

 **BOEING**
COMPONENT
MAINTENANCE MANUAL

TO: ALL HOLDERS OF AUXILIARY POWER SYSTEM VENTED DOOR ASSEMBLY
COMPONENT MAINTENANCE MANUAL 53-85-01

REVISION NO. 3 DATED JUL 01/00

HIGHLIGHTS

Pages which have been added or revised are outlined below together with the highlights of the revision. Remove and insert the affected pages as listed and enter Revision No. and date on the Record of Revision Sheet.

CHAPTER/SECTION

AND PAGE NO.

DESCRIPTION OF CHANGE

TITLE PAGE

Added new door assembly, P/N 355T0253-19, and updated the manual throughout for -19 assembly and its components.

1

501

REPAIR 1-1

601-603

REPAIR 2-1

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801

1002,1005-1009

Updated illustrated parts list.

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HIGHLIGHTS

01.1

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AUXILIARY POWER SYSTEM VENTED DOOR ASSEMBLY

PART NUMBERS 355T0253-1,-14,-19

COMPONENT MAINTENANCE MANUAL
WITH
ILLUSTRATED PARTS LIST

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TITLE PAGE

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REVISION RECORD

- Retain this record in front of manual. On receipt of revision, insert revised pages in the manual, and enter revision number, date inserted and initial.

REVISION NUMBER	REVISION DATE	DATE FILED	BY	REVISION NUMBER	REVISION DATE	DATE FILED	BY



TEMPORARY REVISION AND SERVICE BULLETIN RECORD

BOEING SERVICE BULLETIN	BOEING TEMPORARY REVISION	OTHER DIRECTIVE	DATE OF INCORPORATION INTO MANUAL
		PRRB 10087	JUL 10/84

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TR & SB RECORD

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PAGE	DATE	CODE	PAGE	DATE	CODE
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			*604	BLANK	
TITLE PAGE			REPAIR 2-1		
*1	JUL 01/00	01.1	*601	JUL 01/00	01.1
2	BLANK		*602	JUL 01/00	01.1
REVISION RECORD			*603	JUL 01/00	01.1
1	JUL 10/84	01	*604	BLANK	
2	BLANK		FITS AND CLEARANCES		
TR & SB RECORD			*801	JUL 01/00	01.1
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LIST OF EFFECTIVE PAGES			1001	JUL 10/84	01
*1	JUL 01/00	01	*1002	JUL 01/00	01.1
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1	JUL 10/84	01	*1008	JUL 01/00	01.1
2	BLANK		*1009	JUL 01/00	01.1
DESCRIPTION & OPERATION			*1010	BLANK	
1	JUL 10/84	01			
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*602	JUL 01/00	01.1			
*603	JUL 01/00	01.1			

* = REVISED, ADDED OR DELETED

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*[1] Special instructions not required. Use standard industry practices.

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INTRODUCTION

The instructions in this manual provide the information necessary to perform maintenance functions ranging from simple checks and replacement to complete shop-type repair.

This manual is divided into separate sections:

- | | |
|--|------------------------------|
| 1. Title Page | 4. List of Effective Pages |
| 2. Record of Revisions | 5. Table of Contents |
| 3. Temporary Revision &
Service Bulletin Record | 6. Introduction |
| | 7. Procedures & IPL Sections |

Refer to the Table of Contents for the page location of applicable sections. An asterisked flagnote *[] in place of the page number indicates that no special instructions are provided since the function can be performed using standard industry practices.

The beginning of the REPAIR section includes a list of the separate repairs, and a list of applicable standard Boeing practices.

An explanation of the use of the Illustrated Parts List is provided in the Introduction to that section.

All weights and measurements used in the manual are in English units, unless otherwise stated. When metric equivalents are given they will be in parentheses following the English units.

Design changes, optional parts, configuration differences and Service Bulletin modifications create alternate part numbers. These are identified in the Illustrated Parts List (IPL) by adding an alphabetical character to the basic item number. The resulting item number is called an alpha-variant. Throughout the manual, IPL basic item number references also apply to alpha-variants unless otherwise indicated.

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INTRODUCTION

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AUXILIARY POWER SYSTEM VENTED DOOR ASSEMBLY

DESCRIPTION AND OPERATION

1. Description and Operation

A. The Auxiliary Power System vented door assembly is an aluminum alloy louver door consisting of top and bottom hinge angles, three louvers which are riveted to the hinge angles, and front and rear angles. The vented door assembly is non-operational by itself.

2. Leading Particulars (approximate)

Length -- 8 inches
Height -- 10 inches
Width -- 1 inch
Weight -- 0.55 pound

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DESCRIPTION & OPERATION

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CHECK

1. Check all parts for obvious defects in accordance with standard industry practices.
2. Penetrant check the following parts, clip (IPL Fig. 1; 10, 15, 35, 40, 45, 50)(IPL Fig. 2; 10), angle (IPL Fig. 1; 60, 65), and louver (IPL Fig. 1; 20), per 20-20-02.

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CHECK

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REPAIR – GENERAL

1. Content

- A. Repair, refinish and replacement procedures are included in separate sections as follows:

<u>P/N</u>	<u>NAME</u>	<u>REPAIR</u>
355T0253	VENTED DOOR ASSEMBLY	1-1
--	MISC PARTS REFINISH	2-1

2. Standard Practices

- A. Refer to the following standard practices as applicable, for details of procedures in individual repairs.

20-30-02 Stripping of Protective Finishes
 20-30-03 General Cleaning Procedures
 20-41-01 Decoding Table for Boeing Finish Codes
 20-41-02 Application of Chemical and Solvent Resistant Finishes
 20-43-03 Application of Alodine
 20-50-03 Bushing Installation and Retention

3. Materials

NOTE: Equivalent substitutes may be used.

- A. Primer -- BMS 10-11, type I (Ref 20-60-02)
- B. Coating, teflon filled -- BMS 10-86, type I or type II, gray color, type 27 (Ref 20-60-02)

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REPAIR-GENERAL

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VENTED DOOR ASSEMBLY – REPAIR 1-1

355T0253-1, -14, -19

NOTE: Refer to REPAIR-GENERAL for a list of applicable standard practices.

1. Bushing (25, 70) Replacement (IPL Fig. 1)

- A. Remove the old bushing (IPL Fig. 1; 25, 70) (IPL Fig. 2; 30) from the hinge (IPL Fig. 1; 75, 80) (IPL Fig. 2; 40, 45)
- B. Repair the bushing (IPL Fig. 1; 25, 70) (IPL Fig. 2; 30) holes in the hinge (IPL Fig. 1; 75, 80) (IPL Fig. 2; 40, 45), if and as required, per par. 2.
- C. Install the new bushing (IPL Fig. 1; 25, 70) (IPL Fig. 2; 30) with wet BMS 10-11 primer per SOPM 20-50-03.
- D. Machine the bore of the new bushing (IPL Fig. 1; 25, 70) (IPL Fig. 2; 30) to design dimensions shown in Fig. 601.

2. Repair (Fig. 601, 602)

- A. Machine bushing hole, as required, to a maximum repair diameter per Fig. 601.
- B. Chemical treat (F-17.07) and apply BMS 10-11, Type 1 primer (F-20.02).
- C. Fabricate oversized bushing per Fig. 602.

3. Refinish

- A. Hinges (IPL Fig. 1; 75, 80) (IPL Fig. 2; 40, 45) -- Chemical treat (F-17.07) and apply BMS 10-11, Type 1 primer (F-20.02).

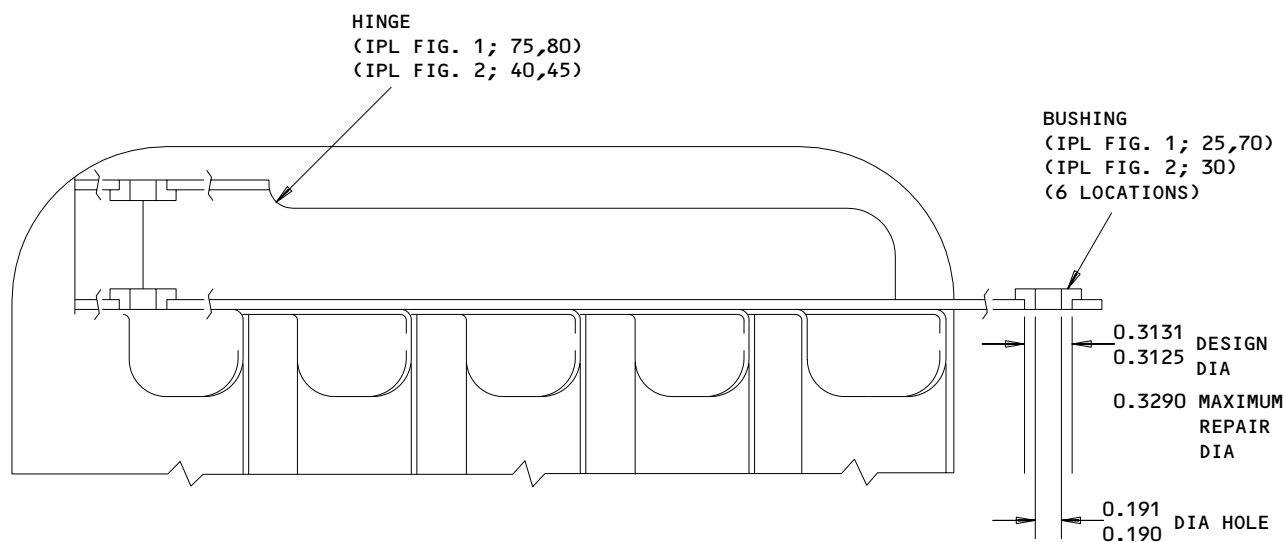
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Bushing Repair
Figure 601

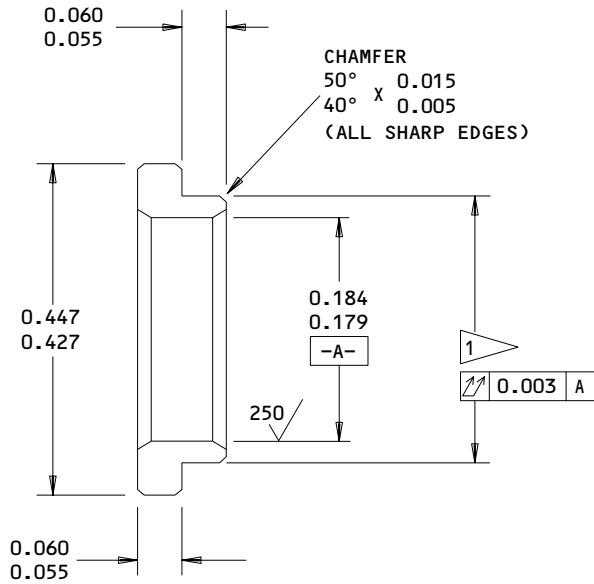
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OVERSIZE REPLACEMENT FOR BUSHINGS
 (IPL FIG. 1; 25,70)
 (IPL FIG. 2; 30)

1 FINAL BUSHING OUTSIDE DIAMETER EQUALS REPAIR DIAMETER OF FITTING PLUS 0.0000-0.0011 INTERFERENCE

63 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

MATERIAL: AL-NI-BRZ AS SHOWN IN SOPM AMS4640, ALLOY 630

FINISH: CADMIUM PLATE AS SHOWN IN SOPM QQ-P-416, TYPE 2, CLASS 2

DIMENSIONS APPLY AFTER PLATING

ALL DIMENSIONS ARE IN INCHES

Oversize Bushing Details
 Figure 602

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MISCELLANEOUS PARTS REFINISH – REPAIR 2-1

- | 1. Repair of parts listed in Table 601 consists of restoration of the original finish.

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IPL FIG. & ITEM	MATERIAL	FINISH
<u>Fig. 1</u>		
Angle (60,65), Clip (10,15,35, 40,45,50)	Al alloy	Chemical treat (colored film) and apply one coat primer, BMS 10-11, type I (F-18.06).
Louver (20)	Al alloy	Exterior Surface: Apply Alodine 1000, class B, Method 1 (F-14.05) Interior Surface: Chemically treat (colored film) (F-17.07) and apply one coat of BMS 10-11, type 1 primer (F-20.02).
Outer Skin (85)	Al Alloy	Exterior Surface: Apply alodine 1000, class B, method 1 (F-14.05) Interior Surface: Chemically treat (colored film) (F-17.07) and apply one coat of BMS 10-11, type 1 primer (F-20.02). Apply one coat of BMS 10-86, type 1 or 2, color gray teflon filled coating (F-14.9625) per Fig. 601.
<u>Fig. 2</u>		
Clip (10) Stiffener (20,25) Hinge (40,45)	Al alloy	Chemical treat (F-17.07) and apply BMS 10-11, Type 1 primer (F-20.02).
Outer skin (50)	Al alloy	Exterior surface: Apply alodine 1000, Class B, Method 1 (F-14.05). Mechanically polish. Interior surface: Chemical treat (F-17.07) and apply BMS 10-11, Type 1 primer (F-20.02). Apply BMS 10-86, Type 1 or 2, color gray teflon coating (F-14.9625) as shown in Fig. 601.

 Refinish Details
 Table 601

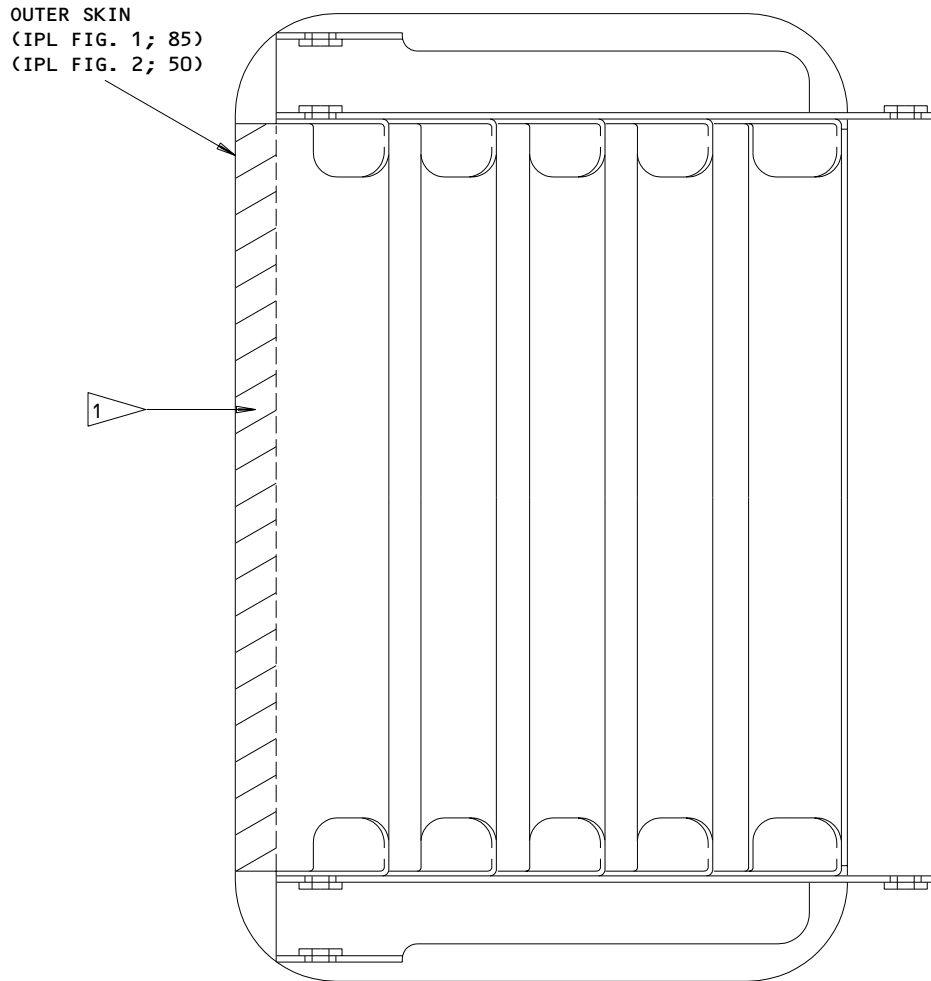
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1 APPLY TEFLON FILLED COATING (F-14.9625)
TO THIS AREA ,INTERIOR SURFACE ONLY

Special Finishing, Outer Skin
Figure 601

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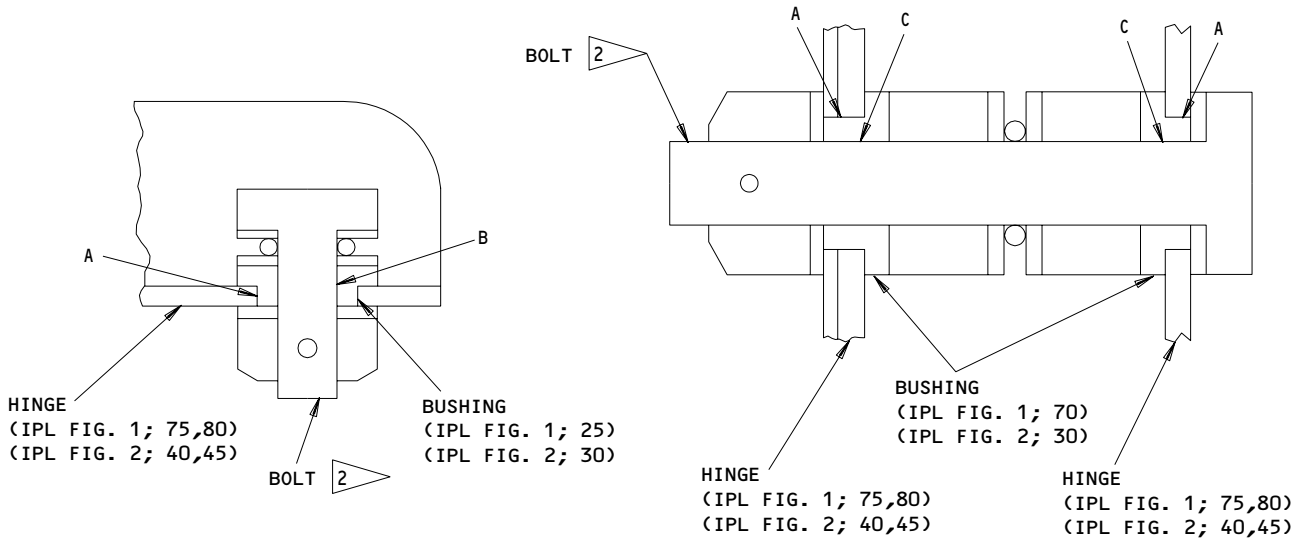
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FITS AND CLEARANCES



REF LETTER	REF IPL		DESIGN DIMENSION*				SERVICE WEAR LIMIT*		
	FIG. NO.	MATING ITEM NO.	DIMENSION		ASSEMBLY CLEARANCE ¹		DIMENSION		MAXIMUM CLEARANCE
			MIN	MAX	MIN	MAX	MIN	MAX	
A	1	ID 75,80	0.3125	0.3131	-0.0011	0.0000	0.0000	0.0000	0.0000
	2	ID 40,45							
	1	OD 25,70							
	2	OD 30							
B	1	ID 25	0.1900	0.1910	0.0005	0.0025	0.1847	0.1950	0.0103
	2	ID 30							
	1	OD ²							
	2	OD ²							
C	1	ID 70	0.1900	0.1910	0.0005	0.0025	0.1847	0.1950	0.0103
	2	ID 30							
	1	OD ²							
	2	OD ²							

* ALL DIMENSIONS ARE IN INCHES

¹ NEGATIVE VALUES DENOTE INTERFERENCE FIT

² BOLT - NAS6703 INSTALLATION BOLT

ALL DIMENSIONS ARE IN INCHES

Fits and Clearances
 Figure 801

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FITS AND CLEARANCES
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ILLUSTRATED PARTS LIST

1. This section lists and illustrates replaceable or repairable component parts. The Illustrated Parts Catalog contains a complete explanation of the Boeing part numbering system.

2. Indentures show parts relationships as follows:

Assembly

Detail Parts for Assembly

Subassembly

Attaching Parts for Subassembly

Detail Parts for Subassembly

Detail Installation Parts (Included only if installation parts may be returned to shop as part of assembly)

3. One use code letter (A, B, C, etc.) is assigned in the EFF CODE column for each variation of top assembly. All listed parts are used on all top assemblies except when limitations are shown by use code letter opposite individual part entries.

4. Letter suffixes (alpha-variants) are added to item numbers for optional parts, Service Bulletin modification parts, configuration differences (Except left- and right-hand parts), product improvement parts, and parts added between two sequential item numbers. The alpha-variant is not shown on illustrations when appearance and location of all variants of the part is the same.

5. Service Bulletin modifications are shown by the notations PRE SB XXXX and POST SB XXXX.

A. When a new top assembly part number is assigned by Service Bulletin, the notations appear at the top assembly level only. The configuration differences at detail part level are then shown by use code letter.

B. When the top assembly part number is not changed by the Service Bulletin, the notations appear at the detail part level.

6. Parts Interchangeability

Optional
(OPT)

The parts are optional to and interchangeable with other parts having the same item number.

Supersedes, Superseded By
(SUPSDS, SUPSD BY)

The part supersedes and is not interchangeable with the original part.

Replaces, Replaced By
(REPLS, REPLD BY)

The part replaces and is interchangeable with, or is an alternate to, the original part.

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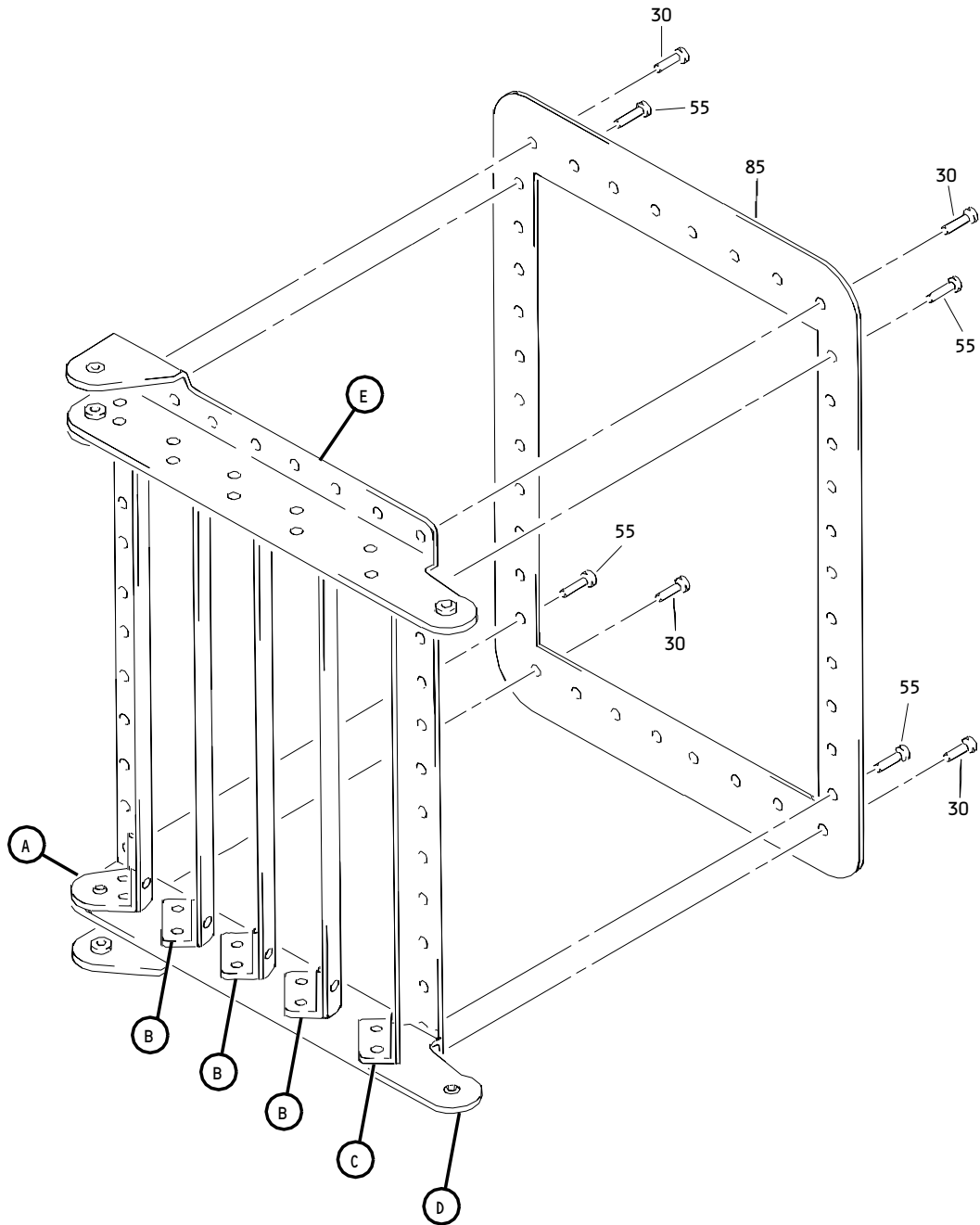
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PART NUMBER	AIRLINE PART NO.	FIG.	ITEM	TTL REQ
BACB28W3B006		1	25	2
		1	70	4
		2	30	6
BACR15BB4AD		1	5A	40
		2	5	16
BACR15FT4AD		1	30	16
BACR15FT5AD		1	55	22
355T0253-1		2	15	16
		2	35	16
		1	1	RF
355T0253-10		1	45	1
355T0253-11		1	10	3
355T0253-12		1	35	1
355T0253-13		1	40	1
355T0253-14		1	1A	RF
355T0253-15		1	80A	1
355T0253-16		1	75A	1
355T0253-17		1	45A	1
355T0253-18		1	35A	1
355T0253-19		1	1B	RF
		2	1A	RF
355T0253-2		1	75	1
355T0253-20		2	40	1
355T0253-21		2	45	1
355T0253-22		2	20	1
355T0253-23		2	25	1
355T0253-24		2	10	4
355T0253-3		1	80	1
355T0253-4		1	20	3
355T0253-5		1	60	1
355T0253-6		1	65	1
355T0253-7		1	85	1
355T0253-8		1	50	1
355T0253-9		1	15	3

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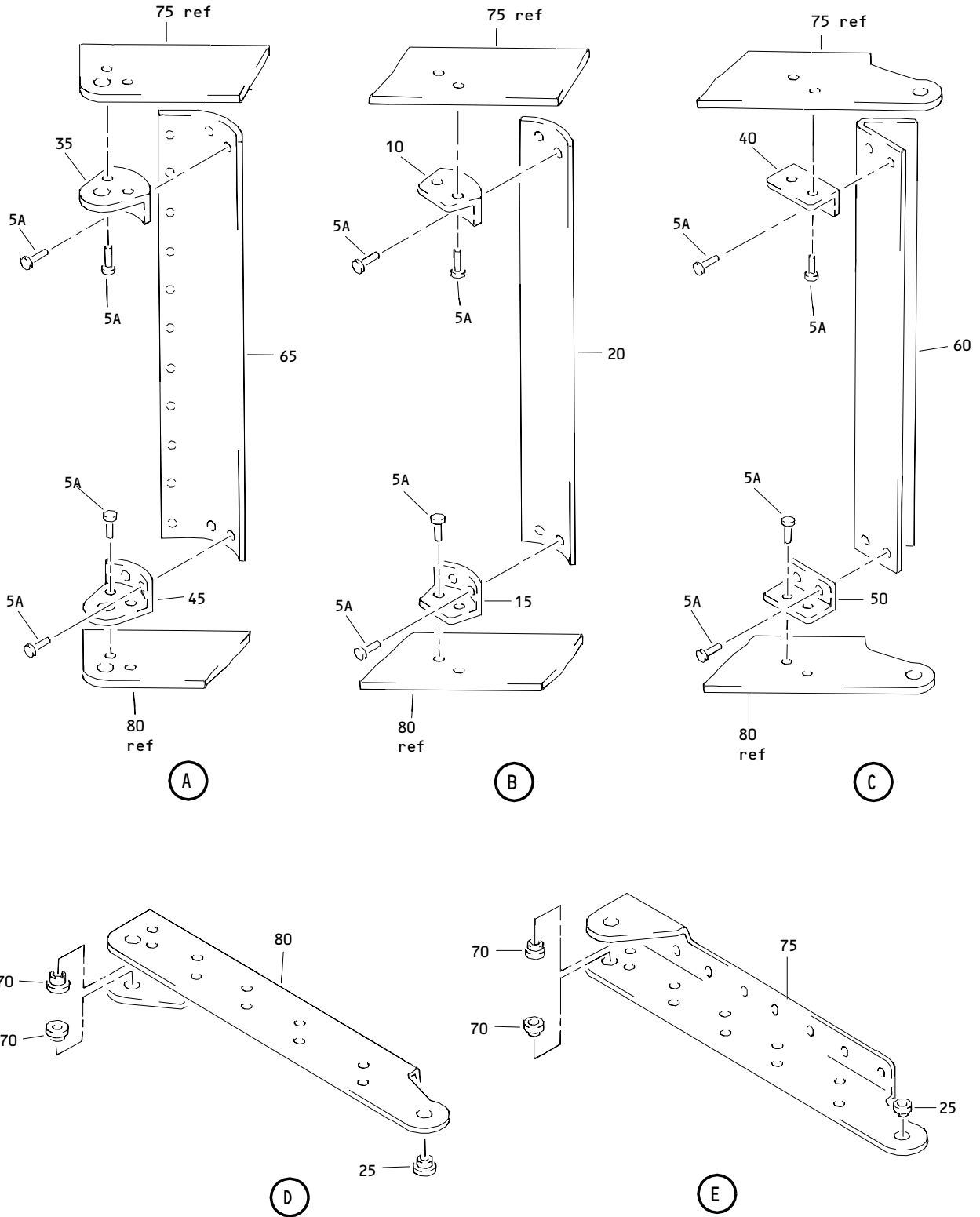
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Auxiliary Power System Vented Door Assembly
Figure 1 (Sheet 1)

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Auxiliary Power System Vented Door Assembly
 Figure 1 (Sheet 2)

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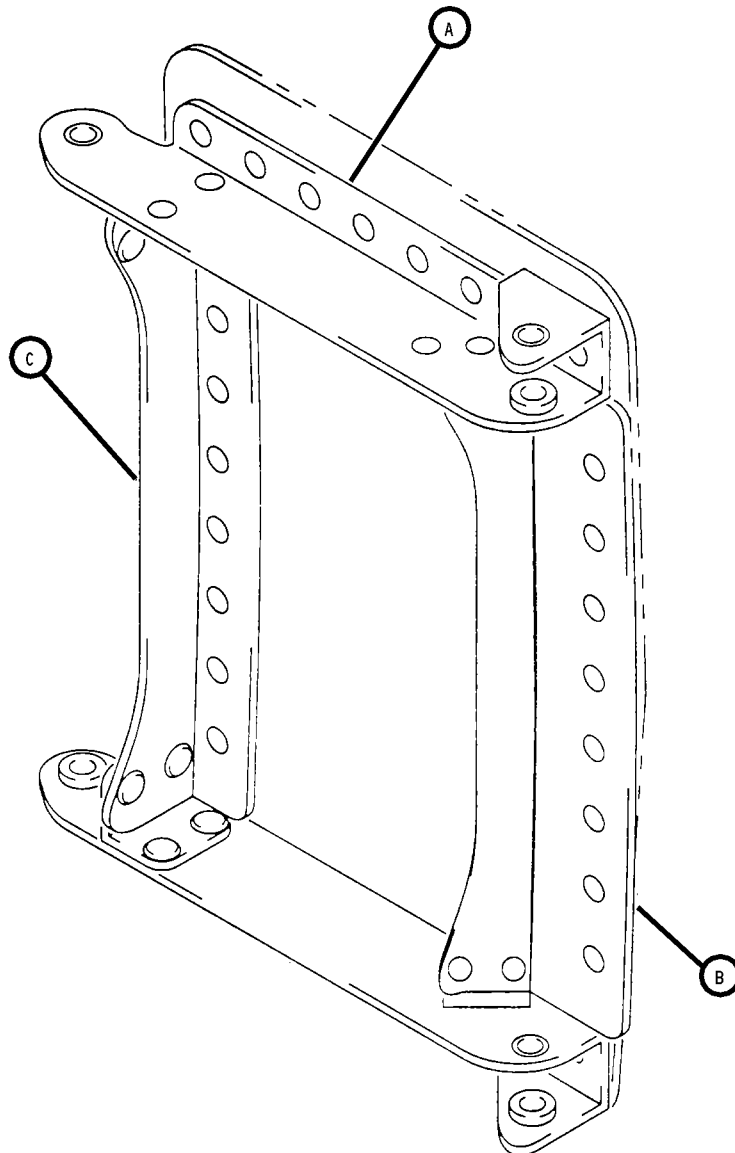

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FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01- -1	355T0253-1		DOOR ASSY-AUX PWR SYS VENTED	A	RF
-1A	355T0253-14		DOOR ASSY-AUX PWR SYS VENTED	B	RF
R -1B	355T0253-19		DOOR ASSY-AUX PWR SYS VENTED (FOR DETAILS SEE FIG. 2)	C	RF
5	BACR15FT4AD		DELETED		
5A	BACR15BB4AD		.RIVET- (SIZE DETERMINE ON INST)	A,B	40
10	355T0253-11		.CLIP-TOP	A,B	3
15	355T0253-9		.CLIP-BOTTOM	A,B	3
20	355T0253-4		.LOUVER	A,B	3
25	BACB28W3B006		.BUSHING	A,B	2
30	BACR15FT4AD		.RIVET- (SIZE DETERMINE ON INST)	A,B	16
35	355T0253-12		.CLIP-TOP	A	1
-35A	355T0253-18		.CLIP-TOP	B	1
40	355T0253-13		.CLIP-TOP	A,B	1
45	355T0253-10		.CLIP-BOTTOM	A	1
-45A	355T0253-17		.CLIP-BOTTOM	B	1
50	355T0253-8		.CLIP-BOTTOM	A,B	1
55	BACR15FT5AD		.RIVET- (SIZE DETERMINE ON INST)	A,B	22
60	355T0253-5		.ANGLE-FRONT	A,B	1
65	355T0253-6		.ANGLE-REAR	A,B	1
70	BACB28W3B006		.BUSHING	A,B	4
75	355T0253-2		.HINGE-TOP	A	1
-75A	355T0253-16		.HINGE-TOP	B	1
80	355T0253-3		.HINGE-BOTTOM	A	1
-80A	355T0253-15		.HINGE-BOTTOM	B	1
85	355T0253-7		.SKIN	A,B	1

- Item Not Illustrated

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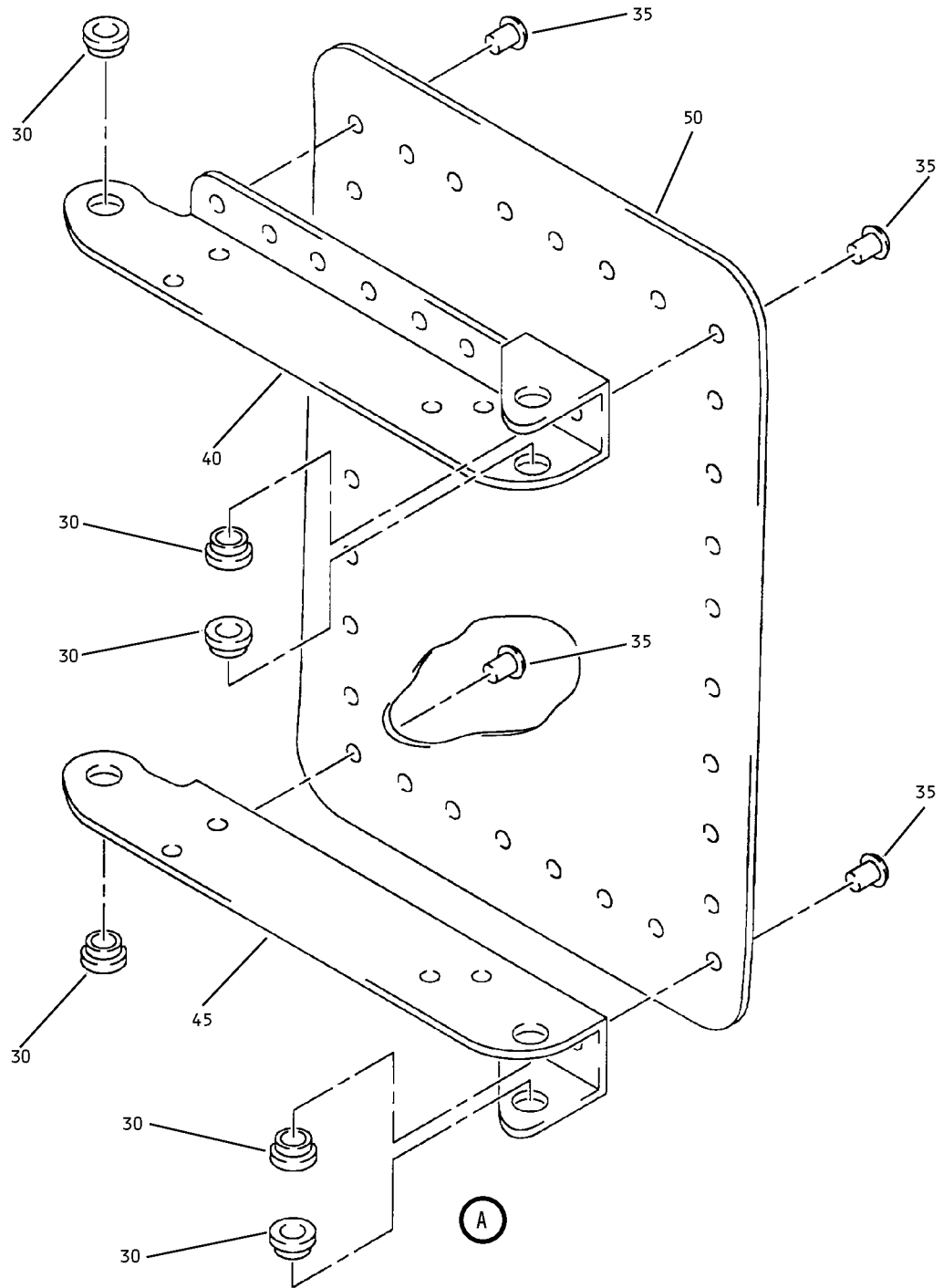
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Auxiliary Power System Vented Door Assembly
Figure 2 (Sheet 1)

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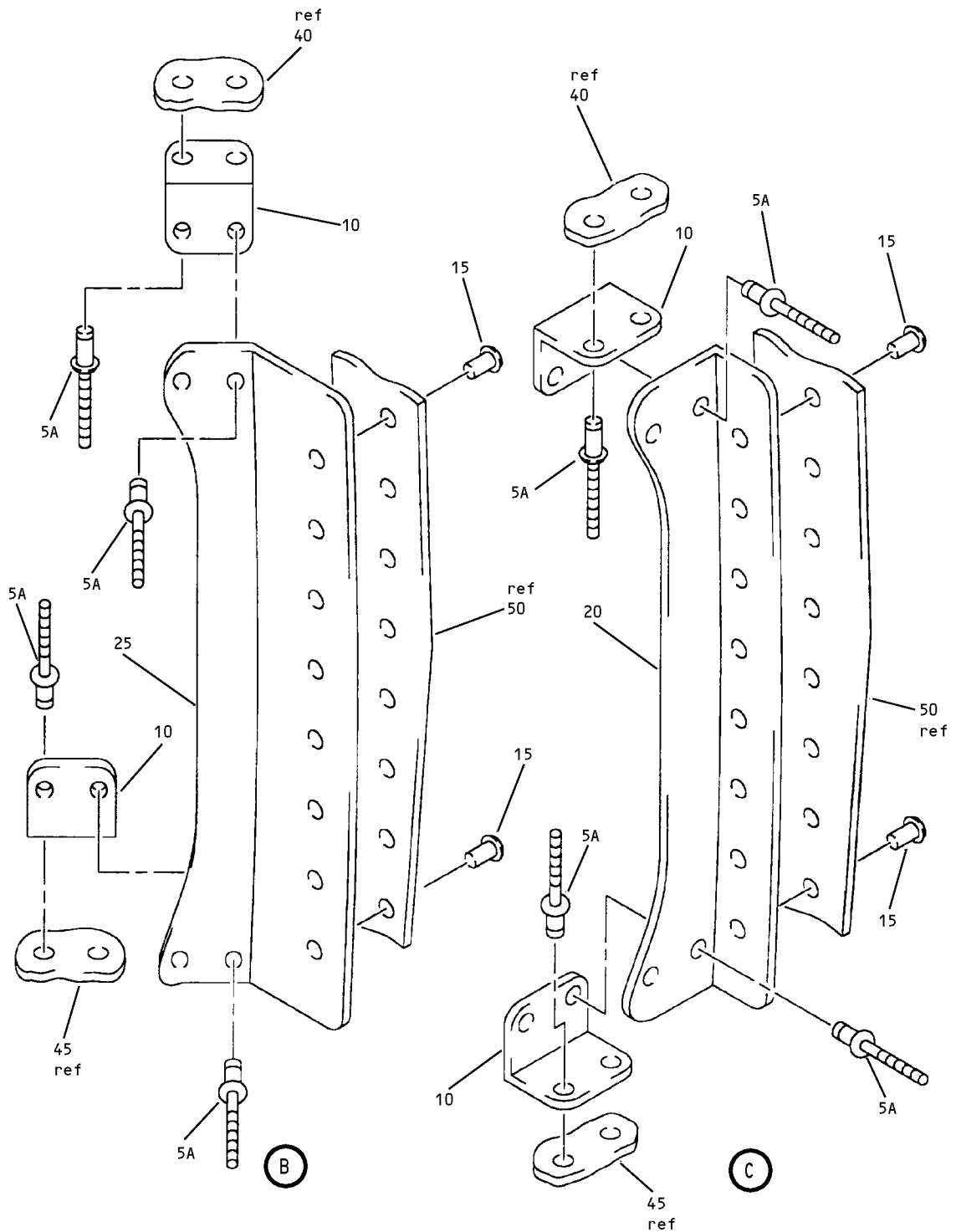
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Auxiliary Power System Vented Door Assembly
Figure 2 (Sheet 2)

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Auxiliary Power System Vented Door Assembly
 Figure 2 (Sheet 3)

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FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
R 02- -1A	355T0253-19		DOOR ASSY-AUX PWR SYS VENTED	C	RF
R 5	BACR15BB4AD		DELETED		
R 5A	BACR15GK4E		.RIVET (SIZE DETERMINE ON INST)	C	16
R 10	355T0253-24		.CLIP	C	4
R 15	BACR15FT5AD		.RIVET (SIZE DETERMINE ON INST)	C	16
R 20	355T0253-22		.STIFFENER-FWD	C	1
R 25	355T0253-23		.STIFFENER-AFT	C	1
R 30	BACB28W3B006		.BUSHING	C	6
R 35	BACR15FT5AD		.RIVET (SIZE DETERMINE ON INST)	C	16
R 40	355T0253-20		.HINGE-TOP	C	1
R 45	355T0253-21		.HINGE-BOTTOM	C	1
R 50	355T0253-25		.SKIN	C	1

- Item Not Illustrated

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