

Bell Helicopter **TEXTRON**

A Subsidiary of Textron, Inc.

May 12, 2006

TO: All Owners/Operators of Bell 212 Helicopters

**SUBJECT: REVISION "B" TO TECHNICAL BULLETIN 212-78-15:
REPAIR OF ENGINE SERVICE DECK CENTER PANEL P/N 212-
030-009-007 AND -097**

Revision "B" to this bulletin cancels the authorization to use this procedure to repair the center engine deck from now on. Since original publication of this bulletin, Bell Helicopter has developed a better method to repair center engine deck delamination than the procedure outlined in this bulletin. Although such a procedure allowed a very short downtime, it had negative aspects that are now better understood. The difficulty for the injected adhesive to provide a good bond line and the difficulty to inspect this bondline influenced our decision.

There is no need to rework aircraft already repaired but if any problem arises with a center deck already repaired with this Technical Bulletin, Bell Helicopter recommends it be replaced. No new accomplishment of the Technical Bulletin is allowed. Customers faced with a delamination of the center engine deck are encouraged to contact Product Support Engineering for an approved repair procedure at:

Bell Helicopter Product Support Engineering
Medium Helicopters
Phone: (450) 437-6201
Phone: (800) 363-8028 (US/Canada)
Phone: (800) 363-8224 (Canada)
Fax: (450) 433-0272
psemedium@bellhelicopter.textron.com

Although its accomplishment is no longer allowed, the original procedure is still provided in the revised bulletin to allow conformity inspection on aircraft already repaired.

TECHNICAL BULLETIN
Bell Helicopter **TEXTRON**

A Subsidiary of Textron Inc.

No. 212-78-15

Date Sep 05, 1978

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DATE May 12, 2006

REV B

MODEL AFFECTED: 212

SUBJECT: REPAIR OF ENGINE SERVICE DECK CENTER
PANEL P/N 212-030-009-007 AND -097

HELICOPTERS AFFECTED: All Model 212 helicopters

COMPLIANCE: Not authorized after release of revision B. | B

DESCRIPTION:

Field reports of voids and skin separation in the engine service center deck. These voids and separations may have been repaired by injection of adhesive and the addition of doublers to the engine service deck. Bell Helicopter does not authorize this repair any more. Original procedure is still provided to allow conformity inspection on aircraft already repaired. | B

APPROVAL:

The engineering design aspects of this bulletin are FAA/DER approved.

MANPOWER:

Approximately 12 man-hours are required to complete this bulletin. Man-hours are based on hands-on time, and may vary with personnel and facilities available.

MATERIALS:

Required Material:

The following material is required for the accomplishment of this bulletin and may be obtained through your Bell Helicopter Textron Supply Center.

<u>Part Number</u>	<u>Nomenclature</u>	<u>Quantity</u>
301 ¼ hard	Stainless Steel	26" x 22.5" x 0.040"
AN3C7A	Nut	63
AN960C10	Washer	63
AN970-3	Washer	63
299-947-100 TY 2 CL 2	Adhesive	2 pints
Proseal 700	Sealant	½ pint
MS20615-4M7	Rivet	26

SPECIAL TOOLS:

None required

WEIGHT AND BALANCE:

<u>Weight</u>	<u>Arm</u>	<u>Longitudinal Moment</u>	<u>Arm</u>	<u>Lateral* Moment</u>
+6.9 Lbs	194.0 in.	+1338 in-Lbs	0 in.	0 in-Lbs
+3.1 kg	4928 mm	+152.8 kg x mm/100	XX mm	XX kg x mm/100

* In lateral calculations, - is left and + is right.

-NOTE-

This change requires an addition of 2.5 pounds of nose ballast or a reduction of 1.3 pounds of tail ballast. The above numbers are for both doublers.

ELECTRICAL LOAD DATA:

Not affected

PUBLICATIONS AFFECTED:

None affected

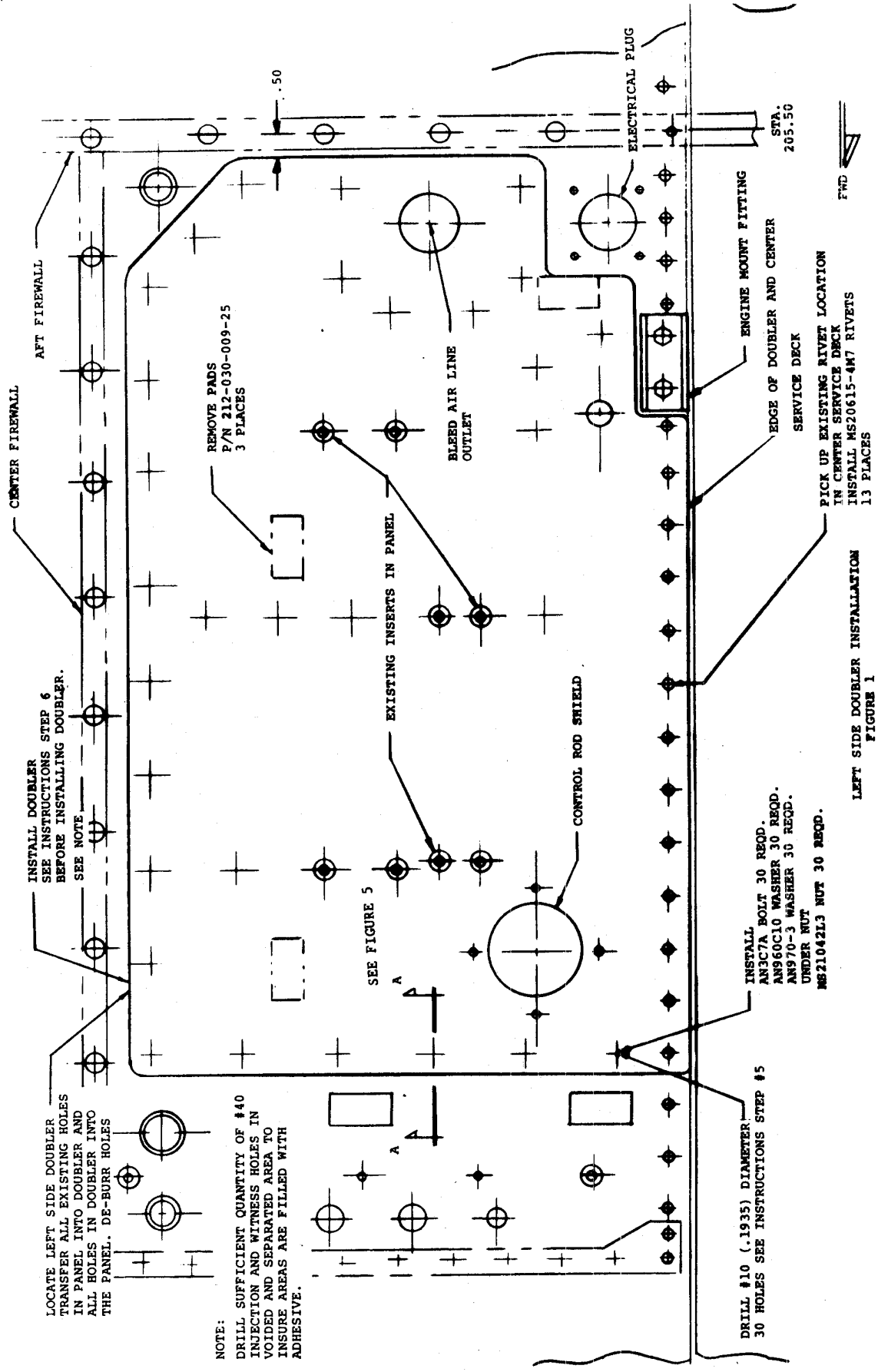
ACCOMPLISHMENT INSTRUCTIONS:

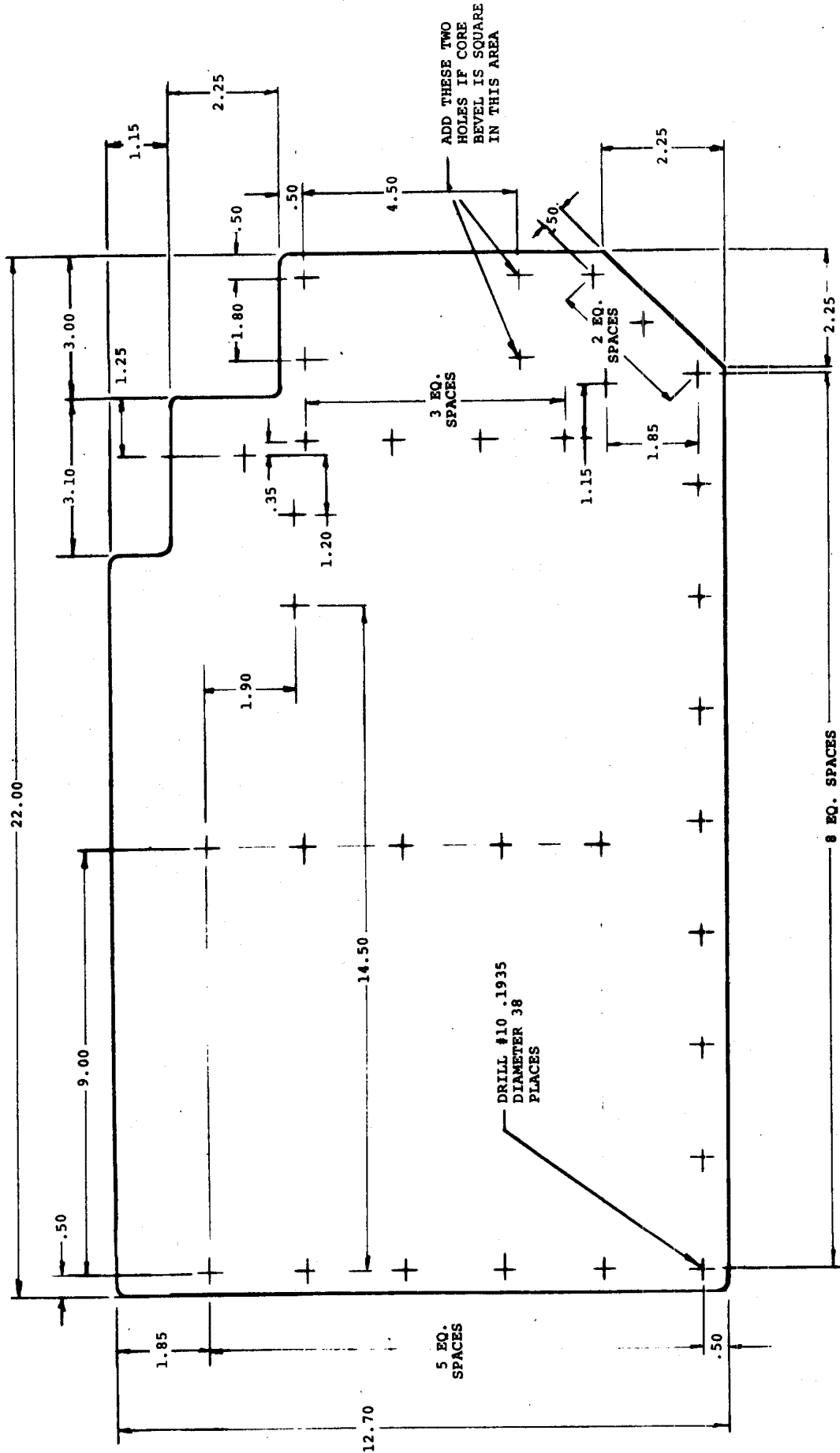
1. Remove all tubing, hardware and other components in the area of the repair. Remove small plates P/N 212-030-009-025 bonded to the panel.
2. Cut a 1-inch diameter hole through the debonded skin only to allow for the inspection of the core. If extensive corrosion exists, the panel must be replaced. If minor corrosion, remove the corrosion and replace the core or fill the area with 299-947-100 TY2 CL2 adhesive.
3. Refer to Figure 3 and 4. Fabricate the two doublers as detailed from 0.040"-thick 301, ¼ hard stainless steel.
4. Refer to Figure 1 and 2. Locate the doublers and drill holes in the panel from the doublers and pick-up existing holes in the panel into the doublers. Use sharp cobalt drills.
5. Drill #10 (0.1935 inch) holes for the core fill (see Section A-A, Figure 5). Clean the hole of all chips. Tape the hole in the lower skin and fill the hole with adhesive and allow 4 hours to cure.
6. Clean the area of the panel to receive the doublers and mating side of doublers with MEK.

After cleaning, sand the area of the panel and mating side of the doublers with abrasive cloth or a sanding disk. After sanding, clean again with MEK. Apply a coat of 299-947-100 Type 2, Class 2 adhesive to the panel and a coat to the clean side of the doublers.

Fill the void or delaminated area with adhesive prior to installing the doubler. Install the doublers, refer to Figure 1 and 2. Clean excessive adhesive from the panel and doublers. Apply a bead of Proseal 700 around the edges of the doublers.

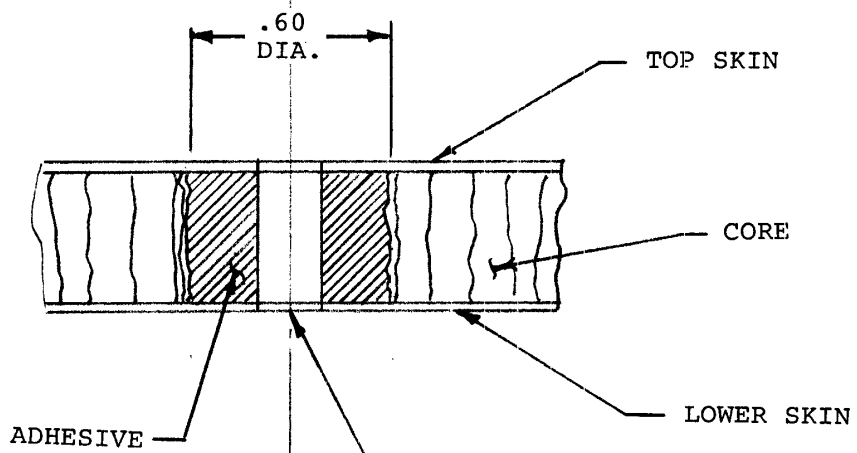
7. Reinstall all tubing, hardware and components removed.





1. MATERIAL 301 1/4 HARD .040 THICK STAINLESS STEEL
2. BREAK SHARP EDGES AND DE-BURR HOLES
3. ALL CORNER RADII .25 R.

RIGHT SIDE DOUBLER
FIGURE 4



DRILL #10 (.1935) HOLE
CRUSH CORE BACK .60 INCH
DIAMETER THEN FILL WITH
299-947-100TY2CL2 ADHESIVE
AFTER ADHESIVE CURES RE-DRILL
#10 (.1935) HOLE

SECTION A-A

CORE FILL DETAIL
FIGURE 5