

TO: ALL HOLDERS OF RAM AIR MODULATION EXHAUST DUCT ASSEMBLY OVERHAUL MANUAL,
21-26-05

REVISION NO. 8, DATED MAR 1/03

HIGHLIGHTS

DESCRIPTION OF CHANGE	TOPICS AFFECTED												
	D & O	D / A s s y	C l e a n i n g	I n s p / C h k	R e p a i r	A s s y	F / C	T e s t	T / S h o o t i n g	S / T o o l s	S t o r a g e	I P L	L / O v e r h a u l
Added missing Fig. 2 in the assembly section						X							

Mar 1/03

21-26-05
HIGHLIGHTS
Page 1 of 1

RAM AIR MODULATION EXHAUST DUCT ASSEMBLY

21-26-05

BOEING P/N 65-51201-3 thru -44
65C38199-1 thru -20, -23 thru -30

AIRLINE P/N

THE FOLLOWING DIRECTIVES APPLY TO THIS SUBJECT:

BOEING SERVICE BULLETIN	BOEING TEMPORARY REVISION	OTHER DIRECTIVES	DATE DIRECTIVE INCORPORATED INTO TEXT
21-1019		PRR 30999	Feb 15/69
21-1022		PRR 31546	Jun 10/70
21-1028		PRR 31685	Jun 10/70
		PRR 31871	Jun 10/72
		PRR 32070-14	Jun 10/72
21-1043		PRR 34475-3	Jul 5/77
			Jun 5/91
21-1123			Jul 1/01

Jul 1/01

21-26-05
Page T-1

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
21-26-05					
T-1	Jul 1/01				
T-2	BLANK				
* LEP-1	Mar 1/03				
LEP-2	BLANK				
T/C-1	Jul 1/01				
T/C-2	BLANK				
1	Jul 1/01				
2	Jul 1/01				
3	Jul 1/01				
4	Jul 1/01				
5	Jul 1/01				
6	Nov 1/02				
7	Nov 1/02				
* 8	Mar 1/03				
* 8A	Mar 1/03				
* 8B	BLANK				
9	Jul 1/01				
10	Jul 1/01				
11	Jul 1/01				
12	Jul 1/01				
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*[1] Use applicable procedures that are given in SOPM 20-44-02 and standard industry practices.

RAM AIR MODULATION EXHAUST DUCT ASSEMBLY

1. DESCRIPTION AND OPERATION

A. Description

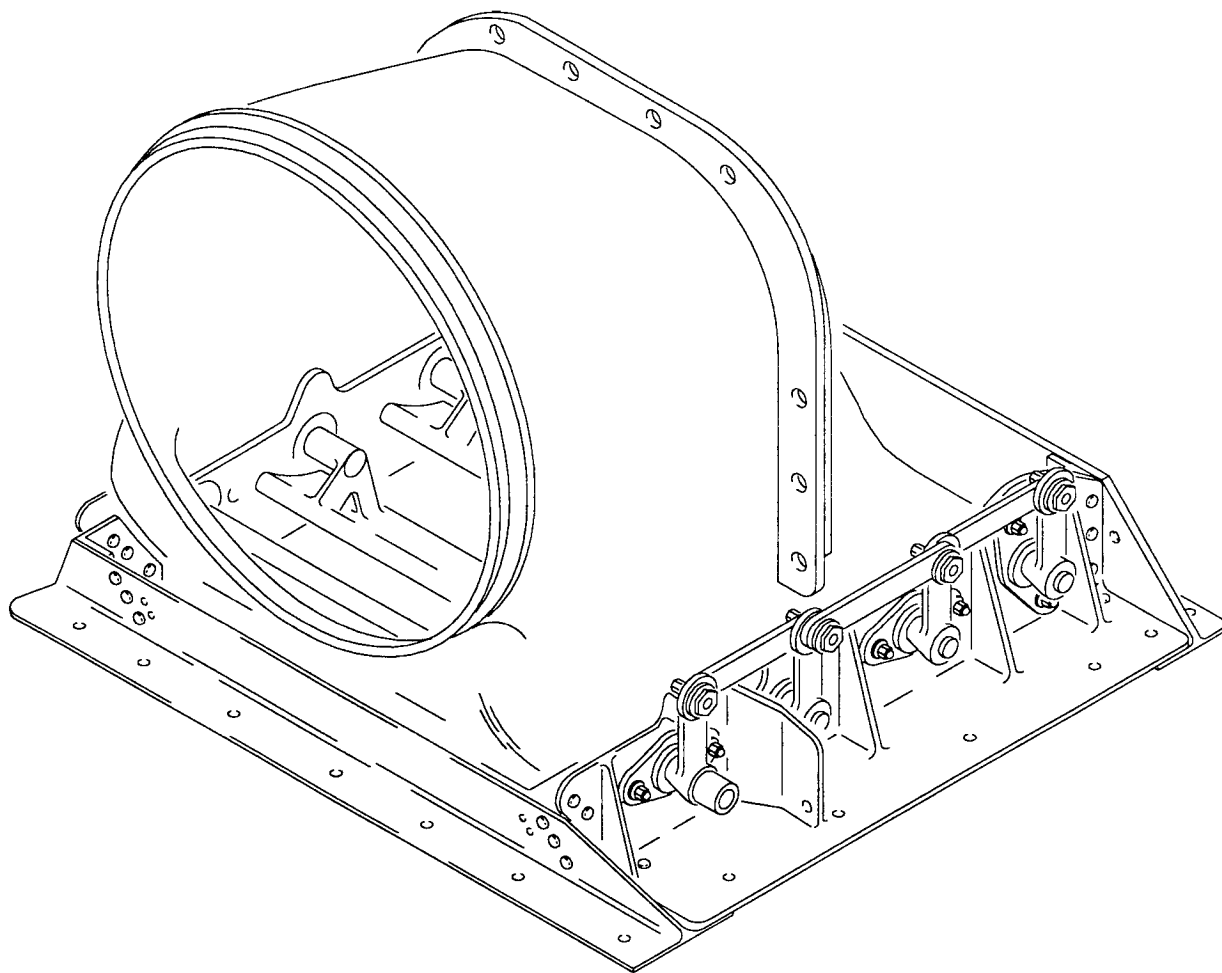
- (1) The Ram Air Modulation Exhaust Duct Assembly is a structural support for three louvers located inside the duct assembly.
- (2) On exhaust duct assemblies (65-51201 -3 thru -44), the three louvers are controlled by one linkage mechanism.
- (3) On exhaust duct assemblies (65C38199 -1 thru -20, and -23 thru -30), the airplane operator has the option to remove the three louvers as shown in Service Bulletin 737 SB 21-1123.

B. Operation

- (1) The linkage mechanism will change the positions of the three louvers, all at the same time.
- (2) During normal operation, the louvers can be positioned to increase or decrease the flow of exhaust air that goes through the duct assembly.
- (3) If the louvers are removed as given in 737 SB 21-1123, then the exhaust air will free-flow through the duct assembly.

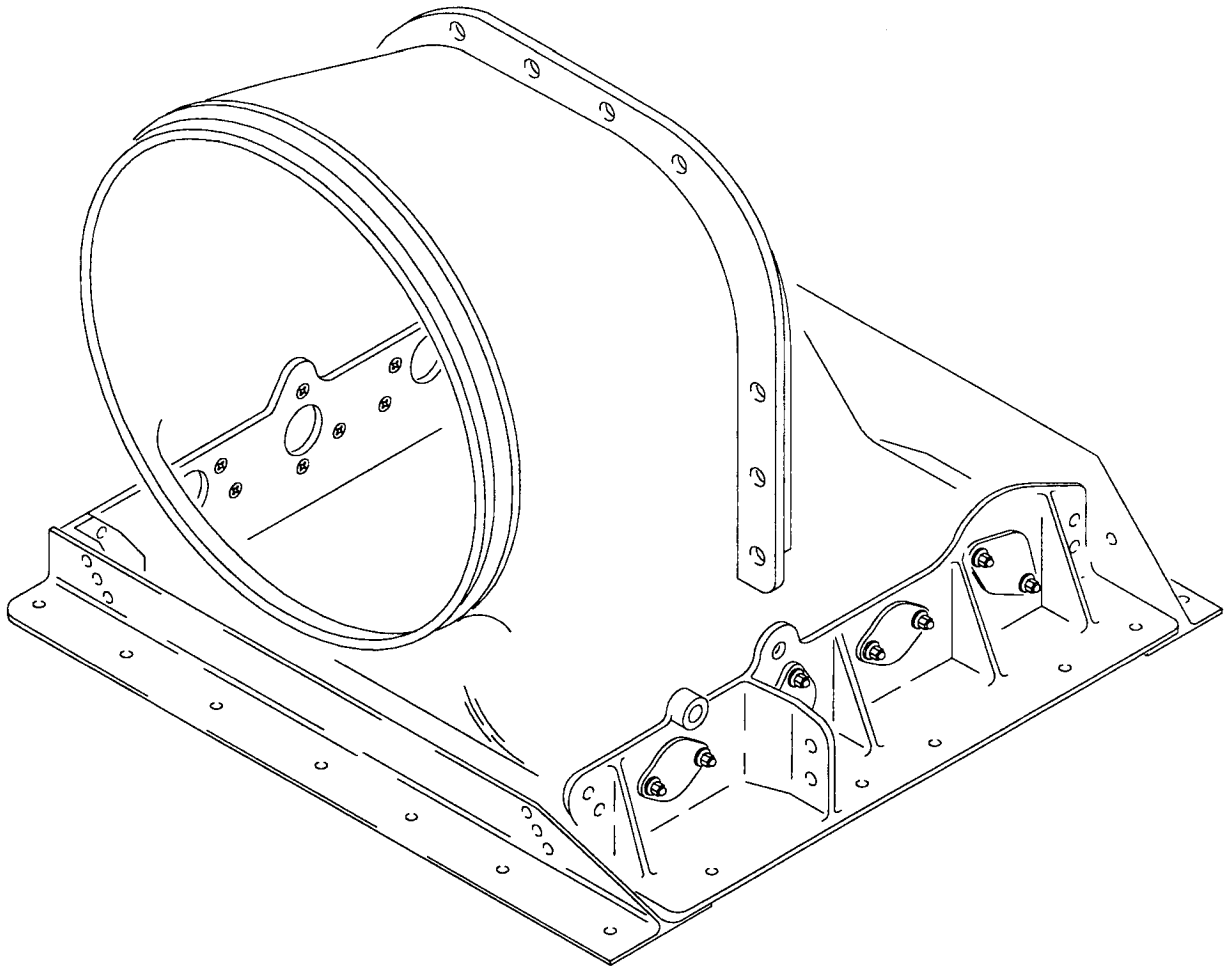
C. Leading Particulars (Approximate)

Height -- 18.0 in.
Length -- 18.0 in.
Width -- 18.0 in.
Weight -- 14.0 lb



65-51201-3 THRU -44

Ram Air Modulation Exhaust Duct Assembly
Figure 1 (Sheet 1)



65C38199-1 THRU -20, -23 THRU -30

Ram Air Modulation Exhaust Duct Assembly
Figure 1 (Sheet 2)

2. DISASSEMBLY (Fig. 4)

NOTE: On exhaust duct assemblies (65-51201 -3 thru -44), use 'Disassembly' procedures given in A thru I.

On exhaust duct assemblies (65C38199 -1 thru -20, and -23 thru -30), use 'Disassembly' procedures given in step J.

A. Remove cotter pins (1), nuts (2), and washers (3A) from shafts (23 or 23A).

B. Duct assemblies (65-51201-3 thru -8).

(1) Remove spring pin (11) from shaft assembly (8).

(2) Remove spring pin (4) from arm assembly (5).

(3) Remove arm assemblies (5, 13) simultaneously with attached links (21 and/or 22 or 22A) and shaft (10).

NOTE: It is recommended that you record the number of washers (16) that you use; it will help in the assembly procedures of the duct.

(4) Remove nuts (17), washers (3 and/or 18), and bolts (19, 20) from arm assemblies (5, 13).

(5) Remove link or links (21, 22, 22A, as applicable).

C. Duct assemblies (65-51201-9 thru -44)

(1) Remove nuts (17) and bolts (27) from bearing (12G or 28).

(2) Remove arm assemblies (13), and shaft assembly (12A) or assembled items (4, 5, 23A, 24, 28, 16A, 52, 1, 4, 53) simultaneously.

a) Guide shaft (12C or 53) while moving thru hole in duct assembly.

NOTE: It is recommended that you record the number of washers (16) that you use; it will help in the assembly procedure of the duct.

(3) Remove nuts (17), washers (3 and/or 18), and bolts (19, 20) from arm assemblies (5 or 12K, 13).

(4) Remove the link (22A).

(5) Remove spring pins (12B, 12J), and the separate tube (12C or 53) from shaft (12N or 23A).

(6) Remove cotter pin (12D or 1) and nut (12E or 52) from shaft (12N or 23A), and separate shaft, with keeper (12P or 24), bearing cap (12G or 28) and arm (12K or 5).

NOTE: Do not remove bearing (12I, 30) from bearing cap assembly (12G, 28) unless repair or replacement is necessary.

D. Remove shafts (23) from arm assemblies (13).

E. Remove keepers (24) from shafts (23).

NOTE: Do not remove bearings (7, 12M) from arm assemblies (5, 12K) or bearing (15) from arm assembly (13), unless a repair or a replacement is necessary.

F. Remove retaining rings (25) from shafts (26) or cotter pins (1), nuts (2) and washers (3A) from shaft assemblies (50A).

G. Remove nuts (17), bolts (27), bearing cap assemblies (28) from duct assembly (31).

H. Remove shafts (26 or 50A, 50 or 50A) from bearing cap assemblies (28).

NOTE: Do not remove bearing (30, 12I) from bearing cap assembly (28, 12G) unless repair or replacement is necessary.

I. Remove exhaust louvers (51) and tube (9) when applicable.

NOTE: Do not disassemble the duct assembly (31) unless a repair or a replacement of components (items 32 thru 49) is necessary.

J. Duct assemblies (65C38199 -1 thru -20 and -23 thru -30)

NOTE: The steps that follow are only for exhaust duct assemblies that have been changed by service bulletin SB 737-21-1123.

(1) Remove nuts (17A) and washers (16B) from bolts (27A).

(2) Remove bolts (27A) from cover plates (55).

NOTE: Do not remove the duct assembly (31) unless a repair or a replacement of components (items 32 thru 49) is necessary.

3. CLEANING

A. Use a standard shop practices to clean all of the parts in the exhaust duct assembly, except for the bearings.

NOTE: Refer to SOPM 20-30-03 for the cleaning procedures.

B. Clean all bearings as given in SOPM 20-30-01.

NOTE: Bearing (7, 15, and 30) are Teflon lined. Refer to SOPM 20-30-01 to correctly clean Teflon lined bearings.

4. INSPECTION/CHECK

- A. Use standard industry practices to do a visual inspection of all the parts for defects.
- B. Magnetic particle examine (SOPM 20-20-01) on the shafts (23, 26, 50B).
- C. Penetrant examine (SOPM 20-20-02) on the keepers (12P, 24), the arms (6, 12L, 14), the links (21, 22, 22A).

5. REPAIR (Fig. 4)

- A. Repair small defects by standard industry practices.
- B. Refinish

NOTE: Refer to SOPM 20-30-02 for stripping of protective finishes. Refer to SOPM 20-41-01 for explanation of F and SRF finish symbols.

- (1) Arm (6, 69-38749-3), (14, 69-38749-4), angle (44, 65-51217-5, -6) -- Chromic acid anodize (F-2.20) and apply BMS 10-11, Type 1 primer (SRF-12.205) but no primer in holes or on splines on arm. Material: Al alloy.
- (2) Arm (6, 69-38749-9), (12L, 69-38749-9, -14), (14, 69-38749-8, -12) -- Chromic acid anodize (F-17.04) all over. Apply BMS 10-11, Type 1 primer (F-20.02) but not in holes or on splines on arm. Material: Al alloy.
- (3) Angle (44, 65-51217-9 thru -12) -- Chromic acid anodize (F-17.04) all over. Apply BMS 10-79, Type 3 primer (F-19.47) and BMS 10-60 gray gloss enamel (F-14.9813, which replaces SRF-14.9813) all over. Material: Al alloy.
- (4) Shafts (10, 12N, 23, 23A, 26, 50B) -- Cadmium plate (F-1.1926) all over. Material: 4340 steel, 180-200 ksi.
- (5) Tube (9), links (21, 22, 22A), shaft (50), shaft (53) -- Chemical treat or chromic acid anodize and apply BMS 10-11, Type 1 primer (SRF-2.30) all over, but no primer on shaft (53) internal splines. Material: Al alloy.
- (6) Cap (28A), angle (43, 65-51216-5, -6) -- Chromic acid anodize and apply BMS 10-11, Type 1 primer (SRF-2.311) all over. Material: Al alloy.
- (7) Angle (43, 65-51216-9, -10) -- Chromic acid anodize (F-17.04) all over. Apply BMS 10-79, Type 3 primer (F-19.47) and BMS 10-60 gray gloss enamel (F-14.9813, which replaces SRF-14.9813) all over. Material: Al alloy.
- (8) Keeper (12P, 24) -- Passivate (F-8.07) all over. Material: AISI 302 CRES.
- (9) Clip (32, 65-49572-11), (33, 49572-13), (34, 65-49572-14), tee (35, 69-49572-15), (36, 69-49572-17, -18), doubler (41, 65-49572-7) -- Chemical treat and apply BMS 10-11, Type 1 primer (SRF-2.31) all over. Material: Al alloy.

- (10) Clip (32, 65-49572-41), (33, 69-49572-42), (34, 69-49572-43) -- Chromic acid anodize and apply BMS 10-11, Type 1 primer (F-18.13) all over. Apply BMS 10-11, Type 2 white gloss enamel (F-21.03) all over. Material: Al alloy.
- (11) Tee (35, 65-49572-35, -36, -59, -60, -65), (36, 69-49572-37, -38, -61, -62) -- Chromic acid anodize (F-17.04) all over. Apply BMS 10-79, Type 3 primer (F-19.47) and one coat BMS 10-60 gray gloss enamel (F-14.9813, which replaces SRF-14.9813) all over. Material: Al alloy.
- (12) Doubler (41, 65-49572-44) -- Chemical treat and apply BMS 10-11, Type 1 primer (F-18.06) all over. Apply BMS 10-11, Type 2, white gloss enamel (F-21.03) all over. Material: Al alloy.
- (13) Exhaust louver (51, P/N 65-51218-1) -- Chemical treat or chromic acid anodize and apply BMS 10-11, Type 1 primer (SRF-2.30) and one coat of enamel BMS 10-11, Type 2 color gray (SRF-12.63), but no primer or enamel on internal spline surface. Material: Al alloy.
- (14) Exhaust louver (51, 65-51218-3) -- Chromic acid anodize (F-17.04) all over. Apply BMS 10-79, Type 3 primer (F-19.47) and BMS 10-60 gray gloss enamel (F-14.9813, which replaces SRF-14.9813), but not on spline surfaces. Material: Al alloy.
- (15) Cover Plate (55) -- Chemical treat and apply BMS 10-11, Type 1 primer (F-18.06) all over. Apply BMS 10-11, Type 2 white gloss enamel (F-21.03) all over. Material: Al alloy.

C. Replacement

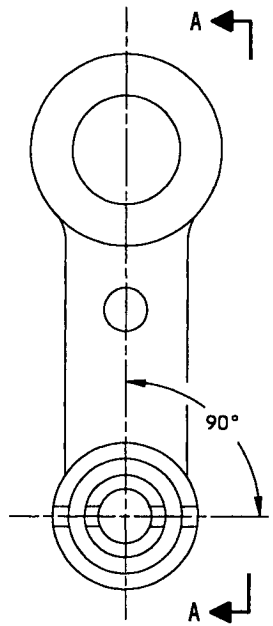
- (1) Replace spring pins (4, 11, 12B, 12J).
- (2) Bearings (7, 12I, 12M, 15, 30) -- Install replacements and roller swage each side (SOPM 20-50-03).
- (3) Arm (6, 12L) -- Drill hole for spring pin. Refer to Fig. 2.
- (4) Seal (42) -- Bond seal (42) to flange (40) with Type 60 adhesive (SOPM 20-50-12).
- (5) Flange (40) -- Bond flange (40) to duct (39) with Type 38 adhesive (SOPM 20-50-12).
- (6) Cover plate (55) -- Install a replacement plate and seal the edges with BMS 5-95 sealant.

6. ASSEMBLY (Fig. 4)

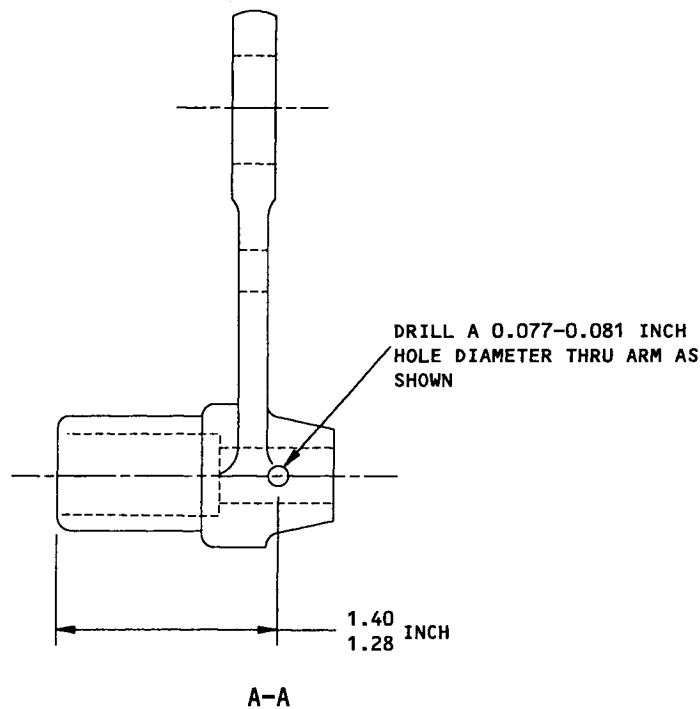
NOTE: On 65-51201-series ducts, use par. A thru I.

On 65C38199-series ducts, use par. J.

A. Duct assembly (65-51201-3 thru -8)



ARM (6, 12L)



Replacement Details
Figure 2

- (1) Assemble shaft (10), bearing cap (28), arm (5), tube (9), and spring pins (11, 4).

NOTE: Lockwire spring pins.

- (2) Position shaft assembly, with shaft (50), inside duct assembly.
- (3) Install bearing caps (28) in duct assembly with bolts (27) and nuts (17).

NOTE: Insert shaft (50) thru bearing caps during installation.

- (4) Position exhaust louvers (51) in place, and insert shafts (26) thru bearing caps (28) and exhaust louvers.
- (5) Install retaining rings (25) on shafts (26).

B. Duct assembly (65-51201-9 thru -44)

- (1) Install keeper (24 or 12P) on shaft (23A or 12N) and insert shaft in arm (5 or 12K) and bearing cap (28 or 12G) and install spring pin (4 or 12J).
- (2) Install washer (16A or 12F) and nut (52 or 12E) on shaft (23A or 12N).

NOTE: Tighten nut to minimum of 30 lb-in. and as necessary to install cotter pin (1 or 12D).

- (3) Install tube (53 or 12C) on shaft (23A or 12N) and install spring pin (4 or 12B).

NOTE: Lockwire pins.

- (4) Position shaft assembly (12A), with shaft (50A), inside duct assembly.
- (5) Position exhaust louvers in place, and install shafts (50A) in louvers.
- (6) Install bearing caps (28) in duct assembly with bolts (27) and nuts (17).

NOTE: Insert shafts (50A) thru bearing caps during installation.

- (7) Install washers (3A), nuts (2).

NOTE: Tighten nuts to minimum of 30 lb-in. and as necessary to install cotter pin (1 or 12D).

C. Install keepers (24) on shafts (23).

D. Insert shafts (23) through arm assembly (13) pushing as far as possible until keepers (24) are seated.

NOTE: If necessary, shaft (23; 69-38750-1) can be installed by the shrink fit method as given in SOPM 20-50-03..

- E. Assemble links (21, 22, or 22A) with arm assemblies (5 or 12K, 13), use bolts (19, 20), washers (3, 18), and nuts (17).

NOTE: Link (22A) must be installed with the squared end attached to the arm (5 or 12K).

- F. Install washers (16) as necessary to center louvers (51) in duct and to make sure that the louvers will clear duct opening during rotation.
- G. Insert shafts (23) (attached to arm assemblies [5 or 12K, 13] and links [21, 22 or 22A] into bearing caps (28) and louvers (51). Carefully push the components until the assembly is located correctly.

NOTE: If necessary, shaft (23; 69-38750-1) can be installed by the shrink-fit method as given in SOPM 20-50-03.

- H. Install washers (3A) and nuts (2).

NOTE: Tighten nut (2) to minimum of 30 lb-in. and as necessary to install cotter pin (1).

- I. Check assembly rigging.

- (1) Line up rig pin hole in arm assy (5) with the rig pin hole in the base of duct assy (31).

- (a) Install a 1/4 inch diameter rig pin.
- (b) With rig pin installed, the dimension between louvers (51) must be as given in (Fig. 3).
- (c) Remove rig pin.

- (2) Attach a spring scale to the rig pin hole in the arm assy (5).

- (a) Pull on the spring scale, keeping the scale perpendicular to the centerline of the arm assy, until the arm assy has traveled thru at least 45 degrees.
- (b) Scale reading should not be greater than 70 pounds or less than 16 pounds.

- 1) If scale reading exceeds 70 pounds, check the duct assembly for louvers (51) dragging on the exit opening.

NOTE: Add or remove washers (16) as necessary to center louvers in opening.

- 2) If scale reading is less than 16 pounds, check the assembly louver pivot shaft nuts (2, 12E, or 52) for correct torque.

NOTE: (Nuts to be tightened to 30 lb-in. minimum; additional torque as necessary for cotter pin installation).

- (3) Manually operate the assembly thru several cycles.

NOTE: Check for binding and interference.

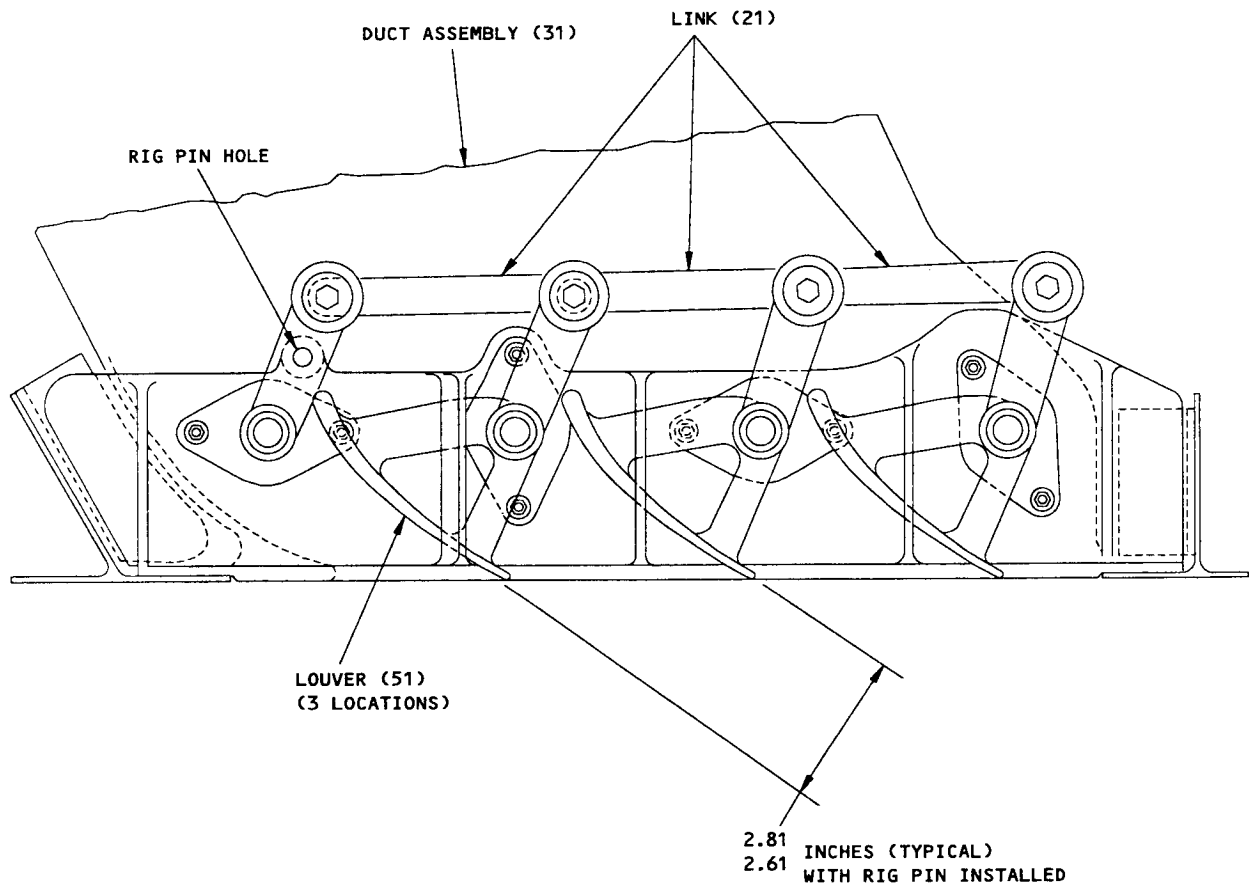
J. Duct assemblies (65C38199 -1 thru -20 and -23 thru -30)

NOTE: The steps that follow are only for exhaust duct assemblies that have been changed by service bulletin SB 737-21-1123.

- (1) Install bolts (27A) in cover plates (55).

NOTE: Seal the edges of the cover plate (55) with BMS 5-95 sealant. Refer to SOPM 20-50-19.

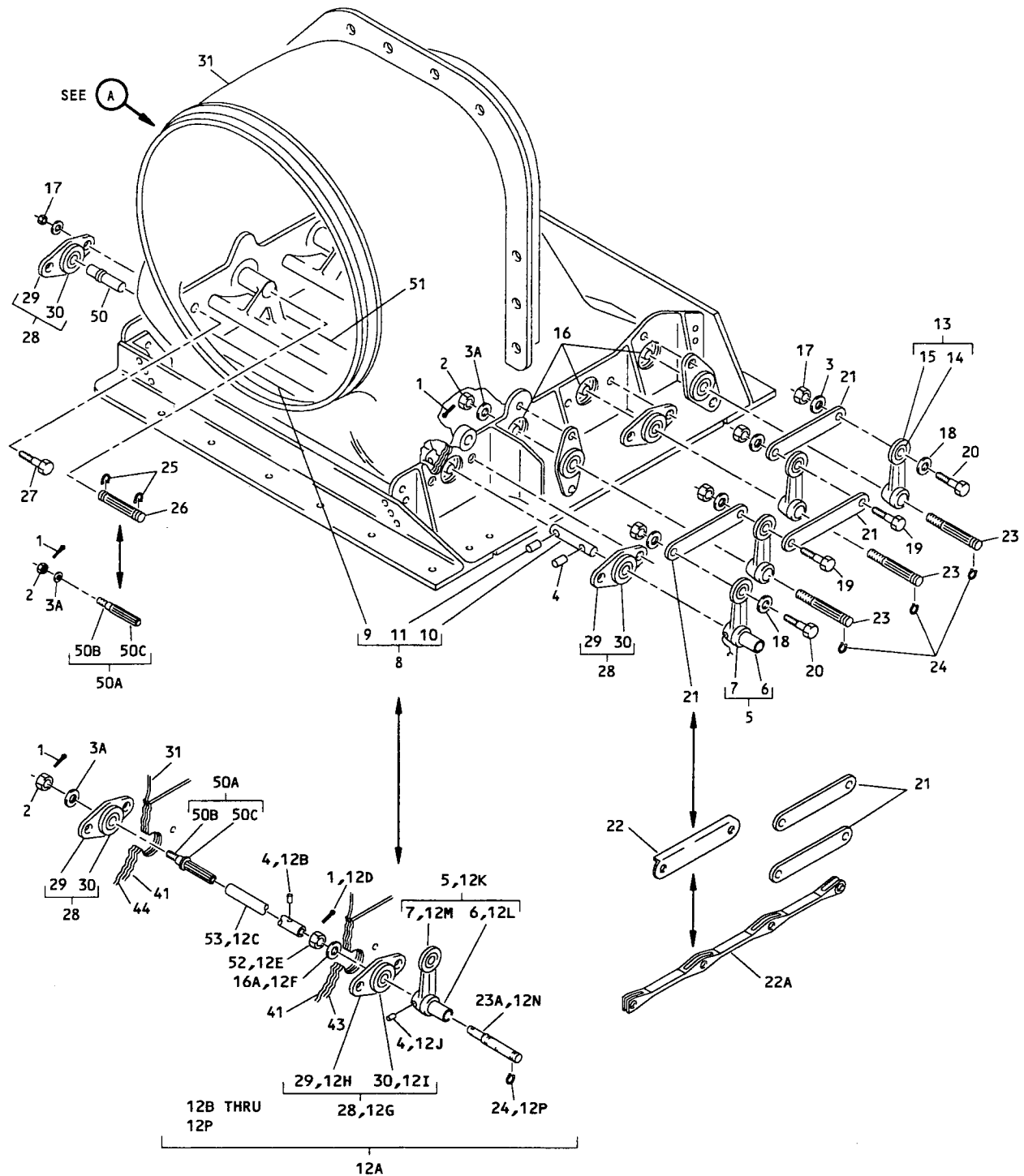
- (2) Install nuts (17A) and washers (16B) on bolts (27A).



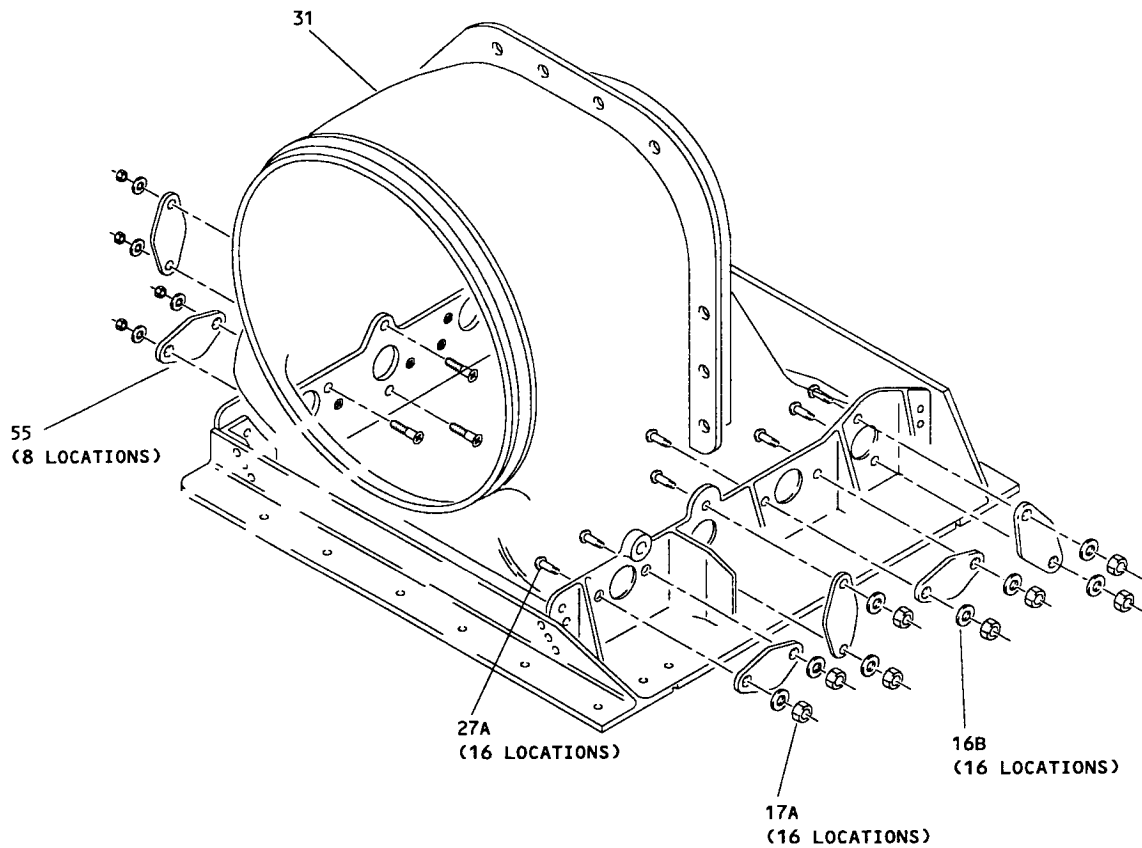
NOTE: LOUVERS SHOWN SOLID FOR IDENTIFICATION

Assembly Rigging Check
Figure 3

7. ILLUSTRATED PARTS LIST

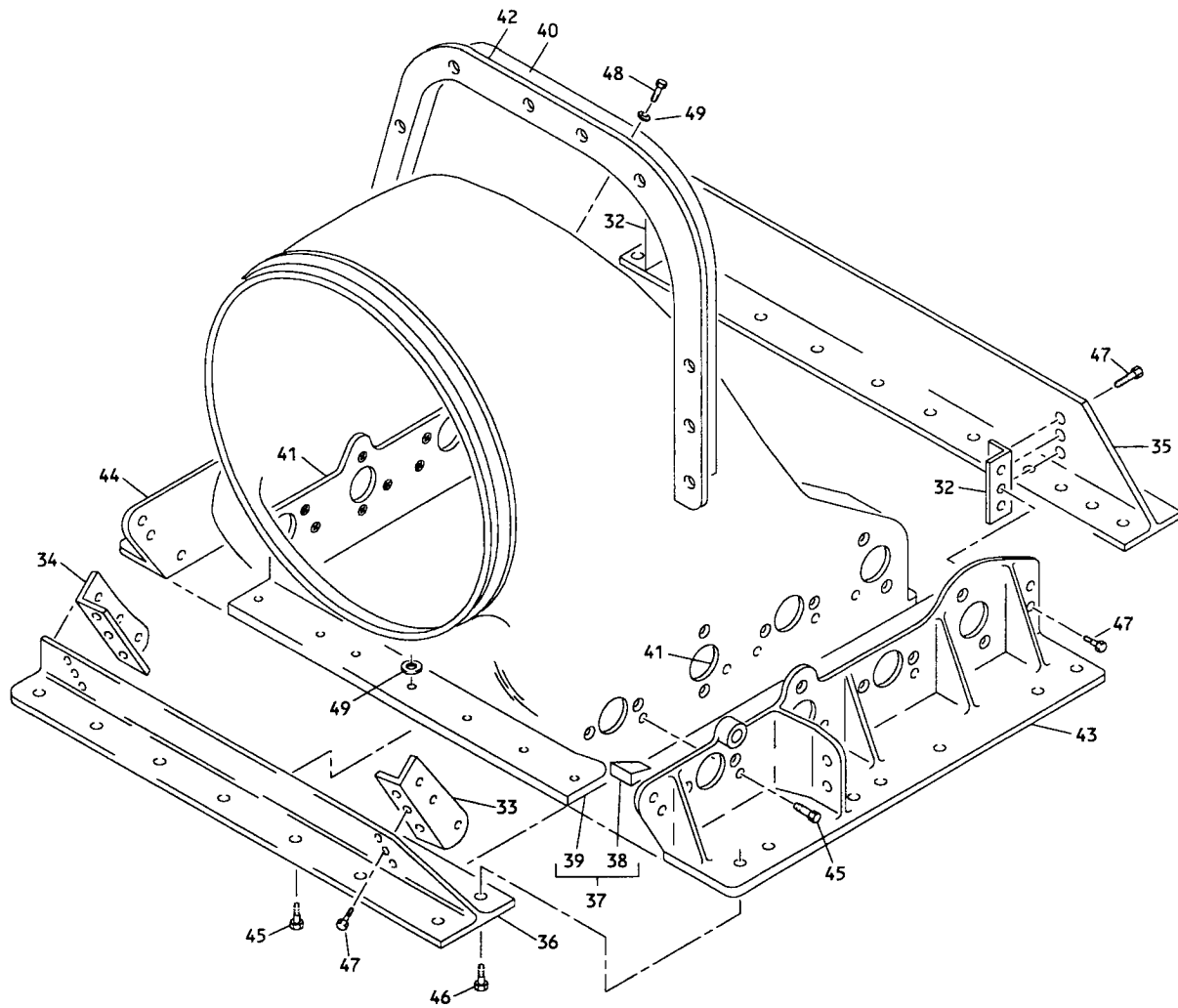


65-51201-3 THRU -44
Ram Air Modulation Exhaust Duct Assembly
Figure 4 (Sheet 1)



65C38199-1 THRU -20, -23 THRU -30

Ram Air Modulation Exhaust Duct Assembly
Figure 4 (Sheet 2)



(A)

Ram Air Modulation Exhaust Duct Assembly
Figure 4 (Sheet 3)

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE							QTY PER ASSY	USE CODE
			1	2	3	4	5	6	7		
4-	65-51201-3		EXHAUST DUCT ASSY, RAM AIR MODULATION (LH)(SB 21-1019)							A	RF
	65-51201-4		EXHAUST DUCT ASSY, RAM AIR MODULATION (RH)(SB 21-1019)							B	RF
	65-51201-5		EXHAUST DUCT ASSY, RAM AIR MODULATION (LH)(SB 21-1019)							C	RF
	65-51201-6		EXHAUST DUCT ASSY, RAM AIR MODULATION (RH)(SB 21-1019)							D	RF
	65-51201-7		EXHAUST DUCT ASSY, RAM AIR MODULATION (LH)(SB 21-1019, 21-1022)							E	RF
	65-51201-8		EXHAUST DUCT ASSY, RAM AIR MODULATION (RH)(SB 21-1019, 21-1022)							F	RF
	65-51201-9		EXHAUST DUCT ASSY, RAM AIR MODULATION (LH)(SB 21-1022)							G	RF
	65-51201-10		EXHAUST DUCT ASSY, RAM AIR MODULATION (RH)(SB 21-1022)							H	RF
	65-51201-11		EXHAUST DUCT ASSY, RAM AIR MODULATION (LH)							I	RF
	65-51201-12		EXHAUST DUCT ASSY, RAM AIR MODULATION							J	RF
	65-51201-13		EXHAUST DUCT ASSY, RAM AIR MODULATION (RH)							K	RF
	65-51201-14		EXHAUST DUCT ASSY, RAM AIR MODULATION (RH)							L	RF
	65-51201-15		EXHAUST DUCT ASSY, RAM AIR MODULATION (LH) (PRE SB 21-1123)							M	RF
	65-51201-16		EXHAUST DUCT ASSY, RAM AIR MODULATION (RH) (PRE SB 21-1123)							N	RF
	65-51201-17		EXHAUST DUCT ASSY, RAM AIR MODULATION (LH) (PRE SB 21-1123)							P	RF
	65-51201-18		EXHAUST DUCT ASSY, RAM AIR MODULATION (RH) (PRE SB 21-1123)							Q	RF
	65-51201-19		EXHAUST DUCT ASSY, RAM AIR MODULATION (LH) (PRE SB 21-1123)							R	RF
	65-51201-20		EXHAUST DUCT ASSY, RAM AIR MODULATION (RH) (PRE SB 21-1123)							S	RF
	65-51201-21		EXHAUST DUCT ASSY, RAM AIR MODULATION (LH) (PRE SB 21-1123)							T	RF
	65-51201-22		EXHAUST DUCT ASSY, RAM AIR MODULATION (RH) (PRE SB 21-1123)							U	RF
	65-51201-23		EXHAUST DUCT ASSY, RAM AIR MODULATION (LH) (PRE SB 21-1123)							V	RF
	65-51201-24		EXHAUST DUCT ASSY, RAM AIR MODULATION (RH) (PRE SB 21-1123)							W	RF
	65-51201-25		EXHAUST DUCT ASSY, RAM AIR MODULATION (LH) (PRE SB 21-1123)							X	RF

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		
4-	65-51201-26		EXHAUST DUCT ASSY, RAM AIR MODULATION (RH) (PRE SB 21-1123)							Y	RF
	65-51201-27		EXHAUST DUCT ASSY, RAM AIR MODULATION (LH) (PRE SB 21-1123)							Z	RF
	65-51201-28		EXHAUST DUCT ASSY, RAM AIR MODULATION (RH) (PRE SB 21-1123)							BA	RF
	65-51201-29		EXHAUST DUCT ASSY, RAM AIR MODULATION (LH) (PRE SB 21-1123)							CA	RF
	65-51201-30		EXHAUST DUCT ASSY, RAM AIR MODULATION (RH) (PRE SB 21-1123)							DA	RF
	65-51201-31		EXHAUST DUCT ASSY, RAM AIR MODULATION (LH) (PRE SB 21-1123)							EA	RF
	65-51201-32		EXHAUST DUCT ASSY, RAM AIR MODULATION (RH) (PRE SB 21-1123)							FA	RF
	65-51201-33		EXHAUST DUCT ASSY, RAM AIR MODULATION (LH) (PRE SB 21-1123)							GA	RF
	65-51201-34		EXHAUST DUCT ASSY, RAM AIR MODULATION (RH) (PRE SB 21-1123)							HA	RF
	65-51201-35		EXHAUST DUCT ASSY, RAM AIR MODULATION (LH) (PRE SB 21-1123)							IA	RF
	65-51201-36		EXHAUST DUCT ASSY, RAM AIR MODULATION (RH) (PRE SB 21-1123)							JA	RF
	65-51201-37		EXHAUST DUCT ASSY, RAM AIR MODULATION (LH) (PRE SB 21-1123)							KA	RF
	65-51201-38		EXHAUST DUCT ASSY, RAM AIR MODULATION (RH) (PRE SB 21-1123)							LA	RF
	65-51201-39		EXHAUST DUCT ASSY, RAM AIR MODULATION (LH) (PRE SB 21-1123)							MA	RF
	65-51201-40		EXHAUST DUCT ASSY, RAM AIR MODULATION (RH) (PRE SB 21-1123)							NA	RF
	65-51201-41		EXHAUST DUCT ASSY, RAM AIR MODULATION (LH) (PRE SB 21-1123)							OA	RF
	65-51201-42		EXHAUST DUCT ASSY, RAM AIR MODULATION (RH) (PRE SB 21-1123)							PA	RF
	65-51201-43		EXHAUST DUCT ASSY, RAM AIR MODULATION (LH) (PRE SB 21-1123)							QA	RF
	65-51201-44		EXHAUST DUCT ASSY, RAM AIR MODULATION (RH) (PRE SB 21-1123)							RA	RF
	65C38199-1		EXHAUST DUCT ASSY, RAM AIR MODULATION (LH) (POST SB 21-1123)							SA	RF
	65C38199-2		EXHAUST DUCT ASSY, RAM AIR MODIFICATION (RH) (POST SB 21-1123)							TA	RF
	65C38199-3		EXHAUST DUCT ASSY, RAM AIR MODIFICATION (LH) (POST SB 21-1123)							UA	RF

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		
4-	65C38199-4		EXHAUST DUCT ASSY, RAM AIR MODIFICATION (RH) (POST SB 21-1123)							VA	RF
	65C38199-5		EXHAUST DUCT ASSY, RAM AIR MODIFICATION (LH) (POST SB 21-1123)							WA	RF
	65C38199-6		EXHAUST DUCT ASSY, RAM AIR MODIFICATION (RH) (POST SB 21-1123)							XA	RF
	65C38199-7		EXHAUST DUCT ASSY, RAM AIR MODIFICATION (LH) (POST SB 21-1123)							YA	RF
	65C38199-8		EXHAUST DUCT ASSY, RAM AIR MODIFICATION (RH) (POST SB 21-1123)							ZA	RF
	65C38199-9		EXHAUST DUCT ASSY, RAM AIR MODIFICATION (LH) (POST SB 21-1123)							CB	RF
	65C38199-10		EXHAUST DUCT ASSY, RAM AIR MODIFICATION (RH) (POST SB 21-1123)							DB	RF
	65C38199-11		EXHAUST DUCT ASSY, RAM AIR MODIFICATION (LH) (POST SB 21-1123)							EB	RF
	65C38199-12		EXHAUST DUCT ASSY, RAM AIR MODIFICATION (RH) (POST SB 21-1123)							FB	
	65C38199-13		EXHAUST DUCT ASSY, RAM AIR MODIFICATION (LH) (POST SB 21-1123)							GB	
	65C38199-14		EXHAUST DUCT ASSY, RAM AIR MODIFICATION (RH) (POST SB 21-1123)							HB	
	65C38199-15		EXHAUST DUCT ASSY, RAM AIR MODIFICATION (LH) (POST SB 21-1123)							IB	
	65C38199-16		EXHAUST DUCT ASSY, RAM AIR MODIFICATION (RH) (POST SB 21-1123)							JB	
	65C38199-17		EXHAUST DUCT ASSY, RAM AIR MODIFICATION (LH) (POST SB 21-1123)							KB	
	65C38199-18		EXHAUST DUCT ASSY, RAM AIR MODIFICATION (RH) (POST SB 21-1123)							LB	
	65C38199-19		EXHAUST DUCT ASSY, RAM AIR MODIFICATION (LH) (POST SB 21-1123)							MB	
	65C38199-20		EXHAUST DUCT ASSY, RAM AIR MODIFICATION (RH) (POST SB 21-1123)							NB	
	65C38199-23		EXHAUST DUCT ASSY, RAM AIR MODIFICATION (LH) (POST SB 21-1123)							OB	
	65C38199-24		EXHAUST DUCT ASSY, RAM AIR MODIFICATION (RH) (POST SB 21-1123)							PB	
	65C38199-25		EXHAUST DUCT ASSY, RAM AIR MODIFICATION (LH) (POST SB 21-1123)							QB	
	65C38199-26		EXHAUST DUCT ASSY, RAM AIR MODIFICATION (RH) (POST SB 21-1123)							RB	
	65C38199-27		EXHAUST DUCT ASSY, RAM AIR MODIFICATION (LH) (POST SB 21-1123)							SB	

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USE CODE	QTY PER ASSY
4-	65C38199-28		EXHAUST DUCT ASSY, RAM AIR MODIFICATION (RH) (POST SB 21-1123)	TB	RF
	65C38199-29		EXHAUST DUCT ASSY, RAM AIR MODIFICATION (LH) (POST SB 21-1123)	UB	RF
	65C38199-30		EXHAUST DUCT ASSY, RAM AIR MODIFICATION (RH) (POST SB 21-1123)	VB	RF
1	MS24665-153		. PIN, COTTER (POST SB 21-1022)	A-F	3
1	MS24665-153		. PIN, COTTER	G-W	8
1	MS24665-153		. PIN, COTTER (PRE SB 21-1123)	X-PA	7
2	BACN10JD3		. NUT (REPLS AN320-3) (PRE SB 21-1123)	G-L	7
2	BACN10JD3		. NUT (REPLS AN320-3) (POST SB 21-1033)	A-F	3
3	AN960PD10		. WASHER	C-L	4
3A	BACW10P136AL		. WASHER	G-L	4
3A	BACW10P136AL		. WASHER (POST SB 21-1033)	A-F	3
4	MS39086-20		. PIN, SPRING	A-F	1
4	MS39086-20		. PIN, SPRING	G-J	2
4	MS39086-20		. PIN, SPRING	KL	1
4	MS39086-21		. PIN, SPRING	KL	1
4	MS39086-21		. PIN, SPRING (ADDED PER SB 21-1043)	A-F	1
5	69-38749-1		. ARM ASSY	A-H	1
5	69-38749-1		. ARM ASSY	IJ	1
5	69-38749-7		. ARM ASSY (OPT)	IJ	1
5	69-38749-7		. ARM ASSY (PRE SB 21-1123)	K-N	1
6	69-38749-3		. . ARM (USED ON 69-38749-1)		1
6	69-38749-9		. . ARM (USED ON 69-38749-7)		
7	BS6ATC18-3		. . BEARING, V21335 (BOEING 10-60545-110)		1
7	KSBN3		. . BEARING, V97613 (BOEING 10-60545-110)		1
7	TFA-3-032		. . BEARING, V81376 (BOEING 10-60545-110)		1
7	03-713-0190		. . BEARING, V09455 (BOEING 10-60545-110)		1
8	69-38768-1		. SHAFT ASSY (PRE SB 21-1022)	A-F	1
9	69-38768-2		. . TUBE		1
10	69-38768-3		. . SHAFT		1
11	MS39086-18		. . PIN, SPRING		1
11	MS39086-116		. . PIN, SPRING (OPT)		
12	MS20995C32		DELETED		
12A	65C15632-1		. SHAFT ASSY	G-W	1
12A	65C15632-2		. SHAFT ASSY	X-PA	1
12B	MS39086-20		. . PIN, SPRING (PRE SB 21-1123)		1
12C	69-61225-1		. . SHAFT		1

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		
4-											
12D	MS24665-153		.	.		PIN, COTTER					1
12E	BACN10JD5		.	.		NUT					1
12F	AN960PD516		.	.		WASHER					1
12G	69-38748-1		.	.		CAP ASSY, BEARING					1
12H	69-38748-2		.	.	.	CAP					1
12I	BS10ATC24		.	.	.	BEARING, V21335 (BOEING 10-60545-101)					1
12I	KSBN5-19		.	.	.	BEARING, V97613 (BOEING 10-60545-101)					1
12I	TFA5		.	.	.	BEARING, V77896 (BOEING 10-60545-101)					1
12I	BLFN-5-032		.	.	.	BEARING, V81376 (BOEING 10-60545-101)					1
12I	03-713-0312		.	.	.	BEARING, V09455 (BOEING 10-60545-101)					1
12J	MS39086-21		.	.		PIN, SPRING					1
12K	69-38749-7		.	.		ARM ASSY (USED ON 65C15632-1)					1
12K	69-38749-13		.	.		ARM ASSY (USED ON 65C15632-2)					1
12L	69-38749-9		.	.	.	ARM (USED ON 65C15632-9)					1
12L	69-38749-14		.	.	.	ARM (USED ON 69-38749-13)					1
12M	BS6ATC18-13		.	.	.	BEARING, V21335 (BOEING 10-60545-110)					1
12M	KSBN3		.	.	.	BEARING, V97613 (BOEING 10-60545-110)					1
12M	TFA-3-032		.	.	.	BEARING, V81376 (BOEING 10-60545-110)					1
12M	03-713-0190		.	.	.	BEARING, V09455, (BOEING 10-60545-110)					1
12N	69-61224-1		.	.		SHAFT					1
12P	66-24472-1		.	.		KEEPER					1
13	69-38749-2		.			ARM ASSY				A-H	3
13	69-38749-2		.			ARM ASSY				IJ	3
13	69-38749-6		.			ARM ASSY (OPT)				IJ	3
13	69-38749-6		.			ARM ASSY (PRE SB 21-1123)				K-N	3
13	69-38749-11		.			ARM ASSY (PRE SB 21-1123)				P-PA	3
14	69-38749-12		.	.		ARM (USED ON 69-38749-11)					1
14	69-38749-8		.	.		ARM (USED ON 69-38749-6)					1
14	69-38749-4		.	.		ARM (USED ON 69-38749-2)					1
15	BS6ATC18-3		.	.		BEARING, V21335 (BOEING 10-60545-110)					1
15	KSBN3		.	.		BEARING, V97613 (BOEING 10-60545-110)					1

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	N O M E N C L A T U R E 1 2 3 4 5 6 7	USE CODE	QTY PER ASSY
4-15	TFA-3-032		. . BEARING, V81376 (BOEING 10-60545-110)		1
15	03-713-0109		. . BEARING, V09455 (BOEING 10-60545-110)		1
16	AN960PD516L		. WASHER (PRE SB 21-1123)	X-PA	6
16	AN960PD516		. WASHER	C-H	AR
16A	AN960PD516		. WASHER	I-L	1
16A	AN960PD516		. WASHER (PRE SB 21-1123)	X-PA	6
16B	AN960PD516L		. WASHER (POST SB 21-1123)	SA-VB	16
16B	AN960PD516		. WASHER (POST SB 21-1123)	SA-VB	16
17	BACN10JC3		. NUT (REPLS NAS679A3W)	A-L	20
				X-PA	
17A	BACN10JC3		. NUT (POST SB 21-1123)	SA-VB	16
18	BACW10P44AL		. WASHER	A-D	2
19	BACB30NE3-8		. BOLT (REPLS NAS1303-8)	A-D	2
20	BACB30NE3-7		. BOLT (REPLS NAS1303-7)	A-D	2
20	BACB30NE3-7		. BOLT (REPLS NAS1303-7) (PRE SB 21-1123)	E-L	4
				X-PA	
21	66-24471-1		. LINK	AB	3
21	66-24471-1		. LINK (PRE SB 21-1019)	CD	2
22	66-24471-2		. LINK (PRE SB 21-1019)	CD	1
22A	69-60712-1		. LINK (PRE SB 21-1123)	E-PA	1
22A	69-60712-1		. LINK (POST SB 21-1019)	CD	1
23	69-38750-3		. SHAFT (PREF)	A-Q	3
23	69-38750-1		. SHAFT (PRE SB 21-1123)	A-Q	3
23	69-38750-3		. SHAFT (PRE SB 21-1123)	R-PA	3
23A	69-61224-1		. SHAFT (PRE SB 21-1123)	G-L	1
24	66-24472-1		. KEEPER (PRE SB 21-1123)	A-F	3
				M-PA	
24	66-24472-1		. KEEPER	G-L	4
25	MS16633-1021		. RING, RETAINING (PRE SB 21-1022)	A-F	6
26	69-38750-2		. SHAFT (PRE SB 21-1022)	A-F	3
27	BACB30LU3-3		. BOLT (REPLS NAS517-3-3) (PRE SB 21-1022)	A-L	16
				X- RA	
27A	BACB30LU3-3		. BOLT (POST SB 21-1123)	SA-VA	16
28	69-38748-1		. CAP ASSY, BEARING	A-L	8
28	69-38748-1		. CAP ASSY, BEARING	M-PA	7
29	69-38748-2		. . CAP (PRE SB 21-1123)		1
30	BS10ATC24		. . BEARING, V21335 (BOEING 10-60545-101)		1
30	KSBN5-19		. . BEARING, V97613 (BOEING 10-60545-101)		1
30	TFA5		. . BEARING, V77896 (BOEING 10-60545-101)		1

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	N O M E N C L A T U R E 1 2 3 4 5 6 7	USE CODE	QTY PER ASSY
4-30	BLFN-5-032		. . BEARING, V81376 (BOEING 10-60545-101)		1
30	03-713-0312		. . BEARING, V09455 (BOEING 10-60545-101)		1
31	65-49572-29		. DUCT ASSY (LH)	ACEG	1
31	65-49572-30		. DUCT ASSY (RH)	BDFH	1
31	65-49572-31		. DUCT ASSY (LH)(SB 21-1028) (PRE AND POST SB 21-1123)	IKMPR SA VA WA	1
31	65-49572-32		. DUCT ASSY (RH)(SB 21-1028) PRE AND POST SB 21-1123)	JLNQ S TA VA XA	1
31	65-49572-33		. DUCT ASSY (LH) (PRE AND POST SB 21-1123)	T YA	1
31	65-49572-34		. DUCT ASSY (RH) (PRE AND POST SB 21-1123)	U ZA	1
31	65-49572-39		. DUCT ASSY (LH) (PRE AND POST SB 21-1123)	VX CB EB	1
31	65-49572-40		. DUCT ASSY (RH) (PRE AND POST SB 21-1123)	WY DB FB	1
31	65-49572-45		. DUCT ASSY (LH) (PRE AND POST SB 21-1123)	Z GA	1
31	65-49572-46		. DUCT ASSY (RH) (PRE AND POST SB 21-1123)	BA HB	1
31	65-49572-49		. DUCT ASSY (LH) (PRE AND POST SB 21-1123)	CA IB	1
31	65-49572-50		. DUCT ASSY (RH) (PRE AND POST SB 21-1123)	DA JB	1
31	65-49572-51		. DUCT ASSY (LH) (PRE AND POST SB 21-1123)	EA KB	1
31	65-49572-52		. DUCT ASSY (RH) (PRE AND POST SB 21-1123)	FA LB	1
31	65-49572-53		. DUCT ASSY (LH) (PRE AND POST SB 21-1123)	GA MB	1
31	65-49572-54		. DUCT ASSY (RH) (PRE AND POST SB 21-1123)	HA NB	1
31	65-49572-55		. DUCT ASSY (LH) (PRE AND POST SB 21-1123)	IA	1
31	65-49572-56		. DUCT ASSY (RH) (PRE AND POST SB 21-1123)	JA	1
31	65-49572-57		. DUCT ASSY (LH) (PRE AND POST SB 21-1123)	KA OB	1
31	65-49572-58		. DUCT ASSY (RH) (PRE AND POST SB 21-1123)	LA PB	1

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		
4-											
31	65-49572-63		.							MA QB	1
31	65-49572-64		.							NA RB	1
31	65-49572-67		.							OA SB	1
31	65-49572-68		.							PA TB	1
31	65-49572-69		.							QA	1
31	65-49572-70		.							RA	1
32	65-49572-11		.	.							2
32	65-49572-41		.	.							2
33	65-49572-13		.	.							1
33	65-49572-42		.	.							1
34	65-49572-14		.	.							1
34	65-49572-43		.	.							1
35	65-49572-15		.	.							1
35	65-49572-35		.	.							1
35	65-49572-16		.	.							1
35	65-49572-36		.	.							1
35	65-49572-59		.	.							1
35	65-49572-60		.	.							1
35	65-49572-65		.	.							1
35	65-49572-66		.	.							1
36	65-49572-17		.	.							1
36	65-49572-37		.	.							1
36	65-49572-18		.	.							1
36	65-49572-38		.	.							1
36	65-49572-61		.	.							1

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		
4-36	65-49572-62		.	.	TEE (USED ON 65-40582-56,-58,-64,-68)						1
37	65-49572-27		.	.	DUCT ASSY (USED ON 65-49572-29,-31,-33,-39,-45,-49,-51,-53,-55,-57,-63)						1
37	65-49572-28		.	.	DUCT ASSY (USED ON 65-49572-30,-32,-34,-40,-46,-50,-52,-54,-56,-58,-64)						1
37	65-49572-71		.	.	DUCT ASSY (USED ON 65-49572-67)						1
37	65-49572-72		.	.	DUCT ASSY (USED ON 65-49572-68)						1
38	65-49572-19		.	.	FILLER (USED ON 65-44572-27,-28,-71,-72)						1
39	65-49572-25		.	.	DUCT (USED ON 65-49572-27)						1
39	65-49572-26		.	.	DUCT (USED ON 65-49572-28)						1
39	65-49572-73		.	.	DUCT (USED ON 65-49572-71)						1
39	65-49572-74		.	.	DUCT (USED ON 65-49572-72)						1
40	65-49572-23		.	.	FLANGE (USED ON 65-49572-29,-31,-33,-39,-45,-49,-51,-53,-55,-57,-63,-67)						1
40	65-49572-24		.	.	FLANGE (USED ON 65-49572-30,-32,-34,-40,-46,-50,-52,-54,-56,-58,-64,-68)						1
41	65-49572-7		.	.	DOUBLER (USED ON 65-49572-29 THRU -34)						2
41	65-49572-44		.	.	DOUBLER (USED ON 65-49572-39,-40,-45,-46,-49 THRU -58,-63,-64,-67,-68)						2
42	65-49572-8		.	.	SEAL (USED ON 65-49572-29 THRU -34,-39,-40,-49,-50)						1
42	65-49572-47		.	.	SEAL (USED ON 65-49572-45,-46,-51 THRU -58,-63,-64,-67,-68)						1
43	65-51216-5		.	.	ANGLE (USED ON 65-49572-29,-31)						1
43	65-51216-9		.	.	ANGLE (USED ON 65-49572-33,-39,-45,-49,-51,-53,-55,-57,-63,-67)						1
43	65-51216-6		.	.	ANGLE (USED ON 65-49572-30,-32)						1
43	65-51216-10		.	.	ANGLE (USED ON 65-49572-34,-40,-46,-50,-52,-54,-56,-58,-64,-68)						1
44	65-51217-5		.	.	ANGLE (USED ON 65-49572-29,-31)						1
44	65-51217-9		.	.	ANGLE (USED ON 65-49572-33,-39,-45,-53,-55,-57,-63,-67)						1
44	65-51217-11		.	.	ANGLE (USED ON 65-49572-49,-51)						1
44	65-51217-6		.	.	ANGLE (USED ON 65-49572-30,-32)						1
44	65-51217-10		.	.	ANGLE (USED ON 65-49572-34,-40,-46,-54,-56,-58,-64,-68)						1

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USE CODE	QTY PER ASSY
4-					
44	65-51217-12		. . ANGLE (USED ON 65-49572-50,-52)		1
45	MS20426B4		. . RIVET		24
46	MS20426B6		. . RIVET		4
47	MS20470D6		. . RIVET		24
48	BACR15DA4		. . RIVET		7
49	AN960PD8		. . WASHER		21
50	69-38768-4		. SHAFT (PRE SB 21-1022)	A-F	1
50A	69-61224-4		. SHAFT ASSY (PRE SB 21-1123)	G-PA	4
50A	69-61224-4		. SHAFT ASSY (POST SB 21-1022)	A-F	3
50B	69-61224-2		. . SHAFT		1
50C	69-61224-3		. . BUSHING		1
51	65-51218-1		. LOUVER, EXHAUST	A-S	3
51	65-51218-3		. LOUVER, EXHAUST	T-JA	3
52	BACN10JD5		. NUT (PRE SB 21-1123)	G-L	1
53	69-61225-1		. SHAFT	G-L	1
53	69-61225-1		. SHAFT (POST SB 21-1022)	A-F	1
55	213N3051-1		. COVER PLATE (POST SB 21-1123)	SA-VB	8

VENDORS

V09455 RBC TRANSPORT DYNAMICS CORP., 3131 SEGERSTROM AVE., SANTA ANA, CALIFORNIA 92704-5872

V21335 TORRINGTON CO., NEEDLE BEARINGS DIV., 59 FIELD ST., TORRINGTON, CONNECTICUT 06790-1008

V77896 REXNORD, CORP., REX BEARING DIV., 2400 CURTIS ST., DOWNERS GROVE, ILLINOIS 60515-4307

V81376 SMITH ACQUISITION CO., DBA SOUTHWEST PRODUCTS CO., 2240 BUENA VISTA ST., BALDWIN PARK, CA 91706

V97613 SARGENT CONTROLS AND AEROSPACE, KAHR BEARING DIV., 5675 W. BURLINGAME RD., P.O. BOX 730, CORTARO, ARIZONIA 85652-0730