scraper.

- 8 Make sure that there is no sealant inside the drain fittings (2) and (3).
- 9 Apply primer CMS565-01 on the countersink blind fasteners (4).
- 10 Apply polyurethane topcoat, color grey #16473 CMS565-02 on the countersink blind fasteners (4).

- (3) Remove the climb vent tubes (AMM 28-12-13-000-803).

Refer to Figure 4.

- (4) Cut the blanket (1) as follows:
- (a) With a marker put a mark on the blanket (1) at 2.0 in. (50.8 mm) from the upper edge of the blanket (1).
 - (b) Carefully cut the blanket (1) at the location of the mark.

NOTE: If necessary, remove and discard the tie-wrap from the blanket (1).

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- (c) With an indelible ink marker, identify the blanket (1) BA670-10017-1 as BA670-10010-2003.

For Aircraft CL-600-2D24 Canadair Regional Jet (CRJ)

- (d) With an indelible ink marker, identify the blanket (1) BA670-10017-1 as BA690-10010-2003.

Refer to Figure 5.

For all Aircraft

- (5) Remove the blanket (1) as follows:
 - (a) Remove the screws (2), the washers (3) and (4) that hold the blanket (1).
 - (b) Carefully put the blanket (1) on the side.

Refer to Figure 6.

- (6) Install the brackets (1) and (3) on the rib at SS15.50 as follows:
 - (a) Put the bracket (1) in position as follows:
 - 1 With an indelible marker, put a mark on the rib at SS15.50, at 2.40 in. (60.96 mm) and at 3.07 in. (77.98 mm) upward the cutout of the slat torque tube, as shown on view B.
 - 2 With an indelible marker, put a mark on the rib at SS15.50, at 3.82 in. (97.03 mm) and at 4.26 in. (108.20 mm) forward the front spar, as shown on view B.
 - 3 Align the pilot holes of the bracket (1) with the cross marks on the rib at SS15.50 as shown on view B.
 - 4 Hold the bracket (1) in position.
 - NOTE: If necessary, hold the bracket (1) with double-sided tape.
 - 5 Drill two holes to a diameter of 0.129 to 0.132 in. (3.28 to 3.35 mm) from the bracket (1) to the rib at SS15.50.
- (b) Put the bracket (3) in position as follows:

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- 1 With an indelible marker, put a mark on the rib at SS15.50, at 0.63 in. (16.00 mm) below the cutout of the slat torque tube, as shown on view B.
- 2 With an indelible marker, put a mark on the rib at SS15.50, at 6.77 in. (171.96 mm) forward the front spar, as shown on view B.
- 3 Align the edges of the bracket (3) with the marks on the rib at SS15.50 as shown on view B.
- 4 Hold the bracket (3) in position.

NOTE: If necessary, hold the bracket (3) with double-sided tape.

- 5 Drill two holes to a diameter of 0.129 to 0.132 in. (3.28 to 3.35 mm) from the bracket (3) to the rib at SS15.50.

- (c) Remove the brackets (1) and (3) from the front spar.
- (d) If installed, remove the double-sided tape from the brackets (1) and/or (3).
- (e) Remove the burrs and sharp edges from the brackets (1) and (3), and the rib at SS15.50.
- (f) With a brush, apply Alodine 1200S to the bare metal area.
- (g) Apply primer on the bare area.

NOTE: Do not apply primer into the holes.

- (h) Apply polyurethane topcoat, color green CMS565-02 on the bare area.

NOTE: Do not apply topcoat into the holes.

- (i) Apply faying sealant on the mating surface of the brackets (1) and (3).
- (j) Put the brackets (1) and (3) in position on the rib at SS15.50.
- (k) Hold the brackets (1) and (3) in position with Cleco-type fasteners.
- (l) Wet-install blind fasteners (2).

NOTE: Make sure that the head of the blind fasteners (2) is on the bracket side.

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- (7) Install the bracket (6) on the front spar as follows:
- (a) With an indelible marker, put a mark on the front spar at 1.80 in. (45.72 mm) from the top skin of the wing box as shown in view C.
 - (b) With an indelible marker, put a mark on the front spar at 0.14 in. (3.56 mm) from the splice plate as shown in view C.
 - (c) Align the edges of the bracket (6) against the marks on the front spar, as shown on view C.
 - (d) Hold the bracket (6) in position.

NOTE: If necessary, use double-sided tape.

- (e) Backdrill two holes to a diameter of 0.098 in. (2.489 mm) from the bracket (6) to the front spar.
- (f) Drill two holes to a diameter of 0.159 to 0.162 in. (4.04 to 4.11 mm) from the bracket (6) to the front spar.
- (g) Remove the bracket (6) from the front spar.
- (h) If installed, remove the double-sided tape from the bracket (6).
- (i) Remove the burrs and sharp edges from the bracket (6) and the front spar.
- (j) Use a clean, dry, lint-free cloth, moist with DS-108 wipe solvent or equivalent and clean the bare metal areas from the front spar and from the bracket (6).
- (k) With a brush, apply Alodine 1200S to the bare metal area.
- (l) Apply primer on the bare area.

NOTE: Do not apply primer into the holes.

- (m) In the fuel center tank, apply fuel tank coating on the bare area except in the holes.

NOTE: Do not apply topcoat into the holes.

- (n) Apply polyurethane topcoat, color green CMS565-02 on the bare area of the bracket (6).

NOTE: Do not apply topcoat into the holes.

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- (o) Apply faying sealant on the mating surface of the bracket (6).
- (p) Put the bracket (6) in position on the forward side of the front spar, as shown on view C.
- (q) Hold the bracket (6) in position with Cleco-type fasteners.
- (r) Wet-install fasteners (4) with collars (5).

NOTE: The collars (5) must be installed inside the center tank.

- (s) Apply sealing on collars (5).

Refer to Figure 7.

- (8) If necessary, cut the floating guide (3) as follows:

- (a) Cut the flange from the floating guide (3).
- (b) Remove all sharp edges and corners from the floating guide (3).

- (9) Do the modification of the longeron (1) as follows:

- (a) Open the hole in the longeron (1) as follows:

- 1 Put in position the spacer (2) and the floating guide (3) on the longeron (1) as follows:

- a With a guide pin (8), install the floating guide (3) on the outboard side of the longeron (1).

NOTE: Make sure that the guide pin (8) will move freely into the floating guide (3).

- b Install the spacer (2) on the inboard face of the longeron (1).

- c Clamp the spacer (2) and the floating guide (3) in position on the longeron (1).

- d Make sure that the guide pin (8) will move freely into the floating guide (3).

- e Make sure that the distance between the inner faces of the spacer (2) and the hole in the longeron (1) is more than 0.125 in. (3.18 mm).

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- 2 Increase the diameter of the hole to 1.141 (28.981 mm) as follows:
 - a Install the bushing (4) into the floating guide (3).
 - b With the counterbore (5) increase the hole of the longeron (1) to a diameter of 1.141 (28.981 mm).
- 3 Ream the hole to a diameter of 1.195 to 1.200 (30.353 to 30.480 mm) as follows:
 - a Install the bushing (6) into the floating guide (3).
 - b With the reamer (7) increase the hole of the longeron (1) to a diameter of 1.195 to 1.200 (30.353 to 30.480 mm).
 - c Remove the bushing (6) from the floating guide (3).
 - d Make sure that the longeron (1) hole is 1.195 to 1.200 in (30.353 to 30.480 mm).
 - e Remove the spacer (2) and the floating guide (3) from the longeron (1).
- (b) Do a Type 1 fluorescent penetrant inspection on the bare areas of the 1.200 in (30.480 mm) diameter hole in the longeron (1) (NDT 51-20-008-230).
- (c) If damage is found, during the penetrant inspection, speak with a representative of Bombardier Aerospace at the Technical Help Desk at phone number 514-855-8500 for a disposition.
- (d) If damage is not found, do the subsequent step.
- (e) With a roto peen, shot peen the inner face of the hole in the longeron (1) (SRM 51-24-11-001-001).
- (f) Apply primer on the bare area of the longeron (1).
- (g) Apply polyurethane topcoat, color grey, on the bare area of the longeron (1).
- (h) With an indelible ink marker, identify the longeron (1) as follows:
 - SH670-35730-951 as KBA670-62100-3,
 - SH670-35730-952 as KBA670-62100-4,
 - SH670-35730-3 as KBA670-62100-5,
 - SH670-35730-4 as KBA670-62100-6,

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- SH670-35730-5 or SH670-35730-7 as KBA670-62100-7.
- SH670-35730-6 or SH670-35730-8 as KBA670-62100-8.

Refer to Figure 8.

(10) Install the aft overwing vent-duct (4) as follows:

- (a) Put the bushing (5) and the clamp (7) on the overwing vent duct (4).
- (b) Put the boot (1) on the overwing vent duct (4).
- (c) With petrolatum, lightly lubricate the three new preformed o-rings (13).
- (d) Install the new preformed o-rings (13) on the ferrule ends of the overwing vent ducts (4) and the climb vent fitting.
- (e) Put the overwing vent duct (4) in position.
- (f) Pull the boot (1) down and install the coupling (11).
- (g) Install the coupling (11) between the overwing vent ducts (4) and (15).
- (h) Slide the bushing (5) fully into the boot (1) with the split facing up.
- (i) Make sure there is no gap between the flange of the bushing (5), and the boot (1).
- (j) Wind two turns of pressure sensitive tape around the boot (1) at the location where the clamp (7) will be installed.
- (k) Make sure that the boot (1) is fully installed over the fuselage climb vent fitting around the complete perimeter with no kink.
- (l) Temporarily install the wing anti-ice duct (AMM 30-11-06-400-801).
- (m) Make sure there is a minimum clearance of 0.20 in. (5.08 mm) between the boot (1) and the coupling cover wing anti-ice duct as shown in section E-E.
- (n) Remove the wing anti-ice duct (AMM 30-11-06-000-801).
- (o) Install the clamp (7) on the boot (1).

NOTE: It is permissible to rotate the clamp (7) to prevent contact with other parts.

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- (p) Tighten the clamp (7).
 - (q) Temporarily install the drain tube (10) into the boot (1).
 - (r) Make sure that the drain tube (10) is engage by more than 0.90 in. (22.86 mm) inside the boot (1).
 - (s) Temporarily install the clamp (8).
- (11) Install the aft overwing vent-duct (3) as follows:
- (a) Put the bushing (6) and the clamp (7) on the overwing vent duct (3).
 - (b) Put the boot (2) on the overwing vent duct (3).
 - (c) With petrolatum, lightly lubricate the preformed o-rings (13).
 - (d) Install the new preformed o-rings (13) on the ferrule ends of the overwing vent ducts (3).
 - (e) Put the sleeve (12) in position.
 - (f) Put the overwing vent duct (3) in position.
 - (g) Pull the boot (2) down and install the coupling (11).
 - (h) Torque the nut of the overwing vent duct (3).
 - (i) Slide the bushing (6) fully into the boot (2) with the split facing up.
 - (j) Make sure there is no gap between the flange of the bushing (6), and the boot (2).
 - (k) Wind two turns of pressure sensitive tape around the boot (2) at the location where the clamp (7) will be installed.
 - (l) Make sure that the boot (2) is fully installed over the fuselage climb vent fitting around the complete perimeter with no kink.
 - (m) Temporarily install the wing anti-ice duct (AMM 30-11-06-400-801).
 - (n) Make sure there is a minimum clearance of 0.20 in. (5.08 mm) between the boot (2) and the coupling cover wing anti-ice duct as shown in section H-H.
 - (o) Remove the wing anti-ice duct (AMM 30-11-06-000-801).

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(p) Install the clamp (7) on the boot (2).

NOTE: It is permissible to rotate the clamp (7) to prevent contact with the longeron.

(q) Tighten the clamp (7).

(r) Temporarily install the drain tube (9) into the boot (2).

(s) Make sure that the drain tube (9) is engage by more than 0.90 in. (22.86 mm) inside the boot (2).

(t) Temporarily install the clamp (8).

Refer to Figure 9.

(12) Install the standoffs (7) on the wing box as follows:

(a) With a marker, put a mark on the wing box skin at 2.26 in. (57.40 mm) from the aft side of the front spar flange as shown in view B.

(b) With a marker, put a mark on the wing box skin at 3.33 in. (84.58 mm) and at 1.14 in. (28.96 mm) from the wing to fuselage fitting (BL42.00).

(c) Temporarily install the clamps (9) around the drain tubes (5) and (6) as shown in view C.

(d) Temporarily install the screw (10) on the clamp (9) and the standoffs (7).

(e) Temporarily install the screws (12) on the clamps (9) and the brackets (11) installed on the front spar.

(f) Put the standoffs (7) over the crossmarks on the wing box.

(g) If the drain tube(s) (5) and/or (6) is/are pre-loaded, do as follows:

1 If necessary, install a maximum of three washer(s) (8) on the brackets (11) and/or standoff(s) (7) to make sure that the standoff(s) (7) is/are not pre-loaded.

2 If necessary, move the applicable standoff(s) (7) on the drain tube until that the standoff(s) (7) is/are not pre-loaded.

(h) Make sure there is a minimum clearance of 0.20 in. (5.08 mm) between the boots (2) and (4) and the coupling cover of the wing anti-ice duct.

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- (i) Make sure that the drain elbow of the boots (2) and (4) does not have kinks, wrinkles, or bends.
- (j) Make sure that the drain elbow of the boots (2) and (4) keeps its natural smooth angle.
- (k) Make sure there is no pre load on the drain tubes (5) and (6).
- (l) When the correct location is found, put a mark around the base of the standoff(s) (7) on the wing box.
- (m) Remove the screws (10), clamps (9) and washers (8) from the standoffs (7).
- (n) Remove the drain tubes (5) and (6) as follows:
 - 1 Remove the screw (12) and washers (8) from the clamps (9) that hold the drain tubes (5) and (6).
 - 2 Remove the drain tubes (5) and (6).
- (o) Install the standoffs (7).

Refer to Figure 5.

(13) Cut the blanket (1) as follows:

- (a) Make two holes of 0.50 in. (12.7 mm) in the blanket (1) to match the location of the standoff as shown in view B.

NOTE: Put protection under the blanket (1) to prevent damage to the front spar.

- (b) Make a cut-out of 1.70 in (43.18 mm) high by 0.25 in. (6.35 mm) wide in the blanket (1) to match the location of bracket as shown in view B.

NOTE: Put protection under the blanket (1) to prevent damage to the front spar.

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- (c) With an indelible ink marker, identify the blanket (1) BA670-10011-1 as BA670-10010-2001.
- (d) With an indelible ink marker, identify the blanket (1) BA670-10011-2 as BA670-10010-2002.

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- (e) With an indelible ink marker, identify the blanket (1) BA670-10011-1 as BA690-10010-2001.
- (f) With an indelible ink marker, identify the blanket (1) BA670-10011-2 as BA690-10010-2002.

For all Aircraft

- (14) Install the screws (2), the washers (3) and (4) on the blanket (1).

Refer to Figure 8.

- (15) Install the drain tube (10) into the boot (1) as follows:

- (a) Insert the drain tube (10) into the boot (1).
- (b) Make sure that the tube (10) is engage by more than 0.90 in. (22.86 mm) inside the boot as shown in section E-E.
- (c) Wind tightly two turns of pressure sensitive tape, at 0.25 in. (6.35 mm) from the edge of the boot (1).
- (d) Install the clamp (8) over the pressure sensitive tape.
- (e) Torque the clamp (8) from 7 to 8 lbf•in (0.791 to 0.903 N.m).

- (16) Install the drain tube (9) into the boot (2) as follows:

- (a) Insert the drain tube (9) into the boot (2).
- (b) Make sure that the tube (9) is engage by more than 0.90 in. (22.86 mm) inside the boot as shown in section H-H.
- (c) Wind tightly two turns of pressure sensitive tape, at 0.25 in. (6.35 mm) from the edge of the boot (2).
- (d) Install the clamp (8) over the pressure sensitive tape.
- (e) Torque the clamp (8) from 7 to 8 lbf•in (0.791 to 0.903 N.m).

Refer to Figure 9.

- (17) Install the clamps (9) on the drain tubes (5) and (6) as follows:

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- (a) Install the clamps (9) around the drain tubes (5) and (6) as shown in view E.
- (b) Install the screw (10) on the clamps (9), washer(s) (8) and the standoffs (7).

NOTE: Make sure there is no pre-load on the drain tubes (5) and (6).

NOTE: It is permissible to install a maximum of three washers (8) on the standoff (7).

- (c) Install the screw (12) on the clamps (9), washer(s) (8) and the brackets (11).
- (d) Make sure that the drain elbow of the boots (2) and (4) does not have kinks, wrinkles, or bends.

NOTE: The drain elbow of the boots (2) and (4) must keep its natural smooth angle.

NOTE: To help the adjustment of the drain tubes (5) and (6), it is permissible to install a maximum of three washers (8) on the brackets (11).

(18) Install the Tygon tubes (14) as follow:

- (a) Insert the Tygon tubes (14) into the drain tubes (5) and (6) as shown in section H-H.
- (b) Wind two turns of pressure sensitive tape around the tubes (5) and (6) at the location where the clamps (13) will be installed.
- (c) Install the clamps (13) over the pressure sensitive tape.
- (d) Torque the clamps (13).
- (e) Install the clamps (16) around the Tygon tubes (14).
- (f) Install the screws (12) on the clamps (16), washer (8) and the brackets (11).
- (g) Install the access panels that follow:

PANEL	NAME	REFERENCE
191BB	Left Forward Wing-to-Fuselage Fairing	AMM 53-82-81-400-802

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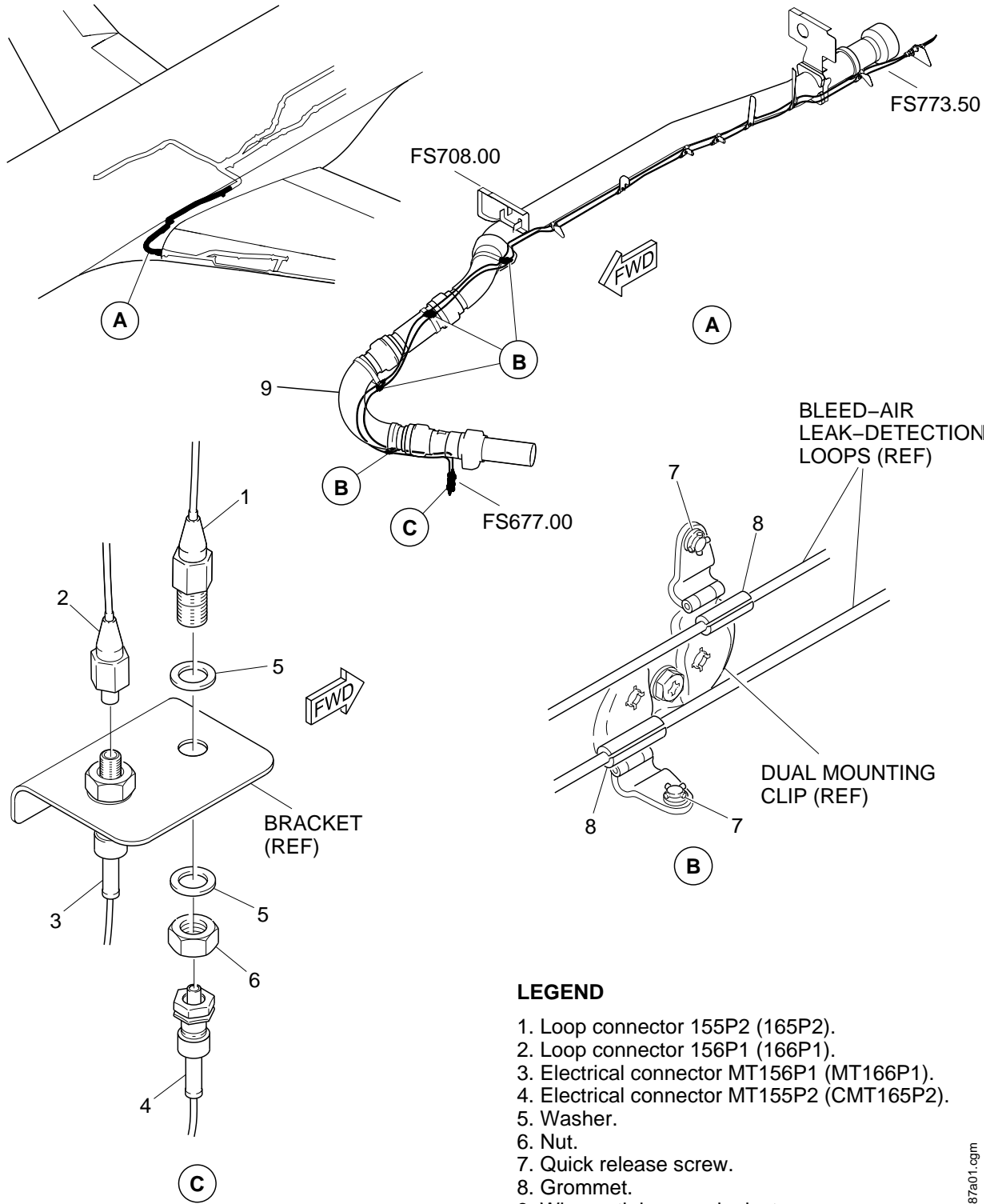
PANEL	NAME	REFERENCE
192BB	Right Forward Wing-to-Fuselage Fairing	AMM 53-82-81-400-803

- (h) Insert the Tygon tubes (14) into the drain fittings (15).
- (i) Make sure that the Tygon tubes (14) is engage by more than 0.75 in. (19.05 mm) inside the drain fittings (15) as shown in section G-G.
- (j) Wind tightly two turns of pressure sensitive tape, at 0.25 in. (6.35 mm) from the edge of the Tygon tubes (14).
- (k) Install the clamps (13) over the pressure sensitive tape.
- (l) Torque the clamps (13).

Refer to Figure 10.

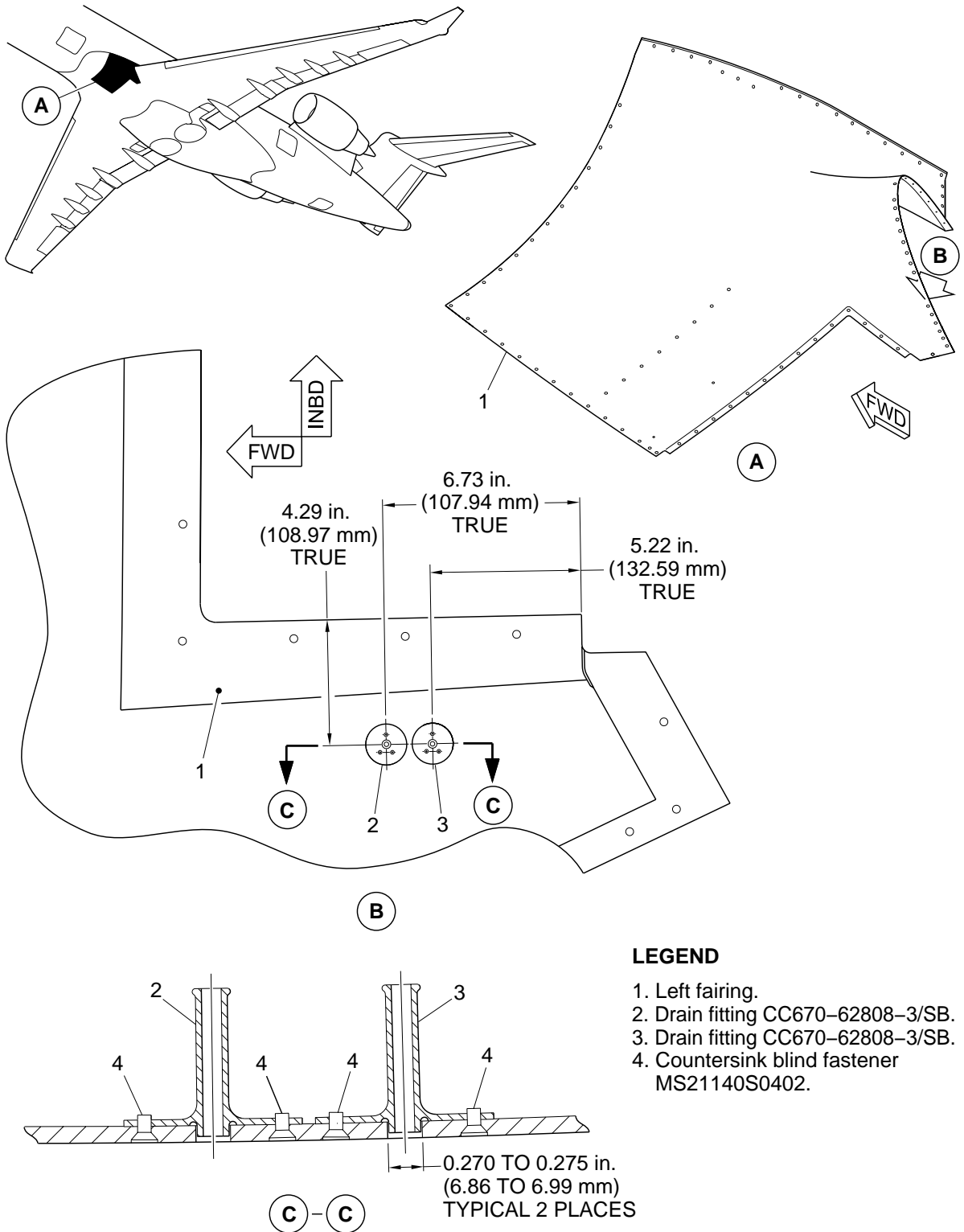
- (19) Install the wing anti-ice supply duct (1) with the new clamps (2) (AMM 30-11-06-400-801).

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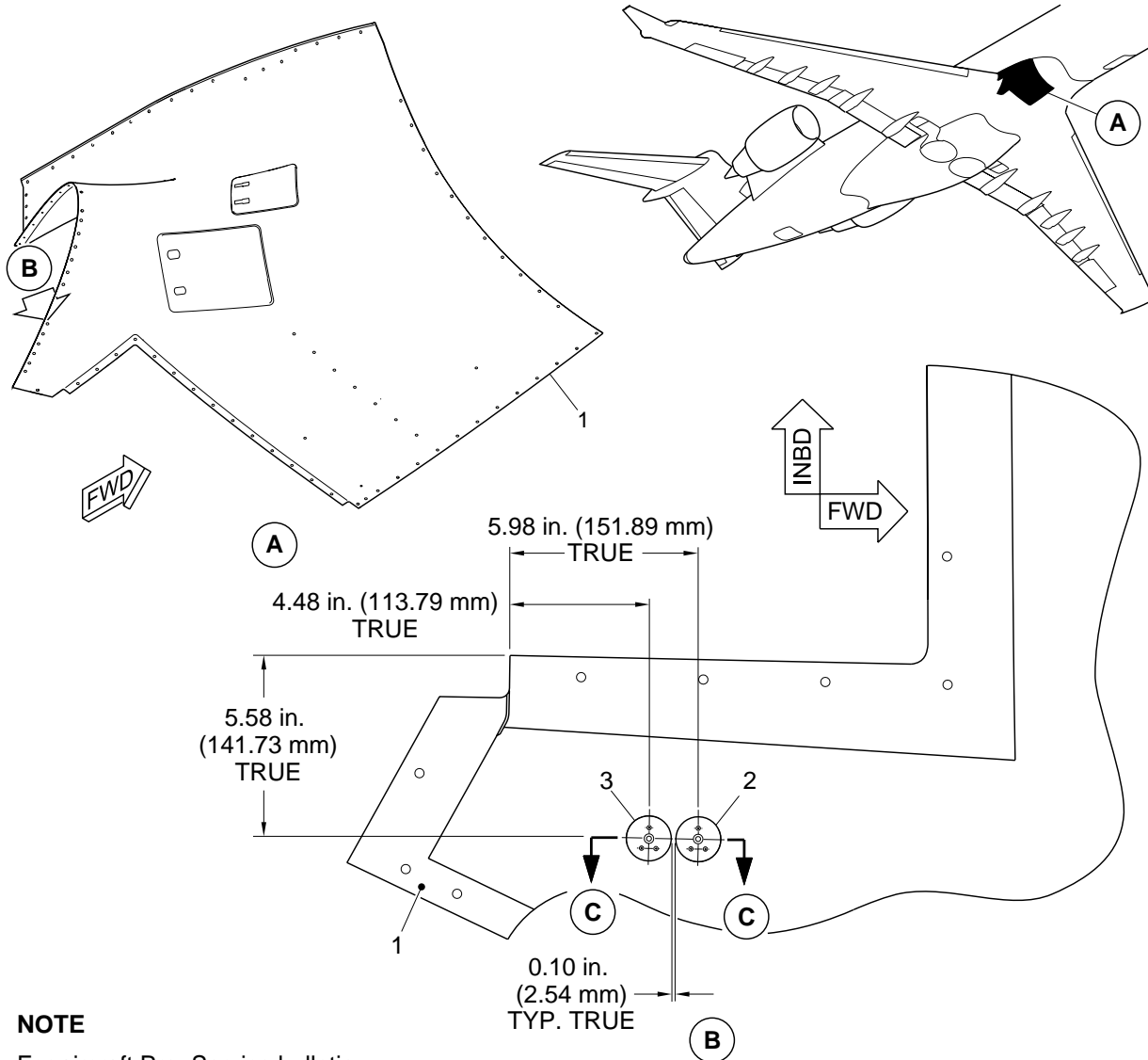
Removal/Installation of the wing anti-ice system from SS15.50 to FS705.35
Figure 1

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Modification of the Left Fairing
Figure 2

SERVICE BULLETIN 670BA-28-011

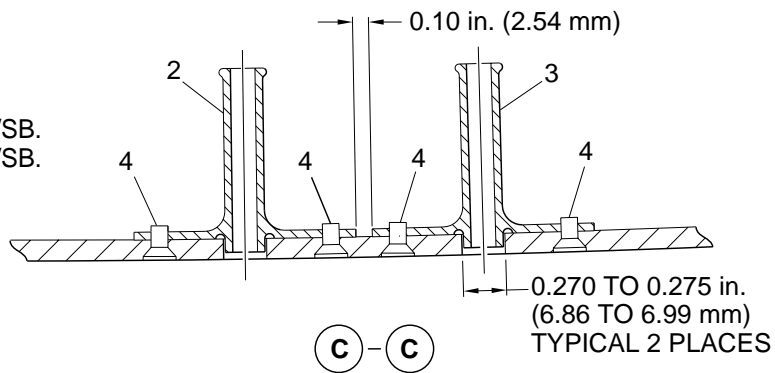


NOTE

For aircraft Pre-Service bulletin 670BA-28-026.

LEGEND

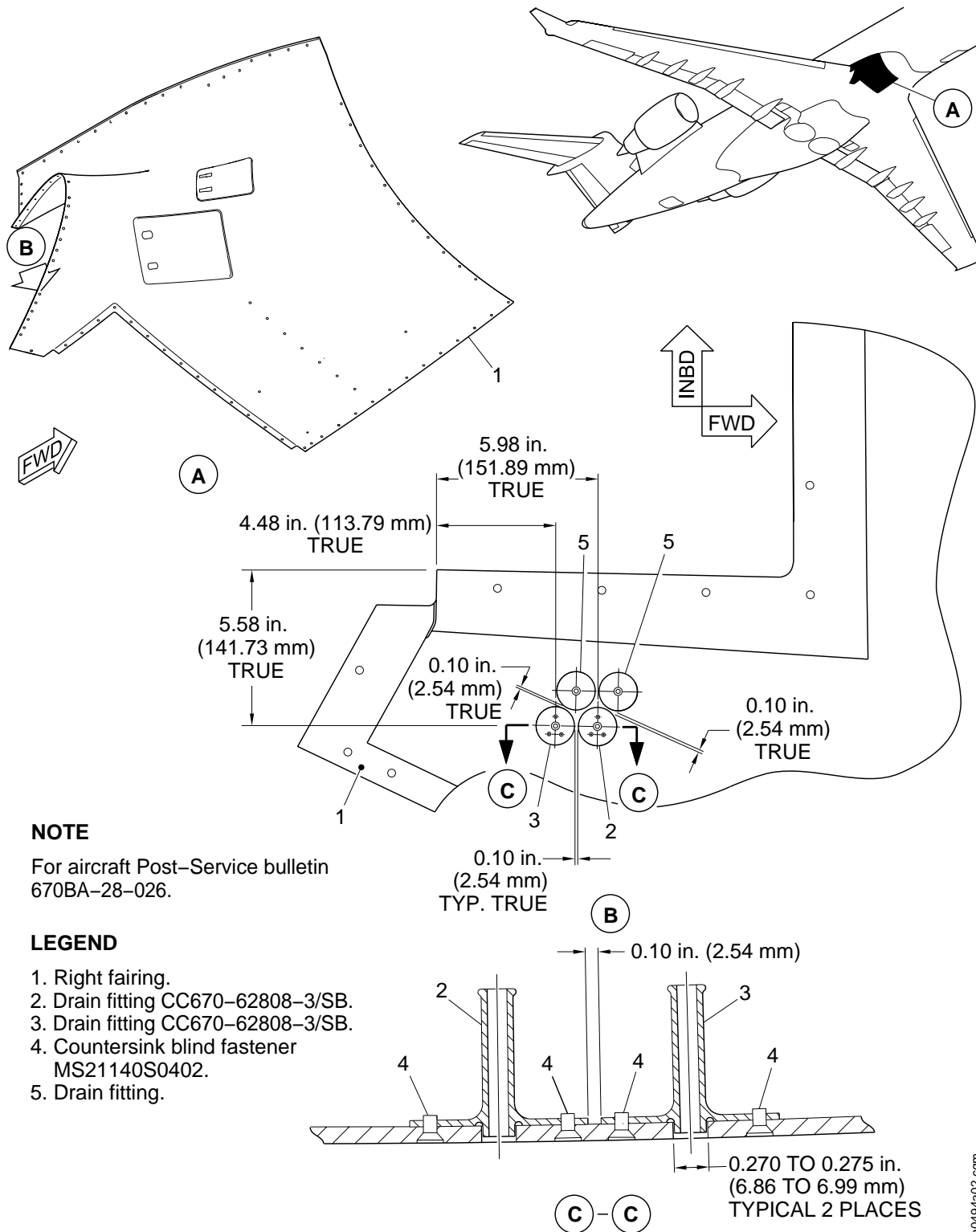
- 1. Right fairing.
- 2. Drain fitting CC670-62808-3/SB.
- 3. Drain fitting CC670-62808-3/SB.
- 4. Countersink blind fastener MS21140S0402.



ba0494a01.cgrm

Modification of the Right Fairing
Figure 3 (Sheet 1 of 2)

SERVICE BULLETIN 670BA-28-011



NOTE

For aircraft Post-Service bulletin 670BA-28-026.

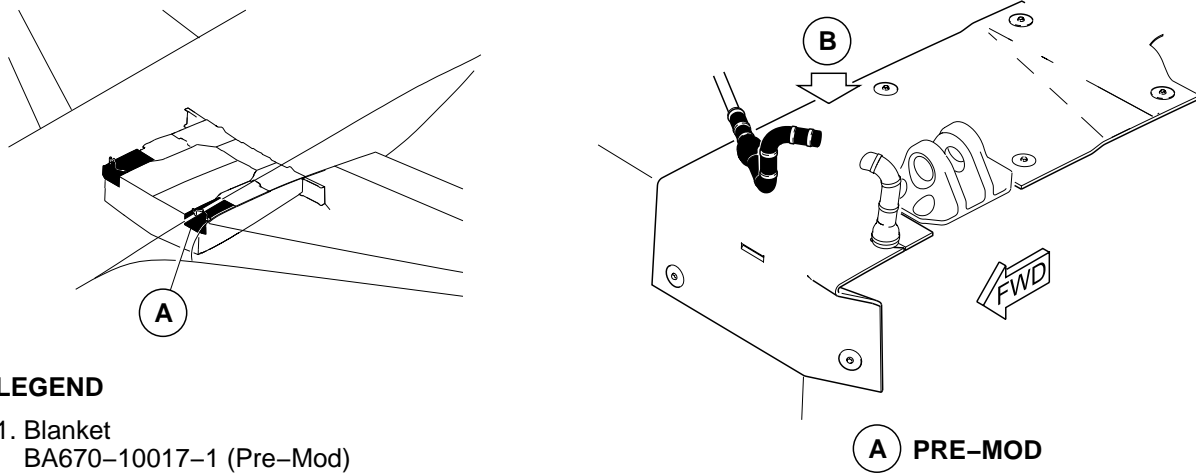
LEGEND

- 1. Right fairing.
- 2. Drain fitting CC670-62808-3/SB.
- 3. Drain fitting CC670-62808-3/SB.
- 4. Countersink blind fastener MS21140S0402.
- 5. Drain fitting.

Modification of the Right Fairing
Figure 3 (Sheet 2 of 2)

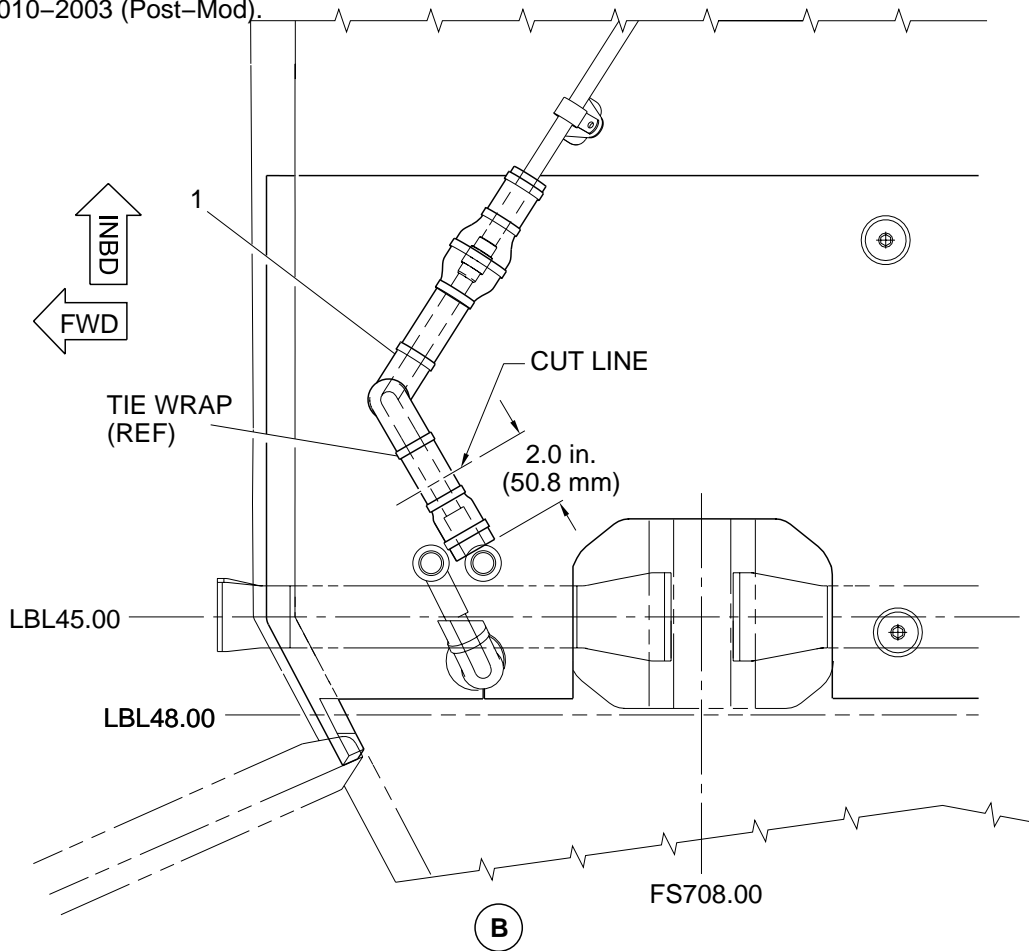
ba0494a02.cgrm

SERVICE BULLETIN 670BA-28-011



LEGEND

- 1. Blanket
 - BA670-10017-1 (Pre-Mod)
 - BA670-10010-2003 or
 - BA690-10010-2003 (Post-Mod).



**LEFT SIDE SHOWN,
RIGHT SIDE OPPOSITE**

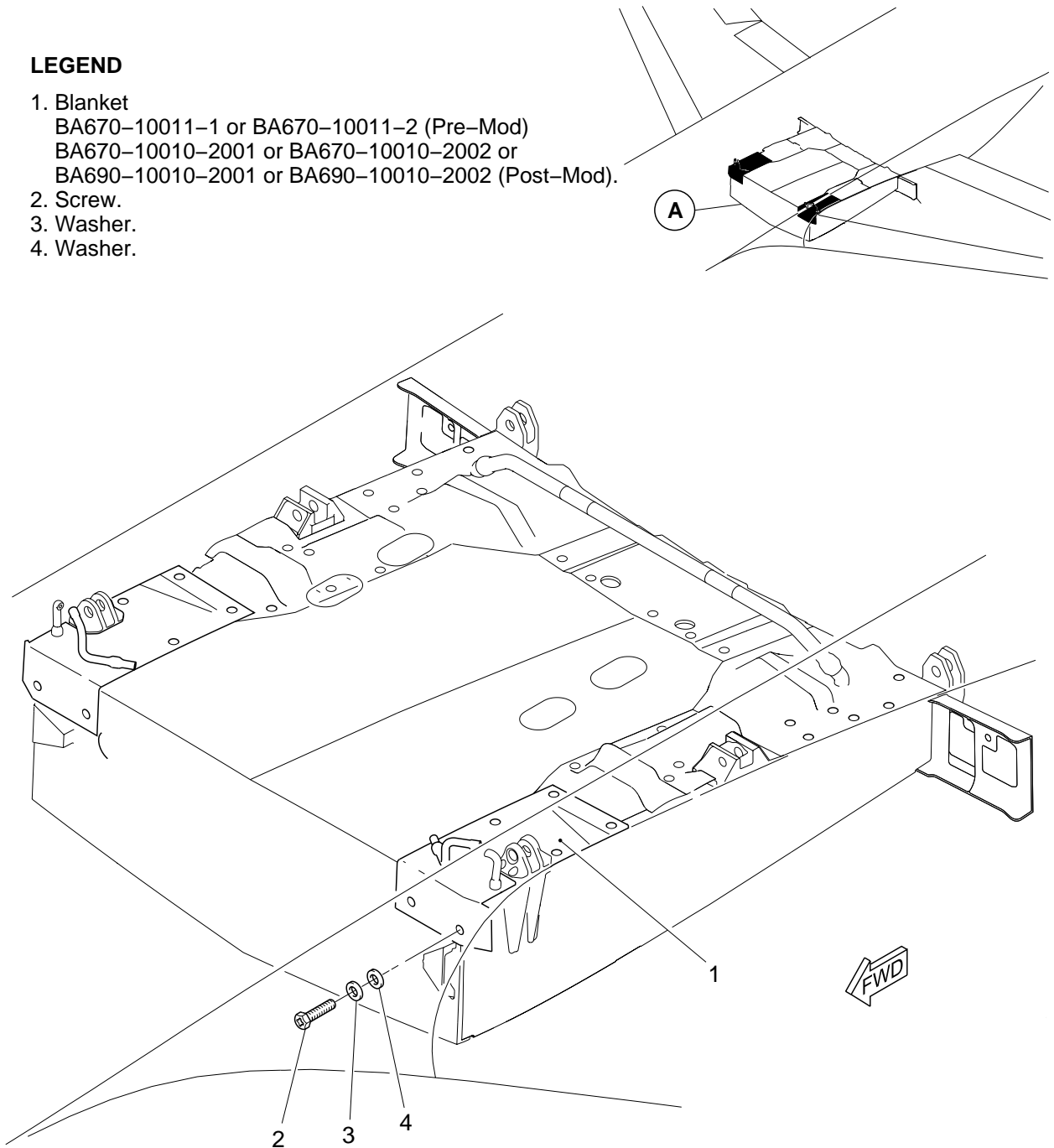
Modification of the Vent Tube Blanket
Figure 4

ba2235a01.rgm

SERVICE BULLETIN 670BA-28-011

LEGEND

1. Blanket
BA670-10011-1 or BA670-10011-2 (Pre-Mod)
BA670-10010-2001 or BA670-10010-2002 or
BA690-10010-2001 or BA690-10010-2002 (Post-Mod).
2. Screw.
3. Washer.
4. Washer.



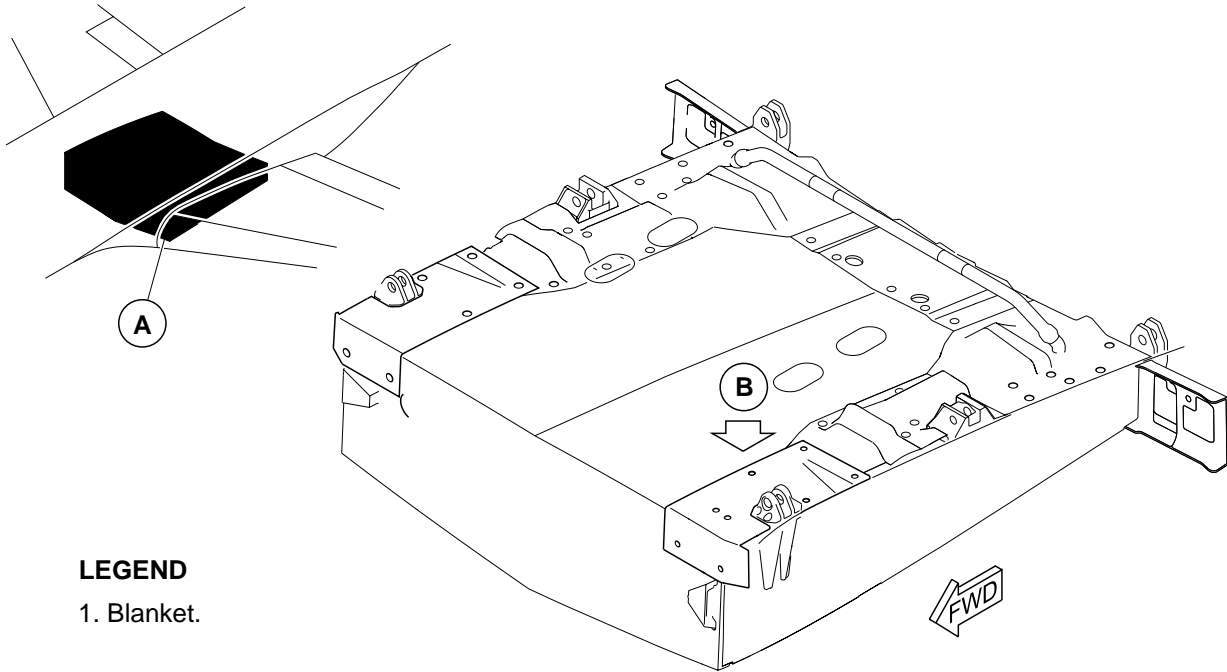
A

LEFT SIDE SHOWN,
RIGHT SIDE OPPOSITE

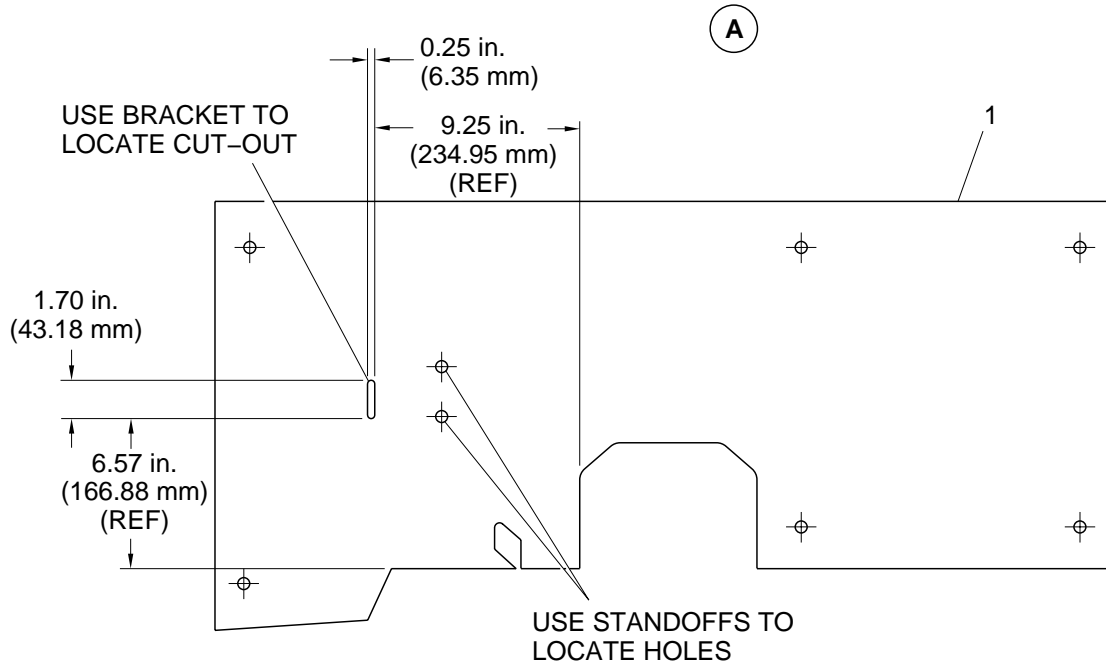
Modification of the Wing Blanket
Figure 5 (Sheet 1 of 2)

ba2234a01.cgm

SERVICE BULLETIN 670BA-28-011



LEGEND
1. Blanket.

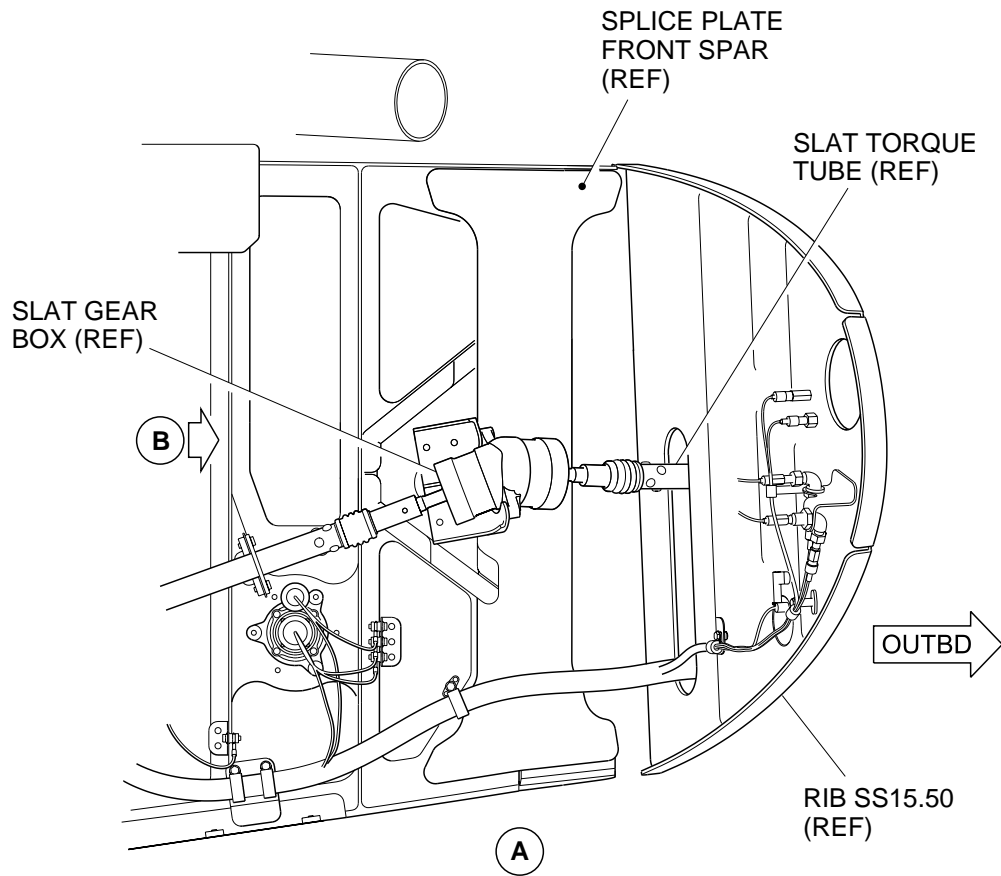
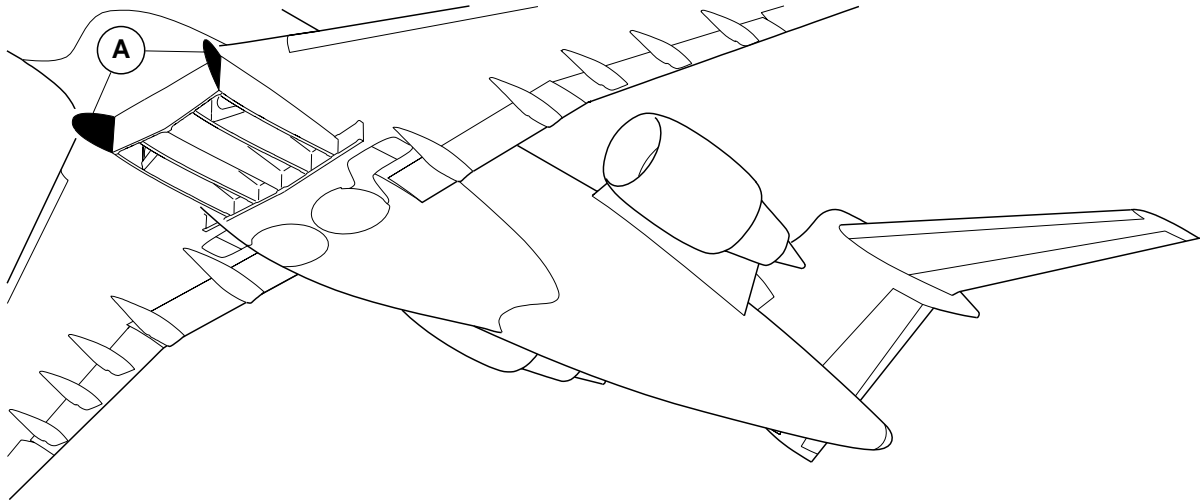


B
POST-MOD
LEFT SIDE SHOWN,
RIGHT SIDE OPPOSITE

Modification of the Wing Blanket
Figure 5 (Sheet 2 of 2)

ba2234a02.cgm

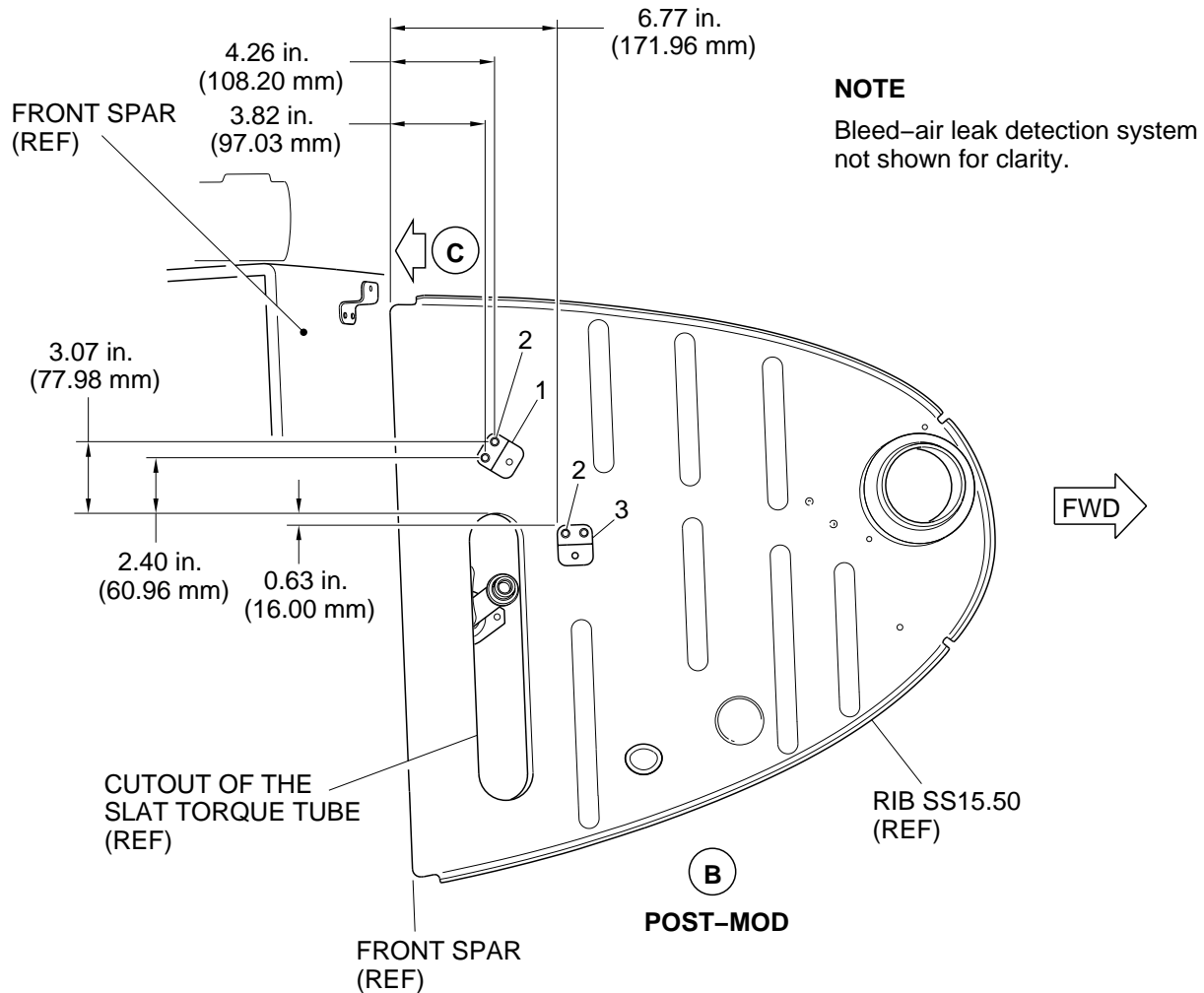
SERVICE BULLETIN 670BA-28-011



**PRE-MOD
LEFT SIDE SHOWN,
RIGHT SIDE OPPOSITE**

Installation of the Bracketeries
Figure 6 (Sheet 1 of 2)

SERVICE BULLETIN 670BA-28-011

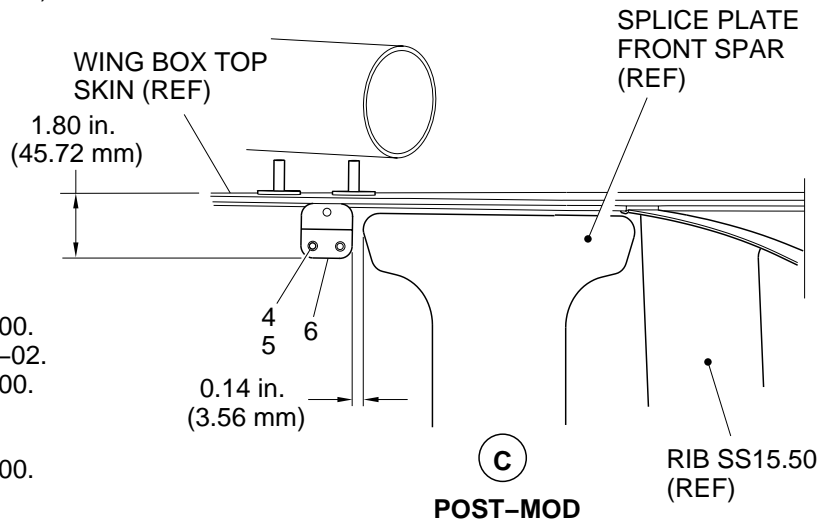


NOTE

Bleed-air leak detection system not shown for clarity.

LEGEND

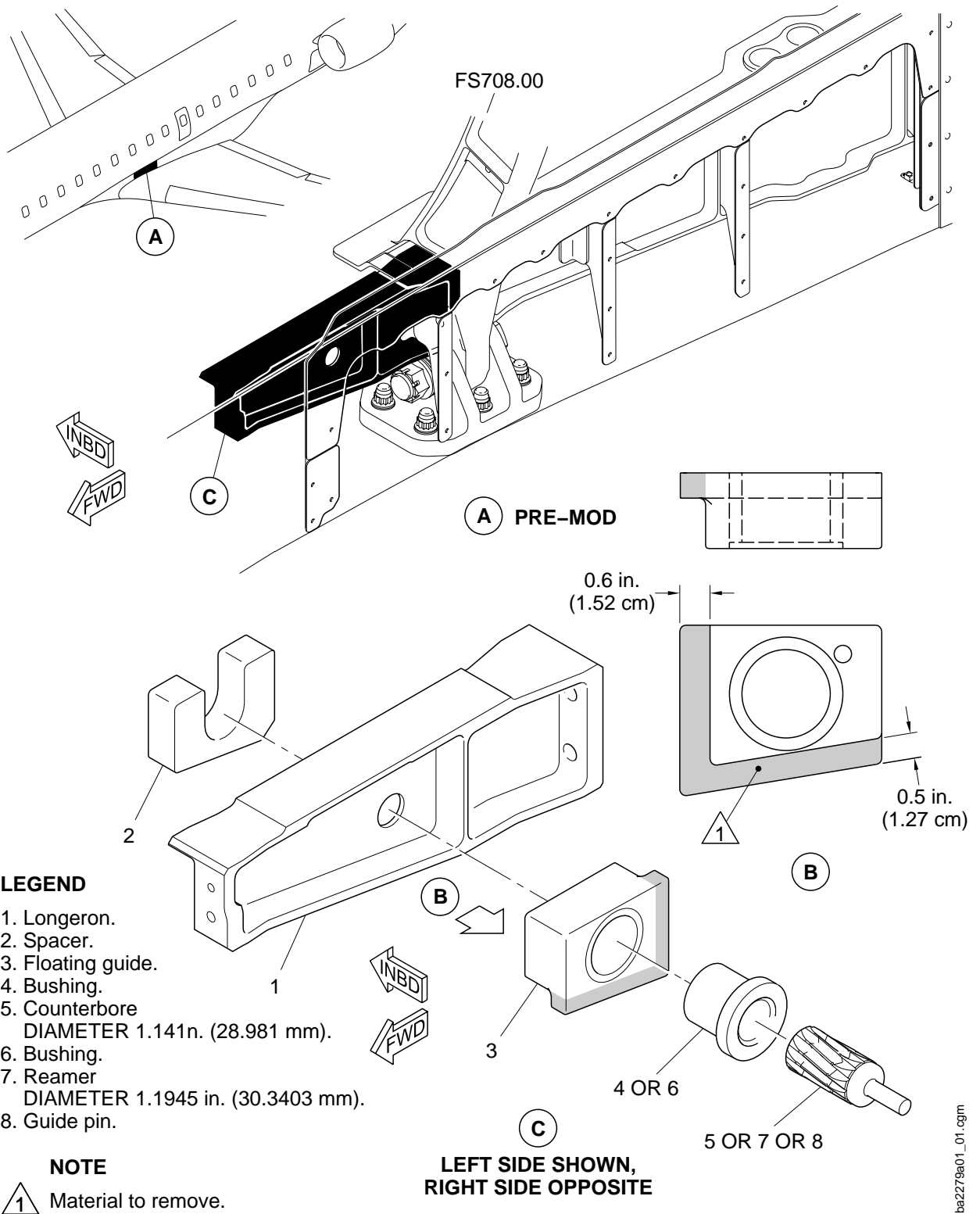
- 1. Bracket CC670-58122-1/SB00.
- 2. Blind Fastener NAS9301E-4-02.
- 3. Bracket CC670-58122-1/SB00.
- 4. Fastener B0206001AG5-4.
- 5. Collar B0203013-08.
- 6. Bracket CC670-58122-1/SB00.



Installation of the Bracketeries
Figure 6 (Sheet 2 of 2)

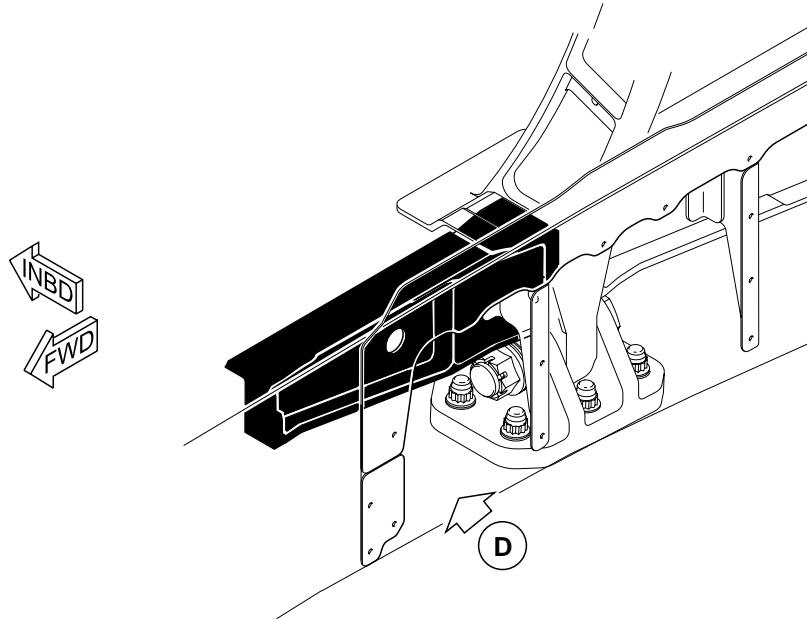
ba0495a02.cgm

SERVICE BULLETIN 670BA-28-011



Modification of the Longeron
Figure 7 (Sheet 1 of 2)

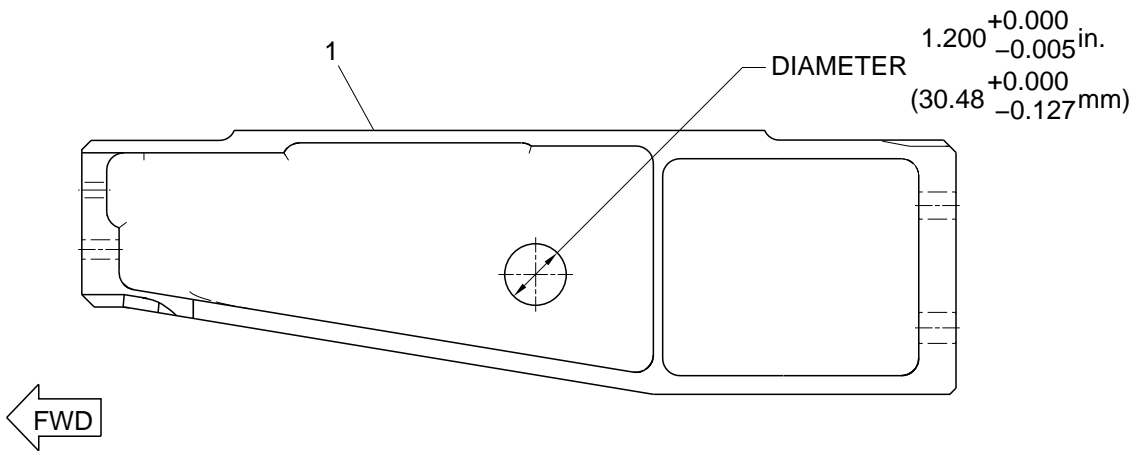
SERVICE BULLETIN 670BA-28-011



LEGEND

1. Longeron
 SH670-35730-951 or SH670-35730-952 or
 SH670-35730-3 or SH670-35730-4 or
 SH670-35730-5 or SH670-35730-6 or
 SH670-35730-7 or SH670-35730-8 (Pre-Mod)
 KBA670-62100-3 or KBA670-62100-4 or
 KBA670-62100-5 or KBA670-62100-6 or
 KBA670-62100-7 or KBA670-62100-8 (Post-Mod).

(A) POST-MOD



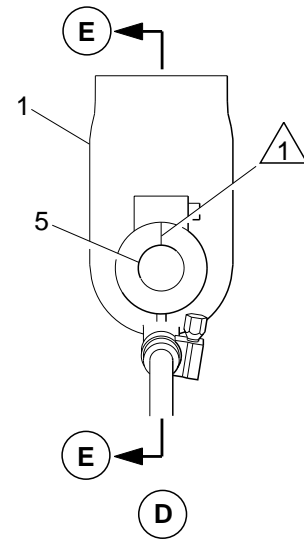
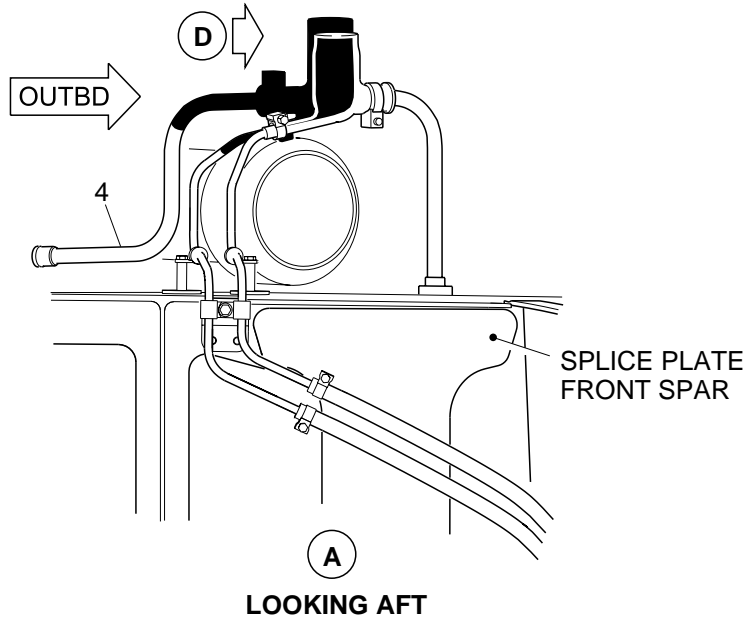
(D)

**VIEW LOOKING INBOARD
 LEFT SIDE SHOWN,
 RIGHT SIDE OPPOSITE**

Modification of the Longeron
 Figure 7 (Sheet 2 of 2)

ba2279a02_01.cgm

SERVICE BULLETIN 670BA-28-011

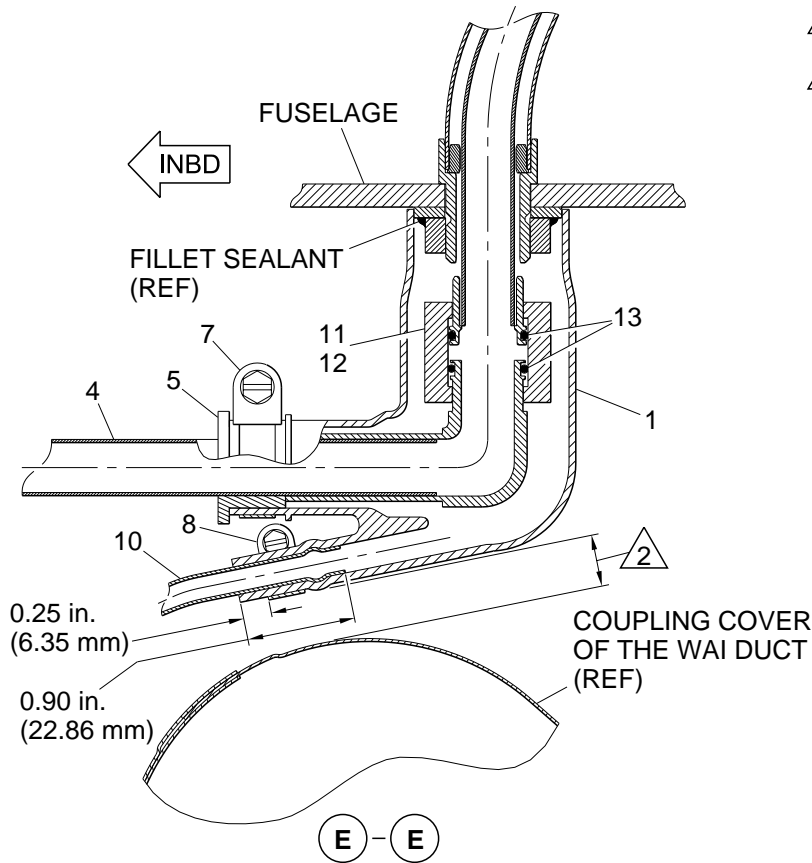


NOTES

- 1 Split of the bushing put up.
- 2 0.20 in. (5.80 mm) minimum.

LEGEND

- 1. Boot
BA670-62102-1.
- 4. Overwing vent duct.
- 5. Bushing
BA670-62106-1.
- 7. Clamp NAS1922-0075-3.
- 8. Clamp BAS247-C1-1.
- 10. Drain Tube
BA670-62104-1/SB
(BA670-62104-2/SB).
- 11. Coupling.
- 12. Sleeve.
- 13. O-Ring M25988/2-015.



LEFT SIDE SHOWN,
RIGHT SIDE OPPOSITE

Installation of the Boots and the Overwing Vent Duct
Figure 8 (Sheet 2 of 4)

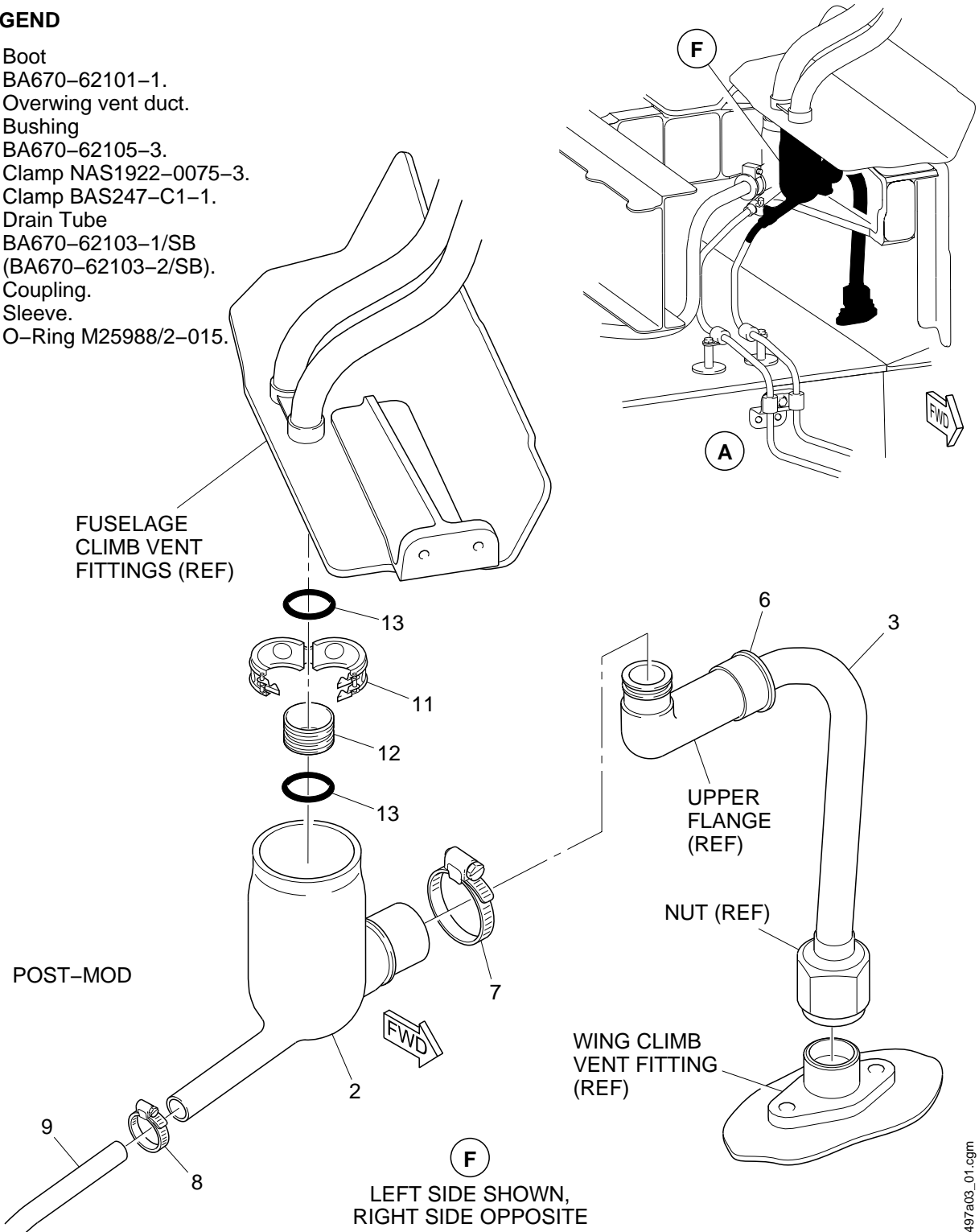
POST-MOD

ba0497a02.cgm

SERVICE BULLETIN 670BA-28-011

LEGEND

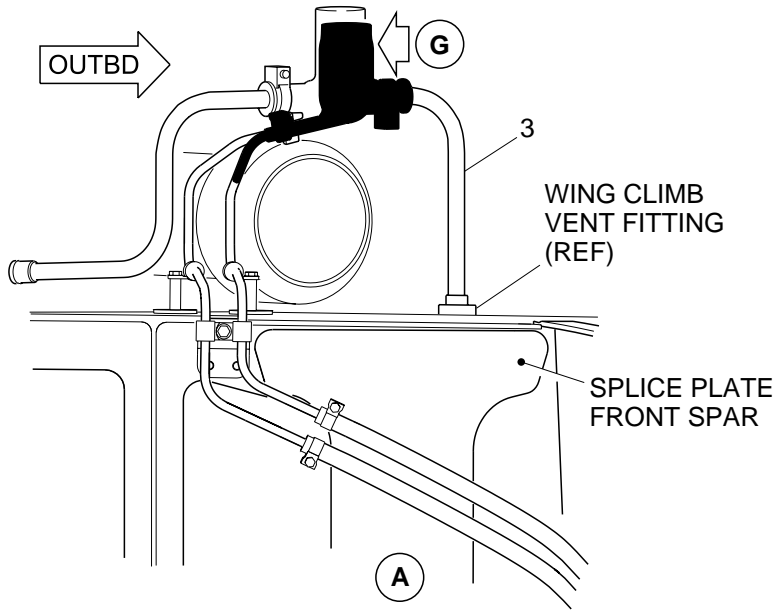
- 2. Boot
BA670-62101-1.
- 3. Overwing vent duct.
- 6. Bushing
BA670-62105-3.
- 7. Clamp NAS1922-0075-3.
- 8. Clamp BAS247-C1-1.
- 9. Drain Tube
BA670-62103-1/SB
(BA670-62103-2/SB).
- 11. Coupling.
- 12. Sleeve.
- 13. O-Ring M25988/2-015.



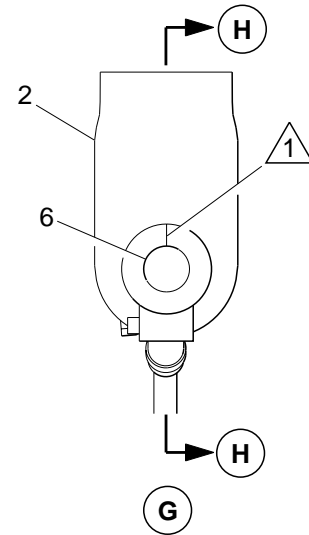
LEFT SIDE SHOWN,
RIGHT SIDE OPPOSITE

Installation of the Boots and the Overwing Vent Duct
Figure 8 (Sheet 3 of 4)

SERVICE BULLETIN 670BA-28-011

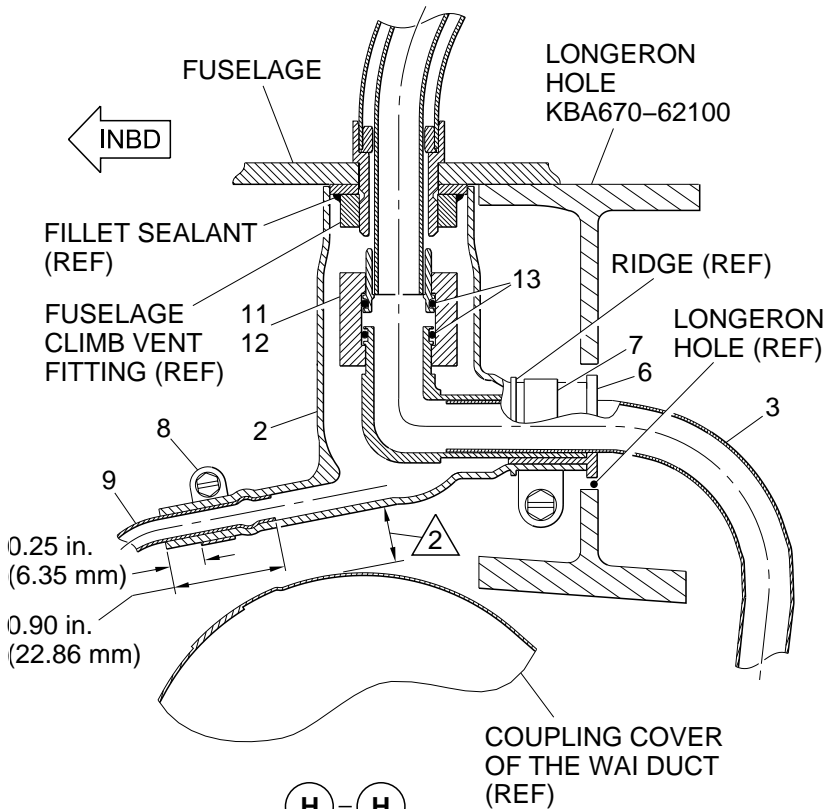


LOOKING AFT



NOTES

- 1 Split of the bushing put up.
- 2 0.2 in. (5.08 mm) minimum.



LEFT SIDE SHOWN,
RIGHT SIDE OPPOSITE

LEGEND

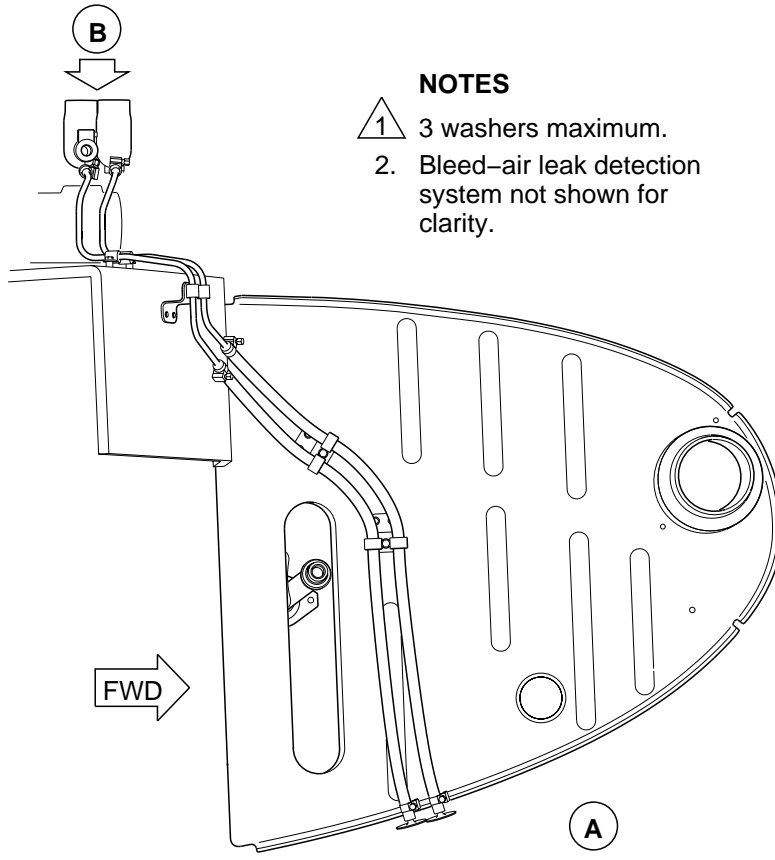
- 2. Boot
BA670-62101-1.
- 3. Overwing vent duct.
- 6. Forward bushing
BA670-62105-3.
- 7. Clamp NAS1922-0075-3.
- 8. Clamp BAS247-C1-1.
- 9. Drain Tube
BA670-62103-1/SB
(BA670-62103-2/SB).
- 11. Coupling.
- 12. Sleeve.
- 13. O-Ring M25988/2-015.

POST-MOD

Installation of the Boots and the Overwing Vent Duct
Figure 8 (Sheet 4 of 4)

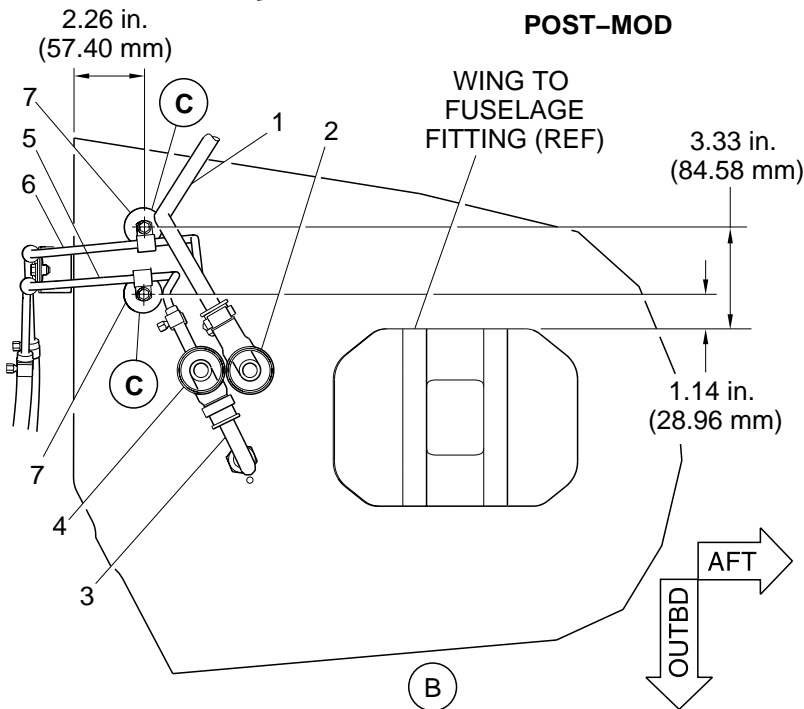
ba0497a04.cgm

SERVICE BULLETIN 670BA-28-011



NOTES

1. 3 washers maximum.
2. Bleed-air leak detection system not shown for clarity.



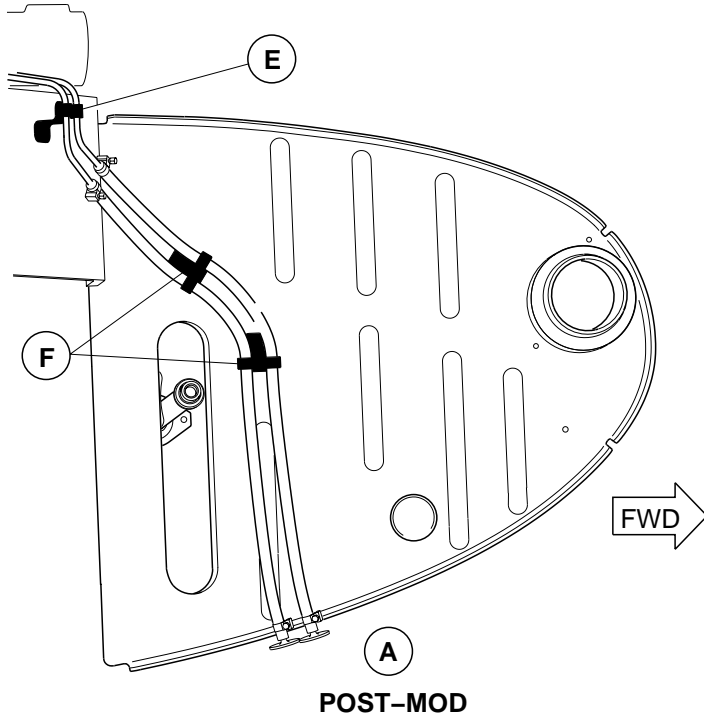
LEGEND

1. Overwing vent duct.
2. Boot.
3. Overwing vent duct.
4. Boot.
5. Drain tube BA670-62103-1/SB (BA670-62103-2/SB).
6. Drain tube BA670-62104-1/SB (BA670-62104-2/SB).
7. Standoff B0204046AA3-16.
8. Washer NAS1149DO332J.
9. Clamp MS21919WDF4.
10. Screw NAS1801-3-7.

ba0496a01_02.cgm

Installation of the Standoff and Drain Tubes
Figure 9 (Sheet 1 of 3)

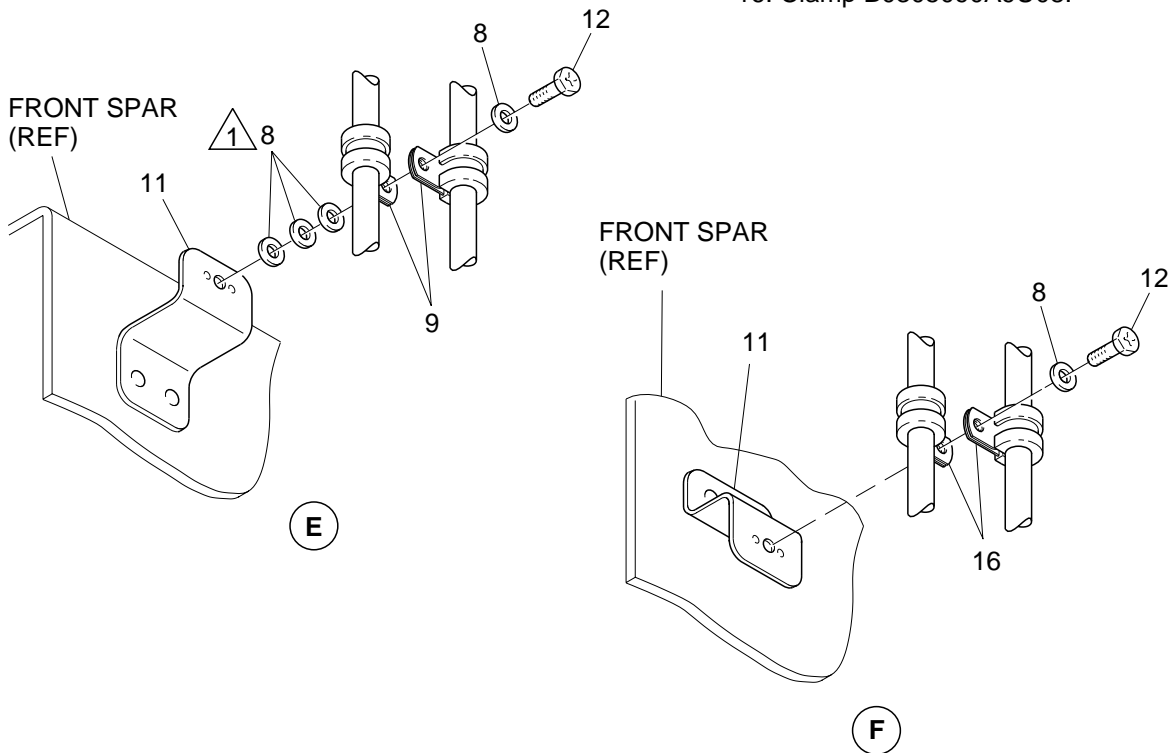
SERVICE BULLETIN 670BA-28-011



- NOTES**
1. 3 washers maximum.
 2. Bleed-air leak detection system not shown for clarity.

LEGEND

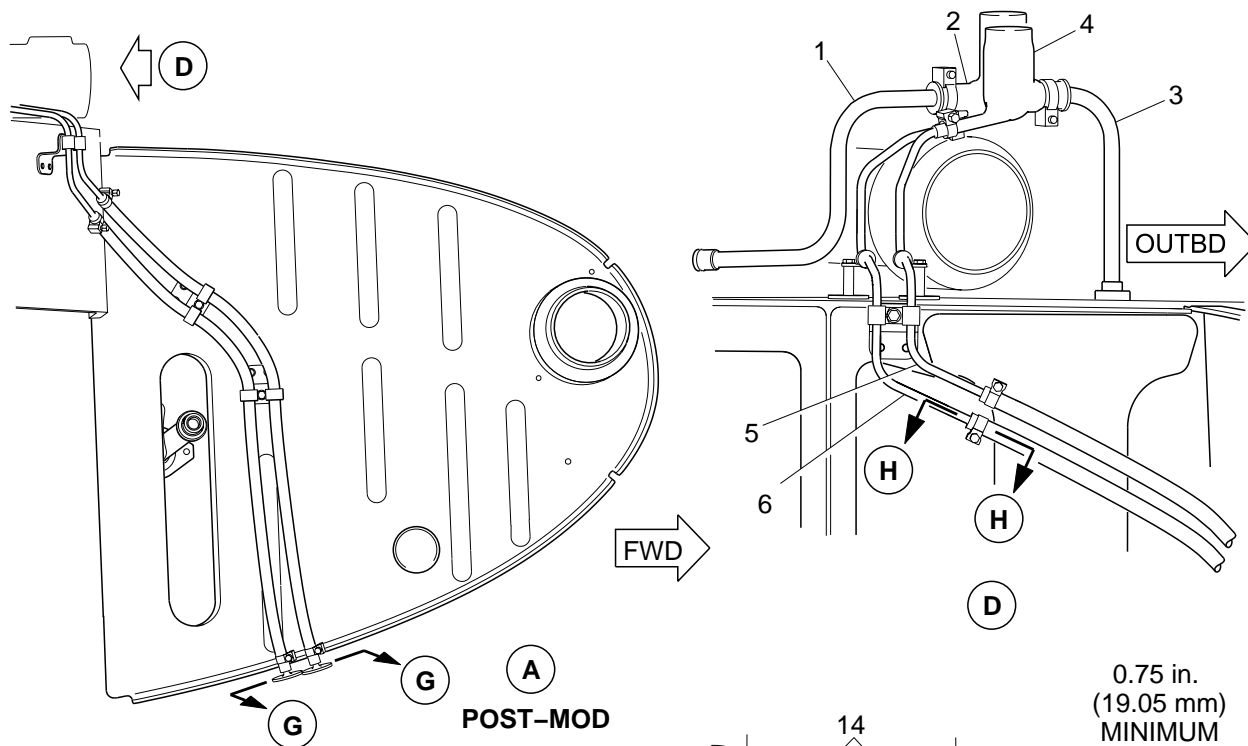
- 8. Washer NAS1149DO332J.
- 9. Clamp MS21919WDF4.
- 11. Bracket CC670-58122-1/SB00.
- 12. Screw NAS1801-3-8.
- 16. Clamp B0305090A9U08.



Installation of the Standoff and Drain Tubes
Figure 9 (Sheet 2 of 3)

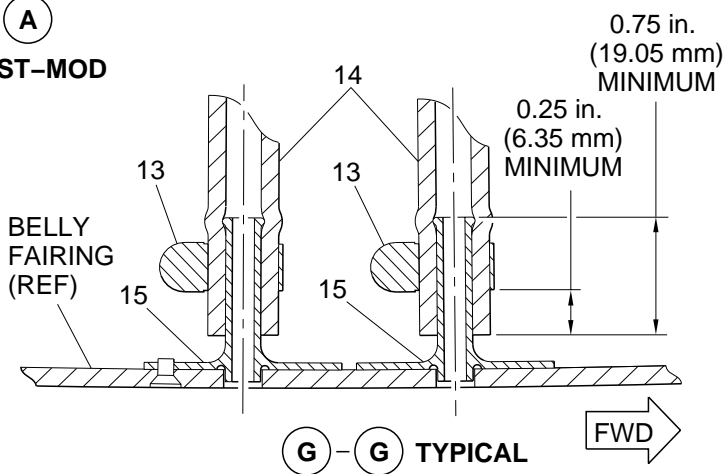
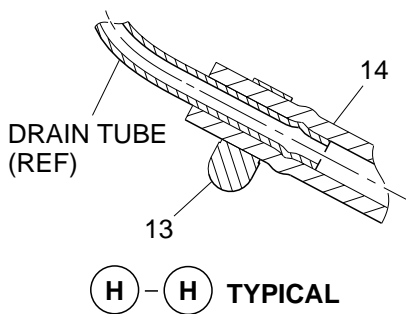
ba0496a02_02.cgm

SERVICE BULLETIN 670BA-28-011



NOTES

2. Bleed-air leak detection system not shown for clarity.

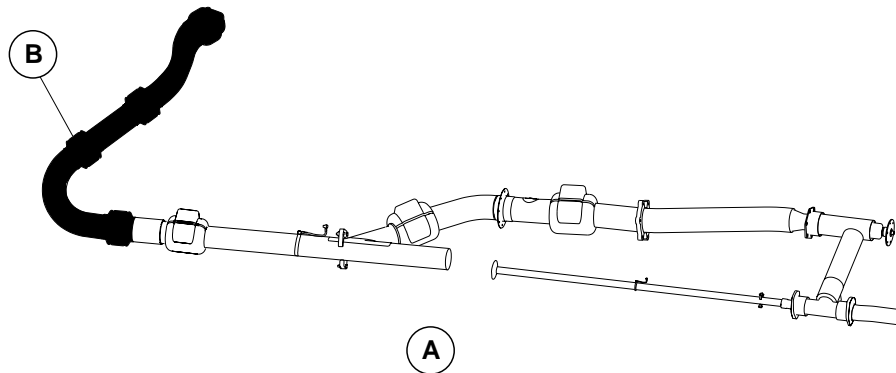
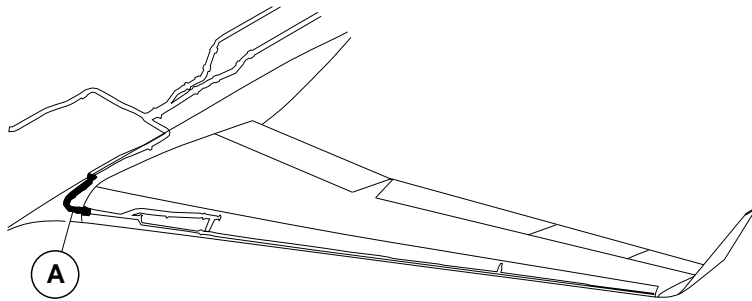


LEGEND

1. Overwing vent duct.
2. Boot.
3. Overwing vent duct.
4. Boot.
5. Drain tube BA670-62103-1/SB (BA670-62103-2/SB).
6. Drain tube BA670-62104-1/SB (BA670-62104-2/SB).
13. Clamp 3604.
14. Tygon tube BA670-62100-3.
15. Drain fitting.

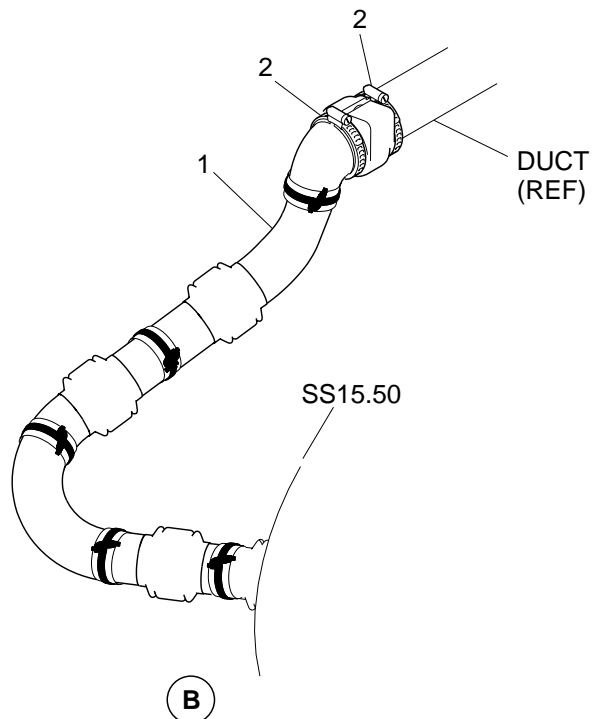
Installation of the Standoff and Drain Tubes
Figure 9 (Sheet 3 of 3)

SERVICE BULLETIN 670BA-28-011



LEGEND

- 1. Wing anti-ice duct.
- 2. Clamp NAS1922-0350-3.



**LEFT SIDE SHOWN,
RIGHT SIDE OPPOSITE**

Installation of the Wing Anti-Ice Supply Duct
Figure 10

ba2310a01.cgm

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C. Job Close-Out

- (1) Remove all tools, equipment, and unwanted materials from the work area.
- (2) Remove the protection around the slat torque tubes and slat gear box.
- (3) Install the access panels that follow:

For the left side:

PANEL	NAME	REFERENCE
511BB	Aluminum Access Panel	AMM 28-11-01-400-802
611AB	Aluminum Access Panel	AMM 28-11-01-400-802
193AL	Forward Underwing Fairing	AMM 53-82-85-400-801
171AL	Overwing Fairing, FS697 – FS735	AMM 53-82-82-400-801
521AB	Panel Assembly from SS15.50 to SS39.00	AMM 57-41-05-400-803

For the right side:

PANEL	NAME	REFERENCE
511AB	Aluminum Access Panel	AMM 28-11-01-400-802
611BB	Aluminum Access Panel	AMM 28-11-01-400-802
193AR	Forward Underwing Fairing	AMM 53-82-85-400-801
172AR	Overwing Fairing, FS697 – FS735	AMM 53-82-82-400-801
621AB	Panel Assembly from SS15.50 to SS39.00	AMM 57-41-05-400-803

- (4) Remove the tags and close the circuit breakers that follow:

CB-PANEL	CB NO.	NAME
CBP-1	D7	A/ICE CONT CH A
CBP-1	K6	ACS CONT 2 CH A

SERVICE BULLETIN 670BA-28-011

CB-PANEL	CB NO.	NAME
CBP-1	L1	ACS CONT 1 CH A
CBP-1	M6	L FUEL PUMP
CBP-1	M7	L FUEL PUMP CONT
CBP-1	M11	FUEL SYS CONT
CBP-1	N7	APU CONT
CBP-1	N8	FUEL GRAVITY XFLOW
CBP-1	N9	L XFER FUEL SOV
CBP-1	N10	APU FUEL PUMP
CBP-1 LOWER	R7	FUEL SOV R ENG
CBP-1 LOWER	R8	FUEL SOV L ENG
CBP-1 LOWER	S5	CROSSFLOW PUMP
CBP-2	G9	R FUEL PUMP
CBP-2	G10	R FUEL PUMP CONT
CBP-2	J4	ACS CONT 1 CH B
CBP-2	K6	ACS R MAN
CBP-2	P8	R XFER FUEL SOV
CBP-2 LOWER	T1	A/ICE CONT CH B
CBP-2 LOWER	T7	ACS CONT 2 CH B
CBP-2 LOWER	T8	ACS L MAN
CBP-2 LOWER	U11	FUEL SYS CONT
CBP-5	A3	APU BATT CONT
CBP-5	B4	FUEL DEFL
CBP-5	B5	EMER REFL

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- (5) Apply electrical power from the aircraft (AMM 24-00-00-861-801).
- (6) Connect the main battery (AMM 24-32-00-440-801).
- (7) Connect the APU battery (AMM 24-32-00-440-802).
- (8) Do a leak test of the wing anti-ice ducts (AMM 30-11-00-790-801).
- (9) When this service bulletin or is completed, add the weight and balance data shown in section 1.I of this service bulletin to the Weight and Balance Manual. Under 'Description of Change' enter "Service Bulletin 670BA-28-011, Revision C, incorporated."
- (10) When this service bulletin is completed, make this entry in the applicable logbook(s) as follows: "Service Bulletin 670BA-28-011, Revision C, Fuel System – Vent System – Installation of a Boot Around the Connecting Fuel Pipe to the Climb Vent Loop Coupling (SFAR 88), incorporated."

SERVICE BULLETIN 670BA-28-011

3. MATERIAL INFORMATION

A. Kit Information

Kit Content:

KIT 670BA28011K1A			
PART NUMBER	QUANTITY [1]	NAME	ALTERNATE PART(S)
3604	8	Hose Clamp	
B0203013-08	4	Nut	
B0204046AA3-16	4	Standoff	
B0206001AG5-4	4	Protruding Shear Head Pin	
B0305090A9U08	8	Clamp	
BA670-62100-3	4	Tygon Tube	
BA670-62101-1	2	FWD Fuel Boot	
BA670-62102-1	2	Inboard Fuel Boot	
BA670-62103-1/SB	1	LH FWD Drain Tube	BA670-62103-1
BA670-62103-2/SB	1	RH FWD Drain Tube	BA670-62103-2
BA670-62104-1/SB	1	LH Inboard Drain Tube	BA670-62104-1
BA670-62104-2/SB	1	RH Inboard Drain Tube	BA670-62104-2
BA670-62105-3	2	FWD Bushing	
BA670-62106-1	2	Inboard Bushing	
BAS247-C1-1	4	Hose Clamp	

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KIT 670BA28011K1A			
PART NUMBER	QUANTITY [1]	NAME	ALTERNATE PART(S)
CC670-58122-1/SB00	6	Bracket Assembly	
CC670-62808-3	4	Drain Fitting	
M25988/2-015	12	O-ring	
MS21140S0402	14	Blind Fastener	
MS21919WDF4	8	Clamp	
NAS1149D0332J	20	Washer	
NAS1801-3-7	4	Screw	
NAS1801-3-8	6	Screw	
NAS11922-0075-3	4	Hose Clamp	
NAS11922-0350-3	4	Hose Clamp	
NAS9301E-4-02	10	Blind Fastener	
[1] The kit can contain more hardware and/or material than necessary.			

KIT 670BA28011K500			
PART NUMBER	QUANTITY [1]	NAME	ALTERNATE PART(S)
M25988/2-015	12	O-ring	
[1] The kit can contain more hardware and/or material than necessary.			

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KIT 670BA28011K90			
PART NUMBER	QUANTITY	NAME	ALTERNATE PART(S)
670BA28011K90-1	1	Tooling for the Modification of the Longeron	

B. Rotable Information

None.

C. Consumable Information

The material that follows is necessary to do this service bulletin and can be ordered from Bombardier Aerospace Regional Aircraft or purchased directly from industry sources. If the material is ordered from Bombardier Aerospace Regional Aircraft, there can be some lead time because of shelf life of the material.

CONSUMABLES			
SPECIFICATION	QUANTITY	NAME	REFERENCE
MIL-PRF-81733 (Use for Pressure and Environmental Sealing and Fuel Tank Sealing - Faying Surfaces)	As necessary	Compound, sealing and coating, corrosion inhibitive	09-022 [1]
PPP-T-60 Type III, class I	A/R	Pressure sensitive tape	05-310 [1]
VV-P-236 technical	A/R	Petrolatum, (petroleum jelly) technical, soft	06-002 [1]
Texaco Soluble Oil HD	A/R	Lubricant, Cutting	06-005 [2]

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CONSUMABLES			
SPECIFICATION	QUANTITY	NAME	REFERENCE
CMS 565-02	As necessary	Polyurethane topcoat, fluid-resistant, Color grey #16473 and Green	07-006 [1]
Not specified	As necessary	Epoxy	08-080 [2]
CMS 565-01 Grade A	As necessary	Primer, epoxy, fluid resistant	13-007 [1]
[1] Refer to AMM 51-31-00-992-801.			
[2] Refer to SRM 51-31-00-001-001.			

NOTE: To complete this list of consumables, refer to the different tasks given as references in this service bulletin.

D. Special Tools and Equipment

There are no special tools and equipment for this service bulletin.

For a list of special tools and equipment, refer to the different tasks given as references in this service bulletin.

E. Disposition of Parts

The table that follows shows the disposition of installed parts on the aircraft (or spares), and the relation of the installed parts (or spares) to the new parts to be installed with this service bulletin.

SERVICE BULLETIN 670BA-28-011

PRE-SB PART NUMBER	NAME	QUANTITY	DC	POST-SB PART NUMBER	IC
SH670-35730-951 SH670-35730-3 SH670-35730-5 SH670-35730-7	Longeron	1	RWK	KBA670-62100-3 KBA670-62100-5 KBA670-62100-7 KBA670-62100-7	N/A
SH670-35730-952 SH670-35730-4 SH670-35730-6 SH670-35730-8	Longeron	1	RWK	KBA670-62100-4 KBA670-62100-6 KBA670-62100-8 KBA670-62100-8	N/A
BA670-10011-1	Blanket	1	RWK	BA670-10010-2001 or BA690-10010-2001	N/A
BA670-10011-2	Blanket	1	RWK	BA670-10010-2002 or BA690-10010-2002	N/A
BA670-10017-1	Blanket	2	RWK	BA670-10010-2003 or BA690-10010-2003	N/A

Disposition code (DC) :

RWK: Rework the part as shown in this service bulletin.