TO: ALL HOLDERS OF PRIMARY NOZZLE ASSEMBLY (CF6-80C2 ENGINE)
COMPONENT MAINTENANCE MANUAL 78-11-14

REVISION NO. 13 DATED MAR 01/04

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 1	Added top assemblies, part numbers 314U2100-71, -72, -82 and part numbers 015U1547-111, -112, -271, -272, -311, -312, -431, -432.
REPAIR-GEN 601	
REPAIR 1-1 601	
REPAIR 3-1 601,615-624 1002-1008,1029-1050	
TR & SB RECORD 1 1010,1012-1014,1017, 1020-1028	Incorporated SB 767-78-0075R1, SB 747-78-2175R1, SB 767-78-0082R2, SB 767-78-0094, SB 767-78-0095, SB 747-78-2168R3, SB 747-78-2137R2.
REPAIR 1-1 602	Clarified back step welding procedure in REPAIR 1-1.
REPAIR 3-1 610,612	Clarified requirements for Aeronca's stud weld pin.

BOEING

COMPONENT
MAINTENANCE MANUAL

PRIMARY NOZZLE ASSEMBLY
(CF6-80C2 ENGINE)

PART NUMBERS 314U2100-1,-27,-30,-31,-43,-46,
-47,-47,-53,-57,-70,-71,
-72,-82
015U1547-11,-27,-31,-43,-46,-47,
-111,-112,-271,-272,-311,
-312,-431,-432
015T0805-5 THRU -12

COMPONENT MAINTENANCE MANUAL
WITH
ILLUSTRATED PARTS LIST

265585

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

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TEMPORARY REVISION AND SERVICE BULLETIN RECORD

BOEING SERVICE BULLETIN	BOEING TEMPORARY REVISION	OTHER DIRECTIVE	DATE OF INCORPORATION INTO MANUAL
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*[1] Special instructions not required. Use standard industry practices.

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

Refer to the Table of Contents for the page location of applicable sections.

The beginning of the REPAIR section includes a list of the separate repairs, a list of applicable standard Boeing practices, and an explanation of the True Position Dimensioning symbols used.

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.

CF6-80C2 ENGINE PRIMARY NOZZLE ASSEMBLY

DESCRIPTION AND OPERATION

1. Description

   A. The primary nozzle assembly consists of inner and outer sleeve assemblies riveted together at the aft end. The inner sleeve assemblies are made from inconel steel. The outer sleeve assemblies are made from inconel steel or honeycomb panels. The outer sleeve assembly is reinforced with stiffeners and includes a seal member mounted at the top and several wear pads along the outside diameter.

2. Operation

   A. The primary nozzle assembly together with the plug assembly is used to control primary exhaust nozzle area and provide a path for smooth expansion of the power plant exhaust gas.

3. Leading Particulars (approximate)

   A. 314U2100

      Length -- 59 inches
      Diameter -- 49-55 inches
      Weight - 246 pounds

DISASSEMBLY

NOTE: Disassemble this component only as necessary to complete fault isolation, determine the serviceability of parts, perform required repairs, and restore the unit to serviceable condition.

CLEANING

1. Use the standard practices of the industry and refer to SOPM 20-30-03 to clean all the parts except as noted.

   NOTE: Immersion cleaning is not practical due to the size of the sleeve assemblies.

   WARNING: DO NOT USE SCOTCH BRITE OR BRUSH WIRE ON THE OUTER SURFACE OF THE OUTER SLEEVE ASSEMBLY (110). SCRATCHES CAN CHANGE THE PROPERTY OF THE AIRFLOW OVER THE SLEEVE ASSEMBLY.

2. Clean the inner sleeve assembly (170) with Scotch Brite and solvent wipe the inner sleeve assembly (170) with Methyl Ethyl Ketone (MEK) to remove the persistent engine deposits.

   NOTE: Do not replace wiring brush or any other abrasive cleaner for Scotch Brite. Wire brush only polishes the engine deposits but does not remove them.

CHECK

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

2. Do a check of the honeycomb structure.

   (1) Do a check of the honeycomb and the bonded parts for delamination, internal water, scratches, and contour damage.

      (a) If you see delamination or contour damage, do an ultrasonic check or a tap test to find all of the damage.

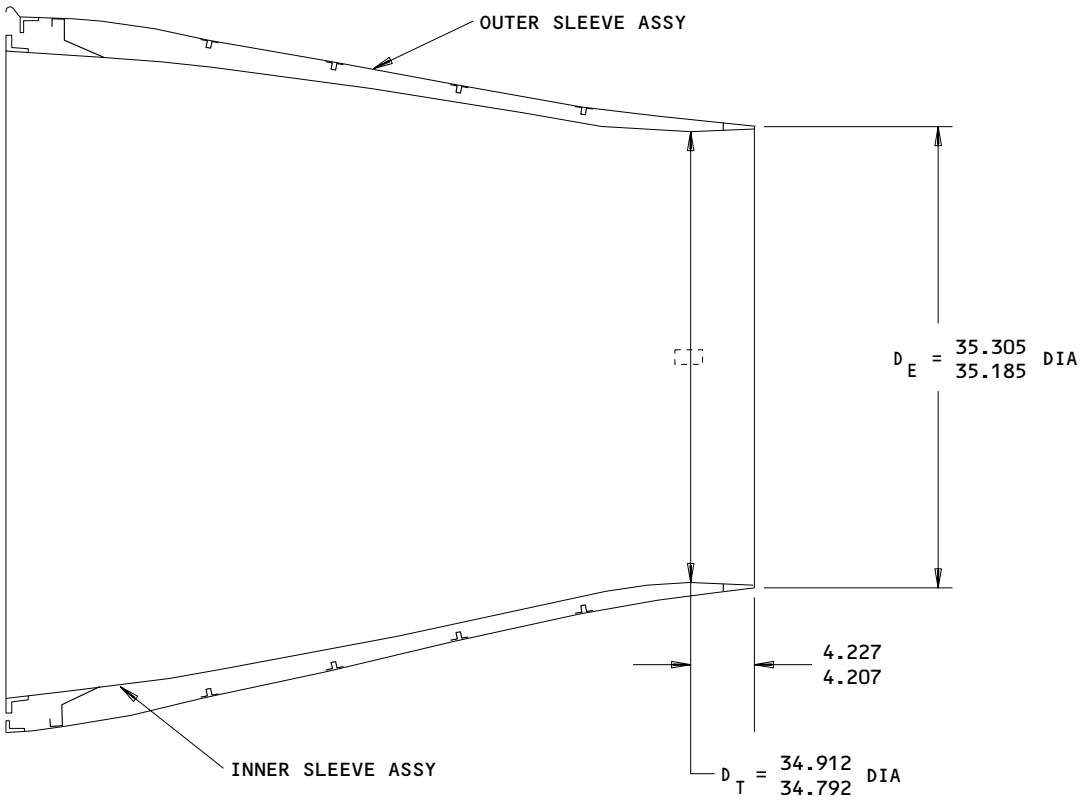
         NOTE: For a tap test use a solid metal disk and refer to the 747/767 Non-Destructive Test Manual, Part 1, 51-05-01.

      (b) Examine areas that you think contain water radiographically or by thermography as shown in the 747/767 Non-Destructive Test Manual, Part 9, 51-00-01.

3. Penetrant check inner and outer sleeve assemblies and welds per SOPM 20-20-02.

4. Check primary exhaust nozzle throat and exit diameter per Fig. 501.

5. Refer to 767 Structural Repair Manual 54-42-30 or 747 Structural Repair Manual 54-41-30 for allowable damage data for both inconel steel and honeycomb panels.



CHECK

ENSURE THAT $\left[\frac{DEM}{DTM}\right]^2 = \frac{1.027}{1.019}$

DTM = AVERAGE THROAT INSIDE DIAMETER MEASURED AT 8 EQUALLY SPACED CIRCUMFERENTIAL LOCATIONS

DEM = AVERAGE EXIT INSIDE DIAMETER MEASURED AT 8 EQUALLY SPACED CIRCUMFERENTIAL LOCATIONS

ALL DIMENSIONS ARE IN INCHES

Exhaust Nozzle Diameter Check
Figure 501

REPAIR - GENERAL

1. Content

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

P/N	NAME	REPAIR
314U2100-2,-3,-28,-32, -44,-48,-54,-58, -69,-80	SLEEVE ASSEMBLY	1-1
314U2100-19,-20	FWD/AFT SEAL	2-1
314U2100-35,-67,-79	HONEYCOMB PANEL ASSEMBLY	3-1

2. Standard Practices and References

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

(1) Standard Practices

20-20-02 Penetrant Methods of Inspection
20-30-03 General Cleaning Procedures
20-10-05 Application and Finishing of Plasma Flame Sprayed Coatings

(2) References

BAC5915 Boeing Process Specification for Radiographic Inspection
BAC5975 Boeing Process Specification for Fusion Welding of Metal

3. Materials

NOTE: Equivalent substitutes may be used.

A. Abrasive fabric -- Scotch-Brite, Type S (Ref 20-60-04)

B. Solvent -- O-A-51, or JIS-K-1503, Grade 1 (Acetone) (Ref 20-60-01)

C. Solvent -- TT-M-261 or JIS-K-152 (MEK) (Ref 20-60-01)

D. Weld Filler -- Inconel 625 (BMS 7-38, Type 7)

E. Flame Spray Powder -- Tungsten Carbide with Cobalt, BMS 10-67, Type 1 (Ref 20-10-05)

4. Dimensioning Symbols

A. Standard True Position Dimensioning Symbols used in applicable repair procedures are shown in Fig. 601.

—	STRAIGHTNESS
▱	FLATNESS
⊥	PERPENDICULARITY (OR SQUARENESS)
//	PARALLELISM
○	ROUNDNESS
⌭	CYLINDRICITY
⌒	PROFILE OF A LINE
⌓	PROFILE OF A SURFACE
◎	CONCENTRICITY
≡	SYMMETRY
∠	ANGULARITY
↗	RUNOUT
↗↗	TOTAL RUNOUT
⌴	COUNTERBORE OR SPOTFACE
∨	COUNTERSINK
⌖	THEORETICAL EXACT POSITION OF A FEATURE (TRUE POSITION)
∅	DIAMETER
S ∅	SPHERICAL DIAMETER
R	RADIUS
SR	SPHERICAL RADIUS
()	REFERENCE
BASIC (BSC) OR [DIM]	A THEORETICALLY EXACT DIMENSION USED TO DESCRIBE SIZE, SHAPE OR LOCATION OF A FEATURE FROM WHICH PERMISSIBLE VARIATIONS ARE ESTABLISHED BY TOLERANCES ON OTHER DIMENSIONS OR NOTES.
[-A-]	DATUM
Ⓜ	MAXIMUM MATERIAL CONDITION (MMC)
Ⓛ	LEAST MATERIAL CONDITION (LMC)
Ⓢ	REGARDLESS OF FEATURE SIZE (RFS)
Ⓟ	PROJECTED TOLERANCE ZONE
FIM	FULL INDICATOR MOVEMENT

EXAMPLES

— | 0.002	STRAIGHT WITHIN 0.002
⊥ | 0.002 | B	PERPENDICULAR TO B WITHIN 0.002
// | 0.002 | A	PARALLEL TO A WITHIN 0.002
○ | 0.002	ROUND WITHIN 0.002
⌭ | 0.010	CYLINDRICAL SURFACE MUST LIE BETWEEN TWO CONCENTRIC CYLINDERS, ONE OF WHICH HAS A RADIUS 0.010 INCH GREATER THAN THE OTHER
⌒ | 0.006 | A	EACH LINE ELEMENT OF THE SURFACE AT ANY CROSS SECTION MUST LIE BETWEEN TWO PROFILE BOUNDARIES 0.006 INCH APART RELATIVE TO DATUM PLANE A
⌓ | 0.020 | A	SURFACES MUST LIE WITHIN PARALLEL BOUNDARIES 0.02 INCH APART AND EQUALLY DISPOSED ABOUT TRUE PROFILE
◎ ∅ 0.0005 | C	CONCENTRIC TO C WITHIN 0.0005 DIAMETER
≡ | 0.010 | A	SYMMETRICAL WITH A WITHIN 0.010
∠ | 0.005 | A	ANGULAR TOLERANCE 0.005 WITH A
⌖ ∅ 0.002 Ⓢ | B	LOCATED AT TRUE POSITION WITHIN 0.002 DIA RELATIVE TO DATUM B, REGARDLESS OF FEATURE SIZE
⊥ ∅ 0.010 Ⓜ | A 0.510 Ⓟ	AXIS IS TOTALLY WITHIN A CYLINDER OF 0.010-INCH DIAMETER, PERPENDICULAR TO, AND EXTENDING 0.510-INCH ABOVE, DATUM A, MAXIMUM MATERIAL CONDITION
[2.000] OR 2.000 BSC	THEORETICALLY EXACT DIMENSION IS 2.000

NOTE: DATUM MAY APPEAR AT EITHER SIDE OF TOLERANCE FRAME

0.020 | A	
A | 0.020	

True Position Dimensioning Symbols
Figure 601

SLEEVE ASSEMBLY - REPAIR 1-1

314U2100-2, -3, -28, -32, -44, -48, -54, -58, -69, -80

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

1. 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 step 1.A.(1) using live steam.

(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 abrasive cleaner.

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

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

(6) Flood crack and adjacent area with methyl ethyl ketone (MEK) or acetone. Vigorously clean using a stiff bristle brush in order to remove carbon/soot residue remaining in crack.

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

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

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 gloves.

B. Weld Repair

(1) All repair welds must be performed by a highly skilled welder.

(2) GTA weld crack using Argon or Helium gas and Inconel 625 filler wire 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) Tack weld to hold skin alignment if required, then weld as a continuous weld pass to complete required weld.

(d) Use the backstep procedure on cracks greater than 2.00 inches in length.

NOTE: Backstep procedure is a longitudinal sequence wherein the weld bead increments are deposited in the direction opposite to the progress of welding the joint.

(e) A 100% penetration is required.

(f) 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.

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

(h) Visually check repair using 10 power magnification.

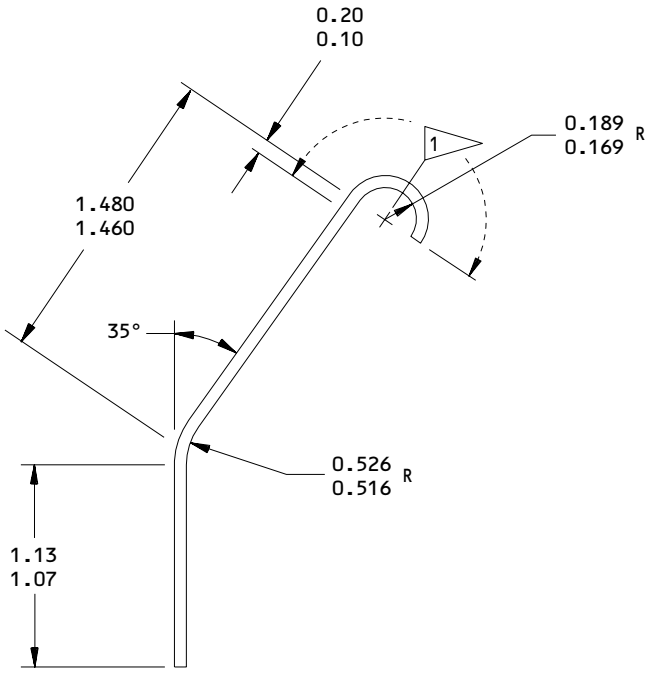
(i) Penetrant or radiographically check weld zone. Cracks are not acceptable. Porosity and inclusions should not exceed 0.020 inch and must not have sharp terminations.

FORWARD/AFT SEAL - REPAIR 2-1

314U2100-19, -20

1. Plating Repair

NOTE: Repair consists of restoration of original finish. Refer to refinish instructions, Fig. 601 and to REPAIR-GEN for list of applicable standard practices.



REFINISH

1 FOR 314U2100-20:
TUNGSTEN CARBIDE FLAME SPRAY BMS 10-67
TYPE I 0.004-0.008 INCH THICK PER
SOPM 20-10-05 (EXCEPT OMIT BMS 10-11
COAT) ON INDICATED SURFACE

MATERIAL: INCONEL 718
150-180 KSI

ALL DIMENSIONS ARE IN INCHES

314U2100-19,-20
Seal Member Refinish
Figure 601

HONEYCOMB PANEL ASSEMBLY - REPAIR 3-1

314U2100-35, -67, -79

NOTE: See Fig. 601 for repairable area.

NOTE: The following repair procedures are for 314U2100-35, -67 honeycomb structure panels:

1. Weld pin repair of dents and punctures.
2. Panel section replacement of defective areas.
3. Weld repair of cracks in solid and perforated face sheets.
4. Repair of cracks in free flange edge members.
5. Plug weld repair of perforated face sheet discrepancies.
6. Plug repair of dents.
7. Plug repair of core to face sheet voids.

NOTE: See each specific Repair for required materials.

1. Weld Pin Repair of Dents and Punctures

A. Application

(1) Applicable to small dents and punctures in the inner or outer face sheets of the brazed panel assembly with use of the AS90 hollow weld repair pin. The AS90 pin is designed to provide a structural tie between the two face sheets of a brazed panel assembly by fusion welding each end of the pin to the face sheet.

B. Required Materials

(1) AS90-4030-14 Weld Repair Pin, Aeronca, Inc, 1712 Germantown Rd, Middletown, OH 45042, Phone: 513-422-2751 (V80512) or equivalent per Fig. 602.

(2) Phenolic block shaped to fit the required contour

(3) AMS5837 filler wire

C. Limits

(1) Smooth dents repairable by this process shall be limited to a depth of no greater than 0.08 inch and a diameter (or major axis) not exceeding 1.00 inch.

(2) Sharp dents and small punctures with a major diameter not exceeding 0.25 inch, as measured on the surface of the panel, are repairable by this process.

(3) No more than one repair area for each 50 square inches of panel area is permitted. There shall be at least a 6-inch separation between each repair area, and each repair area shall be at least 2 inches from the edge of the panel.

(4) The minimum spacing of repair pins within the repair area shall be limited to a distance of three times the installed pin diameter.

(5) Dents must not be closer than 2 inches to the edge of panel or any other damage. No cracks, sharp edges, wrinkles, or delamination are permitted.

D. Procedure

(1) Centered on the dent, drill a 0.090 diameter hole completely through the panel. See Fig. 602.

(2) Back drill (0.250 ±0.005 inch diameter) from the opposite side of the dent to within 0.010 inch of the inner dent surface. See Fig. 602.

(3) Insert a solid rod with diameter 0.250 ±0.005 into the hole prepared per step 1.C.(2). With the phenolic block in place as a backup, force the dent to within 0.010 inch flushness of the nominal contour. See Fig. 602.

(4) Drill the 0.250 ±0.005 inch diameter hole from step 1.D.(2) all the way through the panel.

(5) Insert the repair pin into the drilled hole so that the pin end on the non-air passage side of the panel is within a +0.020/-0.000-inch flushness. The pin end on the air passage side of the panel should protrude above the face sheet surface by at least 0.060 inch

(6) Retain the pin in the panel by expanding the pin end on the air passage side within the drilled hole through the use of a drift pin, and a backup block on the opposite side of the panel.

(7) Weld around the circumference of the pin on both sides of the panel per BAC5975, Class A. Weld the open end of the pin on the air passage side closed using weld filler wire per AMS5837.

(8) On the air passage side only, grind the welds to a +0.005/-0.000 flushness of the panel surface and a 32 Ra or finer surface finish. Do not grind into the base material.

(9) Penetrant inspect all welds per SOPM 20-20-02, and radiographic inspect per BAC5915.

2. Panel Section Replacement of Defective Areas

A. Application

(1) Repair of any physical damage to the brazed honeycomb panel which requires physical removal of the damaged area, exceeds the established limits, and is relatively large in area.

B. Required Materials

(1) Nickel Alloy 625 sheet (0.020-0.032 thickness) per AMS5599

(2) Radiac cutter or plasma arc cutter (recommended)

(3) Spare exhaust nozzle that honeycomb replacement panel section can be cut from.

C. Limits

(1) This repair is limited to an affected damaged panel area no greater than 20 square inches, with spacing of twice the damage size to the next damage location or panel edge.

(2) No more than one of these repairs shall be installed on each 360 degree sleeve panel section, and no more than two, with a minimum separation of 20 inches, are permitted on each sleeve assembly.

(3) The prepared panel cutout area shall contain no sharp corners. All transition areas shall be made with a minimum diameter of 1.25 inch.

D. Procedure

(1) Mark the outline of the damaged area and the panel surface which departs from the nominal surface plane with a flow pen.

(2) Cover the outline damaged area on the panel with mylar film or other transparent media, fix the film in place, and trace the damaged area outline on the film.

NOTE: With the film in place, make special notes in regard to orientation, dimensional location to a particular member, etc. This information will be required in obtaining a replacement panel section of identical contour.

(3) Remove the film from the panel and establish the center location of the damaged area, and the extremities of the cutout area required to remove the damaged area.

NOTE: On the ends of the cutout, use a diameter equal to the minor axis of the cutout where possible.

(4) Transfer the layout of the established cutout to the panel surface and remove the damaged area with the use of a radiac cutter, or cut a hole to a smaller diameter line with a plasma arc cutter and then grind to the exact line. Clean the trimmed edge of the cutout to remove burrs and blend smoothly. Examine this edge for defects and repair as required. The prepared panel cutout area shall contain no sharp corners. All transition areas shall be made with a minimum diameter of 1.25 inch.

(5) Fabricate a weld support ring to fit the cutout area in the panel. The ring shall be fabricated from 0.020-0.032 inch thickness nickel alloy 625 sheet per AMS5599, and may be made from several segments which are fusion welded together. The gap between the ring and the panel or between the ring and the replacement section shall not exceed 0.010 inch. Insert the ring into the cutout, and trim to match the inner and outer panel contour with an additional 0.030 to 0.010 inch projection of the ring above the panel surface on each side of the weld melt-down attachment. Tack weld the ring in place per BAC5975.

(6) Using the film layout of the cutout section for size, location, and orientation, obtain a comparable panel section from a sound braze area of a spare panel assembly. Trim the replacement section to match the inside of the support ring, and tack weld the replacement section in place, maintaining a mismatch of no greater than 0.002 inch between the replacement section and the basic panel.

(7) Close all perforations within 0.15 inches of the support ring by welding closed per Repair No. 5 (Plug Weld).

(8) Proceed to fusion weld per BAC5975 the support ring to the inner and outer surfaces of the basic panel and replacement section with a melt-down weld attachment. A maximum contour mismatch (except at welded edges) of 0.010 inch between the air passage surfaces of the basic panel and replacement section is acceptable.

(9) Grind welds to a +0.005/-0.000 flushness with the panel surfaces, and a 32 Ra or finer surface finish. Do not grind into the base material.

(10) Penetrant inspect per SOPM 20-20-02, and radiographic inspect per BAC5915.

3. Weld Repair for Cracks in Solid and Perforated Face Sheets

A. Application

(1) Applicable to cracks in solid and perforated face sheets of the outer sleeve assembly.

(2) Face Sheets (perforated)

(a) The most susceptible areas for cracks on this detail are at the extreme forward and aft corners of the perforation pattern for the outer sleeve brazed assembly. This is due to the high applied load, sonic and thermal fatigue in these areas. The periphery of the punched perforated hole is also crack sensitive in incurred damaged areas; therefore, penetrant inspection per SOPM 20-20-02 of all perforations surrounding damaged or repaired areas is recommended.

(3) Face Sheets (solid)

(a) Cracks in this detail are generally the result of severe material deformation due to overforming of the material or incurred damage. The procedure for repairing cracks in this detail is the same as that detail for the perforated face sheet except special procedures in the figure are excluded.

B. Limits

(1) Cracks are repairable by the following procedure and Fig. 604.

C. Procedure

(1) Stop drill (0.125 inch diameter) 0.25 inch beyond each end of the crack. See Fig. 604 if stop drill at end of the crack is within 0.020 inch of a perforation.

(2) Clean out the crack between the stop drill locations by slot grinding through the crack with a radiac cutter. Deburr and wipe the prepared area clean with a cleaning cloth saturated with MEK or acetone. Dry thoroughly.

(3) Using nickel alloy 625 weld filler wire per AMS5837, weld the preapred area closed per BAC5975, Class A.

(4) Grind weld to a +0.005/-0.000 flushness of the material surface and a 32 Ra or finer surface finish. Do not grind into base material.

(5) Penetrant inspect per SOPM 20-20-02 and radiographic inspect per BAC5915.

4. Repair of Cracks in Free Flange of Edge Member

A. Application

(1) Applicable to both "C" ring flanges, forward and aft edge member of the outer sleeve honeycomb panel. See Fig. 601 for parts identification. See Fig. 605 for Repair.

B. Required Materials

(1) Nickel alloy 625 filler wire per AMS5837

(2) Radiac cutter

C. Procedure

(1) Stop drill (0.125 inch diameter) 0.25 inch beyond the ends of the crack through the panel. Penetrant inspect per SOPM 20-20-02 to assure no crack exists beyond the stop drill.

(2) Make a slot through the panel for the length of the crack with a radiac cutter. Deburr the edges, and wipe with a clean cloth saturated with MEK or Acetone. Dry thoroughly.

(3) Weld the prepared slot closed per BAC5975, Class A, using nickel alloy 625 filler material per AMS5837.

(4) Grind the weld area to a +0.005/-0.000 flushness with the panel surface, and a 32 Ra or finer surface finish. Do not grind into the base metal. Penetrant inspect per SOPM 20-20-02, and radiographic inspect per BAC5915.

(5) To locate the repair on the air passage side for accessibility, stop drill through from the cracked side of the structure.

5. Plug Weld Repair of Face Sheet Perforation Discrepancies

A. Application

(1) Repair of perforations in the face sheet of the brazed panel assembly by the plug weld process. This repair is applicable to the perforated face sheet in the brazed panel assembly. It is especially applicable for closing perforations which fall in the line of weld repair path, thus preventing a surge effect and burn-back when weld arc encounters an open perforation.

B. Required Materials

(1) Nickel alloy 625 filler wire per AMS5837 or AWS AS.14, Class ERNiCrMo-3

C. Limits

(1) The perforation plug weld repair shall be limited to the inner perforated face sheet of the outer sleeve assembly.

(2) Figure 606 establishes the limits of the perforation plug weld repair for discrepancies and conditons occurring in the brazed panel assembly.

D. Procedure (Fig. 606)

(1) Determine the location and extent of the affected perforations requiring plug weld closure.

(2) Clean the area thoroughly to remove surface films with a cleaning cloth saturated with MEK or acetone.

(3) Close all the affected perforations by plug welding per BAC5975 using nickel alloy 625 filler wire per AMS5837 or AWS AS.14, Class ERNiCrMo-3.

(a) For Repair 2 Panel Section Replacement, close all perforations within 0.15 inch of trim.

(4) Grind the weld to a +0.005/-0.000 flushness of the material surface and a 32 Ra or finer surface finish. Do not grind into the base material.

(5) Penetrant inspect per SOPM 20-20-02, and radiographic inspect per BAC5915.

6. Stud Repair of Dents

A. Application

Applicable to small dents and contours in the inner or outer face sheets of the brazed panel assembly with the use of the AS91 repair stud.

B. Required Materials

(1) AS91-4-9 Repair Stud, Aeronca Inc, 1712 Germantown Road, Middletown, OH 45042, Phone: 513-422-2751 (V80512)

(2) Phenolic block shaped to fit contour

(3) AMS5837 filler wire

C. Limits

(1) Smooth dents repairable by this process shall be limited to a depth of no greater than 0.08 inch and a diameter (or major axis) not exceeding 1.00 inch.

(2) Sharp dents with a major diameter not exceeding 0.25 inch, as measured on the surface of the panel, are repairable by this process.

(3) No more than one repair area for each 50 square inches of panel area is permitted and there shall be at least a 6-inch separation between each repair area. Each repair area shall be at least 2 inches from the edge of the panel.

(4) The minimum spacing of repair pins within the repair area shall be limited to a distance of three times the installed stud diameter.

(5) Requires disassembly of the outer sleeve from the inner sleeve. See S/B 747-78-2111 or S/B 767-78-0055 for disassembly and assembly instructions.

D. Procedure (See Fig. 607)

(1) Drill a 0.1875 inch diameter hole from the side opposite of the dent to within 0.010 inch of the inner dent surface. Do not get lubricant in the bottom of the hole, as this will effect the weld.

(2) Insert a 0.1875 inch diameter solid rod into the hole prepared in step 1. With a phenolic block in place as a back-up, handwork the dent back to blueprint contour.

(3) Using a 0.1875 inch diameter endmill, remove all material down to the braze alloy in holes where there is core or other debris in the way. Do not drill into the braze alloy. Be careful not to dimple the solid skin by pushing on it.

(4) Blow or vacuum out holes and make sure no material is in the way of the welding area. Loose material can cause improper arcing which leads to a bad weld.

(5) Insert the insulating sleeve.

(6) Welder and gun settings

(a) Continental Herberie Studwelder model Kes 70 or equivalent should be set up with four capacitors in use, and voltage set at 53 volts.

(b) The gun must be calibrated with the proper force setting. In order to check the force setting, set up a piece of scrap unit like an actual repair on top of a scale.

(c) Determine where the support foot on the gun should be set in order that it bottoms out on the top of a flat piece at the same time the scale reads 22 pounds.

(7) Weld the studs using the foot support to ensure alignment and proper force setting.

(8) Twist off the studs to check for weld quality. If the stud comes loose, repeat steps 3 and 4, and weld a new stud in place.

(9) Fusion weld the perforated side of the stud repair per BAC5975, Class A. Take care to minimize the heat.

(10) Penetrant inspect per SOPM 20-20-02.

7. Stud Repair of Core to Face Sheet Voids

A. Application

(1) Welded solid stud repair braze defective areas and voids (including delaminations) which are present between the core and panel face sheets.

B. Required Materials

(1) AS91-4-9 Repair Stud, Aeronca Inc, 1712 Germantown Road, Middletown, OH 45042, Phone: 513-422-2751 (V80512)

(2) Phenolic block shaped to fit contour

(3) AMS5837 filler wire

C. Limits

(1) The required stud pattern, location, and installed stud sizes shall be as shown in the figure.

(2) The quantity of studs shall be limited to 10 max studs in any single area and 75 max total studs.

D. Procedure

(1) Determine the extent of the void area by radiographic inspection per BAC5915. Outline the determined void by flow pen on the surface of the panel.

NOTE: If voiding occurs on both sides (inner and outer surfaces) of the panel and is adjacent to or ovelaps that determined on one side, use the extremity of the combined voiding.

(2) Layout the required stud pattern by marking with flow pen on the surface of the panel.

NOTE: Radiographic film of the voided area may be used for determination of the stud pattern and directly transferred to the panel surface.

(3) Drill a 0.1875 inch diameter hole through the inner face sheet of the inner panel only. Do not get lubricant on the bottom of the hole, as this will effect the weld.

(4) Using a 0.1875 inch diameter endmill, remove all material down to the braze alloy in holes where there is core or other debris in the way. Do not drill into the braze alloy. Be careful not to dimple the solid skin by pushing on it.

(5) Blow or vacuum out holes and make sure no material is in the way of the welding area. Loose material can cause improper arcing which leads to a bad weld.

(6) Insert the insulating sleeve (Fig. 607).

CAUTION: IN DELAMINATION VOID AREAS, ASSURE THAT THE FACE SHEET IS AGAINST THE CORE PRIOR TO WELDING TO REDUCE FACE SHEET WRINKLING BETWEEN THE STUDS. WELD IN AN ALTERNATE MANNER AND PROVIDE ADEQUATE COPPER CHILL ADJACENT TO THE WELD AREA.

(7) Welder and gun settings (Fig. 607)

(a) Continental Herberie Studwelder model Kes 70 or equivalent should be set up with four capacitors in use, and voltage set at 53 volts.

(b) The gun must be calibrated with the proper force setting. In order to check the force setting, set up a piece of scrap unit like an actual repair on top of a scale.

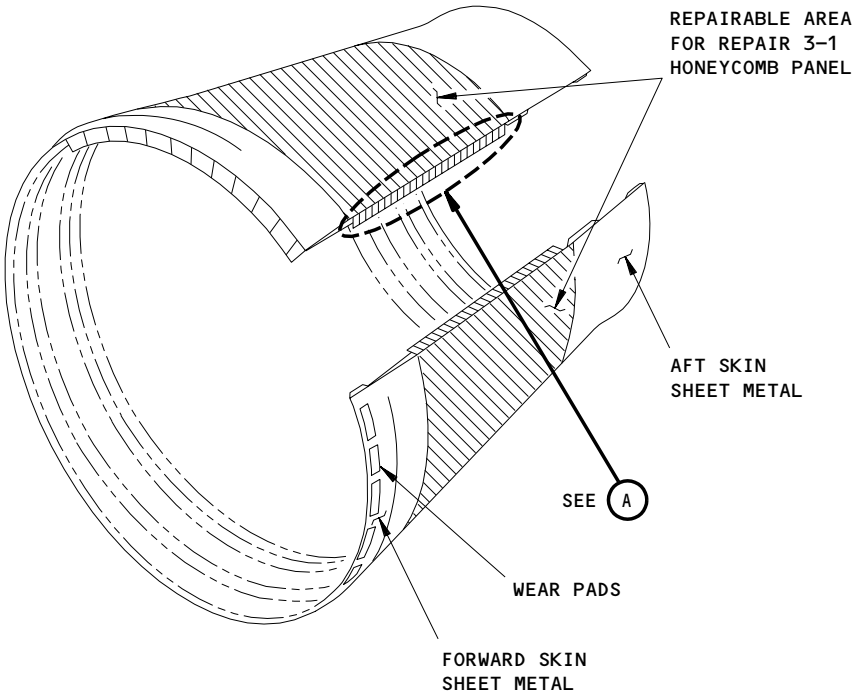
(c) Determine where the support foot on the gun should be set in order that it bottoms out on the top of a flat piece at the same time the scale reads 22 pounds.

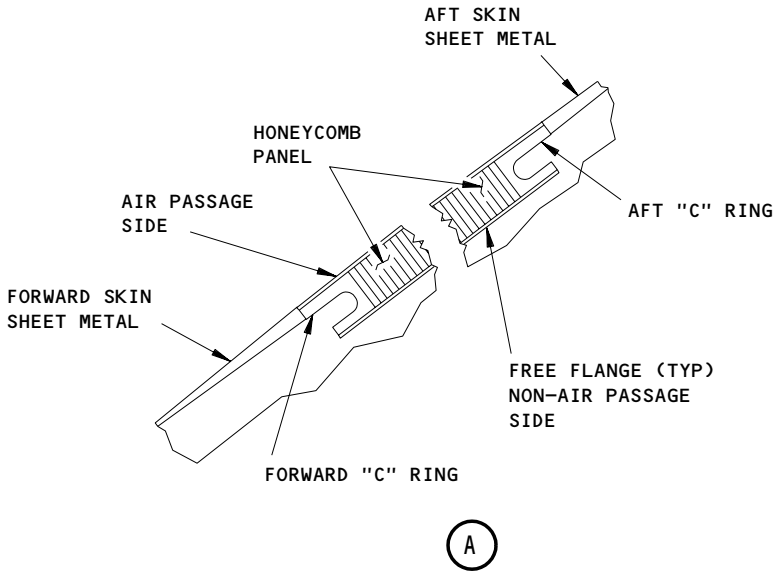
(8) Weld the studs using the foot support to ensure alignment and proper force setting.

(9) Twist off the studs to check for a weld quality. If the stud comes loose, repeat steps 4 and 5, and weld a new stud in place.

(10) Fusion weld the perforated side of the stud repair per BAC5975, Class A. Take care to minimize the heat.

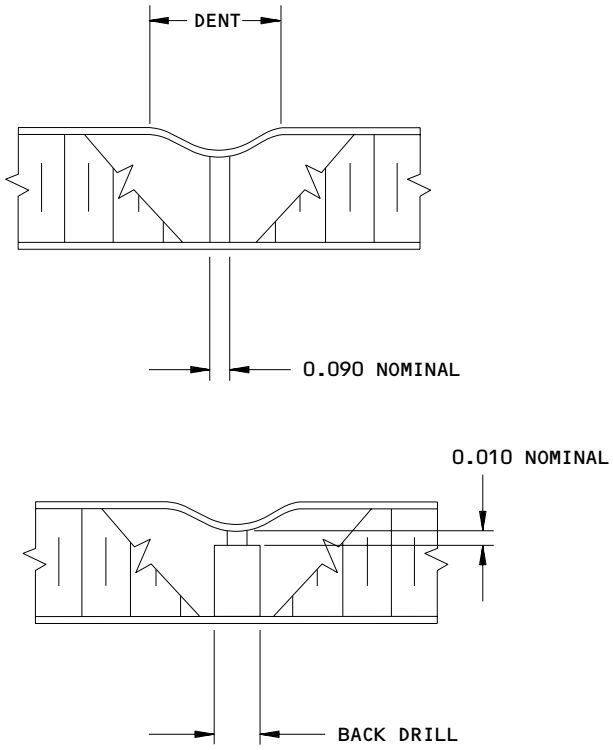
(11) Penetrant inspect per SOPM 20-20-02.





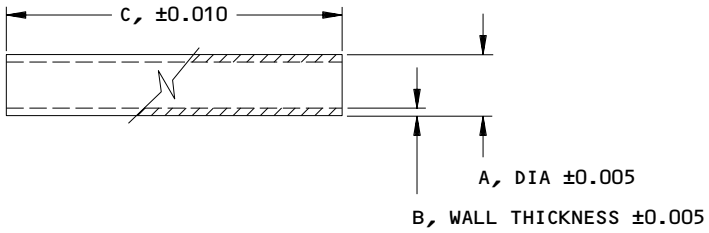
315U2100-35,-67,-79
Honeycomb Structure Repair
Figure 601

G98986



315U2100-35,-67,-79
Honeycomb Structure Repair
Figure 602 (Sheet 1)

G98996



AS90 WELD REPAIR PIN

EXPLANATION OF PART CALLOUT =

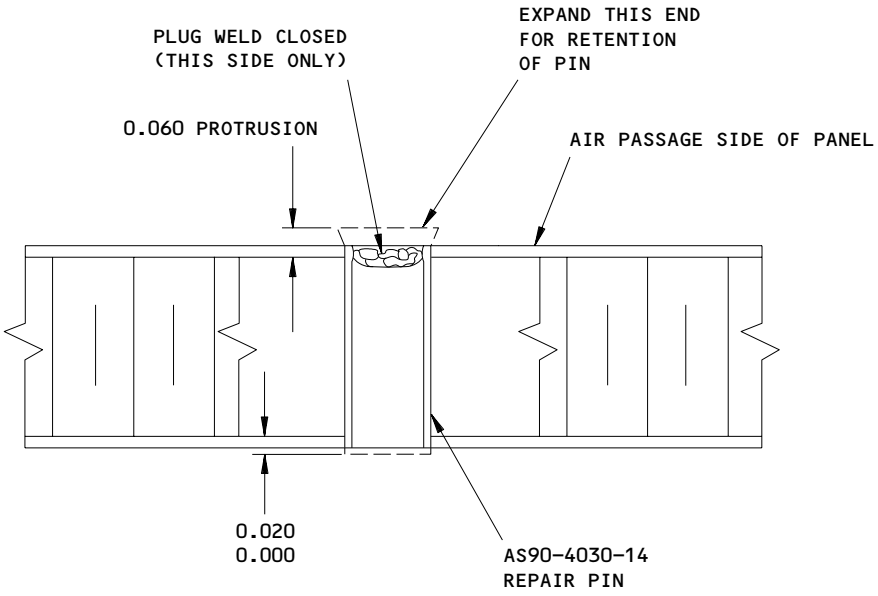
AS90-4030-14

- 14 — C, LENGTH IN 1/32 INCH INCREMENT = 7/16
- 30 — B, WALL THICKNESS IN 0.000 INCH = 0.030
- 40 — A, OUTER DIAMETER IN 1/16 INCH INCREMENT = 1/4 (0.250)
- AS90 — TUBULAR REPAIR PIN

MATERIAL: NICKEL ALLOY 625 BAR PER AMS 5666.

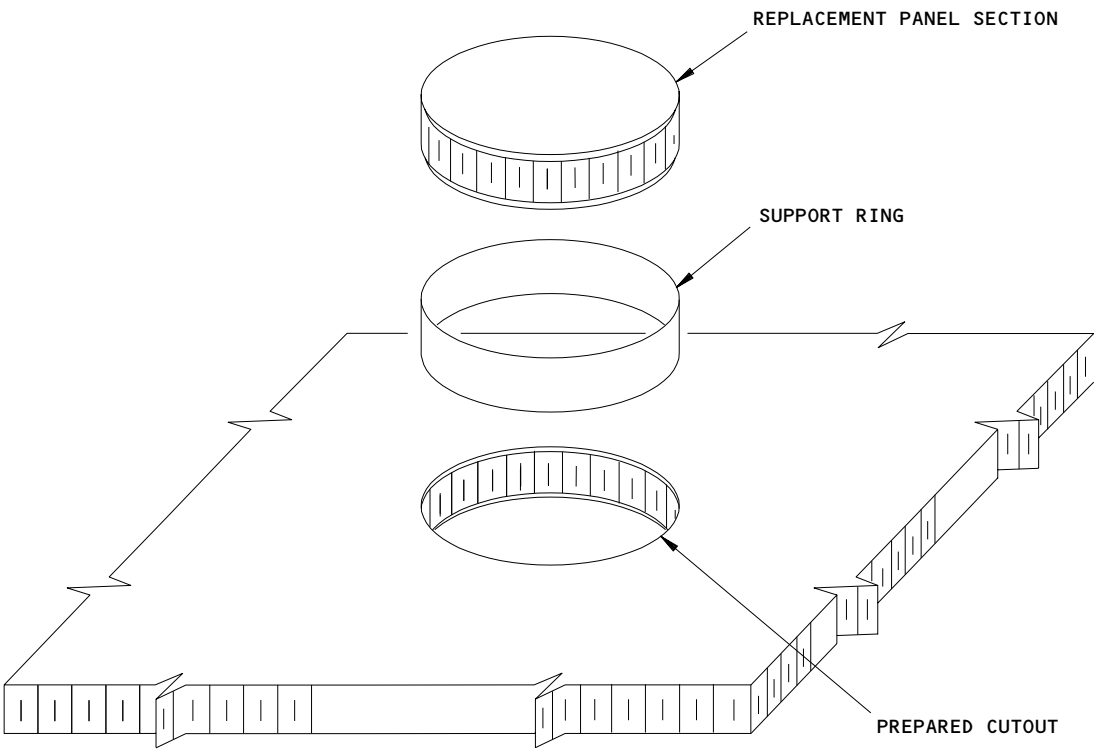
FINISH: ALL MACHINED SURFACES (INNER AND OUTER) TO A 63 MICRO INCH OR FINER FINISH.

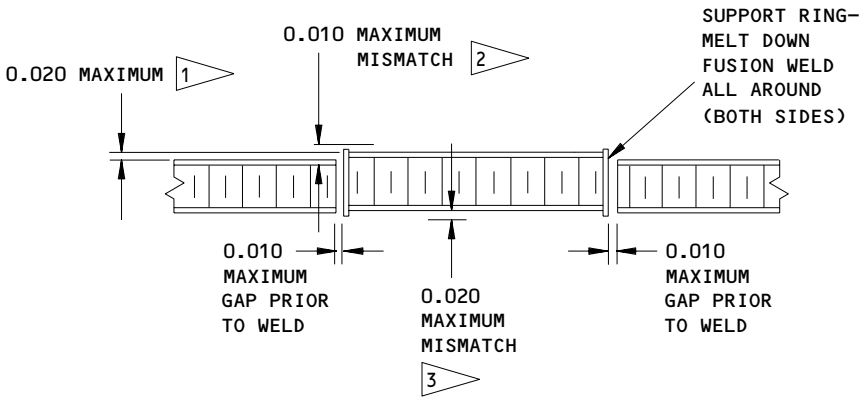
315U2100-35,-67,-79
Honeycomb Structure Repair
Figure 602 (Sheet 2)



315U2100-35,-67,-79
Honeycomb Structure Repair
Figure 602 (Sheet 3)

G99018





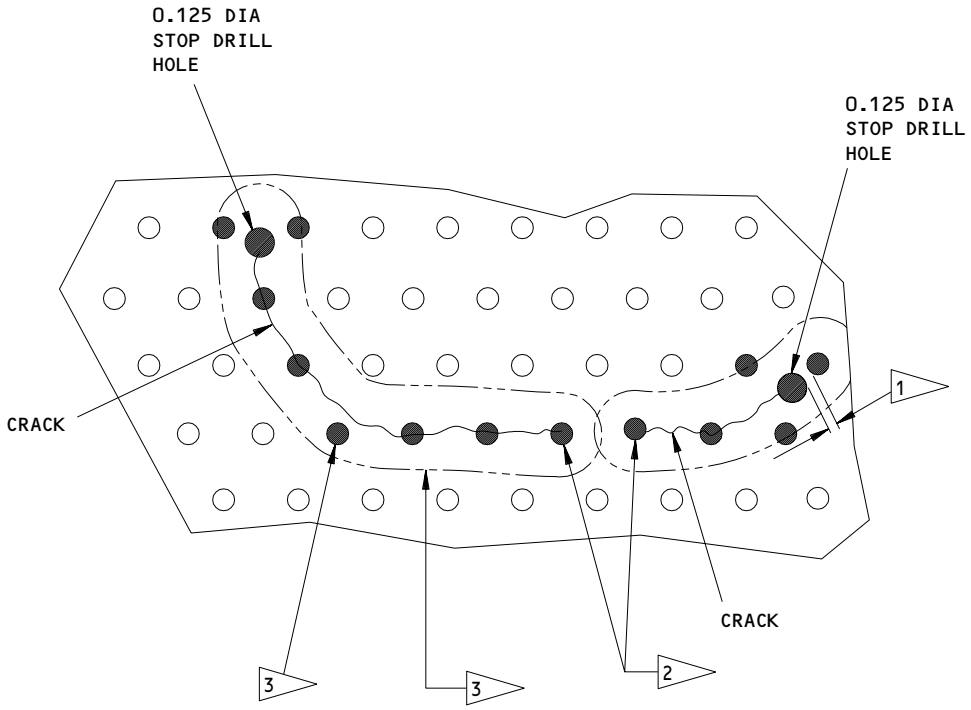
1 PROJECTION OF SUPPORT RING AFTER TRIM, PRIOR TO WELD (BOTH SIDES).

2 BETWEEN REPLACEMENT SECTION AND BASIC PANEL AFTER WELD, AIR PASSAGE SIDE ONLY – NOT APPLICABLE AT WELD EDGES.

3 BETWEEN REPLACEMENT SECTION AND BASIC PANEL PRIOR TO WELD.

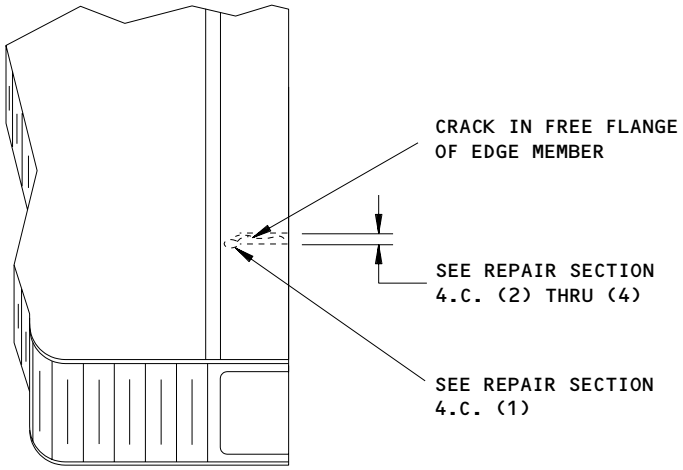
315U2100-35,-67,-79
Repair by Replacement Panel Section
Figure 603

G99064

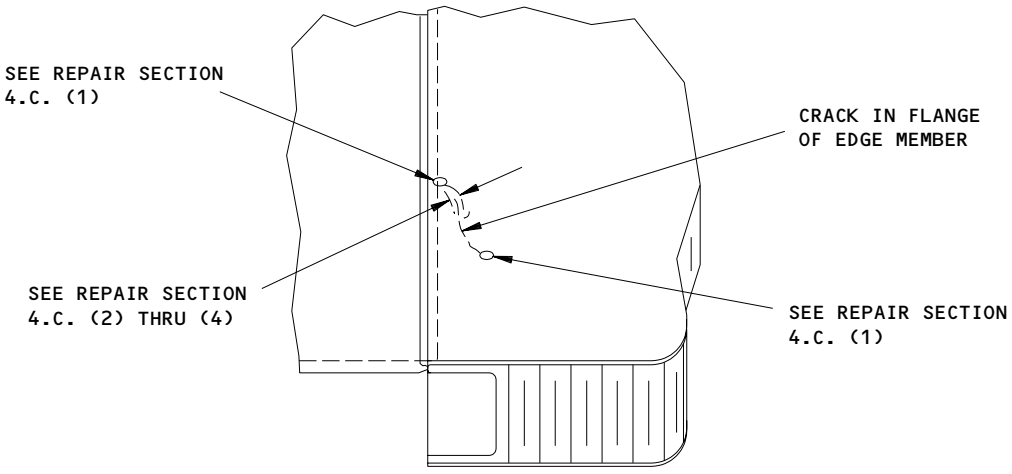


1. WHEN STOP DRILL AT THE END OF THE CRACK IS WITHIN 0.020 INCH OF A PERFORATION, RELOCATE THE STOP DRILL TO INCLUDE THE PERFORATION. THE STOP DRILL DIAMETER MAY BE INCREASED TO 0.125 INCH
2. CRACKS WHICH TERMINATE AT A PERFORATION REQUIRE A STOP DRILL OPERATION. THE STOP DRILL DIAMETER MAY BE INCREASED TO 0.125 INCH
3. PRIOR TO WELDING THE PREPARED AREA CLOSED, PLUG WELD ALL PERFORATIONS CLOSED WITHIN 0.100 INCH OF THE CRACK PER REPAIR 3-1 SECTION I.D.(5)
4. USE WELD REPAIR PROCEDURES OF SLEEVE ASSEMBLY REPAIR 1-1 SECTION B

314U2100-35,-67,-79
Weld Repair of Cracks in Perforated Face Sheet
Figure 604



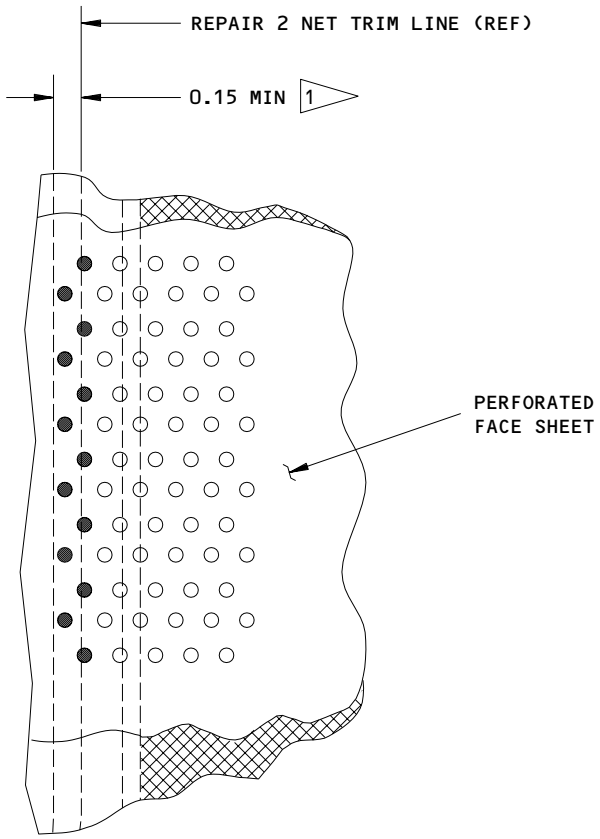
NON-AIR PASSAGE SIDE OF INSTALLED PANEL
(ROTATED 180° CCW)



AIR PASSAGE SIDE OF INSTALLED PANEL

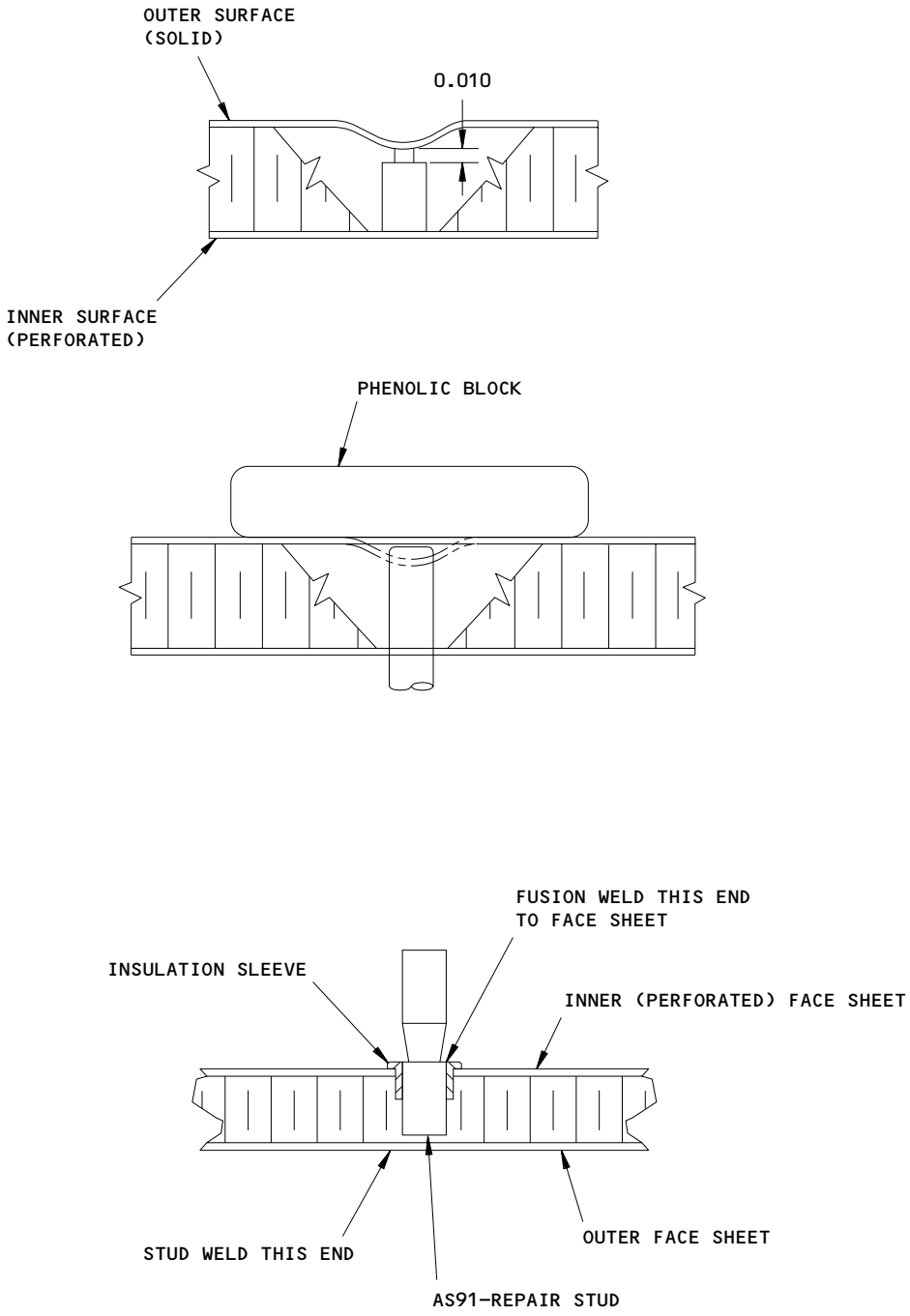
314U2100-35,-67,-79
Repair of Edge Member Cracks
Figure 605

G99097



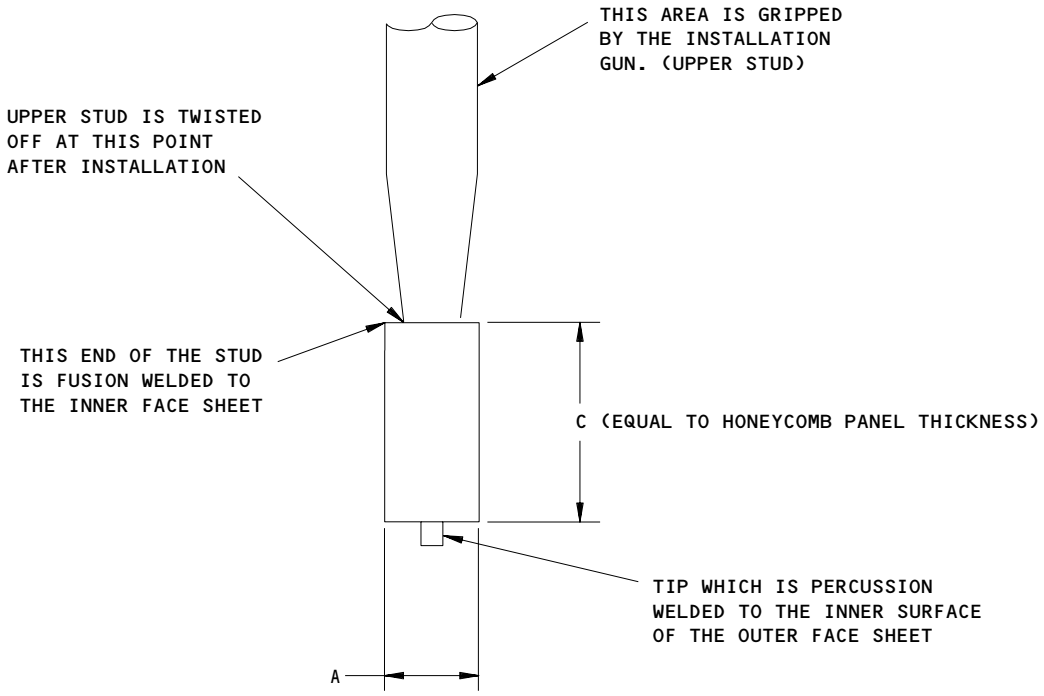
1 FOR REPAIR 2 SECTION REPLACEMENT
PLUG WELD ALL PERFORATIONS WITHIN
0.15 INCH OF TRIM

314U2100-35,-67,-79
Plug Weld Repair of Face Sheet Perforation Discrepancies
Figure 606



314U2100-35,-67,-79
Stud Repair of Dents
Figure 607 (Sheet 1)

G99173



AS91 REPAIR STUD

EXPLANATION OF PART CALLOUT =

AS91-4-9

- 9, C, LENGTH IN 1/32 INCH INCREMENT = 9/32 (0.281)
- 4, A, OUTER DIAMETER IN 1/32 INCH INCREMENT = 1/8 (0.125)
- AS91, REPAIR STUD

MATERIAL: NICKEL ALLOY 625 BAR PER AMS 5666.

FINISH: ALL MACHINED SURFACES (INNER AND OUTER) TO A 63 MICROINCH OR FINER FINISH.

314U2100-35,-67,-79
Stud Repair of Dents
Figure 607 (Sheet 2)

G99181

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.

VENDORS

06710 LAMSON AND SESSIONS CO THE VALLEY-TODECO
12975 BRADLEY AVENUE
SYLMAR, CALIFORNIA 91342-3830
FORMERLY VALLEY BOLT CORP VB0097 IN NORTH HOLLYWOOD, CA

08524 DEUTSCH FASTENER CORP SEE CODE V97928

11815 CHERRY AEROSPACE FASTENERS DIV OF TEXTRON
1224 EAST WARNER AVENUE PO BOX 2157
SANTA ANA, CALIFORNIA 92707-0157
FORMERLY IN LOS ANGELES, CALIF , FORMERLY CHERRY FASTENERS
TOWNSEND DIV OF TEXTRON INC V71087

15653 FAIRCHILD FASTENERS KAYNAR PRODUCTS DIV
800 S STATE COLLEGE BLVD
FULLERTON, CALIFORNIA 92831-3001
FORMERLY VK6405 MICRODOT AEROSP LTD; FORMERLY KAYNAR TECH
KAYNAR DIV

27238 BRISTOL INDUSTRIES
630 EAST LAMBERT ROAD PO BOX 630
BREA, CALIFORNIA 92621-4119

52828 REPUBLIC FASTENER MFG CORP
1300 RANCHO CONEJO BLVD
NEWBURY PARK, CALIFORNIA 91320-1405
FORMERLY IN SYLMAR, CALIFORNIA

56878 SPS TECHNOLOGIES INC AEROSPACE AND INDUSTRIAL PRODUCTS DIV
301 HIGHLAND AVE
JENKINTOWN, PENNSYLVANIA 19046
FORMERLY STANDARD PRESSED STEEL

60516 WEST COAST AEROSPACE INC
812 MIRAFLORES STREET
SAN PEDRO, CALIFORNIA 90731-1439

62554 SIMMONDS MECAERO FASTENERS INC
1734 SEQUOIA AVENUE
ORANGE, CALIFORNIA 92668

72962 HARVARD INDUSTRIES INC
3 WERNER WAY SUITE 210
LEBANON, NEW JERSEY 08833
FORMERLY AMERACE CORP ESNA DIV
FORMERLY ELASTIC STOP NUT IN UNION, NJ

VENDORS

73197 HI-SHEAR TECHNOLOGY CORP
2600 SKYPARK DRIVE
TORRANCE, CALIFORNIA 90509

80539 SPS TECHNOLOGIES INC AEROSPACE PRODUCTS DIV
2701 SOUTH HARBOR BOULEVARD PO BOX 1259
SANTA ANA, CALIFORNIA 92702-1259
FORMERLY NUTT-SHEL DIV OF SPC WESTERN CO V80539
AND STANDARD PRESSED STEEL WESTERN DIV V17279

92215 FAIRCHILD IND INC FAIRCHILD AEROSPACE FASTENER DIV
3010 W LOMITA BLVD
TORRANCE, CALIFORNIA 90505-5102
FORMERLY VOI-SHAN IN CULVER CITY, CALIF

97928 SEE V17446 HUCK INTL
SEE V17446 HUCK INTL
HUCK INTL SEE V17446 HUCK INTL

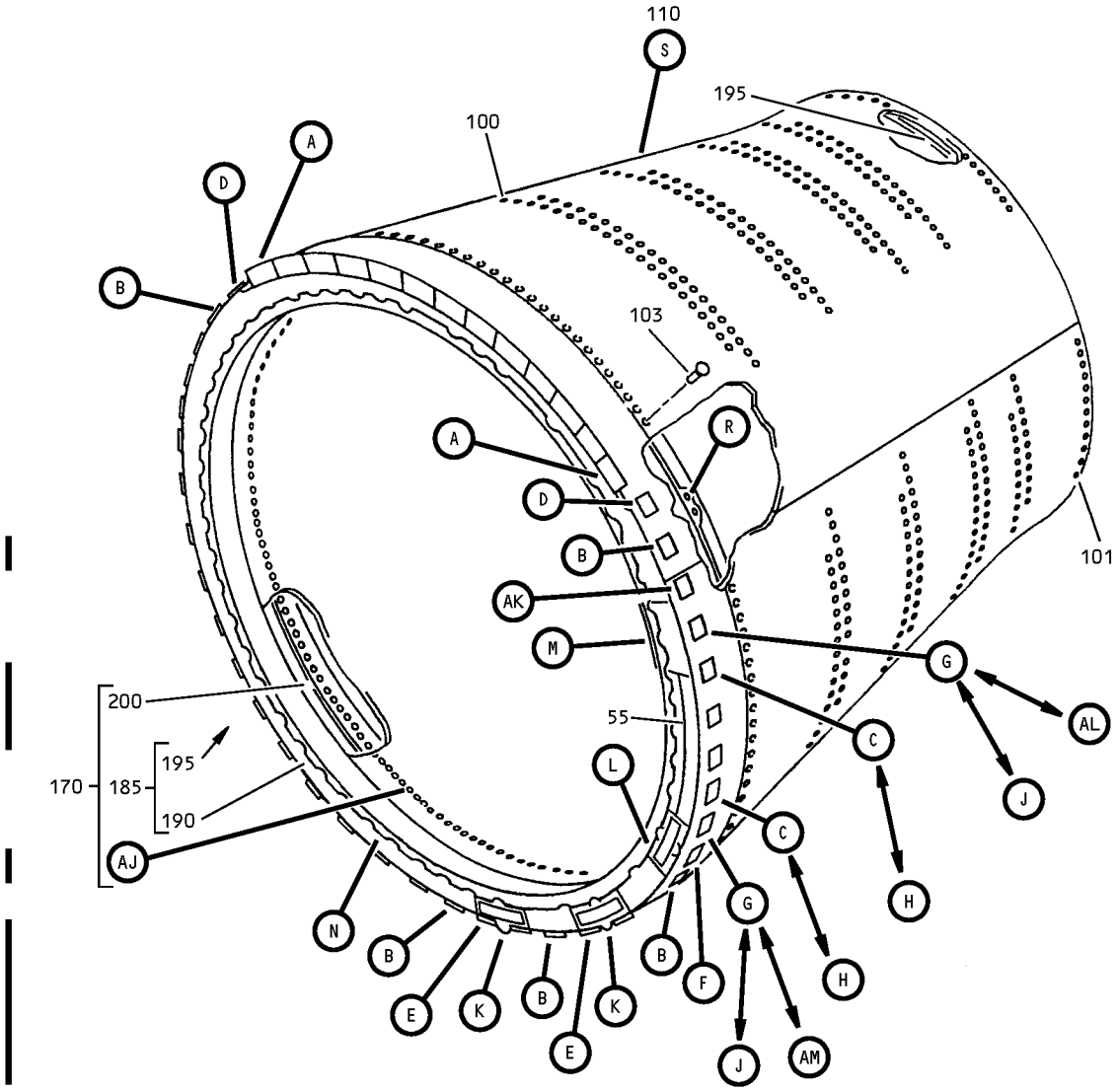
PART NUMBER	AIRLINE PART NO.	FIG.	ITEM	TTL REQ
BACB30FN5A25U		1	175A	152
BACB30LK3U1		1	95	110
BACB30LK3U2		1	5	39
BACC30B5S		1	180A	152
BACN10HR4C		1	80	60
BACN10JN3C		1	39M	12
		1	50	36
		1	70	18
		1	159	44
		1	163	44
BACN10JR3CF		1	149	2
		1	150	88
		1	151	110
		1	152	10
BACR10AJ4C		1	85A	50
BACR10AK4C		1	90	10
BACR15CE5M		1	100	999
		1	101	152
		1	103	172
BACR15CE5M6		1	101A	152
BACR15CE6AD		1	37	10
BACR15CE6M		1	31	1
		1	32A	5
		1	33C	1
		1	37B	11
		1	105	36
		1	156	44
BACR15DS7D4		1	38	14
BH00304-4		1	80	60
BMN10HRC4		1	80	60
BMN5024C4		1	80	60
BRFM20C3		1	39M	12
		1	50	36
		1	70	18
		1	159	44
		1	163	44
BRF200C3		1	149	2
		1	150	88
		1	151	110
		1	152	10
BRR1500-4C		1	90	10
BRR25004C		1	85A	50
CR59074		1	80	60
F5031-3BAC		1	149	2
		1	150	88
		1	151	110
		1	152	10

PART NUMBER	AIRLINE PART NO.	FIG.	ITEM	TTL REQ
F52481-4		1	90	10
F52483-4		1	85A	50
HL41-5-25		1	175A	152
HL657-5-2		1	175	152
HL88TB5		1	180	152
H97-4		1	80	60
H974		1	80	60
MF1031-3BAC		1	39M	12
		1	50	36
		1	70	18
		1	159	44
		1	163	44
MF53050-3		1	39M	12
		1	50	36
		1	70	18
		1	159	44
		1	163	44
MS20427M3		1	39	24
		1	45	72
		1	65	36
		1	75	120
		1	144	4
		1	145	176
		1	146	220
		1	147	20
		1	162	88
MS20427M3-3		1	148A	20
		1	158A	88
NS103203S02		1	149	2
		1	150	88
		1	151	110
		1	152	10
NS103218S02		1	39M	12
		1	50	36
		1	70	18
NS103218S02		1	159	44
		1	163	44
NS202742S4		1	85A	50
NS202743S4		1	90	10
SL7060C428		1	80	60
SL70604		1	80	60
T8093C1032		1	149	2
		1	150	88
		1	151	110
		1	152	10

PART NUMBER	AIRLINE PART NO.	FIG.	ITEM	TTL REQ
T8126C3C		1	39M	12
		1	50	36
		1	70	18
		1	159	44
		1	163	44
VAL280024		1	80	60
VN152B1-02		1	149	2
		1	150	88
		1	151	110
		1	152	10
VN252B02		1	39M	12
		1	50	36
		1	70	18
		1	159	44
		1	163	44
015T0805-10		1	1W	RF
015U1547-111		1	2	RF
015U1547-112		1	2D	RF
015U1547-27		1	1L	RF
015U1547-271		1	2A	RF
015U1547-272		1	2E	RF
015U1547-31		1	1M	RF
015U1547-311		1	2B	RF
015U1547-312		1	2F	RF
015U1547-43		1	1N	RF
015U1547-431		1	2C	RF
015U1547-432		1	2G	RF
015U1547-46		1	1P	RF
015U1547-47		1	1Q	RF
101F9201-3		1	149	2
		1	150	88
		1	151	110
		1	152	10
101F9201M3		1	39M	12
		1	50	36
		1	70	18
		1	159	44
		1	163	44
101LH9031-4		1	80	60
122578-5-4		1	183A	152
123423-3-2		1	34	2
		1	35	49
		1	36	10
		1	42	36
		1	62	18
		1	157	44

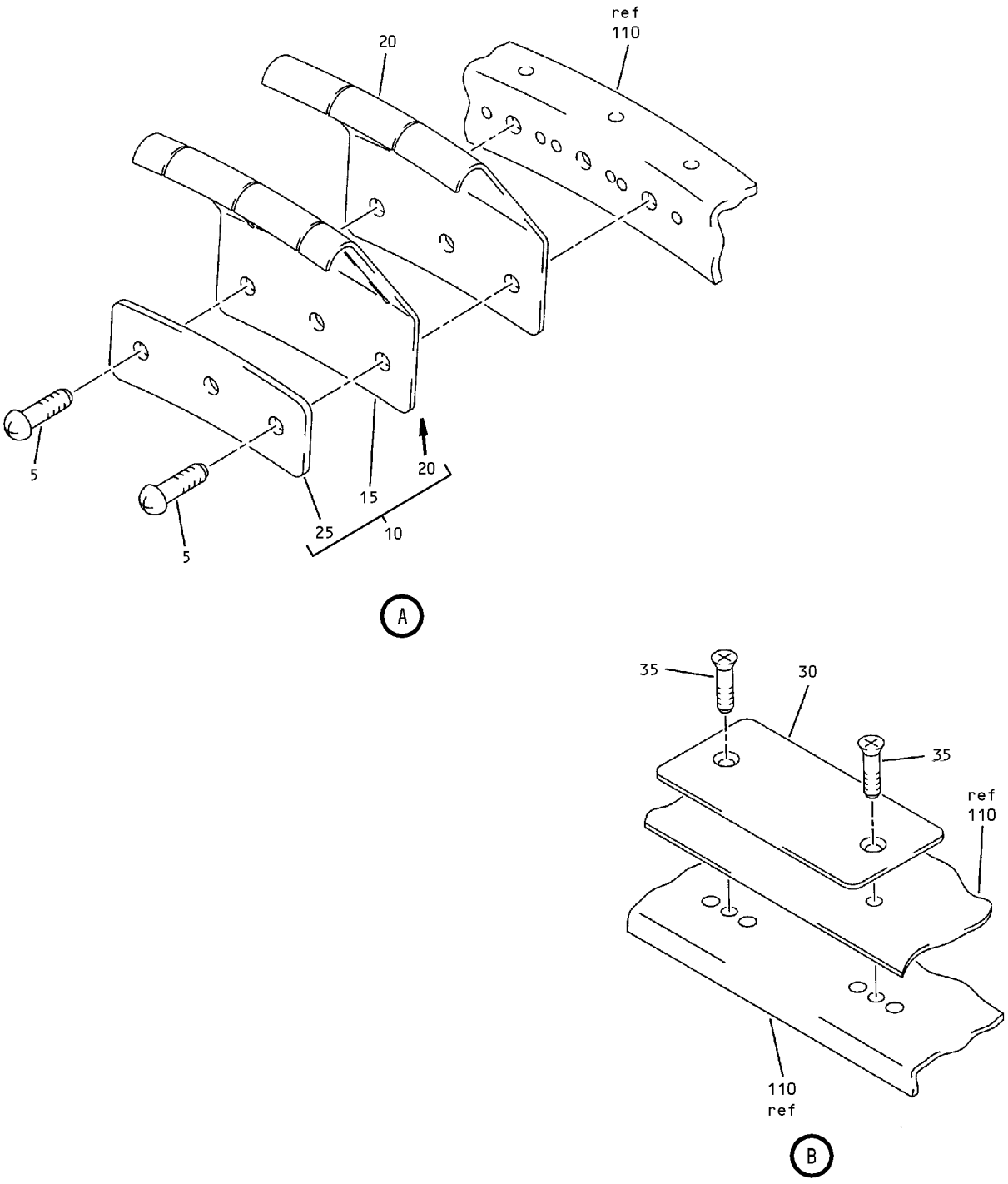
PART NUMBER	AIRLINE PART NO.	FIG.	ITEM	TTL REQ
314U2100-1		1	1	RF
314U2100-10		1	140	1
314U2100-11		1	120	1
314U2100-12		1	125	1
314U2100-13		1	130	1
314U2100-14		1	135	1
314U2100-15		1	10	13
314U2100-18		1	25	13
314U2100-19		1	15	13
314U2100-2		1	110	1
314U2100-20		1	20	13
314U2100-21		1	160	1
		1	164	1
314U2100-23		1	120A	1
314U2100-24		1	125A	1
314U2100-25		1	130A	1
314U2100-26		1	135A	1
314U2100-27		1	1A	RF
314U2100-28		1	110A	1
314U2100-29		1	115A	1
314U2100-3		1	170	1
314U2100-31		1	1C	RF
314U2100-32		1	110B	1
314U2100-33		1	116	1
314U2100-35		1	119	1
314U2100-39		1	117	1
314U2100-4		1	115	1
314U2100-41		1	118	1
314U2100-43		1	1D	RF
314U2100-44		1	110C	1
314U2100-45		1	161	1
314U2100-46		1	1E	RF
314U2100-47		1	1F	RF
314U2100-48		1	110D	1
314U2100-49		1	165A	1
314U2100-5		1	185	1
314U2100-53		1	1G	RF
314U2100-54		1	110E	1
314U2100-55		1	140B	1
314U2100-57		1	1H	RF
314U2100-58		1	110F	1
314U2100-59		1	116A	1
314U2100-6		1	200	1
314U2100-63		1	172	152
314U2100-64		1	172A	152

PART NUMBER	AIRLINE PART NO.	FIG.	ITEM	TTL REQ
314U2100-67		1	119A	1
314U2100-69		1	110G	1
314U2100-7		1	165	1
314U2100-70		1	1J	RF
314U2100-71		1	2H	RF
314U2100-72		1	1Z	RF
314U2100-74		1	117B	1
314U2100-75		1	118B	1
314U2100-78		1	165C	1
314U2100-79		1	119B	1
314U2100-80		1	110K	1
314U2100-81		1	116C	1
314U2100-82		1	2J	RF
314U2101-1		1	190	1
314U2101-2		1	190A	1
314U2102-1		1	195	1
314U2102-2		1	195A	1
314U2103-1		1	40	2
314U2106-1		1	30	34
314U2106-2		1	30A	34
314U2106-3		1	30B	34
314U2106-4		1	30C	34
314U2106-5		1	30L	34
314U2106-6		1	30R	34
314U2106-7		1	30S	34
314U2107-1		1	60	1
314U2109-1		1	55	1
67068-5A25U		1	175A	152
67832A4		1	80	60
67832A428		1	80	60



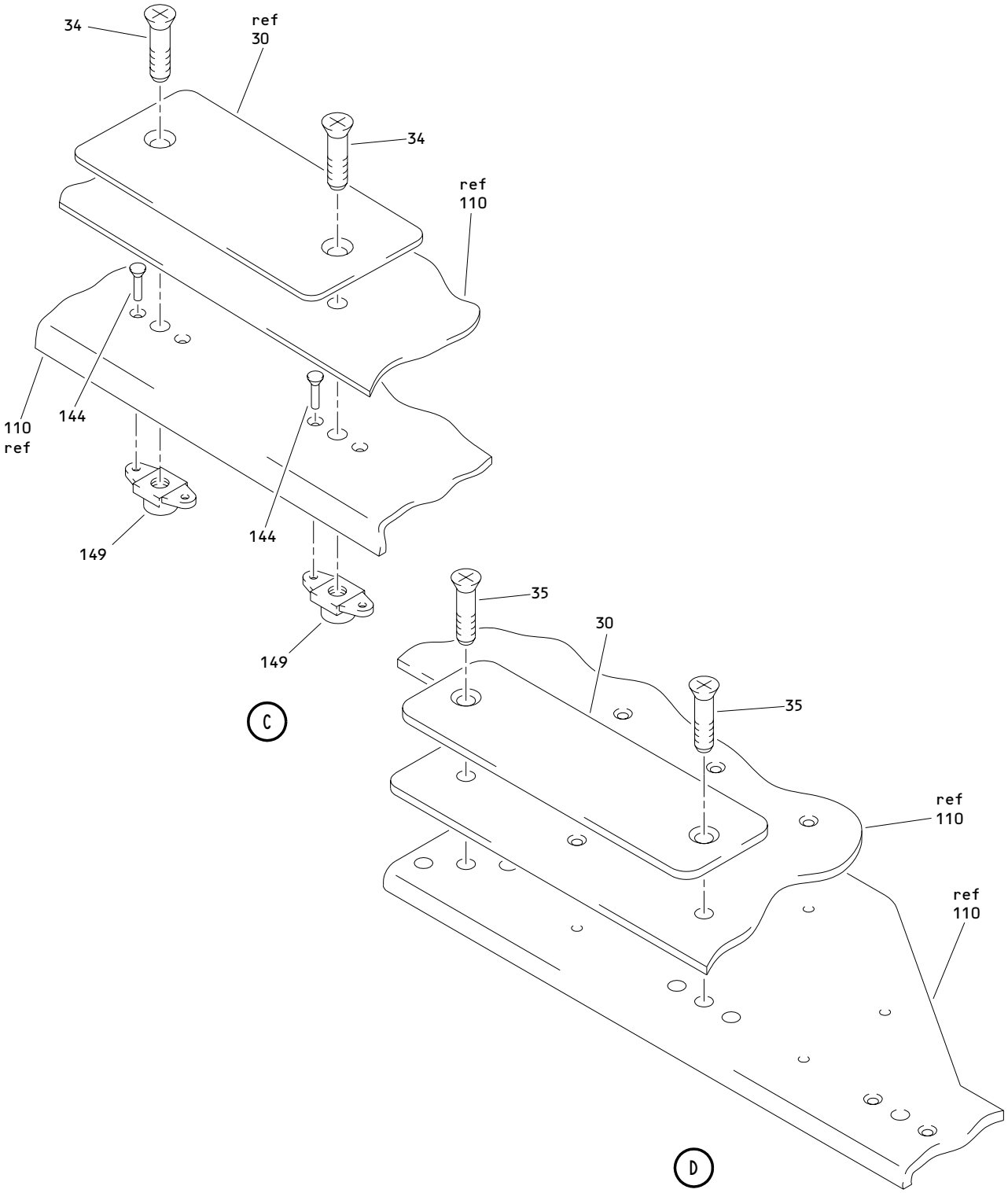
CF6-80C2 Engine Primary Nozzle Assembly
Figure 1 (Sheet 1)

U20677



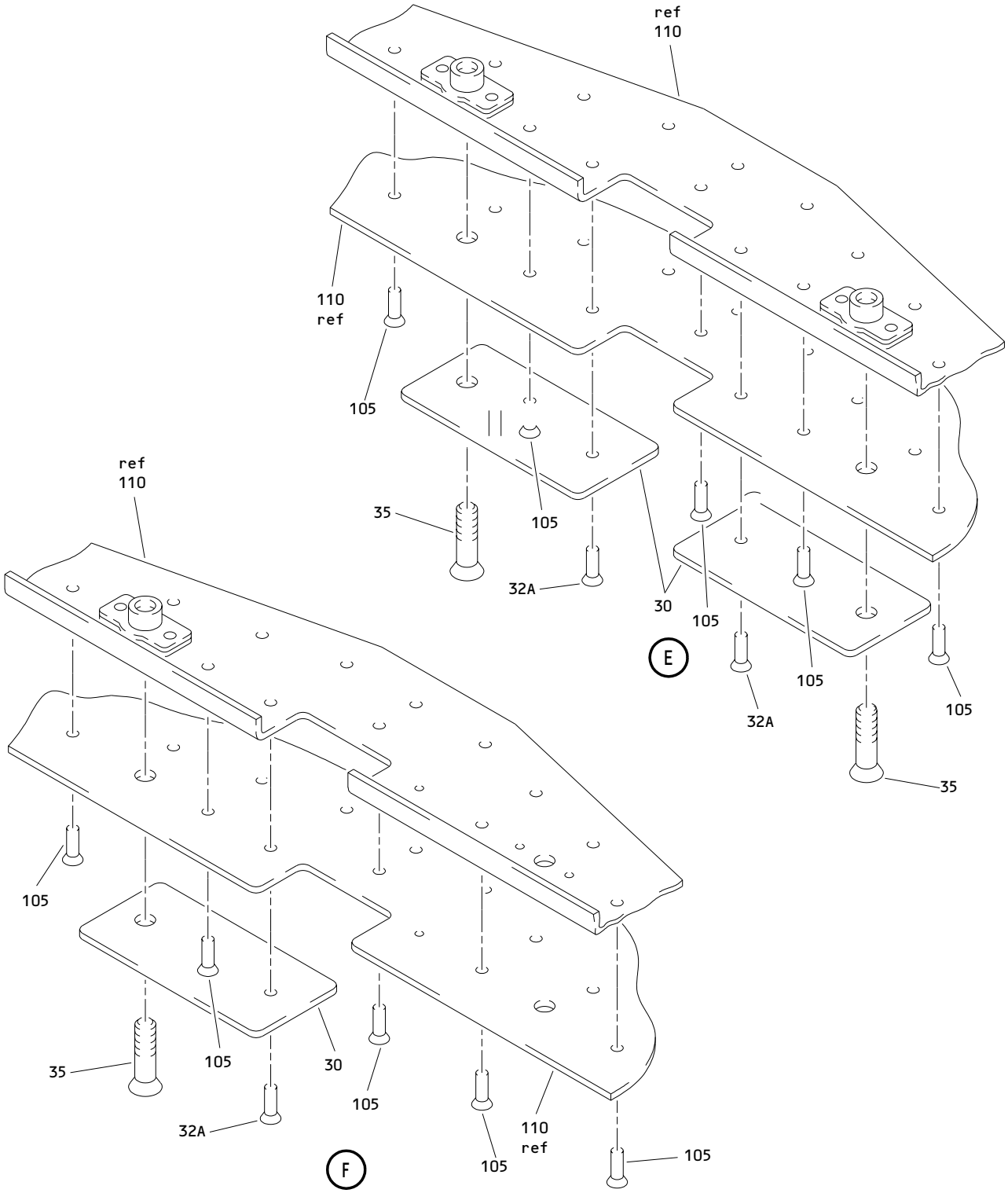
CF6-80C2 Engine Primary Nozzle Assembly
Figure 1 (Sheet 2)

U20820

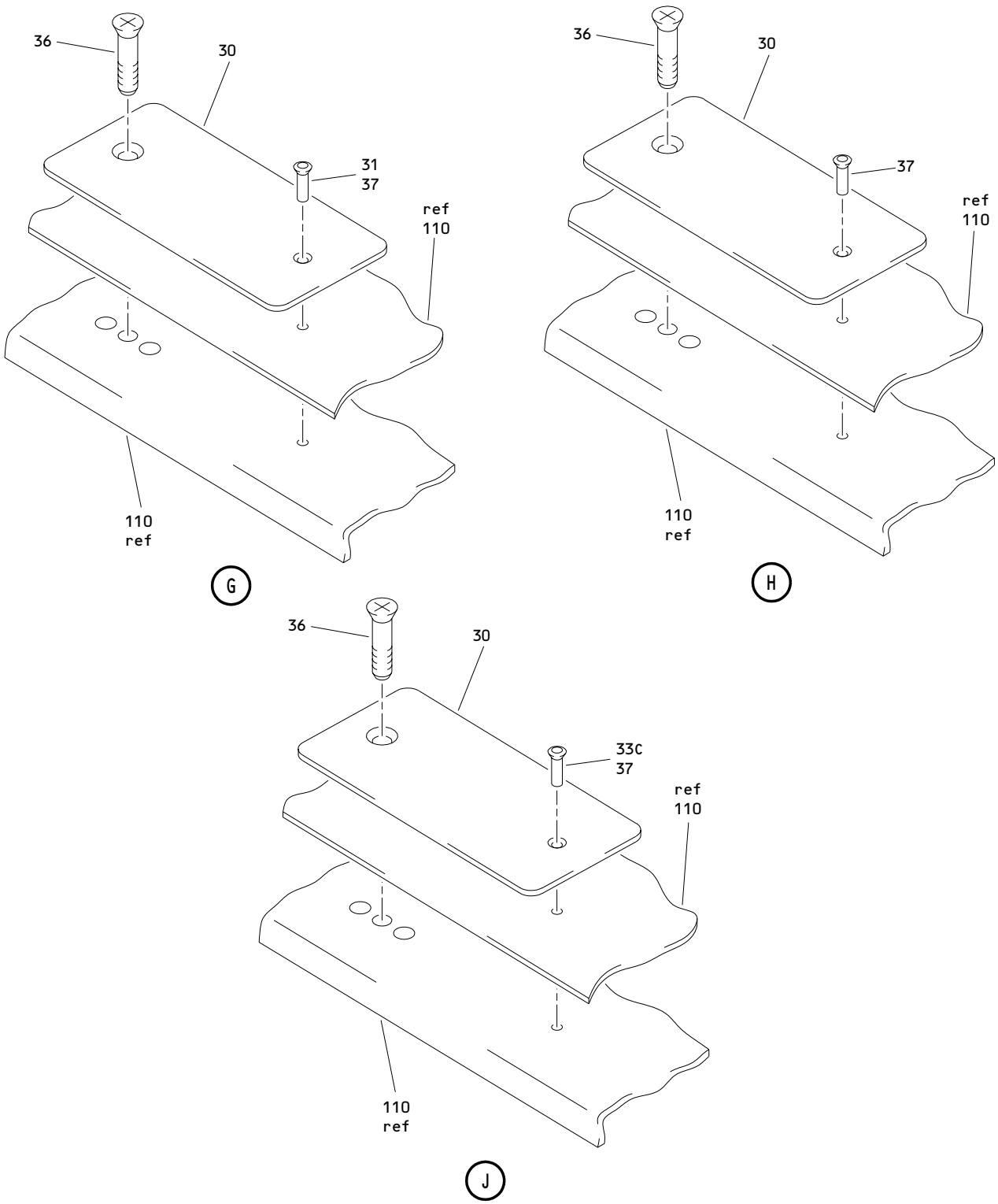


CF6-80C2 Engine Primary Nozzle Assembly
Figure 1 (Sheet 3)

U20821

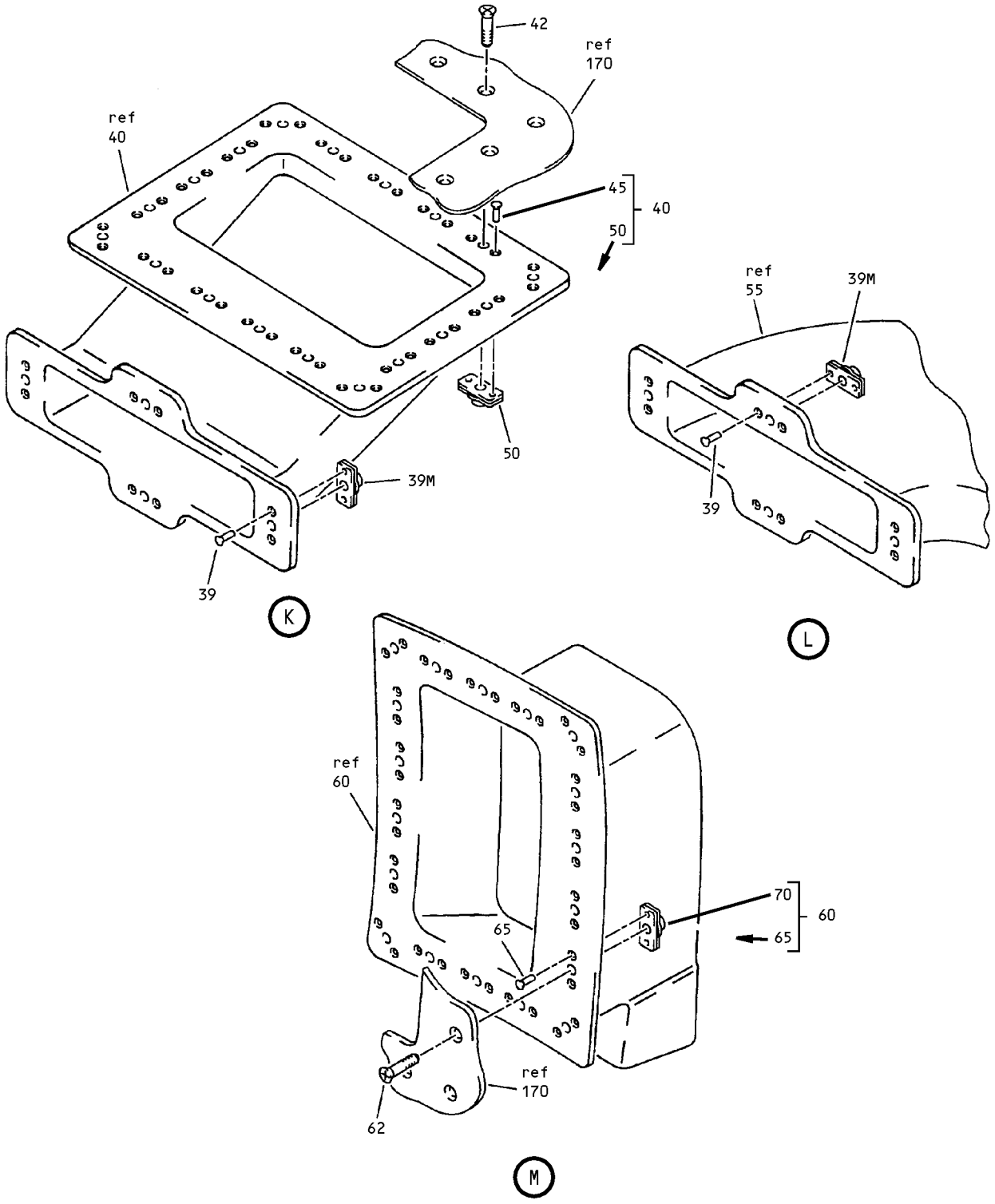


CF6-80C2 Engine Primary Nozzle Assembly
Figure 1 (Sheet 4)



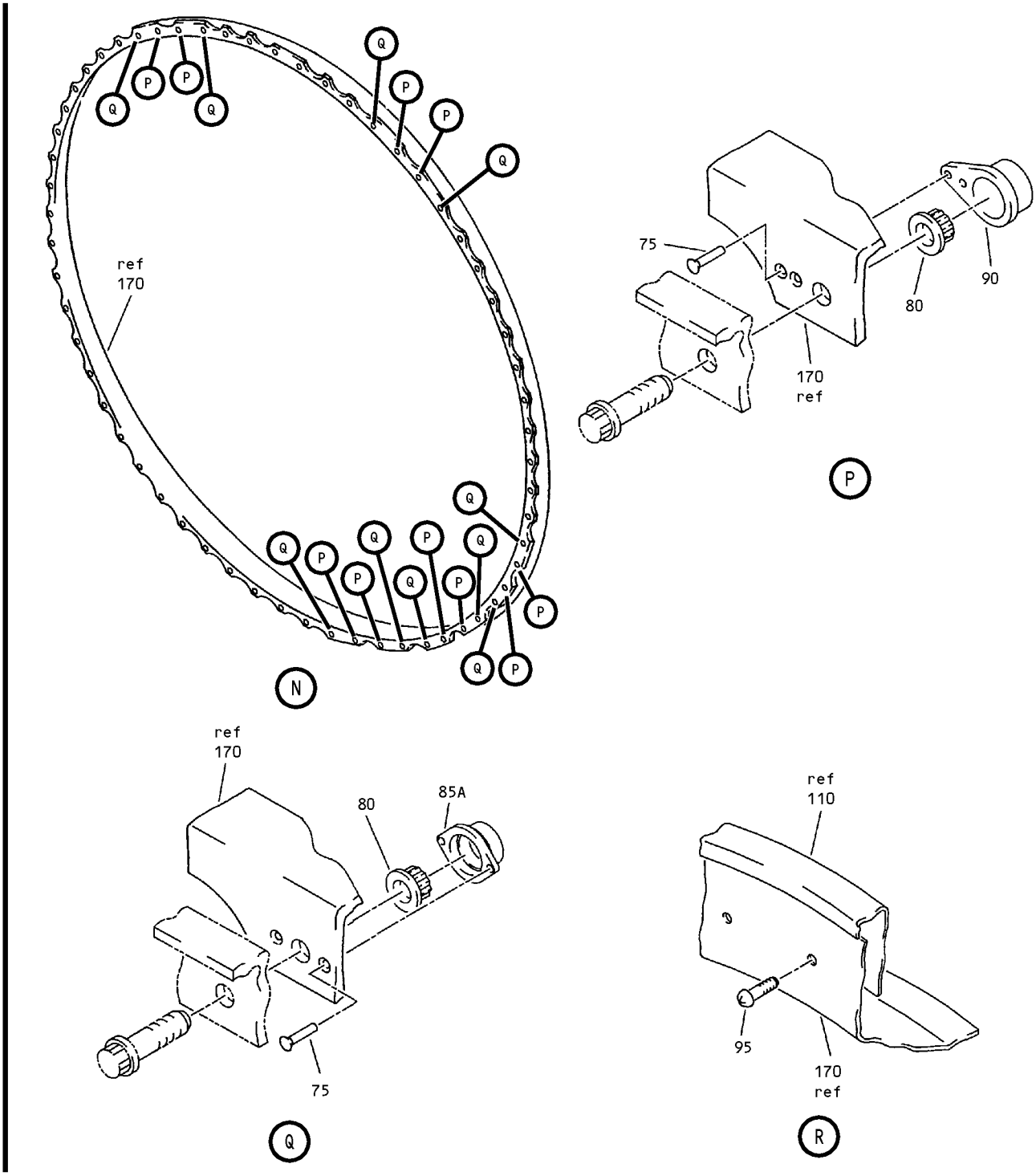
CF6-80C2 Engine Primary Nozzle Assembly
Figure 1 (Sheet 5)

U20681



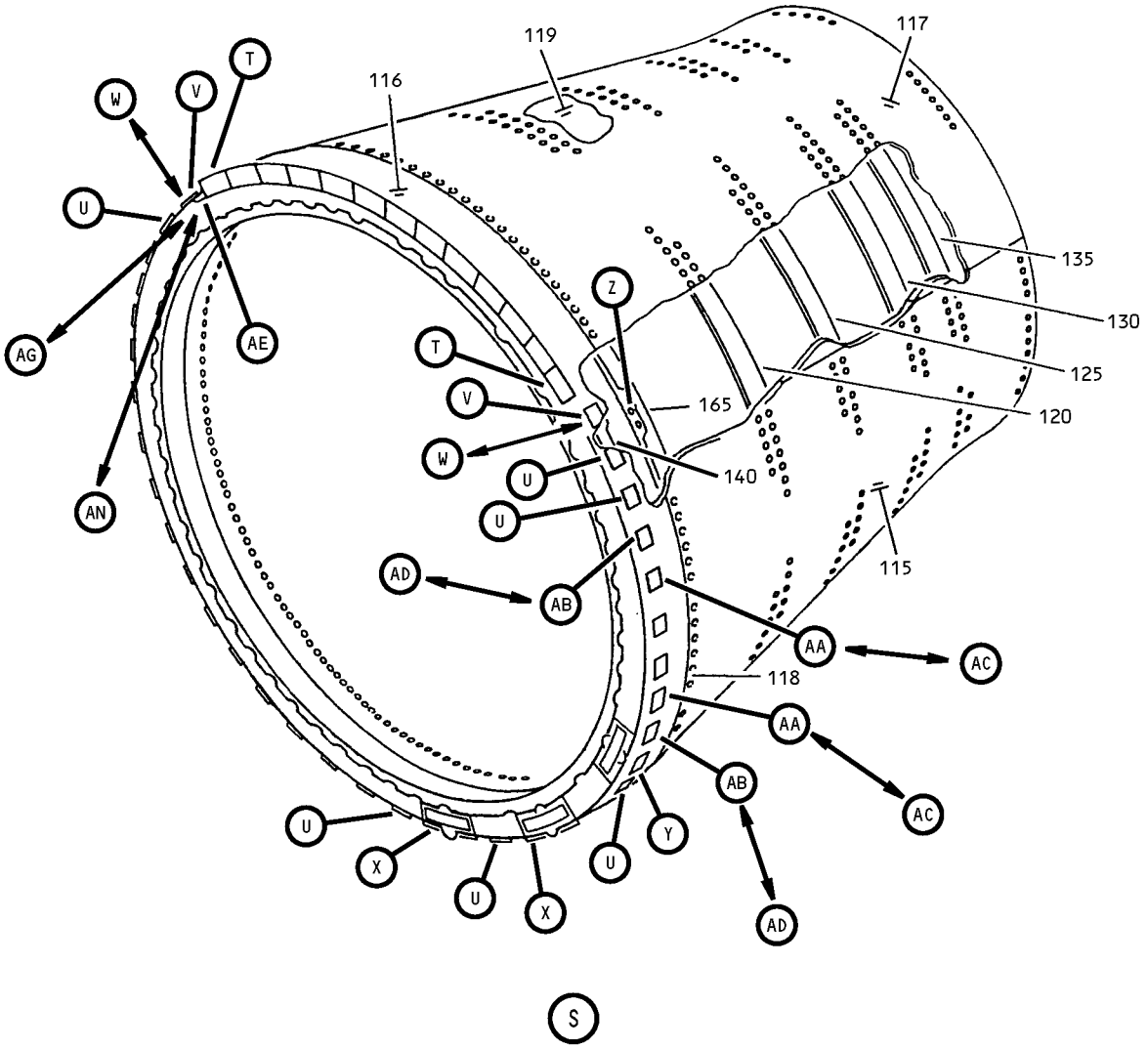
CF6-80C2 Engine Primary Nozzle Assembly
Figure 1 (Sheet 6)

U20682



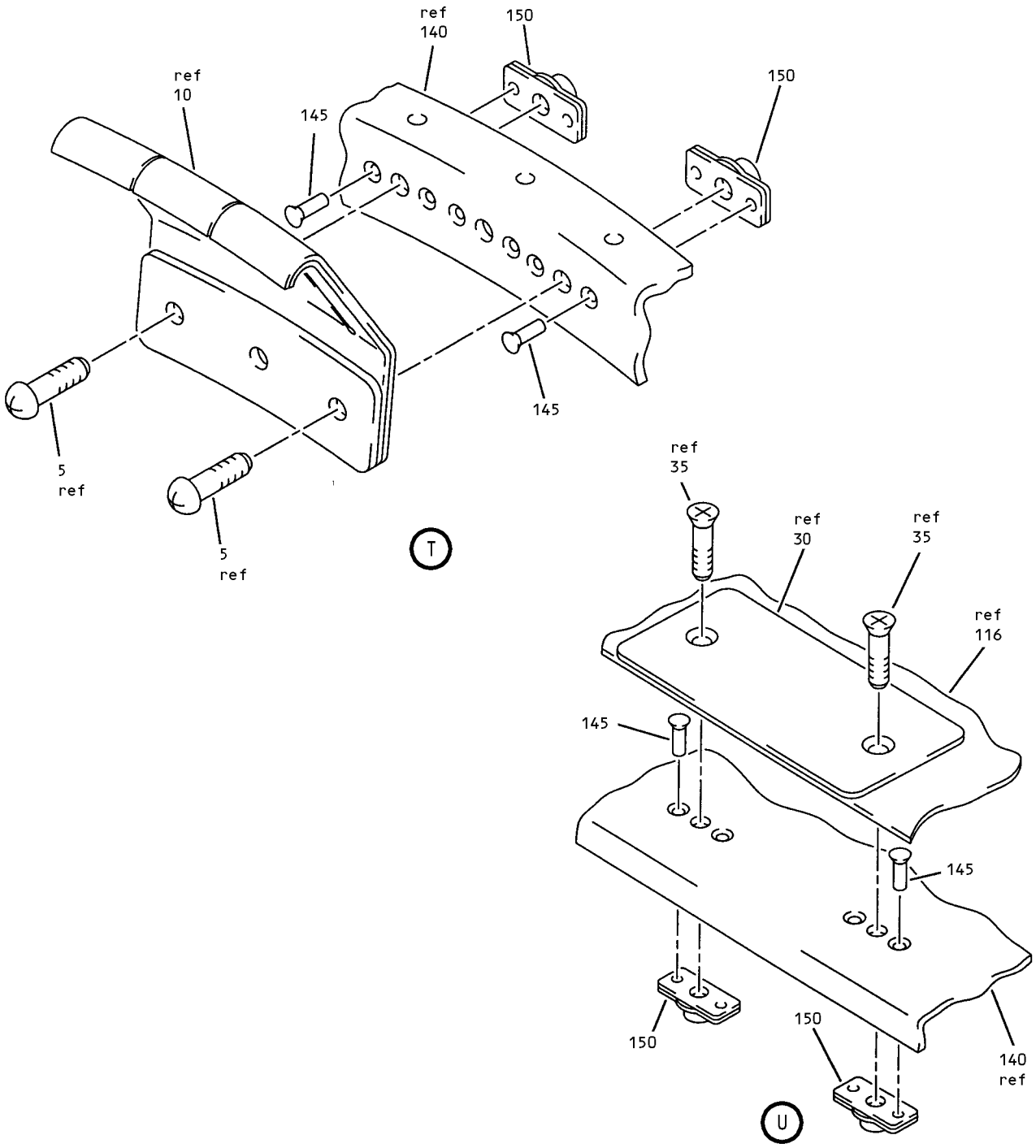
CF6-80C2 Engine Primary Nozzle Assembly
Figure 1 (Sheet 7)

L06965



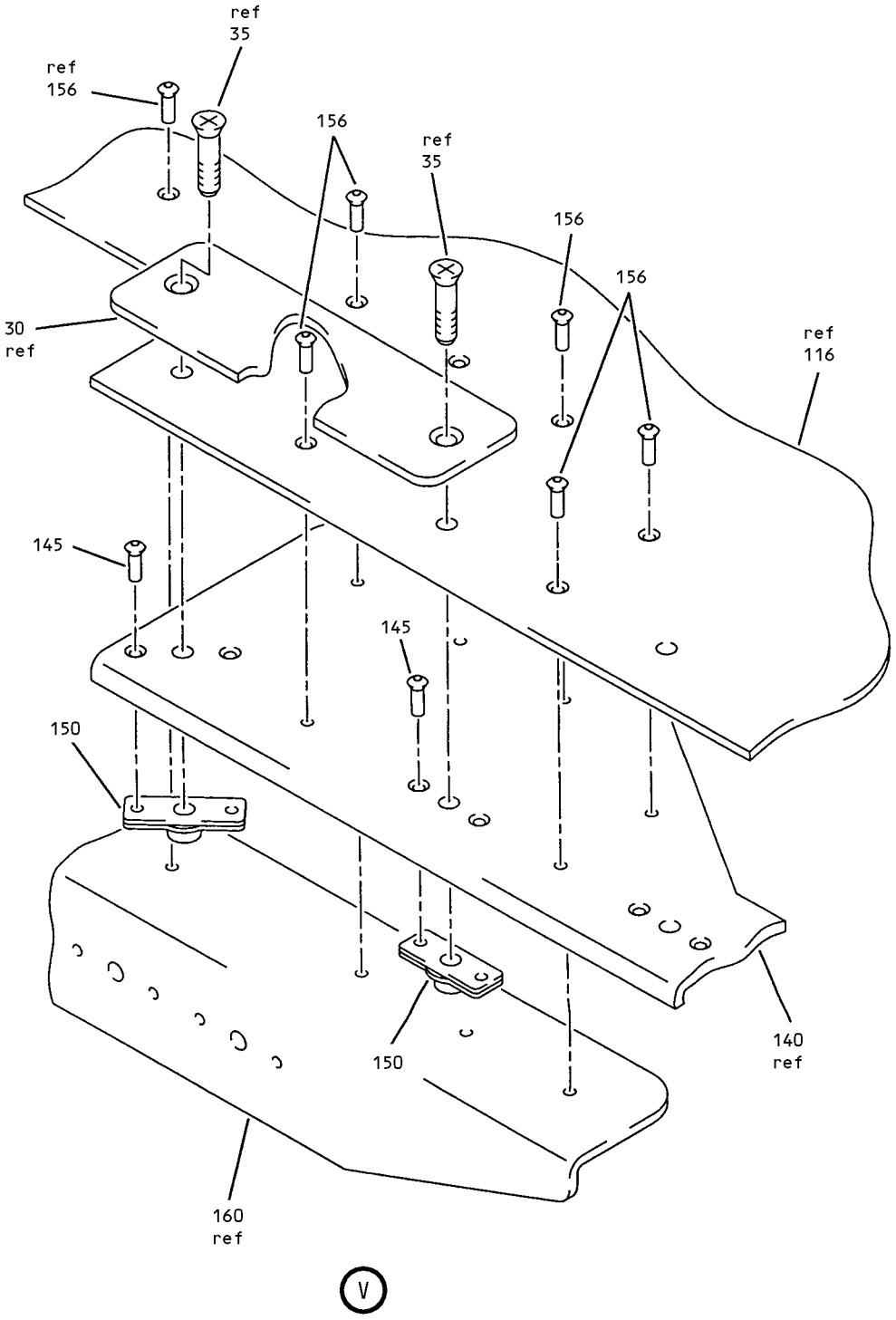
CF6-80C2 Engine Primary Nozzle Assembly
Figure 1 (Sheet 8)

L06981



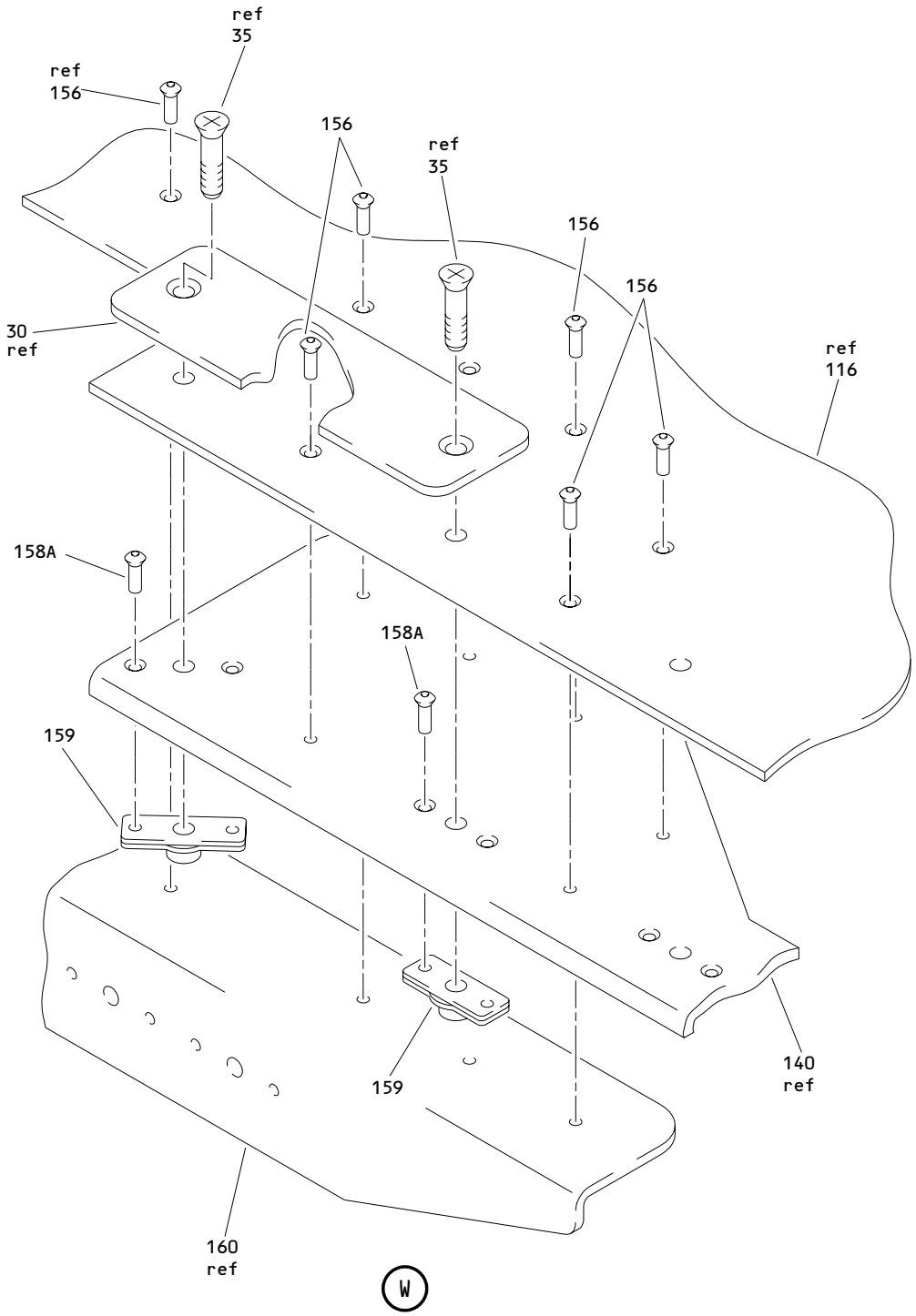
CF6-80C2 Engine Primary Nozzle Assembly
Figure 1 (Sheet 9)

L06991

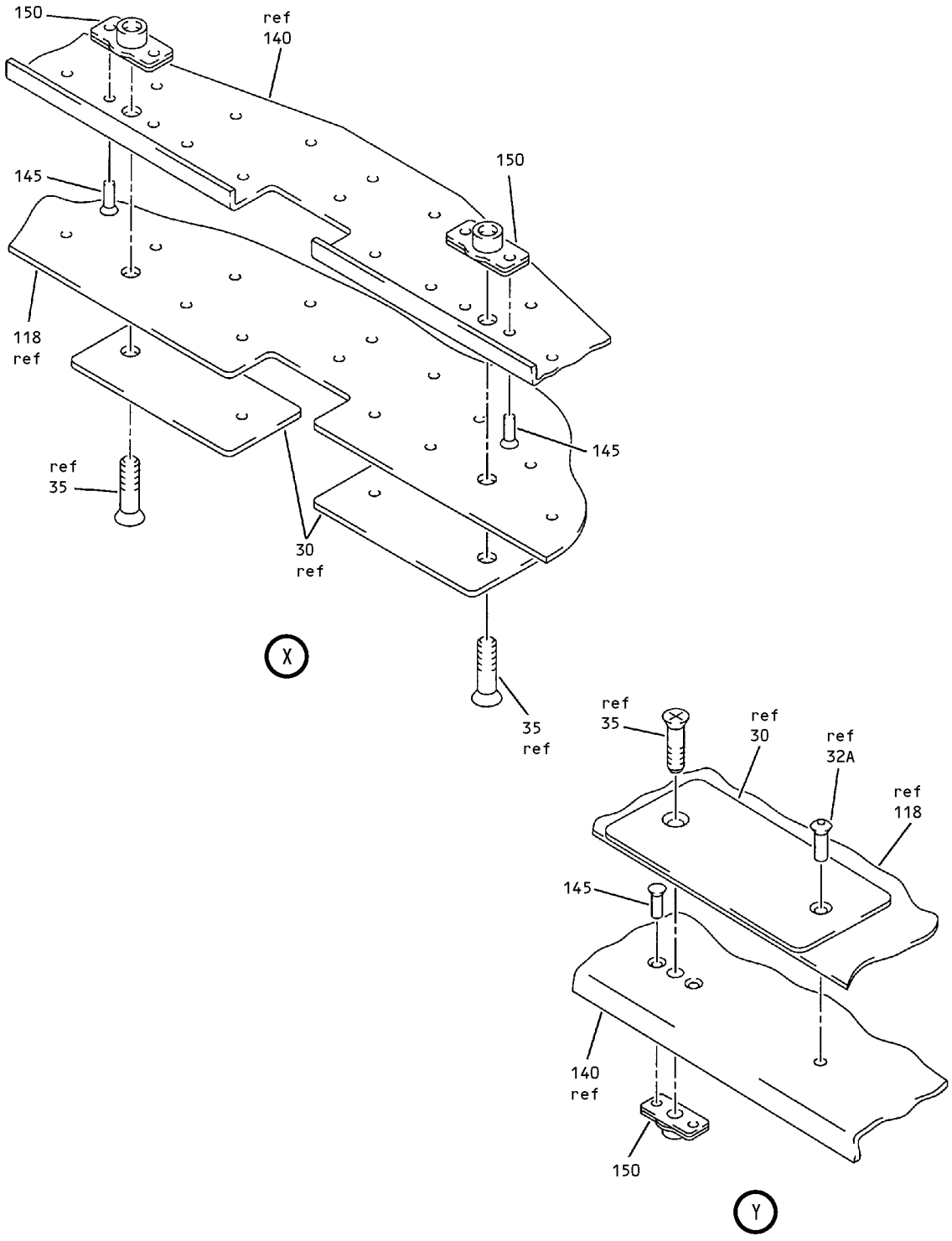


CF6-80C2 Engine Primary Nozzle Assembly
Figure 1 (Sheet 10)

M02578

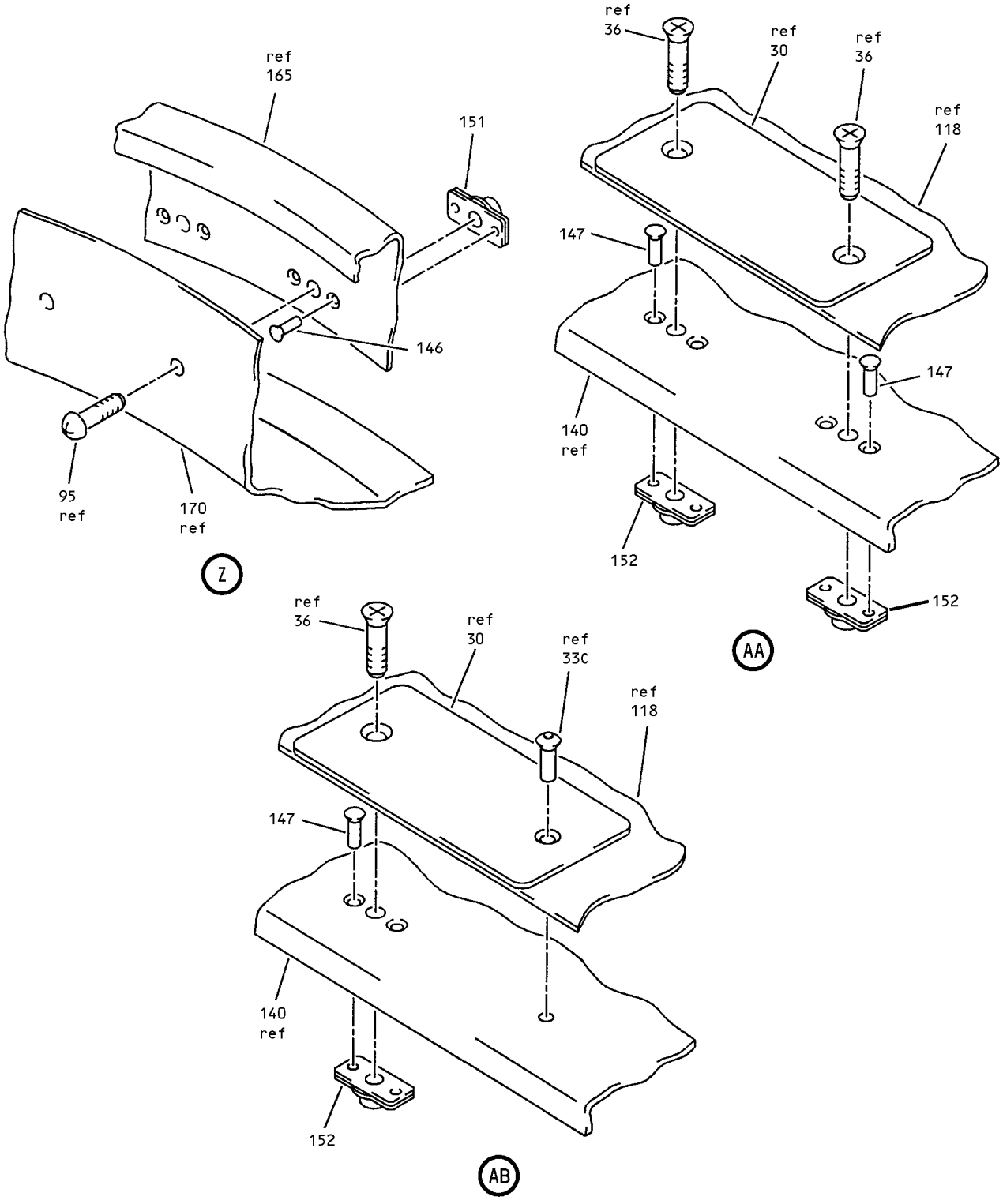


CF6-80C2 Engine Primary Nozzle Assembly
Figure 1 (Sheet 11)



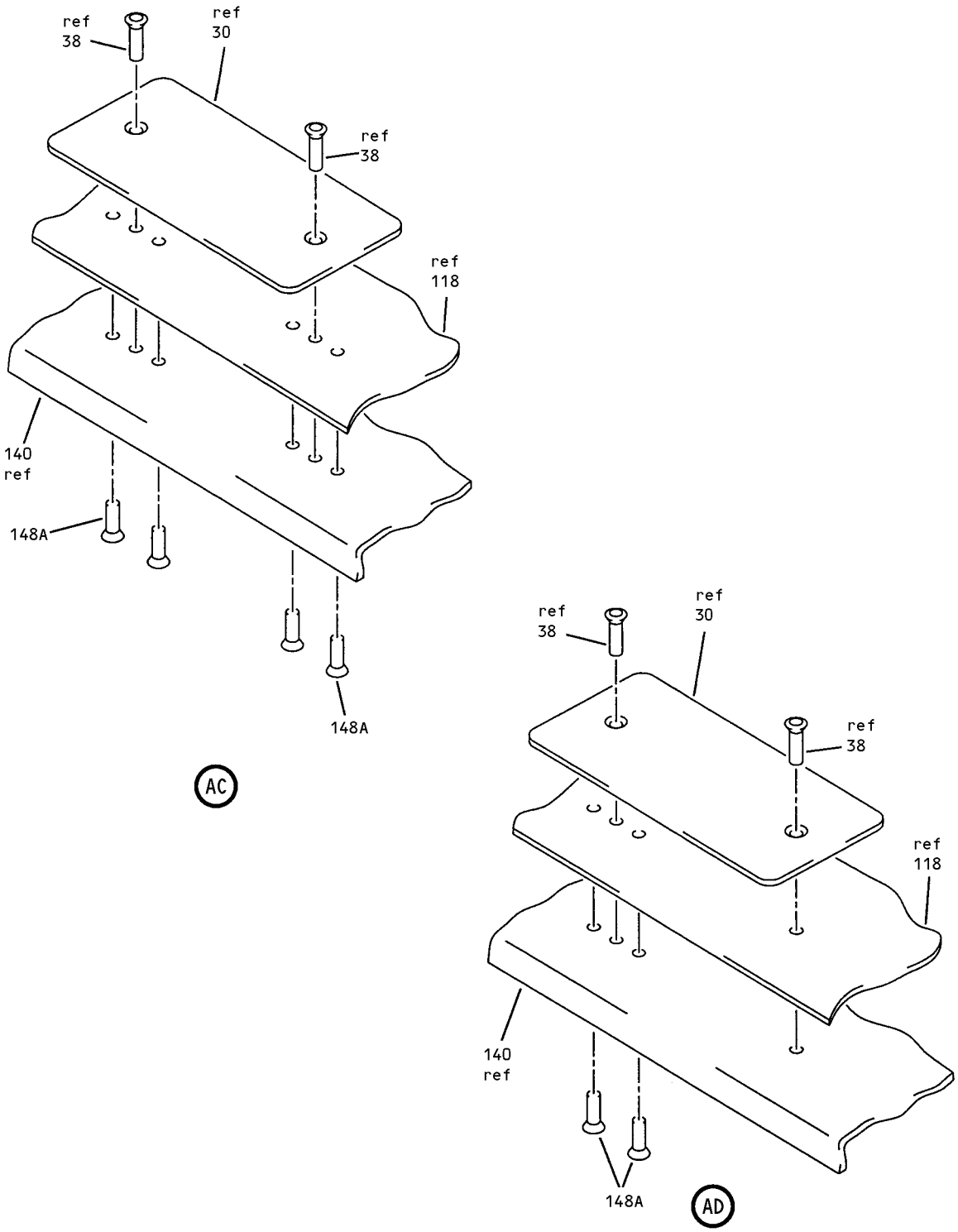
CF6-80C2 Engine Primary Nozzle Assembly
Figure 1 (Sheet 12)

M02585



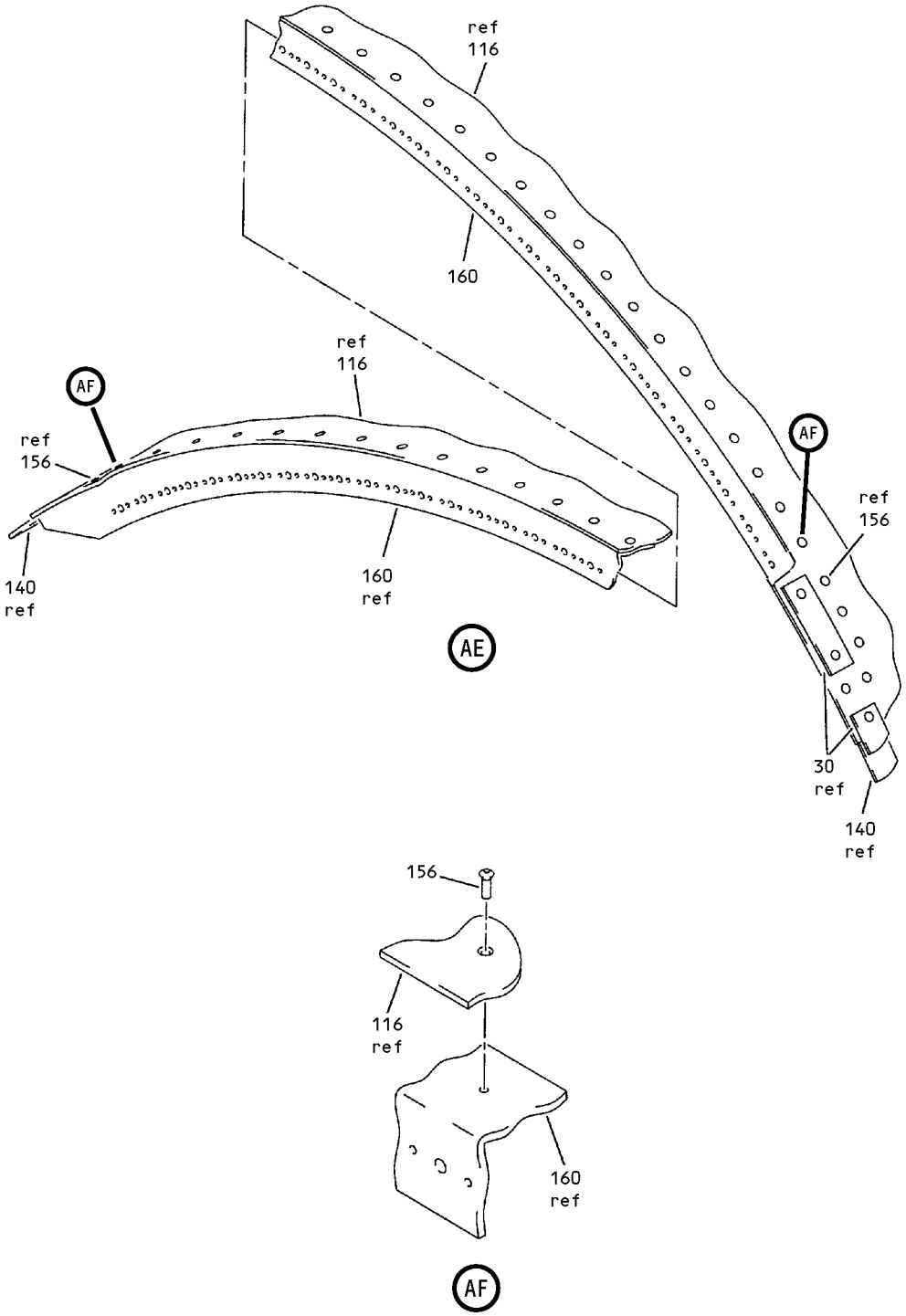
CF6-80C2 Engine Primary Nozzle Assembly
Figure 1 (Sheet 13)

MD2596



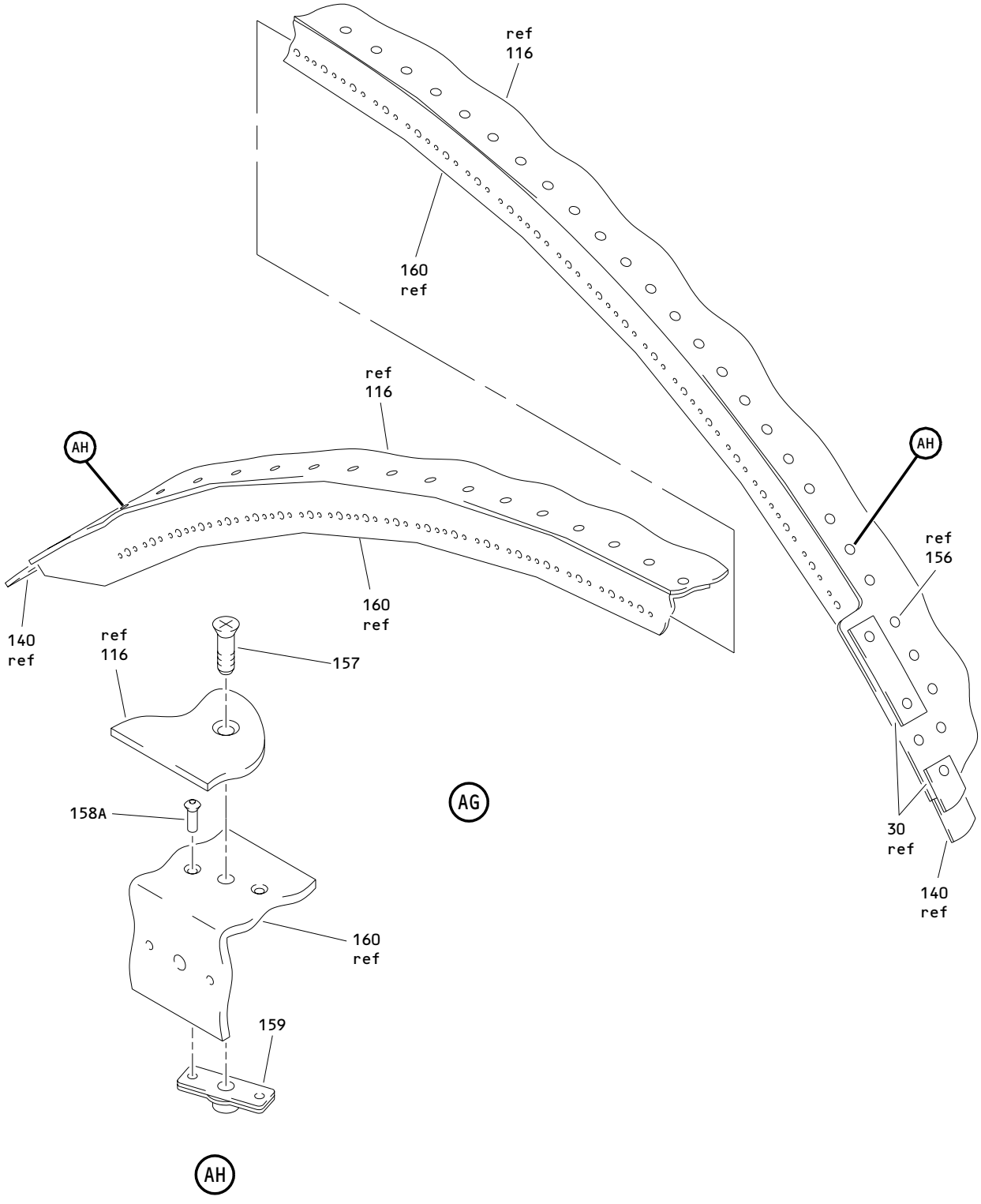
CF6-80C2 Engine Primary Nozzle Assembly
Figure 1 (Sheet 14)

M02600



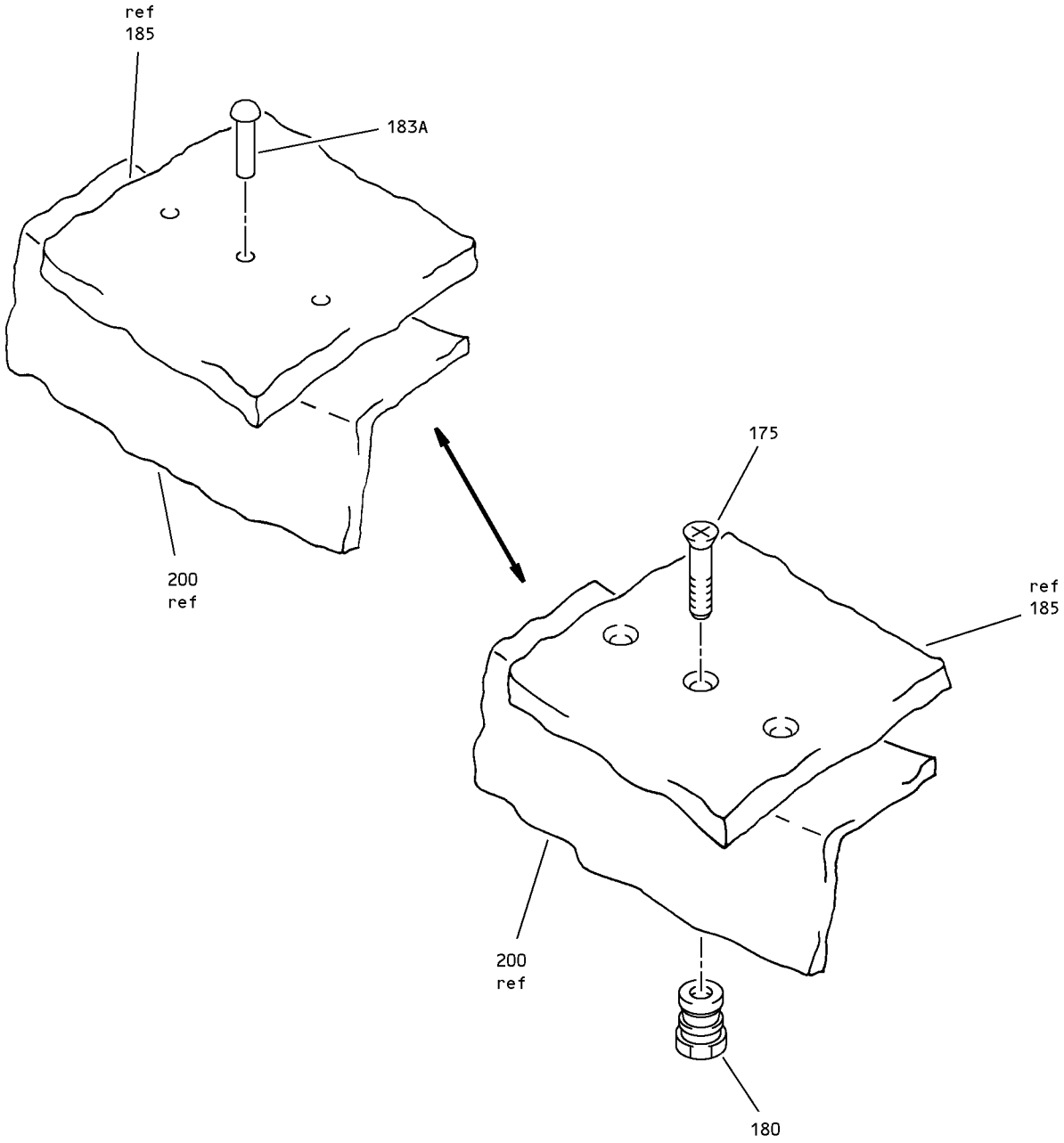
CF6-80C2 Engine Primary Nozzle Assembly
Figure 1 (Sheet 15)

MD2636



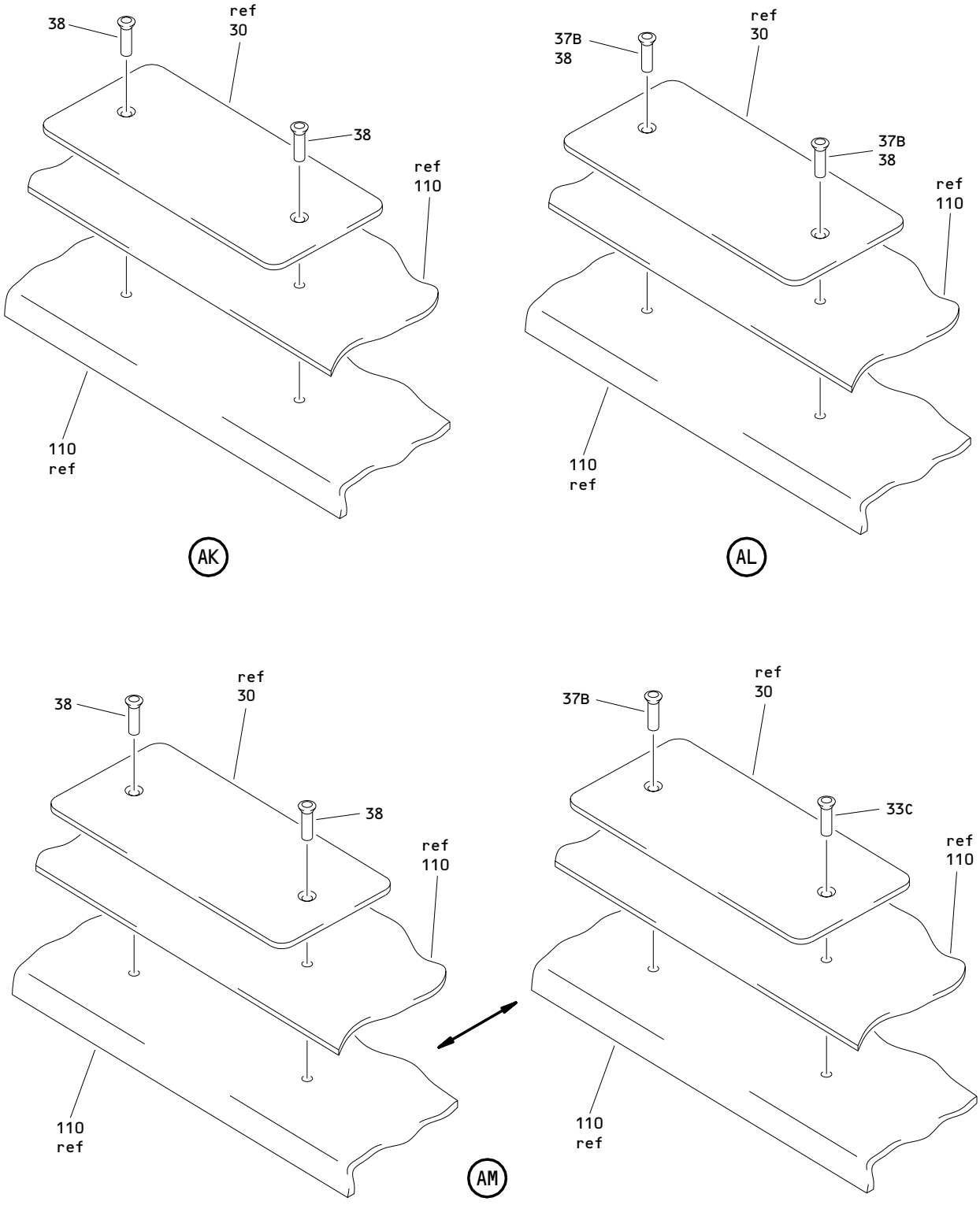
CF6-80C2 Engine Primary Nozzle Assembly
Figure 1 (Sheet 16)

M02639



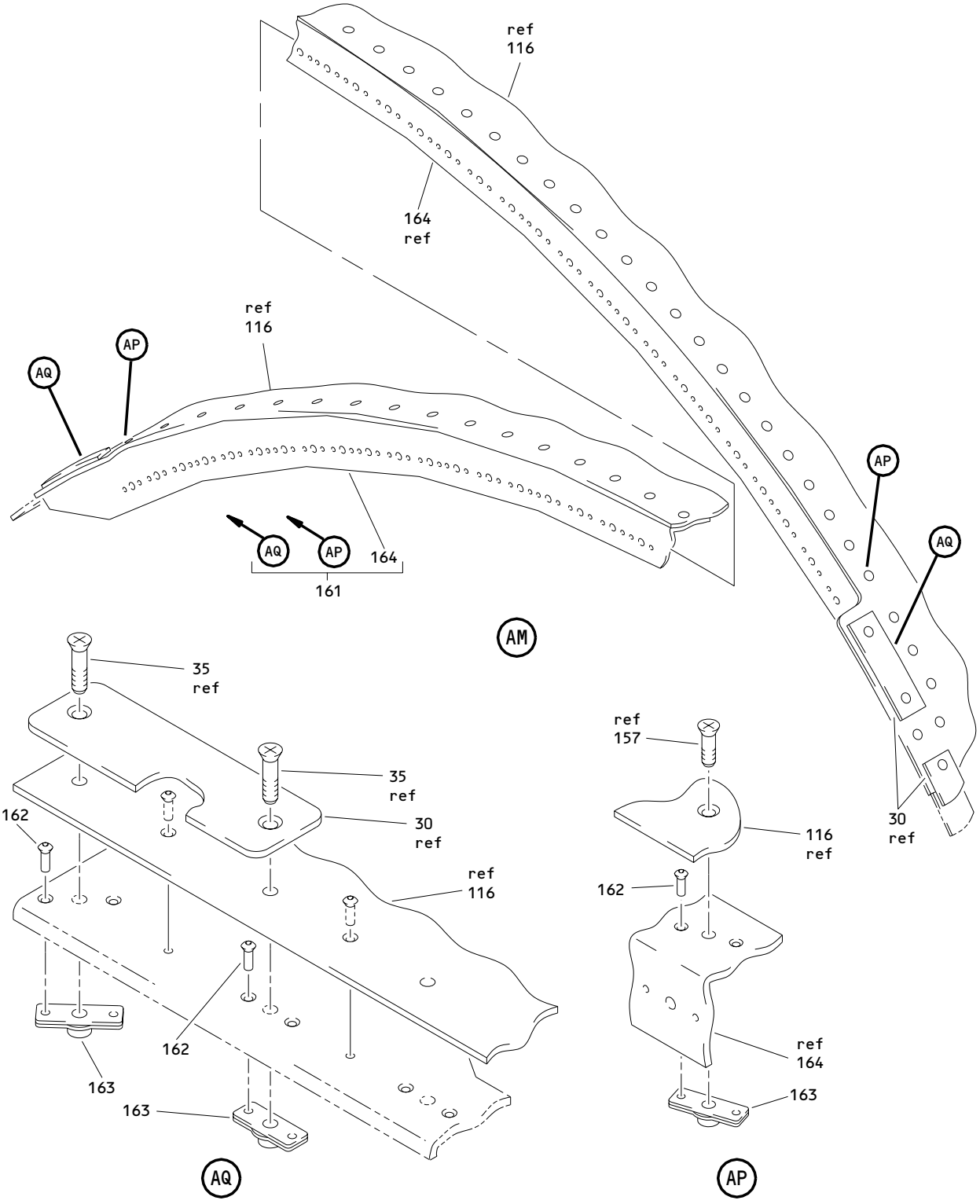
CF6-80C2 Engine Primary Nozzle Assembly
Figure 1 (Sheet 17)

W73711



CF6-80C2 Engine Primary Nozzle Assembly
Figure 1 (Sheet 18)

W73717



CF6-80C2 Engine Primary Nozzle Assembly
Figure 1 (Sheet 19)

W73729

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
-1	314U2100-1		NOZZLE ASSY-PRIMARY, CF6-80C2 ENG (PRE SB 767-78-0075) (PRE SB 767-78-0082) (PRE SB 767-78-0094) (PRE SB 767-78-0095) (PRE SB 747-78-2111) (PRE SB 747-78-2168) (PRE SB 747-78-2137) (PRE SB 747-78-2175)	A	RF
-1A	314U2100-27		NOZZLE ASSY-PRIMARY, CF6-80C2 ENG (PRE SB 767-78-0075) (PRE SB 767-78-0082) (PRE SB 767-78-0094) (PRE SB 767-78-0095) (POST SB 747-78-2111) (PRE SB 747-78-2168) (PRE SB 747-78-2137) (PRE SB 747-78-2175)	B	RF
-1B	314U2100-30		DELETED		
-1C	314U2100-31		NOZZLE ASSY-PRIMARY CF6-80C2 ENG (PRE SB 767-78-0075) (PRE SB 767-78-0082) (PRE SB 767-78-0094) (PRE SB 767-78-0095) (PRE SB 747-78-2168) (PRE SB 747-78-2137) (PRE SB 747-78-2175)	C	RF
-1D	314U2100-43		NOZZLE ASSY-PRIMARY, CF6-80C2 ENG (PRE SB 767-78-0075) (PRE SB 767-78-0082) (PRE SB 767-78-0094) (PRE SB 767-78-0095) (PRE SB 747-78-2168) (PRE SB 747-78-2137) (PRE SB 747-78-2175)	D	RF

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
-1E	314U2100-46		NOZZLE ASSY-PRIMARY, CF6-80C2 ENG (PRE SB 767-78-0082) (PRE SB 767-78-0094) (PRE SB 767-78-0095) (PRE SB 747-78-2168) (PRE SB 747-78-2175)	E	RF
-1F	314U2100-47		NOZZLE ASSY-PRIMARY, CF6-80C2 ENG (REWORK) (PRE SB 767-78-0082) (PRE SB 767-78-0094) (PRE SB 767-78-0095) (PRE SB 747-78-2168) (PRE SB 747-78-2175)	F	RF
-1G	314U2100-53		NOZZLE ASSY-PRIMARY, CF6-80C2 ENG (PRE SB 747-78-2175) (PRE SB 767-78-0094) (PRE SB 767-78-0095)	G	RF
-1H	314U2100-57		NOZZLE ASSY-PRIMARY, CF6-80C2 ENG (POST SB 767-78-0082) (PRE SB 767-78-0094) (PRE SB 767-78-0095) (POST SB 747-78-2168) (PRE SB 747-78-2175)	H	RF
-1J	314U2100-70		NOZZLE ASSY-PRIMARY, CF6-80C2 ENG (PRE SB 747-78-2175)	J	RF
-1K	015U1547-11		NOZZLE ASSY-EXH, REWORK (POST SB 767-78-0082) (PRE SB 767-78-0094) (PRE SB 767-78-0095) (POST SB 747-78-2168) (PRE SB 747-78-2175)	K	RF
-1L	015U1547-27		NOZZLE ASSY-EXH, REWORK (POST SB 767-78-0082) (PRE SB 767-78-0094) (PRE SB 767-78-0095) (POST SB 747-78-2168) (PRE SB 747-78-2175)	L	RF

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
-1M	015U1547-31		NOZZLE ASSY-EXH, REWORK (POST SB 747-78-2168) (PRE SB 747-78-2175) (PRE SB 767-78-0094) (PRE SB 767-78-0095)	M	RF
-1N	015U1547-43		NOZZLE ASSY-EXH, REWORK (POST SB 747-78-2168) (PRE SB 747-78-2175) (PRE SB 767-78-0094) (PRE SB 767-78-0095)	N	RF
-1P	015U1547-46		NOZZLE ASSY-EXH, REWORK (POST SB 747-78-2168) (PRE SB 747-78-2175) (PRE SB 767-78-0094) (PRE SB 767-78-0095)	P	RF
-1Q	015U1547-47		NOZZLE ASSY-EXH, REWORK (POST SB 747-78-2168) (PRE SB 747-78-2175) (PRE SB 767-78-0094) (PRE SB 767-78-0095)	Q	RF
-1R	015T0805-5		NOZZLE ASSY-PRIMARY (POST SB 747-78-2137) (PRE SB 747-78-2168) (PRE SB 747-78-2175) (POST SB 767-78-0075) (PRE SB 767-78-0082) (PRE SB 767-78-0094) (PRE SB 767-78-0095)	R	RF
-1S	015T0805-6		NOZZLE ASSY-PRIMARY (POST SB 747-78-2137) (PRE SB 747-78-2168) (PRE SB 747-78-2175) (POST SB 767-78-0075) (PRE SB 767-78-0082) (PRE SB 767-78-0094) (PRE SB 767-78-0095)	S	RF
-1T	015T0805-7		NOZZLE ASSY-PRIMARY (POST SB 747-78-2137) (PRE SB 747-78-2168) (PRE SB 747-78-2175) (POST SB 767-78-0075) (PRE SB 767-78-0082) (PRE SB 767-78-0094) (PRE SB 767-78-0095)	T	RF

	FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
	01-					
	-1U	015T0805-8		NOZZLE ASSY-PRIMARY (POST SB 747-78-2137) (PRE SB 747-78-2168) (PRE SB 747-78-2175) (POST SB 767-78-0075) (PRE SB 767-78-0082) (PRE SB 767-78-0094) (PRE SB 767-78-0095)	U	RF
	-1V	015T0805-9		NOZZLE ASSY-PRIMARY (POST SB 747-78-2137) (PRE SB 747-78-2168) (PRE SB 747-78-2175) (POST SB 767-78-0075) (PRE SB 767-78-0082) (PRE SB 767-78-0094) (PRE SB 767-78-0095)	V	RF
	-1W	015T0805-10		NOZZLE ASSY-PRIMARY (POST SB 747-78-2137) (PRE SB 747-78-2168) (PRE SB 747-78-2175) (POST SB 767-78-0075) (PRE SB 767-78-0082) (PRE SB 767-78-0094) (PRE SB 767-78-0095)	W	RF
	-1X	015T0805-11		NOZZLE ASSY-PRIMARY (POST SB 747-78-2137) (PRE SB 747-78-2168) (PRE SB 747-78-2175) (POST SB 767-78-0075) (PRE SB 767-78-0082) (PRE SB 767-78-0094) (PRE SB 767-78-0095)	X	RF
	-1Y	015T0805-12		NOZZLE ASSY-PRIMARY (POST SB 747-78-2137) (PRE SB 747-78-2168) (PRE SB 747-78-2175) (POST SB 767-78-0075) (PRE SB 767-78-0082) (PRE SB 767-78-0094) (PRE SB 767-78-0095)	Y	RF
R	-1Z	314U2100-72		NOZZLE ASSY-PRIMARY, CF6-80C2 ENG	Z	RF

	FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
R	01-2	015U1547-111		NOZZLE ASSY-EXH, REWORK (POST SB 747-78-2168) (PRE SB 747-78-2175) (PRE SB 767-78-0082) (PRE SB 767-78-0094) (PRE SB 767-78-0095)	AA	RF
R	-2A	015U1547-271		NOZZLE ASSY-EXH, REWORK (POST SB 747-78-2168) (PRE SB 747-78-2175) (PRE SB 767-78-0082) (PRE SB 767-78-0094) (PRE SB 767-78-0095)	AB	RF
R	-2B	015U1547-311		NOZZLE ASSY-EXH, REWORK (POST SB 747-78-2168) (PRE SB 747-78-2175) (PRE SB 767-78-0082) (PRE SB 767-78-0094) (PRE SB 767-78-0095)	AC	RF
R	-2C	015U1547-431		NOZZLE ASSY-EXH, REWORK (POST SB 747-78-2168) (PRE SB 747-78-2175) (PRE SB 767-78-0082) (PRE SB 767-78-0094) (PRE SB 767-78-0095)	AD	RF
R	-2D	015U1547-112		NOZZLE ASSY-EXH, REWORK (POST SB 747-78-2168) (PRE SB 747-78-2175) (PRE SB 767-78-0082) (PRE SB 767-78-0094) (PRE SB 767-78-0095)	AE	RF
R	-2E	015U1547-272		NOZZLE ASSY-EXH, REWORK (POST SB 747-78-2168) (PRE SB 747-78-2175) (PRE SB 767-78-0082) (PRE SB 767-78-0094) (PRE SB 767-78-0095)	AF	RF
R	-2F	015U1547-312		NOZZLE ASSY-EXH, REWORK (POST SB 747-78-2168) (PRE SB 747-78-2175) (PRE SB 767-78-0082) (PRE SB 767-78-0094) (PRE SB 767-78-0095)	AG	RF

	FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
	01-					
R	-2G	015U1547-432		NOZZLE ASSY-EXH, REWORK (POST SB 747-78-2168) (PRE SB 747-78-2175) (PRE SB 767-78-0082) (PRE SB 767-78-0094) (PRE SB 767-78-0095)	AH	RF
R	-2H	314U2100-71		NOZZLE ASSY-PRIMARY, CF6-80C2 ENG (REWORK) (PRE SB 747-78-2175) (POST SB 767-78-0094) (POST SB 767-78-0095)	AJ	RF
R	-2J	314U2100-82		NOZZLE ASSY-PRIMARY, CF6-80C2 ENG (REWORK) (POST SB 747-78-2175)	AK	RF
	5	BACB30LK3U2		.BOLT		39
	10	314U2100-15		.SEAL ASSY		13
	15	314U2100-19		..SEAL-FWD		1
	20	314U2100-20		..SEAL-AFT		1
	25	314U2100-18		..RETAINER		1
	30	314U2106-1		.PAD-WEAR (OPT ITEMS 30A, 30B, 30C)	A,K,R,V,AA,AE	34
	-30A	314U2106-2		.PAD-WEAR (OPT ITEMS 30, 30B, 30C)	A,K,R,V,AA,AE	34
	-30B	314U2106-3		.PAD-WEAR (OPT ITEMS 30, 30A, 30C)	A,K,R,V,AA,AE	34
	-30C	314U2106-4		.PAD-WEAR (OPT ITEMS 30, 30A, 30B)	A,K,R,V,AA,AE	34
	-30D	314U2106-2		.PAD-WEAR (OPT ITEMS 30E, 30F)	B,L,S,W,AB,AF	34
	-30E	314U2106-3		.PAD-WEAR (OPT ITEMS 30D, 30F)	B,L,S,W,AB,AF	34
	-30F	314U2106-4		.PAD-WEAR (OPT ITEMS 30D, 30E)	B,L,S,W,AB,AF	34
	-30G	314U2106-4		.PAD-WEAR	C,F,M,Q,T,X,AC,AG	34

	FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
	01-					
	-30H	314U2106-2		.PAD-WEAR (OPT ITEMS 30J, 30K, 30L)	D,E,N ,P,U, Y,AD, AH	34
	-30J	314U2106-3		.PAD-WEAR (OPT ITEMS 30H, 30K, 30L)	D,E,N ,P,U, Y,AD, AH	34
	-30K	314U2106-4		.PAD-WEAR (OPT ITEMS 30H, 30J, 30L)	D,E,N ,P,U, Y,AD, AH	34
	-30L	314U2106-5		.PAD-WEAR (OPT ITEMS 30H, 30J, 30K)	D,E,N ,P,U, Y,AD, AH	34
R	-30M	314U2106-2		.PAD-WEAR (OPT ITEMS 30N, 30P, 30Q, 30R, 30S)	J,Z	34
R	-30N	314U2106-3		.PAD-WEAR (OPT ITEMS 30M, 30P, 30Q, 30R, 30S)	J,Z	34
R	-30P	314U2106-4		.PAD-WEAR (OPT ITEMS 30M, 30N, 30Q, 30R, 30S)	J,Z	34
R	-30Q	314U2106-5		.PAD-WEAR (OPT ITEMS 30M, 30N, 30P, 30R, 30S)	J,Z	34
R	-30R	314U2106-6		.PAD-WEAR (OPT ITEMS 30M, 30N, 30P, 30Q, 30S)	J,Z	34
R	-30S	314U2106-7		.PAD-WEAR (OPT ITEMS 30M, 30N, 30P, 30Q, 30R)	J,Z	34
R	-30T	314U2106-2		.PAD-WEAR (OPT ITEMS 30U, 30V, 30W, 30X)	AJ	34
R	-30U	314U2106-3		.PAD-WEAR (OPT ITEMS 30T, 30V, 30W, 30X)	AJ	34
R	-30V	314U2106-4		.PAD-WEAR (OPT ITEMS 30T, 30U, 30W, 30X)	AJ	34

	FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
	01-					
R	-30W	314U2106-5		.PAD-WEAR (OPT ITEMS 30T, 30U, 30V, 30X)	AJ	34
R	-30X	314U2106-6		.PAD-WEAR (OPT ITEMS 30T, 30U, 30V, 30W)	AJ	34
R	-30Y	314U2106-6		.PAD-WEAR (OPT ITEM 30Z)	AK	34
R	-30Z	314U2106-7		.PAD-WEAR (OPT ITEM 30Y)	AK	34
R	31	BACR15CE6M		.RIVET- (SIZE DETERMINE ON INST)	A-F, R-Y	1
	32	BACR15CE6AD		DELETED		
R	32A	BACR15CE6M		.RIVET- (SIZE DETERMINE ON INST)		5
	33	BACR15CE6AD		DELETED		
	-33A	BACR15CE6AD		DELETED		
	-33B	BACR15CE6AD		DELETED		
R	33C	BACR15CE6M		.RIVET- (SIZE DETERMINE ON INST)	A-J, R-Z,AJ,AK	1
R	34	123423-3-2		.SCREW- (V80539)	A-J, R-Z,AJ,AK	2
	-34A	123423-3-2		DELETED		
R	35	123423-3-2		.SCREW- (V80539)		49
	36	123423-3-2		.SCREW- (V80539) (OPT ITEM 37)	A-F, R-Y	10
	-36A	123423-3-2		DELETED		
	37	BACR15CE6AD		.RIVET- (SIZE DETERMINE ON INST) (OPT ITEM 36)	A-F, R-Y	10
	-37A	BACR15CE6AD		DELETED		
R	37B	BACR15CE6M		.RIVET- (SIZE DETERMINE ON INST)	G-J,Z,AJ,AK	11
R	38	BACR15DS7D4		.RIVET	K-Q,AA-AH	14
	39	MS20427M3		.RIVET- (SIZE DETERMINE ON INST)		24

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
39M	BRFM20C3		.NUTPLATE- (V52828) (SPEC BACN10JN3C) (OPT MF1031-3BAC (V15653)) (OPT NS103218S02 (V80539)) (OPT VN252B02 (V92215)) (OPT 101F9201M3 (V72962)) (OPT MF53050-3 (V15653)) (OPT T8126C3C (V11815))		12
40	314U2103-1		.DUCT ASSY-LP RECOUP ATTACHING PARTS		2
42	123423-3-2		.SCREW- (V80539) -------*-------		36
45	MS20427M3		..RIVET- (SIZE DETERMINE ON INST)		36
50	BRFM20C3		..NUTPLATE- (V52828) (SPEC BACN10JN3C) (OPT MF1031-3BAC (V15653)) (OPT NS103218S02 (V80539)) (OPT VN252B02 (V92215)) (OPT 101F9201M3 (V72962)) (OPT MF53050-3 (V15653)) (OPT T8126C3C (V11815))		18
55	314U2109-1		.DUCT ASSY-TRANSITION		1
-55A	314U2109-1		DELETED		
60	314U2107-1		.FLANGE ASSY-LP RECOUP EXIT ATTACHING PARTS		1
62	123423-3-2		.SCREW- (V80539) -------*-------		18

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
65	MS20427M3		..RIVET- (SIZE DETERMINE ON INST)		36
70	BRFM20C3		..NUTPLATE- (V52828) (SPEC BACN10JN3C) (OPT MF1031-3BAC (V15653)) (OPT NS103218S02 (V80539)) (OPT VN252B02 (V92215)) (OPT 101F9201M3 (V72962)) (OPT MF53050-3 (V15653)) (OPT T8126C3C (V11815))		
75	MS20427M3		.RIVET- (SIZE DETERMINE ON INST)		120

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-80	H97-4		.NUT- (V15653) (SPEC BACN10HR4C) (OPT 101LH9031-4 (V72962)) (OPT 67832A428 (V56878)) (OPT BMN5024C4 (V97928)) (OPT BH00304-4 (V27238)) (OPT SL7060C428 (V11815)) (OPT BH00304-4 (V27238)) (OPT CR59074 (V62554)) (OPT H974 (V15653)) (OPT SL70604 (V11815)) (OPT VAL280024 (V06710)) (OPT 101LH90314 (V72962)) (OPT 67832A4 (V56878)) (OPT BMN10HRC4 (V97928)) (OPT 67832A4 (V56878))		60

	FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
	01-					
	85	BACR10HR4C		DELETED		
	85A	F52483-4		.RETAINER- (V15653) (SPEC BACR10AJ4C) (OPT NS202742S4 (V80539)) (OPT BRR25004C (V52828))		50
	90	F52481-4		.RETAINER- (V15653) (SPEC BACR10AK4C) (OPT NS202743S4 (V80539)) (OPT BRR1500-4C (V52828))		10
	95	BACB30LK3U1		.BOLT	A-E	110
	100	BACR15CE5M		.RIVET- (SIZE DETERMINE ON INST)	A-F	999
R	101	BACR15CE5M		.RIVET- (SIZE DETERMINE ON INST)	A-U, Z-AD, AJ	152
R	-101A	BACR15CE5M6		.RIVET- (SIZE DETERMINE ON INST)	V-Y,AE-AH, AK	152
	103	BACR15CE5M		.RIVET- (SIZE DETERMINE ON INST)	A-U, Z-AD, AJ	172
R	-103A	BACR15CE5M3		.RIVET- (SIZE DETERMINE ON INST)	V-Y,AE-AH, AK	172
	105	BACR15CE6M		.RIVET- (SIZE DETERMINE ON INST)		36

	FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
	01-					
	110	314U2100-2		.SLEEVE ASSY-OUTER (PRE SB 747-78-2111)	A,K	1
	-110A	314U2100-28		.SLEEVE ASSY-OUTER	B,L	1
	-110B	314U2100-32		.SLEEVE ASSY-OUTER	C,F,M	1
	-110C	314U2100-44		.SLEEVE ASSY-OUTER	D,N	1
	-110D	314U2100-48		.SLEEVE ASSY-OUTER	E,P	1
	-110E	314U2100-54		.SLEEVE ASSY-OUTER	G	1
	-110F	314U2100-58		.SLEEVE ASSY-OUTER	H	1
	-110G	314U2100-69		.SLEEVE ASSY-OUTER	J,AJ	1
	-110H	314U2100-2		.SLEEVE ASSY-OUTER (REWORKED BY SB 747-78-2137) (REWORKED BY SB 767-78-0075)	R,V,A A,AE	1
	-110J	314U2100-28		.SLEEVE ASSY-OUTER (POST SB 747-78-2111)	A,K	1
R	-110K	314U2100-80		.SLEEVE ASSY-OUTER	Z,AK	1
R	-110L	314U2100-28		.SLEEVE ASSY-OUTER (REWORKED BY SB 747-78-2137) (REWORKED BY SB 767-78-0075)	S,W,A B,AF	1
R	-110M	314U2100-32		.SLEEVE ASSY-OUTER (REWORKED BY SB 747-78-2137) (REWORKED BY SB 767-78-0075)	T,X,A C,AG	1
R	-110N	314U2100-44		.SLEEVE ASSY-OUTER (REWORKED BY SB 747-78-2137) (REWORKED BY SB 767-78-0075)	U,Y,A D,AH	1

	FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
	01-115	314U2100-4		..SKIN ASSY- (USED ON ITEM 110)	A	1
	-115A	314U2100-29		..SKIN ASSY	B,D,L,N,S,U,W,Y,AB,AD,AF AHAF	1
	-115B	314U2100-4		..SKIN ASSY	K,R,V,AA,AE	1
	-115C	314U2100-29		..SKIN ASSY- (USED ON ITEM 110J)	A	1
	116	314U2100-33		..SKIN ASSY-FWD	C,E-G,M,P,Q,T,X,AC,AG	1
	-116A	314U2100-59		..SKIN ASSY-FWD	H	1
R	-116B	314U2100-59		..SKIN ASSY-FWD (OPT ITEM 116C)	J,AJ	1
R	-116C	314U2100-81		..SKIN ASSY-FWD (OPT ITEM 116B)	J,AJ	1
R	-116D	314U2100-81		..SKIN ASSY-FWD	Z,AK	1
	117	314U2100-39		..SKIN ASSY-UPR AFT	C,E-H,M,P,Q,T,X,AC,AG	1
R	-117A	314U2100-39		..SKIN ASSY-FWD (OPT ITEM 117B)	J,AJ	1
R	-117B	314U2100-74		..SKIN ASSY-FWD (OPT ITEM 117A)	J,AJ	1
R	-117C	314U2100-74		..SKIN ASSY-FWD	Z,AK	1

	FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
	01-118	314U2100-41		..SKIN ASSY-LWR AFT	C,E-H,M,P,Q,T,X,AC,AG	1
R	-118A	314U2100-41		..SKIN ASSY-FWD (OPT ITEM 118B)	J,AJ	1
R	-118B	314U2100-75		..SKIN ASSY-FWD (OPT ITEM 118A)	J,AJ	1
R	-118C	314U2100-75		..SKIN ASSY-FWD	Z,AK	1
	119	314U2100-35		..PANEL ASSY-HONEYCOMB	C,E-H,M,P,Q,T,X,AC,AG	1
	-119A	314U2100-67		..PANEL ASSY-HONEYCOMB (OPT ITEM 119B)	J,AJ	1
R	-119B	314U2100-79		..PANEL ASSY-HONEYCOMB (OPT ITEM 119A)	J,AJ	1
R	-119C	314U2100-79		..PANEL ASSY-HONEYCOMB	Z,AK	1
	120	314U2100-11		..STIFFENER- (OPT ITEM 120A)	A,B,D,K,L,N,R,S,U,V,W,Y AA,AB,AF,AH	1
	-120A	314U2100-23		..STIFFENER- (OPT ITEM 120)	A,B,D,K,L,N,R,S,U,V,W,Y AA,AB,AF,AH	1
	125	314U2100-12		..STIFFENER- (OPT ITEM 125A)	A,B,D,K,L,N,R,S,U,V,W,Y AA,AB,AF,AH	1

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
-125A	314U2100-24		..STIFFENER- (OPT ITEM 125)	A,B,D ,K,L, N,R,S ,U,V, W,Y AA,AB ,AF,A H	1
130	314U2100-13		..STIFFENER- (OPT ITEM 130A)	A,B,D ,K,L, N,R,S ,U,V, W,Y AA,AB ,AF,A H	1
-130A	314U2100-25		..STIFFENER- (OPT ITEM 130)	A,B,D ,K,L, N,R,S ,U,V, W,Y AA,AB ,AF,A H	1
135	314U2100-14		..STIFFENER- (OPT ITEM 135A)	A,B,D ,K,L, N,R,S ,U,V, W,Y AA,AB ,AF,A H	1
-135A	314U2100-26		..STIFFENER- (OPT ITEM 135)	A,B,D ,K,L, N,R,S ,U,V, W,Y AA,AB ,AF,A H	1
140	314U2100-10		..STIFFENER	A-F, R-Y,A A-AH	1
-140A	314U2100-10		..STIFFENER- (OPT ITEM 140B)	G	1

	FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
	01-					
	-140B	314U2100-55		..STIFFENER- (OPT ITEM 140A)	G	1
	-140C	314U2100-55		..STIFFENER	H,J,Z,AJ,AK	1
R	144	MS20427M3		..RIVET- (SIZE DETERMINE ON INST) (USED WITH ITEM 34)	A-J,R-Z,AJ,AK	4
	-144A	MS20427M3		DELETED		
R	145	MS20427M3		..RIVET- (SIZE DETERMINE ON INST)		176
	146	MS20427M3		..RIVET- (SIZE DETERMINE ON INST)	A-E	220
	147	MS20427M3		..RIVET- (SIZE DETERMINE ON INST) (USED WITH ITEM 36)	A-F,R-Y	20
	-147A	MS20427M3-4		DELETED		
	148	MS20427M3-4		DELETED		
R	148A	MS20427M3-3		..RIVET	K-Q,AA-AH	20
R	149	BRF200C3		..NUTPLATE- (V52828) (SPEC BACN10JR3CF) (OPT F5031-3BAC (V15653)) (OPT NS103203S02 (V80539)) (OPT VN152B1-02 (V92215)) (OPT 101F9201-3 (V72962)) (OPT T8093C1032 (V11815)) (USED WITH ITEM 34)	A-J,R-Z,AJ,AK	2

	FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
	01- -149A	BRF200C3		DELETED		
R	150	BRF200C3		..NUTPLATE- (V52828) (SPEC BACN10JR3CF) (OPT F5031-3BAC (V15653)) (OPT NS103203S02 (V80539)) (OPT T8093C1032 (V11815)) (OPT VN152B1-02 (V92215)) (OPT 101F9201-3 (V72962))		88
	151	BRF200C3		..NUTPLATE- (V52828) (SPEC BACN10JR3CF) (OPT F5031-3BAC (V15653)) (OPT NS103203S02 (V80539)) (OPT T8093C1032 (V11815)) (OPT VN152B1-02 (V92215)) (OPT 101F9201-3 (V72962))	A-E	110
	152	BRF200C3		..NUTPLATE- (V52828) (SPEC BACN10JR3CF) (OPT F5031-3BAC (V15653)) (OPT NS103203S02 (V80539)) (OPT T8093C1032 (V11815)) (OPT VN152B1-02 (V92215)) (OPT 101F9201-3 (V72962)) (USED WITH ITEM 36)	A-F, R-Y	10

	FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
	01-					
	155	BRFM20C3		DELETED		
	156	BACR15CE6M		..RIVET- (SIZE DETERMINE ON INST)	A,B,K ,L	44
R	157	123423-3-2		..SCREW- (V80539)	C-J, M-AK	44
	158	MS20427M3		DELETED		
R	158A	MS20427M3-3		..RIVET	R,S,V ,W,AA ,AB,A E,AF	88
	159	BRFM20C3		..NUTPLATE- (V52828) (SPEC BACN10JN3C) (OPT MF1031-3BAC (V15653)) (OPT NS103218S02 (V80539)) (OPT VN252B02 (V92215)) (OPT 101F9201M3 (V72962)) (OPT MF53050-3 (V15653)) (OPT T8126C3C (V11815))	R,S,V ,W,AA ,AB,A E,AF	44
	160	314U2100-21		..ANGLE-ATTACH	A,B,K ,L,R, S,V,W ,AA,A B,AE AFAE	1
	-160A	314U2100-45		DELETED		

	FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
	01-					
R	161	314U2100-45		..ANGLE ASSY-ATTACH	C-J, M-Q,T ,U, X-Z,A C,AD AG-AK	1
R	162	MS20427M3		...RIVET- (SIZE DETERMINE ON INST)	C-J, M-Q,T ,U, X-Z,A C,AD AG-AK	88
R	163	MF53050-3		...NUTPLATE- (V15653) (SPEC BACN10JN3C) (OPT MF1031-3BAC (V15653)) (OPT NS103218S02 (V80539)) (OPT VN252B02 (V92215)) (OPT 101F9201M3 (V72962)) (OPT T8126C3C (V11815)) (OPT BRFM20C3 (V52828))	C-J, M-Q,T ,U, X-Z,A C,AD AG-AK	44
R	164	314U2100-21		...ANGLE	C-J, M-Q,T ,U, X-Z,A C,AD AG-AK	1

	FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
	01-					
	165	314U2100-7		..BULKHEAD ASSY	A-D,F ,K-N, Q-U,A A-AD	1
	-165A	314U2100-49		..BULKHEAD ASSY	E,G,H ,P, V-Y,A E-AH	1
R	-165B	314U2100-49		..BULKHEAD ASSY- (OPT ITEM 165B)	J,AJ	1
R	-165C	314U2100-78		..BULKHEAD ASSY- (OPT ITEM 165A)	J,AJ	1
R	-165D	314U2100-78		..BULKHEAD ASSY	Z,AK	1
	170	314U2100-3		.SLEEVE ASSY-INNER		1
R	-172	314U2100-63		..KIT ASSY- (OPT ITEM 172A, 183A)		152
	-172A	314U2100-64		..KIT ASSY- (OPT ITEM 172, 183A)		152
	175	HL657-5-2		...BOLT- (V73197) (USED ON ITEM 172)		1
	-175A	HL41-5-25		...BOLT- (V60516) (SPEC BACB30FN5A25U) (OPT HL41-5-25 (V73197)) (OPT HL41-5-25 (V92215)) (OPT 67068-5A25U (V56878)) (OPT HL41-5-25 (V80539)) (OPT HL41-5-25 (V08524)) (OPT HL41-5-25 (V97928)) (OPT HL41-5-25 (V56878)) (USED ON ITEM 172A)		1
	180	HL88TB5		...COLLAR- (V73197) (USED ON ITEM 172)		1
	-180A	BACC30B5S		...COLLAR- (USED ON ITEM 172A)		1

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
183	122578-5-2		DELETED		
183A	122578-5-4		..RIVET- (V80539) (OPT ITEMS 172, 172A)		152
185	314U2100-5		..SKIN ASSY		1
190	314U2101-1		...RING-FWD MTG (OPT ITEM 190A)		1
-190A	314U2101-2		...RING-FWD MTG (OPT ITEM 190)		1
195	314U2102-1		...RING-TE (OPT ITEM 195A)		1
-195A	314U2102-2		...RING-TE (OPT ITEM 195)		1
200	314U2100-6		..BULKHEAD ASSY		1

- Item Not Illustrated