

T.B. Moore  
File

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1281  
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SANDIA SYSTEMATIC DECLASSIFICATION REVIEW	
Review Date: 10/29/98	Authority: RB Cramer
Name: RB Cramer	Record ID: 99SN0318
Review Date: 10/29/98	Dated: 10/29/98
Authority: RB Cramer	
Name: RB Cramer	
Options (Circle Number) 1. Classification Retained 2. Classification Changed to U 3. Contains No DOE Classified Information 4. Coordinate With 5. Coordinate UCAIT 6. Comments: OK for approval	

DEC 5 1951  
Ref. Symbol: 1531  
Project No. ST-400

TCG-NNT-1

MR. L. E. LAMKIN - 1281  
Re: Tensile Test of H-67 Latch

Object of Test

The object of the test was to pull the latch (made according to Drawing SK (1281) 8650) parallel to the major axis of the latch assembly and determine the amount of separation between the top bracket and the lower portion of the latch.

Function of Object Tested

The latch is to be used on the H-67 container.

H-67  
3-2

Authorization for Test

This test was requested by Division 1281 in a Work Order Authorization dated August 18, 1951. Mr. D. E. Kosanda was the consultant.

Summary of Results

The top section (hook) of the latch broke in the weld under a load of 675 pounds; the top and bottom sections had separated 0.194 inch.

Procedure

The latch assembly was mounted for testing as shown in Fig. 1. The assembly was tested in the Baldwin-Southwark universal testing machine (5000 lbs). The amount of separation between the upper and lower parts of the latch, recorded in 100 pound increments, was measured by a dial indicator gauge which could be read accurately to the nearest 0.001 inch. The latch assembly tensile load was increased until failure occurred.

Results

The top latch bracket failed in the weld (No. 2 in Figure 1) under a load of 675 pounds. However, prior to failure a considerable amount of separation

SEP 28 1951

SANDIA SYSTEMATIC DECLASSIFICATION REVIEW	
DOWNGRADING OF DECLASSIFICATION STAMP	
CLASSIFICATION CHANGED TO: U	AUTHORITY: RB Cramer
PERSON CHANGING MARKING & DATE: Carmel Biley 12/19/98	RECORD ID: 99SN0318
PERSON VERIFYING MARKING & DATE: WC Tom 01/16/98	DATED: 10/29/98

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MR. L. E. LAMKIN - 1281

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Ref. Symbol: 1531  
Project No. BT-400

occurred between the upper and lower sections of the latch assembly, as shown in the tabulated data below. The separation was primarily caused by the bending of an aluminum rivet (No. 1 on Fig. 1) in the lower section of the latch assembly.

<u>Load applied in pounds</u>	<u>Separation in inches</u>
50	0.000
100	.001
200	.016
300	.042
400	.066
500	.093
600	.124
675	.194

#### Conclusions and Recommendations

Division 1531 recommends that a heavier weld be used in fabricating the upper latch assembly. It is also recommended that the rivets in the lower latch assembly be made larger in diameter or of stronger material.

*G. P. Barnett*

Test Conducted by G. P. BARNETT - 1531

Original Signed By  
R. L. WAGAR

Approved by R. L. WAGAR - 1531

QPBTnj

Encl: Figure 1

Copy to:

L. J. Paddison - 1500  
A. F. Goss - 1510  
G. H. Roth - 1520  
T. B. Morse - 1530 ←  
W. O. McCord - 1290  
D. H. Evans - 2461

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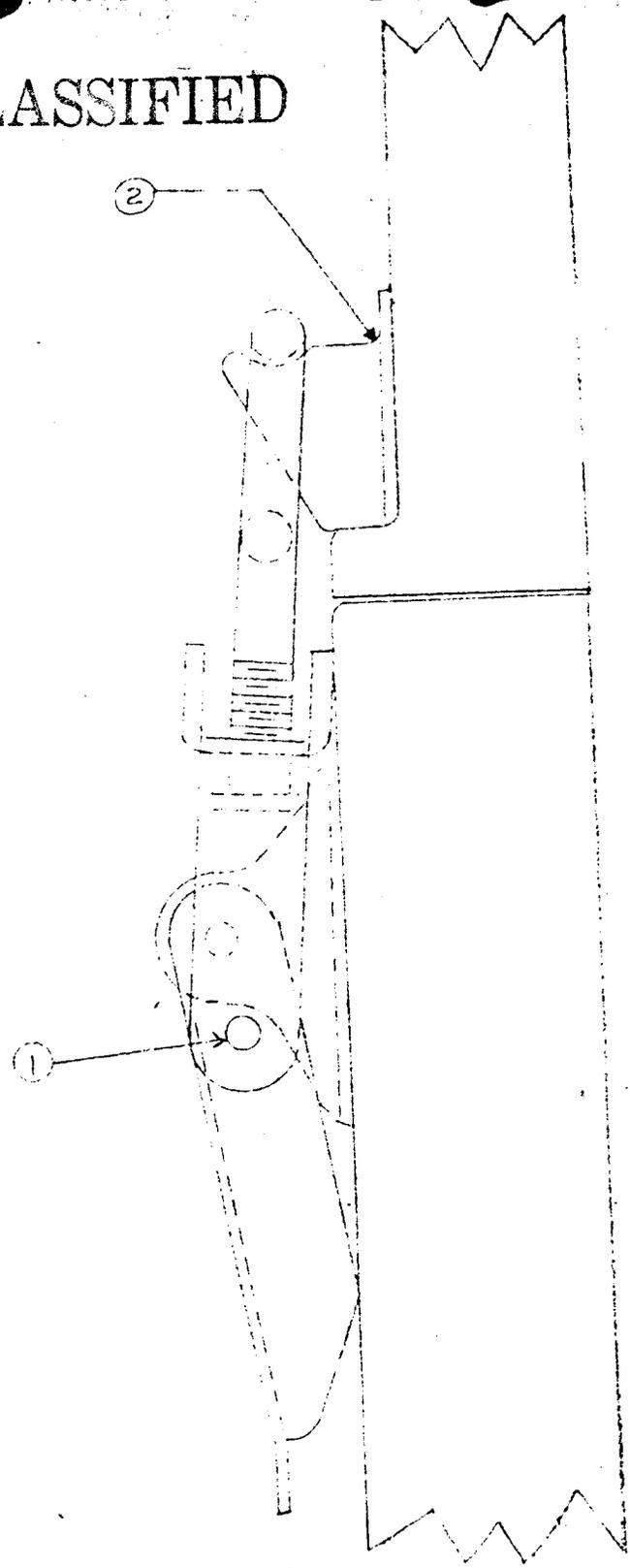


FIG. 1 - LATCH ASSEMBLY FOR H-67

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**WORK ORDER AUTHORIZATION**

DISTRIBUTION: ORIGINAL TO COST ORGANIZATION  
 2 COPIES TO ORGANIZATION DOING WORK  
 1 COPY RETAINED BY ORIGINATING ORGANIZATION

TO 1531 JOB ORDER NO. 400  
 DESIGN: PREL.  PROD.  REDES.  DEV. WORK CLASS 27.10  
 TEST REQUEST  URGENCY X  A  B   
 DRAWING NOS. DATE REQUIRED Sept. 7, 1951  
 MATERIAL SUPPLIED One (1) latch made by SK(1281)-8650 DEADLINE Sept. 10, 1951  
 DATE COMPLETED \_\_\_\_\_ SECURITY CLASS Official Use Only

DESCRIPTION (INCLUDE QUANTITY)

Tensile test of latch

1. Determine amount of separation of top and bottom brackets at increments of 100# up to 1,000 pounds.
2. Stop before failure.

*Consultant will do the test performed*

A report in memo form is requested.

ORGANIZATION DOING WORK

ORGANIZATION REQUESTING WORK

WORK PERFORMED BY \_\_\_\_\_ PHONE \_\_\_\_\_ ORGANIZATION TO BE CHARGED 1281  
 EST. HOURS \_\_\_\_\_ ACTUAL HOURS \_\_\_\_\_ CONSULTANT D. E. Kosanda PHONE 2-3145  
 SIGNATURE \_\_\_\_\_ ESTIMATED COST \_\_\_\_\_ DATE 8-18-51

ORGAN.	PRELIMINARY APPROVALS				FINAL APPROVAL		ACCOUNTING CLASSIFICATION
					EXPENDITURE	DESIGN	ACCOUNTING CERTIFICATION
					<u>1281</u>		
APPROVAL					<i>D. E. Kosanda</i>		

*[Redacted Signature]*