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Accession #: D196023624

Document #: SD-WM-ATR-111

Title/Desc:

ROTARY MODE CORE SAMPLING SERVICE TRAILER  
ACCEPTANCE TEST REPORT

Pages: 60

Sta 4 (w)

FEB 12 1996

ENGINEERING DATA TRANSMITTAL

2. To: (Receiving Organization) Characterization Plant Engineering	3. From: (Originating Organization) Characterization Equipment Improvement	4. Related EDT No.: None
5. Proj./Prog./Dept./Div.: ETN-94-0023-E	6. Cog. Engr.: J.L. Smalley	7. Purchase Order No.: 404878
8. Originator Remarks: The attached Acceptance Test Report documents compliance with the requirements stated in WHC-S-056 Rev.2. Please review and approve by the requested date.		9. Equip./Component No.: N/A
11. Receiver Remarks:		10. System/Bldg./Facility: 200 General
		12. Major Assm. Dwg. No.: N/A
		13. Permit/Permit Application No.: N/A
		14. Required Response Date: 5/12/95

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(A) Item No.	(B) Document/Drawing No.	(C) Sheet No.	(D) Rev. No.	(E) Title or Description of Data Transmitted	(F) Approval Designator	(G) Reason for Transmittal	(H) Originator Disposition	(I) Receiver Disposition
1	WHC-SD-WM-ATR-111	N/A	0	Rotary Mode Core Sampling Service Trailer Acceptance Test Report.	Q	1	1	1

16. KEY					
Approval Designator (F)		Reason for Transmittal (G)		Disposition (H) & (I)	
E, S, Q, D or N/A (see WHC-CM-3-5, Sec.12.7)	1. Approval 2. Release 3. Information	4. Review 5. Post-Review 6. Dist. (Receipt Acknow. Required)	1. Approved 2. Approved w/comment 3. Disapproved w/comment	4. Reviewed no/comment 5. Reviewed w/comment 6. Receipt acknowledged	

17. SIGNATURE/DISTRIBUTION (See Approval Designator for required signatures)											
(G) Reason	(H) Disp.	(J) Name	(K) Signature	(L) Date	(M) MSIN	(J) Name	(K) Signature	(L) Date	(M) MSIN	(G) Reason	(H) Disp.
1		Cog. Eng. J.L. Smalley	<i>J.L. Smalley</i>	5/12/95	R1-17	Alois Kostelnik	<i>Alois Kostelnik</i>	6/14/95	37-12	1	1
1		Cog. Mgr. R.J. Blanchard	<i>R.J. Blanchard</i>	5/7/95	R1-17	D.W. Hamilton	<i>D.W. Hamilton</i>	5/9/95	57-12	1	1
1		QA J.J. Venderber	<i>J.J. Venderber</i>	5/12/95	57-07						
		Safety									
		Env.									
1		Core Sampling Cog Engr	<i>J.S. Schifield</i>	5/12/95	57-12						
1		Core Sampling Cog. Mgr. J.S. Schifield	<i>J.S. Schifield</i>	5/14/95	57-12						

18. AJ Kostelnik Signature of EDT Originator <i>Alois Kostelnik</i> 5-8-95 Date	19. <i>J.D. Jacski</i> Authorized Representative for Receiving Organization <i>R.J. Blanchard</i> 6/14/95 Date	20. <i>J.S. Schifield</i> Cognizant Manager <i>R.J. Blanchard</i> 6/14/95 Date	21. DOE APPROVAL (if required) Ctrl. No. <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/comments <input type="checkbox"/> Disapproved w/comments
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# ROTARY MODE CORE SAMPLING SERVICE TRAILER ACCEPTANCE TEST REPORT

**ALOIS J. KOSTELNIK**

WESTINGHOUSE HANFORD COMPANY, Richland, WA 99352  
U.S. Department of Energy Contract DE-AC06-87RL10930

EDT/ECN: 612068 UC: 2070  
Org Code: 75230 Charge Code: N4H2B  
B&R Code: EN 3120074 Total Pages: 58

Key Words: ETN-94-0023-E, Core Sampling, Service Trailer, Specification WHC-S-056, Aluminum Body Corporation, ABC, Purchase Order 404878, Core Sampling Ancillary Equipment

Abstract: This Acceptance Test Report documents compliance with the requirements of specification WHC-S-056. The equipment was tested according to WHC-SD-WM-ATP-111 Rev.1.

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*Alex J. Broz* 2/12/96  
Release Approval Date

DATE:	HANFORD RELEASE	E
STA: 4		
FEB 12 1996		ID:
Release Stamp		

**Approved for Public Release**

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## SUMMARY

The test was performed at the Aluminum Body Corporation (ABC) facility in Montebello, CA. Two Acceptance Tests were performed on the trailers. All steps and exceptions were completed during the second test. The initial release of the ATP, prepared by ABC, was confusing to work through. To improve the ATP, it was revised prior to the second attempt. The first ATP was attempted when the trailers were not complete and identified several deficiencies. The initial NEC Inspection also discovered several items that needed repair. The mechanical deficiencies and the electrical systems were repaired and were acceptable for the final inspection.

The attached Appendix A contains the Acceptance Test Results for Trailer SN IM9GV3325R1217191. Appendix B contains the Acceptance Test Results for Trailer SN IM9GV3323R1217190. Appendix C contains the two Internal Memos from Electrical Power Systems Engineering which include the NEC Inspection results for both Trailers. Appendix D includes the Platform Weld inspection results and Receipt Inspection Reports for both Trailers.

# 1

No 618304

ENGINEERING CHANGE NO

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Proj.  
ECN

2. ECN Category (mark one) Supplemental <input type="checkbox"/> Direct Revision <input checked="" type="checkbox"/> Change ECN <input type="checkbox"/> Temporary Standby <input type="checkbox"/> Supersedeure <input type="checkbox"/> Cancel/Void <input type="checkbox"/>	3. Originator's Name, Organization, MSIN, and Telephone No. Alois Kostelnik, 71510, R1-17, 373-0788		4. Date November 28, 1994
	5. Project Title/No./Work Order No. Rotary Mode Core Sample Truck ETN-94-0023-E	6. Bldg./Sys./Fac. No. 200 General	7. Impact Level Q
	8. Document Numbers Changed by this ECN (includes sheet no. and rev.) WHC-SD-WM-ATP-111 Rev. 0	9. Related ECN No(s). N/A	10. Related PO No. 404878

11a. Modification Work <input type="checkbox"/> Yes (fill out Blk. 11b) <input checked="" type="checkbox"/> No (NA Blks. 11b, 11c, 11d)	11b. Work Package No. N/A	11c. Modification Work Complete N/A	11d. Restored to Original Condition (Temp. or Standby ECN only) N/A
Cog. Engineer Signature & Date		Cog. Engineer Signature & Date	

12. Description of Change  
ETN-94-0023-E

Complete revision of ATP.

13a. Justification (mark one)	Criteria Change <input checked="" type="checkbox"/>	Design Improvement <input type="checkbox"/>	Environmental <input type="checkbox"/>
As-Found <input type="checkbox"/>	Facilitate Const. <input type="checkbox"/>	Const. Error/Omission <input type="checkbox"/>	Design Error/Omission <input type="checkbox"/>

13b. Justification Details  
The original ATP was too difficult to follow in an earlier attempt at testing.

14. Distribution (include name, MSIN, and no. of copies)				RELEASE STAMP
AJ Kostelnik	R1-17 (1)	R Robert	G4-05 (1)	OFFICIAL RELEASE BY WHC DATE DEC 01 1994 <i>Ata 4</i>
AP Mouse	S6-85 (1)	JJ Verberber	S1-57 (1)	
JL Smalley	R1-17 (1)	BR Johns	S6-85 (1)	
CENTRAL FILES	L8-04 (1)	OSTI	L8-07 (2)	

**ENGINEERING CHANGE NOTICE**

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<b>15. Design Verification Required</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<b>16. Cost Impact</b> <table style="width:100%; border: none;"> <tr> <td align="center" colspan="2"><b>ENGINEERING</b></td> <td align="center" colspan="2"><b>CONSTRUCTION</b></td> </tr> <tr> <td>Additional</td> <td><input type="checkbox"/> \$</td> <td>Additional</td> <td><input type="checkbox"/> \$</td> </tr> <tr> <td>Savings</td> <td><input type="checkbox"/> \$</td> <td>Savings</td> <td><input type="checkbox"/> \$</td> </tr> </table>	<b>ENGINEERING</b>		<b>CONSTRUCTION</b>		Additional	<input type="checkbox"/> \$	Additional	<input type="checkbox"/> \$	Savings	<input type="checkbox"/> \$	Savings	<input type="checkbox"/> \$	<b>17. Schedule Impact (days)</b> Improvement <input type="checkbox"/> Delay <input type="checkbox"/>
<b>ENGINEERING</b>		<b>CONSTRUCTION</b>												
Additional	<input type="checkbox"/> \$	Additional	<input type="checkbox"/> \$											
Savings	<input type="checkbox"/> \$	Savings	<input type="checkbox"/> \$											

**18. Change Impact Review:** Indicate the related documents (other than the engineering documents identified on Side 1) that will be affected by the change described in Block 12. Enter the affected document number in Block 19.

SDD/DD	<input type="checkbox"/>	Seismic/Stress Analysis	<input type="checkbox"/>	Tank Calibration Manual	<input type="checkbox"/>
Functional Design Criteria	<input type="checkbox"/>	Stress/Design Report	<input type="checkbox"/>	Health Physics Procedure	<input type="checkbox"/>
Operating Specification	<input type="checkbox"/>	Interface Control Drawing	<input type="checkbox"/>	Spares Multiple Unit Listing	<input type="checkbox"/>
Criticality Specification	<input type="checkbox"/>	Calibration Procedure	<input type="checkbox"/>	Test Procedures/Specification	<input type="checkbox"/>
Conceptual Design Report	<input type="checkbox"/>	Installation Procedure	<input type="checkbox"/>	Component Index	<input type="checkbox"/>
Equipment Spec.	<input type="checkbox"/>	Maintenance Procedure	<input type="checkbox"/>	ASME Coded Item	<input type="checkbox"/>
Const. Spec.	<input type="checkbox"/>	Engineering Procedure	<input type="checkbox"/>	Human Factor Consideration	<input type="checkbox"/>
Procurement Spec.	<input type="checkbox"/>	Operating Instruction	<input type="checkbox"/>	Computer Software	<input type="checkbox"/>
Vendor Information	<input type="checkbox"/>	Operating Procedure	<input type="checkbox"/>	Electric Circuit Schedule	<input type="checkbox"/>
OM Manual	<input type="checkbox"/>	Operational Safety Requirement	<input type="checkbox"/>	ICRS Procedure	<input type="checkbox"/>
FSAR/SAR	<input type="checkbox"/>	IEFD Drawing	<input type="checkbox"/>	Process Control Manual/Plan	<input type="checkbox"/>
Safety Equipment List	<input type="checkbox"/>	Cell Arrangement Drawing	<input type="checkbox"/>	Process Flow Chart	<input type="checkbox"/>
Radiation Work Permit	<input type="checkbox"/>	Essential Material Specification	<input type="checkbox"/>	Purchase Requisition	<input checked="" type="checkbox"/>
Environmental Impact Statement	<input type="checkbox"/>	Fac. Proc. Samp. Schedule	<input type="checkbox"/>		<input type="checkbox"/>
Environmental Report	<input type="checkbox"/>	Inspection Plan	<input type="checkbox"/>		<input type="checkbox"/>
Environmental Permit	<input type="checkbox"/>	Inventory Adjustment Request	<input type="checkbox"/>		<input type="checkbox"/>

**19. Other Affected Documents:** (NOTE: Documents listed below will not be revised by this ECN.) Signatures below indicate that the signing organization has been notified of other affected documents listed below.

Document Number/Revision	Document Number/Revision	Document Number/Revision
Purchase Requisition 404878		

**20. Approvals**

Signature	Date	Signature	Date
OPERATIONS AND ENGINEERING		ARCHITECT-ENGINEER	
Cog Engineer JL Smalley <i>JL Smalley</i>	<u>12/1/94</u>	PE	
Cog. Mgr. RJ Blanchard <i>RJ Blanchard</i>	<u>11/30/94</u>	QA	
QA JJ Verderber <i>JJ Verderber</i>	<u>12/1/94</u>	Safety	
Safety		Design	
Security		Environ.	
Environ.		Other	
Projects/Programs			
Tank Waste Remediation System			
Facilities Operations		DEPARTMENT OF ENERGY	
Restoration & Remediation		Signature or Letter No.	
Operations & Support Services			
IRM		ADDITIONAL	
Other			
Core Sampling Cog Engineer AP Mousel <i>AP Mousel</i>	<u>12-1-94</u>		
Design Engineer AJ Kostelnik <i>AJ Kostelnik</i>	<u>11-28-94</u>		

## RELEASE AUTHORIZATION

**Document Number:** WHC-SD-WM-ATP-111, REV.1

**Document Title:** Rotary Mode Core Sampling Service Trailer Acceptance Test Plan

**Release Date:** December 1, 1994

**This document was reviewed following the procedures described in WHC-CM-3-4 and is:**

**APPROVED FOR PUBLIC RELEASE**

**WHC Information Release Administration Specialist:**

  
Kara M. Broz

December 1, 1994

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**SUPPORTING DOCUMENT**

1. Total Pages *89* *4/12*

<p>2. Title          Rotary Mode Core Sampling Service Trailer Acceptance Test Plan</p>	<p>3. Number          WHC-SD-WM-ATP-111</p>	<p>4. Rev No.          1</p>
<p>5. Key Words          ETN-94-0023-E          Core Sampling, Service Trailer, WHC-S-056, Aluminum Body Corporation, ABC, Purchase Order 404878, Core Sampling Auxiliary Equipment  <i>KMB</i> <b>APPROVED FOR</b></p>	<p>6. Author          Name: Alois J Kostelnik  <i>Alois J. Kostelnik</i>          Signature          Organization/Charge Code 71510 / N4XB1</p>	
<p>7. Abstract <i>12/1/94</i> <b>PUBLIC RELEASE</b>          This Acceptance Test Procedure (ATP) will document compliance with the requirements of specification WHC-S-056 Rev.2 including ECNs 608798 and 616386. The equipment being tested is a furniture type trailer with storage cabinets, lighting and HVAC systems installed. The unit was purchased as a Design and Fabrication procurement activity. The ATP be performed by representatives of the Westinghouse Hanford Company with the assistance of the Seller at the Seller's location.</p>		
<p>8. <del>PURPOSE AND USE OF DOCUMENT - This document was prepared for use within the U.S. Department of Energy and its contractors. It is to be used only to perform, direct, or integrate work under U.S. Department of Energy contracts. This document is not approved for public release until reviewed.</del></p> <p><del>PATENT STATUS - This document copy, since it is transmitted in advance of patent clearance, is made available in confidence solely for use in performance of work under contracts with the U.S. Department of Energy. This document is not to be published nor its contents otherwise disseminated or used for purposes other than specified above before patent approval for such release or use has been secured, upon request, from the Patent Counsel, U.S. Department of Energy Field Office, Richland, WA.</del></p> <p>DISCLAIMER - This report was prepared as an account of work sponsored by an agency of the United States Government. Neither the United States Government nor any agency thereof, nor any of their employees, nor any of their contractors, subcontractors or their employees, makes any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or any third party's use or the results of such use of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights. Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise, does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or any agency thereof or its contractors or subcontractors. The views and opinions of authors expressed herein do not necessarily state or reflect those of the United States Government or any agency thereof.</p>	<p>10. RELEASE STAMP</p> <div style="border: 1px solid black; padding: 5px; text-align: center;"> <p>OFFICIAL RELEASE <span style="border: 1px solid black; border-radius: 50%; padding: 2px 5px;">5</span></p> <p>BY WHC</p> <p>DATE DEC 01 1994</p> <p><i>Sta. 4</i></p> </div>	
<p>9. Impact Level <i>Q</i></p>		



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## 1.0 SCOPE

This Acceptance Test Procedure shall verify the requirements for the fabrication of a Service Trailer as defined in WHC-S-056 are met. The Service Trailer will be used in conjunction with the Rotary Mode Core Sampling Truck.

## 2.0 TEST PERFORMANCE

Westinghouse Hanford Company (WHC) will complete the following test with the assistance of Aluminum Body Corporation (ABC) personnel. WHC personnel shall perform the inspection portion of the test. All steps will be completed and any exceptions shall be noted on the attached exception sheet along with the resolution. Only one exception shall be listed on an exception sheet. ABC shall resolve all exceptions with the concurrence of WHC.

## 3.0 TEST RECORDS

The original test record shall be maintained by WHC. Copies of all documents which are referenced during testing which document requirement compliance or exceptions shall be retained as part of the test results.

## 4.0 APPLICABLE DOCUMENTS

The following documents, form a part of the Basis of Design defined in specification WHC-S-056. Applicable sections of the document referenced shall be considered for acceptance of the finished item.

### 4.1 Government Documents

49 CFR	Code of Federal Regulations (Federal Motor Carrier Regulations)
29 CFR	Code of Federal Regulations (Occupational Safety and Health Act Standards)

### 4.2 Non-Government Documents

NFPA 70	National Electrical Code (1993)
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4.3 Any document determined to be a record of an agreement between the buyer and seller may be referenced and a copy shall be included in this acceptance test results.

5.0 INSPECTION and OPERABILITY

Exception # 1

5.1 The trailer is identified per the manufacturer's standard markings, as a minimum they shall include the manufacturer's name, model number, serial number, empty trailer weight, maximum payload, and date of fabrication. Record the manufacturer name, manufacture date, model and serial numbers of the Trailer.

Manufacturer / Date	Model / Serial
Maclander / July 1994	33GV
July 1994	1M9GV3325R121791

*AK* 5.2

The trailer is a van trailer, (furniture type), in accordance with all applicable OSHA Standards, and 49CFR, Sections 390 through 397.

*AK* 5.3

The external dimensions of the trailer are nominally 33 feet long, 8 feet wide, and 11 feet overall high. The trailer has a drop deck. The upper deck is 8 feet long minimum.

*AK* 5.4

The trailer has a minimum payload capacity of 25,000 lbs.

*AK* 5.5

The trailer is equipped with a 2-1/2 inch king pin set at 30 inches. Off loading front support consists of a manually operated, multi-speed, landing gear with sand pads. Demonstrate operation of each.

*AK* 5.6

The trailer is equipped with running lights, air suspension air brakes and all typical features required for normal road travel and speeds. Demonstrate that brake lights, clearance lights, and turn lights function.

*AK* 5.7

Two (2) manually operated, 2-speed stabilization jacks are mounted on the rear corners. The jacks are for stationary trailer use only and must be retractable higher than the bottom of the wheel rim. Demonstrate operation of each.

*AK* 5.8

Two rear panel type doors, side hinged, providing a total minimum width opening of 90% of the trailer width is provided. The minimum height of the door opening is 7 feet. The edge of the doors and doorway is edged with steel to provide structural reinforcement against minor impact. The locking mechanism is releasable from the inside and outside. Demonstrate door release operation.

Exception # 2 5.9

One 36 inch wide curbside, solid, door is located near the front of the trailer. The door is right side hinged and slam lockable with inside/outside lock releases. Demonstrate door release operation.

- Exception # 3
- 5.10 Locks are supplied to lock the trailer doors when not in use.
- CPK* 5.11 Lightweight retractable steps and platform extends across the back of the trailer. Removable handrails are incorporated on both sides of the platform and steps. Handrails are 42" high. Demonstrate rear steps and platform can be folded up and anchored to provide for over the road travel.
- CPK* 5.12 Steps and platform are provided for the curbside door. Handrails are incorporated on both sides of the steps. Handrails are 42" high. Steps and platform for the curbside door can be fastened to the trailer and are removable. Handrails are removable.
- CPK* 5.13 The inside and outside walls and roof are a minimum of 0.040 inch thick, white, prepainted aluminum. The finish is in good condition.
- CPK* 5.14 The flooring is commercial grade, steel safety plate, 1/8 inch minimum thickness.
- CPK* 5.15 All seams and penetrations of the trailer have been adequately sealed. Verify roof penetrations will not leak when water is present.
- CPK* 5.16 The underside of the trailer is undercoated.
- CPK* 5.17 The exterior walls, roof, and floor is insulated with a minimum of 1-1/4 inch polystyrene (styrofoam, R-4/inch) or other material of equal R value.
- CPK* 5.18 Three (3) horizontal interior wall fixture support beams are equally spaced on the interior walls. Beams are hardwood, 1"x4" nominal size. Beams are fastened to each vertical stud with bolts.
- CPK* 5.19 Two (2) sealed skylights are installed, sized not to interfere with the air condition/heater or interior fluorescent lighting. Located on top of trailer near the front and rear.
- CPK* 5.20 A manually operated roof vent is approximately in the center of the trailer. Demonstrate operation of the roof vent.
- CPK* 5.21 One (1) cable reel with 4/C #6 W cable is mounted on the front of the trailer. Cable has an Appleton # ACP-1034CD plug. The cable is 225 feet in length  $\pm$ 25 feet. The reel has a manual hand crank to retract the cable.

*AK* 5.22 The following cabinets are mechanically fastened to the trailer, constructed of steel and painted. All doors and drawers have mechanical latching. The dimensions contained in this section are nominal.

*AK* 5.22.1 One open top work bench, 60" long x 24" wide x 34" high. Steel legs, hardwood top, back and side tabletop stops. A pegboard is mounted on the wall behind the work bench. Pegboard is perforated masonite, 48" high x 60" wide 1/4" thick with 9/32" holes on 1" straight centers.

*AK* 5.22.2 Two steel, seven drawer cabinets, 28 inches wide x 22 inches deep. Two bottom drawers 7 inches deep, 4 upper drawers 5-1/2 inches deep, and one top drawer 2-1/2 inches deep.

*AK* 5.22.3 One steel, five drawer cabinet, 28 inches wide x 22 inches deep. Four lower drawers 11 inches deep and one top drawer 7 inches deep.

*AK* 5.22.4 One steel, two door combination cabinet, 36 inches wide x 18 inches deep x 6 feet high. Left half is a wardrobe with a top shelf, right half has six shelves.

*AK* 5.22.5 One steel, two door cabinet, 36 inches wide x 18 inches deep x 6 feet minimum high with five shelves.

*AK* 5.22.6 Three metal shelves 3 feet wide x 6 feet high minimum x 18 inches deep. Spacing between each shelf is to be a maximum of 1 foot. A 3 inch high retaining strip is on the bottom of each shelf.

Exception #4 *AK* 5.23 Two (2) external roll supports are installed nominally 36" wide with 2" diameter support tube.  
Completed *AK* 12-5-94

Exception #4 *AK* 5.24 Three external roll supports are installed nominally 60" wide with 2" diameter support tube.  
Completed *AK* 12-5-94

*AK* 5.25 Two (2) Type A/B/C fire extinguishers, minimum 20 lbs, are mounted inside trailer at floor level near each door.

*AK* 5.26 A 240 VAC, 1 $\phi$ , 3 ton capacity electric air condition/heater is installed and is operational. The air conditioner/heater is thermostatically regulated with no outside to inside air exchange. Verify operation for 15 minutes in both cooling and heating mode.

*AK* 5.27 The fluorescent light fixtures have been installed as shown on the sketches contained in WHC-S-056. Demonstrate operation of lighting and controls.

- AK* 5.28 External floodlights: five (5) 300 watt floodlights are installed. Four of the lights are mounted on the sides of the trailer on telescoping shafts extendable to 6 feet above the top of the trailer. The lights are positioned to distribute light evenly. The fifth light is centered over the rear of the trailer at a fixed height. Demonstrate height adjustment, operation, and removal/installation of the lights.
- AK* 5.29 Electrical fixtures and outlets are installed and wired approximately as shown on the sketches contained in WHC-S-056. *AK*
- AK* 5.30 All electrical installations conform to the latest edition of the National Electrical Code. Electrical components are UL approved. *AK*
- AK* 5.31 Any fasteners with headmarks matching those on the U. S. Customs Fasteners Headmark list contained in WHC-S-056 are not used on this contract.
- AK* 5.32 Review/compare the drawings provided by the Seller with the equipment for As-Built configuration.
- AK* 5.33 All steps of the ATP have been completed and the Exceptions have been dispositioned.

Exceptions 1-4.

TEST EXCEPTIONS

TEST STEP # 5.1 EXCEPTION # 1

DESCRIPTION of EXCEPTION and RESOLUTION

Empty Trailer Weight Not Included on Manufacturer  
Label. gfk 12-5-94 Empty trailer weight  
not a normal requirement on the I.D. plate  
RCA 12-5-94

EXCEPTION and RESOLUTION CONCURRENCE:

PRINT NAME	COMPANY	SIGNATURE	DATE
Al Kostelnik	WHC	<i>Al Kostelnik</i>	12-5-94
DICK ANDERSON	ABC	<i>Dick Anderson</i>	12-5-94

\* Make additional copies as required.

TEST EXCEPTIONS

TEST STEP # 5.9 EXCEPTION # 2

DESCRIPTION of EXCEPTION and RESOLUTION

Door is not slam lockable. Aff. 12-5-94  
Slam locks on trailer doors are not used  
for safety reasons. A positive door latch  
on the top and bottom of the door frame is  
required to prevent door opening during  
thrust. Red 12-5-94

EXCEPTION and RESOLUTION CONCURRENCE:

PRINT NAME	COMPANY	SIGNATURE	DATE
Al Kostelnik	WHC	<i>Al Kostelnik</i>	12-5-94
DICK ANDERSON	ABC	<i>Dick Anderson</i>	12-5-94

\* Make additional copies as required.

TEST EXCEPTIONS

TEST STEP # 5.10 EXCEPTION # 3

DESCRIPTION of EXCEPTION and RESOLUTION

*Locks are not provided. G/K 12-5-94*  
*Padlocks will be provided when teacher is shipped. Rld 12-5-94*

EXCEPTION and RESOLUTION CONCURRENCE:

PRINT NAME	COMPANY	SIGNATURE	DATE
Al Kostolnik	WHC	<i>Al Kostolnik</i>	12-5-94
DICK ANDERSON	ABC	<i>Dick Anderson</i>	12-5-94

\* Make additional copies as required.

TEST EXCEPTIONS

TEST STEP # 5.23  
5.24 EXCEPTION # 4

DESCRIPTION of EXCEPTION and RESOLUTION

Roll support pipe/rods not installed. a/k 12-5-94

Completed. No Action Required. a/k 12-5-94

EXCEPTION and RESOLUTION CONCURRENCE:

PRINT NAME	COMPANY	SIGNATURE	DATE
<i>N/A</i>		<i>N/A</i>	

\* Make additional copies as required.

**ENGINEERING CHA**

2. ECN Category (mark one) Supplemental <input type="checkbox"/> Direct Revision <input checked="" type="checkbox"/> Change ECN <input type="checkbox"/> Temporary <input type="checkbox"/> Standby <input type="checkbox"/> Supersedure <input type="checkbox"/> Cancel/Void <input type="checkbox"/>	3. Originator's Name, Organization, MSIN, and Telephone No. Alois Kostelnik, 71510, R1-17, 373-0788		4. Date November 28, 1994
	5. Project Title/No./Work Order No. Rotary Mode Core Sample Truck ETN-94-0023-E	6. Bldg./Sys./Fac. No. 200 General	7. Impact Level Q
	8. Document Numbers Changed by this ECN (includes sheet no. and rev.) WHC-SD-WM-ATP-111 Rev. 0	9. Related ECN No(s). N/A	10. Related PO No. 404878

11a. Modification Work <input type="checkbox"/> Yes (fill out Blk. 11b) <input checked="" type="checkbox"/> No (NA Blks. 11b, 11c, 11d)	11b. Work Package No. N/A	11c. Modification Work Complete N/A _____ Cog. Engineer Signature & Date	11d. Restored to Original Condition (Temp. or Standby ECN only) N/A _____ Cog. Engineer Signature & Date
---	------------------------------	---	---

12. Description of Change  
 ETN-94-0023-E

Complete revision of ATP.

13a. Justification (mark one) As-Found <input type="checkbox"/>	Criteria Change <input checked="" type="checkbox"/>	Design Improvement <input type="checkbox"/>	Environmental <input type="checkbox"/>
	Facilitate Const. <input type="checkbox"/>	Const. Error/Omission <input type="checkbox"/>	Design Error/Omission <input type="checkbox"/>

13b. Justification Details  
 The original ATP was too difficult to follow in an earlier attempt at testing.

14. Distribution (include name, MSIN, and no. of copies)

AJ Kostelnik	R1-17 (1)	R Robert	G4-05 (1)
AP MouseI	S6-85 (1)	JJ Verberber	S1-57 (1)
JL Smalley	R1-17 (1)	BR Johns	S6-85 (1)
CENTRAL FILES	L8-04 (1)	OSTI	L8-07 (2)

RELEASE STAMP

OFFICIAL RELEASE BY WHC **5**

DATE DEC 01 1994

*At 4*

**ENGINEERING CHANGE NOTICE**

Page 2 of 2

618304

15. Design Verification Required <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	16. Cost Impact		17. Schedule Impact (days)	
	ENGINEERING		CONSTRUCTION	
	Additional	<input type="checkbox"/> \$	Additional	<input type="checkbox"/> \$
	Savings	<input type="checkbox"/> \$	Savings	<input type="checkbox"/> \$
			Improvement	<input type="checkbox"/>
			Delay	<input type="checkbox"/>

18. Change Impact Review: Indicate the related documents (other than the engineering documents identified on Side 1) that will be affected by the change described in Block 12. Enter the affected document number in Block 19.

SDD/DD	<input type="checkbox"/>	Seismic/Stress Analysis	<input type="checkbox"/>	Tank Calibration Manual	<input type="checkbox"/>
Functional Design Criteria	<input type="checkbox"/>	Stress/Design Report	<input type="checkbox"/>	Health Physics Procedure	<input type="checkbox"/>
Operating Specification	<input type="checkbox"/>	Interface Control Drawing	<input type="checkbox"/>	Spares Multiple Unit Listing	<input type="checkbox"/>
Criticality Specification	<input type="checkbox"/>	Calibration Procedure	<input type="checkbox"/>	Test Procedures/Specification	<input type="checkbox"/>
Conceptual Design Report	<input type="checkbox"/>	Installation Procedure	<input type="checkbox"/>	Component Index	<input type="checkbox"/>
Equipment Spec.	<input type="checkbox"/>	Maintenance Procedure	<input type="checkbox"/>	ASME Coded Item	<input type="checkbox"/>
Const. Spec.	<input type="checkbox"/>	Engineering Procedure	<input type="checkbox"/>	Human Factor Consideration	<input type="checkbox"/>
Procurement Spec.	<input type="checkbox"/>	Operating Instruction	<input type="checkbox"/>	Computer Software	<input type="checkbox"/>
Vendor Information	<input type="checkbox"/>	Operating Procedure	<input type="checkbox"/>	Electric Circuit Schedule	<input type="checkbox"/>
OM Manual	<input type="checkbox"/>	Operational Safety Requirement	<input type="checkbox"/>	ICRS Procedure	<input type="checkbox"/>
FSAR/SAR	<input type="checkbox"/>	IEFD Drawing	<input type="checkbox"/>	Process Control Manual/Plan	<input type="checkbox"/>
Safety Equipment List	<input type="checkbox"/>	Cell Arrangement Drawing	<input type="checkbox"/>	Process Flow Chart	<input type="checkbox"/>
Radiation Work Permit	<input type="checkbox"/>	Essential Material Specification	<input type="checkbox"/>	Purchase Requisition	<input checked="" type="checkbox"/>
Environmental Impact Statement	<input type="checkbox"/>	Fac. Proc. Samp. Schedule	<input type="checkbox"/>		<input type="checkbox"/>
Environmental Report	<input type="checkbox"/>	Inspection Plan	<input type="checkbox"/>		<input type="checkbox"/>
Environmental Permit	<input type="checkbox"/>	Inventory Adjustment Request	<input type="checkbox"/>		<input type="checkbox"/>

19. Other Affected Documents: (NOTE: Documents listed below will not be revised by this ECN.) Signatures below indicate that the signing organization has been notified of other affected documents listed below.

Document Number/Revision	Document Number/Revision	Document Number/Revision
	Purchase Requisition 404878	

20. Approvals

Signature	Date	Signature	Date
OPERATIONS AND ENGINEERING		ARCHITECT-ENGINEER	
Cog Engineer JL Smalley <i>JL Smalley</i>	12/1/94	PE	_____
Cog. Mgr. RJ Blanchard <i>RJ Blanchard</i>	11/30/94	QA	_____
QA JJ Verderber <i>JJ Verderber</i>	12/1/94	Safety	_____
Safety	_____	Design	_____
Security	_____	Environ.	_____
Environ.	_____	Other	_____
Projects/Programs	_____		_____
Tank Waste Remediation System	_____		_____
Facilities Operations	_____	DEPARTMENT OF ENERGY	
Restoration & Remediation	_____	Signature or Letter No.	
Operations & Support Services	_____		
IRM	_____	ADDITIONAL	
Other	_____		
Core Sampling Cog Engineer AP Mousel per Telecom <i>AK</i>	12-1-94		
Design Engineer AJ Kostelnik <i>AJ Kostelnik</i>	11-28-94		

## RELEASE AUTHORIZATION

**Document Number:** WHC-SD-WM-ATP-111, REV.1

**Document Title:** Rotary Mode Core Sampling Service Trailer Acceptance Test Plan

**Release Date:** December 1, 1994

This document was reviewed following the procedures described in WHC-CM-3-4 and is:

**APPROVED FOR PUBLIC RELEASE**

**WHC Information Release Administration Specialist:**

  
Kara M. Broz

December 1, 1994

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**SUPPORTING DOCUMENT**

1. Total Pages *8 of 12*

2. Title Rotary Mode Core Sampling Service Trailer Acceptance Test Plan	3. Number WHC-SD-WM-ATP-111	4. Rev No. 1
---	--------------------------------	-----------------

5. Key Words ETN-94-0023-E Core Sampling, Service Trailer, WHC-S-056, Aluminum Body Corporation, ABC, Purchase Order 404878, Core Sampling Auxiliary Equipment  <i>KMB</i> <b>APPROVED FOR</b>	6. Author Name: Alois J Kostelnik <i>Alois J Kostelnik</i> Signature  Organization/Charge Code 71510 / N4XB1
--	---

7. Abstract *12/1/94* **PUBLIC RELEASE**  
 This Acceptance Test Procedure (ATP) will document compliance with the requirements of specification WHC-S-056 Rev.2 including ECNs 608798 and 616386. The equipment being tested is a furniture type trailer with storage cabinets, lighting and HVAC systems installed. The unit was purchased as a Design and Fabrication procurement activity. The ATP be performed by representatives of the Westinghouse Hanford Company with the assistance of the Seller at the Seller's location.

~~8. PURPOSE AND USE OF DOCUMENT - This document was prepared for use within the U.S. Department of Energy and its contractors. It is to be used only to perform, direct, or integrate work under U.S. Department of Energy contracts. This document is not approved for public release until reviewed.~~

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10. RELEASE STAMP

OFFICIAL RELEASE 5

BY WHC

DATE DEC 01 1994

*Sta. 4*

9. Impact Level *Q*



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## 1.0 SCOPE

This Acceptance Test Procedure shall verify the requirements for the fabrication of a Service Trailer as defined in WHC-S-056 are met. The Service Trailer will be used in conjunction with the Rotary Mode Core Sampling Truck.

## 2.0 TEST PERFORMANCE

Westinghouse Hanford Company (WHC) will complete the following test with the assistance of Aluminum Body Corporation (ABC) personnel. WHC personnel shall perform the inspection portion of the test. All steps will be completed and any exceptions shall be noted on the attached exception sheet along with the resolution. Only one exception shall be listed on an exception sheet. ABC shall resolve all exceptions with the concurrence of WHC.

## 3.0 TEST RECORDS

The original test record shall be maintained by WHC. Copies of all documents which are referenced during testing which document requirement compliance or exceptions shall be retained as part of the test results.

## 4.0 APPLICABLE DOCUMENTS

The following documents, form a part of the Basis of Design defined in specification WHC-S-056. Applicable sections of the document referenced shall be considered for acceptance of the finished item.

### 4.1 Government Documents

49 CFR	Code of Federal Regulations (Federal Motor Carrier Regulations)
29 CFR	Code of Federal Regulations (Occupational Safety and Health Act Standards)

### 4.2 Non-Government Documents

NFPA 70	National Electrical Code (1993)
---------	---------------------------------

4.3 Any document determined to be a record of an agreement between the buyer and seller may be referenced and a copy shall be included in this acceptance test results.

5.0 INSPECTION and OPERABILITY

Exception # 1

5.1 The trailer is identified per the manufacturer's standard markings, as a minimum they shall include the manufacturer's name, model number, serial number, empty trailer weight, maximum payload, and date of fabrication. Record the manufacturer name, manufacture date, model and serial numbers of the Trailer.

Manufacturer / Date	Model / Serial
Mac Lander	336V
July 1994	1M96V3323R1217190

*APK* 5.2

The trailer is a van trailer, (furniture type), in accordance with all applicable OSHA Standards, and 49CFR, Sections 390 through 397.

*APK* 5.3

The external dimensions of the trailer are nominally 33 feet long, 8 feet wide, and 11 feet overall high. The trailer has a drop deck. The upper deck is 8 feet long minimum.

*APK* 5.4

The trailer has a minimum payload capacity of 25,000 lbs.

*APK* 5.5

The trailer is equipped with a 2-1/2 inch king pin set at 30 inches. Off loading front support consists of a manually operated, multi-speed, landing gear with sand pads. Demonstrate operation of each.

*APK* 5.6

The trailer is equipped with running lights, air suspension air brakes and all typical features required for normal road travel and speeds. Demonstrate that brake lights, clearance lights, and turn lights function.

*APK* 5.7

Two (2) manually operated, 2-speed stabilization jacks are mounted on the rear corners. The jacks are for stationary trailer use only and must be retractable higher than the bottom of the wheel rim. Demonstrate operation of each.

*APK* 5.8

Two rear panel type doors, side hinged, providing a total minimum width opening of 90% of the trailer width is provided. The minimum height of the door opening is 7 feet. The edge of the doors and doorway is edged with steel to provide structural reinforcement against minor impact. The locking mechanism is releasable from the inside and outside. Demonstrate door release operation.

Exception # 2

5.9 One 36 inch wide curbside, solid, door is located near the front of the trailer. The door is right side hinged and slam lockable with inside/outside lock releases. Demonstrate door release operation.

Exception # 3

- 5.10 Locks are supplied to lock the trailer doors when not in use.
- apk 5.11 Lightweight retractable steps and platform extends across the back of the trailer. Removable handrails are incorporated on both sides of the platform and steps. Handrails are 42" high. Demonstrate rear steps and platform can be folded up and anchored to provide for over the road travel.
- apk 5.12 Steps and platform are provided for the curbside door. Handrails are incorporated on both sides of the steps. Handrails are 42" high. Steps and platform for the curbside door can be fastened to the trailer and are removable. Handrails are removable.
- apk 5.13 The inside and outside walls and roof are a minimum of 0.040 inch thick, white, prepainted aluminum. The finish is in good condition.
- apk 5.14 The flooring is commercial grade, steel safety plate, 1/8 inch minimum thickness.
- apk 5.15 All seams and penetrations of the trailer have been adequately sealed. Verify roof penetrations will not leak when water is present.
- apk 5.16 The underside of the trailer is undercoated.
- apk 5.17 The exterior walls, roof, and floor is insulated with a minimum of 1-1/4 inch polystyrene (styrofoam, R-4/inch) or other material of equal R value.
- apk 5.18 Three (3) horizontal interior wall fixture support beams are equally spaced on the interior walls. Beams are hardwood, 1"x4" nominal size. Beams are fastened to each vertical stud with bolts.
- apk 5.19 Two (2) sealed skylights are installed, sized not to interfere with the air condition/heater or interior fluorescent lighting. Located on top of trailer near the front and rear.
- apk 5.20 A manually operated roof vent is approximately in the center of the trailer. Demonstrate operation of the roof vent.
- apk 5.21 One (1) cable reel with 4/C #6 W cable is mounted on the front of the trailer. Cable has an Appleton # ACP-1034CD plug. The cable is 225 feet in length  $\pm$ 25 feet. The reel has a manual hand crank to retract the cable.

CAF 5.22 The following cabinets are mechanically fastened to the trailer, constructed of steel and painted. All doors and drawers have mechanical latching. The dimensions contained in this section are nominal.

CAF 5.22.1 One open top work bench, 60" long x 24" wide x 34" high. Steel legs, hardwood top, back and side tabletop stops. A pegboard is mounted on the wall behind the work bench. Pegboard is perforated masonite, 48" high x 60" wide 1/4" thick with 9/32" holes on 1" straight centers.

CAF 5.22.2 Two steel, seven drawer cabinets, 28 inches wide x 22 inches deep. Two bottom drawers 7 inches deep, 4 upper drawers 5-1/2 inches deep, and one top drawer 2-1/2 inches deep.

CAF 5.22.3 One steel, five drawer cabinet, 28 inches wide x 22 inches deep. Four lower drawers 11 inches deep and one top drawer 7 inches deep.

CAF 5.22.4 One steel, two door combination cabinet, 36 inches wide x 18 inches deep x 6 feet high. Left half is a wardrobe with a top shelf, right half has six shelves.

CAF 5.22.5 One steel, two door cabinet, 36 inches wide x 18 inches deep x 6 feet minimum high with five shelves.

CAF 5.22.6 Three metal shelves 3 feet wide x 6 feet high minimum x 18 inches deep. Spacing between each shelf is to be a maximum of 1 foot. A 3 inch high retaining strip is on the bottom of each shelf.

Exception #4 5.23 Two (2) external roll supports are installed nominally 36" wide with 2" diameter support tube.  
Completed CAF 12-5-94

Exception #4 5.24 Three external roll supports are installed nominally 60" wide with 2" diameter support tube.  
Completed CAF 12-5-94

CAF 5.25 Two (2) Type A/B/C fire extinguishers, minimum 20 lbs, are mounted inside trailer at floor level near each door.

CAF 5.26 A 240 VAC, 1 $\phi$ , 3 ton capacity electric air condition/heater is installed and is operational. The air conditioner/heater is thermostatically regulated with no outside to inside air exchange. Verify operation for 15 minutes in both cooling and heating mode.

CAF 5.27 The fluorescent light fixtures have been installed as shown on the sketches contained in WHC-S-056. Demonstrate operation of lighting and controls.

*AK* 5.28 External floodlights: five (5) 300 watt floodlights are installed. Four of the lights are mounted on the sides of the trailer on telescoping shafts extendable to 6 feet above the top of the trailer. The lights are positioned to distribute light evenly. The fifth light is centered over the rear of the trailer at a fixed height. Demonstrate height adjustment, operation, and removal/installation of the lights.

*AK* 5.29 Electrical fixtures and outlets are installed and wired approximately as shown on the sketches contained in WHC-S-056. *AK*

*AK* 5.30 All electrical installations conform to the latest edition of the National Electrical Code. Electrical components are UL approved. *AK*

*AK* 5.31 Any fasteners with headmarks matching those on the U. S. Customs Fasteners Headmark list contained in WHC-S-056 are not used on this contract.

*AK* 5.32 Review/compare the drawings provided by the Seller with the equipment for As-Built configuration.

*AK* 5.33 All steps of the ATP have been completed and the Exceptions have been dispositioned.

*Exceptions 1-4.*

TEST EXCEPTIONS

TEST STEP # 5.1 EXCEPTION # 1

DESCRIPTION of EXCEPTION and RESOLUTION

Empty Trailer Weight Not Included on Manufacturer  
Label. ask 12-5-94 Empty trailer weight  
not a normal requirement on the I.D. plate  
Rld 12-5-94

EXCEPTION and RESOLUTION CONCURRENCE:

PRINT NAME	COMPANY	SIGNATURE	DATE
Al Kostelnik	WHC	Al Kostelnik	12-5-94
DICK ANDERSON	ABC	Dick Anderson	12-5-94

\* Make additional copies as required.

TEST EXCEPTIONS

TEST STEP # 5.9 EXCEPTION # 2

DESCRIPTION of EXCEPTION and RESOLUTION

Door is not slam lockable. Aff. 12-5-94  
Slam locks on trailer doors are not used  
for safety reasons. A positive door latch  
on the top and bottom of the door frame is  
required to prevent door opening during  
tobusit. PDA 12-5-94

EXCEPTION and RESOLUTION CONCURRENCE:

PRINT NAME	COMPANY	SIGNATURE	DATE
Al Kostelnik	WHC	Al Kostelnik	12-5-94
DICK ANDERSON	ABC	Dick Anderson	12-5-94

\* Make additional copies as required.

TEST EXCEPTIONS

TEST STEP # 5.10 EXCEPTION # 3

DESCRIPTION of EXCEPTION and RESOLUTION

Locks are not provided. *gmk* 12-5-94  
Padlocks will be provided when trailer is  
shipped. *gmk* 12-5-94

EXCEPTION and RESOLUTION CONCURRENCE:

PRINT NAME	COMPANY	SIGNATURE	DATE
Al Kostelnik	WHC	<i>Al Kostelnik</i>	12-5-94
DICK ANDERSON	ABC	<i>Dick Anderson</i>	12-5-94

\* Make additional copies as required.

TEST EXCEPTIONS

TEST STEP # 5.23  
5.24 EXCEPTION # 4

DESCRIPTION of EXCEPTION and RESOLUTION

Roll support pipe/rods not installed. a/k 12-5-94

Completed. No Action Required a/k 12-5-94

EXCEPTION and RESOLUTION CONCURRENCE:

PRINT NAME	COMPANY	SIGNATURE	DATE
<i>N/A</i>		<i>N/A</i>	

\* Make additional copies as required.



From: Electrical Engineering and Code Compliance  
Phone: 376-8901 L4-90  
Date: December 12, 1994  
Subject: NEC INSPECTION OF TRAILERS AT ALUMINUM BODY CORPORATION

To: A. J. Kostelnik R1-17  
cc: R. M. Boger L4-90  
CMM File/LB

Reference: Memo, C. M. Monasmith, WHC, to A. J. Kostelnik, WHC, "NEC inspection of trailers at Aluminum Body Corporation," dated November 12, 1994.

December 5, 1994, a visit was made to the Aluminum Body Corporation to determine the acceptability of two trailers assembled by them for use at Hanford.

The items of concern, noted in the November 12 memo to you have all been satisfactorily corrected. The heat and air conditioners have been operated at full potential for 15 minutes each. There were no remarkable events during the heat and air conditioner testing.

A change was made at their facility before the units were approved for shipment. A 40 amp breaker supplying outdoor 240 volt receptacles was replaced with a 20 amp breaker. This now provides the proper protection for the receptacles and branch circuit wiring.

I noted this change on the electrical drawing along with a change of the equipment ground as shown on the same drawing. I have not verified the electrical drawing changes were made.

The appearance and workmanship of the corrections was greatly improved from that noted during my last visit. I concur with your decision to accept these units for use.

C. M. Monasmith  
WHC NEC Interpretive Authority

tjm



From: Electrical Engineering and Code Compliance  
Phone: 376-8901 L4-90  
Date: November 12, 1994  
Subject: NEC INSPECTION OF TRAILERS AT ALUMINUM BODY CORPORATION

To: AJ Kostelnik R1-17  
cc: RM Boger L4-90  
CMM File/LB

The inspection of two trailers assembled by Aluminum Body Corporation, 1600 West Washington Avenue, Montebello, California was performed at their facility. One trailer, identified as MacLander model number 33, serial number 1M9GV3323R1217190, was ready for inspection. This report is intended to provide guidance to correct deficiencies in the inspected trailer and to reduce the impact of changes to the remaining trailer.

The investigation revealed three areas where corrections are required before the units should be accepted for use by WHC.

These three areas are: air conditioner installation, wiring methods and grounding. A fourth area of concern will be described in this report. However, this area is only of concern from the standpoint of maintenance and final appearances. The items noted in the fourth section are not required to be corrected and are only mentioned to provide forewarning for persons performing maintenance or other similar tasks on this equipment. The 1993 edition of National Electrical Code (NEC) was used for all code references.

#### Description of equipment inspected

A trailer designed to be towed by a semi-tractor has been modified by Aluminum Body Corporation to be used as a "command center" for sampling equipment in the tank farms. The trailer is fitted with a cord reel and two hundred feet of type W power cable to be supplied by an 80 amp breaker on a generator unit procured for this purpose. The trailer is equipped with a 120/240 volt single phase panelboard having a 150 amp main circuit breaker and branch circuit breakers for an air conditioner with auxiliary resistance heat, inside lights and 120 volt receptacles, and outside lights and 120 and 240 volt outside receptacles. All receptacles are ground fault circuit interrupts (GFCI) protected. Branch circuits from the panelboard are routed through a wireway system around the front and two sides of the trailer perimeter near the ceiling. Electrical metallic tubing (EMT) raceways are used to route conductors from the wireways to the utilization devices and equipment.

AJ Kostelnik  
Page 2  
November 12, 1994

## I. Air Conditioner Installation.

a. There is no individual overcurrent device in the distribution panelboard to supply the air conditioner. The air conditioner is supplied from a 60 amp circuit breaker that also supplies the auxiliary resistance heater. Correction of this discrepancy must include installation of a Heating Air Conditioning and Refrigeration (HACR) rated circuit breaker that is sized no larger than indicated by the air conditioner nameplate. NEC Article 240-3.

b. The circuit supplying the auxiliary resistance heat is routed through a short section of running thread. The running thread is located near the top front of the trailer from the outside trailer skin to the air conditioner unit. Typically running thread does not have galvanizing or any other type of corrosion protection. Resolution is to provide corrosion protection for this conduit. NEC Article 300-6.

## II. Wiring Methods.

a. EMT raceways are joined to the wireway system by being attached to the hinged cover. Most EMT raceways are associated with interior lighting. The hinged cover must be capable of being opened completely so that conductors can be installed without having to pull around obstructions such as cut cover section with conduit junctions. This discrepancy also creates a problem with the hinge points and length of the modified hinged covers. At least one cover has been cut off so that it is no longer five feet long but only about four feet long with one remaining hinge point near one end. NEC 300-15(a) exception #1. NEC Article 362-7.

b. A 240 volt 40 amp circuit breaker installed in the panelboard to supply outdoor 240 volt circuits has two conductors connected to each terminal. This circuit breaker has terminals approved and tested by UL for only one conductor per terminal. The 240 volt circuit splice must be located outside of the panelboard enclosure. NEC Article 110-14(a).

c. A fabricated aluminum enclosure has been installed above the panelboard as a raceway for conductors between the panelboard and the wireway. This enclosure is not Underwriters Laboratory (UL) Listed. This enclosure must be removed and replaced by a

AJ Kostelnik  
Page 3  
November 12, 1994

completed wireway with a UL Listed raceway from the panelboard to the wireway system. NEC Article 110-3.

d. The panelboard does not have a completed panel directory as required by NEC Article 110-23 and 384-13.

### III. Grounding.

a. The equipment ground is not continuous through the cord reel to the panelboard. There are only three slip rings provided in a cord reel that is labeled for four conductors. There is provision in the slip ring assembly for a fourth slip ring and brush. The equipment ground must not be bonded to the neutral conductor anywhere throughout the system. NEC Article 250-51.

b. The green equipment ground conductor and the white neutral conductor are spliced together in the slip ring assembly housing. The equipment grounding conductor and the neutral conductor must be isolated from each other throughout the trailer electrical system. NEC Article 250-23.

c. The main bonding screw is present in the panelboard, although it is not installed. There is a main bonding jumper identified with green tape and connected to the neutral bar next to the incoming neutral terminal. The other end of the bonding jumper is connected to the panelboard enclosure below the panelboard. This jumper and the green main bonding screw must be removed to maintain the isolation between the equipment ground and the neutral conductor. NEC Article 250-23.

d. The equipment grounding conductor in the disconnect for the air conditioner is not bonded to the disconnect enclosure. NEC Article 250-114(a).

### IV. Observations.

a. There are no corrective actions associated with the observation described in section four of this report.

b. There are an excessive number of splices of branch circuits in the wireway. This indicates a lack of forethought in the routing of branch circuit conductors. Splices contained in light fixtures and switch and receptacle boxes are viewed as the industry accepted method of conductor routing and splice locations. This observation is included in the report to provide possible guidance for corrective maintenance activities associated with this electrical system.

Al Kostelnik  
Page 4  
November 12, 1994

air conditioner are not consistent with the use of a separate raceway for the thermostat circuit. The thermostat circuit uses insulated conductors approved for the highest voltage available in the wireway system.

d. The Aluminum Body Corporation allowed the inspection team to use their 1984 edition National Electrical Code for reference during this visit. The WHC specification requiring the NEC implies the most recent edition (1993) be used.

#### Comments and Conclusions

If the findings described in sections I, II and III are satisfactorily corrected the trailers may safely be used to the full extent of their design. A completed electrical as-built drawing should be provided. Completion of a more detailed electrical design, submitted for approval before construction, may have prevented the rework associated with this project.



C. M. Monasmith, WHC NEC Interpretive Authority  
Electrical Engineering and Code Compliance

flb

10-10-10

QUALITY ASSURANCE INSPECTION PLAN

Sheet 1 of 2  
Safety Class 3

WHC-SD-WM-ATR-111  
Rev. 0  
Appendix D-1 of D-20

Item Title <b>Service Trailer</b>	Drawing/Spec. No. <b>WHC-S-056</b>	Rev. <b>2</b>
Item Description <b>Tandem axle furniture type trailer equipped with cabinets, HVAC system, lights, doors, access steps and platforms.</b>		
Supplier <b>Aluminum Body Corporation</b>	Inspection No. <b>3848</b>	
P.O. Subcontract <b>404878</b>	Inspected by <b>WJC</b>	Date <b>12/28/94</b>
Item No. <b>1</b>	Qty. <b>2</b>	

Char. No.	Inspection Characteristics	INSPECTION STATUS			Remarks
		Acc	Hld Tag	Ref	
1	<p><b>SAMPLE SIZE DETERMINATION</b> Sample size (number of items to be inspected in a lot), shall be determined by using Table I and Table III-A of the latest edition of MIL-STD-105 as follows:</p> <ul style="list-style-type: none"> <li>Select the Sample Size Code Letter from Table I, based on the lot size of material received and the General Inspection Level indicated by the QAIP (Level I, II, or III).</li> <li>Select the sample size from Table III-A using the Sample Size Code Letter obtained from Table I and the AQL number specified by the QAIP.</li> <li>The minimum sample size utilizing Level II, AQL 4.0, Table III-A shall be 8 or 100%, if the lot size is less than 8.</li> </ul> <p>NOTE: If any samples are found nonconforming, the entire lot shall be placed on HOLD pending engineering evaluation and MCR disposition.</p>				
2	Verify installation of 2 wardrobe type metal cabinets.				
3	Verify installation of 3 multiple drawer cabinets. edging installed to prevent items from sliding off the shelves.				
4	Verify pipe is included which can be placed on the roll racks beneath the trailer to support bag rolls. (Bag rolls not included.)				
5	Verify there are no Suspect Fasteners on the trailer or mounted equipment.				

**QUALITY ASSURANCE INSPECTION PLAN**  
(Continuation Sheet)

Sheet 2 of 2  
Safety Class 3

Item Title  
Service Trailer

Drawing/Spec. No. WHC-S-056

Rev. 2

P.O. No. 404878

MRF-XVU-404878

Item No. 1

Char. No.	Inspection Characteristics	INSPECTION STATUS				Remarks
		Acc	Hld Tag	Rej	NCR	
6	Verify there are steps, and railings provided for the curbside door, including 2 support legs which support the steps/platform.					
7	Verify there are steps, and railings provided for the rear door, including 2 support legs which support the steps/platform.					
8	Verify there was no damage during shipping.					
9	Verify Receipt of 8 copies of Vendor Data. A. Assembly drawings showing general equipment layout, subassembly details, interface dimensions and identification of all major components. B. Schematic electrical drawings of wiring systems, control panels. C. Operating and maintenance instructions. D. Pictorial parts list and part numbers. E. Recommended spare parts list. F. Recommended maintenance procedures.					

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QUALITY ASSURANCE INSPECTION PLAN

Sheet 1 of 3  
 Safety Class 3

Item Title Service Trailer		Drawing/Spec. No. WHC-S-056		Rev. 2	
Prepared by AJ Kostelnik		Item Description Tandem axle furniture type trailer equipped with cabinets, HVAC system, lights, doors, access steps and platforms.		Supplier Aluminum Body Corporation	
Date 11-14-94		P.O. Subcontract 404870		Inspection No. SAUER	
Inspection Characteristics		Item No. 1		Inspected by <i>[Signature]</i>	
SAMPLE SIZE DETERMINATION Sample size (number of items to be inspected in a lot), shall be determined by using Table I and Table III-A of the latest edition of MIL-STD-105 as follows:		Qty. 2		Date NOV 17 1994	
<ul style="list-style-type: none"> <li>Select the Sample Size Code Letter from Table I, based on the lot size of material received and the General Inspection Level indicated by the QAIP (Level I, II, or III).</li> <li>Select the sample size from Table III-A using the Sample Size Code Letter obtained from Table I and the AQL number specified by the QAIP.</li> <li>The minimum sample size utilizing Level II, AQL 4.0, Table III-A shall be 8 or 100%, if the lot size is less than 8.</li> </ul>		Reference		Remarks	
NOTE: If any samples are found nonconforming, the entire lot shall be placed on HOLD pending engineering evaluation and NCR disposition.		INSPECTION STATUS			
Char. No.		Acc		Hld Tag	
		Rej		NCR	
		Cond.		Acc	

**QUALITY ASSURANCE INSPECTION PLAN**  
(Continuation Sheet)

Sheet 2 of 3  
Safety Class 3

<b>Item Title</b> Service Trailer	<b>Rev.</b> 2
<b>Drawing/Spec. No.</b> WHC-S-056	
<b>P.O. No.</b> 404870	
<b>Item No.</b> 1	

WHC-SD-WM-ATR-111  
Rev. 0  
Appendix D-4 of D-20

Char. No.	Inspection Characteristics	INSPECTION STATUS				Remarks
		Acc	Mid Tag	Rej	NCR	
1	<p>Verify welds on aluminum safety platforms are visually acceptable per sections 1-7, visual inspection criteria. Welds are field run, weld map to be made during inspection to document which welds were inspected. Two platforms are provided, one each for the curbside door and rear door of the trailer. (No documentation review required.)</p> <ol style="list-style-type: none"> <li>1. Welds have no cracks except as in 3 below.</li> <li>2. Thorough fusion exists between adjacent layers of weld metal, and between weld metal and base metal.</li> <li>3. Shrinkage cracks are contained entirely within the crater are of an intermittent fillet weld.</li> <li>4. Weld profiles are in accordance with the figures shown on page 3.</li> <li>5. Undercut does not exceed 1/32-inch (except that undercut may be 1/16-inch for an accumulated length of 2-inches or less in any 12-inch length of weld).</li> <li>6. Fillet welds in any single continuous weld may be less than the nominal fillet weld size required by 1/16-inch without correction, provided that the undersized portion of the weld does not exceed 10% of the length of the weld. On web-to-flange welds in girders, no undersized fillets are permitted at the ends for a length equal to twice the width of the flange.</li> <li>7. Weld size shall be greater than or equal to the minimum base metal thickness at the joint.</li> </ol>					
2	Verify there are no suspect fasteners installed on the service trailer.					

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NOV 1 1994

# QUALITY ASSURANCE INSPECTION PLAN (Continuation Sheet)

Sheet 3 of 3  
Safety Class 3

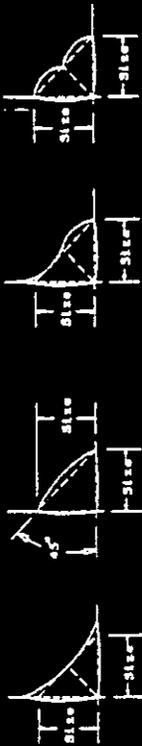
Item Title  
Service Trailer

Drawing/Spec. No. WHC-S-056

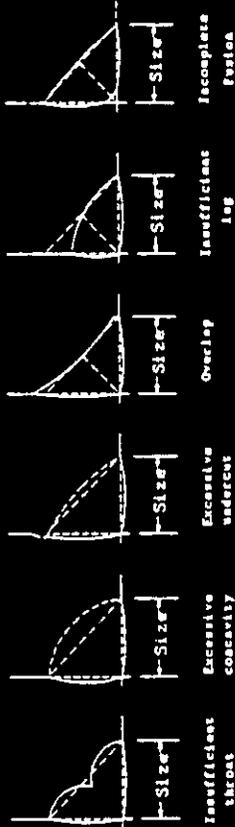
Rev. 2

P.O. No. 404870

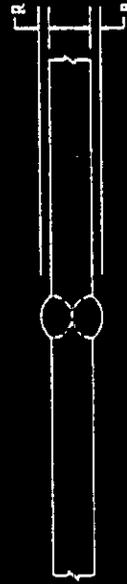
Item No. 1



(A) Desired fillet weld profiles (B) Acceptable fillet weld profiles

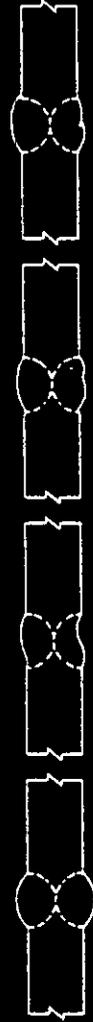


(C) Unacceptable fillet weld profiles



Note: Reinforcement R shall not exceed 1/8 in.

(D) Acceptable groove weld profile in butt joint



(E) Unacceptable groove weld profiles in joints

**QUALITY ASSURANCE INSPECTION PLAN**

Sheet 1 of 3  
 Safety Class 3

Item Title <b>Service Trailer</b>	Drawing/Spec. No. <b>WHC-S-056</b> Rev. <b>2</b>	Item Description <b>Tandem axle furniture type trailer equipped with cabinets, HVAC system, lights, doors, access steps and platforms.</b>												
Prepared by <b>AJ Kostelnik</b>	Date <b>11-14-94</b>	Supplier <b>Aluminum Body Corporation</b> Inspection No. P.O. Subcontract <b>404870</b>												
Char. No.	Item No. <b>1</b> qty. <b>2</b> Inspected by Reference	Inspection No.												
Inspection Characteristics	INSPECTION STATUS <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">Acc</td> <td style="width: 15%;">Hld Tag</td> <td style="width: 15%;">Rej</td> <td style="width: 15%;">NCR</td> <td style="width: 15%;">Cond. Acc</td> <td style="width: 20%;"></td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </table>		Acc	Hld Tag	Rej	NCR	Cond. Acc							
Acc	Hld Tag	Rej	NCR	Cond. Acc										
SAMPLE SIZE DETERMINATION Sample size (number of items to be inspected in a lot), shall be determined by using Table I and Table III-A of the latest edition of MIL-STD-105 as follows: <ul style="list-style-type: none"> <li>• Select the Sample Size Code Letter from Table I, based on the lot size of material received and the General Inspection Level indicated by the QAIP (Level I, II, or III).</li> <li>• Select the sample size from Table III-A using the Sample Size Code Letter obtained from Table I and the AQL number specified by the QAIP.</li> <li>• The minimum sample size utilizing Level II, AQL 4.0, Table III-A shall be 8 or 100%, if the lot size is less than 8.</li> </ul> NOTE: If any samples are found nonconforming, the entire lot shall be placed on HOLD pending engineering evaluation and NCR disposition.	Remarks													

**QUALITY ASSURANCE INSPECTION PLAN**  
 (Continuation Sheet)

Sheet 2 of 3  
 Safety Class 3

Item Title Service Trailer	Drawing/Spec. No. WHC-S-056	Rev. 2
	P.O. No. 404870	
	Item No. 1	

Char. No.	Inspection Characteristics	INSPECTION STATUS				Remarks
		Acc	Hold Tag	Rej	NCR	
1	<p>Verify welds on aluminum safety platforms are visually acceptable per sections 1-7, visual inspection criteria. Welds are field run, weld map to be made during inspection to document which welds were inspected. Two platforms are provided, one each for the curbside door and rear door of the trailer. (No documentation review required.)</p> <ol style="list-style-type: none"> <li>Welds have no cracks except as in 3 below.</li> <li>Thorough fusion exists between adjacent layers of weld metal, and between weld metal and base metal.</li> <li>Shrinkage cracks are contained entirely within the crater are of an intermittent fillet weld.</li> <li>Weld profiles are in accordance with the figures shown on page 3.</li> <li>Undercut does not exceed 1/32-inch (except that undercut may be 1/16-inch for an accumulated length of 2-inches or less in any 12-inch length of weld).</li> <li>Fillet welds in any single continuous weld may be less than the nominal fillet weld size required by 1/16-inch without correction, provided that the undersized portion of the weld does not exceed 10% of the length of the weld. On web-to-flange welds in girders, no undersized fillets are permitted at the ends for a length equal to twice the width of the flange.</li> <li>Weld size shall be greater than or equal to the minimum base metal thickness at the joint.</li> </ol>					
2	Verify there are no suspect fasteners installed on the service trailer.					

**QUALITY ASSURANCE INSPECTION PLAN**  
(Continuation Sheet)

Sheet 3 of 3  
Safety Class 3

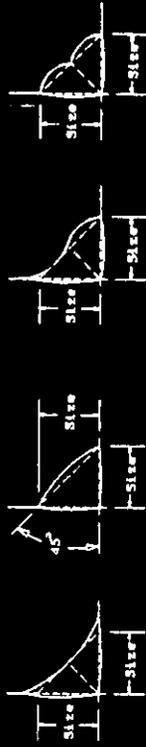
Item Title  
Service Trailer

Drawing/Spec. No. WHC-S-056

P.O. No. 404870

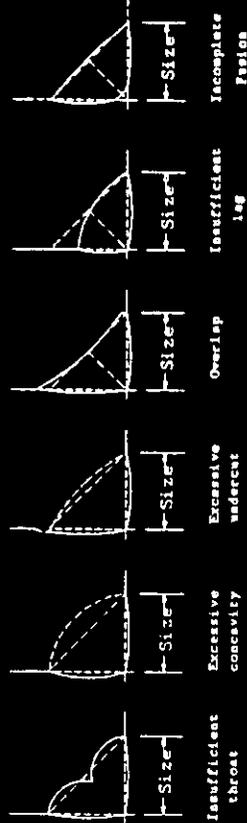
Item No. 1

Rev. 2

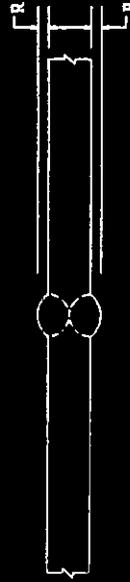


(A) Desired fillet weld profiles

(B) Acceptable fillet weld profiles



(C) Unacceptable fillet weld profiles



Note: Reinforcement R shall not exceed 1/8 in.

(D) Acceptable groove weld profile in butt joint



Excessive convexity

Insufficient throat

Excessive undercut

Overlap

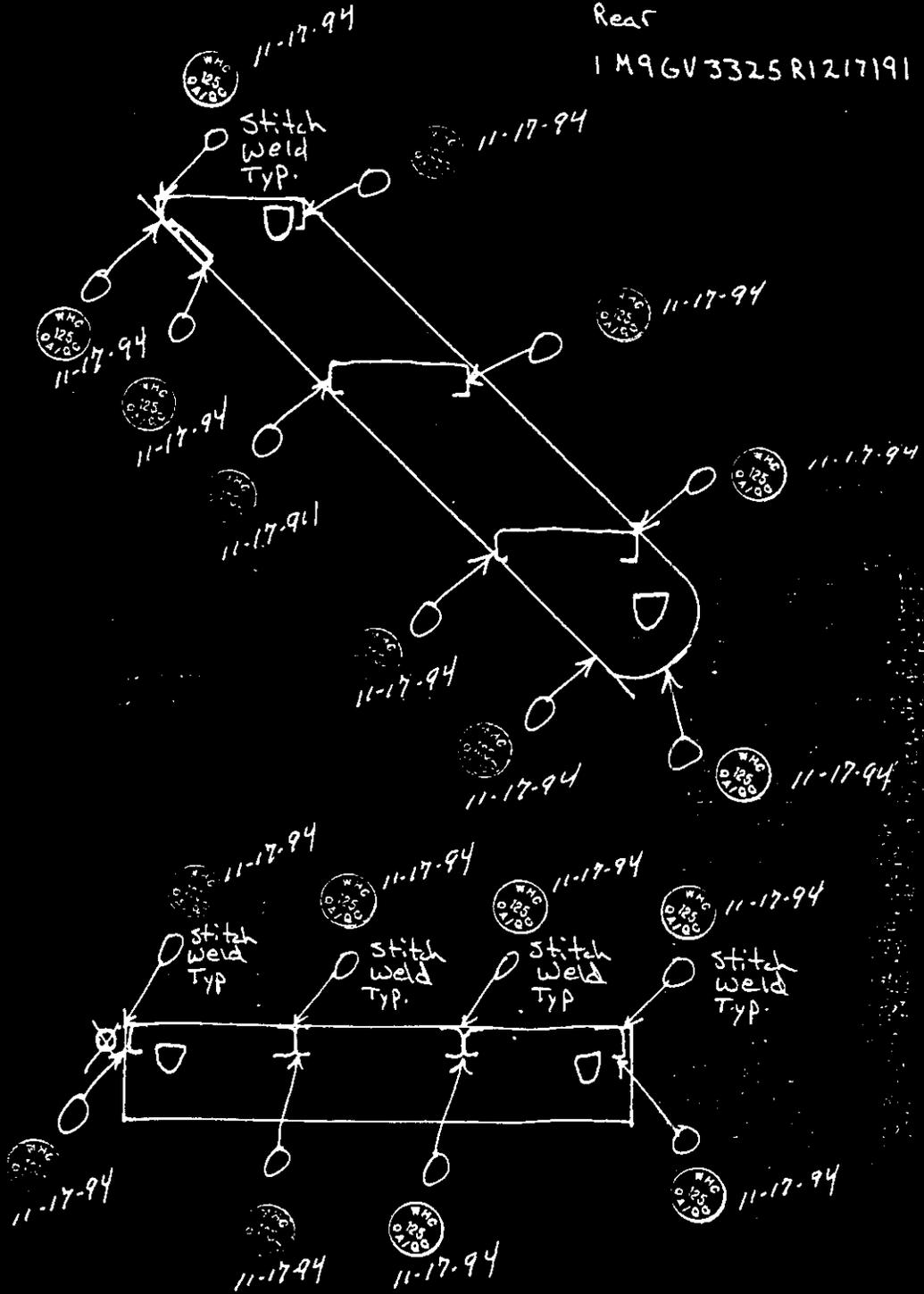
(E) Unacceptable groove weld profiles in joints

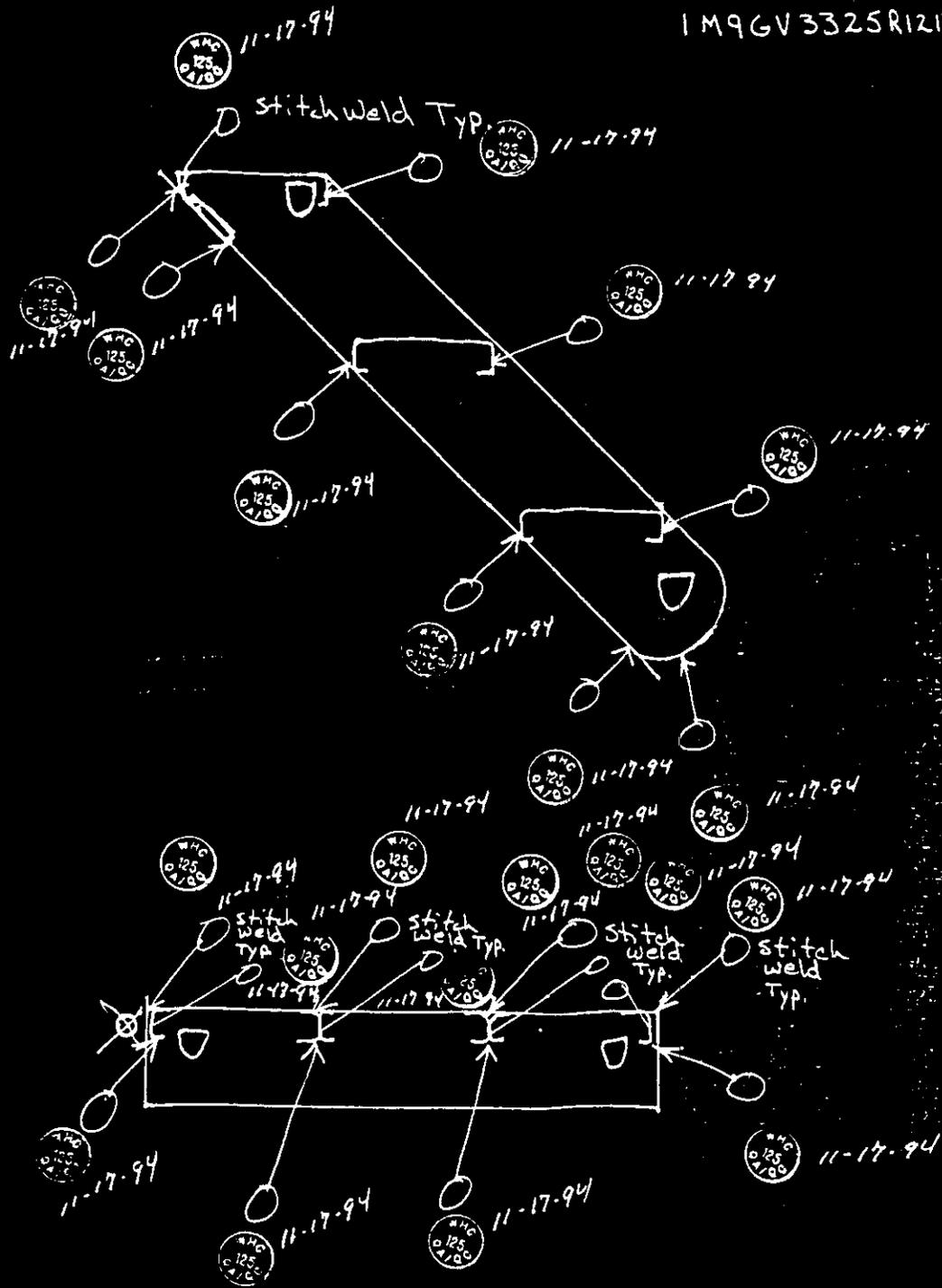
Cush door Stair way

Rear

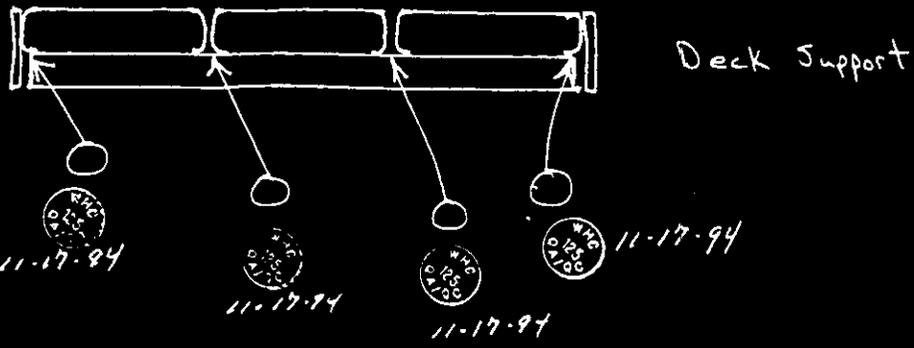
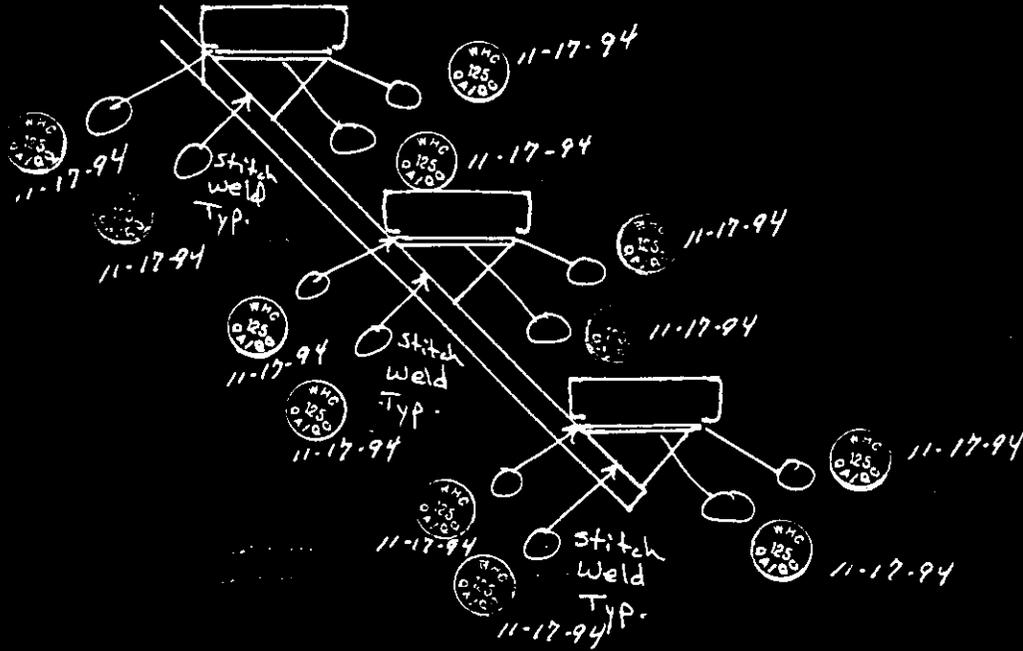
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Rev. 0  
Appendix D-9 of D-20









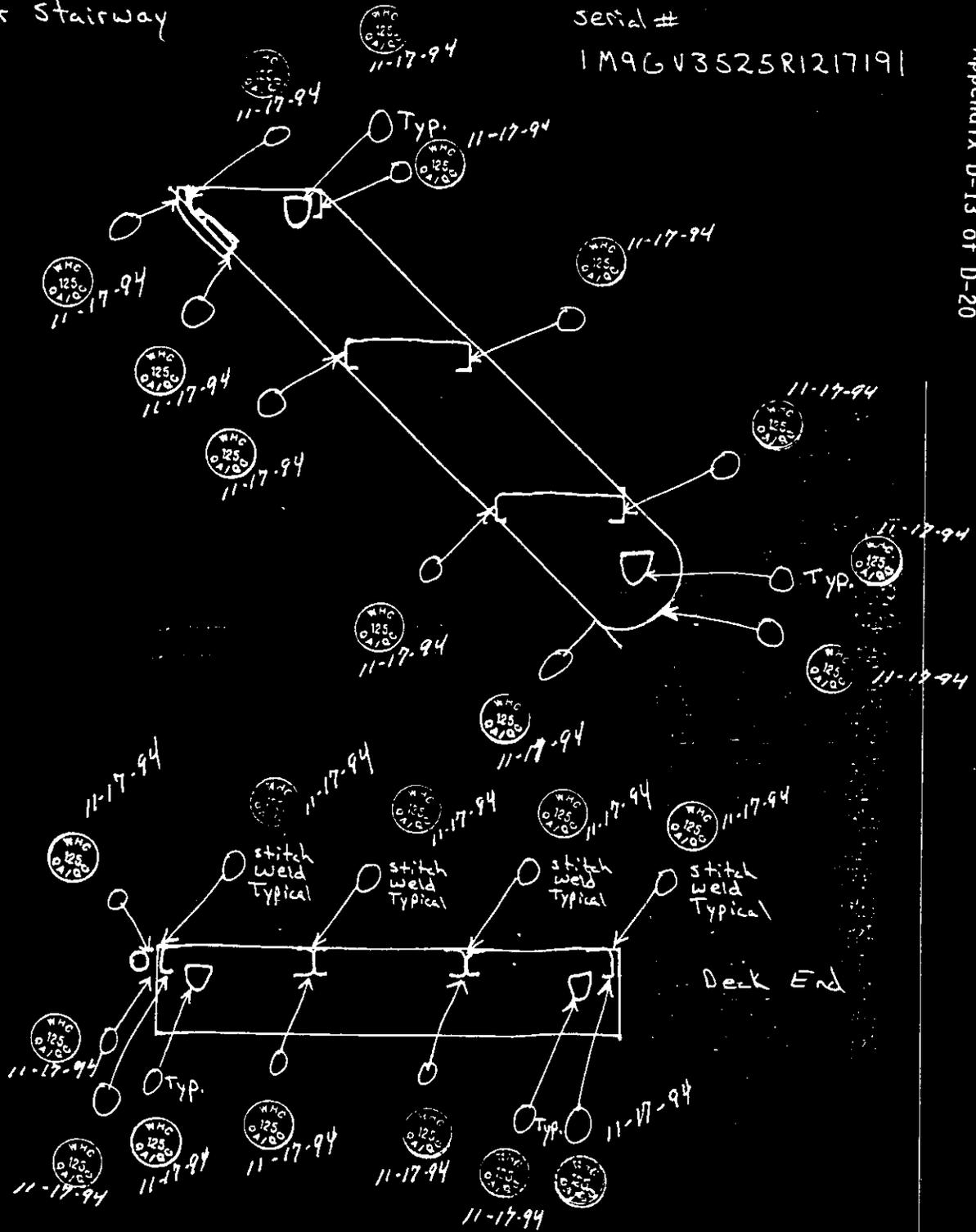
Drivers side

Rear stairway

Serial #

1M9GV3525R1217191

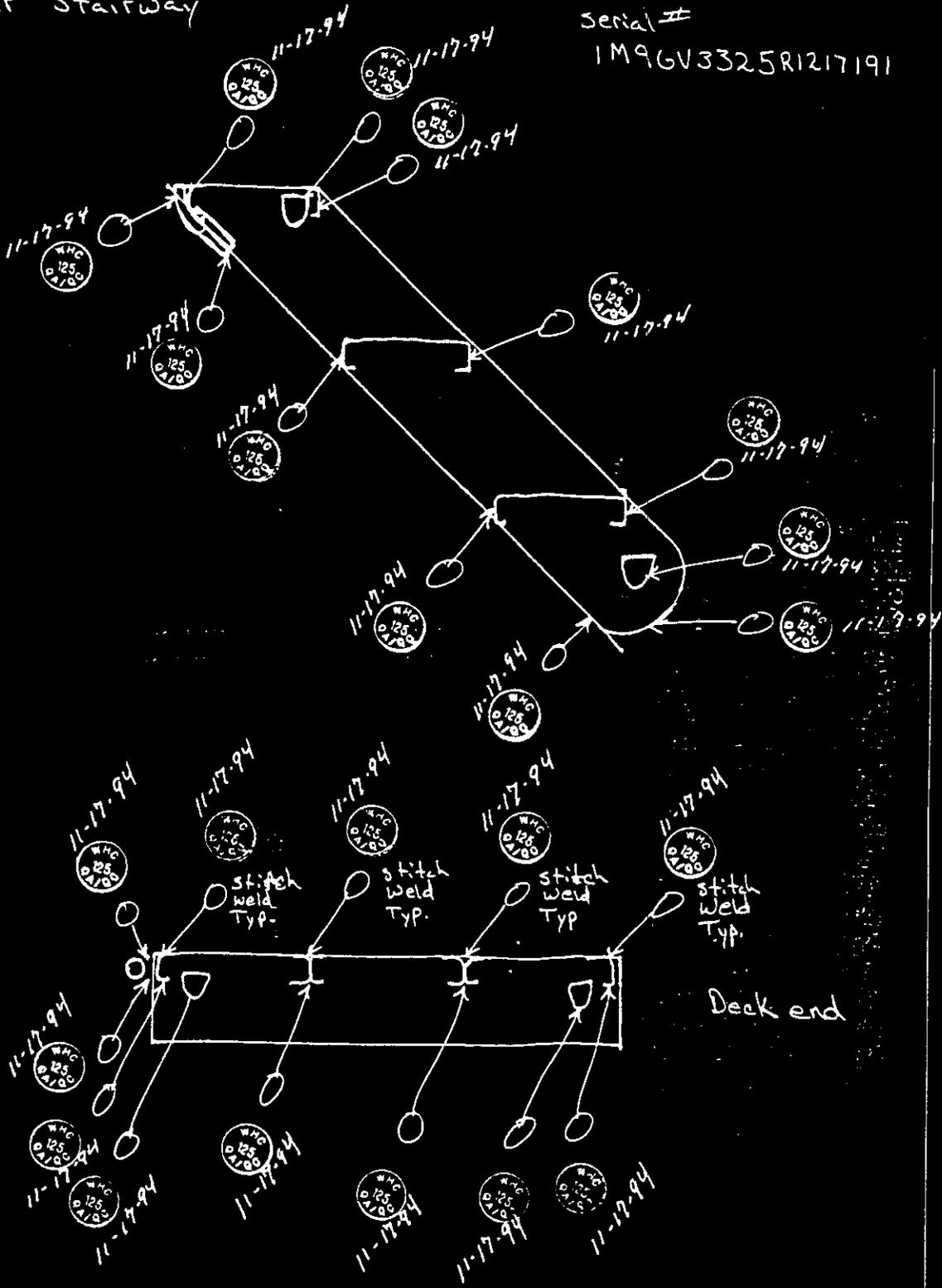
WMC-SD-WM-ATR-111  
Rev. 0  
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Rear Stairway

Serial #

1M96V3325R1217191



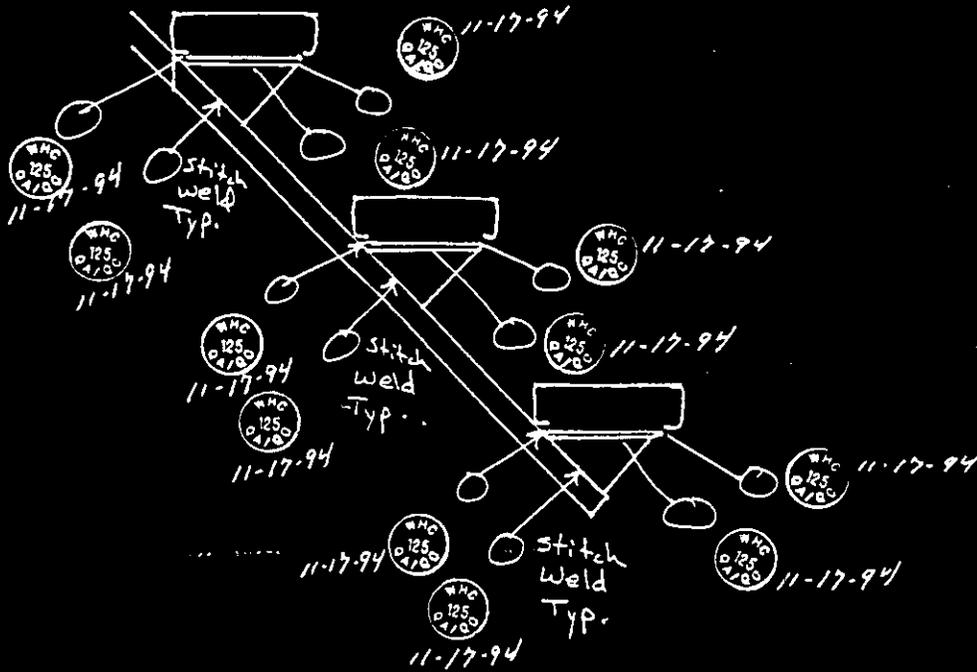




Rear stairway

Passenger side  
stair support  
1M9GV3323R1217190

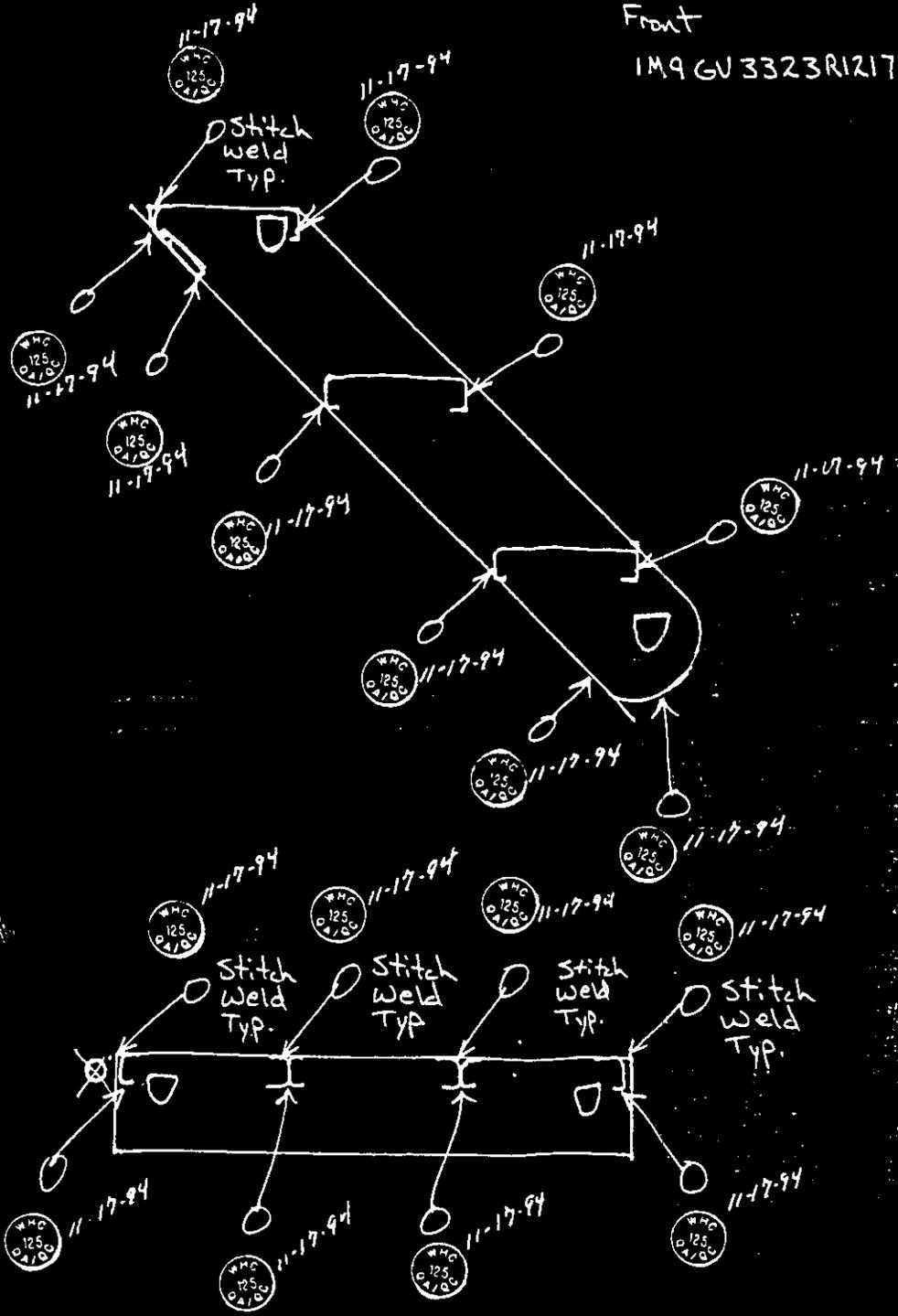
WMC-SD-WM-ATR-111  
Rev. 0  
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Deck support



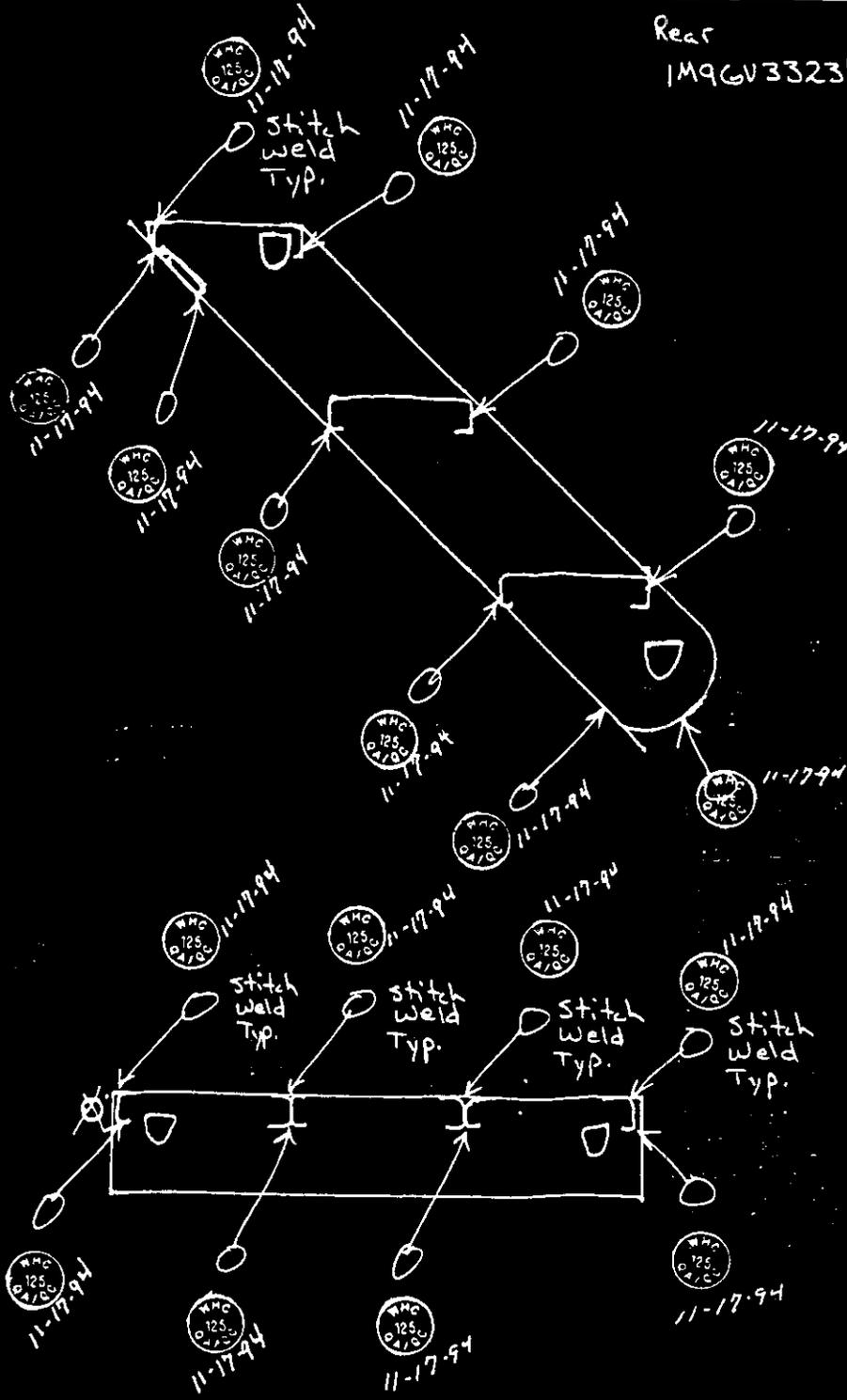




Curb Door Stairway

Rear

1M9GV3323R1217190



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