

**MAJOR REPAIR AND ALTERATION**  
(Airframe, Powerplant, Propeller, or Appliance)

FOR FAA USE ONLY  
OFFICE IDENTIFICATION

INSTRUCTIONS: Print or type all entries. See FAR 43.9, FAR 43 Appendix B, and AC 43.9-1 (or subsequent revision thereof) for instructions and disposition of this form.

1. AIRCRAFT	MAKE Republic	MODEL RC-3 Seabee
	SERIAL NO. 264	NATIONALITY AND REGISTRATION MARK N12CX
2. OWNER	NAME (As shown on registration certificate) Crossings Aviation	ADDRESS (As shown on registration certificate) 1302 26th Ave. NW Gig Harbor, WA

3. FOR FAA USE ONLY

The ~~alteration~~ <sup>DATA</sup> identified herein complies with applicable airworthiness requirements and is approved only for the above described aircraft subject to conformity inspection by a person authorized in F. A. R. 43.7 (b) & (c)

07-29-93 *Don Wallace* SEA-FSDO

DATE SIGNATURE

4. UNIT IDENTIFICATION

UNIT	MAKE	MODEL	SERIAL NO.	5. TYPE	
				REPAIR	ALTERATION
AIRFRAME	~~~~~ (As described in item 1 above) ~~~~~				X
POWERPLANT					
PROPELLER					
APPLIANCE	TYPE				
	MANUFACTURER				

RECEIVED  
APR 27 1998  
SEATTLE FSDO-AW

6. CONFORMITY STATEMENT

A. AGENCY'S NAME AND ADDRESS Don Wallace dba W.E. Aerotech Services Inc. W. 171 Sanderson Way Shelton WA	<input checked="" type="checkbox"/>	B. KIND OF AGENCY	C. CERTIFICATE NO. 552-76-1362
		U.S. CERTIFICATED MECHANIC	
		FOREIGN CERTIFICATED MECHANIC	
		CERTIFICATED REPAIR STATION	
		MANUFACTURER	

D. I certify that the repair and/or alteration made to the unit(s) identified in item 4 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge.

DATE 7-22-93	SIGNATURE OF AUTHORIZED INDIVIDUAL <i>Don Wallace</i>
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7. APPROVAL FOR RETURN TO SERVICE

Pursuant to the authority given persons specified below, the unit identified in item 4 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is  APPROVED  REJECTED

BY	FAA FLT. STANDARDS INSPECTOR	MANUFACTURER	<input checked="" type="checkbox"/>	INSPECTION AUTHORIZATION	OTHER (Specify)
	FAA DESIGNEE	REPAIR STATION		CANADIAN DEPARTMENT OF TRANSPORT INSPECTOR OF AIRCRAFT	

DATE OF APPROVAL OR REJECTION 8-6-93	CERTIFICATE OR DESIGNATION NO. IA356078	SIGNATURE OF AUTHORIZED INDIVIDUAL <i>Don Wallace</i>
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## NOTICE

Weight and balance or operating limitation changes shall be entered in the appropriate aircraft record. An alteration must be compatible with all previous alterations to assure continued conformity with the applicable airworthiness requirements.

8. DESCRIPTION OF WORK ACCOMPLISHED (If more space is required, attach additional sheets. Identify with aircraft nationality and registration mark and date work completed.)

Installed rear seat using same airframe attach points as original installation. Seat belt attach points unchanged from original installation. Basic seat dimensions and configuration same as original.

Seat constructed per drawing WEA-7500 (see attached drawing) using Fibrelam 2000 panel per Boeing BMS 4-20C (see attached discription).

Seat was load tested to ultimate normal catagory load condition X 1.5 as per original seat (see attached copy Republic Report E-17-2).

Seat was load tested in accordance with CAR 3.390 (Seats and Berths) and CAR 3.386 (Emergency Provisions, Protection)

Seat installation identical to N6523K (see attached FAA Form 337 dated 8-12-92).

See weight and balance form and equipment list dated 7-22-93

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END

ADDITIONAL SHEETS ARE ATTACHED



U.S. Department  
of Transportation  
Federal Aviation  
Administration

**MAJOR REPAIR AND ALTERATION**  
(Airframe, Powerplant, Propeller, or Appliance)

Form Approved  
OMB No. 2120-0020

For FAA Use Only

Office Identification

INSTRUCTIONS: Print or type all entries. See FAR 43.9, FAR 43 Appendix B, and AC 43.9-1 (or subsequent revision thereof) for instructions and disposition of this form. This report is required by law (49 U.S.C. 1421). Failure to report can result in a civil penalty not to exceed \$1,000. for each such violation (Section 901 Federal Aviation Act of 1958).

1. Aircraft	Make REPUBLIC	Model RC-3
	Serial No. 789	Nationality and Registration Mark N6523K
2. Owner	Name (As shown on registration certificate) SERVE IT INC	Address (As shown on registration certificate) 3030 VALLEY VIEW BLVD LAS VEGAS, NV 89102

The alteration identified herein complies with applicable airworthiness requirements and is approved only for the above described aircraft subject to conformity inspection by a person authorized in F. A. R. 43.7 (b) & (c)

08-12-92 *[Signature]* SEA-FSDO

DATE SIGNATURE

Unit	Make	Model	Serial No.	5. Type	
				Repair	Alteration.
AIRFRAME	(As described in Item 1 above)				X
POWERPLANT					
PROPELLER					
APPLIANCE	Type				
	Manufacturer				

RECEIVED  
APR 27 1998  
SEATTLE FSDO-AMJ

6. Conformity Statement

A. Agency's Name and Address Don Wallace DBA W.E. Aerotech Services, Inc. 1302 26th Ave NW Gig Harbor, WA 98335	B. Kind of Agency <input checked="" type="checkbox"/> U.S. Certificated Mechanic <input type="checkbox"/> Foreign Certificated Mechanic <input type="checkbox"/> Certificated Repair Station <input type="checkbox"/> Manufacturer	C. Certificate No. 552761362
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D. I certify that the repair and/or alteration made to the unit(s) identified in item 4 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge.

Date August 12, 1992	Signature of Authorized Individual <i>[Signature]</i>
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7. Approval for Return To Service

Pursuant to the authority given persons specified below, the unit identified in item 4 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is  APPROVED  REJECTED

BY	FAA Fit. Standards Inspector	Manufacturer	<input checked="" type="checkbox"/> Inspection Authorization	Other (Specify)
	FAA Designee	Repair Station	Person Approved by Transport Canada Airworthiness Group	

Date of Approval or Rejection 8-26-92	Certificate or Designation No. IA7356078	Signature of Authorized Individual <i>[Signature]</i>
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### NOTICE

Weight and balance or operating limitation changes shall be entered in the appropriate aircraft record. An alteration must be compatible with all previous alterations to assure continued conformity with the applicable airworthiness requirements.

#### 8. Description of Work Accomplished

(If more space is required, attach additional sheets. Identify with aircraft nationality and registration mark and date work completed.)

Installed rear seat using same airframe attach points as original installation. Seat belt attach points unchanged from original installation. Basic seat dimensions and configuration same as original.

Seat constructed per drawing WEA-7500 (see attached drawing) using Fibrelam 2000 panel per Boeing BMS 4-20C (see attached discription).

Seat was load tested to ultimate normal catagory load condition X 1.5 as per original seat (see attached copy Republic Report E-17-2).

Seat was load tested in accordance with CAR 3.390 (Seats and Berths) and CAR 3.386 (Emergency Provisions, Protection)

Weight x Downward Vector Load x 9Gs x 1.3 (CAR 3.390 d.) = Test Load

$$340 \times .707 (\sin 45) \times 9 \times 1.3 = 2812 \text{ LBS}$$

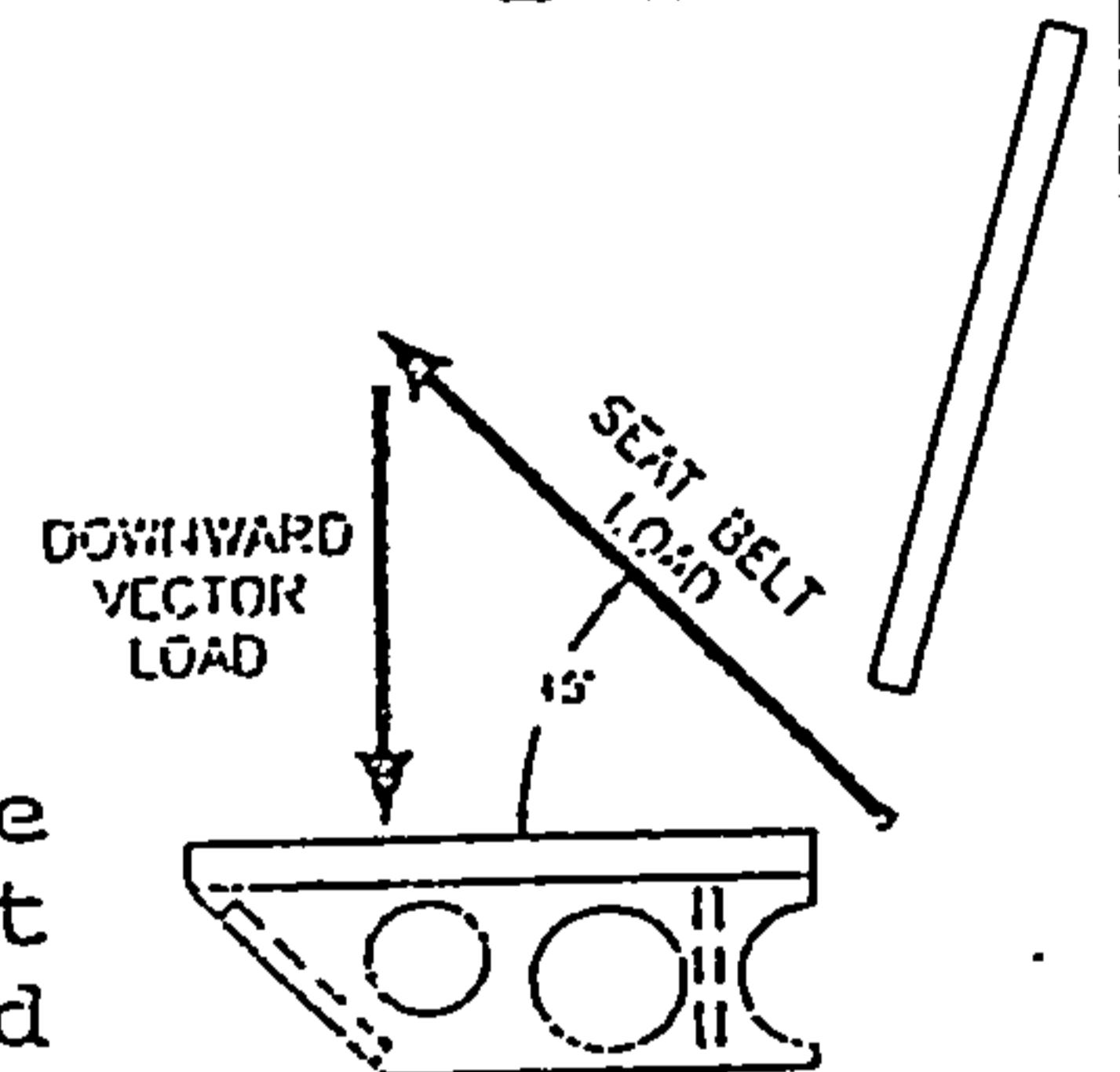
Weight Side Load x 1.5Gs x 1.3 (CAR 3.390 d.) = Test Load

$$340 \times 1.5 \times 1.3 = 663 \text{ LBS}$$

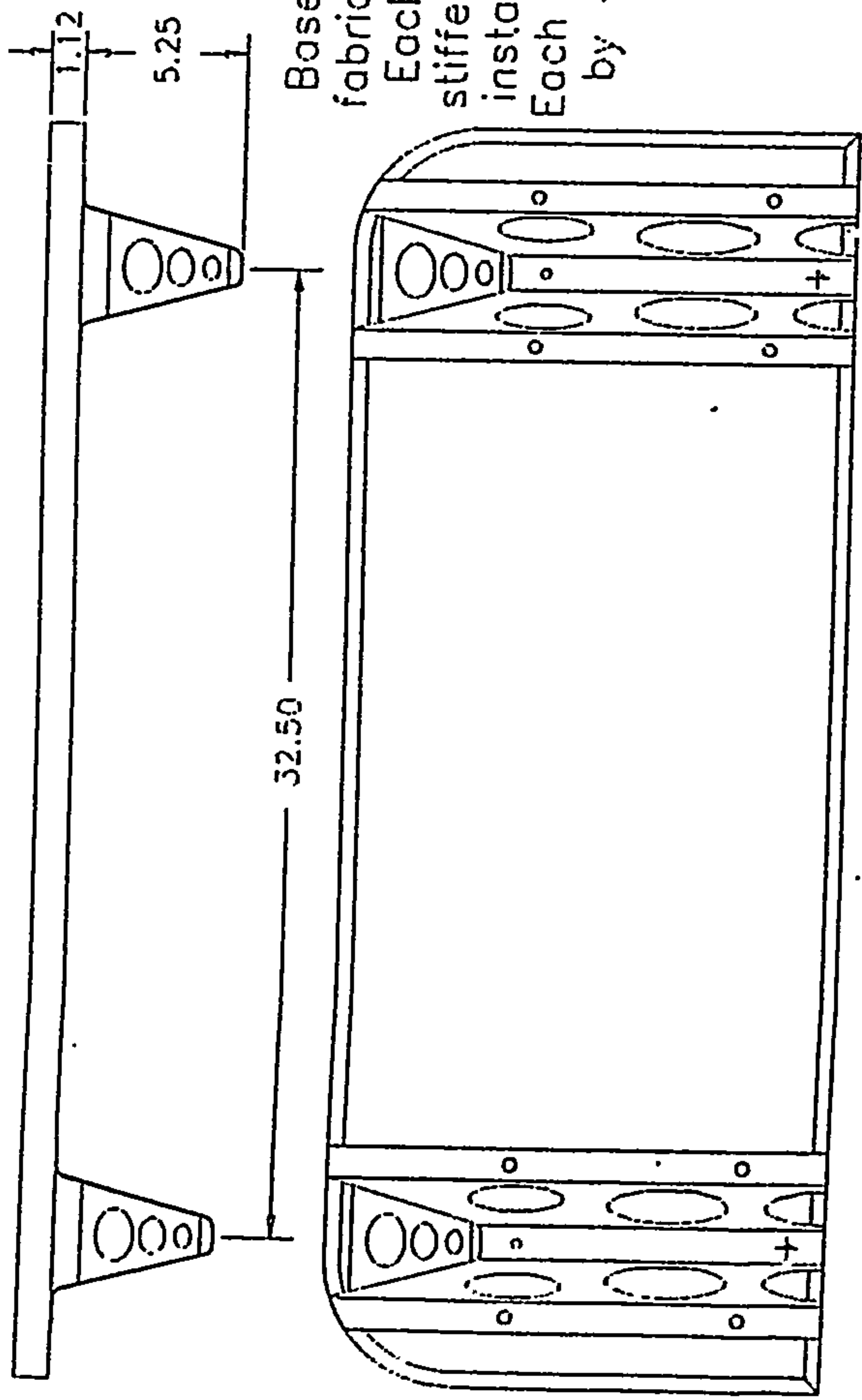
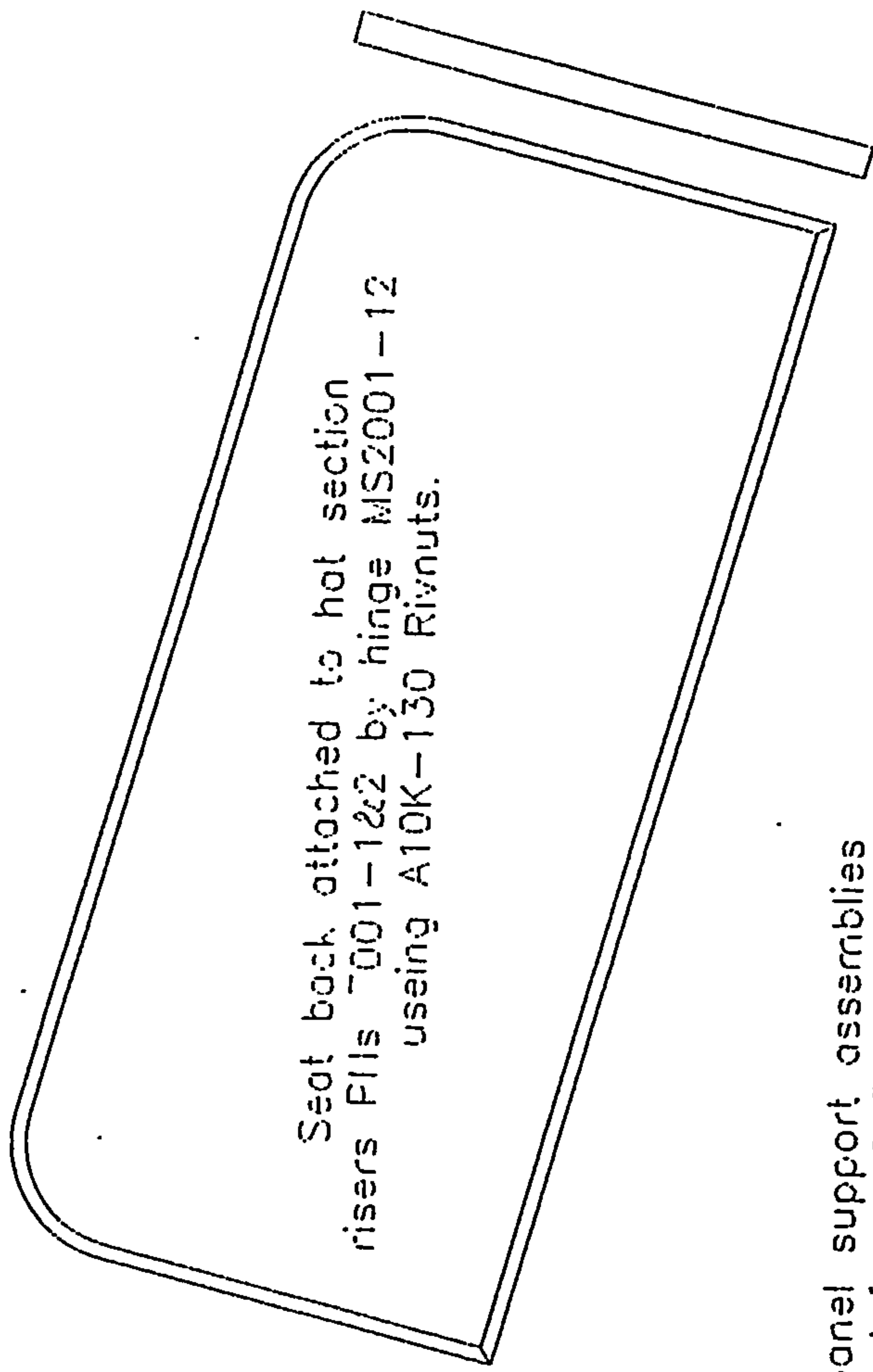
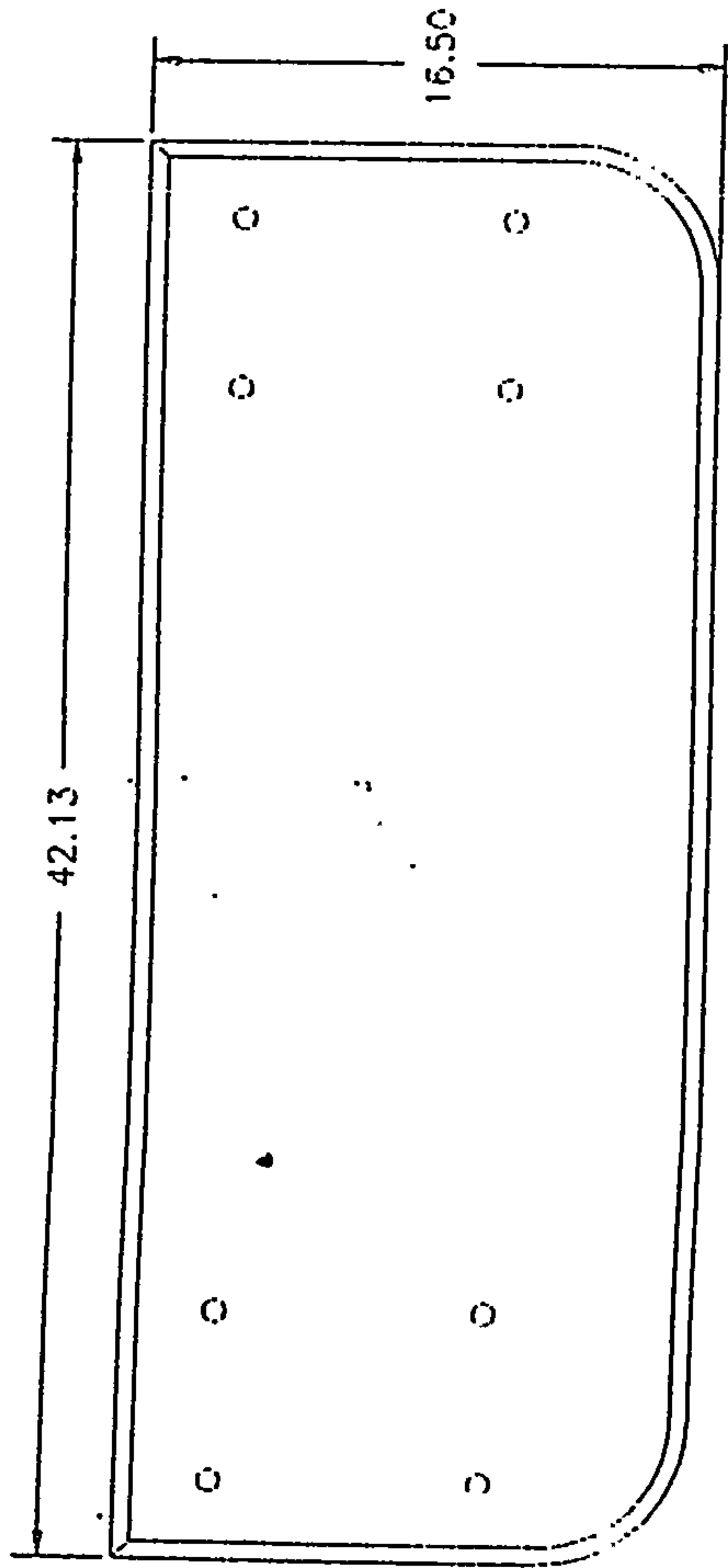
Upward load applied to seat is negligble.

See weight and balance form and equipment list dated 8-12-92

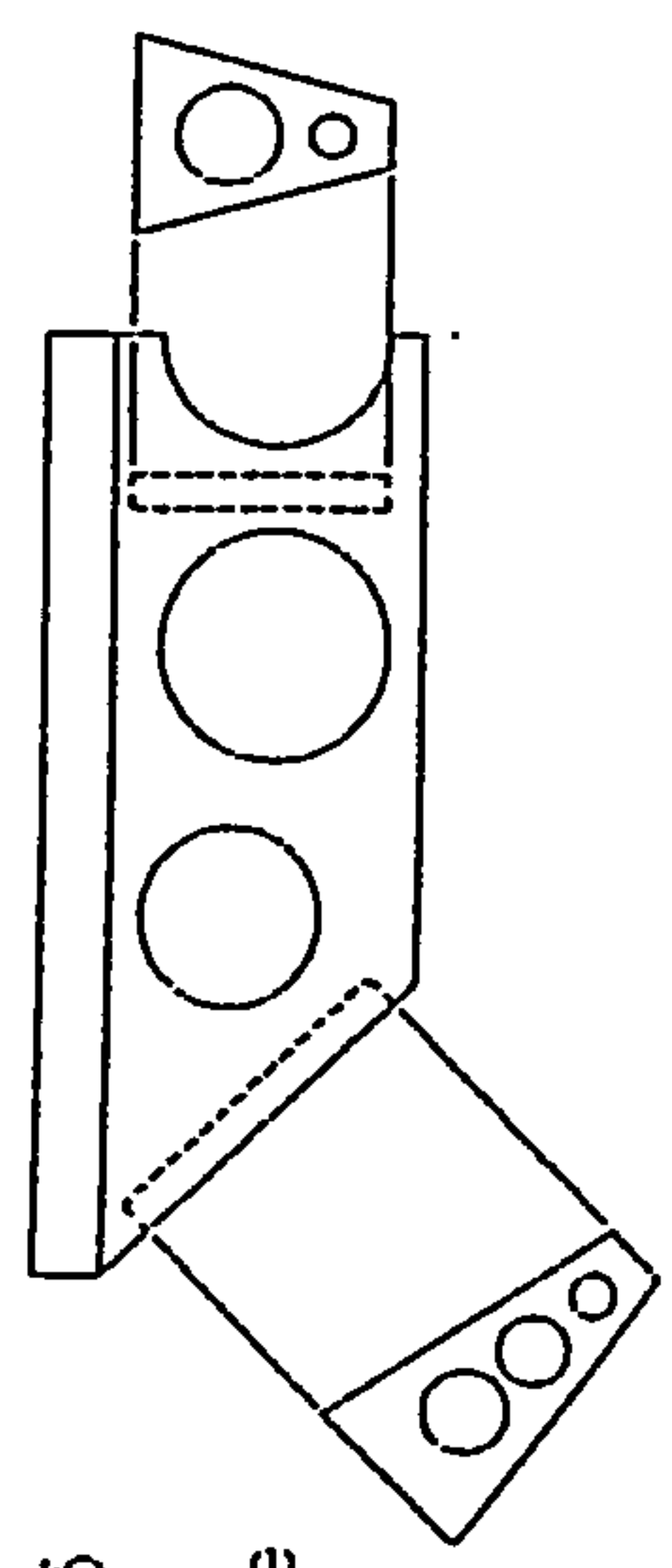
END



Seat base and back panels constructed from two layers of CIBA-GEIGY Fibrelam 2000 BAC 4-40, Rev.C, Type III. Panel edges trimmed with 2024 T-3 channel extrusion #AND10137-1102



Base panel support assemblies fabricated from .063 2024 T-3. Each assembly incorporates 2 stiffener ribs of .050 2024 T-3 installed with AN470AD-4 rivets. Each assembly attached to base by 4 AN3 bolts and threaded honeycomb inserts.



***Fibrelam<sup>®</sup> 2000***

***Woven Graphite  
Panels for  
Aircraft Flooring***

**Description** • Fibrelam 2000/Woven Graphite is a lightweight, advanced composite floor panel designed specifically for aircraft. Panels are constructed with woven graphite facesheets bonded to high strength aramid honeycomb. CIBA-GEIGY weaves the graphite fabric and manufactures the laminating resins, the honeycomb and the adhesives for these panels, and fabricates these materials into the finished product. Standard sections are 48 x 144 inches. Other sizes are available on special order.

- Features** • Outstanding strength to weight ratio
- Weight of 0.42 and 0.54 pounds/square foot with panel shears of 480 and 800 pounds respectively
  - 40% to 60% weight savings over aluminum
  - Noncorroding
  - Excellent burn through resistance, superior to aluminum
  - Special order sizes ready for installation

**Applications** • Approved as flooring by major airlines and aircraft manufacturers. Fibrelam 2000/Woven Graphite is also well suited for use in other panel applications such as bulkheads, galleys and lavatories.

**Grade Panels**

Panels weigh 0.42 lb/ft<sup>2</sup> and are used primarily for lower traffic areas on aircraft such as under seats.

**Grade Panels**

Panels weigh 0.54 lb/ft<sup>2</sup> and are particularly suitable for high traffic areas on aircraft such as aisles, galleys, lavatories and entrance ways.

CHECKED

REVISED

CORPORATION

FARMINGDALE, L. I., NEW YORK

REPORT NO. E-17-2

MODEL RC-3-1

**APPROVED**  
 AIRFRAME & APPLIANCE  
 ENGINEERING DIVISION (1-301)  
 BY: A. H.  
 DATE: July 24, 1947

REPORT E-17-2

HULL AND CABIN STRESS ANALYSIS  
 AND APPENDIX  
 REPUBLIC "SEA BEE" AMPHIBIAN  
 MODEL RC-3-1

This report has been examined and to the best of my knowledge and belief demonstrates compliance with all applicable portions of the Civil Air Regulations, Part 03, Amendment 03-0 dated November 9, 1945.

REV.	Pg No.	DATE.
APPENDIX	A-1 TO A-16	10/20/46
REV A	2, 4, 33a, 34, 37b, 39, 42	10/20/46
REV. B	PAGE 66A	12/9/46
REV. C	ADDED PAGE 80	1/22/47
REV D	ADDED Pg A17-A20	3/14/47
REV E	Pg 4, 44, 45	4/23/47
APPEND. II	ADDED Pg A21-A24	6/30/47

*W. I. Stogljitz*  
 W. I. Stogljitz,  
 Authorized, CAA Engrg. Representative No. 1-1

PREPARED BY: T. C. Adce  
 T. C. ADCE

PREPARED BY: G. R. Norris  
 A. R. NORRIS

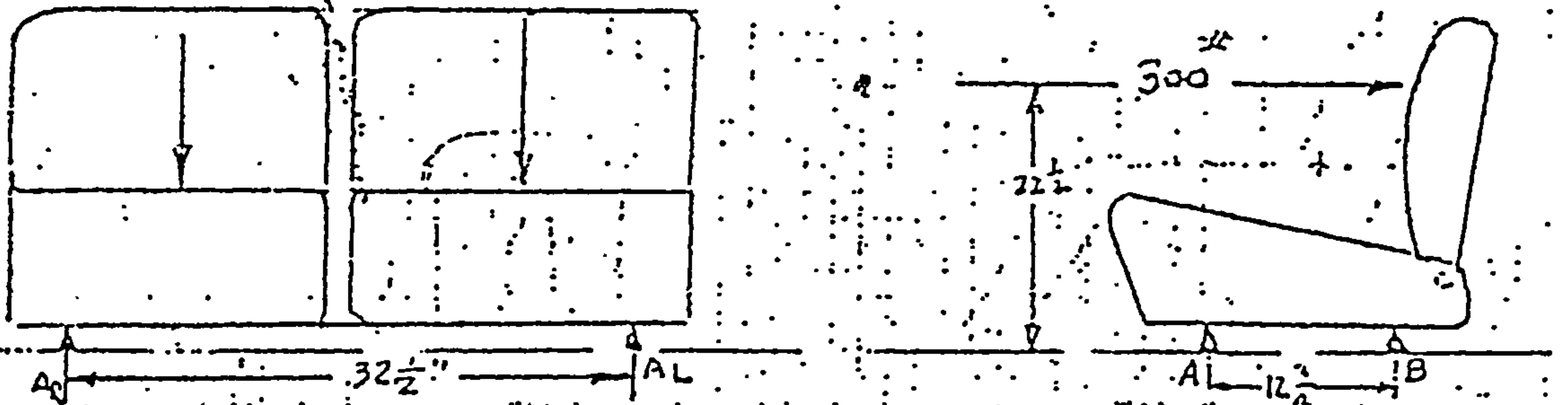
CHECKED BY: G. R. Norris  
 A. R. NORRIS

APPROVED BY: A. Z. Bayajian  
 A. Z. BAYAJIAN

MAR 15, 1946

ANALYSIS OF INTERMEDIATE DECK FOR FRONT & REAR SEAT LOADS. DWG. NO. 17F12003.

THE FRONT PORTIONS OF THE DECK IS SUBJECTED TO SEAT LOADS DUE TO BOTH FLIGHT LOADS (G, G L.F.) AND CONTROL OPERATIONAL LOADS - (300 LB REACTION AGAINST SEAT BACK.)



THE FRONT SEATS ARE MOUNTED ON A SINGLE FRAME, BUT HAVE INDIVIDUAL CUSHIONS.

1) THE MAX DOWN LOAD OCCURS IN UTILITY CATEGORY FLIGHT COND WITH G, G L.F. PILOT & FRONT OCCUPANT WEIGH 190 LBS EACH. FRONT SEAT WEIGHT IS APPROXIMATELY 36 #.

TOTAL LD ON FRONT SEAT SUPPTS =  $(190 \times 2 + 36) G, G = 2740 \#$

WITH THE C.G. OF WGT. APPROX BETWEEN THE SUPPTS

LOAD / SUPT POINT =  $2740 / 4 = 685 \#$

2) LOAD DUE TO 300 # ULT LOAD AGAINST SEAT BACK,

$CMA = 0$

$\frac{300 \times 22.5}{12.75} = 530 \#$

DOWN LOAD NOT CRITICAL  
 UP LOAD TAKEN INTO SUPPT A.

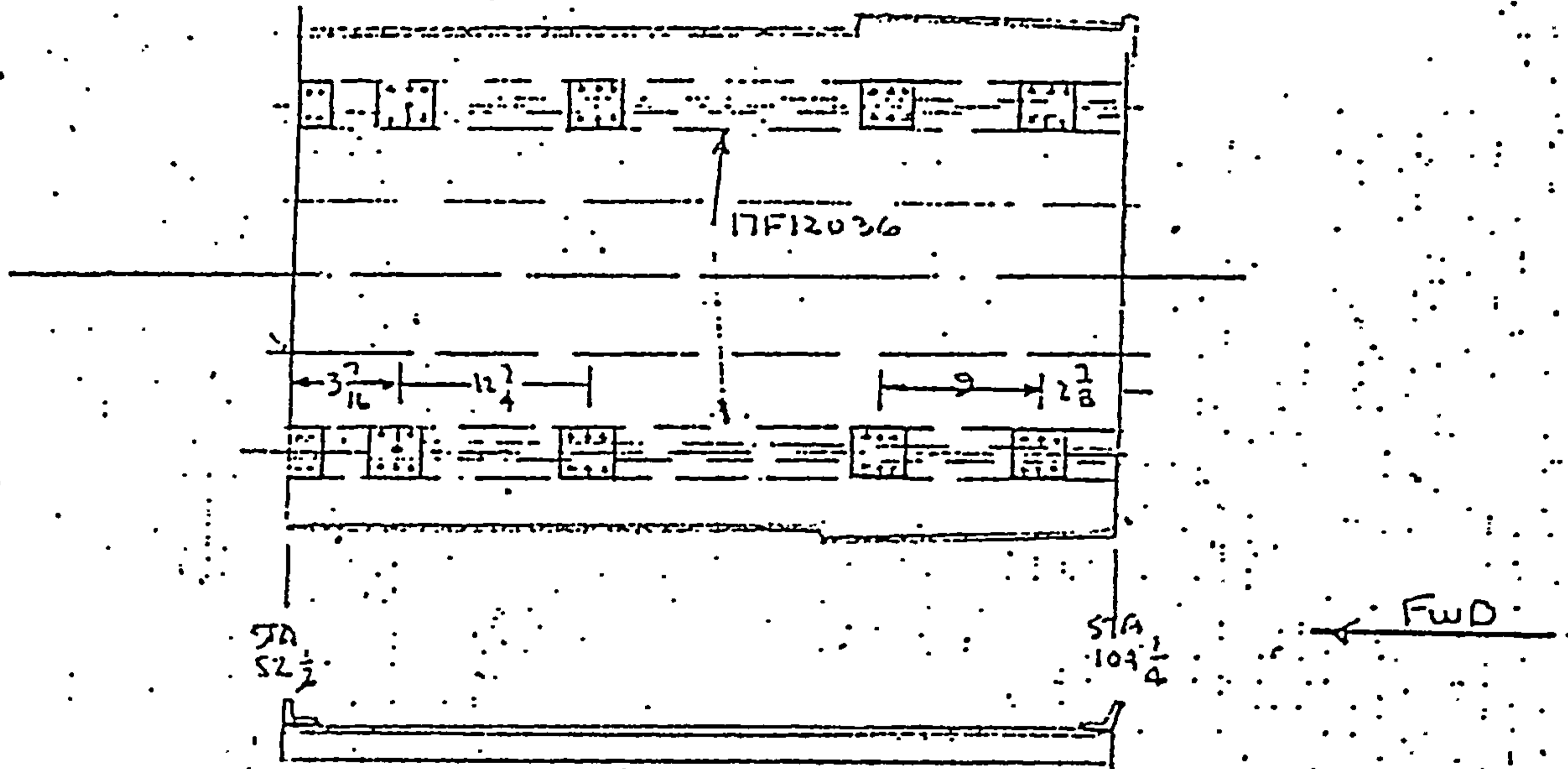
3) THIRD LOADING CONSISTS OF ALL FOUR PASSENGERS IN PLANE (170 # CA). UNDER L.F =  $3.8 \times 1.5 = 5.7$ .

TOTAL LOAD ON FRONT SUPPTS =  $(170 \times 2 + 36) 5.7 = 2140 \#$

REAR " =  $(170 \times 2 + 27 (\text{SEAT WGT})) \times 5.7 = 2090 \#$



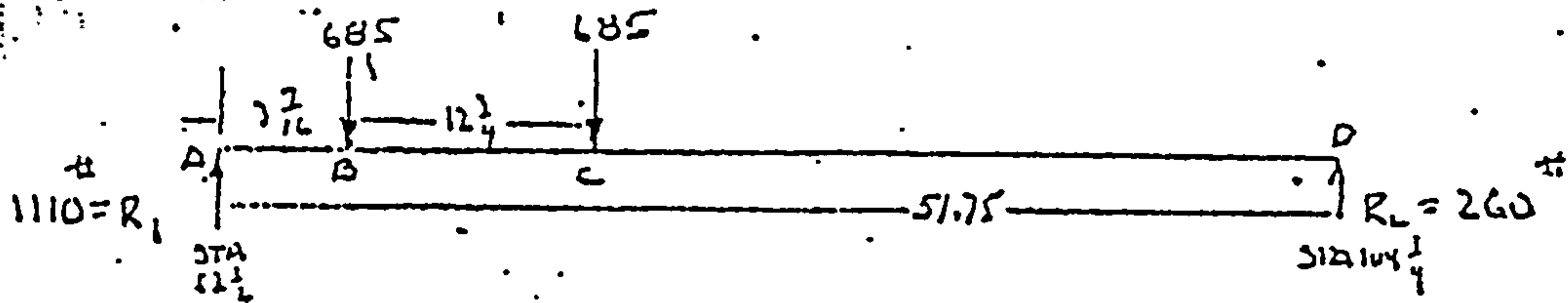
ANALYSIS OF CABIN FLOOR FOR PASSENGER & PILOT LOADS  
 Max Flight Load Factor = 6.6 (UTILITY CAT.)  
 = 5.7 (NORMAL CAT.)



AN ASSUMPTION IS MADE THAT ALL THE LOADS FROM THE SEATS ARE CARRIED INTO THE HULL FRAMES THRU THE HAT SECTIONS 17F12036; THIS PUTS THE HAT-SKIN COMBINATION IN BENDING. THE REACTIONS WILL BE AT STA 52 1/2 & 104 1/4 THRU THE CLIP ATTACH AT 52 1/2 & THE CONNECTION AT 104 1/4 TO THE DECK ANGLE 17F12051.

FROM PAGE 68

COND I



COND II

