FUEL-FEED-LINE SHROUD - MAINTENANCE PRACTICES

EFFECTIVITY: ACFT MODEL(S) EMB-145

1. General

A. This section gives the procedures to seal the fuel line shrouds.

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*
28-21-10-300-801-A	FUEL-LINE SHROUD SEALING - MAINTENANCE PRACTICES	ACFT MODEL(S) EMB-145

TASK 28-21-10-300-801-A
EFFECTIVITY: ACFT MODEL(S) EMB-145

2. FUEL-LINE SHROUD SEALING - MAINTENANCE PRACTICES

A. General

(1) This task is applicable to the engine fuel-feed-line shroud and to the APU fuel-feed-line shroud.

B. References

REFERENCE	*DESIGNATION*
AMM MPP 06-41-01/100	-
AMM MPP 06-41-02/100	-
AMM MPP 06-41-05/100	- COMPONENT LOCATION
AMM MPP 28-00-00/200	- MAINTENANCE PRACTICES
AMM TASK 28-21-10-400-801-A/400	-

C. Zones and Accesses

ZONE	*PANEL/DOOR*	*LOCATION*
155	155FZ	LH Wing stub
156	156FZ	RH Wing stub
155	155GZ	LH Wing stub
156	156GZ	RH Wing stub
251	251FF	Passenger cabin
251	251HF	Passenger cabin
252	252DF	Passenger cabin
261	261BF	Passenger cabin
261	261DF	Passenger cabin
271	271ALW	Baggage compartment internal panel
262	262AF	Passenger cabin
262	262BF	Passenger cabin
262	262CF	Passenger cabin
272	272ARW	Baggage compartment internal panel
271	271AF	Baggage compartment
271	271BF	Baggage compartment
271	271CF	Baggage compartment
271	271DF	Rear electronic compartment
271	271EF	Rear electronic compartment
271	271FF	Baggage compartment
272	272AF	Baggage compartment
272	272DR	Rear fuselage

D. Tools and Equipment

ITEM	*DESCRIPTION*	*PURPOSE*	*QTY*
Commercially available	Extrusion Gun/spatula	To seal the shrouds	

E. Auxiliary Items

Not Applicable

F. Consumable Materials

SPECIFICATION (BRAND)	*DESCRIPTION*	*QTY*
MIL-S-8802	Sealant, type II, class B2	AR
TT-N-95, Type I or Type II	Solvent	AR
P-D-680, Type I	Solvent	AR
MS20995C32	Lock wire	AR

G. Expandable Parts

Not Applicable

H. Persons Recommended

QTY	*FUNCTION*	*PLACE*
1	Does the task	LH-RH Wing stub/Passenger cabin/ Baggage compartment/Rear electronic compartment/Rear fuselage

I. Preparation

SUBTASK 841-006-A

WARNING:
- **BEFORE YOU DO THE TASK, OBEY THE SAFETY PRECAUTIONS GIVEN IN AMM MPP 28-00-00/200 TO PREVENT INJURY TO PERSONS AND DAMAGE TO MATERIAL.**
- **FUEL LINE CLEANING PRODUCTS ARE TOXIC AND FLAMMABLE. A GOOD FLOW OF AIR MUST BE AVAILABLE WHEN THE WORK IS DONE IN A CLOSED AREA.**

CAUTION:
- DO NOT LET THE CLEANING PRODUCT TOUCH PAINT-FINISHED SURFACES NOT TO CAUSE DAMAGE TO THEM.
- USE CLEAN, SOFT (COTTON), NON-SYNTHETIC AND LINT-FREE CLOTHS ONLY. DO NOT PUT REMAINING CLEANING MATERIAL BACK INTO ORIGINAL CONTAINERS TO PREVENT CONTAMINATION.
- DO NOT POUR CLEANING PRODUCT DIRECTLY ON THE SURFACE TO BE CLEANED.
- DO NOT LET THE CLEANING PRODUCT EVAPORATE BEFORE IT IS DRIED WITH THE CLOTH.

(1) Remove the access panels shown below to get access to the APU/engine fuel-feed-line shroud as applicable:

(a) Wing stub:

- 155FZ/156FZ/155GZ/156GZ (AMM MPP 06-41-01/100).

(b) Passenger cabin:

- 251FF/251HF/252DF/261BF/261DF/262AF/262BF/262CF (AMM MPP 06-41-02/100).

(c) Baggage compartment:

- 271AF/271BF/271CF/271FF/272AF (AMM MPP 06-41-02/100).

(d) Baggage compartment internal panels:

- 271ALW/272ARW (AMM MPP 06-41-05/100).

(2) Remove as much old sealant as possible from the surface to be sealed of the engine fuel-feed-line shroud or/and of the APU fuel-feed-line shroud.

(3) Soak a cloth with solvent, remove the unwanted quantity of product, and apply the cloth to the area to be cleaned/sealed of the engine fuel-feed-line shroud or/and of the APU fuel-feed-line shroud.

(4) Dry the area with other clean and dry cloth before the solvent evaporates.

(5) Do steps 3 and 4 again. Replace the cloths when they become dirty. Stop only when no signs of discoloration stay on the dry cloth.

(6) Put a protection against contamination (dust and grease) in the cleaned area until the sealant is applied.

(7) On the circuit breaker panel, open these circuit breakers and attach a DO-NOT-CLOSE tag to them:

- FUEL PUMPS 1A/1B/1C.
- FUEL PUMPS 2A/2B/2C.
- START 1/2.

J. Fuel-Line Shroud Sealing - Maintenance Practices (Figure 201)

SUBTASK 390-006-A

WARNING: BEFORE YOU USE IT, MAKE SURE THAT THE PERMITTED LIFE OF THE SEALANT COMPOUND TO BE USED IS NOT EXPIRED AND THAT IT IS CORRECTLY STORED.

(1) Add catalyst to the base compound in the proportion recommended by the manufacturer. Fully mix them until the color is the same in all the mixture and there are no air bubbles in it.

(2) (If applicable to the aircraft configuration) With the half-cover shrouds (1) on the Permaswage connection (2), tighten the lock wires (5) at the ends of the half cover shrouds (wind twice). Bend the end of the lock wire on the lock wire.

(3) (If applicable to the aircraft configuration) With the half-cover shrouds (1) on the Permaswage connection (2), install the clamps (5) at the ends of the half cover shrouds (wind twice).

(4) Do the fillet sealing:

NOTE:
- Apply the sealant immediately after the mixture is completed.
- Do not apply the sealant to surfaces at temperatures lower than 16°C (60.8°F). Keep the surface temperature between 16°C (60.8°F) and 26°C (78.8°F) to make sure that the sealant bonds satisfactorily and there are no runouts during the cure.
- Discard the sealant which becomes very thick or is difficult to be applied.
- Hot and filtered (to prevent contamination) air or applicable lamps can be used for the acceleration of the sealant curing time. But do not let the surface temperature be more than 55°C (131°F).
- The application life is 1/2 h, at a temperature of 25°C (75.8°F) and air relative humidity of 50%.
- The curing time is approximately 30 h at a temperature of 25°C (75.8°F) and approximately 5 h at a temperature of 50°C (119°F), with a resistance-heated air circulation.
- The sealing bead must have no air bubbles. The thickest part of the bead must be aligned with the edge of the adjacent line of the overlapped structural elements.

(5) Apply sealant along the joint of the APU/engine fuel-feed-line shroud with an extrusion gun or a spatula to make it fill the empty spaces and in the shape of a continuous bead which touches the adjacent fillets.

(6) (If applicable to the aircraft configuration) Apply sealant to the lock wire.

K. Follow-on

SUBTASK 842-006-A

(1) Complete the APU/engine fuel-feed-line shroud installation as applicable (AMM TASK 28-21-10-400-801-A/400).

(2) Close the access panels as applicable, after the sealing procedure.

(a) Wing stub:

- 155FZ/156FZ/155GZ/156GZ (AMM MPP 06-41-01/100).

(b) Passenger cabin:

- 251FF/251HF/252DF/261BF/261DF/262AF/262BF/262CF (AMM MPP 06-41-02/100).

(c) Baggage compartment:

- 271AF/271BF/271CF/271FF/272AF (AMM MPP 06-41-02/100).

(d) Baggage compartment internal panels:

- 271ALW/272ARW (AMM MPP 06-41-05/100).

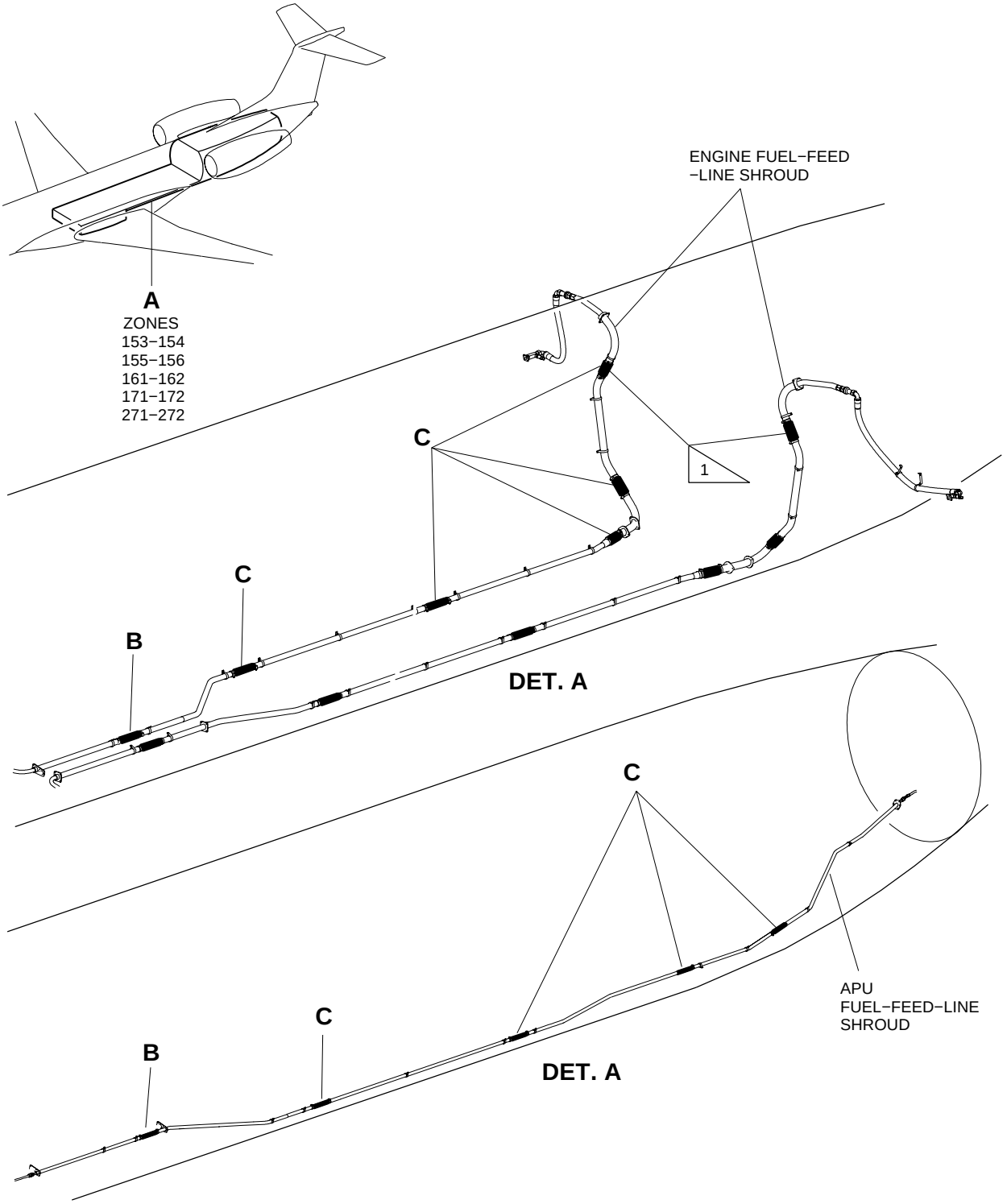
(3) On the circuit breaker panel, close these circuit breakers and remove the DO-NOT-CLOSE tag from them:

- FUEL PUMPS 1A/1B/1C.
- FUEL PUMPS 2A/2B/2C.
- START 1/2.

EFFECTIVITY: ACFT MODEL(S) EMB-145

Fuel Line Shrouds Sealing - Component Locations

Figure 201 - Sheet 1

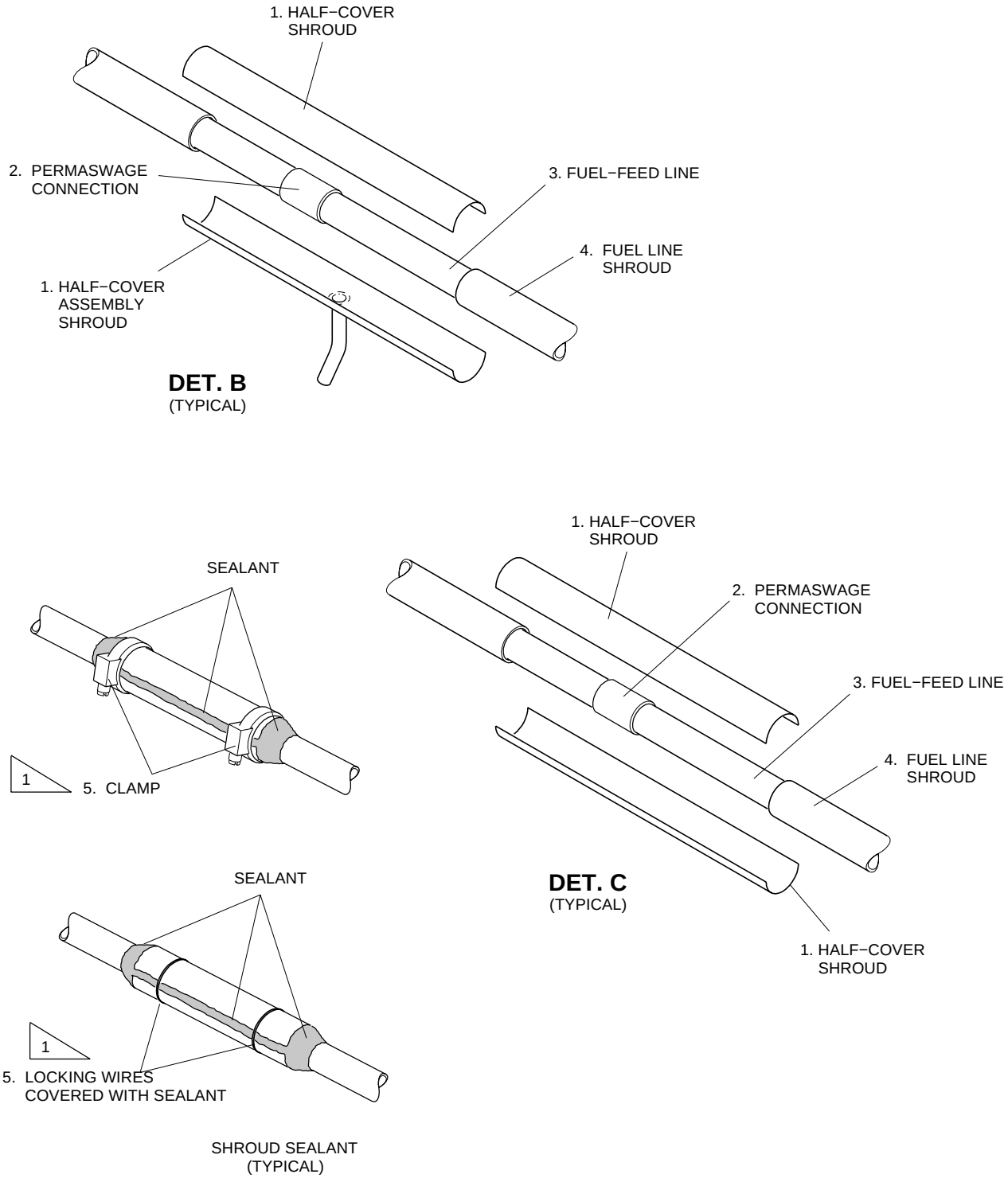


1 IF APPLICABLE TO THE AIRCRAFT CONFIGURATION

EM145AMM280387B.DGN

EFFECTIVITY: ACFT MODEL(S) EMB-145

Fuel Line Shrouds Sealing - Component Locations
Figure 201 - Sheet 2



1 IF APPLICABLE TO THE AIRCRAFT CONFIGURATION

EM145AMM280076C.DGN