



## AIRCRAFT MAINTENANCE MANUAL

### WING ANTI-ICING PICOLLO TUBES - REMOVAL/INSTALLATION

EFFECTIVITY: ALL

#### 1. General

- A. This section gives the procedures to remove and install the piccolo tubes of the Wing Thermal Anti-Icing System.
- B. The piccolo tubes are installed in wing leading edges I, II, and III.
- C. These procedures are applicable to the piccolo tubes of the LH and RH wings.
- D. 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
30-11-07-000-801-A	PICCOLO TUBES - REMOVAL	ALL
30-11-07-400-801-A	PICCOLO TUBES - INSTALLATION	ALL



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TASK 30-11-07-000-801-A

EFFECTIVITY: ALL

2. PICCOLO TUBES - REMOVAL

A. General

- (1) This procedure gives the instructions to remove the piccolo tubes of the Wing Thermal Anti-Icing System.

B. References

REFERENCE	DESIGNATION
AMM TASK 57-41-00-000-801-A/400	LEADING EDGE I - REMOVAL
AMM TASK 57-42-00-000-801-A/400	LEADING EDGE II - REMOVAL
AMM TASK 57-43-00-000-801-A/400	LEADING EDGE III - REMOVAL

C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
511/512/513		Leading edges of the LH wing
611/612/613		Leading edges of the RH wing

D. Tools and Equipment

Not Applicable

E. Auxiliary Items

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

F. Consumable Materials

Not Applicable

G. Expandable Parts

Not Applicable

H. Persons Recommended

QTY	FUNCTION	PLACE
1	Does the task	Leading edges of the LH or RH wing
1	Helps the other technician	Leading edges of the LH or RH wing

I. Preparation

SUBTASK 841-002-A

- (1) On the overhead Circuit Breaker Panel, open the circuit breaker below and attach a DO-NOT-CLOSE tag to it.
- WING (Location tip: DC BUS 1/ICE AND RAIN PROTECTION/WING).



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- (2) Remove the leading edge I 511 or 611 ([AMM TASK 57-41-00-000-801-A/400](#)), leading edge II 512 or 612 ([AMM TASK 57-42-00-000-801-A/400](#)), and leading edge III 513 or 613 ([AMM TASK 57-43-00-000-801-A/400](#)) of the wing.

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

SUBTASK 020-002-A

- (1) Remove the piccolo tube (1) from the leading edge III (8) as follows:
- Remove the bolts (10) and washers (11) (3 positions).
  - Carefully pull the piccolo tube (1) to remove it from the leading edge III (8).

- (2) Remove the piccolo tube (3) from the leading edge II (7) as follows:

**CAUTION: BE CAREFUL WHEN YOU SLIDE THE COUPLING (2) ON THE PICCOLO TUBE TO PREVENT DAMAGE TO THE SEAL DEVICE INSIDE THE COUPLING AND TO THE PICCOLO TUBE ENDS.**

- Remove the coupling (2) from the end of the piccolo tube (3).
- Remove the bolts (10) and washers (11) (3 positions).
- Carefully pull the piccolo tube (3) to remove it from the leading edge II (7).

- (3) Remove the piccolo tube (5) from the leading edge I (6) as follows:

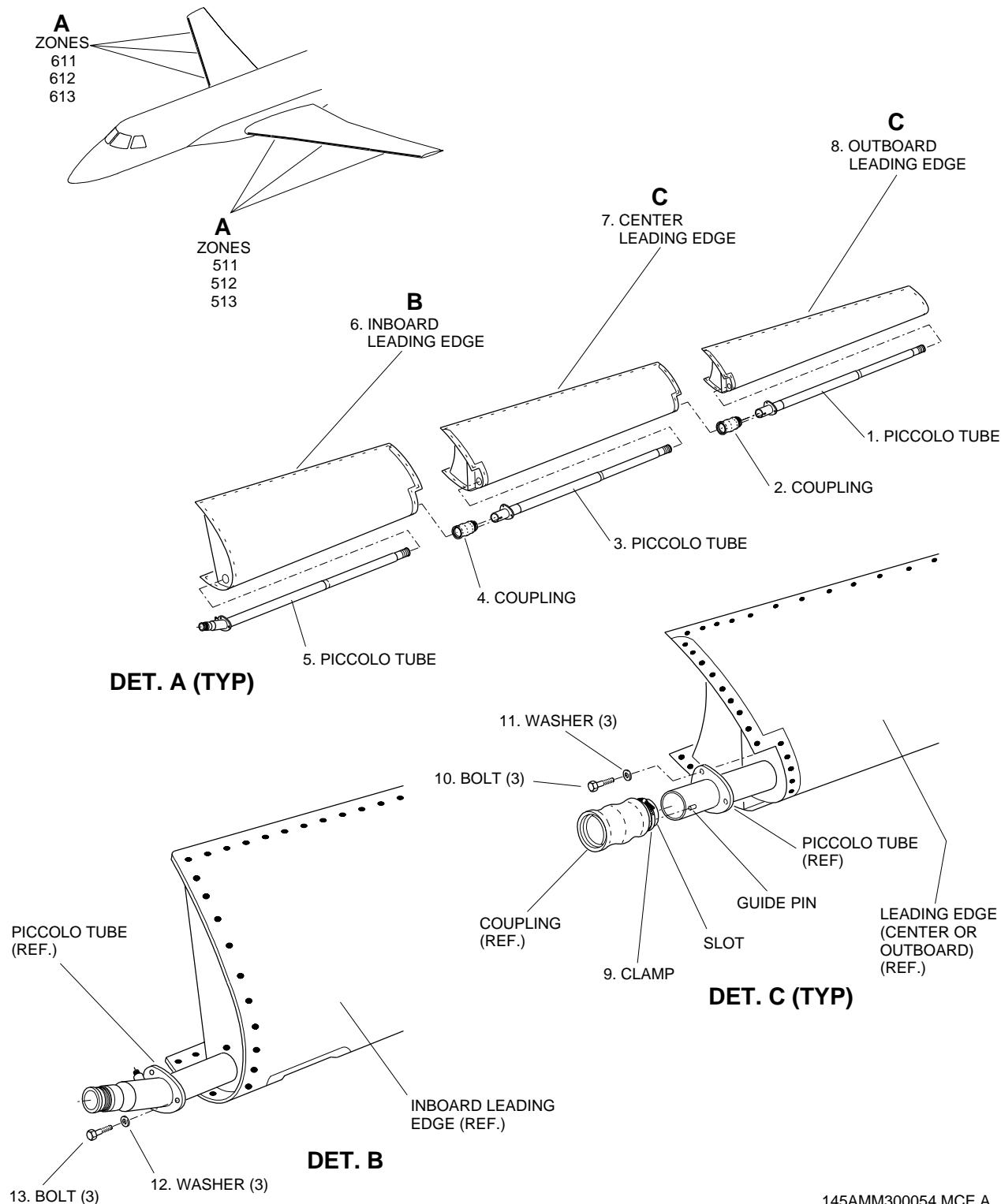
**CAUTION: BE CAREFUL WHEN YOU SLIDE THE COUPLING (4) ON THE PICCOLO TUBE TO PREVENT DAMAGE TO THE SEAL DEVICE INSIDE THE COUPLING AND TO THE PICCOLO TUBE ENDS.**

- Remove the coupling (4) from the end of the piccolo tube (5).
- Remove the bolts (13) and washers (12) (3 positions).
- Carefully pull the piccolo tube (5) to remove it from the leading edge I (6).

**EFFECTIVITY: ALL**

Piccolo Tubes - Removal/Installation

Figure 401





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TASK 30-11-07-400-801-A

EFFECTIVITY: ALL

3. PICCOLO TUBES - INSTALLATION

A. General

- (1) This procedure gives the instructions to install the piccolo tubes of the Wing Thermal Anti-Icing System.

B. References

REFERENCE	DESIGNATION
AMM MPP 20-30-03/200	- MAINTENANCE PRACTICES
AMM TASK 30-11-00-700-802-A/500	WING THERMAL ANTI-ICING SYSTEM - FUNCTIONAL TEST
AMM TASK 57-41-00-000-801-A/400	LEADING EDGE I - REMOVAL
AMM TASK 57-42-00-000-801-A/400	LEADING EDGE II - REMOVAL
AMM TASK 57-43-00-000-801-A/400	LEADING EDGE III - REMOVAL

C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
511/512/513		Leading edges of the LH wing
611/612/613		Leading edges of the RH wing

D. Tools and Equipment

Not Applicable

E. Auxiliary Items

Not Applicable

F. Consumable Materials

SPECIFICATION (BRAND)	DESCRIPTION	QTY
MIL-S-38249 Type 1	Sealing Compound, Firewall	AR
PR1910-2	Sealing Compound, Firewall	AR

G. Expandable Parts

Not Applicable

H. Persons Recommended

QTY	FUNCTION	PLACE
1	Does the task	Leading edges of the LH or RH wing
1	Helps the other technician	Leading edges of the LH or RH wing



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I. Installation (Figure 401)

SUBTASK 420-002-A

- (1) Remove the old sealing (MIL-S-38249 or PR1910-2) before you put the piccolo tube (5) back to its installation position ([AMM MPP 20-30-03/200](#)).

- (2) Seal the fastener (MIL-S-38249 or PR1910-2) before you put the piccolo tube (5) back to its installation position ([AMM MPP 20-30-03/200](#)).

NOTE: For the sealing, you can use MIL-S-38249 or PR1910-2, as indicated.

- (3) Install the piccolo tube (5) to leading edge I (6) as follows:

- (a) Put the piccolo tube (5) in leading edge I (6) and push it carefully.

- (b) Install the bolts (13) and washers (12) (3 positions) to attach the piccolo tube (5) to leading edge I (6).

CAUTION: BE CAREFUL WHEN YOU SLIDE THE COUPLING (4) ON THE PICCOLO TUBE TO PREVENT DAMAGE TO THE SEAL DEVICE INSIDE THE COUPLING AND TO THE PICCOLO TUBE ENDS.

- (c) Put the coupling (4) on the end of the piccolo tube (5).

- (4) Install the piccolo tube (3) to leading edge II (7) as follows:

- (a) Put the piccolo tube (3) in leading edge II (7) and push it carefully.

- (b) Install the bolts (10) and washers (11) (3 positions) to attach the piccolo tube (3) to leading edge II (7).

CAUTION: BE CAREFUL WHEN YOU SLIDE THE COUPLING (2) ON THE PICCOLO TUBE TO PREVENT DAMAGE TO THE SEAL DEVICE INSIDE THE COUPLING AND TO THE PICCOLO TUBE ENDS.

- (c) Put the coupling (2) on the end of the piccolo tube (3).

- (5) Install the piccolo tube (1) to leading edge III (8) as follows:

- (a) Put the piccolo tube (1) in leading edge III (8) and push it carefully.

- (b) Install the bolts (10) and washers (11) (3 positions) to attach the piccolo tube (1) to leading edge III (8).

J. Follow-on

SUBTASK 842-002-A

- (1) Install leading edge I 511 or 611 ([AMM TASK 57-41-00-000-801-A/400](#)), leading edge II 512 or 612 ([AMM TASK 57-42-00-000-801-A/400](#)), and leading edge III 513 or 613 ([AMM TASK 57-43-00-000-801-A/400](#)) of the wing.

NOTE: During the installation of the leading edge I or II or III, make sure that the guide pin of the piccolo tube is correctly engaged into the slot of the coupling (Refer to (Figure 401), DET. C.).



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- (2) On the overhead Circuit Breaker Panel, close the circuit breaker below and remove the DO-NOT-CLOSE tag from it.
  - WING (Location tip: DC BUS 1/ICE AND RAIN PROTECTION/WING).
- (3) Do a functional check of the Wing Thermal Anti-Icing System ( [AMM TASK 30-11-00-700-802-A/500](#)).

