



AIRCRAFT  
MAINTENANCE MANUAL

**HORIZONTAL-STABILIZER ANTI-ICING PICCOLO TUBES - REMOVAL/INSTALLATION**

EFFECTIVITY: ALL

1. General

- A. This section gives the procedures to remove and install the piccolo tubes of the Horizontal-Stabilizer Thermal Anti-Icing System.
- B. These procedures are applicable to the LH and RH piccolo tubes.
- 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
30-12-06-000-801-A	PICCOLO TUBE - REMOVAL	ALL
30-12-06-400-801-A	PICCOLO TUBE - INSTALLATION	ALL



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TASK 30-12-06-000-801-A

EFFECTIVITY: ALL

2. PICCOLO TUBE - REMOVAL

A. General

- (1) This procedure gives the instructions to remove the piccolo tube of the Horizontal-Stabilizer Thermal Anti-Icing System.

B. References

REFERENCE	DESIGNATION
AMM MPP 06-30-00/100	-
AMM MPP 06-42-00/100	-
AMM TASK 55-13-00-000-801-A/400	HORIZONTAL-STABILIZER LEADING-EDGE ROOT FAIRINGS - REMOVAL
AMM TASK 55-13-02-000-801-A/400	HORIZONTAL STABILIZER TIPS - REMOVAL
AMM TASK 55-36-00-000-801-A/400	TAIL BOOM - REMOVAL
S.B.145-30-0022	-

C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
321		Stabilizer center section
333	333DL	Stabilizer center section
334	334DR	Stabilizer center section
337	337AZ	Stabilizer center section

D. Tools and Equipment

Not Applicable

E. Auxiliary Items

ITEM	DESCRIPTION	PURPOSE	QTY
Commercially available	Ladder	To get access to the piccolo tube	1

F. Consumable Materials

Not Applicable

G. Expandable Parts

Not Applicable

H. Persons Recommended

QTY	FUNCTION	PLACE
1	Does the task	Leading edge of the horizontal stabilizer
1	Helps the other technician	Leading edge of the horizontal stabilizer



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I. Preparation

SUBTASK 841-002-A

- (1) On the overhead Circuit Breaker Panel, open the circuit breakers below and attach a DO-NOT-CLOSE tag to them.
  - (PRE-MOD. [S.B.145-30-0022](#))  
STAB: (Location Tip: DC BUS 2/ICE AND RAIN PROTECTION/STAB).
  - (POST-MOD. [S.B.145-30-0022](#))  
STAB: (Location Tip: DC BUS 2/ICE AND RAIN PROTECTION/STAB).  
STAB A/I IND: (Location Tip: DC BUS 1/ICE AND RAIN PROTECTION/STAB A/I IND).
- (2) Remove the leading-edge fairings (access panels 333DL, 334DR) ([AMM TASK 55-13-00-000-801-A/400](#)) (AMM MPP 06-42-00/100).
- (3) Remove the front movable fairings (access panel 337AZ) ([AMM TASK 55-36-00-000-801-A/400](#)) (AMM MPP 06-42-00/100).
- (4) Remove the front fairings (zone321) of the vertical stabilizer ([AMM TASK 55-36-00-000-801-A/400](#)) (AMM MPP 06-30-00/100).
- (5) Remove the fairings of the horizontal stabilizer tip (AMM MPP 06-30-00/100) ([AMM TASK 55-13-02-000-801-A/400](#)).
- (6) Remove the protection sleeve from the connection point of the anti-icing duct and the piccolo tube.

J. Removal ([Figure 401](#))

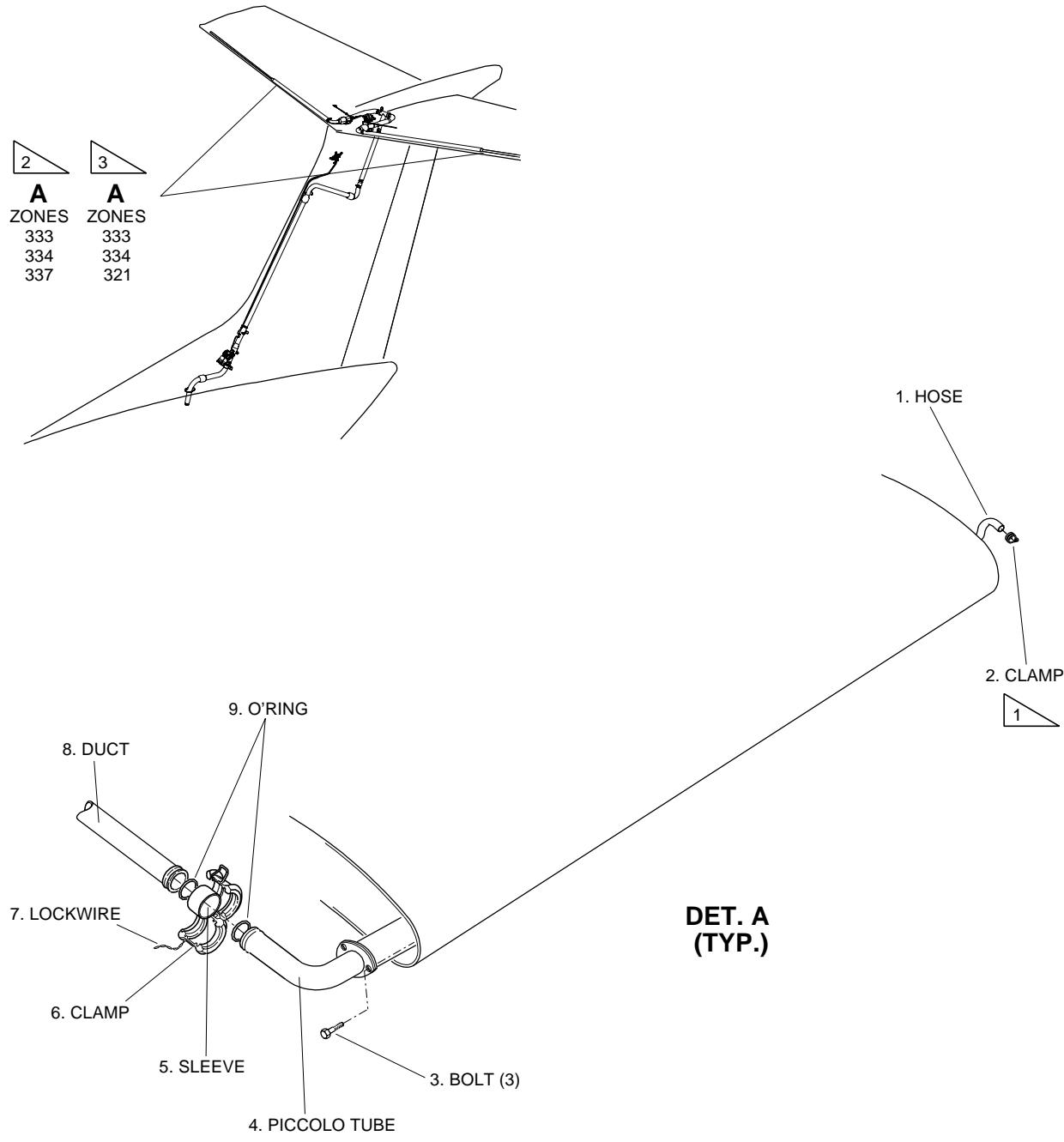
SUBTASK 020-002-A

- (1) Loosen the clamp (2) and disconnect the hose (1) from the end of the piccolo tube (4).
- (2) Cut the lockwire (7) and remove the clamp (6), sleeve (5), and two O-rings (9). Discard the old O-rings (9).
- (3) Remove the bolts (3) (3 positions) to disconnect the piccolo tube (4) from the duct (8).
- (4) Carefully pull the piccolo tube (4) and remove it from the leading edge of the horizontal stabilizer.

**EFFECTIVITY: ALL**

Piccolo Tube - Removal/Installation

Figure 401



**1** TORQUE: 1.1 N.m TO 1.7 N.m ( 10 lb.in TO 15 lb.in )

**2** APPLICABLE TO AIRCRAFT 001/038

**3** APPLICABLE TO AIRCRAFT 039/999

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TASK 30-12-06-400-801-A

EFFECTIVITY: ALL

3. PICCOLO TUBE - INSTALLATION

A. General

- (1) This procedure gives the instructions to install the piccolo tube of the Horizontal-Stabilizer Thermal Anti-Icing System.

B. References

REFERENCE	DESIGNATION
AMM MPP 06-30-00/100	-
AMM MPP 06-42-00/100	-
AMM MPP 20-30-03/200	- MAINTENANCE PRACTICES
AMM TASK 30-12-00-700-803-A/500	HORIZONTAL-STABILIZER THERMAL ANTI-ICING SYSTEM - FUNCTIONAL TEST
AMM TASK 55-13-00-400-801-A/400	HORIZONTAL-STABILIZER LEADING-EDGE ROOT FAIRINGS - INSTALLATION
AMM TASK 55-13-02-400-801-A/400	HORIZONTAL STABILIZER TIPS - INSTALLATION
AMM TASK 55-36-00-400-801-A/400	TAIL BOOM - INSTALLATION
IPC 30-12-00	HORIZONTAL-STABILIZER THERMAL ANTI-ICING SYSTEM
S.B.145-30-0022	-

C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
321		Stabilizer center section
333	333DL	Stabilizer center section
334	334DR	Stabilizer center section
337	337AZ	Stabilizer center section

D. Tools and Equipment

Not Applicable

E. Auxiliary Items

Not Applicable

F. Consumable Materials

SPECIFICATION (BRAND)	DESCRIPTION	QTY
MS20995C20	Lockwire	AR
MIL-S-38249	Sealing Compound, Firewall	AR



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G. Expendable Parts

ITEM	IPC REFERENCE (VENDOR REFERENCE)	QTY
O-ring	IPC 30-12-00	2 (each side)

H. Persons Recommended

QTY	FUNCTION	PLACE
1	Does the task	Leading edge of the horizontal stabilizer
1	Helps the other technician	Leading edge of the horizontal stabilizer

I. Installation (Figure 401)

SUBTASK 420-002-A

- (1) Remove the old sealing (MIL-S-38249) before you put the piccolo tube (4) back to its position ([AMM MPP 20-30-03/200](#)).
- (2) Do fastener sealing (MIL-S-38249) before you put the piccolo tube (4) back to its position ([AMM MPP 20-30-03/200](#)).
- (3) Put the piccolo tube (4) in the leading edge of the horizontal stabilizer and push it carefully.
- (4) Install the bolts (3) to attach the piccolo tube (4) to the horizontal stabilizer.
- (5) Connect the hose (1) to the end of the piccolo tube (4) and torque the clamp (2).
- (6) Install the two new O-rings (9), sleeve (5), and clamp (6) to connect the piccolo tube (4) to the duct (8).
- (7) Safety the clamp (6) with the lockwire (7).

J. Follow-on

SUBTASK 842-002-A

- (1) On the overhead Circuit Breaker Panel, close the circuit breakers below and remove the DO-NOT-CLOSE tag from them.
  - (PRE-MOD. [S.B.145-30-0022](#))  
STAB: (Location Tip: DC BUS 2/ICE AND RAIN PROTECTION/STAB).
  - (POST-MOD. [S.B.145-30-0022](#))  
STAB: (Location Tip: DC BUS 2/ICE AND RAIN PROTECTION/STAB).  
STAB A/I IND: (Location Tip: DC BUS 1/ICE AND RAIN PROTECTION/STAB A/I IND).
- (2) Examine the piccolo tube connections for leaks.
- (3) Do a functional test of the Horizontal-Stabilizer Thermal Anti-Icing System ([AMM TASK 30-12-00-700-803-A/500](#)).



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- (4) Install the protection sleeve to the connection point of the anti-icing duct and the piccolo tube.
- (5) Install the front fairings (zone321) of the vertical stabilizer (AMM MPP 06-30-00/100) ([AMM TASK 55-36-00-400-801-A/400](#)).
- (6) Install the fairings of the horizontal stabilizer tip ([AMM TASK 55-13-02-400-801-A/400](#)) (AMM MPP 06-30-00/100).
- (7) Install the leading-edge fairings (access panels 333DL, 334DR) ([AMM TASK 55-13-00-400-801-A/400](#)) (AMM MPP 06-42-00/100).
- (8) Install the front movable fairings (access panel 337AZ) ([AMM TASK 55-36-00-400-801-A/400](#)) (AMM MPP 06-42-00/100).

