Commercial Airplanes

737

Service Bulletin

SPECIAL ATTENTION

Number: **737-57-1320**
Original Issue: October 07, 2016
ATA System: 5700

SUBJECT: WINGS - Trailing Edge - Tank Access Door - Replacement

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Summary

SUBJECT: WINGS - Trailing Edge - Tank Access Door - Replacement

BOEING RECOMMENDS THAT EACH OPERATOR EXAMINE THIS DOCUMENT IMMEDIATELY.

CONCURRENT REQUIREMENTS

None.

BACKGROUND

A review by Boeing of the drawings for the tank access door at Wing Buttock Line (WBL) 191.00 has shown that it did not have an engineered ground path with the mating wing structure. The current installation could become a potential source of ignition in the event of a lightning strike. This service bulletin replaces the tank access door with a new installation that has two engineered ground paths between the new door assembly and the mating wing structure. The primary ground path is created by installing a new wire mesh gasket between bare metal surfaces on the door assembly and the mating wing structure. The door assembly has been made thicker to further resist the high current caused by lightning, and features a bonded phenolic ring to electrically isolate the access door from the part of the mating wing structure that physically contacts fuel and fuel vapors. The secondary ground path is created by using a new conductive bolt installation. The nutplates that attach to the door assembly bolts are also cap sealed to prevent possible sparks from igniting the fuel vapors. If the changes in this service bulletin are not made, there is an increased risk of ignition and subsequent fuel tank explosion if there is a lightning strike.

Other new features include a replaceable fuel seal gasket on the door assembly, and a new door assembly material and finish that prevents corrosion of the door surface. A new layer of primer has also been added on the mating wing structure, external to the area that physically contacts fuel and fuel vapors, to prevent corrosion from moist air.

To date, there have been no reports of ignition caused by lightning strike in the fuel tank at this tank access door location.

Airworthiness Limitation (AWL) 28-AWL-30 listed in the 737-300/400/500 section of 737-100/200/300/400/500 AWLs and Certification Maintenance Requirements (CMRs) document, D6-38278-CMR, are related to this service bulletin.

Boeing Service Related Problem (SRP) 737-SRP-57-0237 is related to this service bulletin.

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

Planning Data	Affected	Reference
Spares Affected	No	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	No	Paragraph 2.F., Special Tooling Necessary to do this Service Bulletin

ACTION (PRR 35005-300RS)

Remove the existing tank access doors from the left and right wings at Wing Buttock Line (WBL) 191.00 and get access to the surface of the doublers that mate with the door assemblies. Prepare the surface for a doubler-to-door assembly electrical bond, and apply new primer to the area of the doubler external to the fuel tank vapor area. Cap seal the nutplates that attach to the door assembly bolts. Install the new door assemblies and apply an enamel finish to the door assembly installation. Do a check of the door assembly-to-wing skin electrical bond. If the resistance is more than 0.0025 ohm (2.5 milliohm), contact Boeing for repair instructions and do the repair.

EFFECTIVITY

All 737-300/400/500 Airplanes. Refer to Paragraph 1.A.1., Airplanes, for the list of affected airplanes.

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 September 17, 2009. Please refer to Paragraph 2.B., Industry Support Information. The warranty remedies will expire eight years from the original issue date of this service bulletin.

MANPOWER

Airplanes	Total Task Hours	Elapsed Hours
All	11.50	11.50

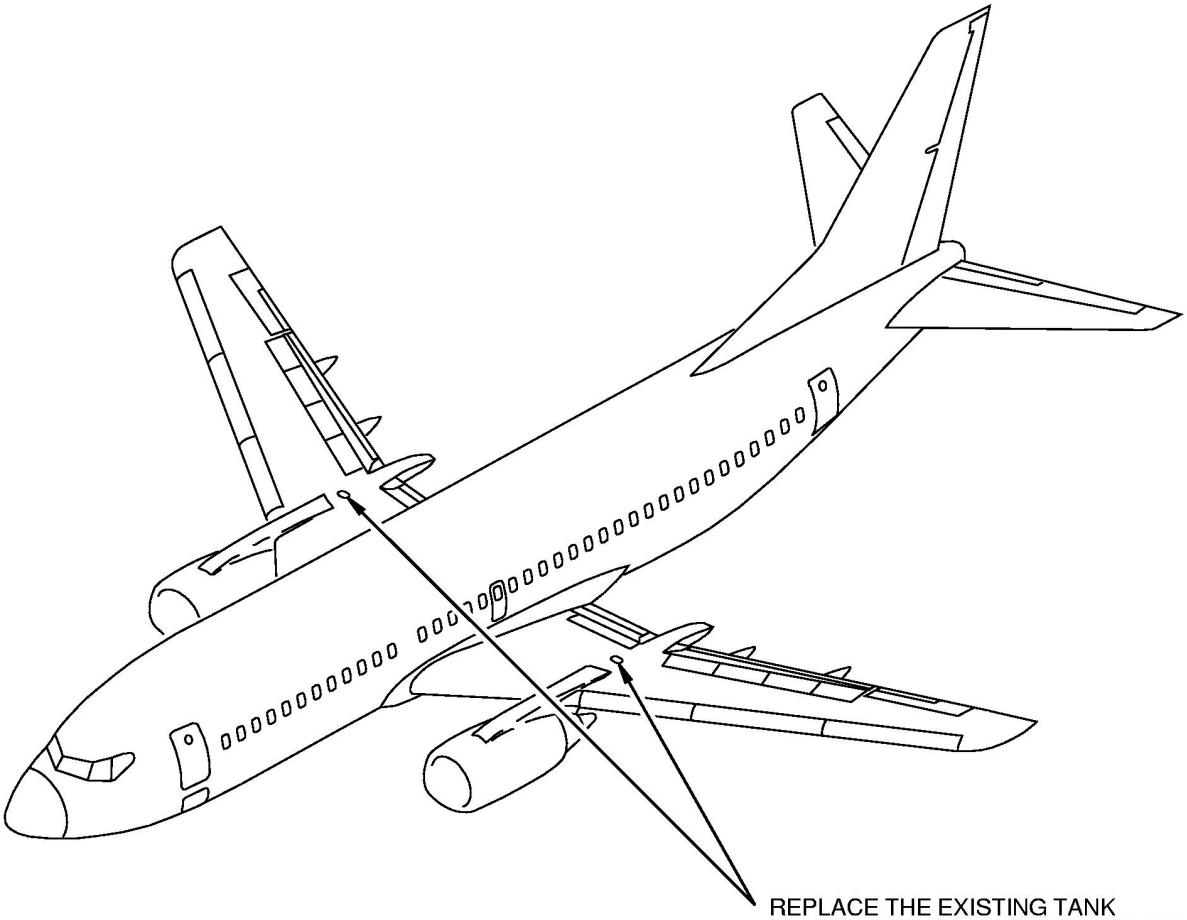
Refer to Paragraph 1.G., Manpower.

MATERIAL INFORMATION

Boeing Supplied Kits/Parts.

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

Operators are encouraged to complete the survey provided in APPENDIX A of this service bulletin to help Boeing predict the quantity and timing of the Boeing Supplied Kits/Parts.



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SPECIAL ATTENTION

Number: **737-57-1320**
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SUBJECT: WINGS - Trailing Edge - Tank Access Door - Replacement

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1. PLANNING INFORMATION

A. Effectivity

1. Airplanes

This service bulletin is for the airplane(s) shown below. Refer to PRR 35005-300RS for data about this change.

Refer to Service Bulletin Index D6-19567 Part 3 for Airplane Variable Number, Line Number, and Serial Number data.

GROUP	CONFIGURATION	DESCRIPTION
1	-	All 737-300/400/500 Airplanes

Airplane Models:

737-300, 737-400, 737-500

Variable Number	Group
PJ301 - PJ302	1
PJ551 - PJ561	1
PJ601 - PJ615	1
PJ811	1
PJ816 - PJ817	1
PM381 - PM399	1
PM401 - PM417	1
PM541 - PM564	1
PP001 - PP054	1

Variable Number	Group
PP101 - PP169	1
PP181 - PP199	1
PP201 - PP205	1
PP221	1
PP231 - PP243	1
PP281 - PP286	1
PP301 - PP305	1
PP351 - PP353	1
PP376 - PP384	1
PP391 - PP393	1
PP401 - PP440	1
PP471 - PP475	1
PP501 - PP522	1
PP631 - PP634	1
PP651 - PP652	1
PP671 - PP699	1
PP701 - PP733	1
PP771 - PP779	1
PP801 - PP808	1
PP821 - PP827	1
PP831 - PP848	1
PP851 - PP852	1
PP861 - PP877	1
PP891 - PP899	1
PP901 - PP936	1
PP946 - PP948	1
PP951 - PP952	1
PP961 - PP967	1
PP981 - PP991	1
PP993	1
PQ001 - PQ016	1
PQ026 - PQ041	1
PQ051 - PQ092	1

Variable Number	Group
PQ101 - PQ199	1
PQ201 - PQ202	1
PQ221 - PQ237	1
PQ241 - PQ243	1
PQ251 - PQ267	1
PQ281 - PQ299	1
PQ301 - PQ307	1
PQ331 - PQ332	1
PQ341 - PQ348	1
PQ361 - PQ373	1
PQ391 - PQ395	1
PQ401 - PQ418	1
PQ421	1
PQ431 - PQ438	1
PQ447 - PQ448	1
PQ451	1
PQ454	1
PQ471 - PQ475	1
PQ479 - PQ481	1
PQ486 - PQ487	1
PQ491 - PQ493	1
PQ771 - PQ772	1
PQ791 - PQ793	1
PQ801 - PQ805	1
PQ931 - PQ935	1
PQ951	1
PQ971 - PQ997	1
PR001 - PR017	1
PR021 - PR034	1
PR041 - PR045	1
PR061 - PR072	1
PR077 - PR082	1
PR091 - PR092	1

Variable Number	Group
PR096	1
PR101	1
PR121 - PR122	1
PR131 - PR132	1
PR141 - PR143	1
PR161 - PR172	1
PR181	1
PS601 - PS631	1
PS636 - PS638	1
PS641 - PS644	1
PS651 - PS657	1
PS666 - PS669	1
PS691 - PS692	1
PS701 - PS706	1
PS751 - PS799	1
PS811	1
PS836 - PS837	1
PS841 - PS846	1
PS851 - PS852	1
PS856	1
PS861 - PS863	1
PS866 - PS868	1
PS871 - PS874	1
PS896 - PS897	1
PS901 - PS941	1
PS956 - PS957	1
PS961 - PS963	1
PS971 - PS978	1
PT001 - PT015	1
PT021 - PT031	1
PT041 - PT064	1
PT101 - PT105	1
PT121 - PT138	1

Variable Number	Group
PT146 - PT148	1
PT161 - PT170	1
PT181 - PT188	1
PT211 - PT220	1
PT295	1
PT301 - PT309	1
PT331 - PT360	1
PT381 - PT399	1
PT401 - PT438	1
PT501 - PT517	1
PT561 - PT565	1
PT581 - PT586	1
PT611 - PT621	1
PT641 - PT644	1
PT651 - PT656	1
PT671 - PT672	1
PT681 - PT685	1
PT701 - PT703	1
PT716 - PT717	1
PT721 - PT725	1
PT801 - PT834	1
PT851 - PT854	1
PT871 - PT886	1
PT901 - PT930	1
PT971 - PT973	1
PT981 - PT985	1
PT996	1
PU001 - PU025	1
PU301	1
PU311 - PU313	1
PV001 - PV055	1
PV201 - PV209	1
PV226 - PV229	1

Variable Number	Group
PV231 - PV237	1
PV271 - PV272	1
PV281 - PV287	1
PV296	1
PV301 - PV302	1
PV351	1
PV356 - PV357	1
PW001 - PW054	1
PW061 - PW068	1
PW072	1
PW086 - PW088	1
PW091 - PW094	1
PW101 - PW102	1
PW106	1
PW111 - PW120	1
PW156 - PW157	1
PW161 - PW171	1
PW201 - PW252	1
PW261 - PW268	1
PW271 - PW276	1
PW278	1
PW281 - PW293	1
PW296	1
PW301 - PW327	1
PW401 - PW408	1
PW411 - PW418	1
PW421 - PW424	1
PW431 - PW435	1
PW441 - PW450	1
PW461 - PW467	1
PW501 - PW504	1
PW511 - PW522	1
PW524 - PW550	1

Variable Number	Group
PW556 - PW557	1
PW561 - PW564	1
PW571 - PW576	1
PW591 - PW596	1
PW611 - PW622	1
PW631 - PW637	1
PW661 - PW662	1
PW681 - PW683	1
PW701 - PW702	1
PW711 - PW717	1
PW741 - PW742	1
PW761	1
PW771	1
PW831	1
PW851 - PW856	1

2. Spares Affected

None.

B. Concurrent Requirements

None.

C. Reason

A review by Boeing of the drawings for the tank access door at Wing Buttock Line (WBL) 191.00 has shown that it did not have an engineered ground path with the mating wing structure. The current installation could become a potential source of ignition in the event of a lightning strike. This service bulletin replaces the tank access door with a new installation that has two engineered ground paths between the new door assembly and the mating wing structure. The primary ground path is created by installing a new wire mesh gasket between bare metal surfaces on the door assembly and the mating wing structure. The door assembly has been made thicker to further resist the high current caused by lightning, and features a bonded phenolic ring to electrically isolate the access door from the part of the mating wing structure that physically contacts fuel and fuel vapors. The secondary ground path is created by using a new conductive bolt installation. The nutplates that attach to the door assembly bolts are also cap sealed to prevent possible sparks from igniting the fuel vapors. If the changes in this service bulletin are not made, there is an increased risk of ignition and subsequent fuel tank explosion if there is a lightning strike.

Other new features include a replaceable fuel seal gasket on the door assembly, and a new door assembly material and finish that prevents corrosion of the door surface. A new layer of primer has also been added on the mating wing structure, external to the area that physically contacts fuel and fuel vapors, to prevent corrosion from moist air.

To date, there have been no reports of ignition caused by lightning strike in the fuel tank at this tank access door location.

Airworthiness Limitation (AWL) 28-AWL-30 listed in the 737-300/400/500 section of 737-100/200/300/400/500 AWLs and Certification Maintenance Requirements (CMRs) document, D6-38278-CMR, are related to this service bulletin.

Boeing Service Related Problem (SRP) 737-SRP-57-0237 is related to this service bulletin.

D. Description

Remove the existing tank access doors from the left and right wings at Wing Buttock Line (WBL) 191.00 and get access to the surface of the doublers that mate with the door assemblies. Prepare the surface for a doubler-to-door assembly electrical bond, and apply new primer to the area of the doubler external to the fuel tank vapor area. Cap seal the nutplates that attach to the door assembly bolts. Install the new door assemblies and apply an enamel finish to the door assembly installation. Do a check of the door assembly-to-wing skin electrical bond. If the resistance is more than 0.0025 ohm (2.5 milliohm), contact Boeing for repair instructions and do the repair.

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

Affected Maintenance Zones	
Model	**Zone**
737-300, 737-400, 737-500	305, 405

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.

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

Table 1: Trailing Edge - Tank Access Door - Replacement

Condition	Action	Compliance Time	Repeat Interval (Not to Exceed)
All Airplanes	Do PART 2: INSTALL NEW DOOR ASSEMBLIES AND DO A CHECK OF THE ELECTRICAL BOND	Within 36 months after the original issue date of this service bulletin	-

Table 1: Trailing Edge - Tank Access Door - Replacement

Condition	Action	Compliance Time	Repeat Interval (Not to Exceed)
The maximum resistance is NOT 0.0025 ohm (2.5 milliohm) or less	Contact Boeing for repair instructions and do the repair	Before further flight	-
The maximum resistance is 0.0025 ohm (2.5 mil-liohm) or less	No further action required	-	-

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.

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 airplane. 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.

Task	Number of Persons	Task Hours	Elapsed Hours
Open Access	1	1.00	1.00
Figure 1	1	1.50	1.50
Figure 2	1	1.50	1.50
Figure 3	1	2.00	2.00
Figure 4	1	2.00	2.00
Figure 5	1	1.00	1.00
Figure 6	1	1.00	1.00

Task	Number of Persons	Task Hours	Elapsed Hours
Close Access	1	1.00	1.00
Test	1	0.50	0.50
TOTAL FOR EACH AIRPLANE		11.50	11.50

H. Weight and Balance Changes

None.

I. Electrical Load Data

Not changed.

J. References

1. Existing Data:

   a. Engineering Change Memo PRR 35005-300RS

   b. Boeing Service Letter 737-SL-51-042

   c. Boeing Service Related Problem (SRP) 737-SRP-57-0237

   d. Service Bulletin Index D6-19567

   e. Standard Overhaul Practices Manual (SOPM) 20-43-03, 20-44-04, 20-50-01

   f. Standard Wiring Practices Manual (SWPM) 20-10-11, 20-10-12, 20-10-19, 20-20-00

   g. 737-300/400/500 Aircraft Maintenance Manual (AMM) 28-11-00, 28-11-11, 51-21-99

2. Data Supplied with this Service Bulletin:

   None.

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

Drawing Number	Title
65C27359	ACCESS DOOR INSTL - UPPER PANEL, WBL 191.00

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:

Publication	Chapter-Section
737 Aircraft Maintenance Manual	28-11
737 Certification Maintenance Requirements	Section C.1: Fuel Systems Ignition Prevention
737 Illustrated Parts Catalog	28-11

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

Boeing can supply the kits shown in Paragraph 2.C., Parts Necessary for Each Airplane. Operators are encouraged to share schedule requirements with Boeing for incorporation of the service bulletin. 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 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)
65C37853-63	Top Kit	13 October, 2014	49	158	$2,237

Operators are encouraged to complete the survey provided in APPENDIX A of this service bulletin to help Boeing predict the quantity and timing of the Boeing Supplied Kits/Parts.

B. Industry Support Information

Boeing warranty remedies are available for 737 airplanes in warranty as of September 17, 2009. For task hour and material reimbursement for airplanes in warranty as of that date, send a warranty claim to Boeing Warranty & Product Assurance Contracts. 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 airplane. The Top Kit is divided into Figure kits for each installation figure shown in the table below.

	Figure Kit	
Top Kit	**5**	**6**
65C37853-63	1	1

ALL

KIT 65C37853-63					
	Figure				
	5	6			
New Part Number	Qty		Name	Existing Part Number	Notes
65C38313-1	1	1	GASKET - WIRE MESH, 5 X 7.5 TANK ACCESS DOOR		(b)
65C38396-1	1	1	DOOR ASSEMBLY - 5 X 7.5 FUEL TANK ACCESS	10-60031-105	(a) (b) (c)
BACB30LH3-9	12	12	BOLT, 100 DEG CROSS		(d)
(a) Discard the existing part.					
(b) This part is not used in production.					
(c) You cannot use the existing part to replace the new part.					
(d) If grip length shown is not available at Boeing, fasteners supplied in kits may be one grip length longer than indicated.					

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.

Part Number/ Specification	Qty	Name	Notes
ALODINE 600 (TYPE 2, CLASS A OR D)	4 Oz	Chemical Conversion Coating	(a)
BMS 10-60, TYPE II	2 Oz	Enamel, Gloss	(b)
BMS 10-79, TYPE III	2 Oz	Primer	(b)
BMS 5-45, CLASS A	4 Oz	Sealant	(b)
BMS 5-45, CLASS B	8 Oz	Sealant	(b)
BMS10-20, TYPE II	1 Oz	Corrosion Resistant Finish	(b)
MIL-G-25537	4 Oz	Aeroshell No. 14 Grease	(c)
(a) Refer to SOPM 20-43-03 for supplier data			
(b) Refer to the Qualified Products List at the end of the Boeing Material Specification (BMS) for supplier data.			
(c) Refer to 737-300/400/500 AMM 28-11-11 for supplier data.			

3. Parts Modified and Reidentified

   None.

4. Parts Removed and Not Replaced

   None.

D. Parts Necessary to Change Spares

None.

E. Special Tooling - Price and Availability

None.

F. Special Tooling Necessary to do this Service Bulletin

No special tools or equipment are necessary to do the change in this service bulletin. But, maintenance and overhaul tools in the manuals given in Paragraph 1.J., References, can be necessary. Examine operator tool supply to make sure all necessary tools are available.

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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 parts. Task Hours and Elapsed Hours for each figure are given in Paragraph 1.G., Manpower.

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 737 Structural Repair Manual, Chapter 51.
     - Values for airframe maintenance tasks are included in Chapter 20 of 737 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 737 Airplane Maintenance Manual (AMM).
     - Non-standard torque values for maintenance tasks are included in the applicable installation step.

5. 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.

6. 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.

7. 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 with a length which meets the installation standards given in SRM Chapter 51 may be used.

8. 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.

9. Boeing Service Letter 737-SL-51-042, 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.

10. 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.

11. 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.

12. 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.

13. 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.

14. 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.

15. If shading is used, shaded areas in Figures are to separate the non-critical and non-authoritative information from the critical and authoritative information.

16. The compliance times for the actions in Paragraph 3.B., WORK INSTRUCTIONS are in Paragraph 1.E., Compliance.

17. The name of the existing door for fuel tank access was: Tank Access Door. The name of the new door for fuel tank access is: Door Assembly.

18. Some steps in the Work Instructions are labeled as Required for Compliance (RC). If this service bulletin is mandated by an Airworthiness Directive (AD), then the steps labeled as RC, including sub-steps under an RC step and any figures identified in an RC step, must be done to comply with the AD. If a step or sub-step is labeled "RC Exempt," then the RC requirement is removed from that step or sub-step. An Alternative Method of Compliance (AMOC) is required for any deviations to RC steps,

including sub-steps and identified figures. Steps not labeled as RC may be deviated from using accepted methods in accordance with the operator's maintenance or inspection program without obtaining approval of an AMOC. This is provided that the RC steps, including sub-steps and identified figures, can still be done as specified, and the airplane can be put back in an airworthy condition.

B. WORK INSTRUCTIONS

PART 1: OPEN ACCESS

1. Get access and prepare the airplane for the tank access door removal. Refer to 737-300/400/500 AMM 28-11-11 as an accepted procedure.

    a. Remove the existing tank access doors at Wing Buttock Line (WBL) 191.00.

        (1) Left Wing - Remove the tank access door 8117L.

        (2) Right Wing - Remove the tank access door 8817R.

PART 2: INSTALL NEW DOOR ASSEMBLIES AND DO A CHECK OF THE ELECTRICAL BOND

1. RC - Prepare the surface of the doubler that mates with the door assembly for a doubler-to-door assembly electrical bond, and apply new primer.

    a. Left Wing - Do the work in accordance with FIGURE 1.

    b. Right Wing - Do the work in accordance with FIGURE 2.

2. RC - Cap seal the nutplates that attach to the door assembly bolts.

    NOTE: Nutplates with existing sealant applied to the correct dimensions as shown in this service bulletin are satisfactory as is.

    a. Left Wing - Do the work in accordance with FIGURE 3.

    b. Right Wing - Do the work in accordance with FIGURE 4

3. RC - Install the new door assemblies at WBL 191.00.

    a. Left Wing

        (1) Install the new door assembly 8117L with a wire mesh gasket and bolts in accordance with FIGURE 5.

        (2) Measure the door assembly -to- wing skin electrical bond in accordance with FIGURE 5.

            (a) The electrical bond check is complete if the maximum resistance is 0.0025 ohm (2.5 milliohm) or less.

            (b) If the maximum resistance value is NOT 0.0025 ohm (2.5 milliohm) or less.

                1) Temporarily remove the parts that were installed in accordance with FIGURE 5.

2) Make sure the electrical bond area on the doubler surface was prepared correctly in accordance with FIGURE 1.

3) Make sure that the wire mesh gasket is installed correctly to get a sufficient electrical bond at the doubler-to-door assembly interface in accordance with FIGURE 5.

4) Install the new door assembly 8117L in accordance with FIGURE 5.

5) Measure the door assembly -to- wing skin electrical bond in accordance with FIGURE 5.

a) The electrical bond check is complete if the maximum resistance is 0.0025 ohm (2.5 milliohm) or less.

b) If the maximum resistance is NOT 0.0025 ohm (2.5 milliohm) or less, contact Boeing for repair instructions and do the repair.

(3) Apply an enamel finish to the door assembly installation in accordance with FIGURE 5.

b. Right Wing

(1) Install the new door assembly 8817R with a wire mesh gasket and bolts in accordance with FIGURE 6.

(2) Measure the door assembly -to- wing skin electrical bond in accordance with FIGURE 6.

(a) The electrical bond check is complete if the maximum resistance is 0.0025 ohm (2.5 milliohm) or less.

(b) If the maximum resistance value is NOT 0.0025 ohm (2.5 milliohm) or less.

1) Temporarily remove the parts that were installed in accordance with FIGURE 6.

2) Make sure the electrical bond area on the doubler surface was prepared correctly in accordance with FIGURE 2.

3) Make sure that the wire mesh gasket is installed correctly to get a sufficient electrical bond at the doubler-to-door assembly interface in accordance with FIGURE 6.

4) Install the new door assembly 8817R in accordance with FIGURE 6.

5) Measure the door assembly -to- wing skin electrical bond in accordance with FIGURE 6.

a) The electrical bond check is complete if the maximum resistance is 0.0025 ohm (2.5 milliohm) or less.

b) If the maximum resistance is NOT 0.0025 ohm (2.5 milliohm) or less, contact Boeing for repair instructions and do the repair.

(3) Apply an enamel finish to the door assembly installation in accordance with FIGURE 6.

PART 3: CLOSE ACCESS

1. Close access. Refer to 737-300/400/500 AMM 28-11-11 as an accepted procedure.

   NOTE: You can refuel the fuel tanks when the sealant installed on the nutplates is tack-free.

2. Make sure the new door assemblies do not leak. Refer to 737-300/400/500 AMM 28-11-00 as an accepted procedure.

3. Put the airplane back to a serviceable condition.

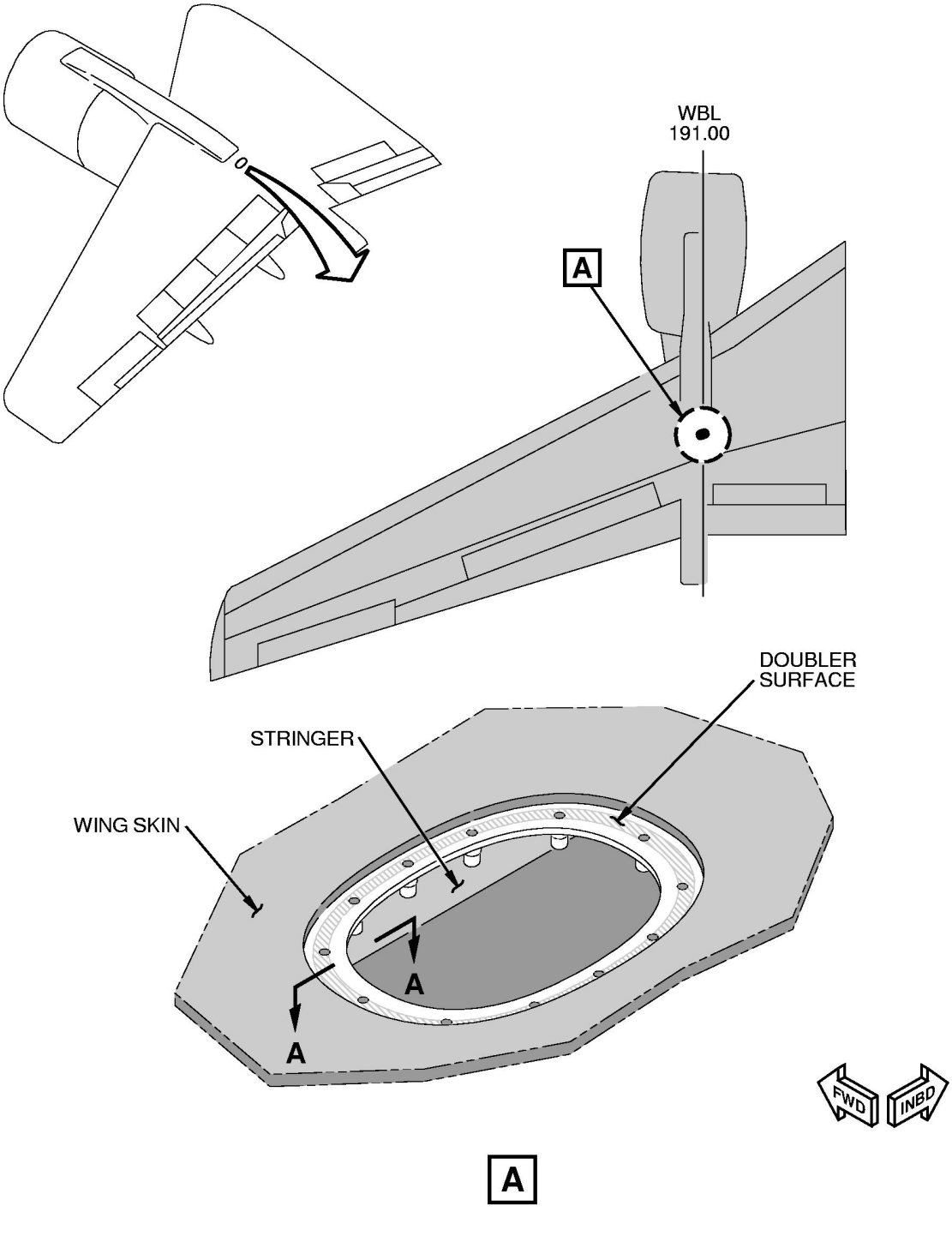


FIGURE 1: LEFT WING - DOUBLER SURFACE - PREPARE FOR ELECTRICAL BOND AND APPLY NEW PRIMER
(SHEET 1 OF 3)

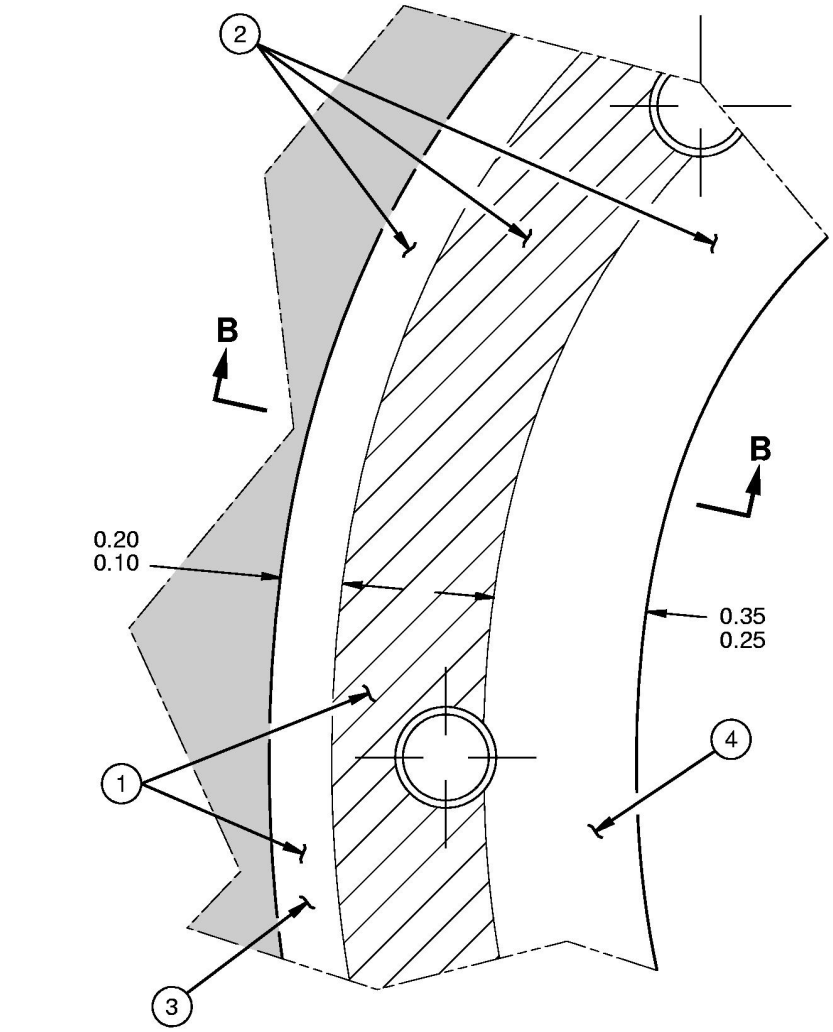


FIGURE 1: LEFT WING - DOUBLER SURFACE - PREPARE FOR ELECTRICAL BOND AND APPLY NEW PRIMER
(SHEET 2 OF 3)

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 this figure.

Step	Task	Name	Identification	Qty	More Data
1	Clean	Doubler	-	-	(a) (b) (c)
2	Apply	Chemical Conversion Coating	ALODINE 600 (TYPE 2, CLASS A OR D)	2.0 Oz	Apply to areas where the anodic film was removed, damaged, or disturbed. (d) (i)
3	Apply	Primer	BMS 10-79, TYPE III	1.0 Oz	(e) (f) (g) (i)
4	Apply	Corrosion Resistant Finish	BMS10-20, TYPE II	.5 Oz	Touch up if existing layer was damaged or disturbed. (g) (h) (i)

(a)	Remove corrosion resistant finish and the anodic film (Anodize, Iridite, Alodine, etc.,) from the surface in the area shown along the entire circumference of the doubler.
(b)	Keep a surface roughness of 63 micro inches RA or better.
(c)	Refer to SWPM 20-20-00 as an accepted procedure.
(d)	Refer to SOPM 20-43-03 as an accepted procedure.
(e)	Apply one layer on the doubler surface. Touch up existing layer on wing skin if it was damaged or disturbed.
(f)	Refer to SOPM 20-44-04 as an accepted procedure.
(g)	Make sure the primer and corrosion resistant finish are dry before handling and installation of the new parts.
(h)	Refer to 737-300/400/500 AMM 28-11-00 as an accepted procedure.
(i)	The quantity shown is for reference only.

FIGURE 1: LEFT WING - DOUBLER SURFACE - PREPARE FOR ELECTRICAL BOND AND APPLY NEW PRIMER
(SHEET 3 OF 3)

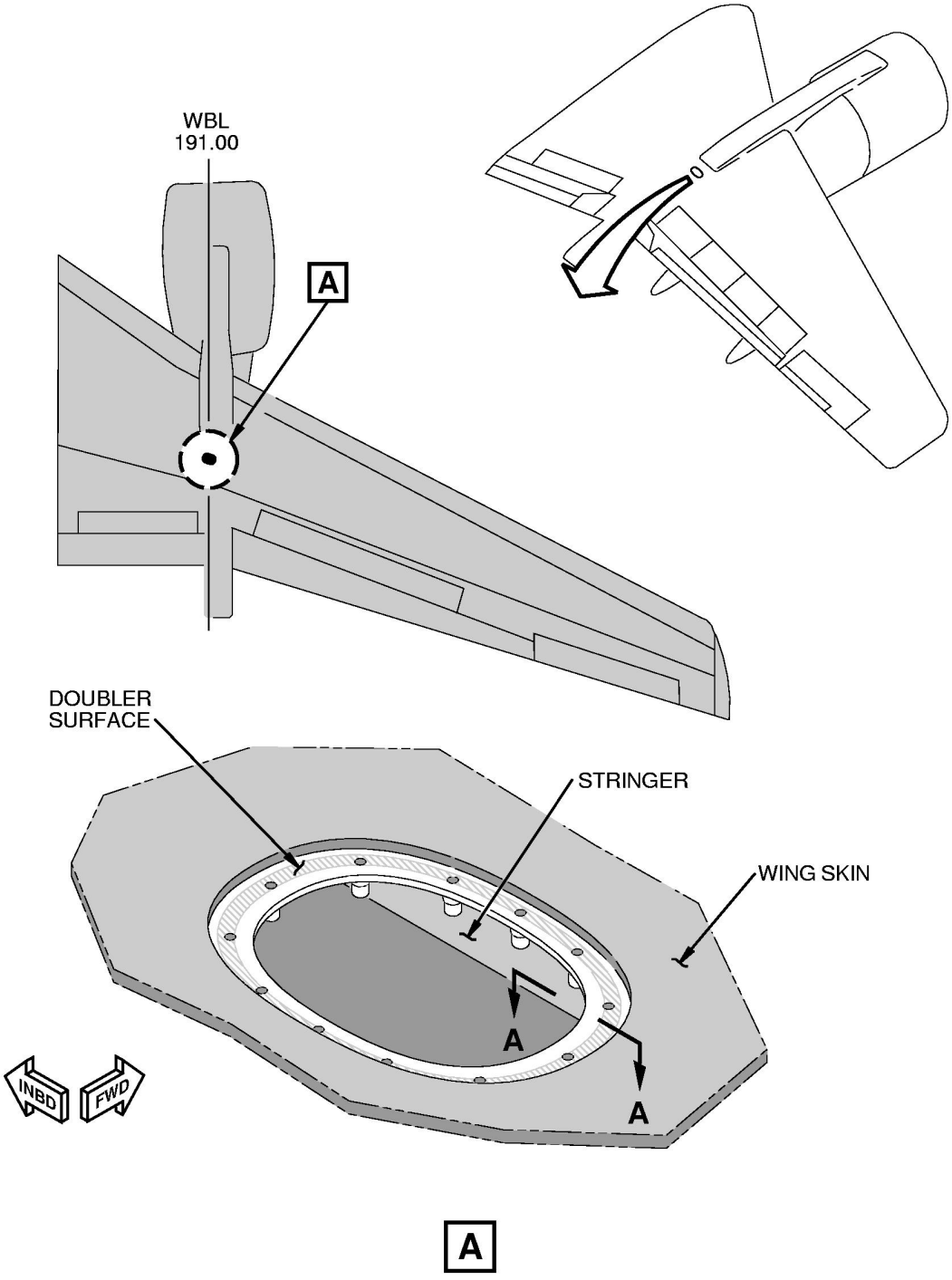
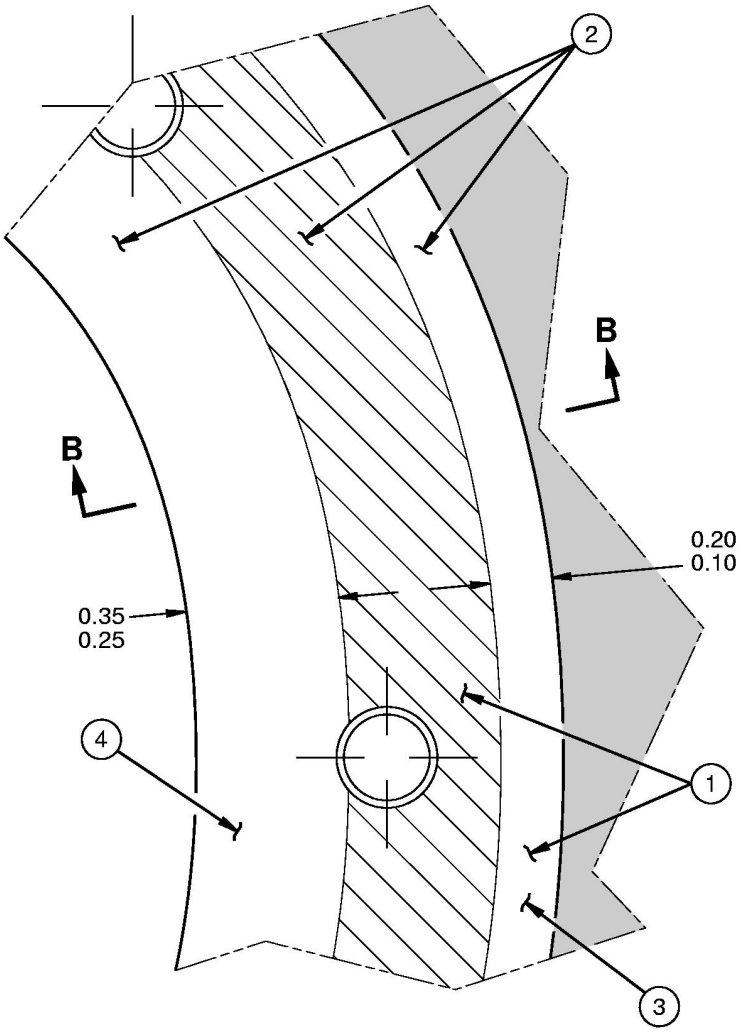
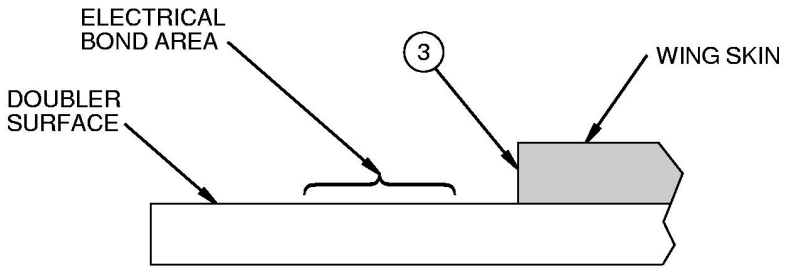


FIGURE 2: RIGHT WING - DOUBLER SURFACE - PREPARE FOR ELECTRICAL BOND AND APPLY NEW PRIMER
(SHEET 1 OF 3)



A-A



B-B

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FIGURE 2: RIGHT WING - DOUBLER SURFACE - PREPARE FOR ELECTRICAL BOND AND APPLY NEW PRIMER
(SHEET 2 OF 3)

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 this figure.

Step	Task	Name	Identification	Qty	More Data
1	Clean	Doubler	-	-	(a) (b) (c)
2	Apply	Chemical Conversion Coating	ALODINE 600 (TYPE 2, CLASS A OR D)	2.0 Oz	Apply to areas where the anodic film was removed, damaged, or disturbed. (d) (i)
3	Apply	Primer	BMS 10-79, TYPE III	1.0 Oz	(e) (f) (g) (i)
4	Apply	Corrosion Resistant Finish	BMS10-20, TYPE II	.5 Oz	Touch up if existing layer was damaged or disturbed. (g) (h) (i)

(a)	Remove corrosion resistant finish and the anodic film (Anodize, Iridite, Alodine, etc.,) from the surface in the area shown along the entire circumference of the doubler.
(b)	Keep a surface roughness of 63 micro inches RA or better.
(c)	Refer to SWPM 20-20-00 as an accepted procedure.
(d)	Refer to SOPM 20-43-03 as an accepted procedure.
(e)	Apply one layer on the doubler surface. Touch up existing layer on wing skin if it was damaged or disturbed.
(f)	Refer to SOPM 20-44-04 as an accepted procedure.
(g)	Make sure the primer and corrosion resistant finish are dry before handling and installation of the new parts.
(h)	Refer to 737-300/400/500 AMM 28-11-00 as an accepted procedure.
(i)	The quantity shown is for reference only.

FIGURE 2: RIGHT WING - DOUBLER SURFACE - PREPARE FOR ELECTRICAL BOND AND APPLY NEW PRIMER
(SHEET 3 OF 3)

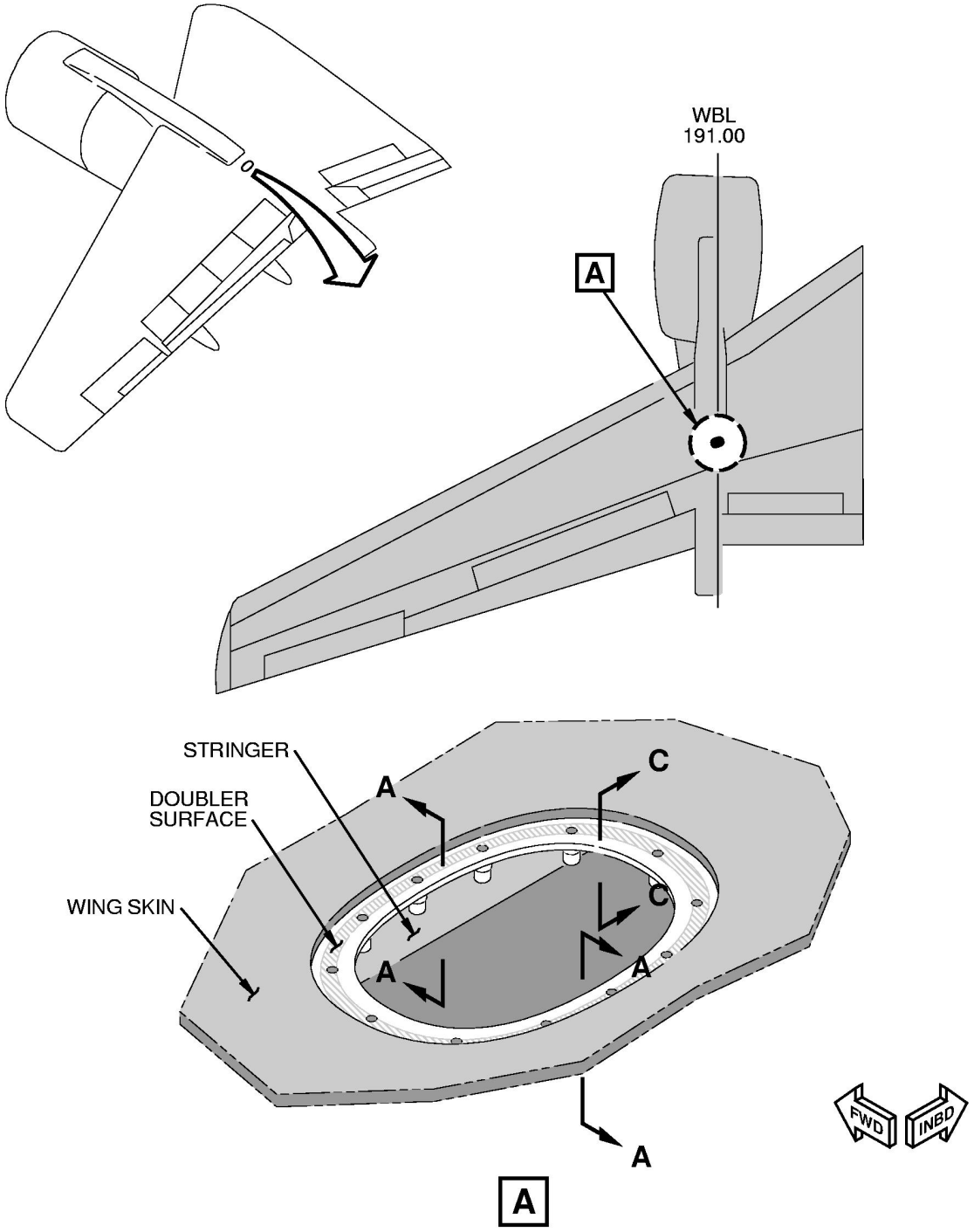

FIGURE 3: LEFT WING - DOUBLER - CAP SEAL NUTPLATES
(SHEET 1 OF 4)

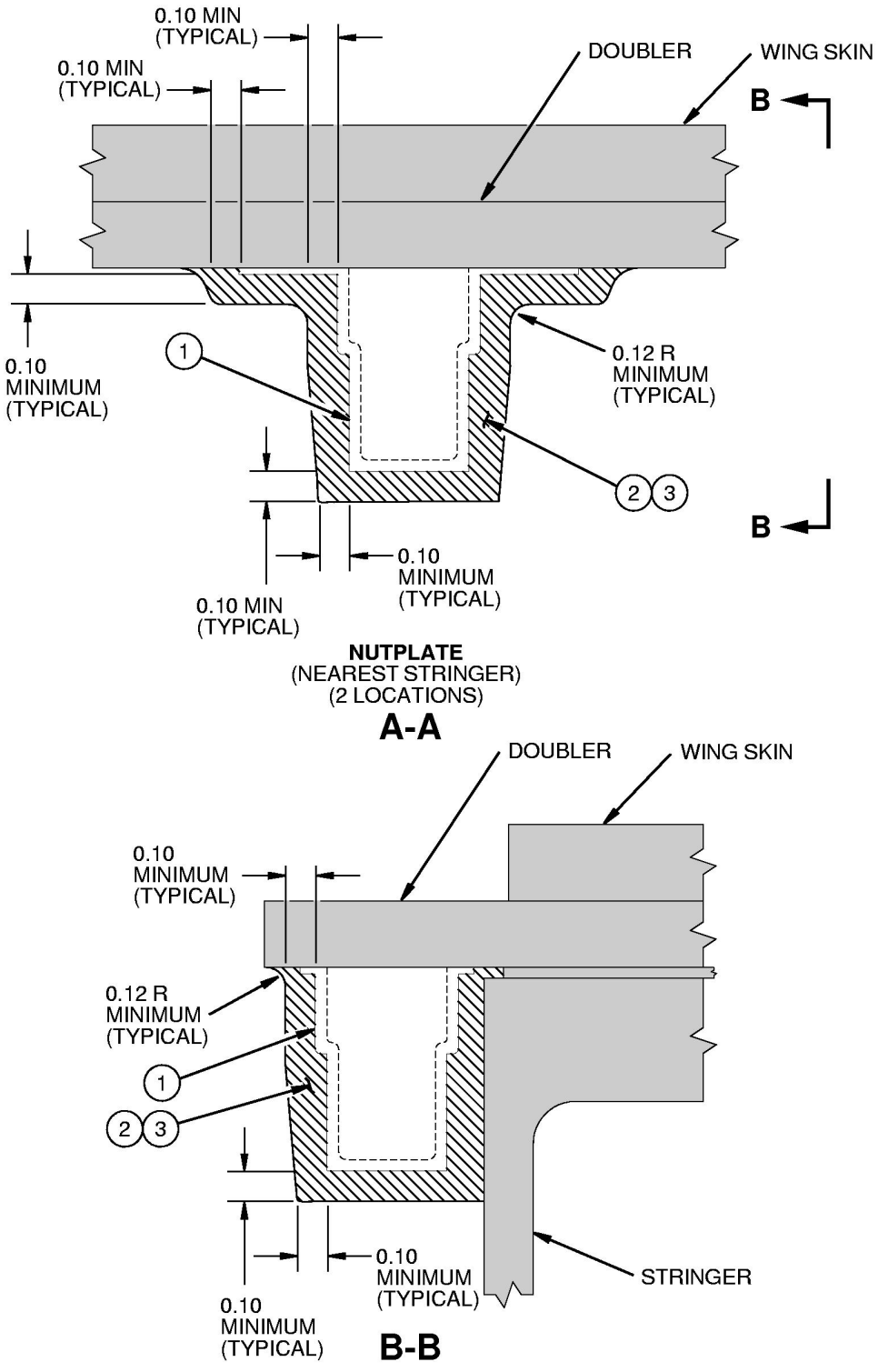

FIGURE 3: LEFT WING - DOUBLER - CAP SEAL NUTPLATES
(SHEET 2 OF 4)

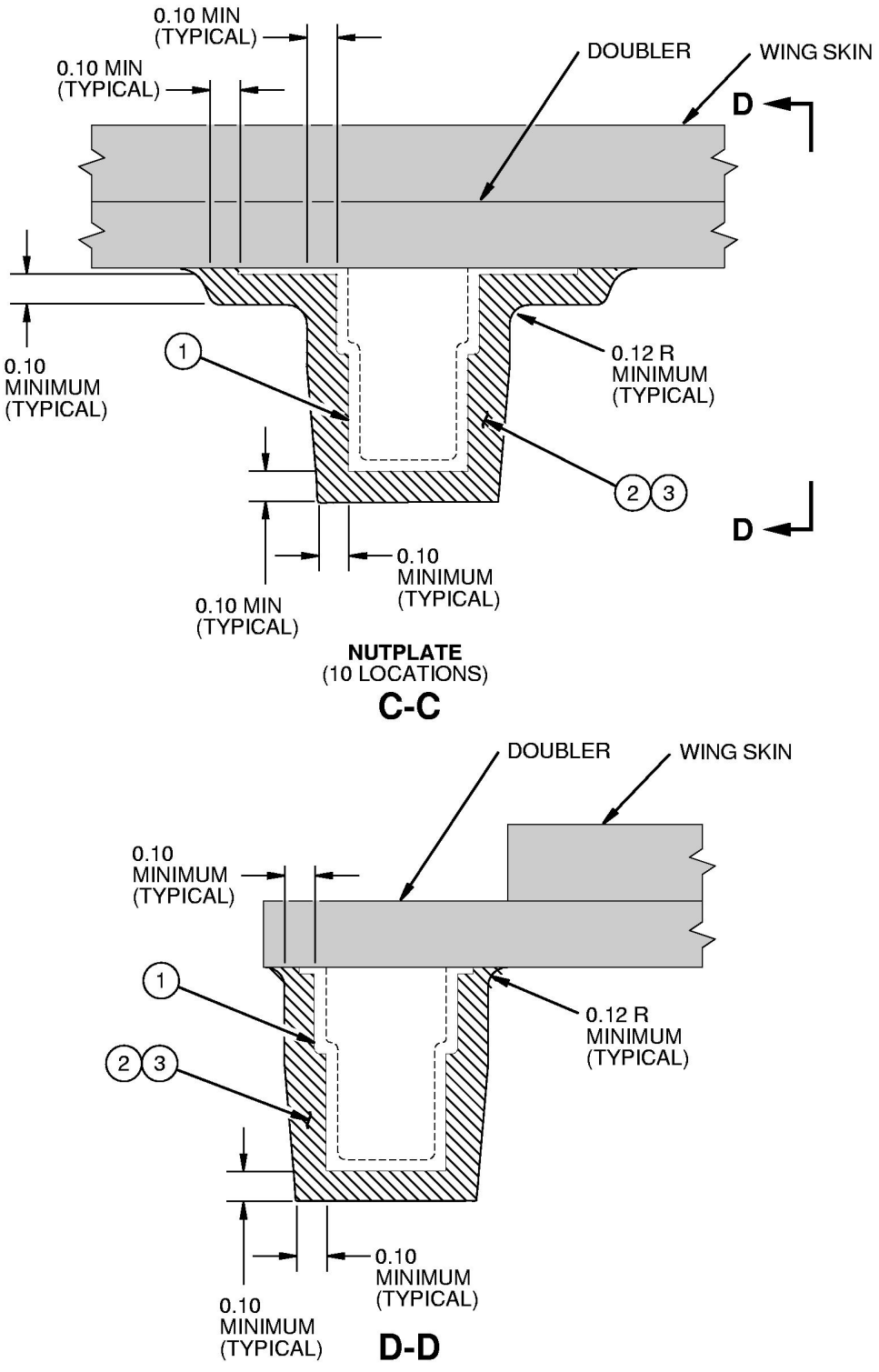

FIGURE 3: LEFT WING - DOUBLER - CAP SEAL NUTPLATES
(SHEET 3 OF 4)

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 this figure.

Step	Task	Name	Identification	Qty	More Data
1	Clean	Nutplate	-	12	Clean the nutplate and the adjacent surface. (a)
2	Apply	Sealant	BMS 5-45, CLASS A	2.0 Oz	Apply a precoat to the nutplate and to the adjacent surface. (a) (c)
3	Apply	Sealant	BMS 5-45, CLASS B	4.0 Oz	Apply a layer to the nutplate and to the adjacent surface. (a) (b) (c)
(a) Refer to 737-300/400/500 AMM 28-11-00 as an accepted procedure.					
(b) Move the sealant with a sealant fairing tool to get the minimum dimensions shown in this figure.					
(c) The quantity shown is for reference only.					

FIGURE 3: LEFT WING - DOUBLER - CAP SEAL NUTPLATES
(SHEET 4 OF 4)

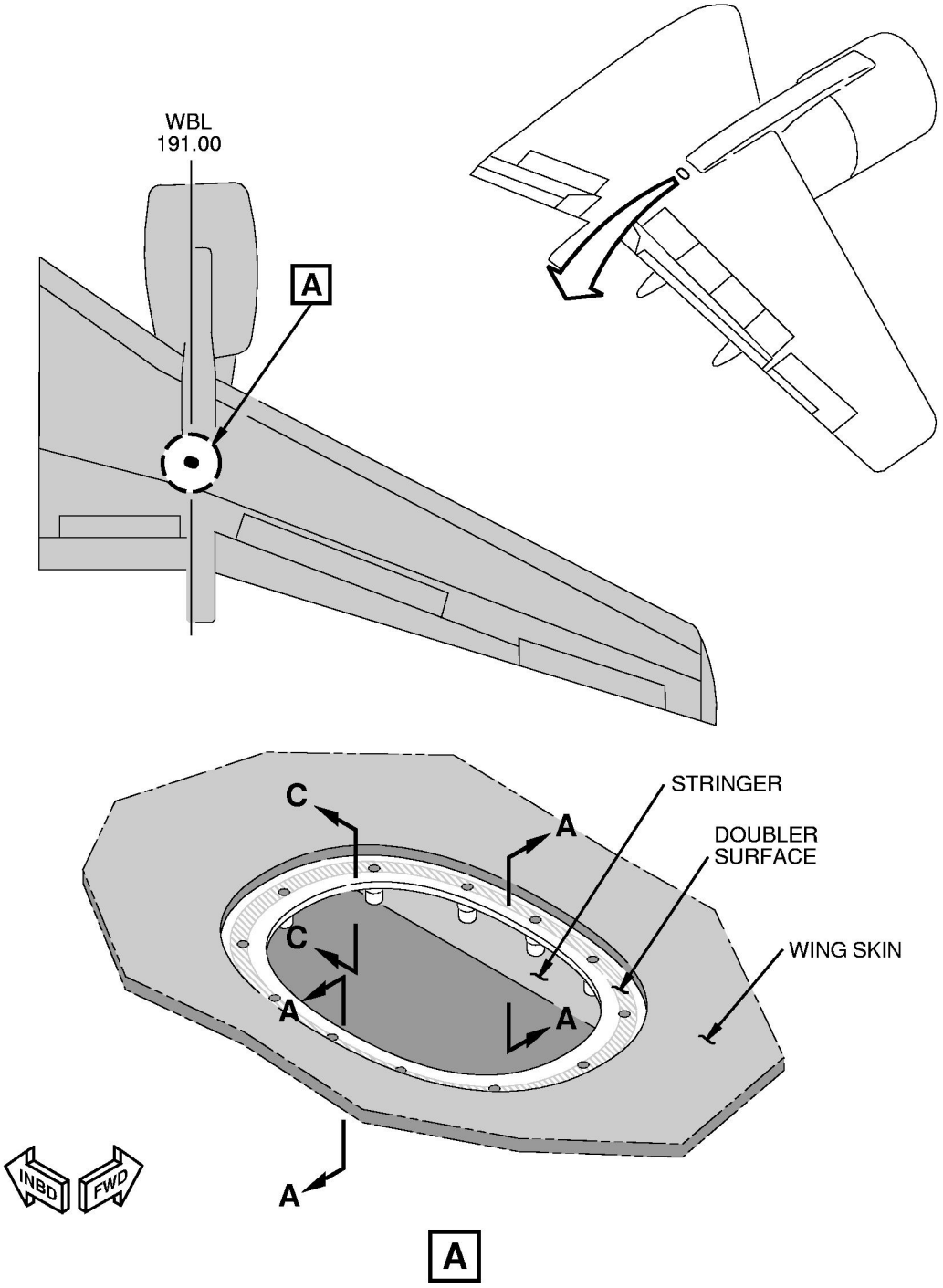

FIGURE 4: RIGHT WING - DOUBLER - CAP SEAL NUTPLATES (SHEET 1 OF 4)

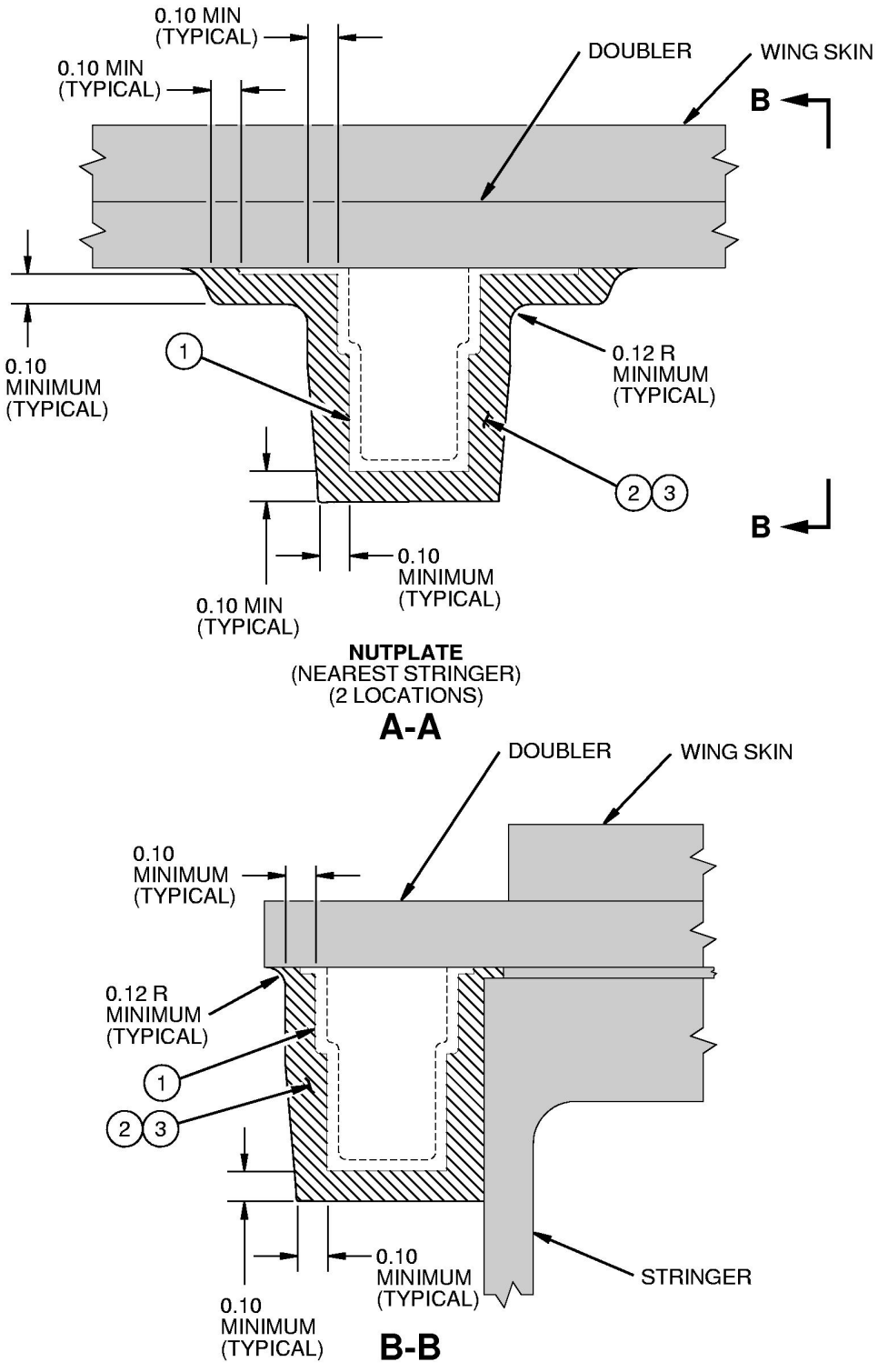

FIGURE 4: RIGHT WING - DOUBLER - CAP SEAL NUTPLATES
(SHEET 2 OF 4)

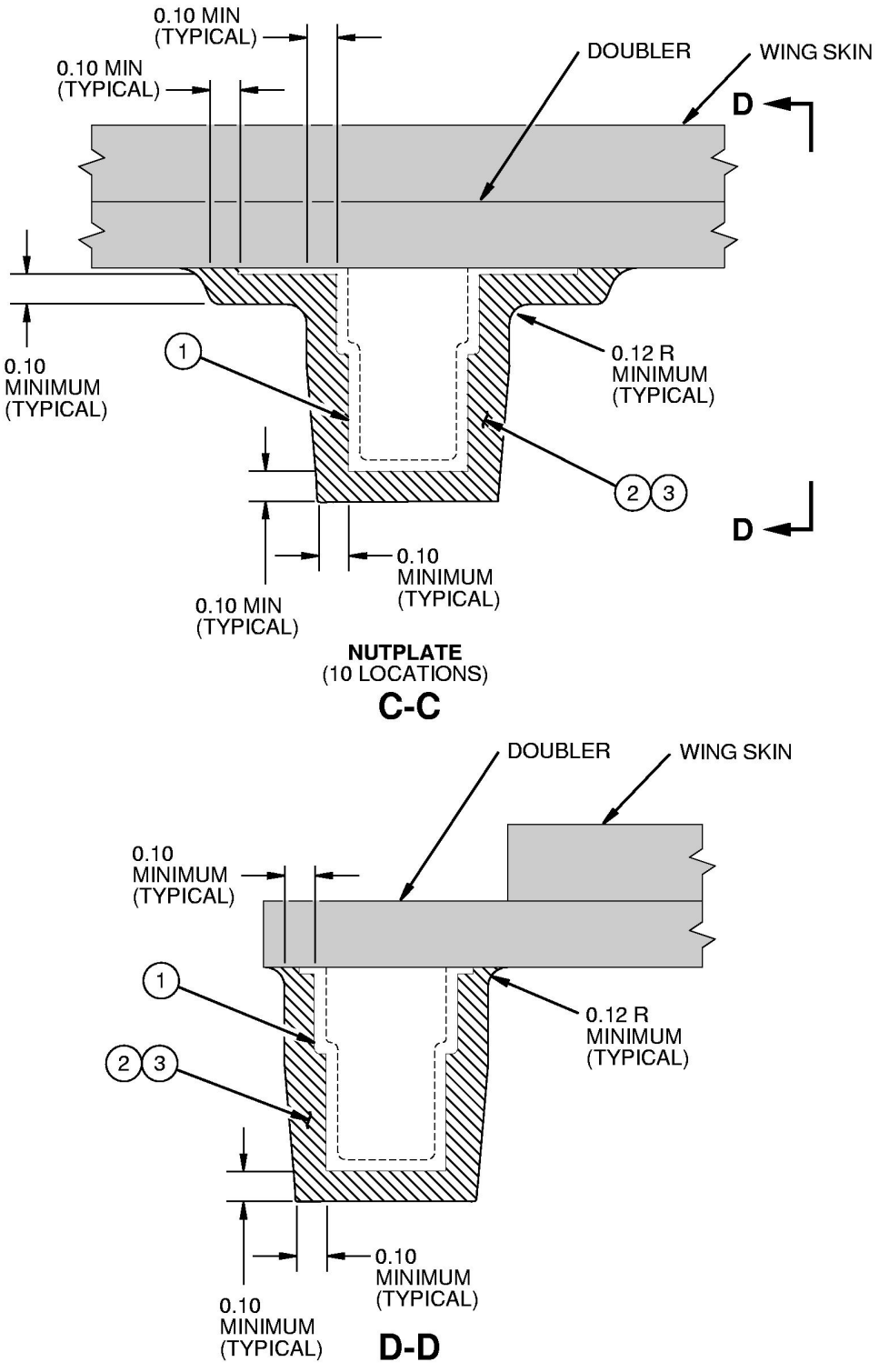

FIGURE 4: RIGHT WING - DOUBLER - CAP SEAL NUTPLATES
(SHEET 3 OF 4)

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 this figure.

Step	Task	Name	Identification	Qty	More Data
1	Clean	Nutplate	-	12	Clean the nutplate and the adjacent surface. (a)
2	Apply	Sealant	BMS 5-45, CLASS A	2.0 Oz	Apply a precoat to the nutplate and to the adjacent surface. (a) (c)
3	Apply	Sealant	BMS 5-45, CLASS B	4.0 Oz	Apply a layer to the nutplate and to the adjacent surface. (a) (b) (c)
(a) Refer to 737-300/400/500 AMM 28-11-00 as an accepted procedure.					
(b) Move the sealant with a sealant fairing tool to get the minimum dimensions shown in this figure.					
(c) The quantity shown is for reference only.					

FIGURE 4: RIGHT WING - DOUBLER - CAP SEAL NUTPLATES
(SHEET 4 OF 4)

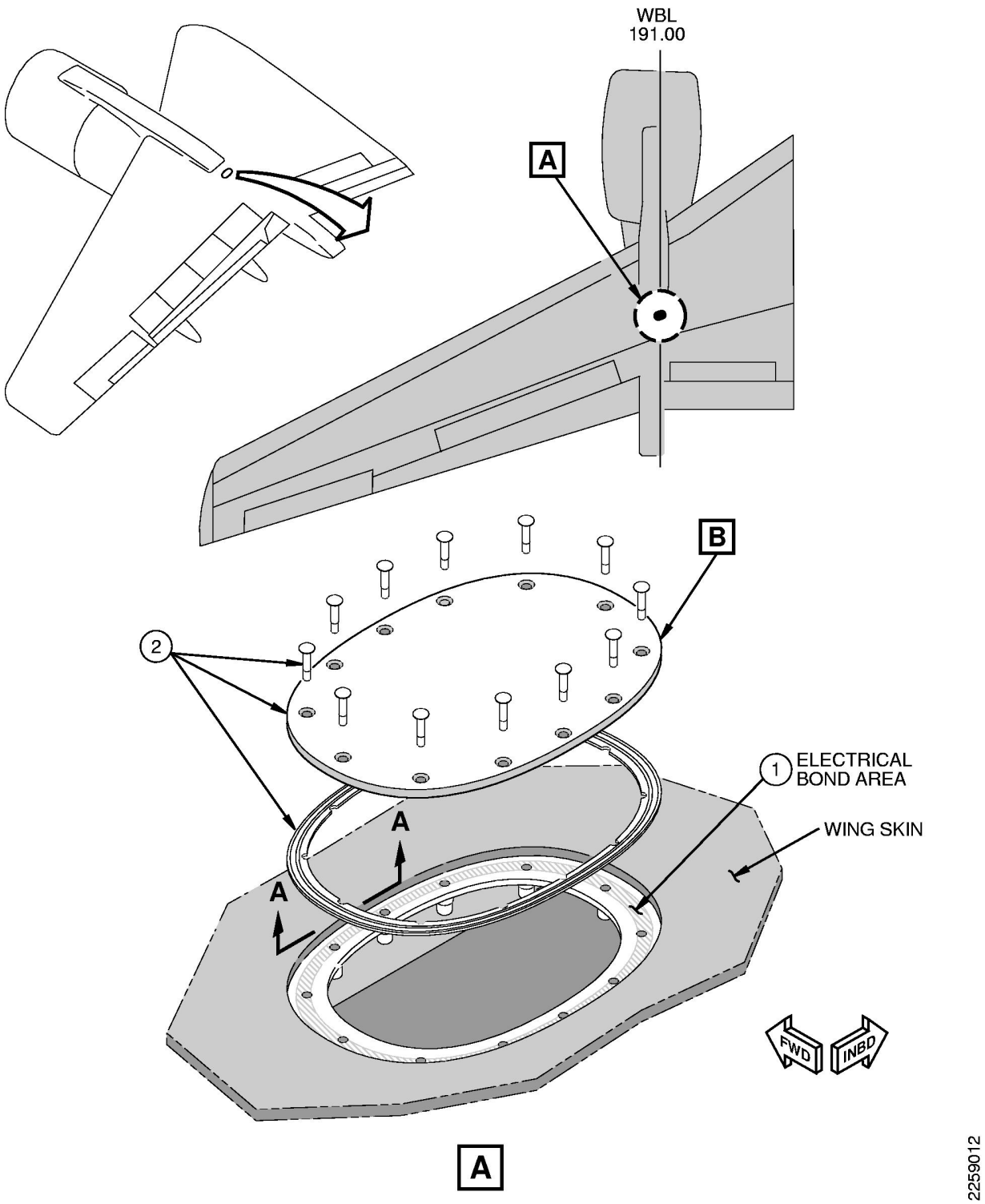

FIGURE 5: LEFT WING - INSTALL NEW DOOR ASSEMBLY AND WIRE MESH GASKET, APPLY ENAMEL FINISH, MEASURE ELECTRICAL BOND
(SHEET 1 OF 4)

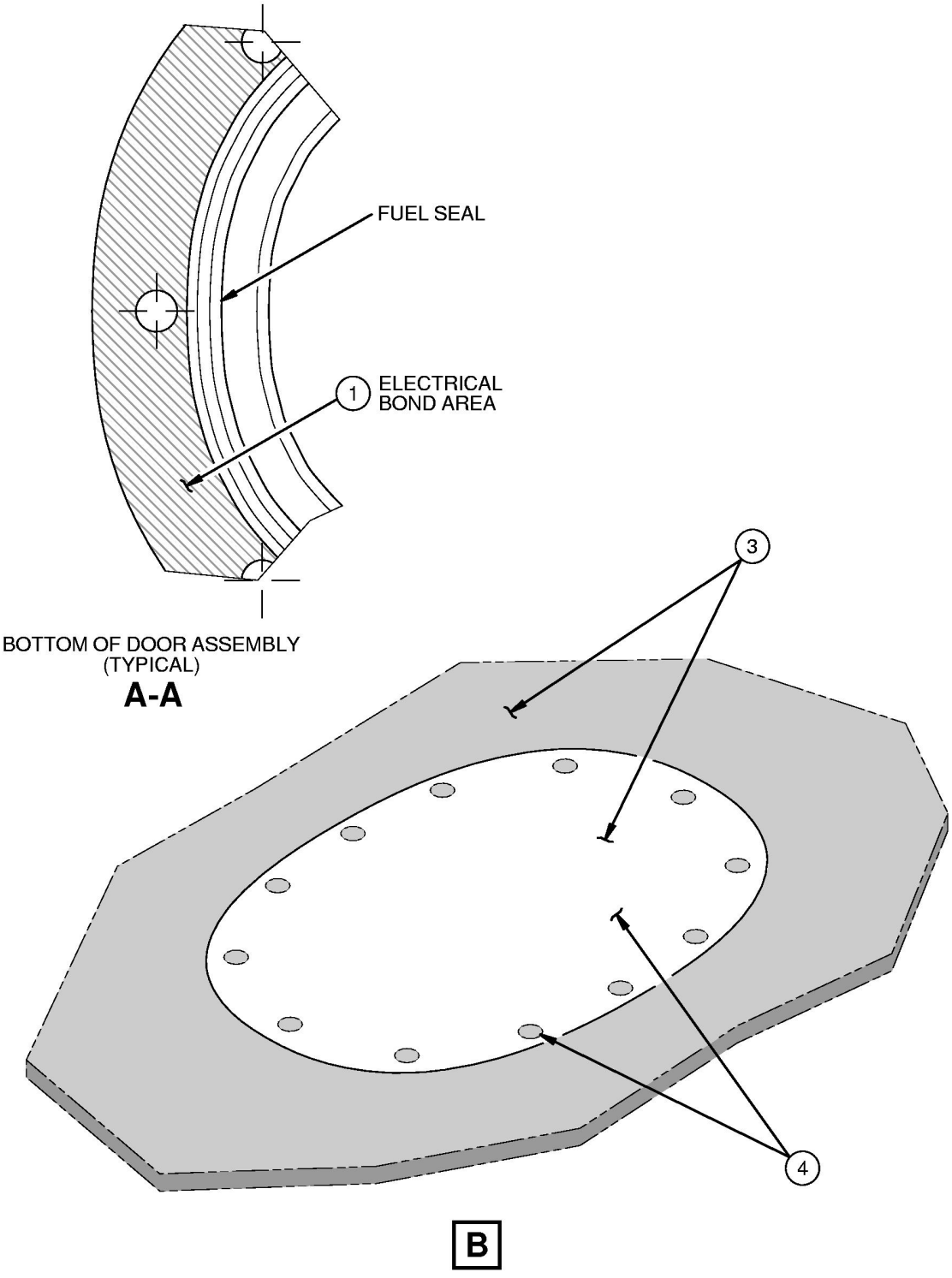

FIGURE 5: LEFT WING - INSTALL NEW DOOR ASSEMBLY AND WIRE MESH GASKET, APPLY ENAMEL FINISH, MEASURE ELECTRICAL BOND
(SHEET 2 OF 4)

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 this figure.

Step	Task	Name	Identification	Qty	More Data
CAUTION: APPLY THE AEROSHELL NO. 14 GREASE CAREFULLY. THIS GREASE CAN CAUSE CONTAMINATION OF THE FUEL TANK.					
1	Apply	Aeroshell No. 14 Grease	MIL-G-25537	2.0 Oz	Apply a thin layer to the electrical bond areas on the doubler and door assembly (a) (g)
2	Install (New)	GASKET - WIRE MESH, 5 X 7.5 TANK ACCESS DOOR	65C38313-1	1	
	Install (New)	DOOR ASSEMBLY - 5 X 7.5 FUEL TANK ACCESS	65C38396-1	1	
	Install (New)	BOLT, 100 DEG CROSS	BACB30LH3-9	12	Tighten to a torque of 25-35 in-lb. (b)
3	Measure	Door Assembly -to-Wing Skin Electrical Bond	-	-	Make sure the resistance is 0.0025 ohm (2.5 milliohm) or less (f)
CAUTION: KEEP ENAMEL AWAY FROM THE COUNTERSUNK SURFACE OF BOTH THE HOLES AND THE BOLTS FOR THE DOOR ASSEMBLY. IT IS NECESSARY TO KEEP A BARE METAL SURFACE IN THESE AREAS FOR A SUFFICIENT ELECTRICAL BOND.					
4	Apply	Enamel, Gloss	BMS 10-60, TYPE II	1.0 Oz	Apply one layer on the door assembly and bolt heads. (c) (d) (e) (g)
(a) The electrical bond area on the door assembly and on the doubler is the area where the metal surface is bare.					
(b) Refer to SRM Chapter 51-40 as an accepted procedure.					
(c) Make sure all the bolts are installed on the door assembly before the enamel is applied.					
(d) Use the same color as the adjacent wing skin. Refer to 737-300/400/500 AMM 51-21-99 as an accepted procedure.					
(e) Up to two inches over-spray onto the wing skin is permitted. Make sure the enamel goes into the space between the door assembly and the wing skin. Do not permit enamel on any stenciling that is on the wing skin surface near the door assembly.					

FIGURE 5: LEFT WING - INSTALL NEW DOOR ASSEMBLY AND WIRE MESH GASKET, APPLY ENAMEL FINISH, MEASURE ELECTRICAL BOND
(SHEET 3 OF 4)

Step	Task	Name	Identification	Qty	More Data
(f) Refer to 737-300/400/500 AMM 28-11-11 as an accepted procedure and information for the type of bonding meter to use and SWPM 20-20-00 as an accepted procedure.					
(g) The quantity shown is for reference only.					

FIGURE 5: LEFT WING - INSTALL NEW DOOR ASSEMBLY AND WIRE MESH GASKET, APPLY ENAMEL FINISH, MEASURE ELECTRICAL BOND
(SHEET 4 OF 4)

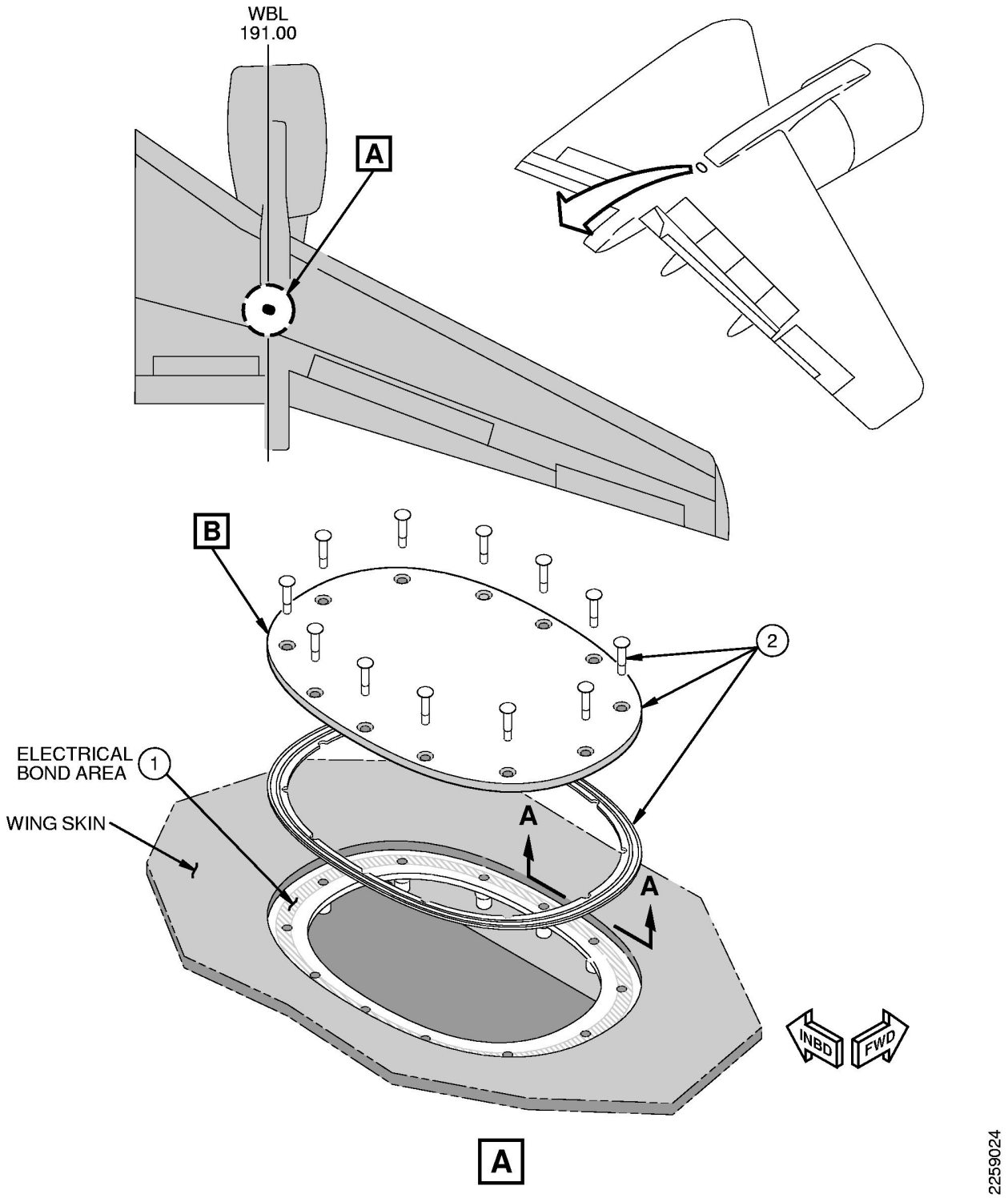

FIGURE 6: RIGHT WING - INSTALL NEW DOOR ASSEMBLY AND WIRE MESH GASKET, APPLY ENAMEL FINISH, MEASURE ELECTRICAL BOND
(SHEET 1 OF 4)

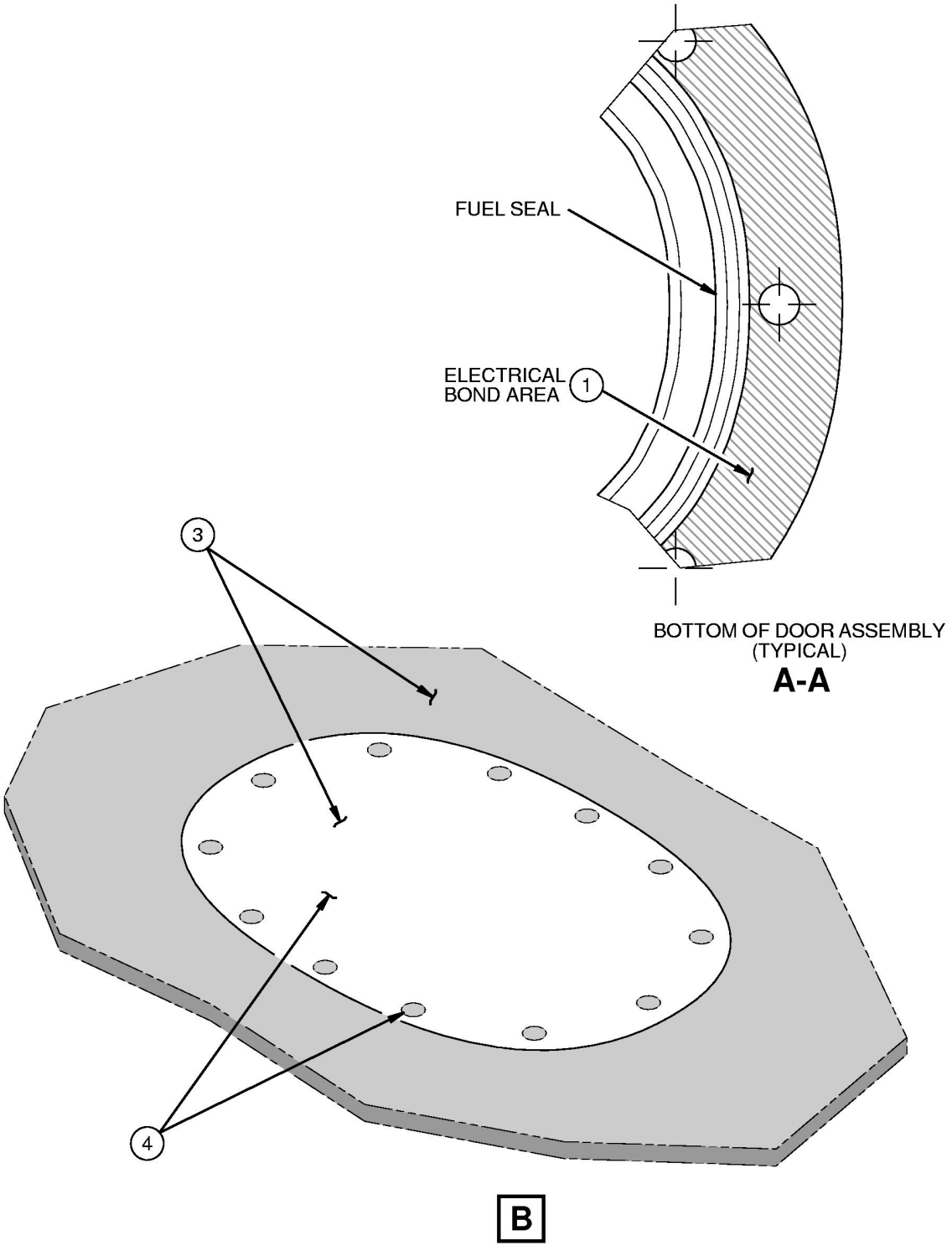

FIGURE 6: RIGHT WING - INSTALL NEW DOOR ASSEMBLY AND WIRE MESH GASKET, APPLY ENAMEL FINISH, MEASURE ELECTRICAL BOND (SHEET 2 OF 4)

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 this figure.

Step	Task	Name	Identification	Qty	More Data
CAUTION: APPLY THE AEROSHELL NO. 14 GREASE CAREFULLY. THIS GREASE CAN CAUSE CONTAMINATION OF THE FUEL TANK.					
1	Apply	Aeroshell No. 14 Grease	MIL-G-25537	2.0 Oz	Apply a thin layer to the electrical bond areas on the doubler and door assembly (a) (g)
2	Install (New)	GASKET - WIRE MESH, 5 X 7.5 TANK ACCESS DOOR	65C38313-1	1	
	Install (New)	DOOR ASSEMBLY - 5 X 7.5 FUEL TANK ACCESS	65C38396-1	1	
	Install (New)	BOLT, 100 DEG CROSS	BACB30LH3-9	12	Tighten to a torque of 25-35 in-lb.(b)
3	Measure	Door Assembly -to-Wing Skin Electrical Bond	-	-	Make sure the resistance is 0.0025 ohm (2.5 milliohm) or less (f)
CAUTION: KEEP ENAMEL AWAY FROM THE COUNTERSUNK SURFACE OF BOTH THE HOLES AND THE BOLTS FOR THE DOOR ASSEMBLY. IT IS NECESSARY TO KEEP A BARE METAL SURFACE IN THESE AREAS FOR A SUFFICIENT ELECTRICAL BOND.					
4	Apply	Enamel, Gloss	BMS 10-60, TYPE II	1.0 Oz	Apply one layer on the door assembly and bolt heads. (c) (d) (e) (g)
(a) The electrical bond area on the door assembly and on the doubler is the area where the metal surface is bare.					
(b) Refer to SRM Chapter 51-40 as an accepted procedure.					
(c) Make sure all the bolts are installed on the door assembly before the enamel is applied.					
(d) Use the same color as the adjacent wing skin. Refer to 737-300/400/500 AMM 51-21-99 as an accepted procedure.					
(e) Up to two inches over-spray onto the wing skin is permitted. Make sure the enamel goes into the space between the door assembly and the wing skin. Do not permit enamel on any stenciling that is on the wing skin surface near the door assembly.					

FIGURE 6: RIGHT WING - INSTALL NEW DOOR ASSEMBLY AND WIRE MESH GASKET, APPLY ENAMEL FINISH, MEASURE ELECTRICAL BOND
(SHEET 3 OF 4)

Step	Task	Name	Identification	Qty	More Data
(f) Refer to 737-300/400/500 AMM 28-11-11 as an accepted procedure and information for the type of bonding meter to use and SWPM 20-20-00 as an accepted procedure.					
(g) The quantity shown is for reference only.					

FIGURE 6: RIGHT WING - INSTALL NEW DOOR ASSEMBLY AND WIRE MESH GASKET, APPLY ENAMEL FINISH, MEASURE ELECTRICAL BOND
(SHEET 4 OF 4)

Boeing Part Demand Intent

After review of this service bulletin, Boeing asks that the primary engineer fill out this survey to help Boeing predict the quantity and timing of the Boeing supplied kits.

Airline:

_____

Contact Name:

_____

Date:

_____

Contact E-mail:

_____

☐ Yes ☐ No Have/will you recommend to your airline to accomplish this service bulletin?

☐ Yes ☐ No Would issuance of an AD change this decision?

When would you likely be starting this SB incorporation? Month/ Year_____.

How many airplanes per month do you plan to accomplish? Airplane/Month_____.

How many total airplanes do you plan to complete? Total Airplanes_____.

For inspection Service Bulletins, are you planning to replace on condition, or a fleet campaign to replace on all airplanes regardless of condition?

☐ On Condition ☐ Campaign

If you are not incorporating this Service Bulletin at this time will you please help us understand the reason(s) why? Your input will help us provide better customer support.

☐ Cost Prohibitive ☐ Continue Inspections ☐ Other

Operator Comments:

_____

_____

_____

Within 45 days of the SB issue, or as soon after as possible, please scan this form and send to:

sbsolutions@boeing.com

Disclaimer: The data provided in this survey will be used for planning purposes only and does not constitute a commitment on any part of the airlines to purchase the parts in question, nor does it constitute a commitment on the part of Boeing to deliver the parts in question. This survey is a projection to help Boeing forecast demand levels and timing to better support the customers schedule.

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APPENDIX A: PART DEMAND INTENT
(SHEET 1 OF 1)