



ENGINEERING AND TEST DIVISION  
CHURCH STREET, BOHEMIA, LONG ISLAND, NEW YORK 11716 (631) 589-6300

TEST REPORT NO.: DTB04R09-0989, REVISION A  
DAYTON T. BROWN, INC. JOB NO.: 410215-00-000

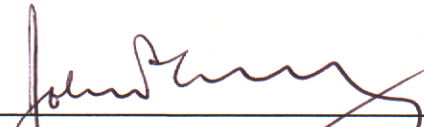

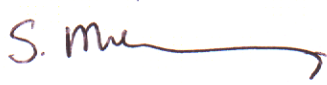
CUSTOMER: IMS ENGINEERED PRODUCTS, LLC  
1 INNOVATION DRIVE  
DES PLAINES, IL 60016

SUBJECT: MEDIUM WEIGHT HAMMER SHOCK TEST CONDUCTED ON ONE  
ENCLOSURE, SERIAL NO. DTB#1

PURCHASE ORDER NO.: 4427

ATTENTION: MR. JIM WALENDA

THIS REPORT CONTAINS: TWO PAGES AND ONE ENCLOSURE

TEST ENGINEER	 J. LONG
DEPARTMENT SUPERVISOR	 G. HYLAND
QUALITY DEPARTMENT	
DATE	26 AUGUST 2009

INFORMATION CONTAINED HEREIN MAY BE SUBJECT TO EXPORT CONTROL LAWS. REFER TO  
INTERNATIONAL TRAFFIC IN ARMS REGULATION (ITAR) OR THE EXPORT ADMINISTRATION REGULATION (EAR) OF 1979

THE DATA CONTAINED IN THIS REPORT WAS OBTAINED BY TESTING IN  
COMPLIANCE WITH THE APPLICABLE TEST SPECIFICATION AS NOTED

REVISION PAGE

From	To	Page No.
Revision A		
DTB04R09-0989	DTB04R09-0989, REVISION A	Cover
24 JULY 2009	26 AUGUST 2009	Cover
—	The test item ... MIL-S-901D.	Pg 2 & Enc 1 Pg 2



## TABLE OF CONTENTS

<u>Subject</u>	<u>Paragraph</u>	<u>Page No.</u>
Abstract	1.0	2
References	2.0	2
Administrative Information	3.0	2
Test Program Outline	4.0	2

<u>Enclosures</u>	<u>Number of Pages</u>	<u>Number of Photos</u>
(1) Medium Weight Hammer Shock Test and Results	3	6



## 1.0 ABSTRACT

This test report details the results of the medium weight hammer shock test conducted on one Enclosure, Serial No. DTB#1, under reference (a) to the requirements of references (c) and (d).

Results of the test are detailed in the following text.

The test item successfully met the Grade A requirements of MIL-S-901D.

Test data pertinent to this program will remain on file at Dayton T. Brown, Inc. for 90 days.

The test results recorded in this report relate only to those items tested.

This test report shall not be reproduced, except in full, without the written approval of Dayton T. Brown, Inc.

## 2.0 REFERENCES

- (a) Customer Purchase Order No.: 4427
- (b) Dayton T. Brown, Inc. Job No.: 410215-00-000
- (c) Test Specification: MIL-S-901D
- (d) Dayton T. Brown, Inc. Quotation No.: ISL-08-0800A, dated 7 April 2008

## 4.0 ADMINISTRATIVE INFORMATION

<b>Customer</b>	IMS Engineered Products, LLC 1 Innovation Drive Des Plaines, IL 60016
Test Item Description	Enclosure
Quantity Received	One
Serial No.	DTB#1 (Assigned by Dayton T. Brown, Inc.)
Date Received	22 June 2009
Dates Tested	2 through 6 July 2009
Date Shipped	17 July 2009

## 4.0 TEST PROGRAM OUTLINE

Test	Test Item Description	Results
Medium Weight Hammer Shock	Enclosure, Serial No. DTB#1	See Enclosure 1.



## Enclosure 1

### Medium Weight Hammer Shock Test and Results

## TEST REQUIREMENT

The medium weight hammer shock test shall be conducted in accordance with references (c) and (d).

## TEST RESULTS

A pretest visual inspection of the test item revealed no anomalies.

The total weight on the shock table was measured as indicated in the table below.

### WEIGHT ON SHOCK TABLE DURING THE MEDIUM WEIGHT HAMMER SHOCK TEST

Item	Weight (lb)
Vertical Configuration	
Enclosure (Test Item)	280
Shock Test Fixture	520
MIL-S-901 Medium Weight Hammer Shock Test Standard Base Rails (2)	282
Two pair of Light 4-Inch Car Building Channels (for mounting fixture/item)	204
Mounting Hardware for Fastening Fixture to Channels	24
Total Weight	1,310
30° Back Down Configuration	
Enclosure (Test Item)	280
Shock Test Fixture	520
MIL-S-901 Medium Weight Hammer Shock Test 30° Rails (2)	1,650
Two pair of Light 4-Inch Car Building Channels (for mounting fixture/item)	204
Mounting Hardware for Fastening Fixture to Channels	24
Total Weight	2,678
30° Side Down Configuration	
Enclosure (Test Item)	280
Shock Test Fixture	520
MIL-S-901 Medium Weight Hammer Shock Test 30° Rails (2)	1,650
Two pair of Light 4-Inch Car Building Channels (for mounting fixture/item)	204
Mounting Hardware for Fastening Fixture to Channels	16
Total Weight	2,670

Refer to the Medium Weight Hammer Shock Test Summary for tabulated results.

### MEDIUM WEIGHT HAMMER SHOCK TEST SUMMARY

Shock Blow No.	Orientation	Hammer Drop Distance (ft)	Table Travel Distance (in)
1	Vertical	1.0	3.0
2	Vertical	2.0	3.0
3	Vertical	2.0	1.5
After Shock Blow No. 3, a visual inspection revealed that the panel on the right side of the test item was slightly deformed at the bottom front corner (see Photo 2).			
4	30° Back Down	1.25	3.0
5	30° Back Down	2.25	3.0
After Shock Blow No. 5, a visual inspection revealed that the panel on the left side of the test item was slightly loose at the bottom rear corner (see Photo 5).			
6	30° Back Down	2.25	1.5
7	30° Side Down	1.25	3.0
After Shock Blow No. 7, a visual inspection revealed that the panel on the left side of the test item was slightly loose at the bottom rear corner.			
8	30° Side Down	2.25	3.0
9	30° Side Down	2.25	1.5

The test item completed all phases of testing.

A post-test visual inspection of the test item revealed that, in addition to the anomalies noted in the table above, the left side bottom rear lock was slightly bent (see Photo 6).

The test item successfully met the Grade A requirements of MIL-S-901D.

Test equipment utilized for the program reported herein was within its assigned interval of calibration.  
Details are on file at Dayton T. Brown, Inc. and will be made available upon request.



**Job Sub:**      **410215-00**      **TEST: MEDIUM WEIGHT HAMMER SHOCK**

<u>ITEM</u>	<u>MANUFACTURER</u>	<u>MODEL</u>	<u>DTB NO.</u>	<u>ACCURACY</u>	<u>CAL DUE DATE</u>
SHOCK MACHINE, HAMMER	NEW ENGLAND TRAWLER	MEDIUM WEIGHT	04V-021	N/A	N.C.R.
SCALE, HANGING 2K LBS	TRI-COASTAL	264BW	61-4	±0.15% OF F.S	09/06/2009





TESTED FOR M/S ENGINEERED PRODUCTS, LLC

ITEM: ENCLOSURE

TYPICAL VIEW OF THE TEST ITEM SETUP IN THE VERTICAL CONFIGURATION FOR THE

MEDIUM WEIGHT HAMMER SHOCK TEST

JOB NO. 410215-00-000

FILE NO. 09-11447

DTB04R09-0989

ENCLOSURE 1

2 JULY 2009

PHOTO 1





09-2005

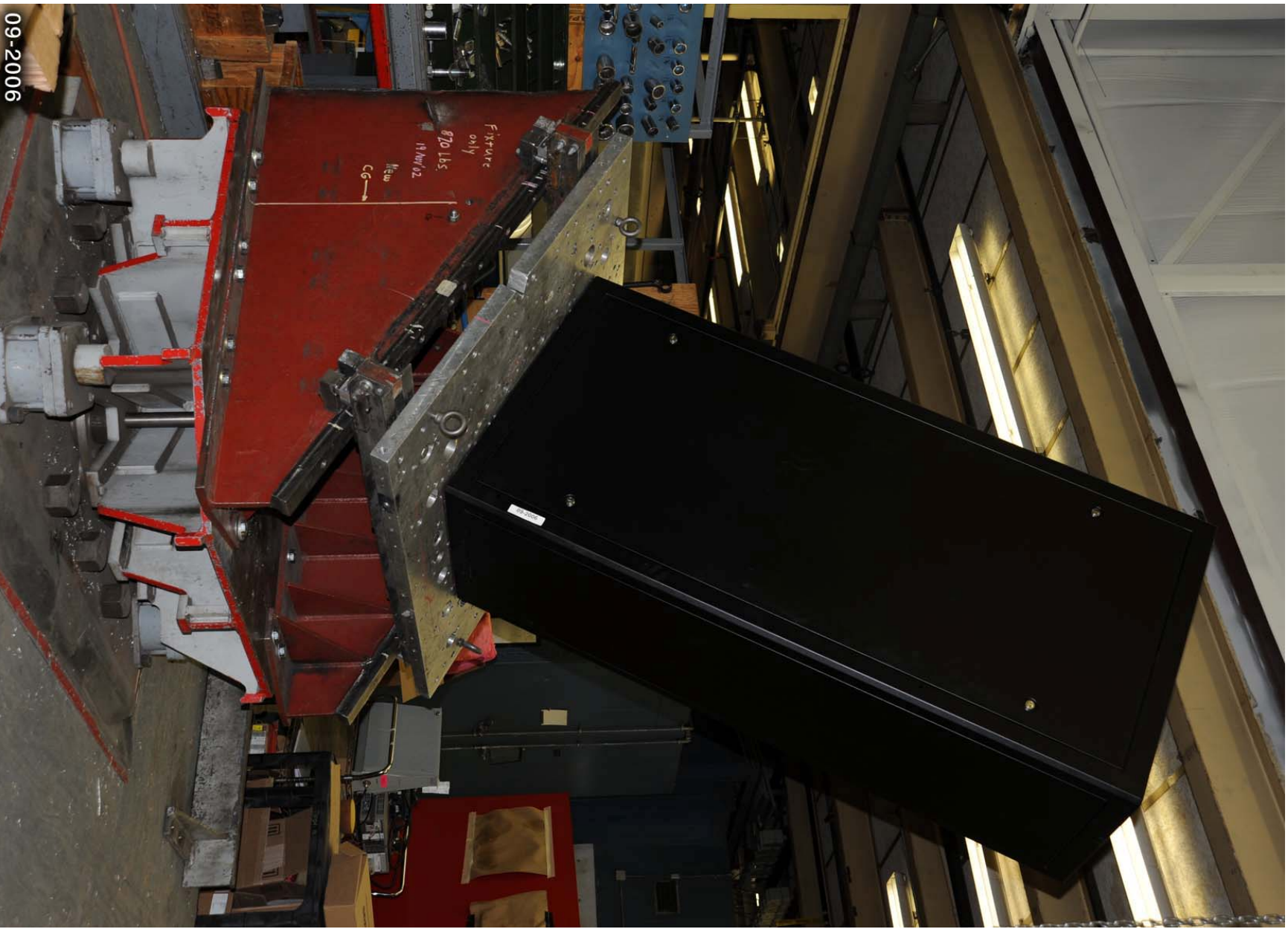


TESTED FOR IMS ENGINEERED PRODUCTS, LLC  
ITEM: ENCLOSURE  
VIEW OF SLIGHT DEFORMATION OF THE TEST ITEM AFTER SHOCK BLOW NO. 3  
JOB NO. 410215-00-000  
DTB04R09-0989

FILE NO. 09-2005  
ENCLOSURE 1

6 JULY 2009  
PHOTO 2





09-2006

TESTED FOR IMS ENGINEERED PRODUCTS, LLC

ITEM: ENCLOSURE

TYPICAL VIEW OF THE TEST ITEM SETUP IN THE 30° BACK DOWN CONFIGURATION FOR THE

MEDIUM WEIGHT HAMMER SHOCK TEST

JOB NO. 410215-00-000

FILE NO. 09-2006

DTB04R09-0989

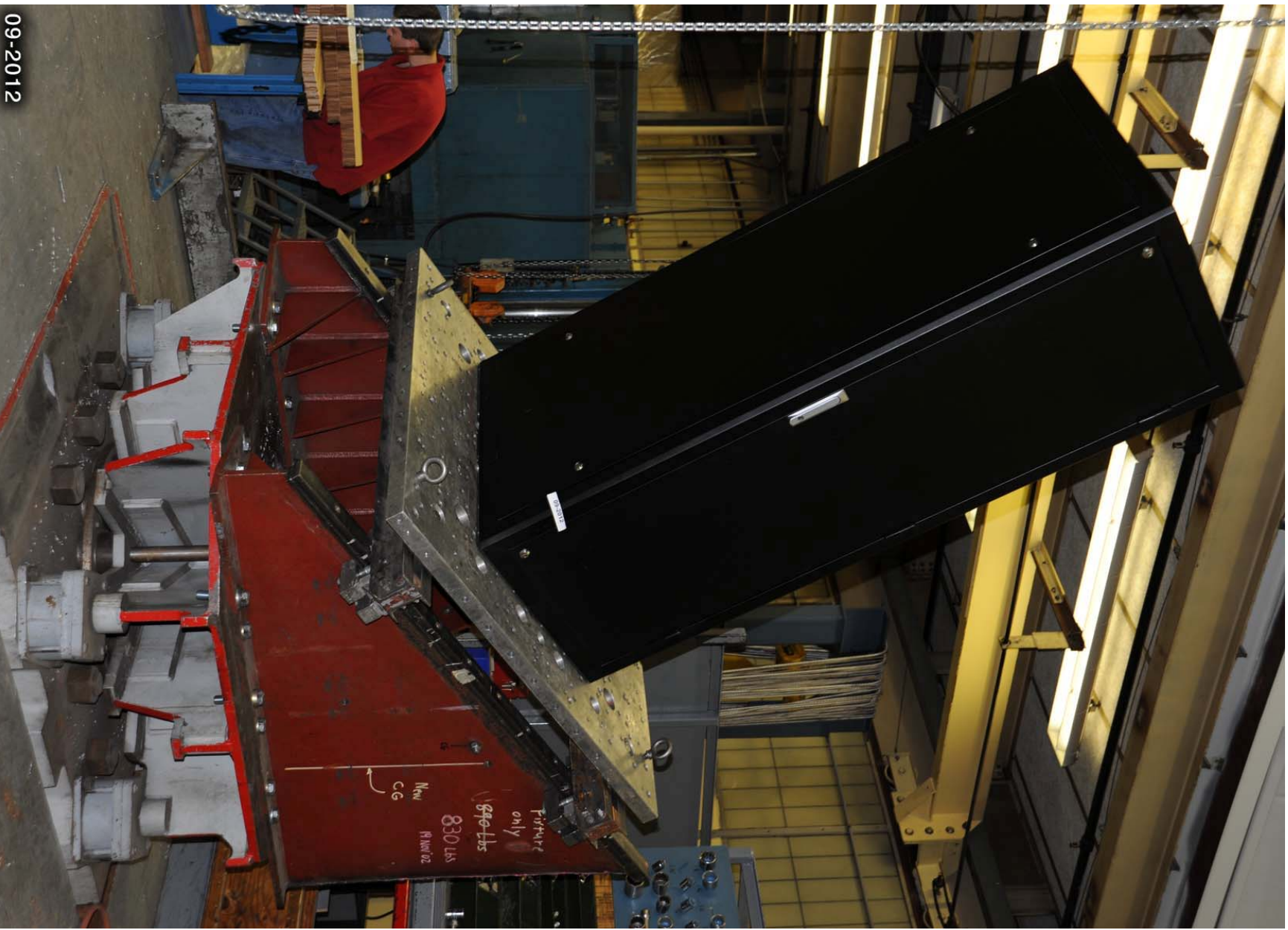
ENCLOSURE 1

6 JULY 2009

PHOTO 3







09-2012

TESTED FOR IMS ENGINEERED PRODUCTS, LLC

ITEM: ENCLOSURE

TYPICAL VIEW OF THE TEST ITEM SETUP IN THE 30° SIDE DOWN CONFIGURATION FOR THE

MEDIUM WEIGHT HAMMER SHOCK TEST

JOB NO. 410215-00-000

FILE NO. 09-2012

DTB04R09-0989

ENCLOSURE 1

6 JULY 2009

PHOTO 4



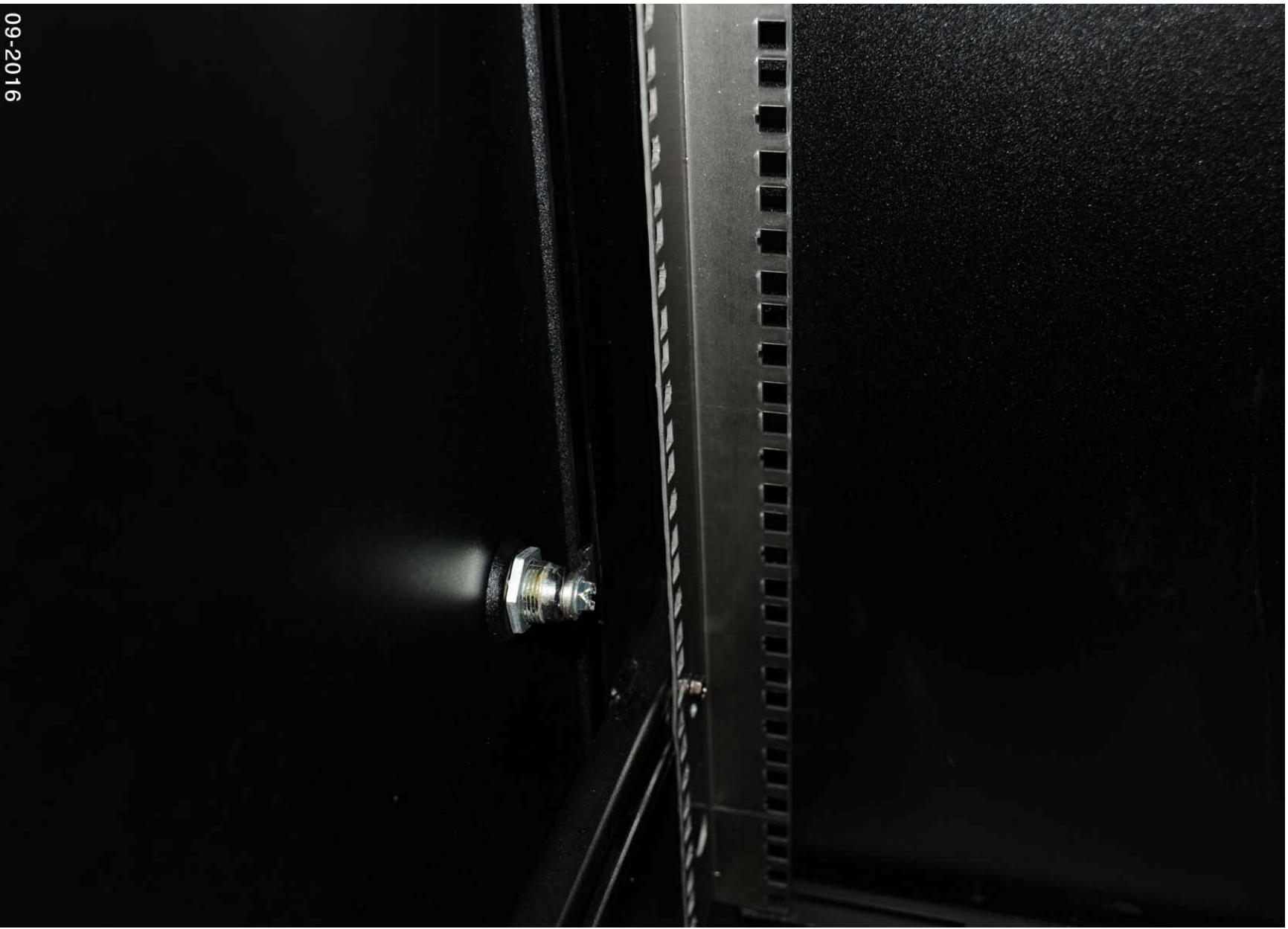


09-2014

TESTED FOR IMS ENGINEERED PRODUCTS, LLC  
ITEM: ENCLOSURE  
VIEW OF THE BOTTOM REAR CORNER OF THE LEFT SIDE PANEL, WHICH WAS SLIGHTLY LOOSE  
AFTER SHOCK BLOW NO. 7  
FILE NO. 09-2014  
ENCLOSURE 1  
JOB NO. 410215-00-000  
DTB04R09-0989

6 JULY 2009  
PHOTO 5





09-2016

TESTED FOR IMS ENGINEERED PRODUCTS, LLC

ITEM: ENCLOSURE

VIEW OF THE LEFT SIDE BOTTOM REAR LOCK WHICH WAS SLIGHTLY BENT

JOB NO. 410215-00-000

AFTER SHOCK BLOW NO. 9

FILE NO. 09-2016

DTB04R09-0989

ENCLOSURE 1

6 JULY 2009

PHOTO 6

