

BLEED-AIR SERVO LINE - REMOVAL/INSTALLATION

EFFECTIVITY: ACFT MODEL(S) EMB-145

1. General

- A. This section gives the procedures to remove and install the left and right bleed-air servo lines.
- B. Each bleed-air servo line connects the fan-air valve to the related fan-air control thermostat.
- C. The procedures in this section are given in the sequence below. The tasks identified with (♦) are part of the Scheduled Maintenance Requirements Document (SMRD).

TASK NUMBER	DESCRIPTION	EFFECTIVITY
36-11-11-000-801-A	BLEED-AIR SERVO LINE - REMOVAL	ACFT MODEL(S) EMB-145
36-11-11-400-801-A	BLEED-AIR SERVO LINE - INSTALLATION	ACFT MODEL(S) EMB-145



AIRCRAFT MAINTENANCE MANUAL

TASK 36-11-11-000-801-A

EFFECTIVITY: ACFT MODEL(S) EMB-145

2. BLEED-AIR SERVO LINE - REMOVAL

A. General

- (1) This task gives the procedure to remove the right and left bleed-air servo lines.
- (2) A bleed-air servo line connects the fan-air valve to the related fan-air control thermostat.
- (3) The LH (RH) fan-air valve and the LH (RH) fan-air control thermostat are installed in the LH (RH) pylon.

B. References

REFERENCE	DESIGNATION
AMM MPP 06-43-00/100	- COMPONENT LOCATION
AMM TASK 36-11-09-300-801-A/200	THERMAL INSULATION OF THE DUCT LINES OF AIR BLEED SYSTEM - REPAIR
SB145-36-0009	-

C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
414	414AB	LH Pylon
414	414BB	LH Pylon
414	414CB	LH Pylon
414	414DB	LH Pylon
424	424AB	RH Pylon
424	424BB	RH Pylon
424	424CB	RH Pylon
424	424DB	RH Pylon

D. Tools and Equipment

Not Applicable

E. Auxiliary Items

ITEM	DESCRIPTION	PURPOSE	QTY
Commercially available	Workstand	To get access to the work area in the pylon	1
Commercially available	Protective caps or plugs	To prevent contamination of open lines	AR

F. Consumable Materials

Not Applicable

G. Expandable Parts

Not Applicable

H. Persons Recommended

QTY	FUNCTION	PLACE
1	Does the task	Pylon work area

I. Preparation
SUBTASK 841-008-B

WARNING: YOU MUST REMOVE THE PRESSURE FROM THE PNEUMATIC DUCTS BEFORE YOU REMOVE A PNEUMATIC SYSTEM COMPONENT. HOT HIGH PRESSURE AIR CAN CAUSE INJURIES TO PERSONS OR DAMAGE TO EQUIPMENT.

- (1) Do the procedure to make the aircraft safe for maintenance.
- (2) Make sure that there is no pressure in the bleed-air servo line.
- (3) Put the workstand in a position from which you can get access to the work area in the pylon.
- (4) To get access to the bleed-air servo line, remove the related access panels:
 - (a) On the left pylon: 414AB, 414BB, 414CB, and 414DB ([AMM MPP 06-43-00/100](#)).
 - (b) On the right pylon: 424AB, 424BB, 424CB, and 424DB ([AMM MPP 06-43-00/100](#)).

J. Removal (Figure 401) (Figure 402)
SUBTASK 020-008-B

WARNING: DO NOT TOUCH THE BLEED-AIR SYSTEM DUCTS OR COMPONENT IMMEDIATELY AFTER THE ENGINE STOPS. THE HOT, HIGH-PRESSURE AIR CAN CAUSE INJURY TO PERSONS.

- (1) For aircraft PRE-MOD. [SB145-36-0009](#), to remove the segment of the bleed-air servo line installed in the left pylon ([Figure 401](#), sheet 2), do as follows:
 - (a) Remove the nut (3), washer (4) and bolt (14) that attach the clamp (13) to other clamp.
 - (b) Remove the nut (5), washer (6) and bolt (12) that attach the clamp (11) to other clamp.
 - (c) Remove the clamps (13) and (11) from the tube (2).
 - (d) NOTE: Hold the fitting of the fan-air valve (1) with a wrench while you disconnect the tube (2).
Disconnect the tube (2) from the fan-air valve (1).
 - (e) NOTE: Hold the fitting of the fan-air control thermostat (7) with a wrench while you disconnect the tube (2).
Disconnect the tube (2) from the fan-air control thermostat (7).

- (f) Remove the tube (2).
 - (g) Install protective caps or plugs to the tube (2) and to the fittings of the fan-air valve (1) and fan-air control thermostat (7).
- (2) For aircraft POST-MOD. [SB145-36-0009](#), to remove the segment of the bleed-air servo lines installed in the left pylon ([Figure 401](#), sheet 3), do as follows:
- (a) Remove the flexible hose (6) as follows:
 - 1 **NOTE:** Hold the fitting of the fan-air valve (7) with a wrench while you disconnect the flexible hose (6).
Disconnect the flexible hose (6) from the fan-air valve (7).
 - 2 Disconnect the flexible hose (6) from the fitting (5).
 - 3 Remove the flexible hose (6).
 - 4 Install protective caps or plugs to the flexible hose (6) and fitting of the fan-air valve (7).
 - (b) Remove the tube (1) as follows:
 - 1 Disconnect the tube (1) from the fittings (5) and (8).
 - 2 Remove the tube (1).
 - 3 Install protective caps or plugs to the tube (1).
 - (c) Remove the fitting (5) as follows:
 - 1 Remove the nut (2) and washer (3) that attach the fitting (5) to the support.
 - 2 Remove the fitting (5) and washer (4).
 - 3 Remove the tube (1) from the fitting (8) at the fuselage wall (Ref.)
- (3) For aircraft PRE-MOD. [SB145-36-0009](#), to remove the segment of the bleed-air servo line installed on the baggage compartment left side ([Figure 401](#), sheet 4), do as follows:
- NOTE:** Some bleed-air servo lines installed on the baggage compartment have a protection of thermal insulation. If the of thermal insulation's damaged, refer to [AMM TASK 36-11-09-300-801-A/200](#). The out side diameter of the servo line plus the thermal insulation is 16 ± 2 mm (0.63 ± 0.08 in).
- (a) Remove the tube (12) as follows:
 - 1 Remove the bolt (13) and washer (14) that attach the clamp (15) to the support.
 - 2 Remove the clamp (15) from the tube (12).
 - 3 Disconnect the tube (12) from the fittings (8) and (31).
 - 4 Remove the tube (12).

- 5 Install protective caps or plugs to the tube (12).
- (b) Remove the fitting (8) as follows:

 - 1 Remove the nut (9) and washer (10) that attach the fitting (8) to the fuselage wall.
 - 2 Remove the fitting (8) and washer (11).
- (c) Remove the tube (30) as follows:

 - 1 Remove the bolt (27) and washer (28) that attach the clamp (29) to the support.
 - 2 Remove the clamp (29) from the tube (30).
 - 3 Disconnect and remove the fitting (31) from the tube (30).
 - 4 Disconnect the tube (30) from the fitting (26).
 - 5 Remove the tube (30).
 - 6 Install protective caps or plugs to the tube (30).
- (d) Remove the tube (25) as follows:

 - 1 Remove the bolt (23) and washer (24) that attach the clamp (22) to the support.
 - 2 Remove the bolt (19) and washer (20) that attach the clamp (21) to the support.
 - 3 Remove the clamps (22) and (21) from the tube (25).
 - 4 Disconnect and remove the fitting (26) from the tube (25).
 - 5 Disconnect the tube (25) from the fitting (18) or the restrictor (18), as applicable. For comments on the fitting and restrictor, refer to [Figure 401](#), sheet 4.
 - 6 Remove the tube (25).
 - 7 Install protective caps or plugs to the tube (25).
- (e) Remove the hose (17) as follows:

 - 1 Disconnect and remove the fitting (18) or the restrictor (18), as applicable, from the hose (17). For comments on the fitting and restrictor, refer to [Figure 401](#), sheet 4.
 - 2 **NOTE:** Hold the fitting of the damper (16) or of the fan-air control thermostat (16), as applicable, with a wrench while you disconnect the hose (17). For comments on the damper and fan-air control thermostat, refer to [Figure 401](#), sheet 4.

Disconnect the hose (17) from the damper (16) or from the fan-air control thermostat (16), as applicable. For comments on the damper and fan-air control thermostat, refer to [Figure 401](#), sheet 4.

- 3 Remove the hose (17).
 - 4 Install protective caps or plugs to the hose (17) and the fitting of the damper (16) or the fan-air control thermostat (16), as applicable. For comments on the damper and fan-air control thermostat, refer to [Figure 401](#), sheet 4.
- (4) For aircraft POST-MOD. [SB145-36-0009](#), to remove the segment of the bleed-air servo line installed on the baggage compartment left side ([Figure 401](#), sheet 5), do as follows:

NOTE: Some bleed-air servo lines installed on the baggage compartment are have a protection of the thermal insulation. If the thermal insulation it damaged, refer to [AMM TASK 36-11-09-300-801-A/200](#). The outside diameter of the servo line plus the thermal insulation is $16 \pm 2 \text{ mm}$ ($0.63 \pm 0.08 \text{ in}$).

- (a) Remove the tube (12) as follows:
 - 1 Remove the bolt (13) and washer (14) that attach the clamp (15) to the support.
 - 2 Remove the clamp (15) from the tube (12).
 - 3 Disconnect the tube (12) from the fitting (8) and fitting (31).
 - 4 Remove the tube (12).
 - 5 Install protective caps or plugs to the tube (12).
- (b) Remove the fitting (8) as follows:
 - 1 Remove the nut (9) and washer (10) that attach the fitting (8) to the fuselage wall.
 - 2 Remove the fitting (8) and washer (11).
- (c) Remove the tube (30) as follows:
 - 1 Remove the bolt (27) and washer (28) that attach the clamp (29) to the support.
 - 2 Remove the clamp (29) from the tube (30).
 - 3 Disconnect and remove the fitting (31) from the tube (30).
 - 4 Disconnect the tube (30) from the fitting (26).
 - 5 Install protective caps or plugs to the tube (30).
 - 6 Remove the tube (30).
- (d) Remove the tube (25) as follows:

- 1 Remove the bolt (19) and washer (20) that attach the clamp (21) to the support.
 - 2 Remove the bolt (23) and washer (24) that attach the clamp (22) to the support.
 - 3 Remove the clamps (22) and (21) from the tube (25).
 - 4 Disconnect and remove the fitting (26) from the tube (25).
 - 5 Disconnect the tube (25) from the restrictor (18).
 - 6 Remove the tube (25).
 - 7 Install protective caps or plugs to the tube (25).
- (e) Remove the hose (17) as follows:
- 1 Disconnect the restrictor (18) from the hose (17).
 - 2 **NOTE:** Hold the fitting of the fan-air control thermostat (16) with a wrench while you disconnect the hose (17).
Disconnect the flexible tube (17) from the fan-air control thermostat (16).
 - 3 Remove the flexible tube (17).
 - 4 Install protective caps or plugs to the flexible tube (17) and fan-air control thermostat (16).
- (5) For aircraft PRE-MOD. **SB145-36-0009**, to remove the bleed-air servo line installed in the right pylon ([Figure 402](#), sheet 2), do as follows:
- (a) Remove the tube (2).
 - (b) Remove the nut (10), washer (4), and bolt (3) that attach the clamp (5) to other clamp.
 - (c) Remove the bolt (6) and washer (7) that attach the clamp (8) to the support.
 - (d) Remove the clamps (5) and (8) from the tube (2).
 - (e) **NOTE:** Hold the fitting of the fan-air valve (1) with a wrench while you disconnect the tube (2).
Disconnect the tube (2) from the fan-air valve (1).
 - (f) **NOTE:** Hold the fitting of the fan-air control thermostat (9) with a wrench while you disconnect the tube (2).
Disconnect the tube (2) from the fan-air control thermostat (9).
 - (g) Remove the tube (2).
 - (h) Install protective caps or plugs on the open lines.

- (6) For aircraft POST-MOD. [SB145-36-0009](#), to remove the segment of the bleed-air servo line installed in the right pylon ([Figure 402](#), sheet 3), do as follows:
- (a) Remove the tube (2) as follows:
 - 1 Remove the nut (7), washers (6) and (4), and bolt (3) that attach the clamp (5) to other clamp.
 - 2 Remove the clamp (5) from the tube (2).
 - 3 **NOTE:** Hold the fitting of the fan-air valve (1) with a wrench while you disconnect the tube (2).
Disconnect the tube (2) from the fan-air valve (1).
 - 4 Disconnect the tube (2) from the fitting (8).
 - 5 Remove the tube (2).
 - 6 Install protective caps or plugs to the tube (2) and fitting of the fan-air valve (1).
 - (b) Remove the tube (9) as follows:
 - 1 Disconnect and remove the fitting (8) from the tube (9).
 - 2 Disconnect the tube (9) from the fitting (10).
 - 3 Remove the tube (9).
 - 4 Install protective caps or plugs to the tube (9).
 - (c) Remove the tube (14) as follows:
 - 1 Disconnect the tube (14) from the fittings (10) and (15).
 - 2 Remove the tube (14).
 - 3 Install protective caps or plugs to the tube (14).
 - (d) Remove the fitting (10) as follows:
 - 1 Remove the nut (13) and washer (12) that attach the fitting (10) to the support.
 - 2 Remove the fitting (10) and washer (11).
- (7) For aircraft PRE-MOD. [SB145-36-0009](#), to remove the segment of the bleed-air servo line installed in the baggage compartment right side ([Figure 402](#), sheet 4), do as follows:

NOTE: Some bleed-air servo lines installed on the baggage compartment have a protection of thermal insulation. If the of thermal insulation's damaged, refer to [AMM TASK 36-11-09-300-801-A/200](#). The out side diameter of the servo line plus the thermal insulation is 16 ± 2 mm (0.63 ± 0.08 in).

- (a) Remove the tube (22) as follows:

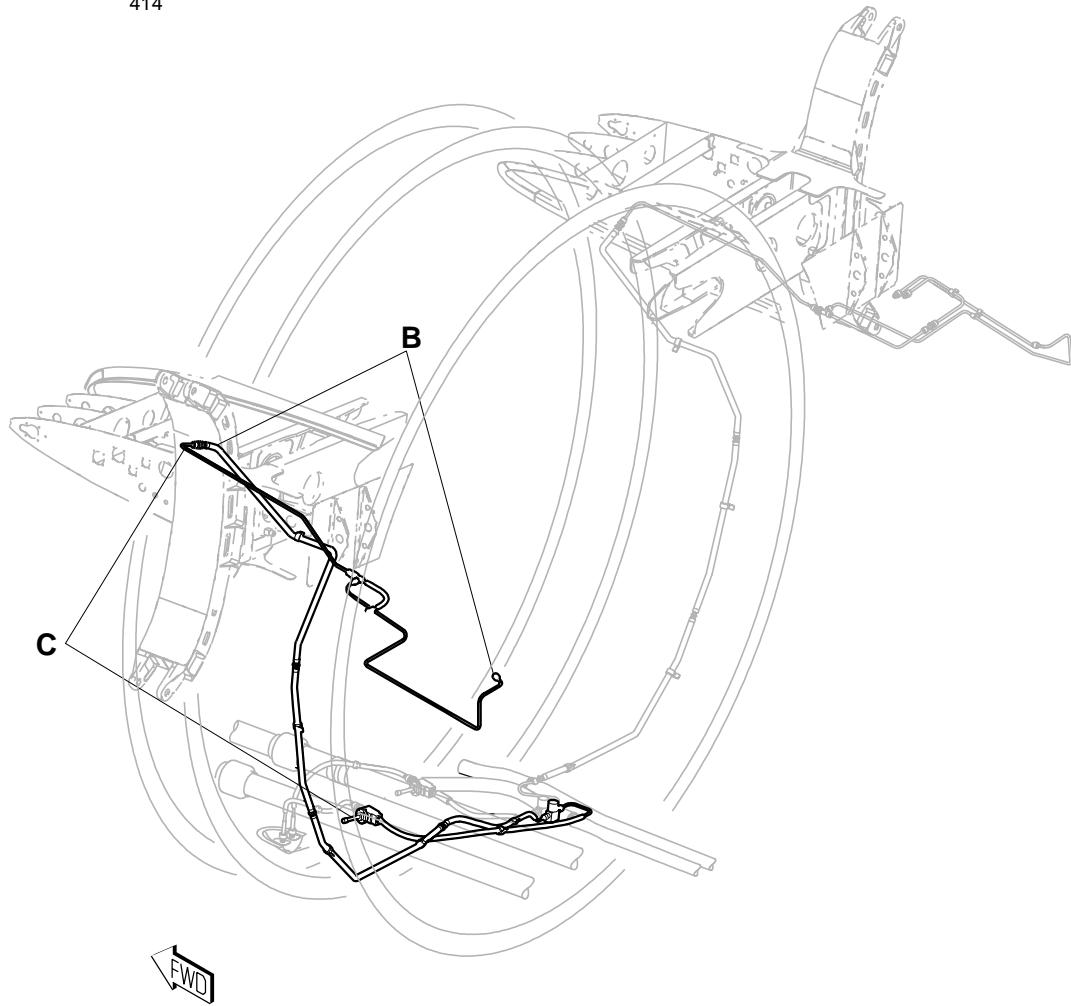
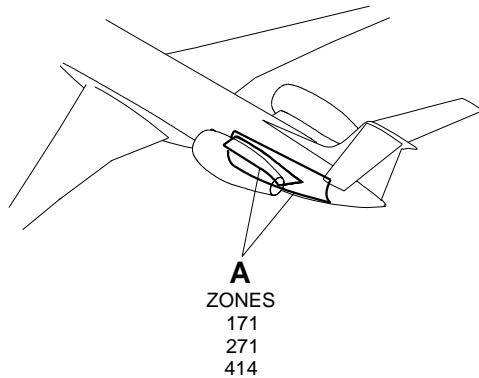
- 1 Remove the bolt (19) and washer (20) that attach the clamp (21) to the support.
 - 2 Remove the clamp (21) from the tube (22).
 - 3 Disconnect the tube (22) from the fittings (23) and (15).
 - 4 Remove the tube (22).
 - 5 Install protective caps or plugs to the tube (22).
- (b) Remove the fitting (15) as follows:
- 1 Remove the nut (16) and washer (17) that attach the fitting (15) to the fuselage wall.
 - 2 Remove the fitting (15) and washer (18).
- (c) Remove the tube (27) as follows:
- 1 Remove the bolt (25) and washer (24) that attach the clamp (26) to the support.
 - 2 Remove the clamp (26) from the tube (27).
 - 3 Disconnect and remove the fitting (23) from the tube (27).
 - 4 Disconnect the tube (27) from the fitting (28).
 - 5 Remove the tube (27).
 - 6 Install protective caps or plugs to the tube (27).
- (d) Remove the tube (32) as follows:
- 1 Remove the bolt (29) and washer (30) that attach the clamp (31) to the support.
 - 2 Remove the bolt (33) and washer (34) that attach the clamp (35) to the support.
 - 3 Remove the clamps (31) and (35) from the tube (32).
 - 4 Disconnect and remove the fitting (28) from the the tube (32).
 - 5 Disconnect the tube (32) from the fitting (36) or the restrictor (36), as applicable. For comments on the fitting and restrictor, refer to [Figure 402](#), sheet 4.
 - 6 Remove the tube (32).
 - 7 Install protective caps or plugs to the tube (32).
- (e) Remove the hose (37) as follows:

- 1 Disconnect and remove the fitting (36) or the restrictor (36), as applicable, from the hose (37). For comments on the fitting and restrictor, refer to [Figure 402](#), sheet 4.
 - 2 Disconnect the hose (37) from the damper (38) or from the fan-air control thermostat (38), as applicable. For comments on the damper and fan-air control thermostat, Refer to [Figure 402](#), sheet 4.

NOTE: Hold the fitting of the damper (38) or of the fan-air control thermostat (38), as applicable, with a wrench while you disconnect the hose (37). For comments on the damper and fan-air control thermostat, refer to [Figure 402](#), sheet 4.
 - 3 Remove the hose (37).
 - 4 Install protective caps or plugs to the hose (37) and damper (38) or to the fan-air control thermostat (38), as applicable. For comments on the damper and fan-air control thermostat, refer to the [Figure 402](#), sheet 4.
- (8) For aircraft POST-MOD. [SB145-36-0009](#), to remove the segment of the bleed-air servo line installed in the baggage compartment right side ([Figure 402](#), sheet 5), do as follows:
- NOTE: Some bleed-air servo lines installed on the baggage compartment have a protection of thermal insulation. If the of thermal insulation's damaged, refer to [AMM TASK 36-11-09-300-801-A/200](#). The out side diameter of the servo line plus the thermal insulation is $16 \pm 2 \text{ mm}$ ($0.63 \pm 0.08 \text{ in}$).
- (a) Remove the tube (22) as follows:
 - 1 Remove the bolt (19) and washer (20) that attach the clamp (21) to the support.
 - 2 Remove the clamp (21) from the tube (22).
 - 3 Disconnect the tube (22) from the fittings (23) and (15).
 - 4 Remove the tube (22).
 - 5 Install protective caps or plugs to the tube (22).
 - (b) Remove the fitting (15) as follows:
 - 1 Remove the nut (16) and washer (17) that attach the fitting (15) to the fuselage wall.
 - 2 Remove the fitting (15) and washer (18).
 - (c) Remove the tube (27) as follows:
 - 1 Remove the bolt (25) and washer (24) that attach the clamp (26) to the support.
 - 2 Remove the clamp (26) from the tube (27).
 - 3 Disconnect and remove the fitting (23) from the tube (27).

- 4 Disconnect the tube (27) from the fitting (28).
 - 5 Remove the tube (27).
 - 6 Install protective caps or plugs to the tube (27).
- (d) Remove the tube (32) as follows:
- 1 Remove the bolt (29) and washer (30) that attach the clamp (31) to the support.
 - 2 Remove the bolt (33) and washer (34) that attach the clamp (35) to the support.
 - 3 Remove the clamps (31) and (35) from the tube (32).
 - 4 Disconnect and remove the fitting (28) from the tube (32).
 - 5 Disconnect the tube (32) from the restrictor (36).
 - 6 Remove the tube (32).
 - 7 Install protective caps or plugs to the tube (32).
- (e) Remove the hose (37) as follows:
- 1 Disconnect and remove the restrictor (36) from the hose (37).
 - 2 Disconnect the hose (37) from the fan-air control thermostat (38).
NOTE: Hold the fitting of the fan-air control thermostat (38) with a wrench while you disconnect the hose (37).
 - 3 Remove the hose (37).
 - 4 Install protective caps or plugs to the hose (37) and to the fan-air control thermostat (38).

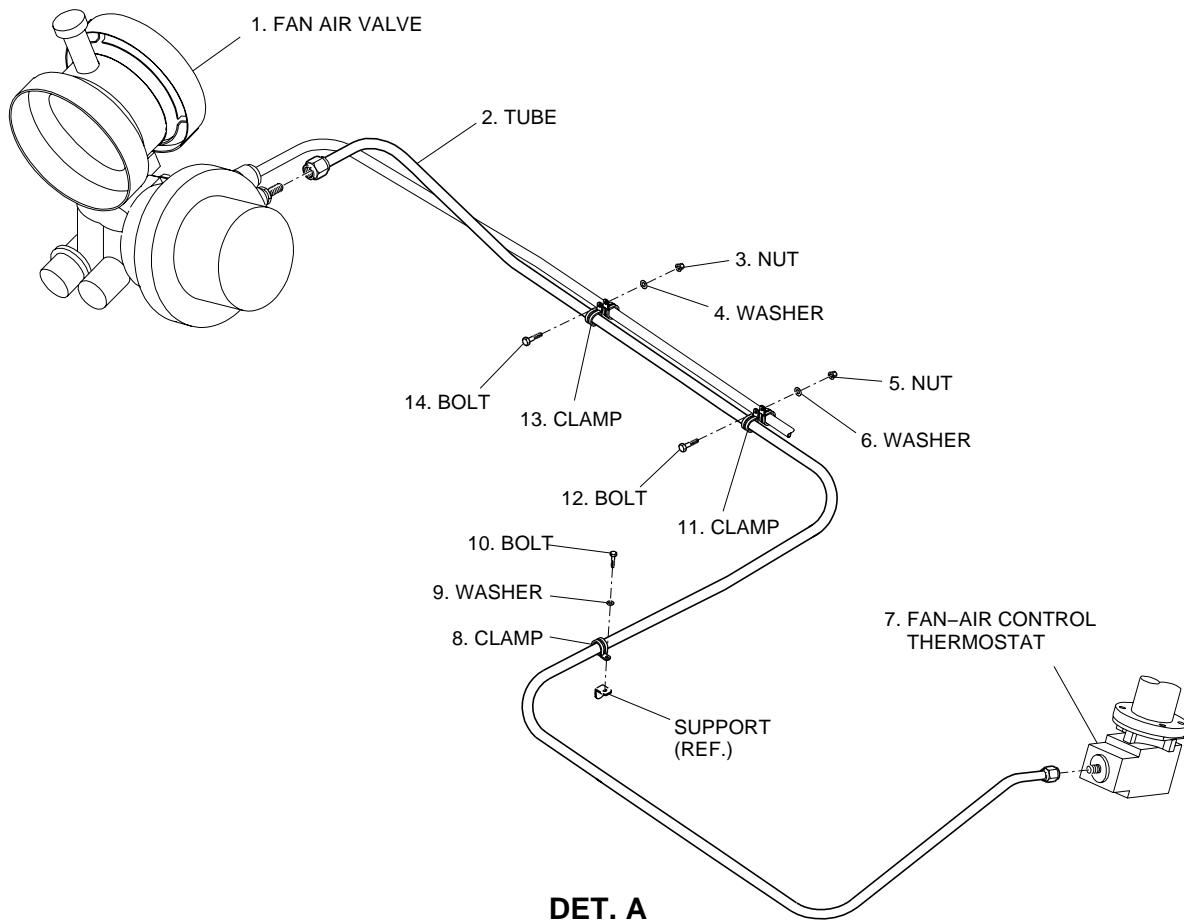
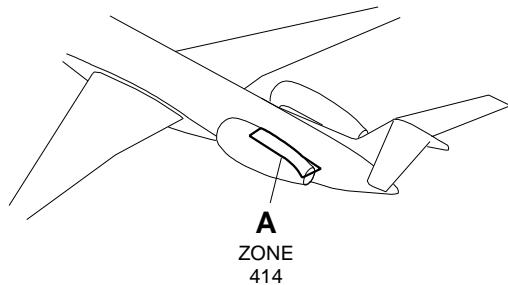
EFFECTIVITY: ACFT MODEL(S) EMB-145
 Left Bleed-Air Servo Line - Removal/Installation
 Figure 401 - Sheet 1



DET. A

SK145AMM360018A.DGN

EFFECTIVITY: ACFT MODEL(S) EMB-145
Left Bleed-Air Servo Line - Removal/Installation
Figure 401 - Sheet 2

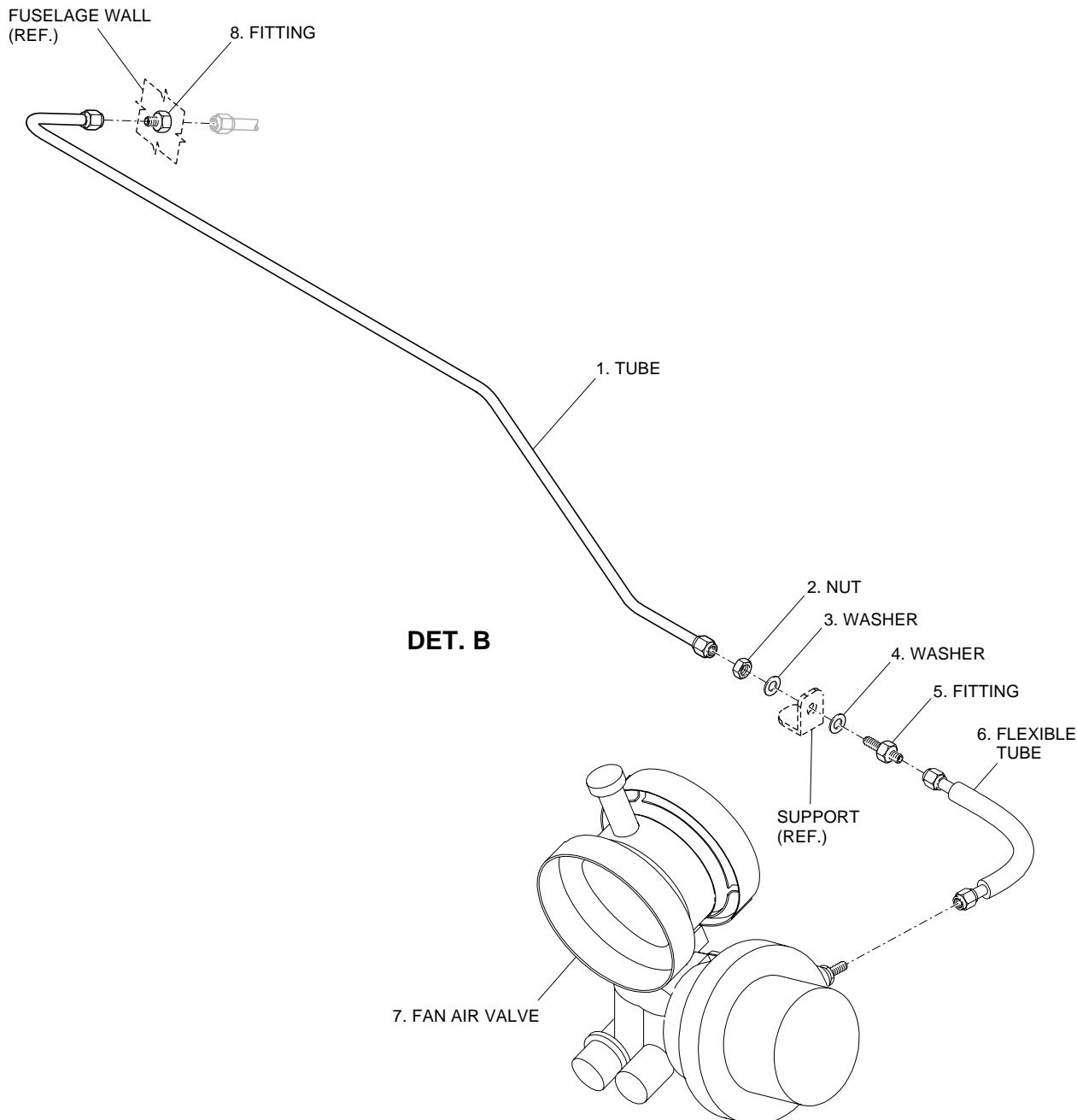


NOTES:

- APPLY TORQUE TO ALL NUTS OF TUBING. THE TORQUE VALUE MUST BE BETWEEN 15.25 Nm (135 lb.in) AND 16.95 Nm (150 lb.in).
- APPLY GREASE (GGA 80TF/B) TO THE FITTING THREADS.

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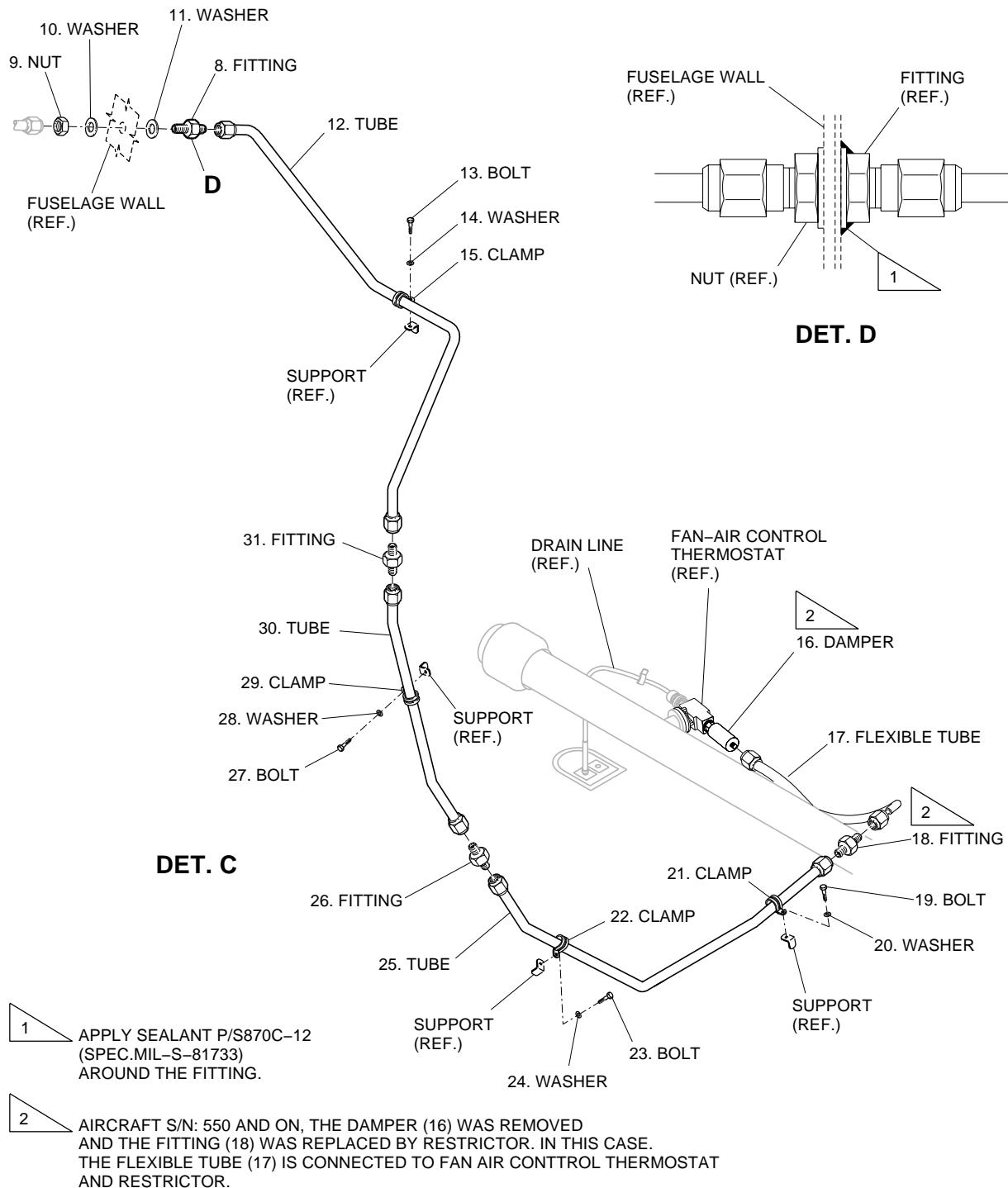
EFFECTIVITY: ACFT MODEL(S) EMB-145
 Left Bleed-Air Servo Line - Removal/Installation
 Figure 401 - Sheet 3


NOTES:

- APPLY TORQUE TO ALL NUTS OF TUBING, FLEXIBLE TUBE, AND FITTINGS. THE TORQUE VALUE MUST BE BETWEEN 15.25 Nm (135 lb.in) AND 16.95 Nm (150 lb.in).
- APPLY GREASE GGA (80TF/B) ON THE CONNECTION THREADS.

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EFFECTIVITY: ACFT MODEL(S) EMB-145
Left Bleed-Air Servo Line - Removal/Installation
Figure 401 - Sheet 4

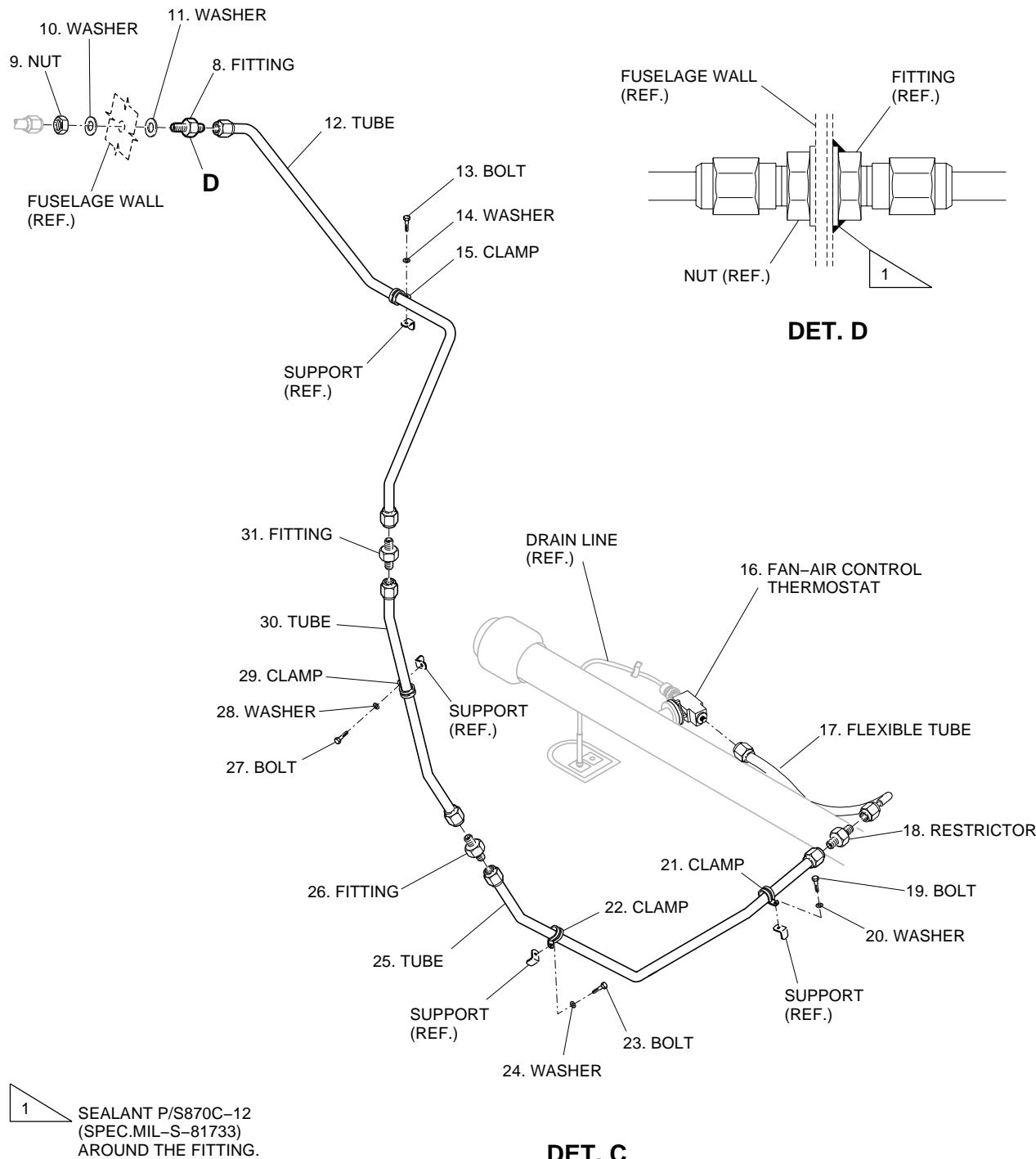


NOTES:

- APPLY TORQUE TO ALL NUTS OF TUBINGS, FLEXIBLE TUBE AND FITTINGS. THE TORQUE VALUE MUST BE BETWEEN 15.25 Nm (135 lb.in) AND 16.95 Nm (150 lb.in).
- APPLY GREASE (GGA 80TF/B) ON THE FITTING THREADS.

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EFFECTIVITY: ACFT MODEL(S) EMB-145
 Left Bleed-Air Servo Line - Removal/Installation
 Figure 401 - Sheet 5



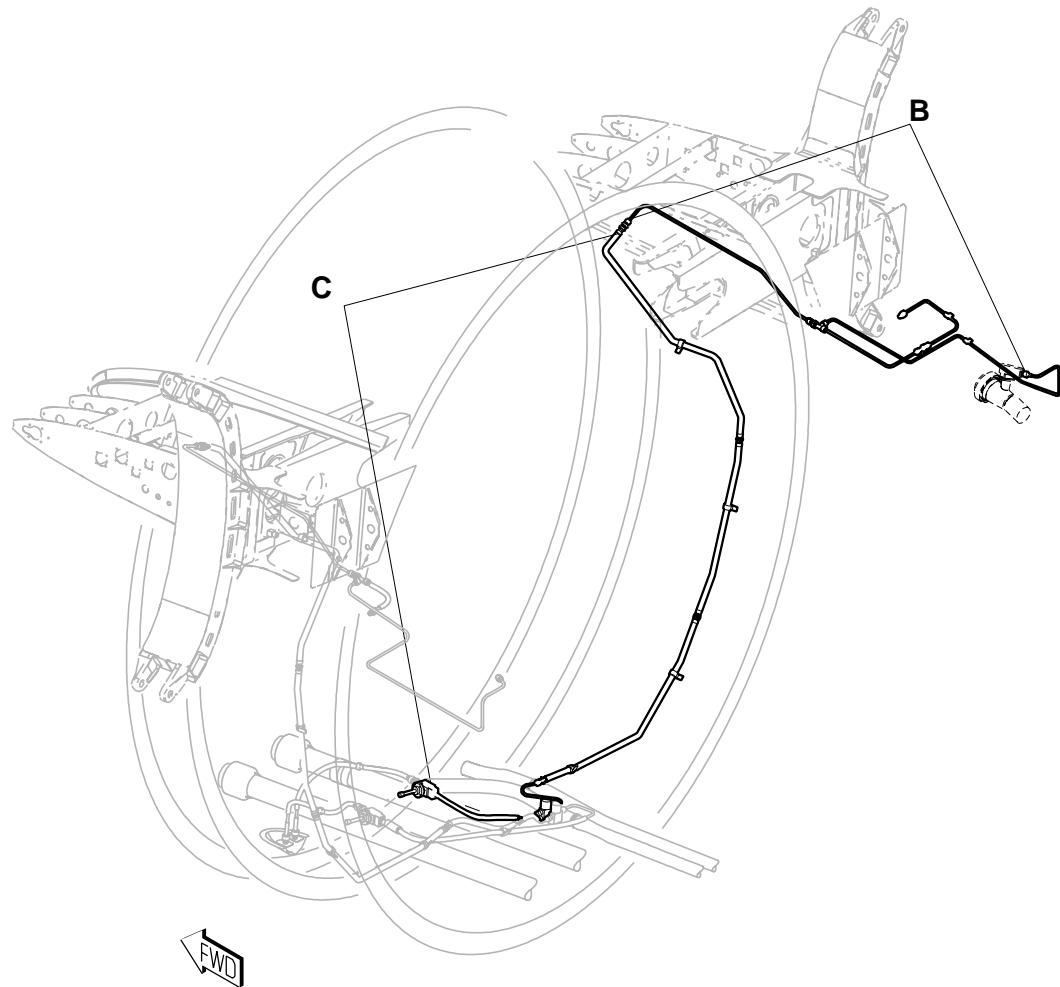
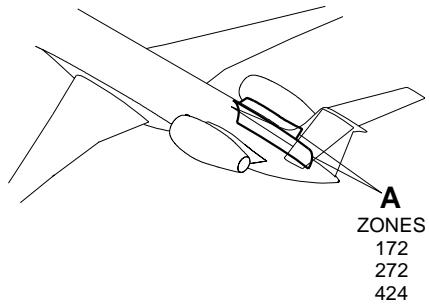
1
 SEALANT P/S870C-12
 (SPEC.MIL-S-81733)
 AROUND THE FITTING.

NOTES:

- APPLY TORQUE TO ALL NUTS OF TUBINGS, HOSE AND FITTINGS. THE TORQUE VALUE MUST BE BETWEEN 15.25 Nm (135 lb.in) AND 16.95 Nm (150 lb.in).
- APPLY GREASE (GGA 80TF/B) TO THE CONNECTION THREADS.

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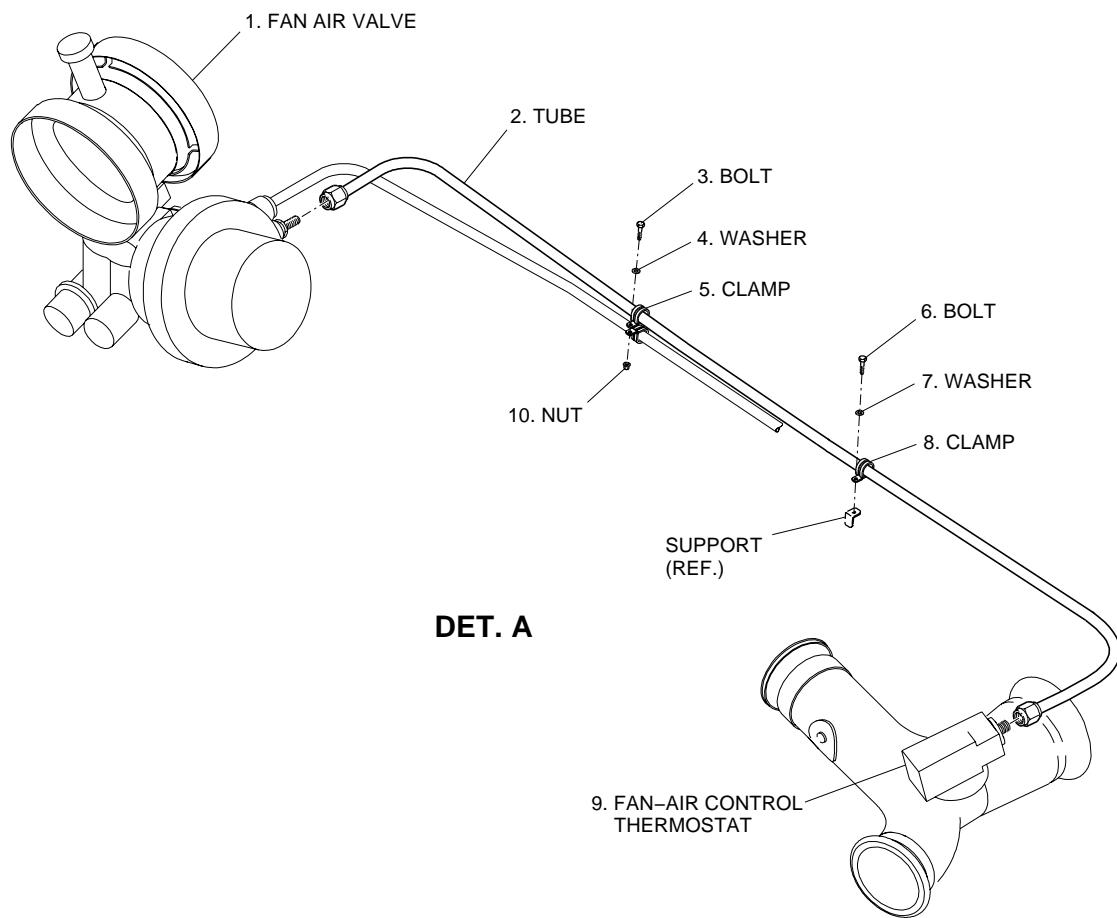
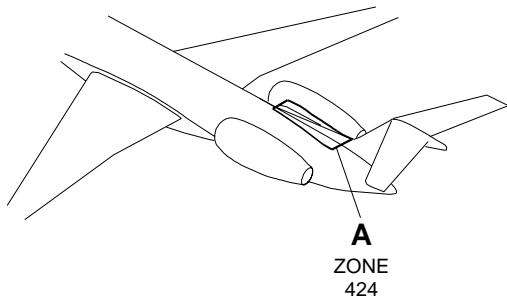
EFFECTIVITY: ACFT MODEL(S) EMB-145
 Right Bleed-Air Servo Line - Removal/Installation
 Figure 402 - Sheet 1



DET. A

SK145AMM360020A.DGN

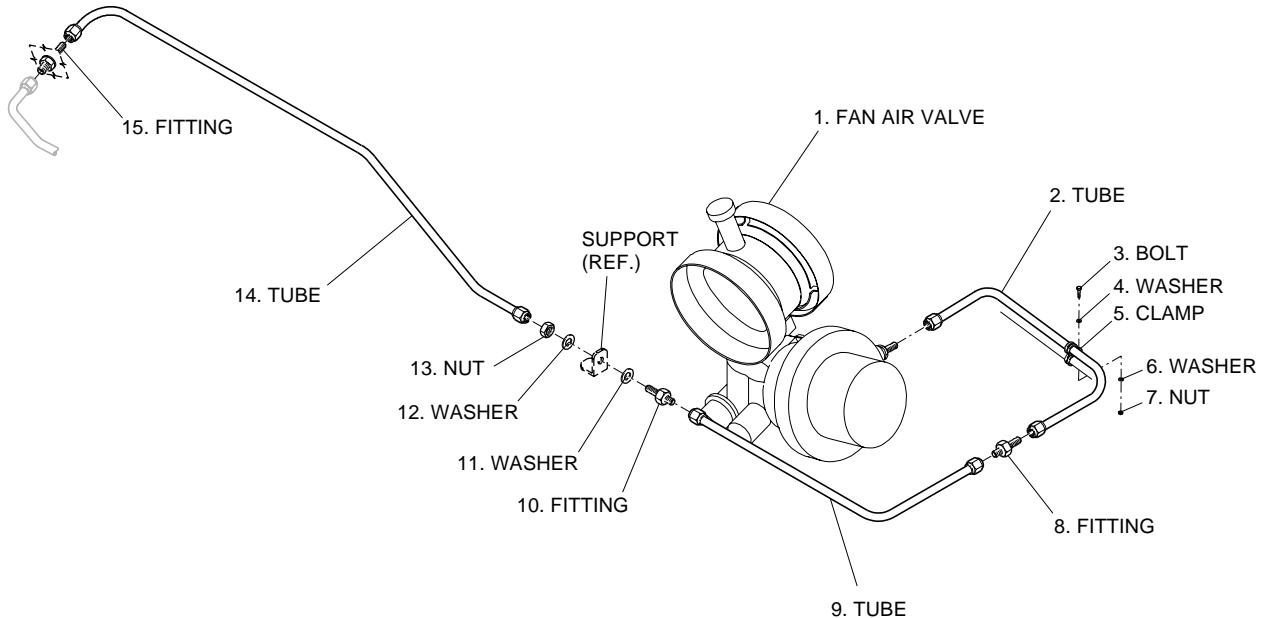
EFFECTIVITY: ACFT MODEL(S) EMB-145
 Right Bleed-Air Servo Line - Removal/Installation
 Figure 402 - Sheet 2


NOTES:

- APPLY TORQUE TO ALL NUTS OF TUBING. THE TORQUE VALUE MUST BE BETWEEN 15.25 Nm (135 lb.in) AND 16.95 Nm (150 lb.in).
- APPLY GREASE (GGA 80TF/B) TO THE FITTING THREADS.

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EFFECTIVITY: ACFT MODEL(S) EMB-145
 Right Bleed-Air Servo Line - Removal/Installation
 Figure 402 - Sheet 3



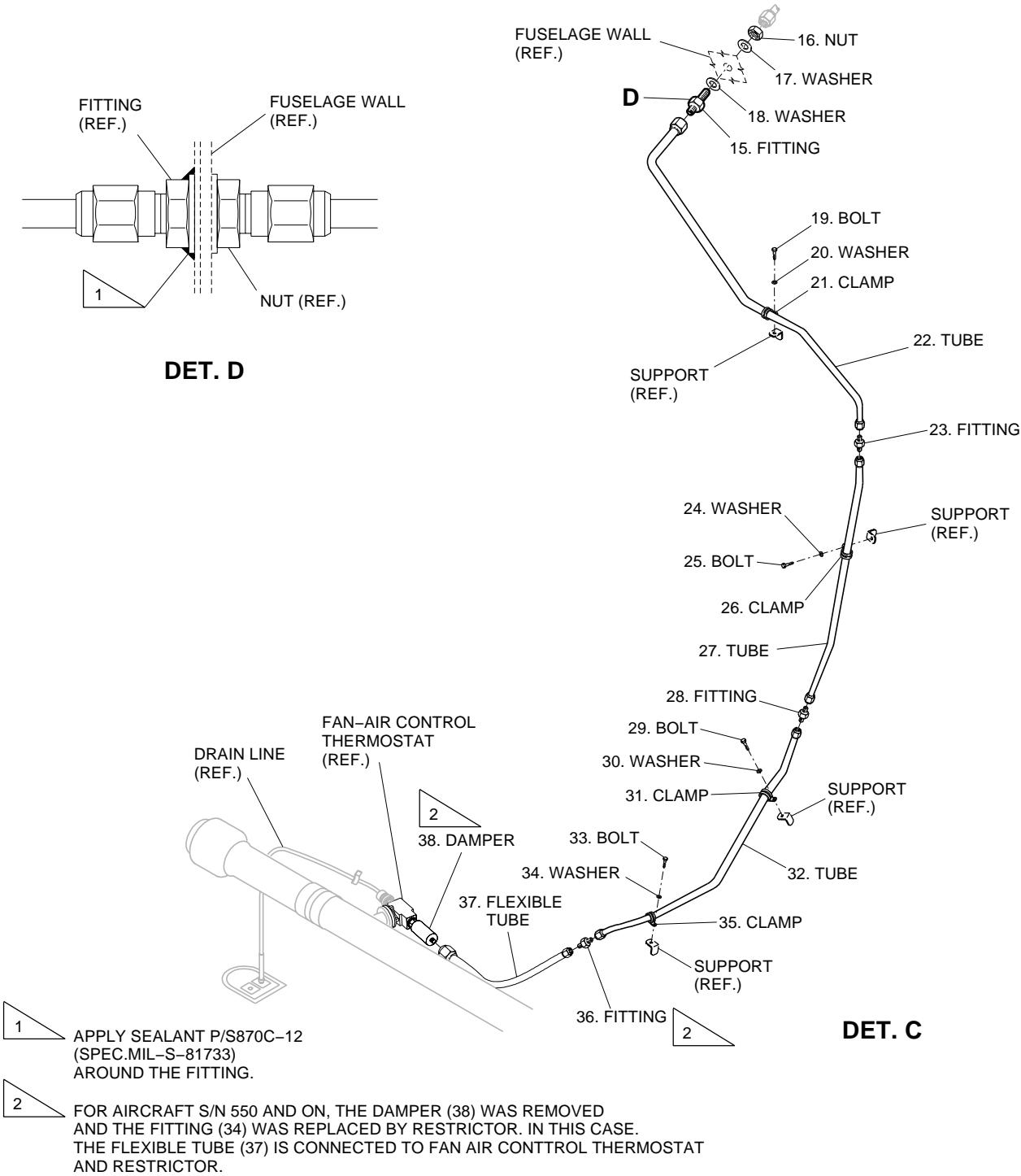
DET. B

NOTES:

- APPLY TORQUE TO ALL NUTS OF TUBINGS AND FITTINGS. THE TORQUE VALUE MUST BE BETWEEN 15.25 Nm (135 lb.in) AND 16.95 Nm (150 lb.in).
- APPLY GREASE (GGA 80TF/B) TO THE CONNECTION THREADS.

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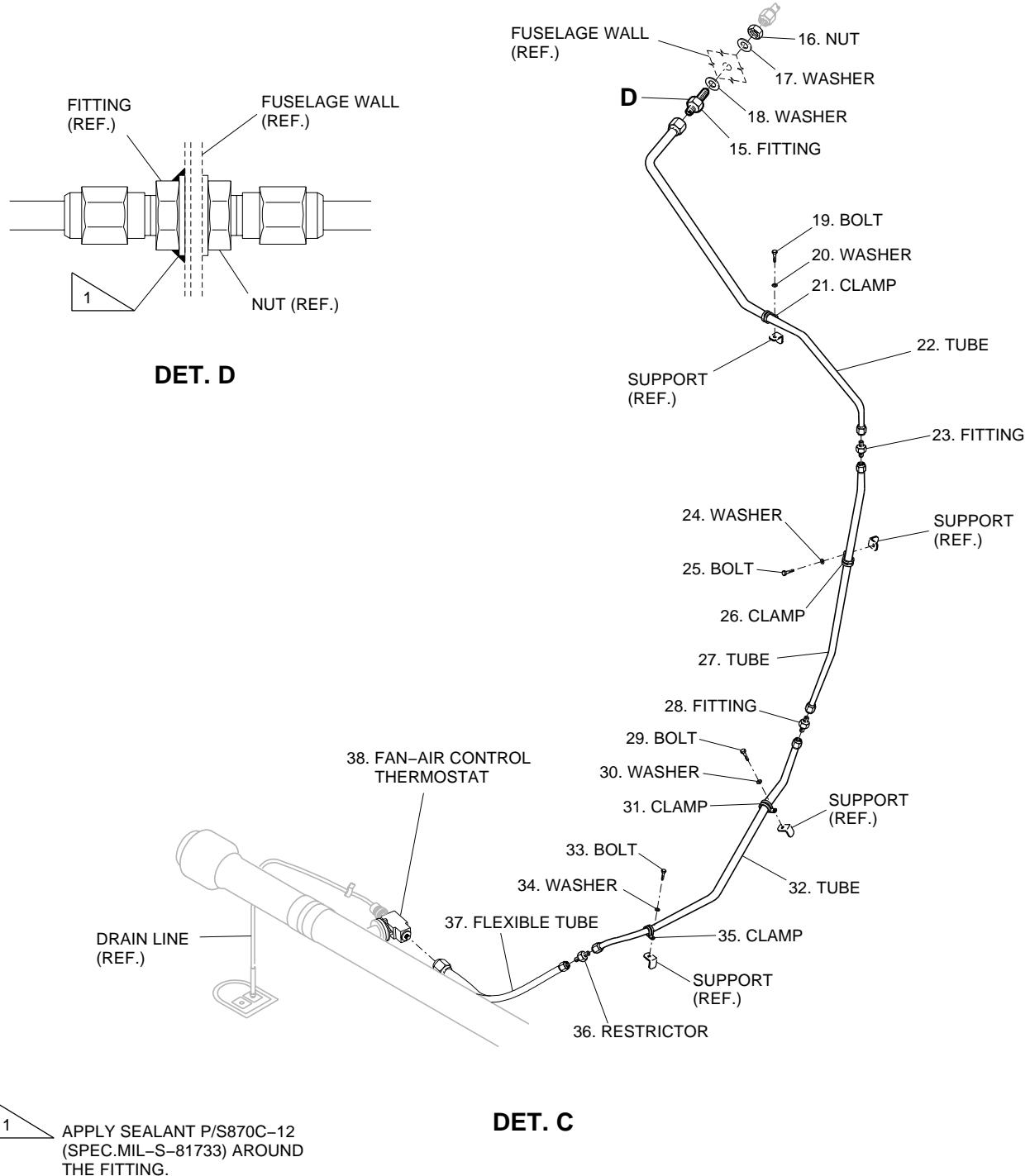
EFFECTIVITY: ACFT MODEL(S) EMB-145
 Right Bleed-Air Servo Line - Removal/Installation
 Figure 402 - Sheet 4


NOTES:

- APPLY TORQUE TO ALL NUTS OF TUBINGS, FLEXIBLE TUBE AND FITTINGS. THE TORQUE VALUE MUST BE BETWEEN 15.25 Nm (135 lb.in) AND 16.95 Nm (150 lb.in).
- APPLY GREASE (GGA 80TF/B) ON THE CONNECTION THREADS.

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EFFECTIVITY: ACFT MODEL(S) EMB-145
 Right Bleed-Air Servo Line - Removal/Installation
 Figure 402 - Sheet 5


NOTES:

- APPLY TORQUE TO ALL NUTS OF TUBINGS, HOSE AND FITTINGS. THE TORQUE VALUE MUST BE BETWEEN 15.25 Nm (135 lb.in) AND 16.95 Nm (150 lb.in).
- APPLY GREASE (GGA 80TF/B) ON THE FITTING THREADS.

EM145AMM360674A.DGN



AIRCRAFT MAINTENANCE MANUAL

TASK 36-11-11-400-801-A

EFFECTIVITY: ACFT MODEL(S) EMB-145

3. BLEED-AIR SERVO LINE - INSTALLATION

A. General

- (1) This task gives the procedure to install the right and left bleed-air servo lines.
- (2) A bleed-air servo line connects the fan-air valve to the related fan-air control thermostat.
- (3) The LH (RH) fan-air valve and the LH (RH) fan-air control thermostat are installed in the LH (RH) pylon.

B. References

REFERENCE	DESIGNATION
AMM MPP 06-43-00/100	- COMPONENT LOCATION
AMM TASK 36-11-11-700-801-A/500	SERVO LINE - ADJUSTMENT/TEST
SB145-36-0009	-

C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
414	414AB	LH Pylon
414	414BB	LH Pylon
414	414CB	LH Pylon
414	414DB	LH Pylon
424	424AB	RH Pylon
424	424BB	RH Pylon
424	424CB	RH Pylon
424	424DB	RH Pylon

D. Tools and Equipment

ITEM	DESCRIPTION	PURPOSE	QTY
Commercially available	Torque wrench, range: 0 - 33.89 N.m (0 - 300 lb.in)	To apply torque to the nuts of tube	

E. Auxiliary Items

ITEM	DESCRIPTION	PURPOSE	QTY
Commercially available	Workstand	To get access to the work area in the pylon	1



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F. Consumable Materials

SPECIFICATION (BRAND)	DESCRIPTION	QTY
GGA80TF/B	Grease	AR

G. Expandable Parts

Not Applicable

H. Persons Recommended

QTY	FUNCTION	PLACE
1	Does the task	Work area in the pylon

I. Installation (Figure 401) (Figure 402)

SUBTASK 420-008-B

- (1) For aircraft PRE-MOD. [SB145-36-0009](#), to install the bleed-air servo line in the left pylon ((Figure 401), sheet 2), do as follows.
 - (a) Install the tube (2).
 - (b) Remove the protective caps or plugs from the tube (2) and fittings of the fan-air valve (1) and from the fan-air control thermostat (7).
 - (c) Apply GGA80TF/B grease to the fitting threads.
 - (d) Put the tube (2) in position.
 - (e) Connect the tube (2) to the fan-air valve (1) and to the fan-air control thermostat (7).
 - (f) Put the clamp (11) on the tube (2) and then put them in position.
 - (g) Install bolt (12), washer (6), and nut (5) that attach the clamp (11) to other clamp.
 - (h) Put the clamp (8) on the tube (2) and then put them in position.
 - (i) Install the bolt (10) and washer (9) that attach the clamp (8) to the support.
 - (j) **NOTE:** Hold the fittings of the fan-air valve (1) and fan-air control thermostat (7) with a wrench while you apply the torque.

Apply torque to the nuts of the tube (2). The torque value must be between 15.25 N.m (135 lb.in) and 16.95 N.m (150 lb.in).

- (2) For aircraft POST-MOD. [SB145-36-0009](#), to install the segment of the bleed-air servo lines in the left pylon (Figure 401), sheet 3), do as follows:
 - (a) Install the fitting (5) as follows:
 - 1 Put the washer (4) on the fitting (5) and then put them on the support.
 - 2 Install the washer (3) and the nut (2) that attach the fitting (5) to the support.

- 3 Apply torque to the nut (2). The torque value must be between 15.25 N.m (135 lb.in) and 16.95 N.m (150 lb.in).
- (b) Install the tube (1) as follows:
- 1 Remove the protective caps or plugs from the tube (1).
 - 2 Apply GGA80TF/B grease to the fitting threads.
 - 3 Put the tube (1) in position.
 - 4 Connect the tube (1) to the fittings (5) and (8).
 - 5 Apply torque to the nuts of the tube (1). The torque value must be between 15.25 N.m (135 lb.in) and 16.95 N.m (150 lb.in).
- (c) Install the hose (6) as follows:
- 1 Remove the protective caps or plugs from the hose (6) and fitting of the fan-air valve (7).
 - 2 Apply GGA80TF/B grease to the fitting threads.
 - 3 Put the hose (6) in position.
 - 4 Connect the hose (6) to the fitting (5).
 - 5 Connect the hose (6) to the fan-air valve (7).
 - 6 NOTE: Hold the fitting (5) and the fitting of the fan-air valve (7) with a wrench while you apply the torque.
- Apply torque to the nuts of the hose (6). The torque value must be between 15.25 N.m (135 lb.in) and 16.95 N.m (150 lb.in).
- (3) For aircraft PRE-MOD. [SB145-36-0009](#), to install the segment of the bleed-air servo lines in the baggage compartment left side (Figure 401, sheet 4), do as follows:
- (a) Install the hose (17) as follows:
- 1 Remove the protective caps or plugs from the hose (17) and the fitting of the damper (16) or fan-air control thermostat (16), as applicable. For comments on the damper and fan-air control thermostat, refer to figure 401, sheet 4.
 - 2 Apply GGA80TF/B grease to the fitting threads.
 - 3 Put the hose (17) in position.
 - 4 Connect the hose (17) to the damper (16) or fan-air control thermostat (16), as applicable. For comments on the damper and fan-air control thermostat, refer figure 401, sheet 4 .
 - 5 Connect the fitting (18) or the restrictor (18) to the hose (17) , as applicable. For comments on the fitting and restrictor, refer to (Figure 401) sheet 4.

- 6** **NOTE:** Hold the fitting of the damper (16) or fan-air control thermostat (16), as applicable, with a wrench while you apply the torque. For comments on the damper and fan-air control thermostat, refer to (Figure 401) sheet 4.

Apply torque to the nuts of the hose (17). The torque value must be between 15.25 N.m (135 lb.in) and 16.95 N.m (150 lb.in).

- (b) Install the tube (25) as follows:

- 1** Remove the protective caps or plugs from the tube (25).
- 2** Apply GGA80TF/B grease to the fitting threads.
- 3** Connect the fitting (26) to the tube (25).
- 4** Put the tube (25) in position.
- 5** Connect the tube (25) to the fitting (18) or to the restrictor (18), as applicable. For comments on the fitting and restrictor, refer to (Figure 401) sheet 4.
- 6** Put the clamp (21) on the tube (25) and then put them in position.
- 7** Install the washer (20) and the bolt (19) that attach the clamp (21) to the support.
- 8** Put the clamp (22) on the tube (25) and then put them in position.
- 9** Install the washer (24) and the bolt (23) that attach the clamp (22) to the support.
- 10** Apply torque to the nuts of the tube (25). The torque value must be between 15.25 N.m (135 lb.in) and 16.95 N.m (150 lb.in).

- (c) Install the tube (30) as follows:

- 1** Remove the protective caps or plugs from the tube (30).
- 2** Apply GGA80TF/B grease to the fitting threads.
- 3** Connect the fitting (31) to the tube (30).
- 4** Put the tube (30) in position.
- 5** Connect the tube (30) to the fitting (26).
- 6** Put the clamp (29) on the tube (30) and then put them in position.
- 7** Install the washer (28) and the bolt (27) that attach the clamp (29) to the support.
- 8** Apply torque to the nuts of the tube (30). The torque value must be between 15.25 N.m (135 lb.in) and 16.95 N.m (150 lb.in).

- (d) Install the fitting (8) as follows:

- 1 Put the washer (11) on the fitting (8) and then put them on the fuselage wall.
 - 2 Install the washer (10) and the nut (9).
 - 3 Apply torque to the nut (9) of the fitting (8). The torque value must be between 15.25 N.m (135 lb.in) and 16.95 N.m (150 lb.in).
 - 4 Apply sealant P/S870C-12 (SPEC. MIL-S 81733) around the fitting (8). (Figure 401) sheet 4).
- (e) Install the tube (12) as follows:
- 1 Remove the protective caps or plugs from the tube (12).
 - 2 Apply GGA80TF/B grease to the fitting threads.
 - 3 Put the tube (12) in position.
 - 4 Connect the tube (12) to the fittings (31) and (8).
 - 5 Put the clamp (15) on the tube (12) and then put them in position.
 - 6 Install the washer (14) and the bolt (13) that attach the clamp (15) to the support.
 - 7 Apply torque to the nuts of the tube (12). The torque value must be between 15.25 N.m (135 lb.in) and 16.95 N.m (150 lb.in).
- (4) For aircraft POST-MOD. [SB145-36-0009](#), to install the segment of the bleed-air servo line in the baggage compartment left side (Figure 401), sheet 5), do as follows:
- (a) Install the hose (17) as follows:
- 1 Remove the protective caps or plugs from the hose (17) and fitting of the fan-air control thermostat (16).
 - 2 Apply GGA80TF/B grease to the fitting threads.
 - 3 Put the hose (17) in position.
 - 4 Connect the hose (17) to the fan-air control thermostat (16).
 - 5 Connect the restrictor (18) to the hose (17).
 - 6 **NOTE:** Hold the fitting of the fan-air control thermostat (16) with a wrench while you apply the torque.
- Apply torque to the nuts of the hose (17). The torque value must be between 15.25 N.m (135 lb.in) and 16.95 N.m (150 lb.in).
- (b) Install the tube (25) as follows:
- 1 Remove the protective caps or plugs from the tube (25).
 - 2 Apply GGA80TF/B grease to the fitting threads.
 - 3 Connect the fitting (26) to the tube (25).

- 4 Put the tube (25) in position.
 - 5 Connect the tube (25) to the restrictor (18).
 - 6 Put the clamp (21) on the tube (25) and then put them in position.
 - 7 Install the washer (20) and the bolt (19) that attach the clamp (21) to the support.
 - 8 Put the clamp (22) on the tube (25) and then put them in their installation position.
 - 9 Install the washer (24) and the bolt (23) that attach the clamp (22) to the support.
 - 10 Apply torque to the nuts of the tube (25). The torque value must be between 15.25 N.m (135 lb.in) and 16.95 N.m (150 lb.in).
- (c) Install the tube (30) as follows:
- 1 Remove the protective caps or plugs from the tube (30).
 - 2 Apply GGA80TF/B grease to the fitting threads.
 - 3 Connect the fitting (31) to the tube (30).
 - 4 Put the tube (30) in position.
 - 5 Connect the tube (30) to the fitting (26).
 - 6 Put the clamp (29) on the tube (30) and then put it in position.
 - 7 Install the washer (28) and the bolt (27) that attach the clamp (29) to the support.
 - 8 Apply torque to the nuts of the tube (30). The torque value must be between 15.25 N.m (135 lb.in) and 16.95 N.m (150 lb.in).
- (d) Install the fitting (8) as follows:
- 1 Put the washer (11) on the fitting (8) and then put them on the fuselage wall.
 - 2 Install the washer (10) and the nut (9).
 - 3 Apply torque to the nut (9) of the fitting (8). The torque value must be between 15.25 N.m (135 lb.in) and 16.95 N.m (150 lb.in).
 - 4 Apply sealant P/S870C-12 (SPEC. MIL-S 81733) around the fitting (8). refer to figure 401, sheet 5, DET D.
- (e) Install the tube (12) as follows:
- 1 Remove the protective caps or plugs from the tube (12).
 - 2 Apply GGA80TF/B grease to the fitting threads.
 - 3 Put the tube (12) in position.

- 4 Connect the tube (12) to the fittings (31) and (8).
 - 5 Put the clamp (15) on the tube (12) and then put them in position.
 - 6 Install the washer (14) and the bolt (13) that attach the clamp (15) to the support.
 - 7 Apply torque to the nuts of the tube (12). The torque value must be between 15.25 N.m (135 lb.in) and 16.95 N.m (150 lb.in).
- (5) For aircraft PRE-MOD. [SB145-36-0009](#), to install the bleed-air servo line in the right pylon (Figure 402), sheet 2), do as follows:
- (a) Remove the protective caps or plugs from the tube (2) and fittings of the fan-air valve (1) and the fan-air control thermostat (9).
 - (b) Apply GGA80TF/B grease to the fitting threads.
 - (c) Put the tube (2) in position.
 - (d) Connect the tube (2) to the fan-air valve (1) and to the fan-air control thermostat (9).
 - (e) Put the clamp (5) on the tube (2) and then put them in position.
 - (f) Install bolt (3), washer (4) and nut (10) that attach the clamp (5) to the other clamp.
 - (g) Put the clamp (8) on the tube (2) and then put them in position.
 - (h) Install the bolt (6) and washer (7) that attach the clamp (8) to the support.
 - (i) **NOTE:** Hold the fittings of the fan-air valve (1) and the fan-air control thermostat (9) with a wrench while you apply the torque.
Apply torque to the nuts of the tube (2). The torque value must be between 15.25 N.m (135 lb.in) and 16.95 N.m (150 lb.in).
- (6) For aircraft POST-MOD. [SB145-36-0009](#), to install the segment of the bleed-air servo lines in the right pylon (Figure 402), sheet 3), do as follows:
- (a) Install the fitting (10) as follows:
 - 1 Put the washer (11) on the fitting (10) and then put them on the support.
 - 2 Install the washer (12) and the nut (13).
 - 3 Apply torque to the nut (13). The torque value must be between 15.25 N.m (135 lb.in) and 16.95 N.m (150 lb.in).
 - (b) Install the tube (14) as follows:
 - 1 Remove the protective caps or plugs from the tube (14).
 - 2 Apply GGA80TF/B grease to the fitting threads.
 - 3 Put the tube (14) in position.

- 4 Connect the tube (14) to the fittings (15) and (10).
 - 5 Apply torque to the nuts of the tube (14). The torque value must be between 15.25 N.m (135 lb.in) and 16.95 N.m (150 lb.in).
 - (c) Install the tube (9) as follows:
 - 1 Remove the protective caps or plugs from the tube (9).
 - 2 Apply GGA80TF/B grease to the fitting threads.
 - 3 Connect the fitting (8) to the tube (9).
 - 4 Put the tube (9) in position.
 - 5 Connect the tube (9) to the fitting (10).
 - 6 Apply torque to the nuts of the tube (9). The torque value must be between 15.25 N.m (135 lb.in) and 16.95 N.m (150 lb.in).
 - (d) Install the tube (2) as follows:
 - 1 Remove the protective caps or plugs from the tube (2) and fitting of the fan-air valve (1).
 - 2 Apply GGA80TF/B grease to the fitting threads.
 - 3 Put the tube (2) in position.
 - 4 Connect the tube (2) to the fan-air valve (1).
 - 5 Connect the tube (2) to the fitting (8).
 - 6 Put the clamp (5) on the tube (2) and then then put them in position.
 - 7 Install the washer (4), bolt (3), washer (6) and nut (7) that attach the clamp (5) to the other clamp.
 - 8 **NOTE:** Hold the fitting of the fan-air valve (1) with a wrench while you apply the torque.
- Apply torque to the nuts of the tube (2). The torque value must be between 15.25 N.m (135 lb.in) and 16.95 N.m (150 lb.in).

- (7) For aircraft PRE-MOD. **SB145-36-0009**, to install the segment of the bleed-air servo line installed in the baggage compartment right side (Figure 402), sheet 4), do as follows:

- (a) Install the hose (37) as follows:
- 1 Remove the protective caps or plugs from the hose (37) and damper (38) or from the fan-air control thermostat (38), as applicable. For comments on the damper and fan-air control thermostat, see (Figure 402) sheet 4).
 - 2 Apply GGA80TF/B grease to the fitting threads.
 - 3 Put the hose (37) in position.

- 4 Connect the hose (37) to the damper (38) or to the fan-air control thermostat (38), as applicable. For comments on the damper and fan-air control thermostat, refer to (Figure 402), sheet 4.
- 5 Connect the fitting (36) or the restrictor (36) to the hose (37), as applicable. For comments on the fitting and restrictor, refer to (Figure 402), sheet 3.
- 6 **NOTE:** Hold the fitting of the damper (38) or fan-air control thermostat (38), as applicable, with a wrench while you apply the torque. For comments on the damper and fan-air control thermostat, refer to (Figure 402), sheet 4.

Apply torque to the nuts of the hose (37). The torque value must be between 15.25 N.m (135 lb.in) and 16.95 N.m (150 lb.in).

(b) Install the tube (32) as follows:

- 1 Remove the protective caps or plugs from the tube (32).
- 2 Apply GGA80TF/B grease to the fitting threads.
- 3 Put the tube (32) in position.
- 4 Connect the tube (32) to the fitting (36) or restrictor (36), as applicable. For comments on the fitting and restrictor, refer to (Figure 402), sheet 4.
- 5 Put the clamp (35) on the tube (32) and then put them in position.
- 6 Install the washer (34) and the bolt (33) that attach the clamp (35) to the support.
- 7 Put the clamp (31) on the tube (32) and then put them in position.
- 8 Install the washer (30) and the bolt (29) that attach the clamp (31) to the support.
- 9 Apply torque to the nuts of the tube (32). The torque value must be between 15.25 N.m (135 lb.in) and 16.95 N.m (150 lb.in).

(c) Install the tube (27) as follows:

- 1 Remove the protective caps or plugs from the tube (27).
- 2 Apply GGA80TF/B grease to the fitting threads.
- 3 Connect the fitting (23) to the tube (27).
- 4 Put the tube (27) in position.
- 5 Connect the tube (27) to the fitting (28).
- 6 Put the clamp (26) on the tube (27) and then put them in position.
- 7 Install the washer (24) and the bolt (25) that attach the clamp (26) to the support.

- 8 Apply torque to the nuts of the tube (27). The torque value must be between 15.25 N.m (135 lb.in) and 16.95 N.m (150 lb.in).
- (d) Install the fitting (15) as follows:
- 1 Put the washer (18) on the fitting (15) and then put them on the fuselage wall.
 - 2 Install the washer (17) and the nut (16).
 - 3 Apply torque to the nut (16). The torque value must be between 15.25 N.m (135 lb.in) and 16.95 N.m (150 lb.in).
 - 4 Apply sealant P/S870C-12 (SPEC. MIL-S 81733) around the fitting (15). Refer to (Figure 402) , sheet 4, DET D.
- (e) Install the tube (22) as follows:
- 1 Remove the protective caps or plugs from the tube (22).
 - 2 Apply GGA80TF/B grease to the fitting threads.
 - 3 Put the tube (22) in position.
 - 4 Connect the tube (22) to the fittings (23) and (15).
 - 5 Put the clamp (21) on the tube (22) and then put them in position.
 - 6 Install the washer (20) and the bolt (19) that attach the clamp (21) to the support.
 - 7 Apply torque to the nuts of the tube (22). The torque value must be between 15.25 N.m (135 lb.in) and 16.95 N.m (150 lb.in).
- (8) For aircraft POST-MOD. **SB145-36-0009**, to install the segment of the bleed-air servo line in the baggage compartment right side (Figure 402), sheet 5), do as follows:
- (a) Install the hose (37) as follows:
- 1 Remove the protective caps or plugs from the hose (37) and fan-air control thermostat (38).
 - 2 Apply GGA80TF/B grease to the fitting threads.
 - 3 Put the hose (37) in position.
 - 4 Connect the hose (37) to the fan-air control thermostat (38).
 - 5 Connect the restrictor (36) to the hose (37).
 - 6 **NOTE:** Hold the fitting of the fan-air control thermostat (38) with a wrench while you apply the torque.
Apply torque to the nuts of the hose (37). The torque value must be between 15.25 N.m (135 lb.in) and 16.95 N.m (150 lb.in).
- (b) Install the tube (32) as follows:

- 1 Remove the protective caps or plugs from the tube (32).
 - 2 Apply GGA80TF/B grease to the fitting threads.
 - 3 Put the tube (32) in position.
 - 4 Connect the tube (32) to the restrictor (36).
 - 5 Put the clamp (35) on the tube (32) and then put them in position.
 - 6 Install the washer (34) and the bolt (33) that attach the clamp (35) to the support.
 - 7 Put the clamp (31) on the tube (32) and then put them in position.
 - 8 Install the washer (30) and the bolt (29) that attach the clamp (31) to the support.
 - 9 Apply torque to the nuts of the tube (32). The torque value must be between 15.25 N.m (135 lb.in) and 16.95 N.m (150 lb.in).
- (c) Install the tube (27) as follows:
- 1 Remove the protective caps or plugs from the tube (27).
 - 2 Apply CGA80TF/B grease to the fitting threads.
 - 3 Connect the fitting (23) to the tube (27).
 - 4 Put the tube (27) in position.
 - 5 Connect the tube (27) to the fitting (28).
 - 6 Put the clamp (26) on the tube (27) and then put them in position.
 - 7 Install the washer (24) and bolt (25) that attach the clamp (26) to the support.
 - 8 Apply torque to the nuts of the tube (27). The torque value must be between 15.25 N.m (135 lb.in) and 16.95 N.m (150 lb.in).
- (d) Install the fitting (15) as follows:
- 1 Put the washer (18) on the fitting (15) and then put them on the fuselage wall.
 - 2 Install the washer (17) and the nut (16).
 - 3 Apply torque to the nut (16). The torque value must be between 15.25 N.m (135 lb.in) and 16.95 N.m (150 lb.in).
 - 4 Apply sealant P/S870C-12 (SPEC. MIL-S 81733) around the fitting (15). Refer to (Figure 402), sheet 5, DET D.
- (e) Install the tube (22) as follows:
- 1 Remove the protective caps or plugs from the tube (22).

- 2 Apply GGA80TF/B grease to the fitting threads.
- 3 Put the tube (22) in position.
- 4 Connect the tube (22) to the fittings (23) and (15).
- 5 Put the clamp (21) on the tube (22) and put it in position.
- 6 Install the washer (20) and the bolt (19) that attach the clamp (21) to the support.
- 7 Apply torque to the nuts of the tube (22). The torque value must be between 15.25 N.m (135 lb.in) and 16.95 N.m (150 lb.in).

J. Follow-on

SUBTASK 842-008-B

- (1) Do a leakage test of the bleed-air servo lines ([AMM TASK 36-11-11-700-801-A/500](#)).
- (2) Install these access panels:
 - (a) On the left pylon: 414AB, 414BB, 414CB, and 414DB ([AMM MPP 06-43-00/100](#)).
 - (b) On the right pylon: 424AB, 424BB, 424CB, and 424DB ([AMM MPP 06-43-00/100](#)).
- (3) Remove the workstand from the aircraft work area.

