COCKPIT EMERGENCY EXIT FRAME SEAL - REPAIR

EFFECTIVITY: ALL

1. General

   A. This section gives the procedures to repair the rubber trim seals of the cockpit emergency-exit.

   B. This section gives the procedures to repair the cockpit emergency-exit frame seal on aircraft and the emergency-exit frame seal strip on aircraft.

   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*
56-11-03-300-801-A	RUBBER TRIM SEAL - REPAIR	ALL

TASK 56-11-03-300-801-A
EFFECTIVITY: ALL

2. RUBBER TRIM SEAL - REPAIR

A. General

(1) This task gives the instructions to repair the rubber trim seals of the cockpit emergency exit. It also gives the instructions to repair the cockpit emergency-exit frame seal and the emergency-exit frame seal strip.

B. References

REFERENCE	*DESIGNATION*
AMM TASK 21-31-00-860-801-A/200	PROCEDURE TO PRESSURIZE THE AIRCRAFT FOR MAINTENANCE
AMM TASK 21-31-00-860-802-A/200	PROCEDURE TO DEPRESSURIZE THE AIRCRAFT FOR MAINTENANCE
AMM TASK 56-11-01-000-801-A/400	COCKPIT EMERGENCY EXIT - REMOVAL
AMM TASK 56-11-01-400-801-A/400	COCKPIT EMERGENCY EXIT - INSTALLATION
AMM TASK 56-11-02-000-801-A/400	COCKPIT EMERGENCY-EXIT RUBBER TRIM SEAL - REMOVAL
IPC 56-11-00	DIRECT VISION
SRM 51-20-01-PR	-

C. Zones and Accesses

ZONE	*PANEL/DOOR*	*LOCATION*
223		LH - Cockpit emergency exit
224		RH - Cockpit emergency exit

D. Tools and Equipment

ITEM	*DESCRIPTION*	*PURPOSE*	*QTY*
Commercially available	Acrylic spatula	To remove the rubber trim seal	
Commercially available	Cutter	To cut the rubber trim seal	

E. Auxiliary Items

ITEM	*DESCRIPTION*	*PURPOSE*	*QTY*
Commercially available	Protective Gloves	For protection of technicians hands	1
Commercially available	Safety Goggles	For protection of technicians eyes	1

F. Consumable Materials

SPECIFICATION (BRAND)	*DESCRIPTION*	*QTY*
ASTM D740	Methyl Ethyl Ketone - (MEK)	AR
MIL-F-38249, TYPE I	Sealant RTV-157 (Gray)	AR
MIL-S-8660	DOW CORNING DC-4	AR
MIL-S-8802, TYPE II, Class B2	Sealant PR-1440 B2	AR
Manufacturer - Dunlop U.K. - P/N PRF91/ B452LG-0.5MM	Silicon rubber-impregnated Terylene cloth	AR
MEP 09–033	Cyanoacrylate Adhesive (P/N SB496)	AR
MEP 09–033	Cyanoacrylate Adhesive (P/N LOCTITE 496)	AR

G. Expendable Parts

ITEM	*IPC REFERENCE (VENDOR REFERENCE)*	*QTY*
Profile seal	IPC 56-11-00	AR
Seal Strip	IPC 56-11-00	AR
Filler	IPC 56-11-00	AR

H. Persons Recommended

QTY	*FUNCTION*	*PLACE*
1	Does the task	In the workshop or on the aircraft, as applicable

I. Preparation

SUBTASK 841-002-A

(1) Remove the cockpit emergency exit (AMM TASK 56-11-01-000-801-A/400) and put the window on a safe surface to prevent damage.

J. Rubber Trim Seal - Insertion Repair (Figure 801) (Figure 802)

SUBTASK 350-002-A

(1) If the insertion repair will be made to the cockpit emergency exit rubber trim seal, do step (2).

(2) Insertion repair for the cockpit emergency exit.

(a) The repair is permitted if the damage is smaller than 76.2 mm (3 in).

NOTE: If the damage is larger than 76.2 mm (3 in), it is necessary to replace the rubber trim seal (AMM TASK 56-11-02-000-801-A/400).

(b) Cut the damaged area of the rubber trim seal at 90 degrees and remove the damaged area (Figure 801 or Figure 802; DET. B, as applicable).

NOTE: Be careful to prevent damage to the door structure.

(c) With an acrylic spatula, remove the old sealant from the door.

WARNING: BE CAREFUL WHEN YOU USE SOLVENTS BECAUSE THEY ARE A HEALTH AND FIRE HAZARD. USE SAFETY GOGGLES AND PROTECTIVE CLOTHING WHEN YOU HANDLE THEM. DO NOT BREATHE THEIR GASES AND WORK IN A WELL VENTILATED AREA.

(d) Clean all surfaces to be bonded with MEK.

(e) Cut a rubber trim seal piece to the same size as the old (removed) rubber trim seal piece.

(f) Apply sealant RTV-157 to the new rubber trim seal surfaces to be bonded (Figure 801 or Figure 802; DET. C, as applicable). Refer to SRM 51-20-01-PR for the curing time.

NOTE: The sealant curing time changes with the environmental conditions. Refer to SRM 51-20-01-PR.

(g) Install the rubber trim seal to the door.

(h) Use an acrylic spatula to remove the excess sealant (Figure 801 or Figure 802; DET. D, as applicable).

NOTE: For a better finish of the sealant, wet your fingers in a water-detergent solution and mold the sealant on the rubber trim seal.

(i) Make the repaired section stronger with sealant RTV-157 and a layer of Terylene cloth of approximately 20 mm (0.8 in) in width, on each side, away from the edges of the damaged area (Figure 801; DET. E).

NOTE: The surface of the Terylene cloth that you must bond to the repaired area is the silicon rubber-impregnated surface.

(j) When the sealant is cured, the aircraft can be dispatched.

NOTE: The sealant curing time changes with the environmental conditions. Refer to SRM 51-20-01-PR.

K. Cockpit Emergency Exit Frame Seal - Repair (Figure 803)

SUBTASK 350-003-A

EFFECTIVITY: WITHOUT STRIP AND FILLER

(1) From outside the aircraft, limit the application area of the sealant. For this, use masking tape to protect the fuselage.

(2) Cut out the damaged area of the cockpit emergency exit frame seal.

WARNING: BE CAREFUL WHEN YOU USE SOLVENTS BECAUSE THEY ARE A HEALTH AND FIRE HAZARD. USE SAFETY GOGGLES AND PROTECTIVE CLOTHING WHEN YOU HANDLE THEM. DO NOT BREATHE THEIR GASES AND WORK IN A WELL VENTILATED AREA.

(3) Clean all surfaces to be bonded with MEK.

(4) Apply PR-1422 B1/2 sealant to the cockpit emergency exit frame seal surfaces.

NOTE: For alternative sealant, refer to SRM 51-20-01-PR.

(5) Slowly install the cockpit emergency exit (AMM TASK 56-11-01-400-801-A/400).

(6) From outside the aircraft, remove the excess sealant and the masking tapes.

(7) Wait for the sealant to cure and remove the cockpit emergency exit (AMM TASK 56-11-01-000-801-A/400).

(8) Remove the excess sealant .

L. Cockpit Emergency Exit Frame Seal - Temporary Repair

SUBTASK 350-004-A

NOTE: Do this temporary repair only if it is necessary to operate the aircraft in few minutes, if not do the permanent repair.

(1) If there is a local water penetration or cabin leakage through the cockpit emergency exit, do this temporary repair procedure:

WARNING: BE CAREFUL WHEN YOU USE SOLVENTS BECAUSE THEY ARE A HEALTH AND FIRE HAZARD. USE SAFETY GOGGLES AND PROTECTIVE CLOTHING WHEN YOU HANDLE THEM. DO NOT BREATHE THEIR GASES AND WORK IN A WELL VENTILATED AREA.

(a) Clean the repair area with MEK. Wait until the surface becomes dry.

(b) Apply grease DC-4 (Dow Corning Lubricant) to the cockpit emergency exit frame seal, in the region to be repaired.

(c) This repair is only temporary and must be permanently repaired before the aircraft completes 500 FC.

M. Cockpit Emergency Exit Frame Seal Strip - Repair (Figure 804)

SUBTASK 350-005-A

EFFECTIVITY: WITH STRIP

(1) To repair the emergency exit frame seal strip, do as follows:

(a) Cut the damaged area of the of the seal strip at 90 degrees and remove the damaged seal strip. Note: If the damaged area is larger than 76.2 mm (3 in), remove the whole seal strip.

NOTE: Be careful to prevent damage to the cockpit emergency-exit frame.

(b) With an acrylic spatula, remove the old sealant from the cockpit emergency-exit frame.

WARNING: BE CAREFUL WHEN YOU USE SEALANTS BECAUSE THEY ARE HEALTH AND FIRE HAZARD, USE SAFETY GOGGLES AND PROTECTIVE CLOTHING WHEN YOU HANDLE THEM. DO NOT BREATHE THEIR GASES AND WORK IN A WELL VENTILATED AREA.

(c) Clean all surfaces to be bonded with MEK.

(d) Cut a seal strip piece to the same size as the old (removed) seal strip or use a new seal strip as applicable.

(e) With an acrylic spatula, apply a thin coat of silicone sealant RTV-157 to the area to which the new seal strip will be bonded.

NOTE: The seal strip side without polyester must be bonded on the emergency-exit frame.

(f) Install the seal strip to the cockpit emergency-exit frame.

NOTE: Make sure that there are no waves formed on the seal strips.

(g) Use an acrylic spatula to remove the excess sealant.

(h) Make the repaired section stronger with sealant RTV-157 and a layer of Terylene cloth of approximately 20 mm (0.8 in) in width, on a side, away from the edges of the damaged area.

NOTE: The surface of the Terylene cloth that you must bond to the repaired area is the silicon rubber-impregnated surface.

(i) When the sealant is cured, the aircraft can be dispatched.

NOTE: The sealant curing time changes with the environmental conditions. Refer to SRM 51-20-01-PR.

N. Cockpit Emergency Exit Frame Filler - Repair (Figure 804)

SUBTASK 350-006-A

EFFECTIVITY: WITH FILLER

(1) To repair the emergency-exit frame seal filler, do as follows:

(a) Remove the emergency-exit frame seal strip.

(b) With an acrylic spatula, remove the old sealant from the cockpit emergency-exit frame.

WARNING: BE CAREFUL WHEN YOU USE SEALANTS BECAUSE THEY ARE HEALTH AND FIRE HAZARD, USE SAFETY GOGGLES AND PROTECTIVE CLOTHING WHEN YOU HANDLE THEM. DO NOT BREATHE THEIR GASES AND WORK IN A WELL VENTILATED AREA.

(c) Clean all surfaces to be bonded with MEK.

(d) Remove and discard the damaged filler with an acrylic spatula.

(e) If necessary, touch up the paint of the cockpit emergency-exit frame with Polyurethane Coating PN 13.044.1.826, where the old sealant has been removed from.

(f) Sand the surfaces (both sides) of the new filler in order to get a good sealant adhesion.

(g) If necessary, trim the new filler so that it fits flush with adjacent structure.

(h) Position and bond the filler on the cockpit emergency-exit frame corners using cyanoacrylate adhesive SB496 or cyanoacrylate adhesive LOCTITE 496.

(i) Fill the fillers/structure gaps with sealant RTV157.

(j) Install the emergency-exit frame seal strip as required.

O. Follow-on

SUBTASK 842-002-A

(1) Install the cockpit emergency exit (AMM TASK 56-11-01-400-801-A/400), and do a check for water penetration through the cockpit emergency exit.

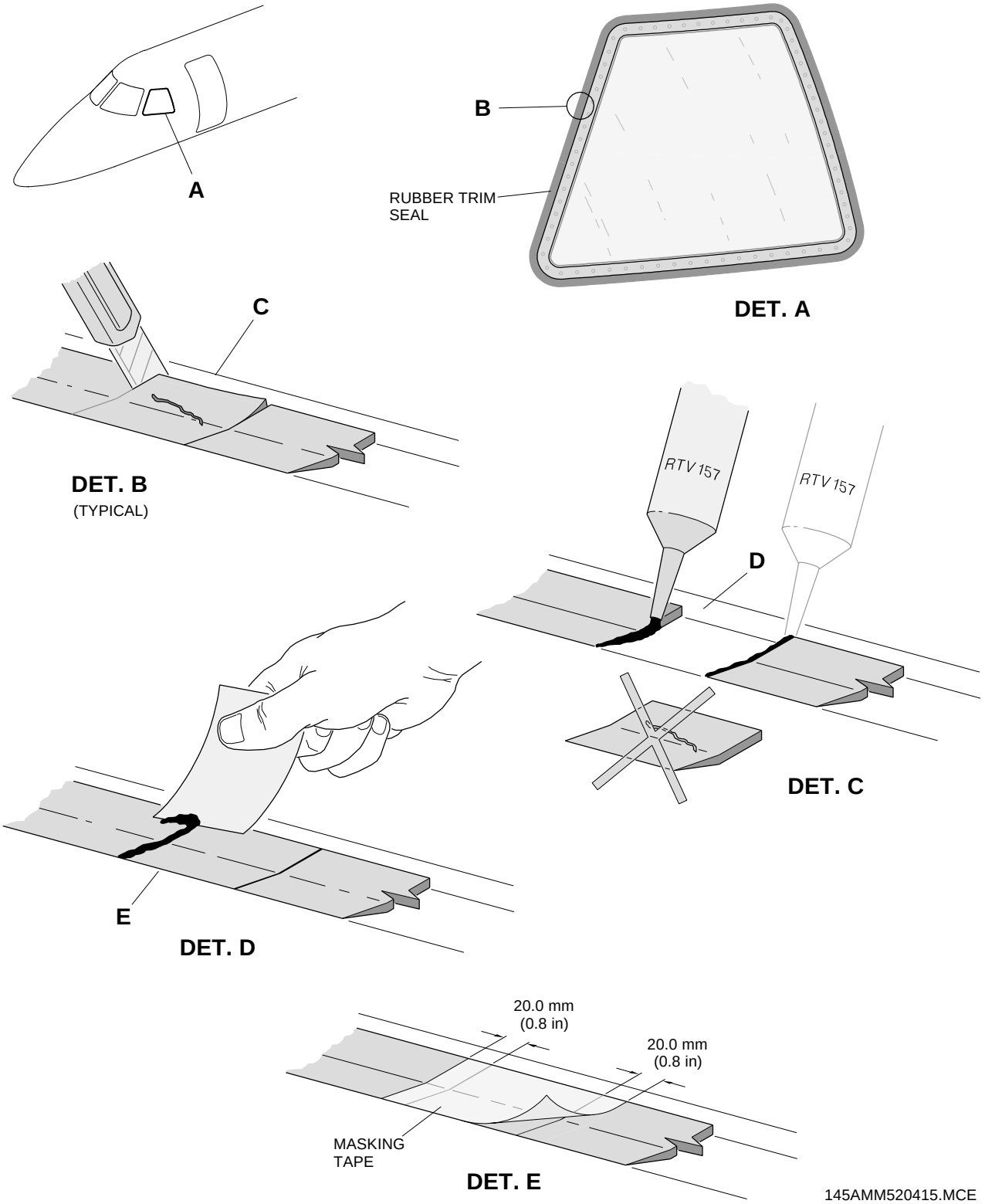
(2) Pressurize the aircraft (AMM TASK 21-31-00-860-801-A/200).

(3) Make sure that there is no air leakage through the cockpit emergency-exit.

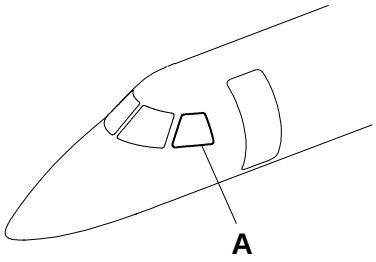
(4) Depressurize the aircraft (AMM TASK 21-31-00-860-802-A/200).

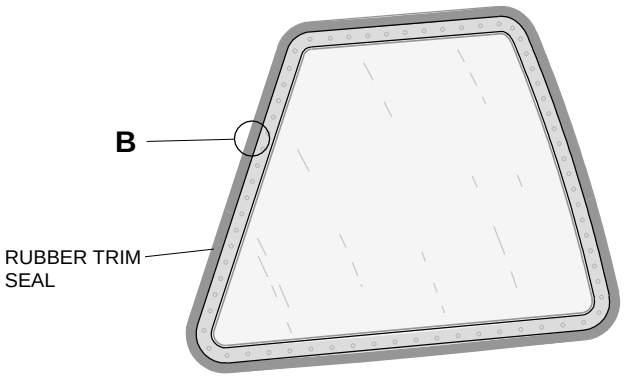
EFFECTIVITY: FLAT SECTION SEAL

Cockpit Emergency Exit Rubber Trim Seal - Insertion Repair
Figure 801

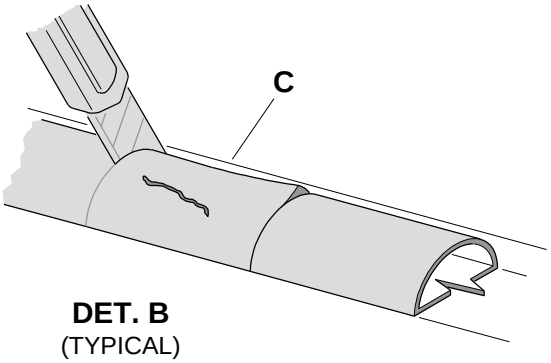


EFFECTIVITY: SEMI-CIRCULAR SECTION SEAL
Cockpit Emergency Exit Rubber Trim Seal - Insertion Repair
Figure 802

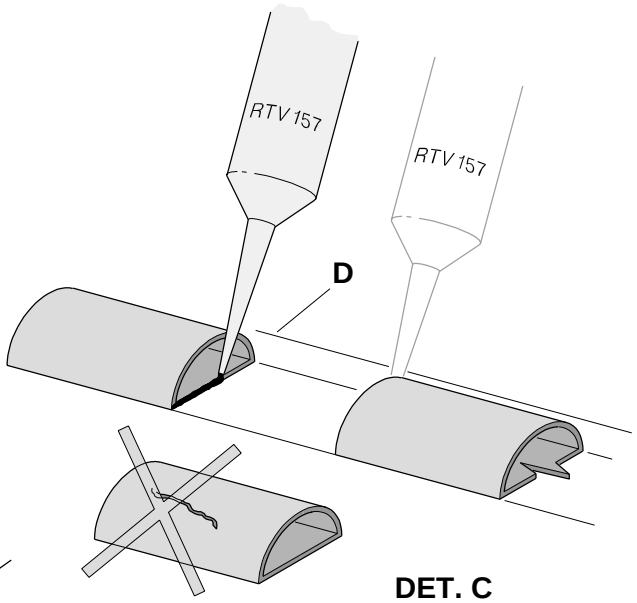




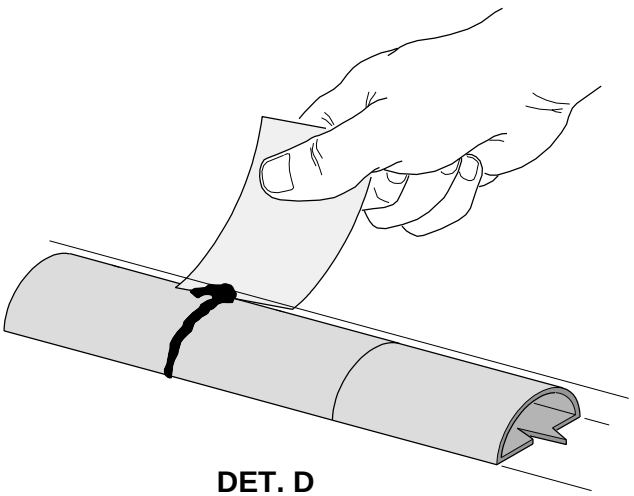
DET. A



DET. B
(TYPICAL)



DET. C



DET. D

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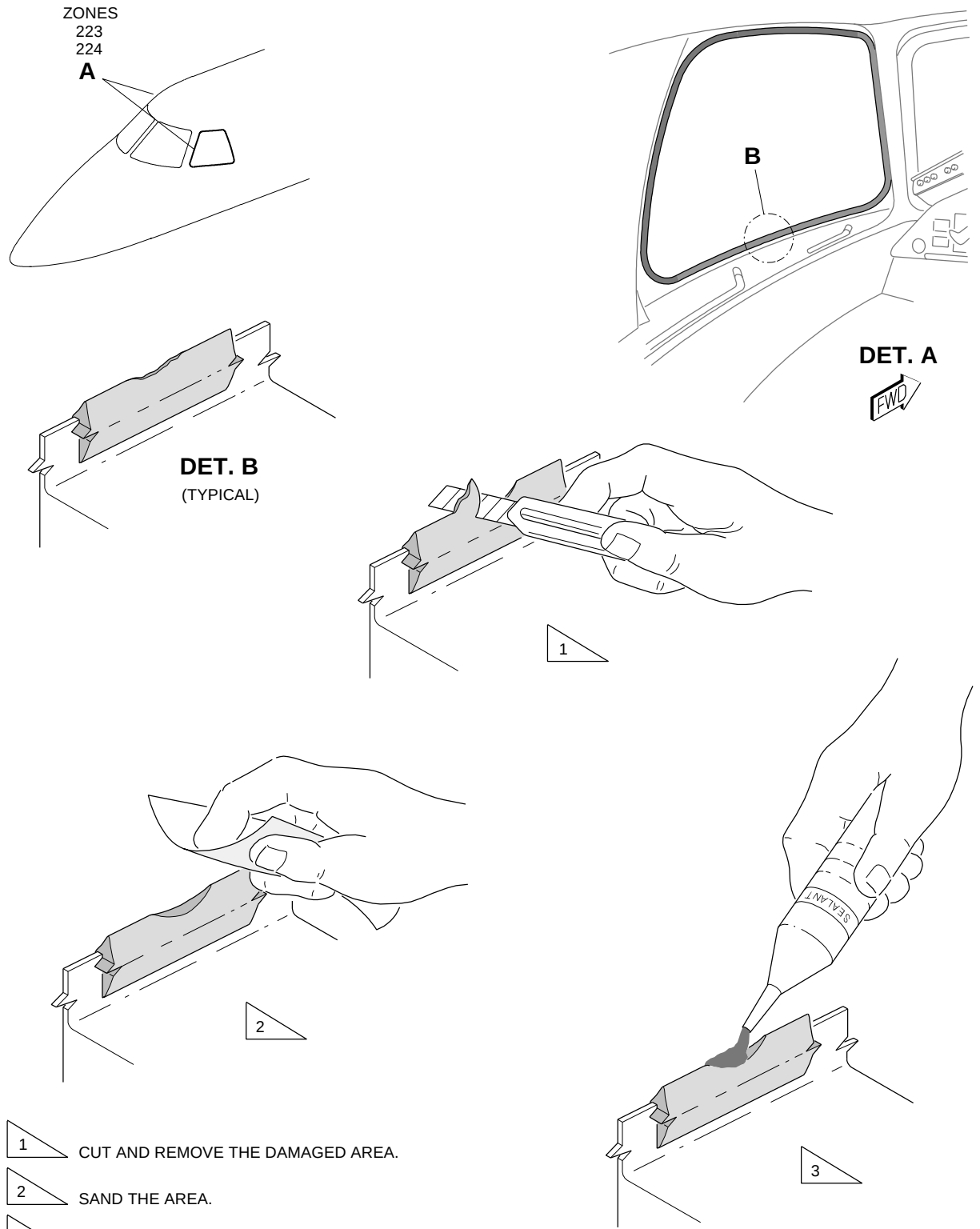
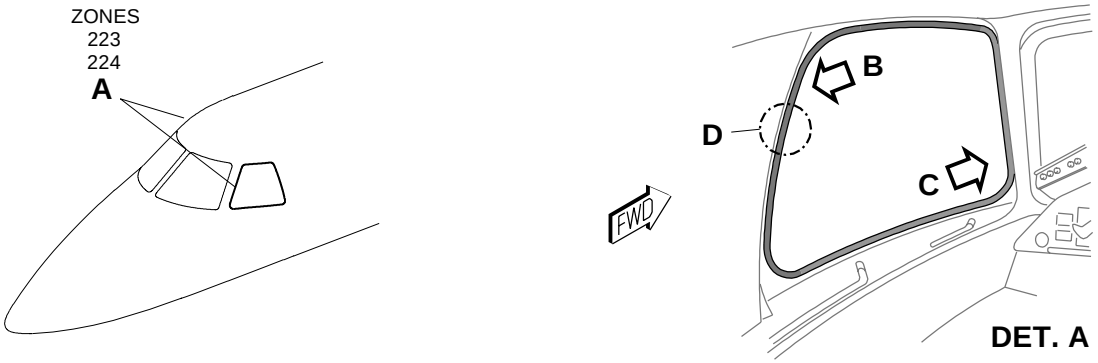
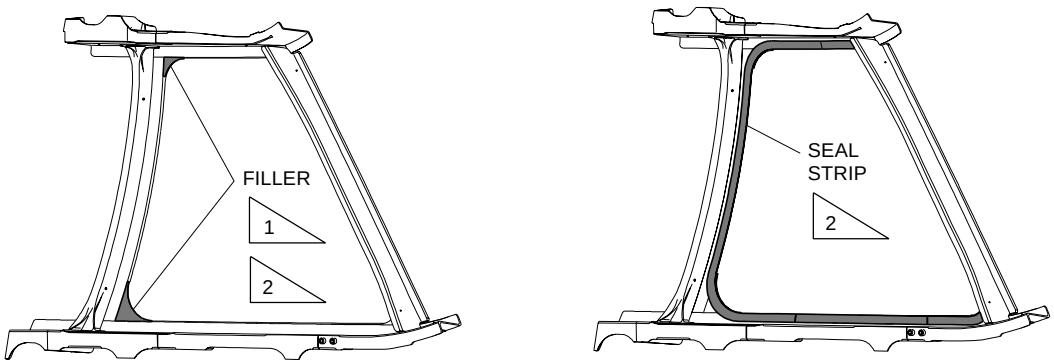
EFFECTIVITY: WITHOUT STRIP AND FILLER
Cockpit Emergency Exit Frame Seal - Repair
Figure 803

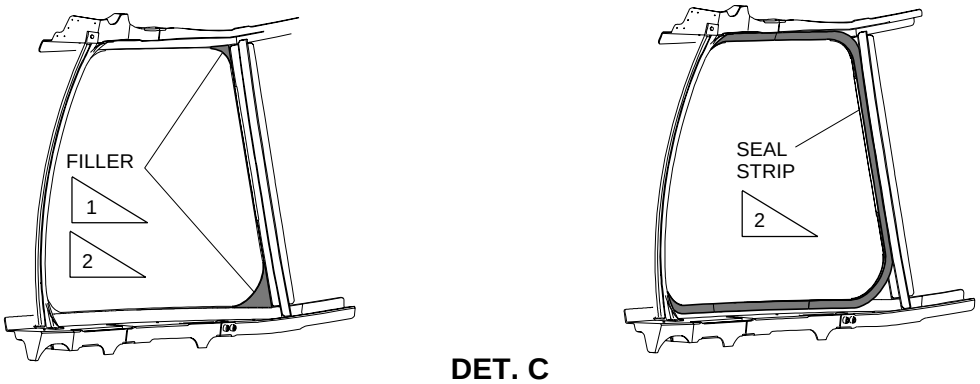


EFFECTIVITY: WITH STRIP AND FILLER

Cockpit Emergency Exit Frame Seal Strip and Frame Filler - Repair
Figure 804 - Sheet 1







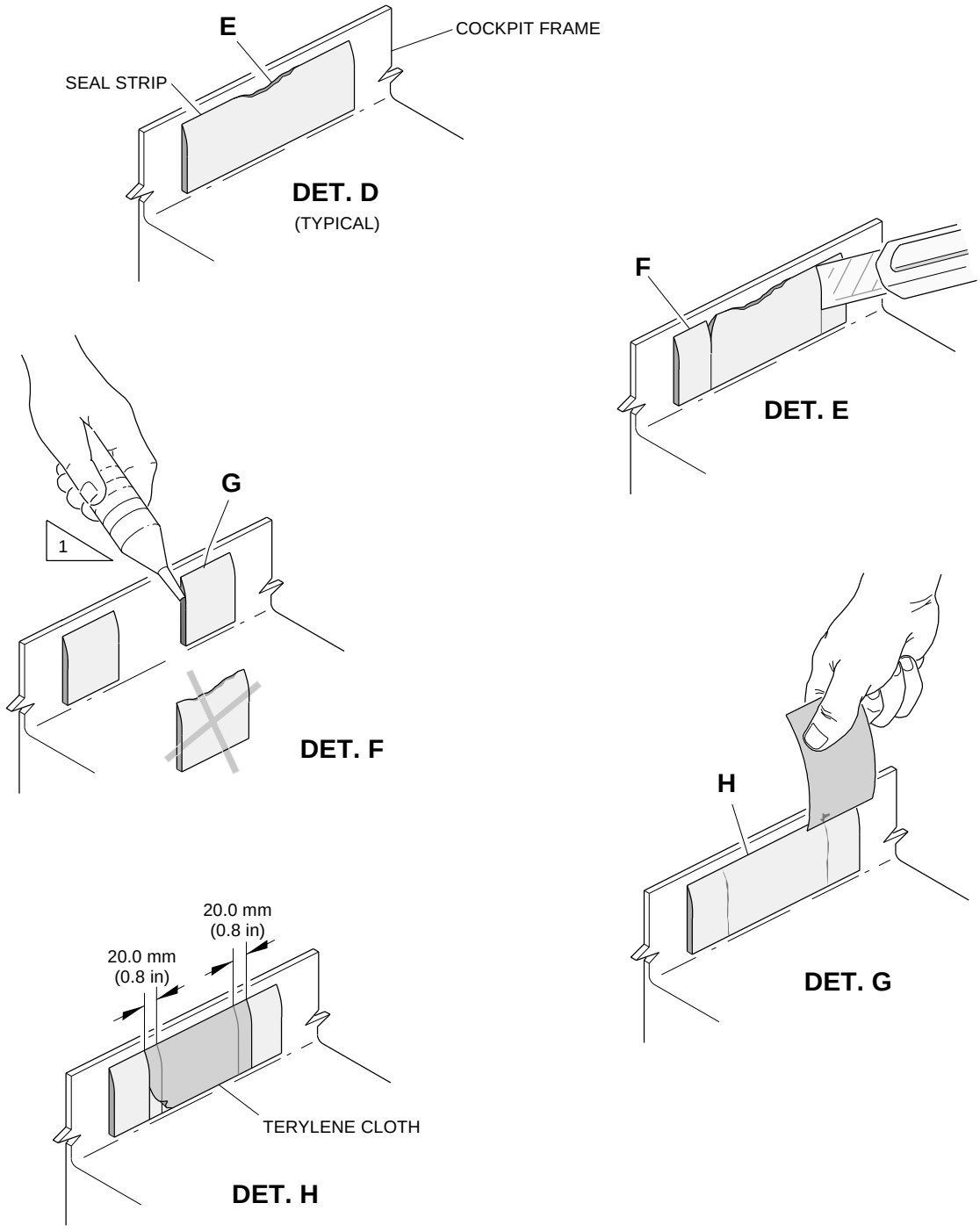
1 CYANOACRYLATE ADHESIVE SB496 OR LOCTITE 496.

2 SEALANT RTV157.

EM145AMM520563A.DGN

EFFECTIVITY: WITH STRIP AND FILLER

Cockpit Emergency Exit Frame Seal Strip and Frame Filler - Repair
Figure 804 - Sheet 2



1 SEALANT RTV157.

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