

OVERHAUL MANUAL

TO: ALL HOLDERS OF EXTENDED NOSE DOME ASSEMBLY OVERHAUL MANUAL, 71-13-15

REVISION NO. 6, DATED MAR 5/92

HIGHLIGHTS

DESCRIPTION OF CHANGE	TOPICS AFFECTED												
	D & O	D / Assy	Cleaning	Insp / Chk	Repair	Assy	F / C	Test	T / Shooting	S / Tools	Storage	I P L	L / Overhaul
Incorporated SB 71-1131 which replaces top assembly 65-85369-3, -4 with 65-85369-15, -16												X	

# EXTENDED NOSE DOME ASSEMBLY

## 71-13-15

BOEING P/N 65-85369-1 thru -4, -11 thru -16, -21, -22

AIRLINE P/N

THE FOLLOWING DIRECTIVES APPLY TO THIS SUBJECT:

BOEING SERVICE BULLETIN	BOEING TEMPORARY REVISION	OTHER DIRECTIVES	DATE DIRECTIVE INCORPORATED INTO TEXT
		PRR 32285-6	Jan 5/77
		PRR 32393	Jan 5/77
		PRR 32414	Jan 5/77
		PRR 32470	Jan 5/77
		MC 3510-39	Jan 5/77
71-1112			Sep 5/84
71-112R1			Mar 5/86
71-1256			Jun 5/91
71-1131		MC 3461-38K	Mar 5/92
71-1131		MC 3461-39K	Mar 5/92

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LIST OF EFFECTIVE PAGES

\* Indicates pages revised, added or deleted in latest revision  
 F Indicates foldout pages - print one side only

PAGE	DATE	PAGE	DATE	PAGE	DATE
71-13-15					
* T-1	Mar 5/92				
T-2	BLANK				
* LEP-1	Mar 5/92				
LEP-2	BLANK				
T/C-1	Dec 5/85				
T/C-2	BLANK				
1	Mar 5/86				
2	Sep 5/84				
3	Dec 5/85				
4	Dec 5/85				
5	Dec 5/85				
6	Sep 5/84				
* 7	Mar 5/92				
8	Sep 5/84				
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\*[1] Special instructions not required. Use standard industry practices.

\*[2] Special instructions not required. Use applicable procedures in 20-30-03 and standard industry practices.

\*[3] Special instructions not required. Use applicable procedures in 20-70-01 and standard industry practices.



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### EXTENDED NOSE DOME ASSEMBLY

#### 1. DESCRIPTION AND OPERATION

- A. The extended nose dome assembly is a conically shaped unit, consisting of an acoustic panel base, or a non-acoustic panel base with internal supporting structure, and a sheet metal nose cone. A pressure tube extends thru the nose dome.
- B. The unit mounts on the engine nose and guides the flow of engine inlet air. The acoustic panel reduces engine inlet noise. The pressure tube ducts ram air through the nose cone to connecting tubing on the engine.
- C. Leading Particulars (approximately)
  - Length -- 26 inches
  - Diameter -- 12 inches
  - Weight -- 28 pounds

#### 2. REPAIR

##### A. Materials

- (1) Sealant (Ref 20-50-12, type 60) -- RTV 174, General Electric Co. (Ref 20-60-04) opt RTV 157, General Electric Co. (Ref 20-60-04) opt DC 732 TRV, Dow Corning Corp.
- (2) Primer -- BMS 10-11, type 1 (Ref 20-60-02)
- (3) Paint -- BMS 10-60, type 2 Flat Black (Ref 20-60-02)
- (4) Solvent -- Methyl ethyl ketone or equivalent (Ref 20-60-01)

##### B. Repair

- (1) Acoustic Panel (130; P/N 173-1203-1, -3)
  - (a) Refer to Rohr Industries Inc., Repair Manual 54-30-01.

##### C. Refinish

- (1) Acoustic panel (130; P/N 65-85679-1, -2, -9, -10)
  - (a) Remove contaminants by manual sanding using 150 grit, or finer, abrasive paper. Remove sanding residue by wiping with clean cloth saturated with methyl ethyl ketone or equivalent.

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- (b) Optional method -- steam clean per standard practices and dry thoroughly.

CAUTION: APPLICATION OF COATING OTHER THAN BMS 10-60, TYPE 2, WILL DEGRADE THE PANEL ACOUSTICAL PROPERTIES.

- (c) Apply 0.7-1.2 mils equivalent dry film thickness of BMS 10-60, type 2, flat black polyurethane paint. Do not prime or apply static conditioner, pin hole filler, surfacer or BMS 10-21 conductive coating.

D. Replacement of tubing assembly (40, 45) (Fig. 2).

- (1) Remove bolts (5, 15, 30), washers (10, 20, 35) from brackets (140, 125, 120).
- (2) Withdraw tubing assembly (40, 45) from outer cone (110) and cup (105) and remove from nose dome assembly.
- (3) Remove clamp (25) from tubing assembly.
- (4) Remove rivets (100) and cup (105) from outer cone (110).
- (5) Remove sealant from cup and inner dome of outer cone.
- (6) Touch up cup and inner dome of outer cone as necessary, with primer, BMS 10-11, type 1.
- (7) Install cup in outer cone with rivets (100).
- (8) Install clamp (25) on tubing assembly (40 or 45) and position small end of tubing through cup and outer cone in nose dome.
- (9) Position clamp on bracket (125) and install bolt (15), with washer (20). Do not tighten bolt.
- (10) Install remaining bolts (5, 30) and washers (10, 35) and tighten bolt (15). Secure bolts with lockwire.
- (11) Fill cavity between cup and outer cone, through existing filler holes, with sealant per 20-50-12.

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## E. Nose dome/PT-2 probe inspection and repair (Fig. 1).

(1) If outer cone (110) probe hole elongated diameter is greater than 0.420 inch, remove, repair, and replace nose cone per Fig. 1 as follows:

- (a) Remove outer cone (110) from ring (70) by removing rivets (60), 2-rows, 28 places, and remove ring (70) from inner cone (75) by removing rivets (65), 8 places.
- (b) Install new nose cone special spares assembly (55) by rotating and adjusting until outer cone (110) is faired with nose dome outer surface, and forward edge of ring (70) is aligned with forward edge of inner cone (75).

NOTE: Remove any sharp burrs on outer cone (110) probe hole and touchup with alodine 1200 per 20-43-03.

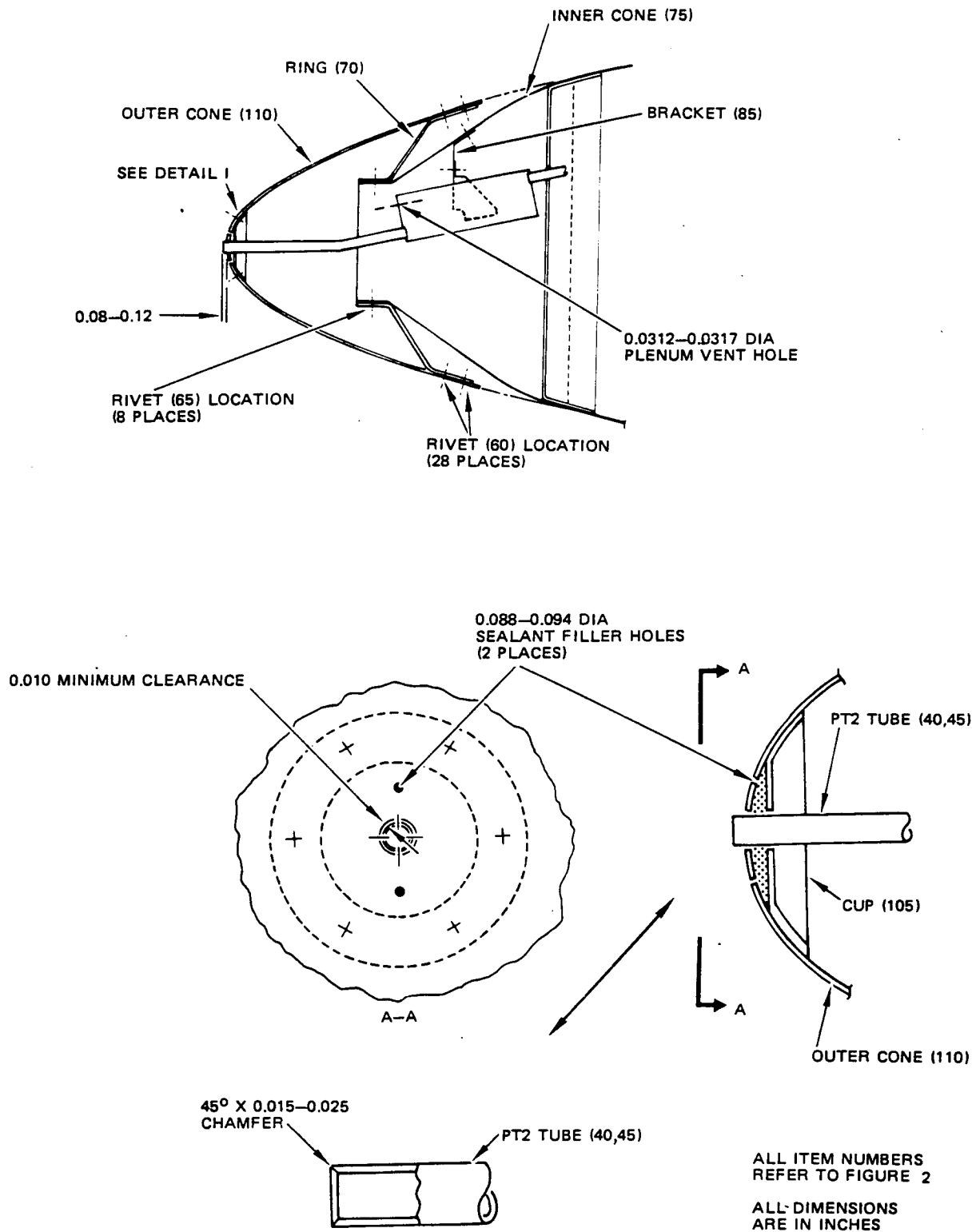
- (c) Mark and drill holes in ring (70) to match existing holes in inner cone (75) and install with rivets (65), 8 places.

NOTE: Oversized rivets BACC13ET5D5 or hex drive bolts BACB30GZ6-3 and nuts BACC30P-6 in 0.187-0.190-inch oversize holes may be used.

(2) If tube assembly (40, 45) is abraded one half the wall thickness, or more, remove and replace with new assembly, or repair per Figure 1 as follows:

- (a) Cut 1.50-inch from damaged end and clean per 20-30-02.
- (b) Obtain a 1.75-inch repair section of 6061-T4 aluminum tube, 0.25-inch diameter, 0.035-inch thickness, and clean per 20-30-02.
- (c) Partially anneal tube per BAC 5602.
- (d) Align repair section to forward end of tube and fusion weld together per BAC 5975, class B, square butt joint using filler material QQ-R-566, class 4043 and straighten tube.
- (e) Drill or ream end of repair section to 0.140-inch minimum inside diameter.
- (f) Temporarily locate tube assembly in nose dome and record position in hole. Remove and bend to maintain 0.010-inch minimum probe-to-hole clearance.

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DETAIL I

Nose Dome Repair  
Figure 1



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- (g) Solution heat treat and age harden tube assembly to -T6 temper per BAC 5602.
- (h) Penetrant inspect weld area.
- (i) Pressure test tube assembly to 10 psi with plenum vent hole plugged.
- (j) Chromic acid anodize per 20-43-01 or apply alodine 1200 per 20-43-03.
- (k) Clean out 0.0312-0.0317-inch diameter hole.

(3) Reinstall tube assembly (40,45) per Figure 1 as follows:

- (a) Reinstall inspected tube assembly, new assembly, or repaired assembly, as applicable, in nose dome per para. 2.D. and ensure tip of tube is centered to 0.010-inch minimum clearance with edge of hole.
- (b) Trim end of tube assembly to project 0.080-0.120-inch beyond nose dome and chamfer inside diameter 45 degrees by 0.015-0.025-inch.
- (c) Fill cavity between cup (105) and outer cone (110) through two filler holes with 20-50-12, type 60 sealant.

3. ASSEMBLY

A. Materials

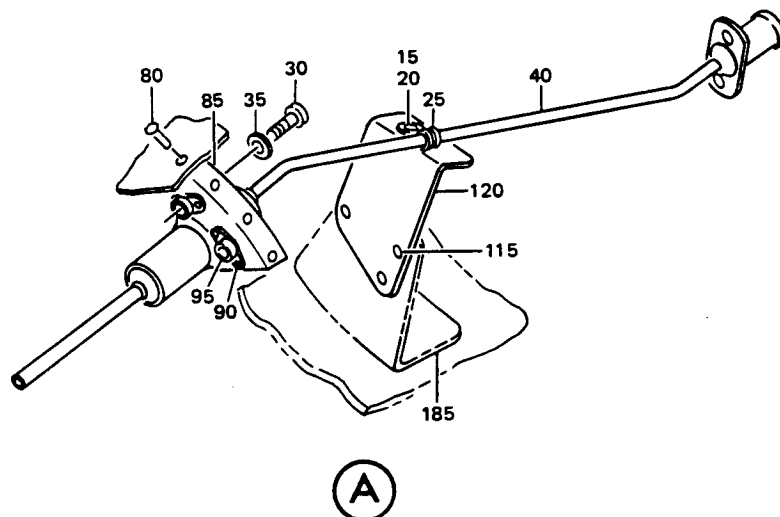
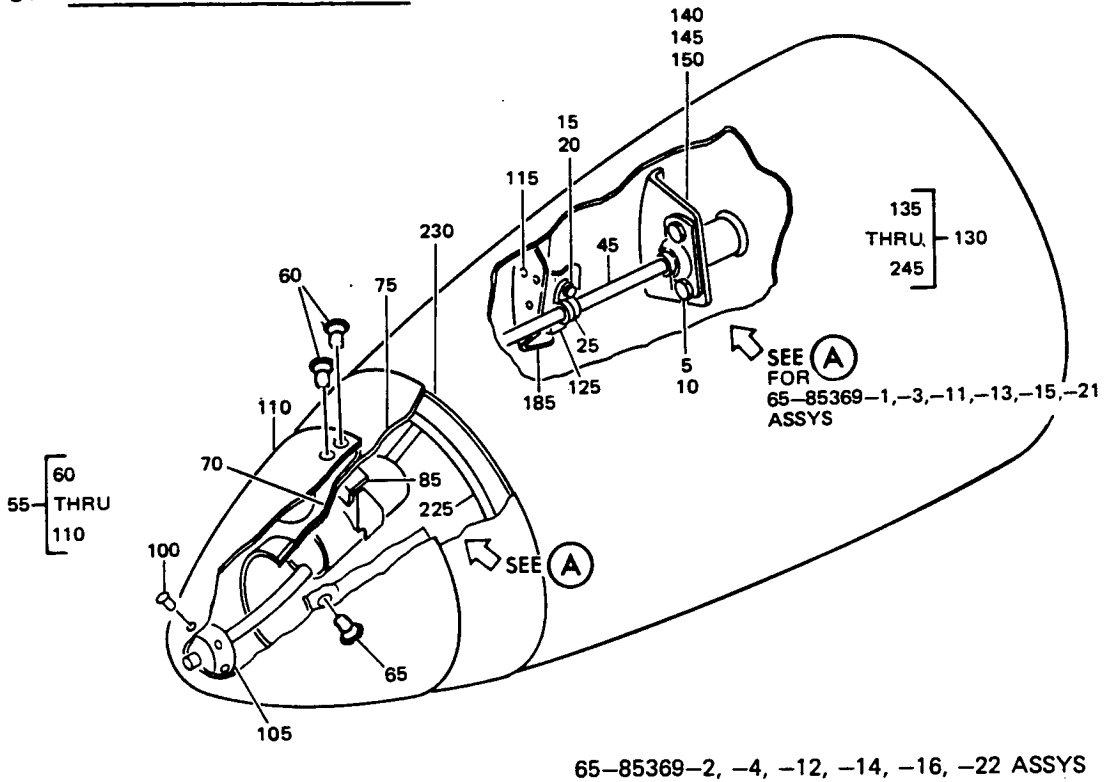
- (1) Adhesive -- Type 60 (Ref 20-50-09)

B. Assembly

- (1) Use standard industry practices for assembly of this component with the following additional step.
- (2) Clean existing adhesive from back of identification plate (250) and bond in place using 20-50-12, type 60.

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3. ILLUSTRATED PARTS LIST



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FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	N O M E N C L A T U R E							USE CODE	QTY PER ASSY
			1	2	3	4	5	6	7		
	65-85369-1		NOSE DOME ASSY - EXTENDED NON-ACOUSTIC, ENGINE NO. 1 (PRE SB 71-1256)							A	
	65-85369-3		NOSE DOME ASSY - EXTENDED, ACOUSTIC, ENGINE NO. 1 (PRE SB 71-1131)							B	
	65-85369-11		NOSE DOME ASSY - EXTENDED, ACOUSTIC, ENGINE NO. 1 (POST SB 71-1256)							C	
	65-85369-13		NOSE DOME ASSY - EXTENDED, NON-ACOUSTIC, ENGINE NO. 1 (PRE SB 71-1256)							D	
	65-85369-15		NOSE DOME ASSY - EXTENDED, ACOUSTIC, ENGINE NO. 1 (POST SB 71-1256, 71-1131)							I	
	65-85369-2		NOSE DOME ASSY - EXTENDED, NON-ACOUSTIC, ENGINE NO. 2 (PRE SB 71-1256)							E	
	65-85369-4		NOSE DOME ASSY - EXTENDED, ACOUSTIC, ENGINE NO. 2 (PRE SB 71-1131)							F	
	65-85369-12		NOSE DOME ASSY - EXTENDED, ACOUSTIC, ENGINE NO. 2 (POST SB 71-1256)							G	
	65-85369-14		NOSE DOME ASSY - EXTENDED, NON-ACOUSTIC, ENGINE NO. 2 (PRE SB 71-1256)							H	
	65-85369-16		NOSE DOME ASSY - EXTENDED, ACOUSTIC, ENGINE NO. 2 (POST SB 71-1256, 71-1131)							J	
	65-85369-21		NOSE DOME ASSY - EXTENDED, NON-ACOUSTIC, ENGINE NO. 1							K	
	65-85369-22		NOSE DOME ASSY - EXTENDED, NON-ACOUSTIC, ENGINE NO. 2							L	
5	BACB3ONE3H4		. BOLT								2
10	AN960D10		. WASHER								2
15	BACB3ONE3H2		. BOLT								1
20	AN960D10		. WASHER								1
25	BACC10EP4		. CLAMP								1
30	BACB3ONE3H4		. BOLT								2
35	AN960D10		. WASHER								2
40	65-85681-1		. TUBE ASSY, PT2							A-DIK	1
45	65-85681-2		. TUBE ASSY, PT2							E-HJL	1
-50	BACR15CE5D		. RIVET								24
55	65-85369-5		. CONE ASSY							BCFG	1
55	65-85369-17		. CONE ASSY							IJ	1
55	65-85369-20		. CONE ASSY - ENGINE NO. 1 AND 2, SPECIAL SPARES ASSY *[3]								1
60	BACR15CE5D		. . RIVET								28
65	BACR15BB5D		. . RIVET								8
70	65-85369-8		. . RING								1
75	65-85369-6		. . CONE-INNER								1

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FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	N O M E N C L A T U R E							USE CODE	QTY PER ASSY
			1	2	3	4	5	6	7		
2-											
80	BACR15BB5D		.	.	R	I	V	E	T		4
85	65-85369-10		.	.	B	R	A	C	K		1
90	BACR15BA3D		.	.	R	I	V	E	T		4
95	BACN10JQ32		.	.	P	L	A	T	E, N	U	2
100	BACR15CE5D		.	.	R	I	V	E	T		6
105	65-85369-9		.	.	C	U	P	*	[1]		1
105	65-85369-19		.	.	C	U	P				1
110	65-85369-7		.	.	C	O	N	E	-O	U	1
110	65-85369-18		.	.	C	O	N	E	-O	U	1
115	BACR15BB5D		.	.	R	I	V	E	T		3
120	65C13050-7		.	.	B	R	A	C	K	CDIK	1
125	65C13050-6		.	.	B	R	A	C	K	GHJL	1
130	65-85382-1		.	.	L	I	N	E	R	A	1
130	65-85382-2		.	.	L	I	N	E	R	E	1
130	65-85382-11		.	.	L	I	N	E	R	DK	1
130	65-85382-12		.	.	L	I	N	E	R	HL	1
130	65-85679-1		.	.	P	A	N	E	L	B	1
130	65-85679-9		.	.	P	A	N	E	L	B	1
130	65-85679-10		.	.	P	A	N	E	L	F	1
130	65-85679-2		.	.	P	A	N	E	L	F	1
130	173-1203-1		.	.	P	A	N	E	L	CD	1
					(BOEING 10-61900-1)						
130	173-1203-3		.	.	P	A	N	E	L	GJL	1
					(BOEING 10-61900-2)						
135	BACR15BA5D		.	.	R	I	V	E	T	ABDE	5
										FH	
140	65-85382-8		.	.	B	R	A	C	K	ABDE	1
										FH	
145	BACR15BA3D		.	.	R	I	V	E	T	ABDE	4
					(USED ON 65-85382-8)					FH	
150	BACN10JP3A		.	.	P	L	A	T	E, N	ABDE	2
					(USED ON 65-85382-8)					FH	
155	BACR15BA5D		.	.	R	I	V	E	T	ABDE	7
										FH	

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FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	N O M E N C L A T U R E							USE CODE	QTY PER ASSY
			1	2	3	4	5	6	7		
2-											
-160	65C13050-3		.	.	BRACKET					D	1
-165	65C13050-4		.	.	BRACKET					H	1
-170	65-85353-1		.	.	CAGE, NUT					ABDE	4
										FH	
-175	BACN10NT5A		.	.	NUT					ABDE	4
										FH	
-180	BACR15BA5D		.	.	RIVET					DH	3
185	65C13050-5		.	.	BRACKET					DH	1
-190	BACR15BA5D		.	.	RIVET					AEDH	32
-195	65-85382-7		.	.	FILLER					AEDH	4
-200	65-85382-5		.	.	DOUBLER					AEDH	1
-205	65-85382-10		.	.	DOUBLER					AEDH	1
-210	BACR15BA5D		.	.	RIVET					AEDH	34
-215	65-85382-9		.	.	RING, INTERMEDIATE					AEDH	1
-220	BACR15BA5D		.	.	RIVET					AEDH	24
225	65-85382-6		.	.	RING, FWD					AEDH	1
230	65-85382-3		.	.	SKIN					AD	1
230	65-85382-4		.	.	SKIN					EH	1
-235	65-85679-3		.	.	PANEL ASSY, POLY					B	1
-235	65-85679-4		.	.	PANEL ASSY, POLY					F	1
-240	BACR15BA3D		.	.	RIVET					ABDE	4
										FH	
-245	MS27253-1		.	.	PLATE, IDENTIFICATION					ABDE	1
										FHKL	
-250	MS27253-F1		.	.	PLATE, IDENTIFICATION					CGIJ	

\*[1] REPLACED BY 65-85369-19 FOR SPARES ONLY - SEE \*[3]

\*[2] REPLACED BY 65-85369-18 FOR SPARES ONLY - SEE \*[3]

\*[3] SPECIAL SPARES SUBASSEMBLY, ENGINE NO. 1 & 2 NOSE CONE CONSISTS OF:  
65-85369-8 RING, -19 CUP, -18 OUTER CONE

VENDORS

V51563 ROHR INDUSTRIES INC., P.O. BOX 878, CHULA VISTA, CALIFORNIA 92012