VERTICAL-STABILIZER ANTI-ICING MONITORING TUBES - ADJUSTMENT/TEST

EFFECTIVITY: ALL

1. General

   A. This section provides instructions to test the monitoring tube of the vertical stabilizer anti-icing system.

   B. 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*
30-12-11-700-801-A	VERTICAL STABILIZER MONITORING TUBE LEAKAGE TEST	ALL

TASK 30-12-11-700-801-A
EFFECTIVITY: ALL

2. VERTICAL STABILIZER MONITORING TUBE LEAKAGE TEST

A. General

(1) The function of this test is to make sure that there is no leakage in the connections of the vertical-stabilizer anti-icing system monitoring tubes.

(2) This test is divided into two steps:

(a) Step I: To make sure if there is leakage.

(b) Step II: If leakage is found in step I, do this step to find the position of the leakage and make the necessary repairs.

B. References

REFERENCE	*DESIGNATION*
AMM TASK 30-12-11-000-801-A/400	VERTICAL-STABILIZER ANTI-ICING MONITORING TUBES - REMOVAL
AMM TASK 30-12-11-400-801-A/400	VERTICAL-STABILIZER ANTI-ICING MONITORING TUBES - INSTALLATION

C. Zones and Accesses

Not Applicable

D. Tools and Equipment

ITEM	*DESCRIPTION*	*PURPOSE*	*QTY*
GSE 080	Box-Leakage test	To apply measured pressure to the tubes	
GSE 116	Two hose assemblies	To connect the leakage test box to the tubes	

E. Auxiliary Items

ITEM	*DESCRIPTION*	*PURPOSE*	*QTY*
Commercially available	Ladder	To get access to the leading edges of the vertical stabilizer	1
Locally available	Dry and filtered compressed air source	To pressurize the vertical-stabilizer anti-icing system monitoring tubes	1
Commercially available	Brush	To apply the leak detection fluid	1
Commercially available	Union-AN 815 - 4D or equivalent	To connect the pressure line	1
Commercially available	Sleeve-MS 20819 - 4D or equivalent	To connect the pressure line	1
Commercially available	Flared tube-AL 5052 - 6.35 mm (1/4 in) in diameter/101 mm (4 in) length	To connect the pressure line	1
Commercially available	Nut-AN 818 - 4D or equivalent	To connect the pressure line	1

F. Consumable Materials

SPECIFICATION (BRAND)	*DESCRIPTION*	*QTY*
MIL-L-25567 or equivalent	LEAK TEC 160X leakage detector	AR

G. Expandable Parts

Not Applicable

H. Persons Recommended

QTY	*FUNCTION*	*PLACE*
1	A - Does step I	Vertical-stabilizer tip
1	B - If step II is necessary, helps technician A	Vertical-stabilizer leading edge

I. Preparation

SUBTASK 841-002-A

WARNING: DO NOT TOUCH THE DUCTS OR COMPONENTS OF THE ANTI-ICING SYSTEM IMMEDIATELY AFTER THE SYSTEM IS TURNED OFF, BECAUSE THE HIGH AIR TEMPERATURE CAN CAUSE INJURY TO PERSONS.

(1) On the Circuit Breaker Panel, open the STAB circuit breaker and attach a DO-NOT-CLOSE tag to it.

(2) Remove the vertical-stabilizer monitoring tubes (AMM TASK 30-12-11-000-801-A/400).

(3) Before you connect the leakage test box to the vertical-stabilizer anti-icing system hose, do the procedure that follows to adjust the leakage test box (Figure 501):

(a) Make sure that there is no moisture and no foreign matter in the inlet filter of the leakage test box.

(b) Install a hose to connect the air outlet coupling to the manometric pressure coupling on the LH side of the leakage test box.

(c) Turn the pressure regulator knob fully counterclockwise (-).

(d) Keep the pressure source selector in the CLOSE position.

CAUTION: MAKE SURE THAT THE PRESSURE REGULATOR KNOB OF THE TEST BOX (GSE 080) IS FULLY CLOSED IN THE COUNTERCLOCKWISE POSITION BEFORE YOU CONNECT THE SOURCE OF COMPRESSED AIR. IF YOU DO NOT OBEY THIS PROCEDURE DAMAGE TO THE EQUIPMENT CAN OCCUR.

(e) Connect a source of compressed air to the leakage test box.

(f) Turn the pressure source selector to the AIR position.

(g) Move the operation selector lever to the PRESSURE position and turn the pressure regulator knob clockwise (+) until you get an indication of 2 psi on the pressure gauge.

(h) Turn the pressure source selector to the CLOSE position.

(i) Disconnect the source of compressed air from the leakage test box.

(j) Push the operation selector lever to the ESCAPE position until the pressure gauge shows zero.

(4) Install the hoses (GSE 116) to the leakage test box.

(5) Install the union to the hoses (GSE 116).

(6) Install the union to the vertical-stabilizer anti-icing system hose.

J. Leakage test procedure

SUBTASK 700-002-A

CAUTION: TOO MUCH PRESSURE CAN CAUSE DAMAGE TO THE HORIZONTAL-STABILIZER ANTI-ICING SYSTEM COMPONENTS. USE ONLY THE SPECIFIED PRESSURE VALUE (2 PSI) TO DO THE TEST.

(1) Step I:

(a) Connect the source of compressed air to the leakage test box.

(b) On the leakage test box turn the pressure source selector to the AIR position.

(c) Move the selector lever of the leakage test box to the PRESSURE position and turn the pressure regulator knob clockwise until you have a pressure of 2 psi.

(d) When the pressure becomes stable at 2 psi, release the leakage test box lever and turn the source selector to the CLOSE position.

(e) After one minute (1 min.), read the leakage test box gauge to make sure the pressure decreased:

1 If it did: do step II.

2 If it did not: move the leakage test box lever to the ESCAPE position until the pressure gauge shows zero, and go to the Follow-on procedures.

(2) Step II:

(a) On the leakage test box, turn the pressure source selector to the AIR position.

(b) Move the selector lever of the leakage test box to the PRESSURE position and turn the pressure regulator knob clockwise until you have the pressure of 2 psi.

(c) When the pressure becomes stable at 2 psi, release the leakage test box lever and turn the source selector to the CLOSE position.

(d) Use a brush to apply the leak detection fluid to the hose of the monitoring tube and examine it for leaks.

(e) If there are leaks, find the related area(s).

(f) Turn the selector of the leakage test box to the CLOSE position.

(g) Move the leakage test box lever to the ESCAPE position until the pressure gauge shows zero.

(h) If applicable, repair the wing anti-icing system components as necessary to remove the leak(s).

(i) Do the test again and make sure that there are no leaks.

K. Follow-On

SUBTASK 842-002-A

(1) Remove the tube assembly from the union and from the vertical-stabilizer anti-icing system hose.

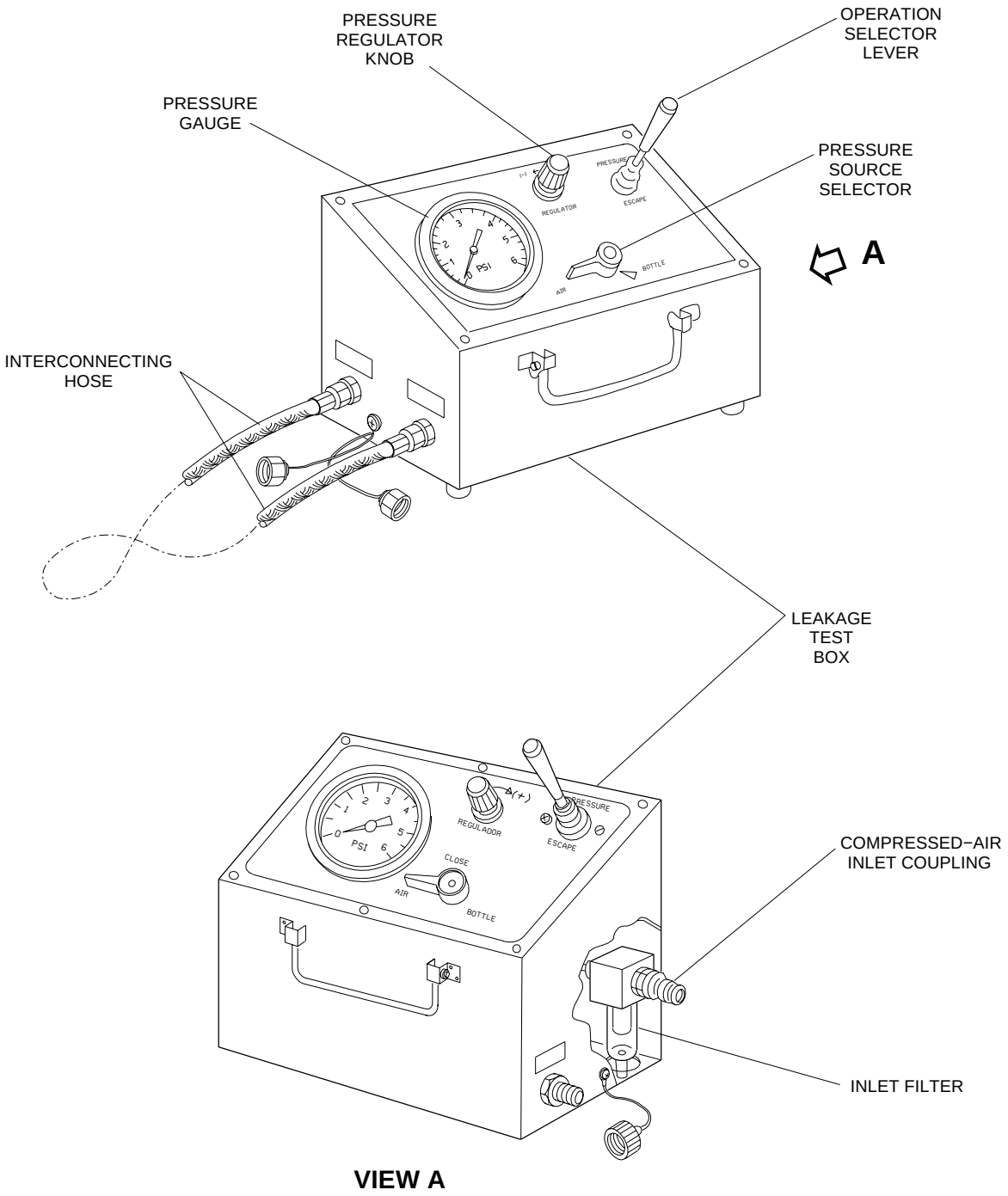
(2) Disconnect the hoses (GSE 116) from the union connection, from the leakage test box.

(3) On the Circuit Breaker Panel, close the STAB circuit breaker and remove the DO-NOT-CLOSE tag from it.

(4) Install the vertical-stabilizer anti-icing system hose (AMM TASK 30-12-11-400-801-A/400).

EFFECTIVITY: ALL

Box-Leakage Test - Adjustment/Test
Figure 501

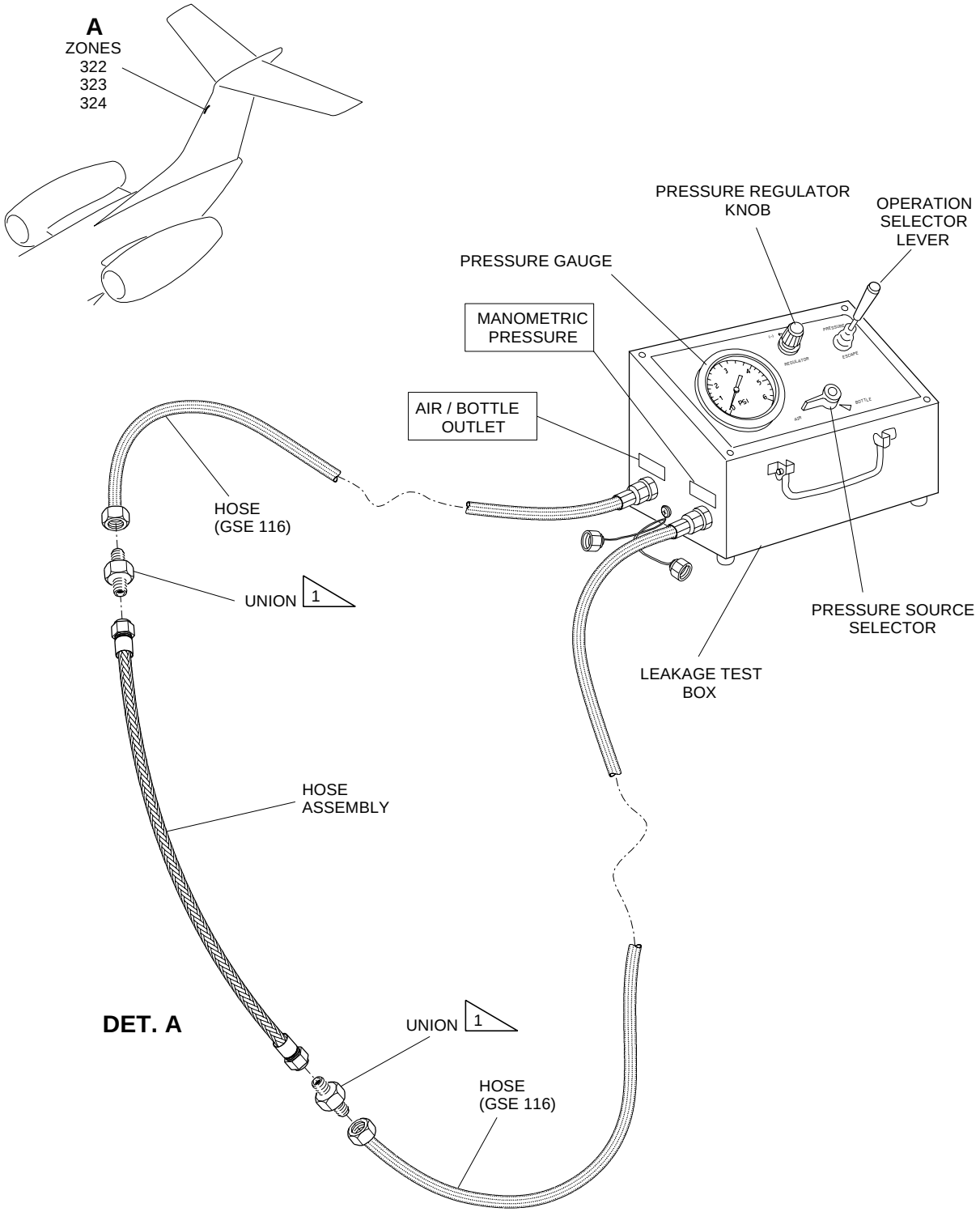


VIEW A

EM145AMM281629A.DGN

EFFECTIVITY: ALL

Vertical-Stabilizer Anti-icing Monitoring Tubes - Component Locations
Figure 502



1 TORQUE: 5.09–5.65 N.m (45–50 lbf.in)

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