PITOT SENSORS - REMOVAL/INSTALLATION

EFFECTIVITY: ALL

1. General

   A. This section gives the procedures to remove and install the pitot sensors.

   B. These procedures are applicable to pitot sensors 1 and 2.

   C. The pitot sensors are installed on the top of the aircraft nose.

   D. Use the applicable torque wrench for the correct torque application. If it is necessary to use extensions, the torque wrench must be adjusted to make an allowance for the torque value increase or decrease. Refer to the torque connection method in (AMM 20-10-01/201).

   E. 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*
34-13-01-000-801-A	PITOT SENSOR - REMOVAL	ALL
34-13-01-400-801-A	PITOT SENSOR - INSTALLATION	ALL

TASK 34-13-01-000-801-A
EFFECTIVITY: ALL

2. PITOT SENSOR - REMOVAL

A. General

(1) This procedure gives the instructions to remove the pitot sensor.

B. References

REFERENCE	*DESIGNATION*
AMM MPP 06-41-01/100	-
AMM TASK 29-10-00-860-802-A/200	HYDRAULIC SYSTEM - PRESSURIZATION WITH EMDP
AMM TASK 32-00-02-910-801-A/200	SAFETY PIN OF THE NLG DOORS SOLENOID VALVE - INSTALLATION AND REMOVAL
S.B.145-30-0053	-
S.B.145-30-0056	-
S.B.145-32-0036	-

C. Zones and Accesses

Not Applicable

D. Tools and Equipment

Not Applicable

E. Auxiliary Items

Not Applicable

F. Consumable Materials

Not Applicable

G. Expandable Parts

Not Applicable

H. Persons Recommended

QTY	*FUNCTION*	*PLACE*
1	Does the task	Top of the aircraft nose/Forward electronic compartment

I. Preparation

SUBTASK 841-002-A

(1) On the LH electrical-power control/distribution box, open the HEATING/PITOT 1 circuit breaker and attach a DO-NOT-CLOSE tag to it.

(2) On the RH electrical-power control/distribution box, open the HEATING/PITOT 2 and attach a DO-NOT-CLOSE tag to it.

(3) (PRE-MOD S.B.145-32-0036) Make sure that the pressure in hydraulic system 1 is fully released (AMM TASK 29-10-00-860-802-A/200).

(4) (POST-MOD S.B.145-32-0036) Install the safety pin of the NLG door solenoid valve (AMM TASK 32-00-02-910-801-A/200).

(5) Open access door 113CZ (AMM MPP 06-41-01/100).

J. Removal (Figure 401) (Figure 402)

SUBTASK 020-002-A

WARNING: TO PREVENT INJURY TO PERSONS, DO NOT TOUCH THE PITOT SENSOR, PITOT/STATIC SENSOR, ANEMOMETRIC STATIC PORTS, AND INTERNAL TUBES IMMEDIATELY AFTER ITS HEATER WAS TURNED OFF.

(1) In the forward electronic compartment, do the steps below:

(a) (PRE-MOD S.B.145-30-0056) If applicable, remove the polimyide adhesive tape around the covering blanket and from the tube line (4) of the pitot sensor and open the covering blanket through the hook-and-loop fastener to get access to the electrical connector (3) and to the tube fitting (5).

(b) (PRE-MOD S.B.145-30-0056) If applicable, remove the polyimide adhesive tape from the fuselage and around the tube line end (4) of the pitot sensor.

(c) Disconnect the electrical connector (3).

CAUTION: USE WRENCHES ON EACH SIDE OF THE FITTING TO PREVENT DAMAGE TO THE TUBING OR FITTING.

(d) Disconnect fitting (5) from the pitot sensor (1).

(e) Install a cap/plug to the tube (4) line end.

(2) On the top of the aircraft nose, do the steps below:

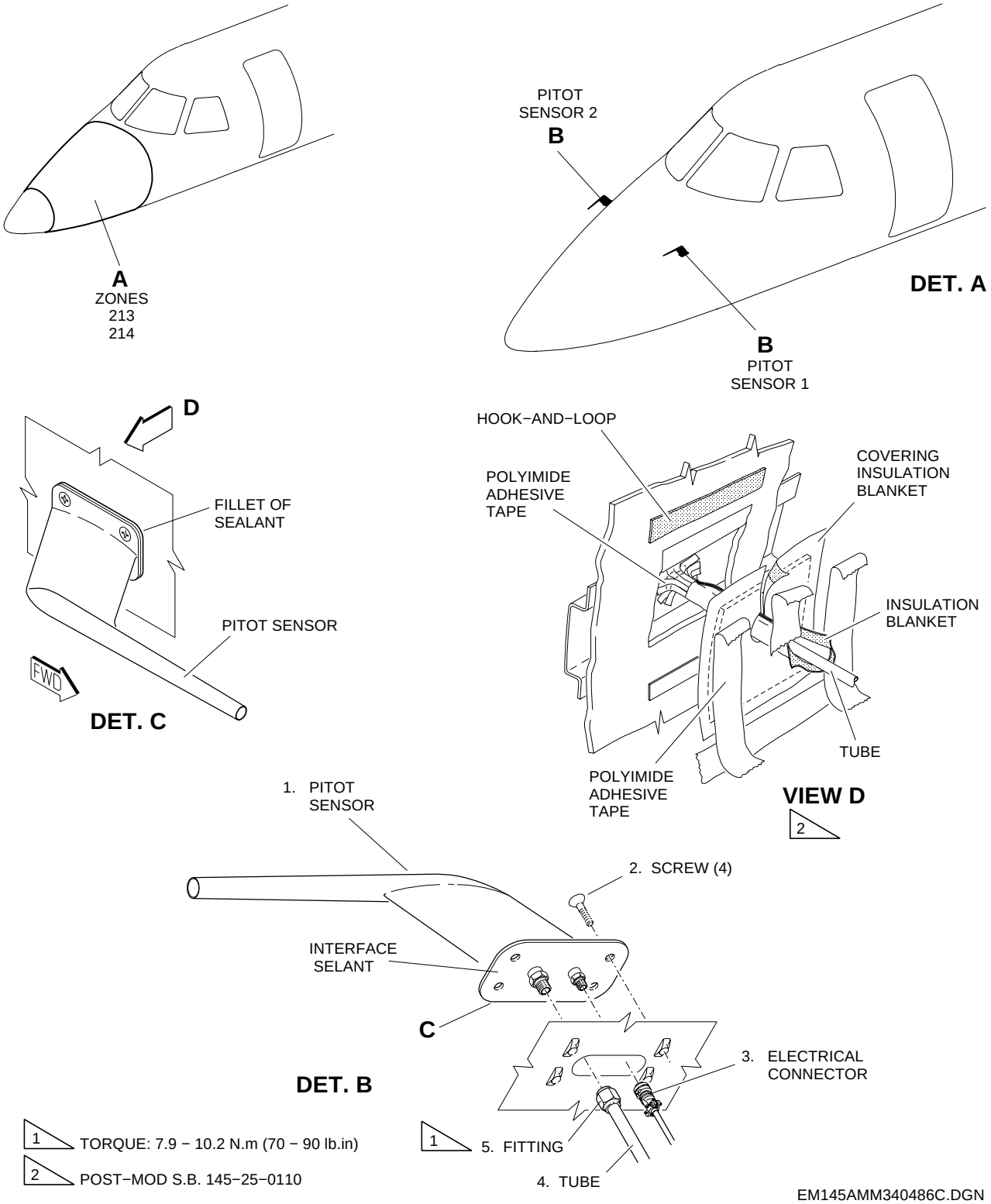
(a) Remove the sealant from the pitot sensor (1) base.

(b) Remove the four screws (2).

(c) Hold the pitot sensor (1) strut and pull it carefully.

(d) (POST-MOD S.B.145-30-0053) Remove gasket (6) from pitot sensor (1) base.

EFFECTIVITY: PRE-MOD S.B. 145-30-0053
Pitot Sensor - Removal/Installation
Figure 401



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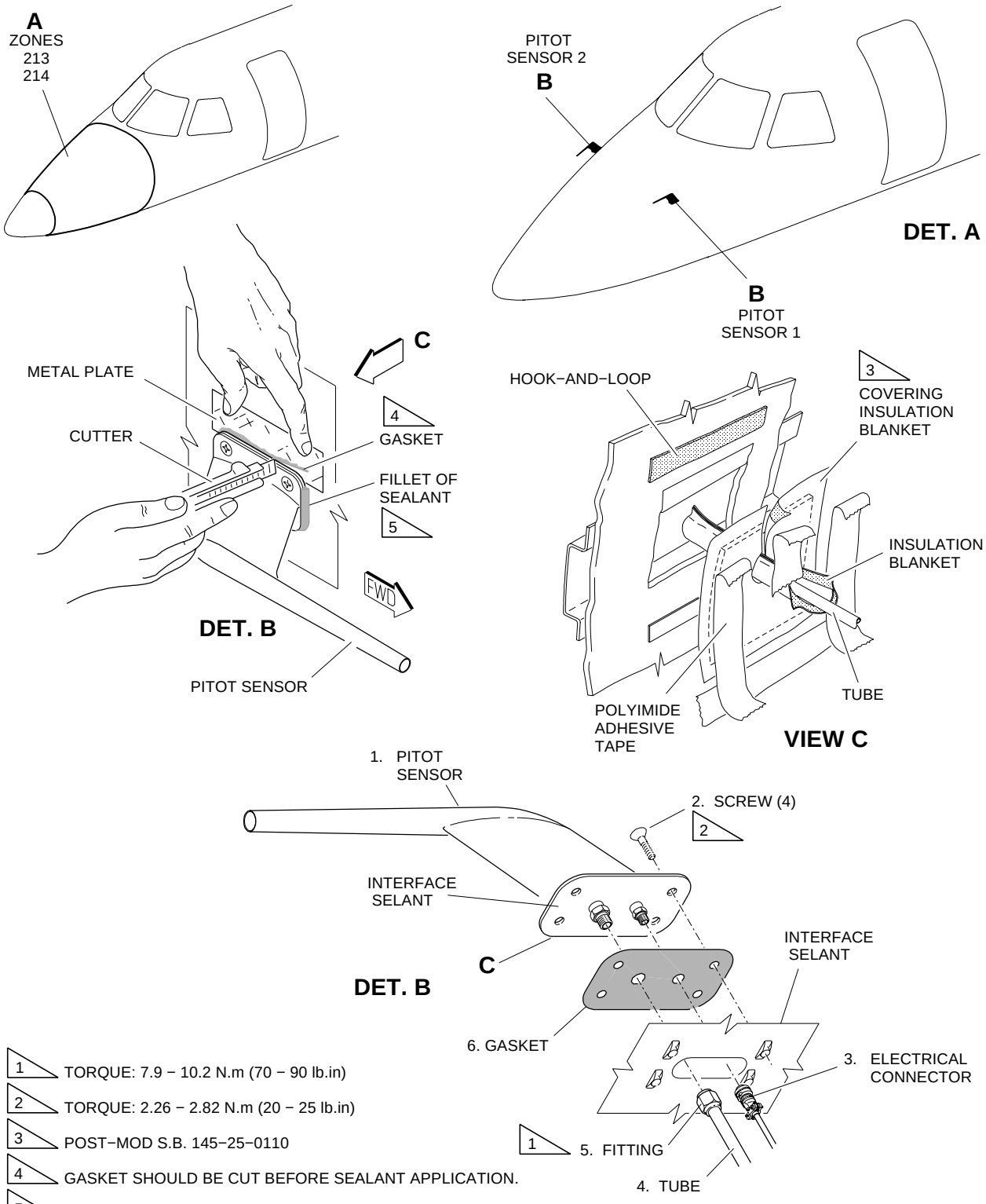
EFFECTIVITY: POST-MOD S.B. 145-30-0053
Pitot Sensor - Removal/Installation
Figure 402



TASK 34-13-01-400-801-A
EFFECTIVITY: ALL

3. PITOT SENSOR - INSTALLATION

A. General

(1) This procedure gives the instructions to install the pitot sensor.

B. References

REFERENCE	*DESIGNATION*
AMM MPP 06-41-01/100	-
AMM TASK 30-31-00-700-803-A/500	PITOT AND ANEMOMETRIC STATIC PORT HEATING - OPERATIONAL TEST
AMM TASK 32-00-02-910-801-A/200	SAFETY PIN OF THE NLG DOORS SOLENOID VALVE - INSTALLATION AND REMOVAL
AMM TASK 34-13-00-200-803-A/600	PITOT LINES - INSPECTION
AMM TASK 34-13-00-790-802-A/500	PITOT-STATIC SYSTEM 1 - LEAKAGE TEST
AMM TASK 34-13-00-790-803-A/500	PITOT-STATIC SYSTEM 2 - LEAKAGE TEST
IPC 34-13-00	PITOT STATIC SYSTEM
S.B.145-30-0053	-
S.B.145-30-0056	-
S.B.145-32-0036	-

C. Zones and Accesses

Not Applicable

D. Tools and Equipment

ITEM	*DESCRIPTION*	*PURPOSE*	*QTY*
Commercially available	Torque wrench (For the torque range, refer to the figures)	To torque the connections correctly	

E. Auxiliary Items

Not Applicable

F. Consumable Materials

SPECIFICATION (BRAND)	*DESCRIPTION*	*QTY*
MIL-S-81733, Type IV-12	Interface sealant	AR
MIL-S-81733, Type II-2	Sealant	AR
KB46/50	Polyimide adhesive tape	AR

G. Expendable Parts

ITEM	*IPC REFERENCE (VENDOR REFERENCE)*	*QTY*
Gasket	IPC 34-13-00	1

H. Persons Recommended

QTY	*FUNCTION*	*PLACE*
1	Does the task	Top of the aircraft nose/Forward electronic compartment

I. Installation (Figure 401) (Figure 402)

SUBTASK 420-002-A

CAUTION: BEFORE THE INSTALLATION, MAKE SURE THAT THERE IS NO UNWANTED MATERIAL IN THE PITOT SENSOR TO PREVENT THE CONTAMINATION OF THE SYSTEM.

(1) Remove all the old sealant from the fuselage skin surface where the pitot sensor is installed. For this, use a plastic spatula.

(2) Apply interface sealant to the pitot sensor base on the fuselage.

(3) (POST-MOD S.B.145-30-0053) Put the gasket (6) to the pitot sensor base on the fuselage. Align the holes of gasket and fuselage.

(4) Apply interface sealant to the pitot sensor (1) base.

(5) Put the pitot sensor (1) in its installation position on the fuselage.

(6) Install the four screws (2).

(7) (POST-MOD S.B.145-30-0053) Use the torque wrench to torque four screws (2) in a crisscross pattern. The torque value must be between 2.26 and 2.82 N.m (20 and 25 lbf.in).

(8) Remove the unwanted interface sealant from around the pitot sensor (1) and the fuselage base.

(9) (POST-MOD S.B.145-30-0053) Use a suitable tool and metal plate to protect the fuselage skin and carefully cut excess gasket from around the pitot sensor base (1).

(10) Apply a fillet of sealant along the contour of the pitot sensor (1) base.

(11) Remove the cap/plug from the tube (4) line end.

CAUTION: USE WRENCHES ON EACH SIDE OF THE FITTING TO PREVENT DAMAGE TO THE TUBING OR FITTING.

(12) Connect fitting (5) to the pitot sensor (1).

(13) Use the torque wrench to torque fitting (5). The torque value must be between 7.9 and 10.2 N.m (70 and 90 lbf.in).

(14) Do a visual inspection on the pitot lines AMM TASK 34-13-00-200-803-A/600

(15) Connect the electrical connector (3) to the pitot sensor (1).

(16) (PRE-MOD S.B.145-30-0056) If applicable, stick polyimide adhesive tape around the insulation blanket to fuselage on the tube line end of the pitot sensor, to isolate this area.

(17) (PRE-MOD S.B.145-30-0056) If applicable, close the covering insulation blanket around the tube line (4) of the pitot and stick polyimide adhesive tape, to isolate this area.

J. Follow-on

SUBTASK 842-002-A

(1) Close access door 113CZ (AMM MPP 06-41-01/100).

(2) (POST-MOD S.B.145-32-0036) Remove the safety pin from the NLG door solenoid valve (AMM TASK 32-00-02-910-801-A/200).

(3) On the LH electrical-power control/distribution box, close the HEATING/PITOT 1 circuit breaker and remove the DO-NOT-CLOSE tag from it.

(4) On the RH electrical-power control/distribution box, close the HEATING/PITOT 2 and remove the DO-NOT-CLOSE tag from it.

(5) Do the Pitot/static System 1 leakage test (AMM TASK 34-13-00-790-802-A/500) for pitot 1 installation or the Pitot/static System 2 leakage test (AMM TASK 34-13-00-790-803-A/500) for pitot 2 installation.

(6) Do an operational check on the pitot and anemometric static port heating system (AMM TASK 30-31-00-700-803-A/500).