COMPONENT MAINTENANCE MANUAL

REPAIR OF POLYYURETHANE AND POLYISOCYANURATE DUCTS

PART NUMBER NONE

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COMPONENT MAINTENANCE MANUAL

Revision No. 8
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To: All holders of REPAIR OF POLYYURETHANE AND POLYISOCYANURATE DUCTS 36-10-12.

Attached is the current revision to this COMPONENT MAINTENANCE MANUAL

The COMPONENT MAINTENANCE MANUAL is furnished either as a printed manual, on microfilm, or digital products, or any combination of the three. This revision replaces all previous microfilm cartridges or digital products. All microfilm and digital products are reissued with all obsolete data deleted and all updated pages added.

For printed manuals, changes are indicated on the List of Effective Pages (LEP). The pages which are revised will be identified on the LEP by an R (Revised), A (Added), O (Overflow, i.e. changes to the document structure and/or page layout), or D (Deleted). Each page in the LEP is identified by Chapter-Section-Subject number, page number and page date.

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Location of Change	Description of Change
	NO HIGHLIGHTS

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A = Added, R = Revised, D = Deleted, O = Overflow

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TEMPORARY REVISION AND SERVICE BULLETIN RECORD

BOEING SERVICE BULLETIN	BOEING TEMPORARY REVISION	OTHER DIRECTIVE	DATE OF INCORPORATION INTO MANUAL
		PRR N52001-72	JUL 10/83
		PRR 80269	JAN 10/86
		PRR 81966	NOV 01/01

All revisions to this manual will be accompanied by transmittal sheet bearing the revision number. Enter the revision number in numerical order, together with the revision date, the date filed and the initials of the person filing.

Revision		Filed		Revision		Filed	
Number	Date	Date	Initials	Number	Date	Date	Initials

Revision		Filed		Revision		Filed	
Number	Date	Date	Initials	Number	Date	Date	Initials

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Temporary Revision		Inserted		Removed	
Number	Date	Date	Initials	Date	Initials

Temporary Revision		Inserted		Removed	
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INTRODUCTION

1. General

A. The instructions in this manual supply the data necessary to do the maintenance functions together with the test, fault isolation, repair, and replacement of the defective parts.

B. This manual is divided into different parts:

(1) Title Page

(2) Transmittal Letter

(3) Highlights

(4) List of Effective Pages

(5) Table of Contents

(6) Temporary Revision & Service Bulletin Record

(7) Record of Revisions

(8) Record of Temporary Revisions

(9) Introduction

(10) Procedures & IPL Sections

C. Components that can be repaired have a different repair number for each specified repair. To find the repair number location of a component, look in the Repair-General procedure at the beginning of the REPAIR section. The Repair-General procedure also has an explanation of the True Position Dimension symbols used.

D. All dimensions, measures, quantities and weights included are in English units. When metric equivalents are given they will be in the parentheses that follow the English units.

E. The introduction to the Illustrated Parts List (IPL) shows how the IPL data is used.

F. Design changes, optional parts, configuration differences and Service Bulletin modifications may cause different part numbers. These part numbers are identified in the IPL with an alphabetical letter which is added to the end of the basic item number. This new item number is referred to as an alpha-variant. Throughout the manual, IPL basic item number references also apply to alpha-variants unless shown differently.

G. The tool reference numbers found in the individual procedures and in the Special Tools, Fixtures, and Equipment section are used to identify if a tool is a standard tool (STD-XXXX), a commercial tool (COM-XXXX), or a Special Tool (SPL-XXXX). This reference number is also used to distinguish between tools with similar names in the same procedure. These reference numbers are for use in the documentation only. They are not to be used for ordering tools.

REPAIR OF POLYUREATHANE AND POLYISOCYANURATE DUCTS - DESCRIPTION AND OPERATION

1. Description and Operation

A. This manual gives Boeing recommended procedures for repair of defects in polyurethane and polyisocyanurate ducts. Polyurethane ducts have a fiberglass core with a layer of polyurethane foam. Polyisocyanurate ducts have isocyanurate foam with fiberglass fabric or Kevlar facing skins. These ducts supply conditioned air to the cabin of the airplane. The repairs given are for the damage most frequently found. If there is more damage than this, it is better and easier to replace all, or part of the duct, than to repair the damage. Repairs to the interior duct surfaces are not recommended because they could cause noise and flutter problems.

B. The Grade 1300-series procedures come from Boeing Process Document D6-55553, which gives procedures for repair of the surfaces of certain airplane-interior components, and which replaces document D6-4038. These procedures are to help you make sure the repaired parts will continue to agree with the fireworthiness rules for the airplane interiors. The rules give the persons in the airplane more protection from the sudden flames that come when materials become heated to their flash point temperature.

(NOT APPLICABLE)

(NOT APPLICABLE)

CLEANING

1. General

A. This procedure has the data necessary to clean the polyurethane and polyisocyanurate ducts.

B. Refer to the Standard Overhaul Practices Manual (SOPM) for the SOPM subjects identified in this procedure.

2. Cleaning

A. Tools/Equipment

NOTE: Equivalent substitutes may be used.

Reference	Description
STD-132	Brush - Stiff Bristle
STD-421	Goggles - Eye Protection
STD-6638	Air Source - Compressed, Clean, Filtered, and Dry, 0 - 100 psi

B. Consumable Materials

NOTE: Equivalent substitutes may be used.

Reference	Description	Specification
B01027	Solvent - Butyl Carbitol (Dow Chemical - E-Series Glycol Ethers)	
G00034	Cotton Wiper - Process Cleaning Absorbent Wiper (Cheesecloth, Gauze)	BMS15-5

C. Procedure

WARNING: USE EYE PROTECTION GOGGLES, STD-421 OR PROTECTIVE EYE COVERING WHEN YOU SPRAY DUCTS TO PREVENT DAMAGE TO THE EYES.

(1) Remove loose duct skin, dirt and foam with a stiff bristle brush, STD-132 and air source, STD-6638.

(2) Clean the area to be repaired with Butyl Carbitol solvent, B01027, as indicated in the individual repairs. Wipe dry with a clean cotton wiper, G00034 before the Butyl Carbitol solvent, B01027 dries.

CHECK

1. **General**
   A. This procedure has the data necessary to find defects in the material of the specified parts.
   B. Refer to the Standard Overhaul Practices Manual (SOPM) for the SOPM subjects identified in this procedure.
2. **Check**
   A. Procedure
      (1) Use the following data to decide if the duct can be repaired.
         (a) General
            1) Only defects on the outside surface of the duct can be repaired.
            2) Defects cannot be repaired if deeper than half the nominal wall thickness, or if there is delamination between the foam core and interior skin.
            3) More then 5 square inches of delamination between skin and foam core cannot be repaired.
            4) Breaks or cracks in the foam core cannot be repaired.
            5) Defects longer than 3 inches (in any direction on the duct) or more than 5 square inches in area cannot be repaired, unless as given in CHECK, Paragraph 2.A.(1)(a)6).
            6) Narrow scratches and cuts up to 6 inches long can be repaired only if the damage is to the skin, and not to the foam.
            7) A duct with two damaged areas closer then 4 inches apart cannot be repaired.
            8) There cannot be more than two repairs for each 8 square feet of exterior duct surface. If the duct has less than 8 square feet of exterior surface, the limit is two repairs per duct.
         (b) Grade 1300 Dents/Scratches
            1) Defects must be within the general limits of CHECK, Paragraph 2.A.(1)(a).
         (c) Grade 1301 Cuts
            1) On the outside surface only
            2) Less than 1/8 inch deep and less than 1 inch long
         (d) Grade 1302 Cuts
            1) On the outer surface only
            2) Less than 1/8 inch long and more than 1 inch long
         (e) Grade 1303 Cuts
            1) On the outer surface only
            2) Glass to foam delamination less than 1/8 inch deep, and less than 3 inches wide
         (f) Grade 1304 Cuts
            1) On the inside surface
         (g) Grade 1305 Gouges
            1) Less than 1/4 inch deep, less than 1 inch long, more than 1/32 inch wide
         (h) Grade 1306 Gouges

1) More then 1/4 inch deep, more than 1 inch long

2) No defects on inside skin

(i) Grade 1307 Cuts

1) Defects that go through the inside and outside skin

(2) Examine the ducts for pin holes and leaks.

(3) Look for old repairs on the inside surface of the ducts. Make sure they are smooth and have no unbonded or separated skin, that could be caught up by the airstream in the duct.

REPAIR

1. Content

A. Repair, refinish and replacement procedures are included in separate repair sections as follows:

Table 601:

P/N	NAME	REPAIR
- - - -	GRADE 1300 DENTS/SCRATCHES	1-1
- - - -	GRADE 1301 CUTS	2-1
- - - -	GRADE 1302 CUTS	3-1
- - - -	GRADE 1303 CUTS	4-1
- - - -	GRADE 1304 CUTS	5-1
- - - -	GRADE 1305 GOUGES	6-1
- - - -	GRADE 1306 GOUGES	7-1
- - - -	GRADE 1307 CUTS	8-1
- - - -	DUCT 214U3413-SERIES	9-1
- - - -	DISBONDED DUCT JOINTS	10-1

2. Standard Practices

A. Refer to the following standard practices, as applicable, for details of procedures in individual repairs.

(1) SOPM 20-30-03 General Cleaning Procedures

(2) SOPM 20-30-91 Solvents for Final Cleaning of Composites Before Non-Structural Bonding (Series 91)

(3) SOPM 20-50-12 Application of Adhesives

(4) SOPM 20-60-01 Cleaning Materials

(5) SOPM 20-60-02 Finishing Materials

(6) SOPM 20-60-04 Miscellaneous Materials

3. Materials

A. Compound – BMS 5-28

B. Abrasive Paper – Grits: 80, 100, 150 grit abrasive paper, G02428 150 , 180 grit abrasive paper, G50381 180 , 220, 240 grit or finer abrasive paper, G50077 240, 320 grit or finer abrasive paper, G50078 320, Sandpaper, G50261 400, abrasive paper, G50339 600

C. Adhesives – adhesive, A01070 Type 38, adhesive, A00923 Type 77, RTV 133 adhesive, A00924 Type 98 (SOPM 20-50-12)

D. Catalysts:

(1) – Benzoyl peroxide in tricresyl phosphate base:

(a) – Garox BZP, V22401

(b) – Luperox ATC50 Catalyst, G50686 or Luperox AFR40 Catalyst, G50687

(2) – Methyl ethyl ketone peroxide , 60 percent in dimethyl phthalate liquid:

(a) – Luperson DDM-9, Luperox DDM-9 Catalyst, G50685 V75675

E. Cheesecloth, lint free – cotton wiper, G00034 BMS 15-5 (SOPM 20-60-04)

F. Glass Fabric – BMS 9-3, Type D fabric, G00316

G. Glass Fibers, milled, 1/32 inch length, V45255

H. Mylar Film – mylar sheet, G00111 .001-0.010 inch thick

I. Resin – Hetron 92 resin, G02137 Hetron 92, V29672 or V70304

J. Solvents:

(1) – Butyl Carbitol solvent, B01027 Butyl carbitol, V36346

(2) – Solvents of cleaners per DOCUMENT D6-7127 for interior painted and plastic surfaces (SOPM 20-30-03)

(3) – Series 91 solvent, B01011 Series 91 solvent (SOPM 20-30-91)

(4) – solvent, B00148 Methyl ethyl ketone (MEK)

(5) – Naphtha solvent, B00083

(6) – alcohol, B50073 Isoproply alcohol

K. Tape, Fiberglass, 3-inch wide, V45255

4. Resin Preparation

NOTE: Resin mixes R109 and R109A are optional to each other. R109 is cured with heat. R109A is cured at room temperature.

A. Resin Mix R109

WARNING: COBALT NAPHTENATE MUST NOT BE MIXED WITH BENZOYL PEROXIDE OR METHYL ETYL KETONE PEROXIDE. SUCH A MIXTURE IS EXPLOSIVELY REACTIVE.

(1) Add 1.8-2.2 parts by weight of Benzoyl Peroxide catalyst to 98 parts Hetron 92 resin, G02137.

(2) If the mixture becomes a gel before you can use it, discard the mixture and make some more.

(3) Apply the mixture as specified in the repair procedure.

(4) Cure this mixture 30 minutes at 250-280°F.

B. Resin Mix R109A

(1) Add 0.2 weight percent cobalt naphthenate to 49-51 grams Hetron 92 resin, G02137.

(2) Add 0.625 weight percent MEK peroxide.

(3) Pot life of this mixture is 60 minutes at 70-80°F.

(4) Apply the mixture as specified in the repair procedure.

(5) Cure this mixture 60 minutes at 85-95°F.

C. Titanium dioxide can be added to the resin mixture to make it opaque.

D. To fill voids, mix catalyzed resins with the milled glass fibers to make a paste.

5. Vendors

A. Refer to REPAIR-GENERAL, Table 602.

Table 602: Vendors

V22401	RAM CHEMICALS DIV OF WHITTAKER CORP 210 EAST ALONDRA BOULEVARD GARDENA, CALIFORNIA 90248-2808
V29672	ASHLAND CHEMICAL CO. 8901 OLD GALVESTON ROAD HOUSTON, TEXAS 77034-3939
V36346	UNION CARBIDE CORPORATION, LINDE DIVISION 39 OLD RIDGEBURY ROAD DANBURY, CONNECTICUT 06817-0001
V45255	OWENS-CORNING FIBERGLASS CORPORATION WORLD HQ, FIBERGLASS TOWER - T/11 TOLEDO, OHIO 43659-0001
V70304	ASHLAND CHEMICAL CO GENERAL POLYMERS DIV 11524 WEST ADDISON STREET FRANKLIN PARK, ILLINOIS 60131
V75675	ATOCHEM NORTH AMERICA 1740 MILITARY ROAD BUFFALO, NEW YORK 14240

GRADE 1300 DENTS/SCRATCHES - REPAIR 1-1

1. General

A. This procedure gives the necessary data for grade 1300 dents/scratches repair.

B. Refer to REPAIR-GENERAL, Paragraph 2. for the Standard Overhaul Practices Manual (SOPM) subjects identified in this procedure.

C. Refer to REPAIR-GENERAL, Paragraph 3. for the description of the Material codes identified in this procedure.

2. Grade 1300 Dents/Scratches

A. Sand the damaged area lightly with 180 grit abrasive paper, G50381 or finer.

B. Wipe the surface using cotton wipers, G00034 and Butyl Carbitol solvent, B01027.

C. Fill dents with BMS 5-28 material.

D. Cut a patch from fiberglass material to be 3/8 inch larger than the damaged area.

E. Soak the patch with adhesive, A01070.

F. Put the patch over the damaged area.

G. Cure the repair (SOPM 20-50-12).

GRADE 1301 CUTS - REPAIR 2-1

1. General

A. This procedure gives the necessary data for grade 1301 cuts repair.

B. Refer to REPAIR-GENERAL, Paragraph 2. for the Standard Overhaul Practices Manual (SOPM) subjects identified in this procedure.

C. Refer to REPAIR-GENERAL, Paragraph 3. for the description of the Material codes identified in this procedure.

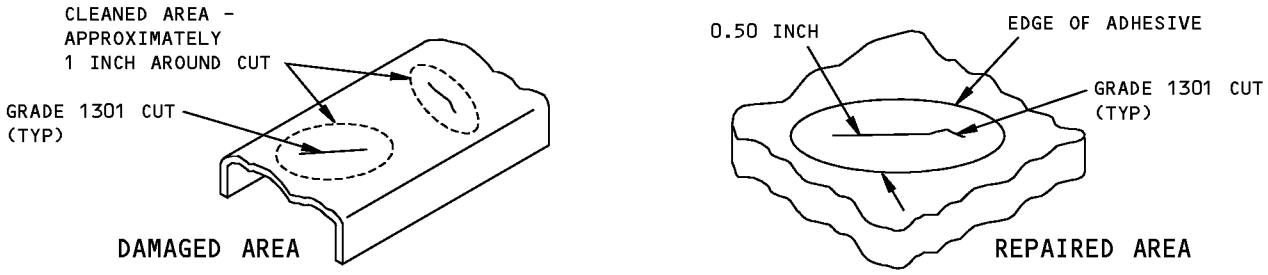
2. Grade 1301 Cuts (REPAIR 2-1, Figure 601)

A. Clean the area of the cut with Butyl Carbitol solvent, B01027.

B. Mix some prepared resin (REPAIR-GENERAL, Paragraph 4.) with milled glass fibers to make a paste.

C. Apply a layer of the resin mixture to the area of the cut.

D. Cure the resin.



Grade 1301 Repair
Figure 601

GRADE 1302 CUTS - REPAIR 3-1

1. General

A. This procedure gives the necessary data for grade 1302 cuts repair.

B. Refer to REPAIR-GENERAL, Paragraph 2. for the Standard Overhaul Practices Manual (SOPM) subjects identified in this procedure.

C. Refer to REPAIR-GENERAL, Paragraph 3. for the description of the Material codes identified in this procedure.

2. Grade 1302 Cuts (REPAIR 3-1, Figure 601)

A. Using Butyl Carbitol solvent, B01027, clean the area of the cut and an adjacent area a minimum of one inch around the cut.

B. Cut a patch from fiberglass material to be larger than the damaged area.

C. Put the cut patch on a clean work surface, or on a piece of Mylar.

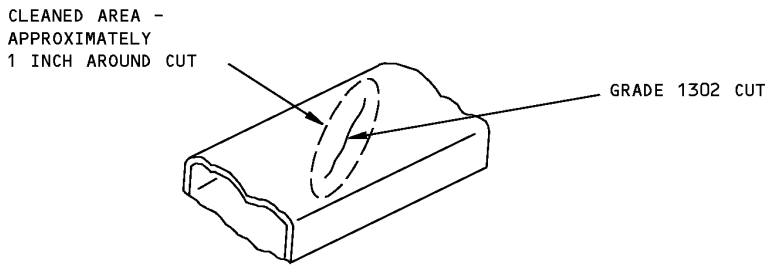
D. Pour resin (REPAIR-GENERAL, Paragraph 4.) on the patch. Cover this with more Mylar, and wipe off unwanted resin with a plastic squeegee, STD-821.

E. Put the path over the damaged area.

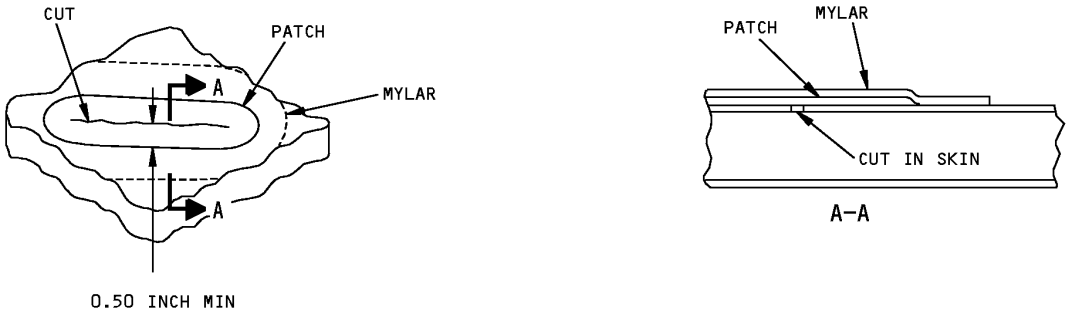
F. Rub the patch down smooth over the surface, and wipe off unwanted resin with a plastic squeegee, STD-821.

G. Cure the resin.

H. Remove the Mylar.



DAMAGED AREA



REPAIRED AREA

Grade 1302 Repair
Figure 601

GRADE 1303 CUTS - REPAIR 4-1

1. General

A. This procedure gives the necessary data for grade 1303 cuts repair.

B. Refer to REPAIR-GENERAL, Paragraph 2. for the Standard Overhaul Practices Manual (SOPM) subjects identified in this procedure.

C. Refer to REPAIR-GENERAL, Paragraph 3. for the description of the Material codes identified in this procedure.

2. Grade 1303 Cuts (REPAIR 4-1, Figure 601)

A. Cut away loose glass.

B. Clean the area around the damage with Butyl Carbitol solvent, B01027.

C. Cut a patch from fiberglass material to be larger than the damaged area.

D. Put the cut patch on a clean work surface, or on a piece of Mylar.

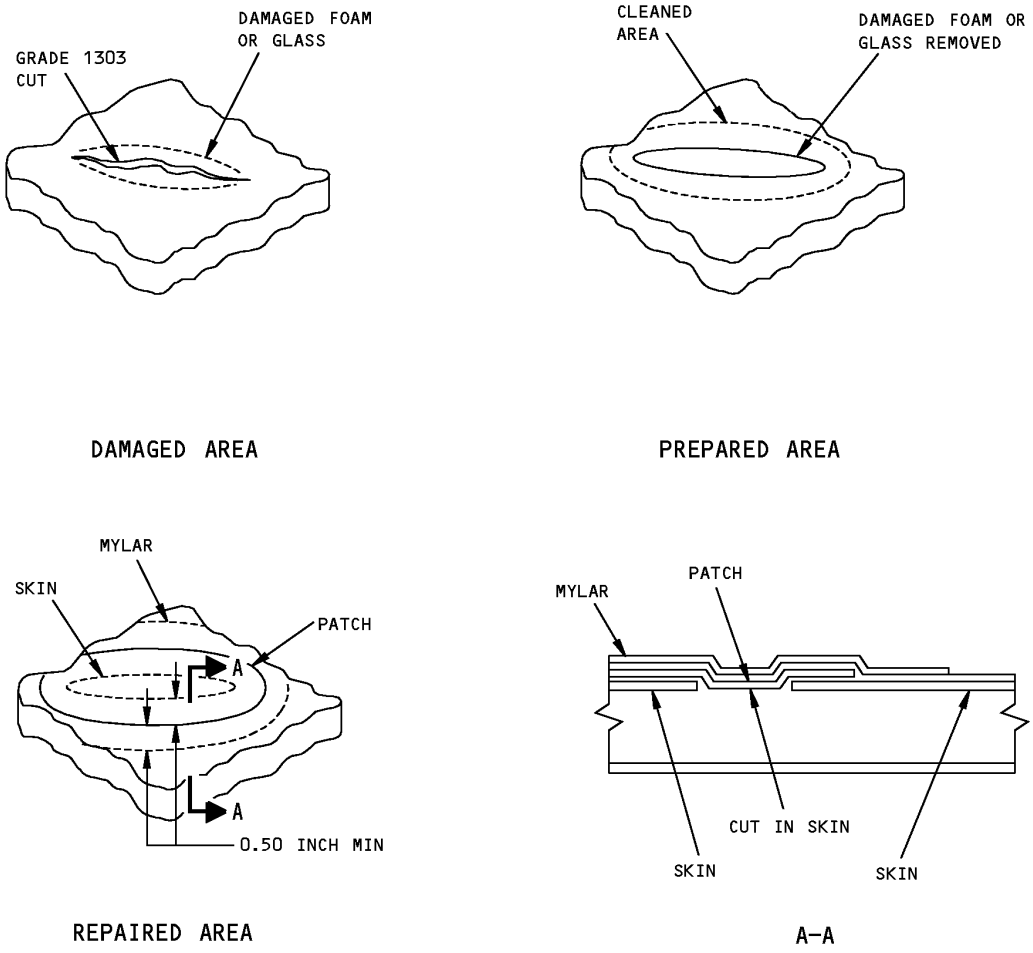
E. Pour resin (REPAIR-GENERAL, Paragraph 4.) on the patch. Cover this with more Mylar, and wipe off unwanted resin with a plastic squeegee, STD-821.

F. Put the patch over the damaged area.

G. Rub the patch down smooth over the surface, and wipe off unwanted resin with a plastic squeegee, STD-821.

H. Cure the resin.

I. Remove the Mylar.



Grade 1303 Repair
Figure 601

GRADE 1304 CUTS - REPAIR 5-1

1. General

   A. This procedure gives the necessary data for grade 1304 cuts repair.

   B. Refer to REPAIR-GENERAL, Paragraph 2. for the Standard Overhaul Practices Manual (SOPM) subjects identified in this procedure.

   C. Refer to REPAIR-GENERAL, Paragraph 3. for the description of the Material codes identified in this procedure.

2. Grade 1304 Cuts

   A. Generally, cuts on the inside surface of a duct cannot be repaired.

GRADE 1305 GOUGES - REPAIR 6-1

1. General

A. This procedure gives the necessary data for grade 1305 gouges repair.

B. Refer to REPAIR-GENERAL, Paragraph 2. for the Standard Overhaul Practices Manual (SOPM) subjects identified in this procedure.

C. Refer to REPAIR-GENERAL, Paragraph 3. for the description of the Material codes identified in this procedure.

2. Grade 1305 Gouges (REPAIR 6-1, Figure 601)

A. Cut away loose or delaminated glass.

B. Clean the area around the damage with Butyl Carbitol solvent, B01027.

C. Mix some prepared resin (REPAIR-GENERAL, Paragraph 4.) with milled glass fibers to make a paste.

D. Fill the gouge with the resin mixture.

E. Cut a patch from fiberglass material to be larger than the damaged area.

F. Put the cut patch on a clean work surface, or on a piece of Mylar.

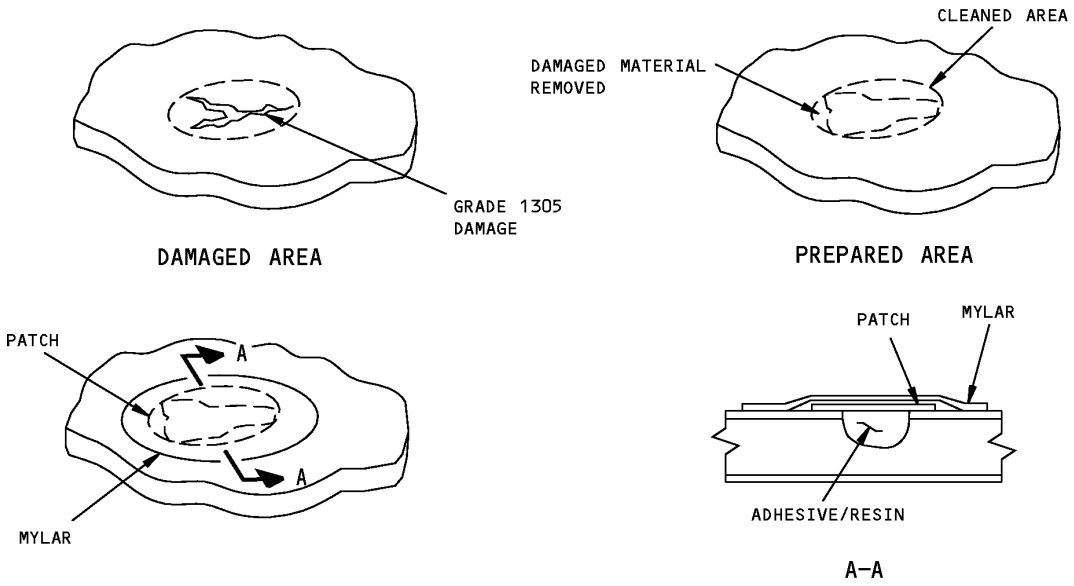
G. Pour resin on the patch. Cover this with more Mylar and wipe off unwanted resin with a plastic squeegee, STD-821.

H. Put the patch over the damaged area.

I. Rub the patch down smooth over the surface, and wipe off unwanted resin with a plastic squeegee, STD-821.

J. Cure the resin.

K. Remove the Mylar.



Grade 1305 Repair
Figure 601

GRADE 1306 GOUGES - REPAIR 7-1

1. General

A. This procedure gives the necessary data for grade 1306 gouges repair.

B. Refer to REPAIR-GENERAL, Paragraph 2. for the Standard Overhaul Practices Manual (SOPM) subjects identified in this procedure.

C. Refer to REPAIR-GENERAL, Paragraph 3. for the description of the Material codes identified in this procedure.

2. Grade 1306 Gouges (REPAIR 7-1, Figure 601)

A. Cut away damaged foam down to, but not through, the opposite layer of glass.

B. Clean the area around the damage with Butyl Carbitol solvent, B01027.

C. Get an old scrap duct and cut a plug from it to fit the hole in the good duct within 1/8 inch.

D. Mix some prepared resin (REPAIR-GENERAL, Paragraph 4.) with milled glass fibers to make a paste.

E. Bond the plug in position and fill gaps around it with the resin mixture.

F. Cut a patch from fiberglass material to be larger than the damaged area.

G. Put the cut patch on a clean work surface, or on a piece of Mylar.

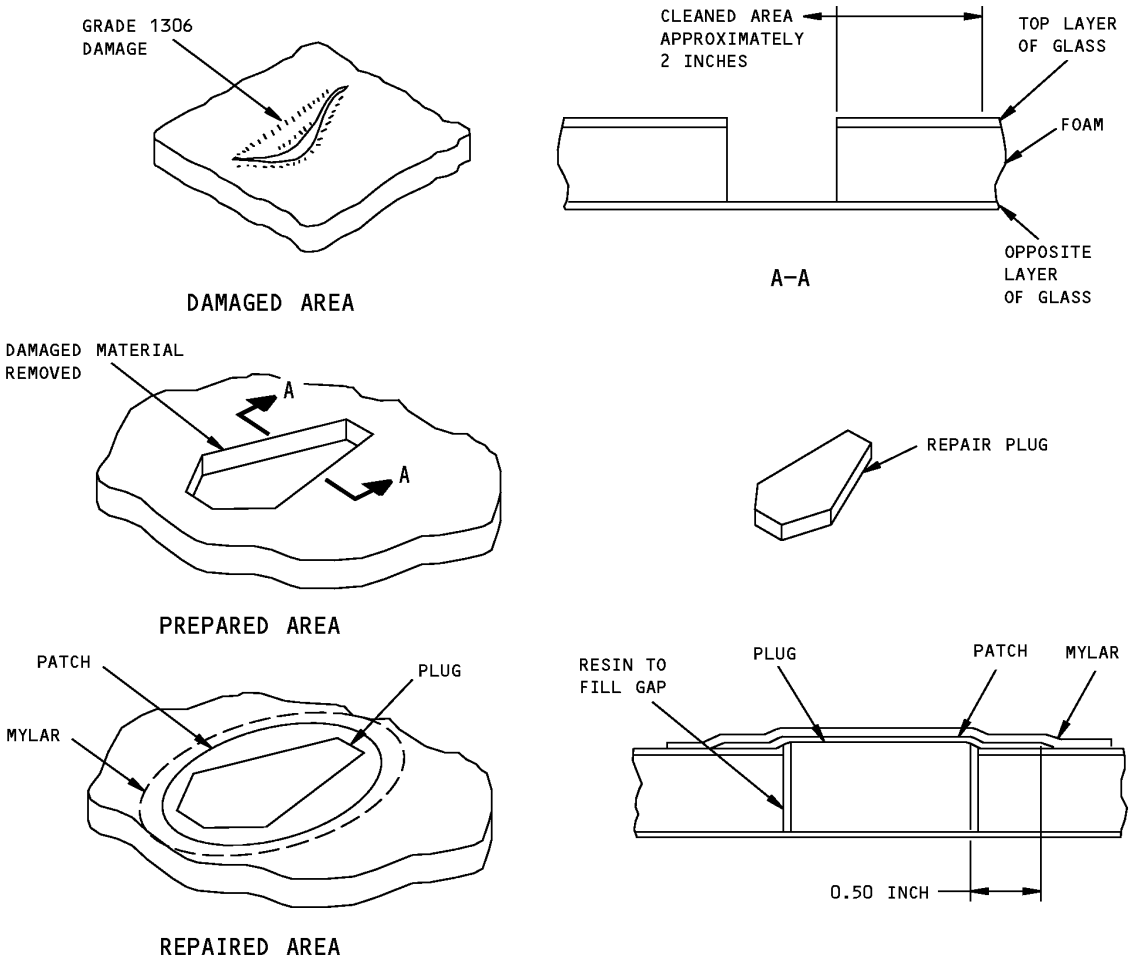
H. Pour resin on the patch. Cover this with more Mylar, and wipe off unwanted resin with a plastic squeegee, STD-821.

I. Put the patch over the damaged area.

J. Rub the patch down smooth over the surface, and wipe off unwanted resin with a plastic squeegee, STD-821.

K. Cure the resin.

L. Remove the Mylar.



Grade 1306 Repair
Figure 601

GRADE 1307 CUTS - REPAIR 8-1

1. General

A. This procedure gives the necessary data for grade 1307 cuts repair.

B. Refer to REPAIR-GENERAL, Paragraph 2. for the Standard Overhaul Practices Manual (SOPM) subjects identified in this procedure.

C. Refer to REPAIR-GENERAL, Paragraph 3. for the description of the Material codes identified in this procedure.

2. Grade 1307 Cuts (REPAIR 8-1, Figure 601)

A. Cut away the foam and the outside layer glass to make a slot 1/8 inch wide.

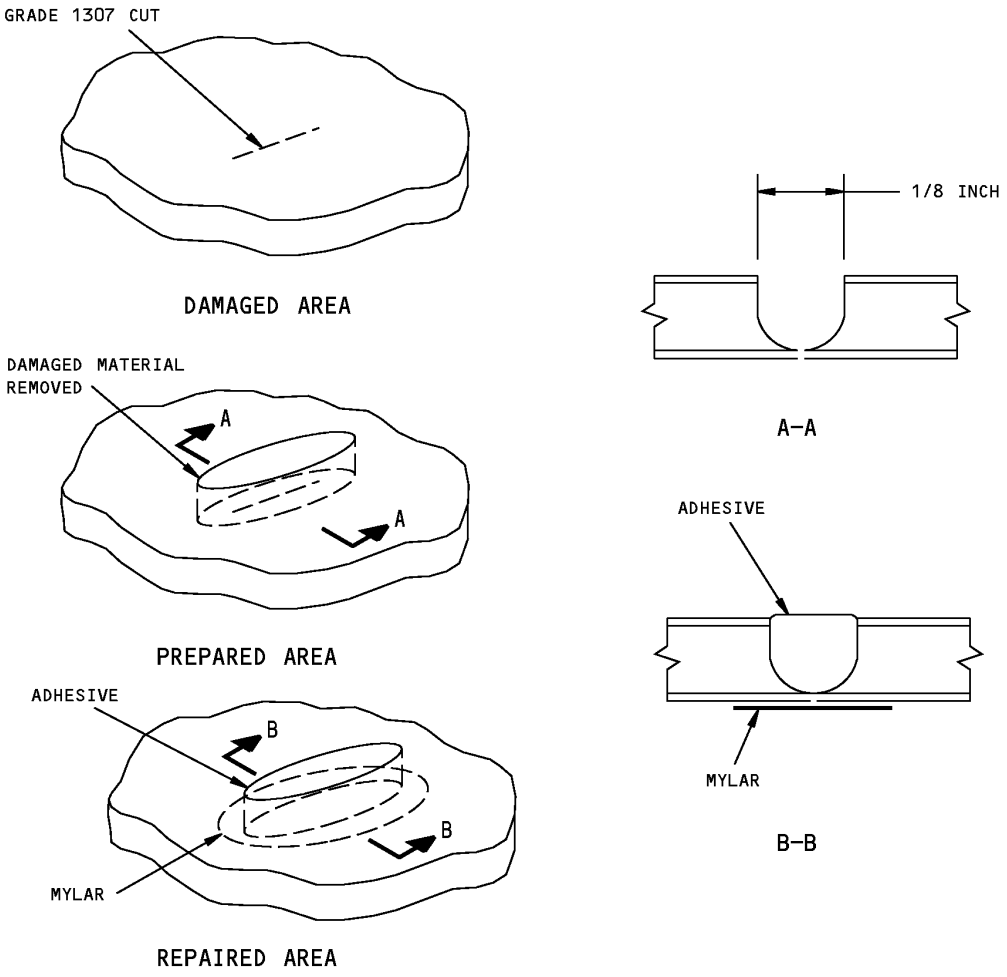
B. Mix some prepared resin (REPAIR-GENERAL, Paragraph 4.) with milled glass fibers to make a paste.

C. Fill the slot with the resin mixture.

D. Cover this with Mylar to keep the resin smooth.

E. Cure the resin.

F. Remove the Mylar.



Grade 1307 Repair
Figure 601

LAVATORY AND GALLEY VENT DUCT - REPAIR 9-1

214U3413–1, –2

1. General

A. This procedure gives the data that is necessary to repair the lavatory and galley vent duct.

B. Refer to REPAIR-GENERAL, Paragraph 2. for the Standard Overhaul Practices Manual (SOPM) subjects identified in this procedure.

C. Refer to REPAIR-GENERAL, Paragraph 3. for the description of the Material codes identified in this procedure.

2. Reinforcing Ply Repair

A. Clean the inside diameter surface of the duct, from the forward end to approximately 6 inches aft, with solvent, B00148, naphtha, or alcohol, B50073.

NOTE: The outside diameter surface of the duct can be used for reinforcing repair, only if enough area is available after the repair, to let the main flow balance orifice and forward duct be installed.

B. Patch Preparation

(1) Cut a piece of fiberglass cloth larger than the area to be repaired, and put the cloth on a clean table or on a piece of Mylar film.

(2) Pour prepared resin (REPAIR-GENERAL, Paragraph 4.) on the patch, cover the Mylar and sweep off unwanted resin with a plastic squeegee, STD-821.

(3) This patch can be used immediately. It must be used before the resin remaining in the container starts to gel.

C. Apply one reinforcing ply to the inside diameter duct surface, from the forward end to approximately 6 inches aft.

D. Sweep smooth and wipe off unwanted adhesive with a plastic squeegee, STD-821.

E. Let the adhesive cure before you remove the Mylar.

F. Clean the surface of the installed reinforcing ply with solvent, B00148, naphtha, or alcohol, B50073l.

G. Apply a second reinforcing ply to the surface of the installed ply.

H. Sweep smooth and wipe off unwanted adhesive with a plastic squeegee, STD-821.

I. Let the adhesive cure before you remove the Mylar.

DISBONDED DUCT JOINTS - REPAIR 10-1

1. General

A. This procedure gives the data that is necessary to repair disbonded duct joints.

B. Refer to REPAIR-GENERAL, Paragraph 2. for the Standard Overhaul Practices Manual (SOPM) subjects identified in this procedure.

C. Refer to REPAIR-GENERAL, Paragraph 3. for the description of the Material codes identified in this procedure.

2. Duct End Treatment (for foam core ducts only)

WARNING: USE SOLVENT ONLY IN AREAS WITH LOCAL EXHAUST VENTILATION. DO NOT LET SOLVENT GET ON SKIN. DO NOT BREATHE VAPORS.

A. Clean the area of ducts to get the tape with solvent, B00148, naphtha or alcohol, B50073.

B. If the foam core duct does not have end treatment, apply fiberglass tape to the ends of the ducts by one of these methods:

(1) Soak a strip of 3-inch wide fiberglass tape with adhesive, A00923 and immediately apply this to the outside surface at the end of the duct.

(2) Or apply a 3-inch wide layer of adhesive, A00923 to the outside surface at the end of the duct, then immediately install the tape. Apply one more layer of adhesive, A00923 as necessary to be sure the fiberglass is soaked.

(3) Let the adhesive, A00923 cure a minimum of 12 hours at 65-100°F.

3. How to Bond Duct Joints

CAUTION: WHEN YOU ASSEMBLE DUCTS ON THE BENCH, BE CAREFUL NOT BEND THE DUCTS. YOU COULD WEAKEN OR BREAK BONDED DUCT JOINTS. BEFORE YOU BOND THE JOINTS OF FOAM CORE DUCTS, BE SURE TO TREAT THEIR ENDS PER THE DUCT END TREATMENT PROCEDURE.

A. Apply a layer of RTV 133 adhesive, A00924 to one side of fiberglass tape. A bondline thickness of 0.04-0.08 inch is necessary. To get this, apply approximately 1.5 ounces of RTV 133 adhesive, A00924 per foot of 3-inch wide tape.

B. Immediately wrap one layer of the prepared tape, with the RTV 133 adhesive, A00924 side down, over the duct joint. A minimum of one inch of coated tape must overlap each duct.

C. Overlap the tape ends 1 to 2 inches at the tape joint for ducts with nozzle openings.

D. Smooth out all voids, wrinkles or air pockets in the tape wrap, and apply positive pressure to be sure all of the RTV 133 adhesive, A00924 touches the duct. Make sure the bondline thickness is 0.04-0.08 inch.

E. Let the RTV 133 adhesive, A00924 cure under contact pressure a minimum of 24 hours at 65-100°F and minimum of 20 percent relative humidity.

(NOT APPLICABLE)

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