COMPONENT MAINTENANCE MANUAL WITH ILLUSTRATED PARTS LIST

CFM56-3 TURBINE EXHAUST PRIMARY SLEEVE ASSEMBLY

PART NUMBER 301A1030–5, 314A1502–1, –37, –50, –51, –57, –58, –59, –71

PUBLISHED BY BOEING COMMERCIAL AIRPLANES GROUP, SEATTLE, WASHINGTON, USA
A DIVISION OF THE BOEING COMPANY
PAGE DATE: Jul 01/2009

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COMPONENT MAINTENANCE MANUAL

Revision No. 21
Jul 01/2009

To: All holders of CFM56-3 TURBINE EXHAUST PRIMARY SLEEVE ASSEMBLY 78-11-23.

Attached is the current revision to this COMPONENT MAINTENANCE MANUAL

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Location of Change	Description of Change
	NO HIGHLIGHTS

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A = Added, R = Revised, D = Deleted, O = Overflow

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TEMPORARY REVISION AND SERVICE BULLETIN RECORD

BOEING SERVICE BULLETIN	BOEING TEMPORARY REVISION	OTHER DIRECTIVE	DATE OF INCORPORATION INTO MANUAL
		PRR 33617	DEC 5/84
78-1042		PRR 34073R	DEC 5/87

All revisions to this manual will be accompanied by transmittal sheet bearing the revision number. Enter the revision number in numerical order, together with the revision date, the date filed and the initials of the person filing.

Revision		Filed		Revision		Filed	
Number	Date	Date	Initials	Number	Date	Date	Initials

Revision		Filed		Revision		Filed	
Number	Date	Date	Initials	Number	Date	Date	Initials

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Temporary Revision		Inserted		Removed	
Number	Date	Date	Initials	Date	Initials

Temporary Revision		Inserted		Removed	
Date	Initials	Number	Date	Date	Initials

Temporary Revision		Inserted		Removed	
Number	Date	Date	Initials	Date	Initials

Temporary Revision		Inserted		Removed	
Date	Initials	Number	Date	Date	Initials

INTRODUCTION

1. General

A. The instructions in this manual supply the data necessary to do the maintenance functions together with the test, fault isolation, repair, and replacement of the defective parts.

B. This manual is divided into different parts:

(1) Title Page

(2) Transmittal Letter

(3) Highlights

(4) List of Effective Pages

(5) Table of Contents

(6) Temporary Revision & Service Bulletin Record

(7) Record of Revisions

(8) Record of Temporary Revisions

(9) Introduction

(10) Procedures & IPL Sections

C. Components that can be repaired have a different repair number for each specified repair. To find the repair number location of a component, look in the Repair-General procedure at the beginning of the REPAIR section. The Repair-General procedure also has an explanation of the True Position Dimension symbols used.

D. All dimensions, measures, quantities and weights included are in English units. When metric equivalents are given they will be in the parentheses that follow the English units.

E. The introduction to the Illustrated Parts List (IPL) shows how the IPL data is used.

F. Design changes, optional parts, configuration differences and Service Bulletin modifications may cause different part numbers. These part numbers are identified in the IPL with an alphabetical letter which is added to the end of the basic item number. This new item number is referred to as an alpha-variant. Throughout the manual, IPL basic item number references also apply to alpha-variants unless shown differently.

G. The tool reference numbers found in the individual procedures and in the Special Tools, Fixtures, and Equipment section are used to identify if a tool is a standard tool (STD-XXXX), a commercial tool (COM-XXXX), or a Special Tool (SPL-XXXX). This reference number is also used to distinguish between tools with similar names in the same procedure. These reference numbers are for use in the documentation only. They are not to be used for ordering tools.

CFM56-3 TURBINE EXHAUST PRIMARY SLEEVE ASSEMBLY - DESCRIPTION AND OPERATION

1. Description

A. The CFM56-3 turbine exhaust primary sleeve assembly is a single wall Inconel structure and consists of a welded convergent sleeve assembly with a fairing and two seal assemblies mounted on the forward end.

2. Operation

A. The primary sleeve assembly directs turbine exhaust gas to atmosphere. Sleeve assembly together with turbine exhaust plug assembly is used to control exhaust nozzle area and establish smooth expansion of the power plant exhaust gas.

3. Leading Particulars (Approximate)

A. Length – 28 inches

B. Diameter – 31-43 inches

C. Weight – 64 lbs

(NOT APPLICABLE)

DISASSEMBLY

1. General

A. This procedure has the data necessary to disassemble the CFM56-3 turbine exhaust primary sleeve assembly (IPL Figure 1, 1).

B. Disassemble this component sufficiently to isolate the defects, do the necessary repairs, and put the component back to a serviceable condition.

C. Refer to the Standard Overhaul Practices Manual (SOPM) for details of the SOPM chapters identified in this procedure.

(NOT APPLICABLE)

CHECK

1. General

A. This procedure has the data necessary to find defects in the material of the specified parts.

B. Refer to the Standard Overhaul Practices Manual (SOPM) for the SOPM subjects identified in this procedure.

C. Refer to IPL Figure 1, for item numbers.

2. Check

A. References

Reference	Title
SOPM 20-20-02	PENETRANT METHODS OF INSPECTION
737 SRM 54-40-02	Structural Repair Manual

B. Procedure

(1) Check all parts for obvious defects in accordance with standard industry practices.

(2) Perform a visual check of the entire exhaust primary sleeve assembly (IPL Figure 1; 1).

(a) Perform a penetrant inspection of the exhaust primary sleeve assembly (IPL Figure 1;1) as shown in SOPM 20-20-02 as follows:

1) All problem areas that were noted during the visual check.

2) Weld areas if problems are found or suspected.

(b) Refer to 737 SRM 54-40-02 for allowable damages and repairs.

REPAIR

1. General

A. Instructions for repair, refinish, and replacement of the specified subassembly parts are included in each REPAIR when applicable:

Table 601:

P/N	NAME	REPAIR
314A1502-2, -70	SLEEVE ASSEMBLY	1-1
314A1502-50	SLEEVE ASSEMBLY	1-2
314A1502-27, -28, -40, -41, -52, -53, -60, -61	SEAL ASSEMBLIES	2-1

2. Standard Practices and References

A. Refer to the following practices and references, as applicable, for details of procedures in the individual repair.

- SOPM 20-10-05 Application and Finishing of Plasma Flame
- SOPM 20-20-02 Penetrant Method of Inspection
- SOPM 20-30-03 General Cleaning Procedures
- SOPM 20-41-01 Decoding Table for Boeing Finish Codes
- SOPM 20-44-02 Temporary Protective Coatings

B. External References

- BAC 5975 - Boeing Process Specification for Radiographic Inspection
- BAC 5975 - Boeing Process Specification for Fusion Welding of Metal

3. Materials

NOTE: Equivalent substitutes may be used.

A. Scotch-Brite Type S, G50398 Abrasive pad

B. solvent, E50001 Acetone 0-A-51 or JIS-K-1503, Grade 1

C. technical grade methyl ethyl ketone, B50046 TT-M-261

D. weld filler, G50403 Inconel 625

E. flame spray coating, G00167 tungsten carbide with cobalt, BMS 10-76, Type 1

F. coating, C00314 Low emissivity (BMS 10-82)

G. Coating - Temporary, AC-850 Toluene

H. lint-free cloth, G01043 Clean lint-free cloth

I. nitric hydrofluric acid, E00072 Nitric-hydrofluoric acid solution

J. clean dry air, G50321

K. water, G50256, clean and filtered

L. lint-free gloves, G01306 clean oil-free gloves

4. Tools

A. stiff bristle brush, STD-132 Stiff bristle brush

B. 10x hand held magnifying lens, STD-1070

C. steam source, STD-1087 Liquid Steam source

SLEEVE ASSEMBLY - REPAIR 1-1

314A1502–2, –70

1. General

A. This procedure has the data necessary to repair the sleeve assembly (35,IPL Figure 1.

B. Refer to REPAIR-GENERAL, Paragraph 2. for the Standard Overhaul Practices Manual (SOPM) subjects and references identified in this procedure.

C. Refer to REPAIR-GENERAL, Paragraph 3. for the description of the consumable codes identified in this procedure.

D. Refer to REPAIR-GENERAL, Paragraph 4. for the description of the tools identified in this procedure.

E. Refer to IPL Figure 1, for item numbers.

2. Nutplate Replacement

A. Remove nutplate (37 or 38, IPL Figure 1) by removing rivets (39).

B. Install new nutplate with rivet heads flush to 0.003 inch below the surface of the sleeve assembly flange.

3. Repair of Cracked Sleeve Assembly

A. Prepare crack area for weld repair.

(1) Clean damaged area for a distance of at least one inch on each side of the area to be weld repaired using an approved carbon/soot remover.

(2) Repeat REPAIR 1-1, Paragraph 3.A.(1) using live steam from steam source, STD-1087.

(3) Drill 0.125-inch diameter stop holes at ends of crack.

(4) Remove discoloration (colored oxide film) from crack and area for a distance of at least one inch from crack using Scotch-Brite Type S, G50398 cleaner.

NOTE: Do not substitute wire brushing or any other abrasive cleaner for Scotch-Brite Type S, G50398. Wire brushing only polishes the oxide film but does not remove it.

(5) Remove all residue by wiping or rinsing with water, G50256.

(6) Flood crack and adjacent area with technical grade methyl ethyl ketone, B50046 or solvent, E50001. Vigorously clean using a stiff bristle brush, STD-132 in order to remove carbon/soot residue remaining in crack.

NOTE: The likelihood of successful weld repair is enhanced by degree of cleanliness achieved prior to welding.

(7) Rinse thoroughly with cold water, G50256 and dry completely with clean dry air, G50321 or clean, lint-free lint-free cloth, G01043.

NOTE: Parts to be welded should be kept clean, dry, free from oil, grease, fingerprints and other surface contamination and should be handled with clean, oil-free lint-free gloves, G01306.

B. Weld Repair

(1) GTA weld (BAC 5975) crack using Argon or Helium gas and Inconel weld filler, G50403 as follows:

NOTE: Length of crack that may be weld repaired is not limited.

(a) Use copper chill blocks to reduce warpage.

(b) Weld bead must be kept to minimum size.

(c) A 100% penetration is required.

(d) Grind welds flush to skin within -0.000 to +0.010 inch with 32 microinch or less finish. Use care not to grind into base metal.

(e) Stress relieving after weld repair is not required.

(f) Visually check repair using 10x hand held magnifying lens, STD-1070.

(g) Penetrant (SOPM 20-20-02) or radiographically (BAC 5975) check weld zone. Cracks are not acceptable. Porosity and inclusions should not exceed 0.020 inch and must not have sharp terminations.

4. Refinish

A. Refer to REPAIR 1-2 for refinish procedures of sleeve assembly 314A1502-50.

SLEEVE ASSEMBLY - REPAIR 1-2

314A1502–50

1. General

A. This procedure has the data necessary to refinish the sleeve assembly (35, IPL Figure 1).

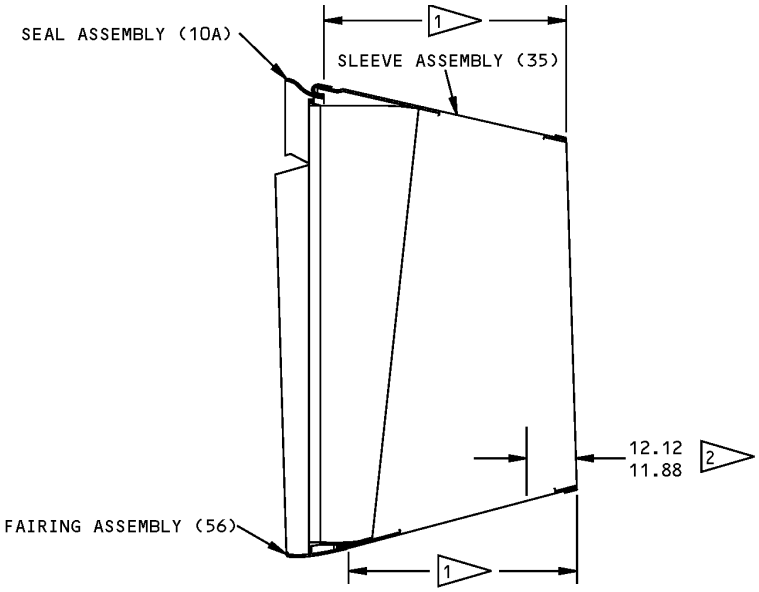
B. Refer to REPAIR-GENERAL, Paragraph 2. for the Standard Overhaul Practices Manual (SOPM) subjects and references identified in this procedure.

C. Refer to REPAIR-GENERAL, Paragraph 3. for the description of the consumable codes identified in this procedure.

D. Refer to IPL Figure 1, for item numbers.

2. Refinish

A. Repair consists of restoration of original finish. Refer to refinish instructions, REPAIR 1-2, Figure 601.



REFINISH

REFINISH AREA DESIGNATED BY 1 AND 2 AS FOLLOWS:

1. CLEAN AREA PER 20-30-03, DESCALING AND SURFACE PREPARATION OF NICKEL AND COBALT BASE ALLOYS, USING NITRIC-HYDROFLUORIC ACID SOLUTION
2. APPLY ONE COAT LOW EMISSIVITY COATING (F-17.14)
3. APPLY PEELABLE TEMPORARY COATING AC-850 TOLUENE PER 20-44-02

1 OUTER SURFACE OF AREA IN BETWEEN AFT END OF SLEEVE ASSEMBLY (35) AND AFT EDGE OF FAIRING ASSEMBLY (56) OR SEAL ASSEMBLY (10,15)

2 INNER SURFACE OF SLEEVE ASSEMBLY (35) ONLY

MATERIAL: INCONEL

ALL DIMENSIONS ARE IN INCHES

ALL ITEM NUMBERS REFER TO IPL FIG. 1

314A1502-50 ONLY Sleeve Assembly Refinish
Figure 601

SEAL ASSEMBLY - REPAIR 2-1

314A1502–27, –28, –40, –41, –52, –53, –60, –61

1. General

A. This procedure has the data necessary to repair the seal assembly (10, 15, IPL Figure 1).

B. Refer to REPAIR-GENERAL, Paragraph 2. for the Standard Overhaul Practices Manual (SOPM) subjects and references identified in this procedure.

C. Refer to REPAIR-GENERAL, Paragraph 3. for the description of the consumable codes identified in this procedure.

D. Refer to IPL Figure 1, for item numbers.

2. Plating Repair

A. Repair consists of restoration of original finish. Refer to refinish instructions, REPAIR 2-1, Figure 601.

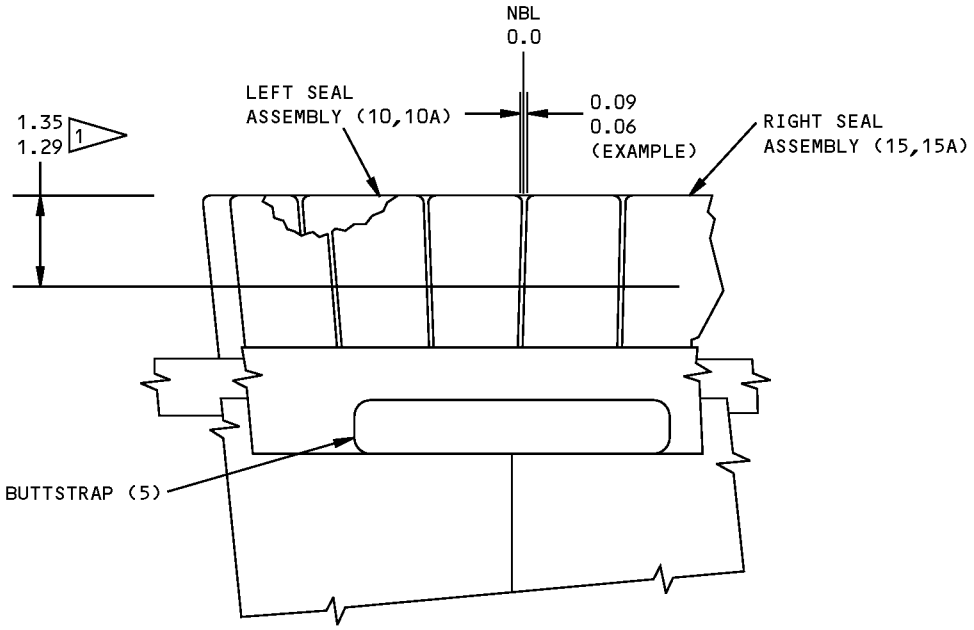
3. Seal Spring Replacement (18, IPL Figure 1)

A. Remove the clamp strip (17, IPL Figure 1).

B. Remove the seal spring.

C. Install the new seal spring (18, IPL Figure 1) per REPAIR 2-1, Figure 601.

D. Re-install the clamp strip.



314A1502-27,-28,-40,-41

REFINISH

1. FINISH PLASMA FLAME SPRAY 0.004-0.006 INCH PER BMS 10-67, TYPE I, PER 20-10-05 ONLY FOR SEAL SPRINGS 314A1502-34,-35,-55,-56 AND ONLY IN AREAS INDICATED BY 1.
2. ITEM NUMBERS FOR SEAL SPRINGS ON THE TOP LAYER.
3. ITEM NUMBERS FOR SEAL SPRINGS ON THE BOTTOM LAYER.
4. THIS DIMENSION TO BE MEASURED IN THE RELAXED CONDITION.
5. FINISH WITH TUNGSTEN CARBIDE COATING (F-15.380) PER BMS 10-67, TYPE I, PER SOPM 20-10-05 TO THICKNESS OF 0.008-0.012 INCH ONLY FOR SEAL SPRINGS 314A1502-64,-65 AND ONLY IN AREAS INDICATED BY 5.

MATERIAL

INCONEL 718 SHEET PER AMS 5596. SOLUTION TREATED HEAT TREATED TO CONDITION II.

WARNING: DO NOT DESCALE THE SEAL SPRINGS AFTER HEAT TREAT OR DAMAGE TO THE SEAL SPRINGS CAN OCCUR.

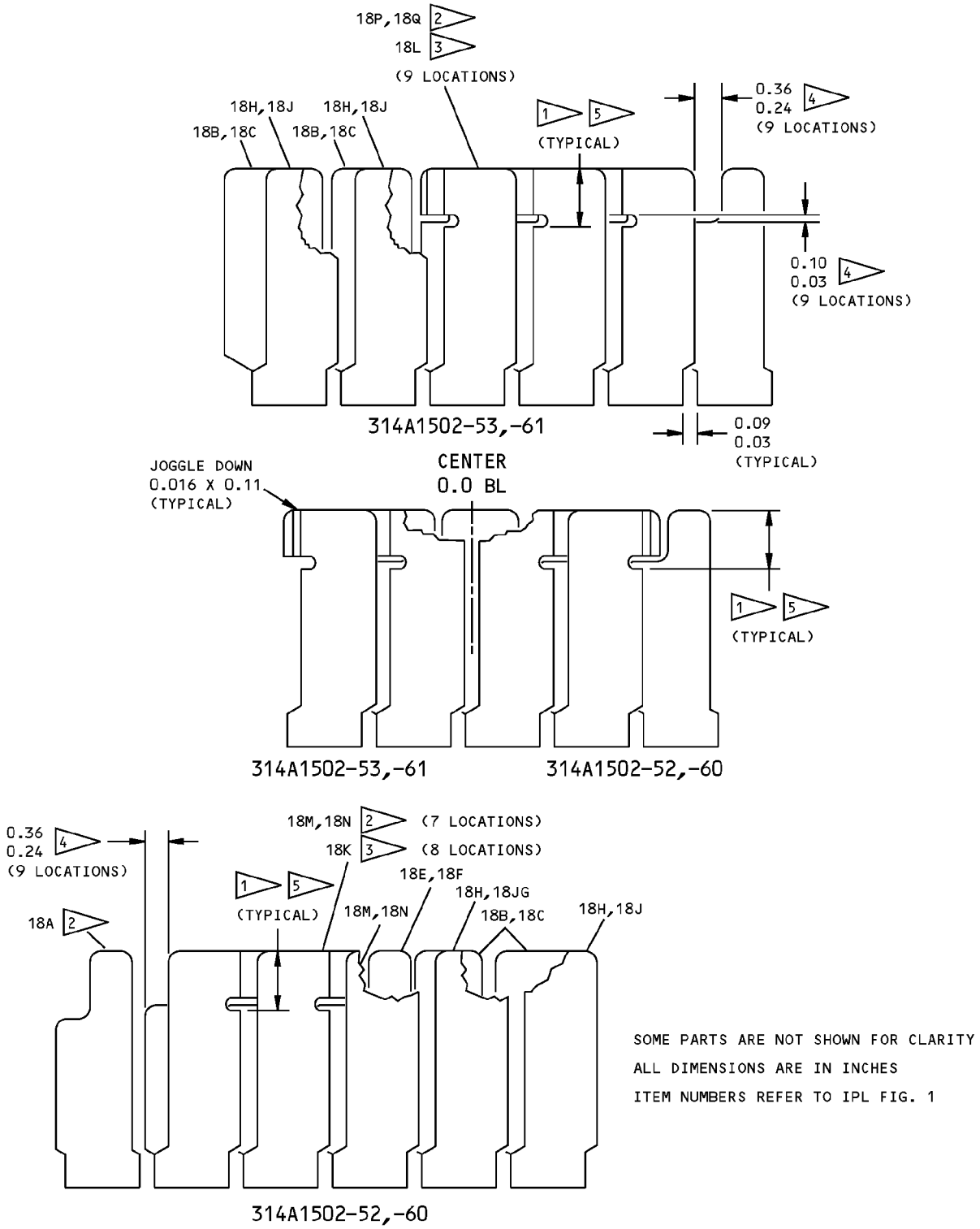
AFTER HEAT TREAT, THE SEAL SPRINGS MUST HAVE A BRIGHT SHINY LUSTER. A LIGHT BROWN TO YELLOW DISCOLORATION WITH SCATTERED AREAS OF VIOLET OR BLUE IS ACCEPTABLE.

DULL SURFACES WITH BLUE OR PURPLE DISCOLORATION ARE NOT ACCEPTABLE.

ALL DIMENSIONS ARE IN INCHES

ITEM NUMBERS REFER TO IPL FIG. 1

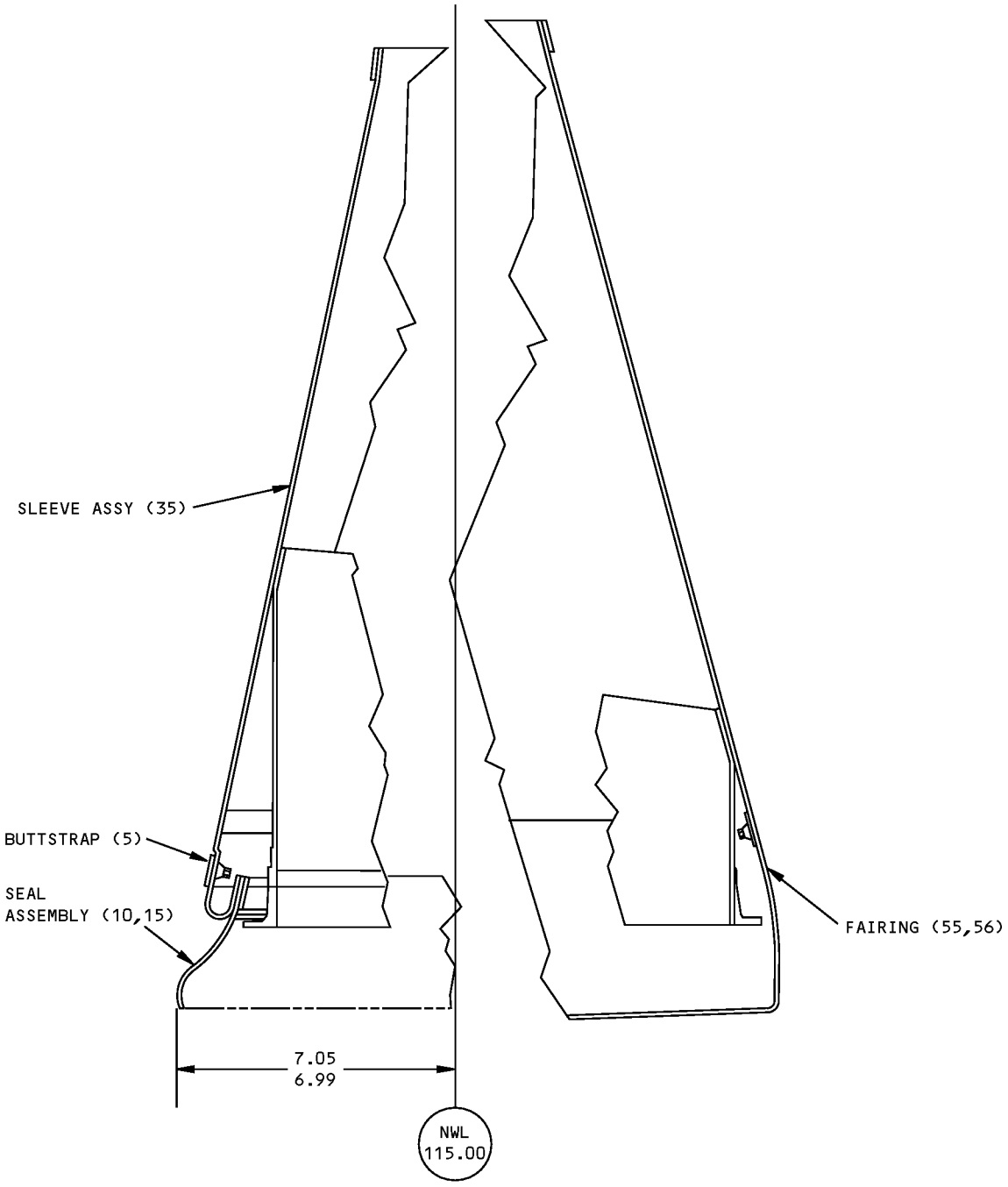
Seal Assembly Refinish
Figure 601 (Sheet 1 of 2)



Seal Assembly Refinish
Figure 601 (Sheet 2 of 2)

ASSEMBLY

1. **General**
   A. This procedure has the data necessary to assemble the CFM56-3 turbine exhaust primary sleeve assembly (1,IPL Figure 1).
   B. Refer to the Standard Overhaul Practices Manual (SOPM) for the SOPM subjects identified in this procedure.
   C. Refer to IPL Figure 1 for item numbers.
2. **Assembly**
   A. Install fairing or fairing assembly (55) on sleeve assembly (35) using bolts (60).
   B. Attach seal assys (10, 15) which consists of clamp strip (17), seal spring (18) and seal corner (19) to support assys (40, 41, 45, 46) using rivets (50).
   C. Attach support assys (40, 41, 45, 46) with seal assys (10, 15), and buttstrap (5) on sleeve assy (35) using bolts (20, 25, 30, 48). Ensure that seal assys (10, 15) are positioned per ASSEMBLY, Figure 701



Seal Assembly Detail
Figure 701

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FITS AND CLEARANCES

(NOT APPLICABLE)

(NOT APPLICABLE)

ILLUSTRATED PARTS LIST

1. Introduction

A. The Illustrated Parts List (IPL) contains an illustration and a list of component parts you can repair or replace. The Illustrated Parts Catalog (IPC) shows how to use the Boeing part number system.

B. This shows how parts are related: The relation of each item to its next higher assembly (NHA) is shown in the NOMENCLATURE column. Use the indenture system that follows:

1 2 3 4 5 6 7

. Assembly

. Attaching parts for assembly

. . Detail parts for assembly

. . Subassembly

. . Attaching parts for subassembly

. . . Detail parts for subassembly

. . . Sub-subassembly

. . . Attaching parts for subassembly

. . . . . Details parts for sub-subassembly

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

C. Each top assembly is given one use code letter (A, B, C, etc.) in the USAGE CODE column. All subsequent component parts in the list can have one or more of the use code letters to show effectivity to top assemblies. A component part without a use code applies to all top assemblies.

D. An alphabetical letter is added after the item number for optional parts, parts changed by a Service Bulletin, configuration differences (except left-handed and right-handed parts), last engineering releases, and parts added between item numbers in a sequence. The alphabetical letter will not be shown on the illustration for equivalent parts of the same part number.

E. Color-coded parts are identified with a single digit alpha following the dash number or with ''SP'' suffix. If the ''SP'' suffix is used, it represents consolidation of all color codes applicable for a given usage which are not separately listed. Orders for color-coded parts should include the registry number of the airplane for which the parts are ordered.

F. If a part number is 15 characters long but will not fit in the part number column, the part number will be displayed with a ''~'' at the end of the line and will be continued on the next line. The ''~'' denotes that the part number continues on the next line.

G. Parts changed by a Service Bulletin are shown by PRE SB XXXX and POST SB XXXX added to the NOMENCLATURE column.

(1) When a new top assembly is added by a Service Bulletin, PRE SB XXXX and POST SB XXXX will be added at the top assembly level only. The configuration differences at the detail part level are shown by use code letters.

(2) When the top assembly part number is not changed by the Service Bulletin, PRE SB XXXX and POST SB XXXX will be added at the detail level.

H. Interchangeable Parts

Optional (OPT)	The part is optional to and interchangeable with other parts that have the same item number.
Replaces, Replaced by and not interchangeable with (REPLACES, REPLACED BY AND NOT INTCHG/W)	The part replaces and is not interchangeable with the initial part.
Replaces, Replaced by (REPLACES, REPLACED BY)	The part replaces and is interchangeable with, or is an alternative to, the initial part.

VENDOR CODES

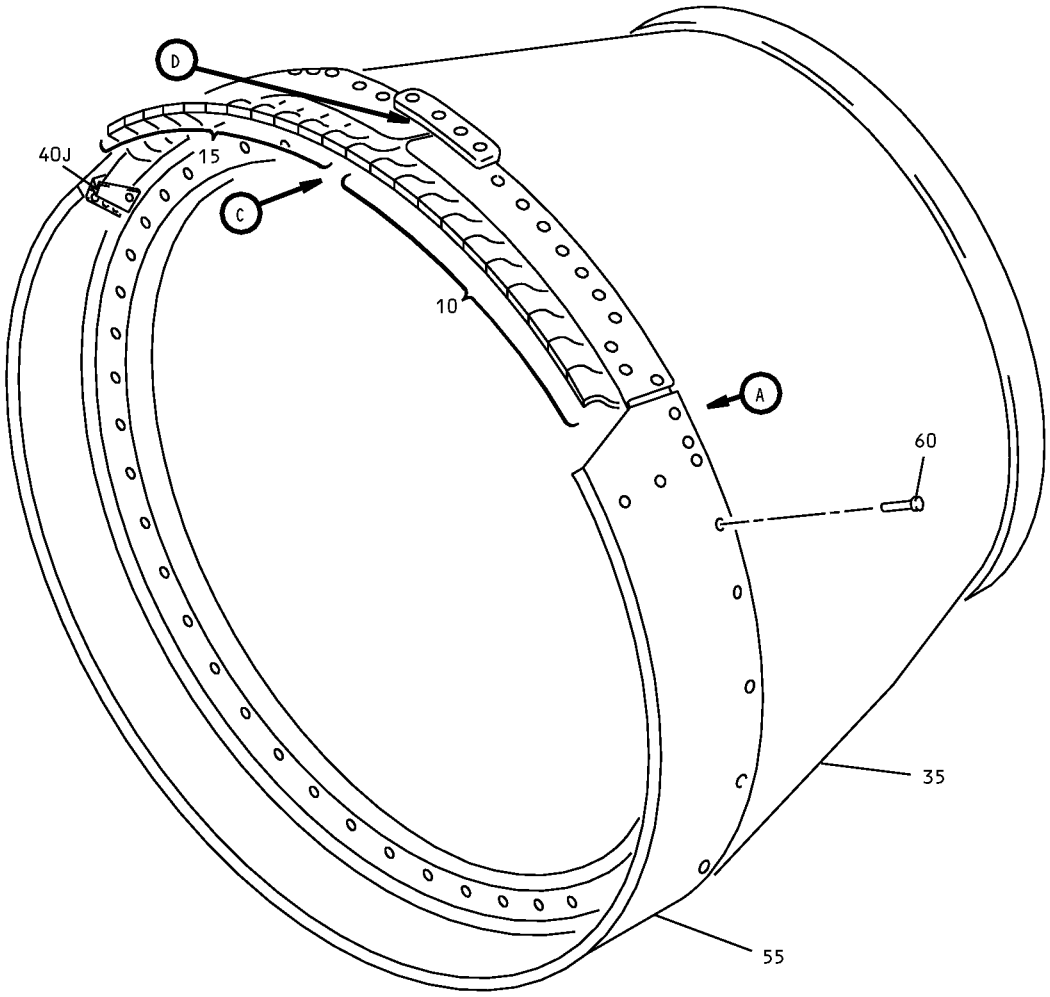
Code	Name
73197	HI-SHEAR TECHNOLOGY CORP 2600 SKYPARK DRIVE TORRANCE, CALIFORNIA 90509
80539	SPS TECHNOLOGIES INC DIV AERPSOACE - SANTA ANA 2701 SOUTH HARBOR BOULEVARD SANTA ANA, CALIFORNIA 92704-5803 FORMERLY NUTT-SHEL DIV OF SPC WESTERN CO V80539 AND STANDARD PRESSED STEEL WESTERN DIV V17279

NUMERICAL INDEX

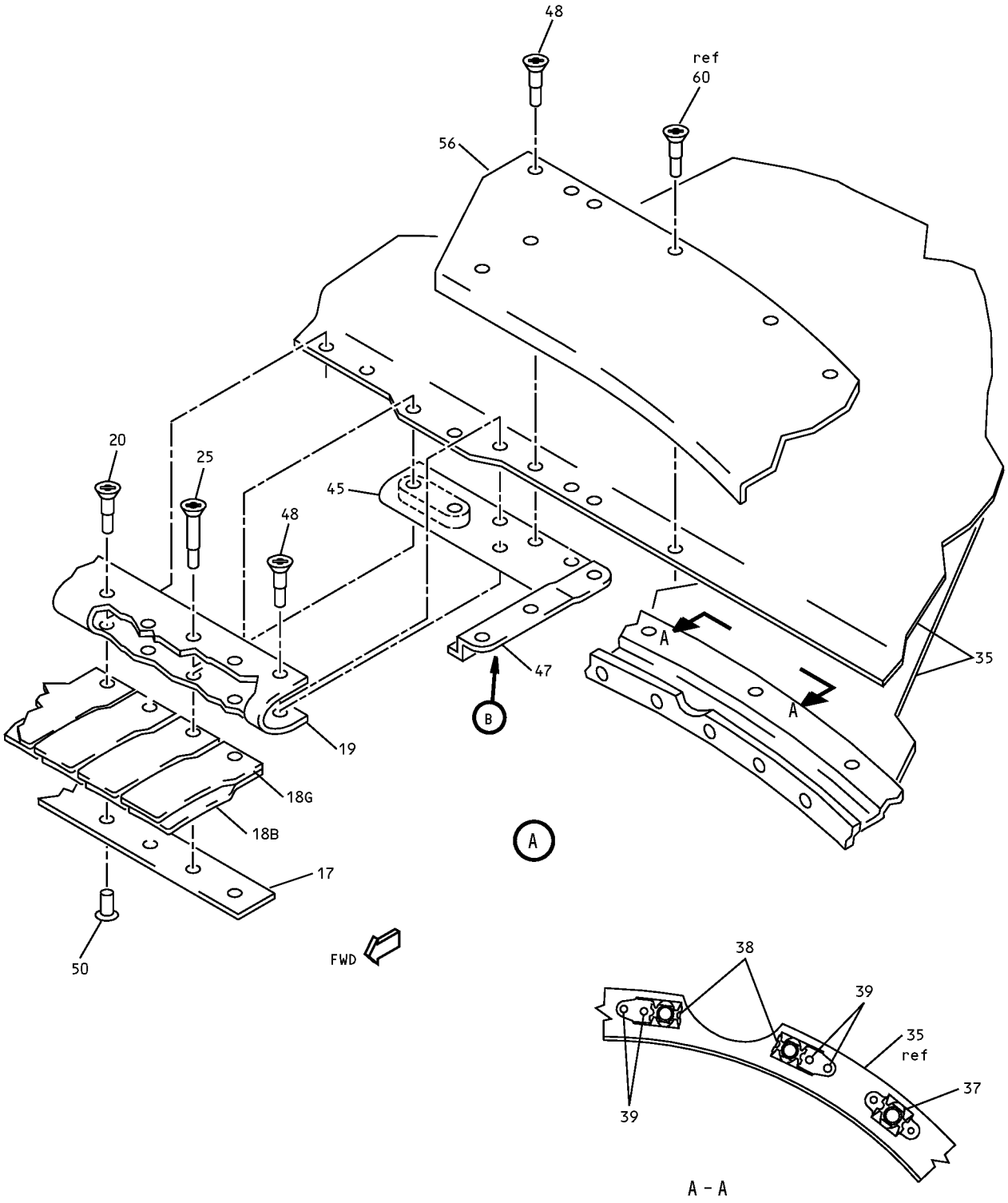
PART NUMBER	AIRLINE PART NUMBER	FIGURE	ITEM	UNITS PER ASSEMBLY
123423-3-1		1	33	34
		1	60B	34
123423-3-14		1	25	4
		1	33A	4
123423-3-2		1	20	12
		1	20B	12
		1	33B	22
		1	48	10
		1	60	34
301A1030-5		1	1E	RF
314A1502-1		1	1	RF
314A1502-10		1	55	1
314A1502-11		1	45	1
314A1502-12		1	45A	1
314A1502-13		1	19A	1
314A1502-14		1	19K	1
314A1502-17		1	17	1
314A1502-18		1	17A	1
314A1502-19		1	46	1
314A1502-2		1	35	1
314A1502-20		1	37A	1
314A1502-21		1	40	1
314A1502-22		1	40J	1
314A1502-27		1	10	1
314A1502-28		1	15	1
314A1502-32		1	18	9
		1	18A	1
314A1502-33		1	18B	2
		1	18C	2
314A1502-34		1	18D	9
		1	18E	1
314A1502-35		1	18G	2
		1	18H	2
314A1502-37		1	1A	RF

PART NUMBER	AIRLINE PART NUMBER	FIGURE	ITEM	UNITS PER ASSEMBLY
314A1502-38		1	40A	1
314A1502-39		1	40K	1
314A1502-40		1	10A	1
314A1502-41		1	15A	1
314A1502-42		1	55B	1
314A1502-43		1	56	1
314A1502-44		1	56A	1
314A1502-45		1	47J	1
314A1502-46		1	47K	1
314A1502-47		1	19	1
314A1502-48		1	19J	1
314A1502-49		1	56B	1
314A1502-50		1	1B	RF
314A1502-51		1	1C	RF
314A1502-52		1	15B	1
314A1502-53		1	10B	1
314A1502-54		1	18K	8
		1	18L	9
314A1502-55		1	18P	9
314A1502-56		1	18M	8
314A1502-57		1	1D	RF
314A1502-58		1	1F	RF
314A1502-59		1	1G	RF
314A1502-6		1	37B	1
314A1502-60		1	15C	1
314A1502-61		1	10C	1
314A1502-62		1	18F	1
314A1502-63		1	18J	2
314A1502-64		1	18N	8
314A1502-65		1	18Q	9
314A1502-67		1	38A	1
314A1502-68		1	38B	1
314A1502-69		1	37C	1
314A1502-7		1	47	1
314A1502-70		1	35A	1

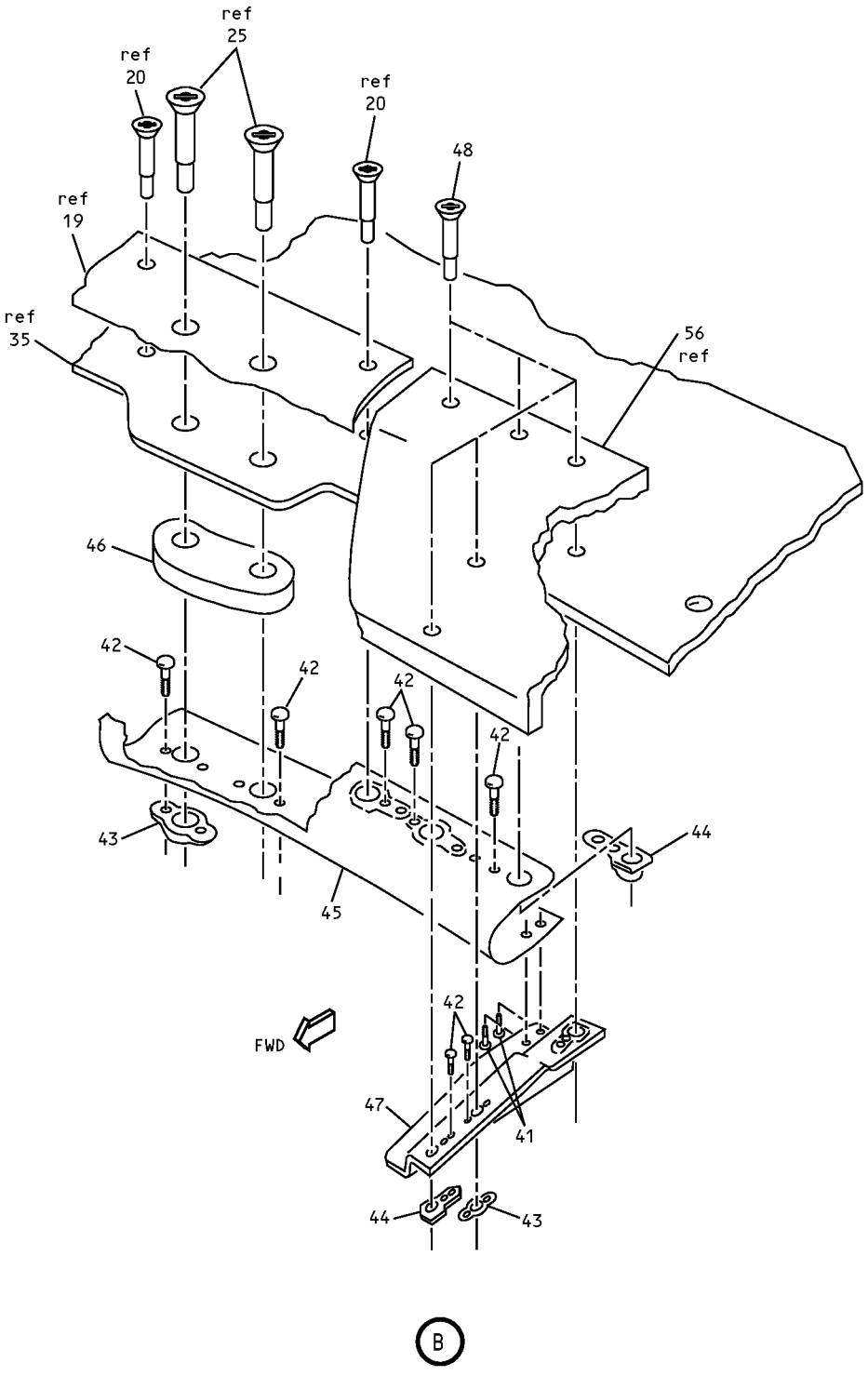
PART NUMBER	AIRLINE PART NUMBER	FIGURE	ITEM	UNITS PER ASSEMBLY
314A1502-71		1	1H	RF
314A1502-8		1	47A	1
314A1502-9		1	5	1
314A1506-1		1	37D	1
BACB30PN3-2		1	30	8
BACB30UW3-14		1	25A	4
BACB30UW3-2		1	20A	12
		1	60A	34
BACB30W-3-2		1	48A	10
BACN10JR3CF		1	36B	66
		1	43	3
BACN10JR4CF		1	31	41
		1	37	43
BACN10KB3CF		1	32	10
		1	36	4
		1	36A	2
		1	44	3
BACN10KB4CF		1	38	4
BACR15CE4M3		1	36C	16
BACR15CE5M4		1	57	8
BACR15CE5M5		1	57A	2
HL658-5-2		1	41	2
HL88TB5-2		1	41A	2
MS20427M3		1	42	12
MS20427M3-3		1	36D	104
MS20427M3-4		1	39	94
MS20427M5-16		1	42A	2
MS20615-5M3		1	41B	2
MS20615-5M5		1	50	36



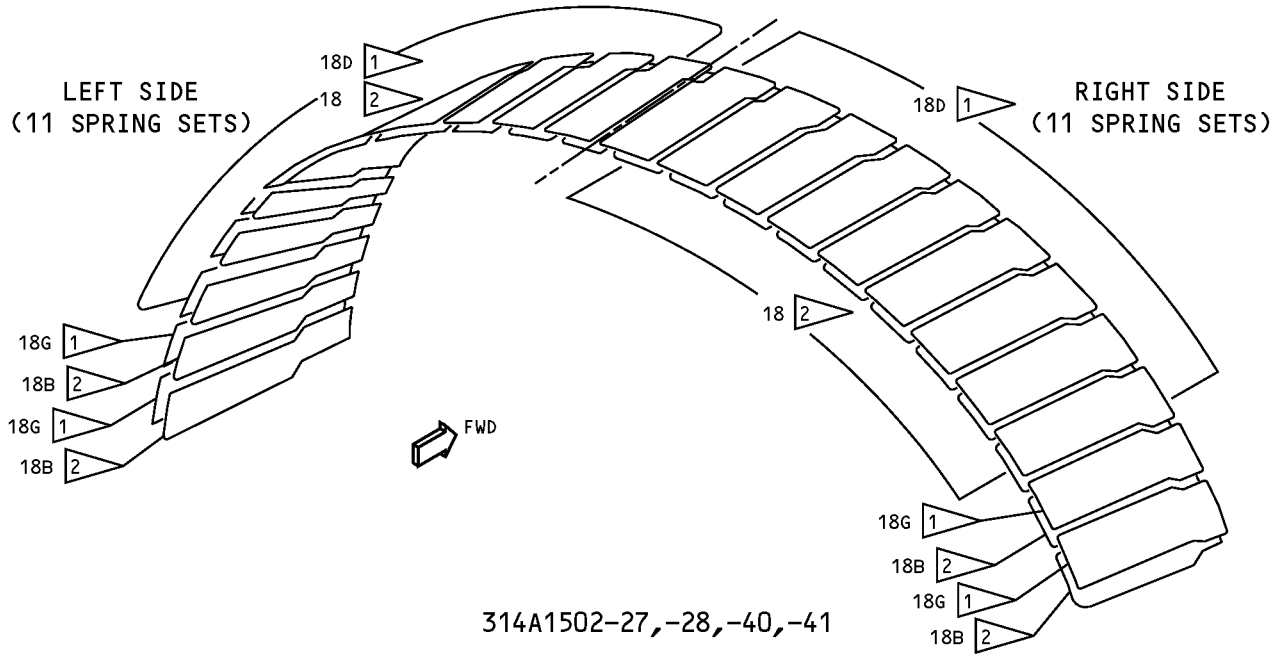
CFM 56-3 Turbine Exhaust Primary Sleeve Assembly
IPL Figure 1 (Sheet 1 of 5)

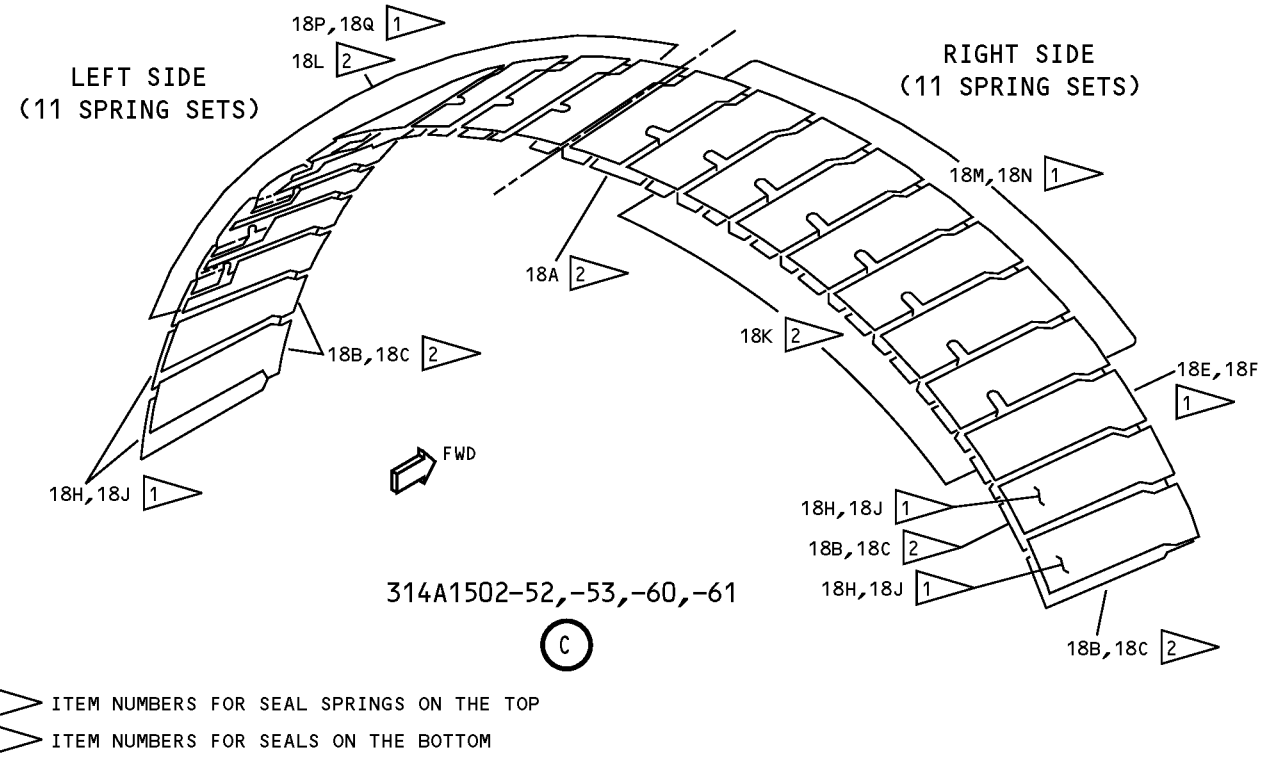


CFM 56-3 Turbine Exhaust Primary Sleeve Assembly
IPL Figure 1 (Sheet 2 of 5)



CFM 56-3 Turbine Exhaust Primary Sleeve Assembly
IPL Figure 1 (Sheet 3 of 5)

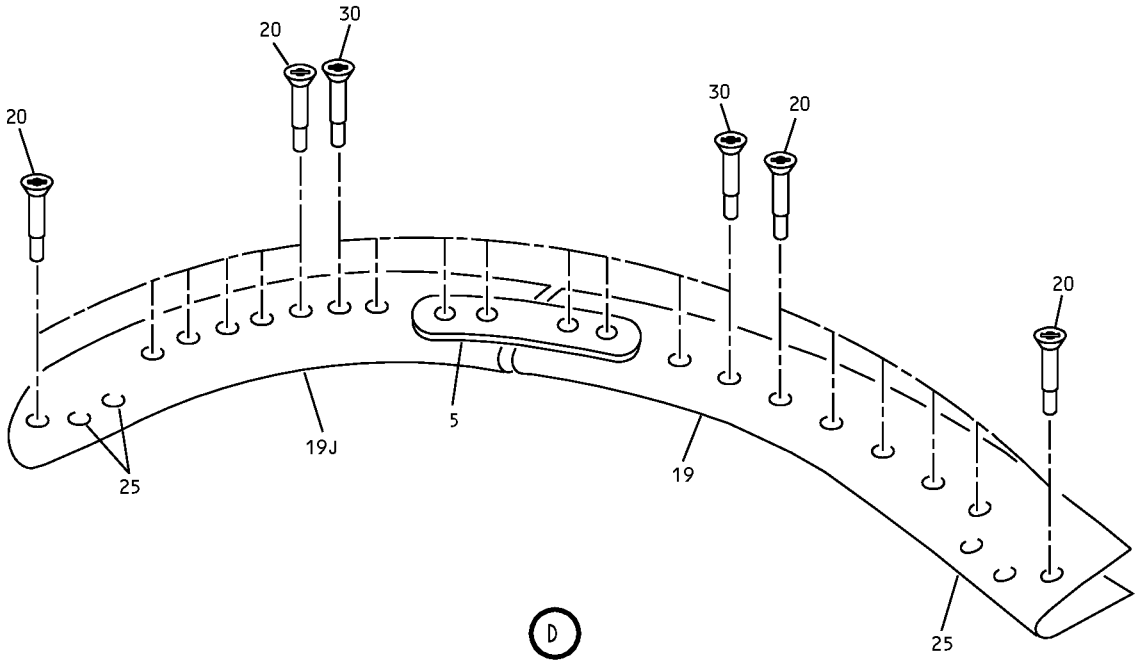




1 ITEM NUMBERS FOR SEAL SPRINGS ON THE TOP

2 ITEM NUMBERS FOR SEALS ON THE BOTTOM

CFM 56-3 Turbine Exhaust Primary Sleeve Assembly
IPL Figure 1 (Sheet 4 of 5)



CFM 56-3 Turbine Exhaust Primary Sleeve Assembly
IPL Figure 1 (Sheet 5 of 5)

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USAGE CODE	UNITS PER ASSY
1–					
–1	314A1502-1		PRIMARY SLEEVE ASSY, CFM56-3 TURBINE EXHAUST	A	RF
–1A	314A1502-37		PRIMARY SLEEVE ASSY, CFM56-3 TURBINE EXHAUST	B	RF
–1B	314A1502-50		PRIMARY SLEEVE ASSY, CFM56-3 TURBINE EXHAUST	C	RF
–1C	314A1502-51		PRIMARY SLEEVE ASSY, CFM56-3 TURBINE EXHAUST (POST SB 737-78-1042)	D	RF
–1D	314A1502-57		PRIMARY SLEEVE ASSY, CFM56-3 TURBINE EXHAUST (POST SB 737-78-1042)	E	RF
–1E	301A1030-5		PRIMARY SLEEVE ASSY, CFM56-3 TURBINE EXHAUST (POST SB 737-78-1042)	F	RF
–1F	314A1502-58		PRIMARY SLEEVE ASSY, CFM56-3 TURBINE EXHAUST	G	RF
–1G	314A1502-59		PRIMARY SLEEVE ASSY, CFM56-3 TURBINE EXHAUST	H	RF
–1H	314A1502-71		PRIMARY SLEEVE ASSY, CFM56-3 TURBINE EXHAUST	I	RF
5	314A1502-9		. BUTTSTRAP		1
10	314A1502-27		. SEAL ASSY (LH) (ITEMS 10,10A,10B CAN REPLACE OR BE REPLACED BY ITEM 10C FOR SPARES ONLY)	A	1
–10A	314A1502-40		. SEAL ASSY (LH) (ITEMS 10,10A,10B CAN REPLACE OR BE REPLACED BY ITEM 10C FOR SPARES ONLY)	B, C	1
–10B	314A1502-53		. SEAL ASSY (LH) (ITEMS 10,10A,10B CAN REPLACE OR BE REPLACED BY ITEM 10C FOR SPARES ONLY)	D, G	1

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USAGE CODE	UNITS PER ASSY
1–					
–10C	314A1502-61		. SEAL ASSY (LH) (ITEMS 10,10A,10B CAN REPLACE OR BE REPLACED BY ITEM 10C FOR SPARES ONLY)	H, I	1
15	314A1502-28		. SEAL ASSY (RH) (ITEMS 15,15A,15B CAN REPLACE OR BE REPLACED BY ITEM 15C FOR SPARES ONLY)	A	1
–15A	314A1502-41		. SEAL ASSY (RH) (ITEMS 15,15A,15B CAN REPLACE OR BE REPLACED BY ITEM 15C FOR SPARES ONLY)	B, C, D, E	1
–15B	314A1502-52		. SEAL ASSY (RH) (ITEMS 15,15A,15B CAN REPLACE OR BE REPLACED BY ITEM 15C FOR SPARES ONLY)	D, G	1
–15C	314A1502-60		. SEAL ASSY (RH) (ITEMS 15,15A,15B CAN REPLACE OR BE REPLACED BY ITEM 15C FOR SPARES ONLY)	H, I	1
17	314A1502-17		. . CLAMP STRIP (LH) (USED ON ITEMS 10,10A,10B,10C)		1
–17A	314A1502-18		. . CLAMP STRIP (RH) (USED ON ITEMS 15,15A,15B,15C)		1
18	314A1502-32		. . SEAL SPRING (USED ON ITEMS 10,10A,15,15A)		9
18A	314A1502-32		. . SEAL SPRING (USED ON ITEMS 15B,15C)		1
18B	314A1502-33		. . SEAL SPRING (USED ON ITEMS 10,10A,10C,15,15A,15C)		2
18C	314A1502-33		. . SEAL SPRING (USED ON ITEMS 10B,15B)		2
18D	314A1502-34		. . SEAL SPRING (USED ON ITEMS 10,10A,15,15A)		9

–Item not Illustrated

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USAGE CODE	UNITS PER ASSY
1–					
18E	314A1502-34		. . SEAL SPRING (USED ON ITEM 15B)		1
18F	314A1502-62		. . SEAL SPRING (USED ON ITEM 15C)		1
18G	314A1502-35		. . SEAL SPRING (USED ON ITEM 10,10A,15,15A)		2
18H	314A1502-35		. . SEAL SPRING (USED ON ITEMS 10B,15B)		2
18J	314A1502-63		. . SEAL SPRING (USED ON ITEMS 10C,15C)		2
18K	314A1502-54		. . SEAL SPRING (USED ON ITEMS 15B,15C)		8
18L	314A1502-54		. . SEAL SPRING (USED ON ITEMS 10B,10C)		9
18M	314A1502-56		. . SEAL SPRING (USED ON ITEM 15B)		8
18N	314A1502-64		. . SEAL SPRING (USED ON ITEM 15C)		8
18P	314A1502-55		. . SEAL SPRING (USED ON ITEM 10B)		9
18Q	314A1502-65		. . SEAL SPRING (USED ON ITEM 10C)		9
19	314A1502-47		. . SEAL CARRIER (LH) (USED ON ITEMS 10A,10B,10C)		1
–19A	314A1502-13		. . SEAL CARRIER (LH) (USED ON ITEM 10)		1
19J	314A1502-48		. . SEAL CARRIER (RH) (USED ON ITEM 15A,15B,15C)		1
–19K	314A1502-14		. . SEAL CARRIER (RH) (USED ON ITEM 15)		1
20	123423-3-2		. BOLT (V80539)		12
–20A	BACB30UW3-2		. BOLT (OPT ITEM 20)		12

–Item not Illustrated

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USAGE CODE	UNITS PER ASSY
1–					
–20B	123423-3-2		. BOLT (V80539)		12
25	123423-3-14		. BOLT (V80539) (OPT ITEM 25A)		4
–25A	BACB30UW3-14		. BOLT (OPT ITEM 25)		4
30	BACB30PN3-2		. BOLT		8
31	BACN10JR4CF		. NUTPLATE	I	41
32	BACN10KB3CF		. NUTPLATE	I	10
33	123423-3-1		. BOLT	I	34
33A	123423-3-14		. BOLT	I	4
33B	123423-3-2		. BOLT	I	22
35	314A1502-2		. SLEEVE ASSY	A-H	1
–35A	314A1502-70		. SLEEVE ASSY	I	1
36	BACN10KB3CF		. . NUTPLATE		4
36A	BACN10KB3CF		. . NUTPLATE (USED ON ITEM 35A)		2
36B	BACN10JR3CF		. . NUTPLATE (USED ON ITEM 35A)		66
36C	BACR15CE4M3		. . RIVET (USED ON ITEM 35A)		16
36D	MS20427M3-3		. . RIVET (USED ON ITEM 35A)		104
37	BACN10JR4CF		. . NUTPLATE (USED ON ITEMS 35,35A)		43
37A	314A1502-20		. . TAILPIPE (USED ON ITEM 35)		1
37B	314A1502-6		. . NOZZLE STIFFENER (USED ON ITEM 35A)		1
37C	314A1502-69		. . NOZZLE CONE ASSY (USED ON ITEM 35A)		1
37D	314A1506-1		. . MACHINED RING (USED ON ITEM 35A)		1
38	BACN10KB4CF		. . NUTPLATE (USED ON ITEMS 35,35A)		4

–Item not Illustrated

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USAGE CODE	UNITS PER ASSY
1–					
38A	314A1502-67		. . . CONE HALF (USED ON ITEM 37C)		1
38B	314A1502-68		. . . CONE HALF (USED ON ITEM 37C)		1
39	MS20427M3-4		. . RIVET (USED WITH ITEMS 37,38)		94
40	314A1502-21		. SUPPORT ASSY (LH)	A	1
–40A	314A1502-38		. SUPPORT ASSY (LH)	B-E, G, H	1
40J	314A1502-22		. SUPPORT ASSY (RH)	A	1
–40K	314A1502-39		. SUPPORT ASSY (RH)	B-E, G, H	1
41	HL658-5-2		. . BOLT (USED WITH 41A) (ITEM 41 TOGETHER WITH ITEM 41A OPT TO ITEM 41B)		2
–41A	HL88TB5-2		. . COLLAR (V73197) (USED WITH 41) (ITEM 41A TOGETHER WITH ITEM 41 OPT TO ITEM 41B)		2
–41B	MS20615-5M3		. . RIVET (V73197) (ITEM 41B OPT TO ITEM 41 TOGETHER WITH ITEM 41A)		2
42	MS20427M3		. . RIVET		12
42A	MS20427M5-16		. . RIVET		2
43	BACN10JR3CF		. . NUTPLATE		3
44	BACN10KB3CF		. . NUTPLATE		3
45	314A1502-11		. . CHANNEL (LH) (USED ON ITEMS 40,40A)		1
–45A	314A1502-12		. . CHANNEL (RH) (USED ON ITEMS 40J,40K)		1
46	314A1502-19		. . BLOCK		1

–Item not Illustrated

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USAGE CODE	UNITS PER ASSY
1–					
47	314A1502-7		. . SUPPORT (RH) (USED ON ITEM 40)		1
–47A	314A1502-8		. . SUPPORT (RH) (USED ON ITEM 40J)		1
–47J	314A1502-45		. . SUPPORT (LH) (USED ON ITEM 40A)		1
–47K	314A1502-46		. . SUPPORT (RH) (USED ON ITEM 40K)		1
48	123423-3-2		. BOLT (V80539)		10
–48A	BACB30W-3-2		. BOLT (OPT ITEM 48)		10
50	MS20615-5M5		. RIVET		36
55	314A1502-10		. FAIRING	A	1
–55A	314A1502-26		DELETED		
–55B	314A1502-42		. FAIRING ASSY	B-E, G, H, I	1
–56	314A1502-43		. . FAIRING		1
–56A	314A1502-44		. . STIFFENER (LH)		1
–56B	314A1502-49		. . STIFFENER (RH)		1
–57	BACR15CE5M4		. . RIVET		8
–57A	BACR15CE5M5		. . RIVET		2
			ATTACHING PARTS		
60	123423-3-2		. BOLT (V80539) (USED ON ITEMS 1,1A,1B,1C)	)	34
–60A	BACB30UW3-2		. BOLT (OPT ITEM 60)		34
–60B	123423-3-1		. BOLT (V80539) (USED ON ITEMS 1D,1F,1G)		34
			- - - - - - - * - - - - - - -		

–Item not Illustrated

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USAGE CODE	UNITS PER ASSY
1–					
–65	BACB30UW3-2		DELETED		
70	314A1502-29		DELETED		
75	314A1502-30		DELETED		
80	314A1502-31		DELETED		

–Item not Illustrated