

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
690 Walnut Ave. St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 76.25B**QUALITY ASSURANCE -- NON-CONFORMANCE REPORT****Location:** Dyson Corporation, Painesville, OH**Report No:** NCR-000161**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 11-Jul-2008**Submitting Contractor:** Dyson Corp. & Subs**NCR #:** DYSN-0002**Type of problem:**

Welding	Concrete	Other	
Welding	Curing	Procedural	Bridge No: 34-0006
Joint fit-up	Coating	Other	Component:
Procedural	Procedural	Descriptor: COC for nonexistent standard	

Reference Description: A 354 Grade BD material fabricated to nonexistent Metric standard**Description of Non-Conformance:**

The Dyson Corporation Quality Control Manager (QCM) allowed submission of a Certificate of Compliance (COC) denoting conformance with a nonexistent specification: ASTM A 354 Grade BD, M30 (30 mm diameter); however, no Metric specifications exist for A 354.

The bolts were fabricated to A 354BD material standards, for which they passed Quality Control (QC) testing; threading and dimensions are apparently to A 325M.

Contract Plans (CP) Sheet 830 calls for a 30 mm diameter A 354BD bolt. Since A 354 does not have a Metric version, per CP notes sheet 423, the Contractor should have provided A 354BD bolts, inch diameter verified with Design.

Applicable reference:

Contract Plans:

Sheet 423, "General Notes No. 1," "Substitution of Non-Metric HS Fasteners": "Bolts and rods designated as xx Dia...standard specifications."

Sheet 830R01, "Bikepath Details No. 6"

Who discovered the problem: ASMR, Markian Petrina**Name of individual from Contractor notified:** Charles Kanapicki, PE, QCM**Time and method of notification:** Telephone message, 11:15 AM, 7/18/08**Name of Caltrans Engineer notified:** Ron Matin**Time and method of notification:** Telephone conversation, 9 AM, 7/18/08**QC Inspector's Name:** Unknown**Was QC Inspector aware of the problem:**

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)

Yes No

Contractor's proposal to correct the problem:

Accept the bolts as "fit for purpose," as they pass mechanical testing and A 563M nuts can be threaded onto the bolts without excessive force.

Comments:

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Venkatesh Iyer,(858) 967-6363, who represents the Office of Structural Materials for your project.

Inspected By: Petrina,Markian

SMR

Reviewed By: Iyer,Venkatesh

SMR



DEPARTMENT OF TRANSPORTATION

333 Burma Road Working Drawing Campus
Oakland CA 94607
Tel: 510-808-4611 Fax:

NON-CONFORMANCE REPORT TRANSMITTAL

To: AMERICAN BRIDGE/FLUOR, A JV
375 BURMA ROAD
OAKLAND CA 95607
Date: 21-Jul-2008

Dear: Mr. Charles Kanapicki
Contract No: 04-0120F4
04-SF-80-13.2 / 13.9

Attention: Mr.
Job Name: SAS Superstructure

Subject: NCR No. DYSN-0002
Document No: 05.03.06-000134

Reference Description: A 354 Grade BD material fabricated to nonexistent Metric standard

The Attached Non-Conformance Report describes an occurrence where the contractor did not comply with a requirement of the contract document as indicated below:

- Material or Workmanship not in conformance with contract documents.
- Quality Control (QC) not performed in conformance with contract documents.
- Recurring QC issue that constitutes a systematic problem in quality control.
- Non-Conformance Resolved.

Remarks:

Material Location: Bike Path **Lift:** N/A

The Dyson Corporation Quality Control Manager (QCM) allowed submission of a Certificate of Compliance (COC) denoting conformance with a nonexistent specification for A354 BD metric dimension bolts for the bikepath truss at W2 Cap Beam.

Action Required and/or Action Taken:

Submit a new COC which reflects the material used with applicable metric dimensioning for the bolt and thread dimensions.

Transmitted By: Ron Matin Transportation Engineer

Attachments: DYSN-0002

cc: Rick Morrow, Gilel Klebanov

File: 05.03.06

NCR PROPOSED RESOLUTION

To: CALTRANS - SAS Superstructure
333 Burma Road
Oakland CA 94607

Attention: Pursell, Gary
Resident Engineer

Ref: 05.03.06-000134

Subject: NCR No. DYSN-0002

Dated: 28-Jul-2008

Contract No.: 04-0120F4
04-SF-80-13.2 / 13.9

Job Name: SAS Superstructure

Document No.: ABF-NPR-000044 **Rev:** 00

Contractor's Proposed Resolution:

Reference Resolution: Revised COC to support "fit for purpose" for M30 by 420, 435 & 460 Bike Path anchor bolts
Please see attached.

Submitted by: Kanapicki, Charles
Attachment(s): ABF-NPR-000044R00;

Caltrans' comments:

Status: CLO
Date: 30-Jul-2008

The newCOC provided by the Contractor is acceptable.

Submitted by: Matin, Ron
Attachment(s):

Date: 30-Jul-2008

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

690 Walnut Ave. St. 150

Vallejo, CA 94592-1133

(707) 649-5453

(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 76.25B**QUALITY ASSURANCE -- NON-CONFORMANCE REPORT****Location:** Dyson Corporation, Painesville, OH**Report No:** NCR-000161**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 11-Jul-2008**Submitting Contractor:** Dyson Corp. & Subs**NCR #:** DYSN-0002**Type of problem:**Welding Concrete Other Welding Curing Procedural Bridge No: 34-0006Joint fit-up Coating Other Component:Procedural Procedural Descriptor: COC for nonexistent standard**Reference Description:** A 354 Grade BD material fabricated to nonexistent Metric standard**Description of Non-Conformance:**

The Dyson Corporation Quality Control Manager (QCM) allowed submission of a Certificate of Compliance (COC) denoting conformance with a nonexistent specification: ASTM A 354 Grade BD, M30 (30 mm diameter); however, no Metric specifications exist for A 354.

The bolts were fabricated to A 354BD material standards, for which they passed Quality Control (QC) testing; threading and dimensions are apparently to A 325M.

Contract Plans (CP) Sheet 830 calls for a 30 mm diameter A 354BD bolt. Since A 354 does not have a Metric version, per CP notes sheet 423, the Contractor should have provided A 354BD bolts, inch diameter verified with Design.

Applicable reference:

Contract Plans:

Sheet 423, "General Notes No. 1," "Substitution of Non-Metric HS Fasteners": "Bolts and rods designated as xx Dia...standard specifications."

Sheet 830R01, "Bikepath Details No. 6"

Who discovered the problem: ASMR, Markian Petrina**Name of individual from Contractor notified:** Charles Kanapicki, PE, QCM**Time and method of notification:** Telephone message, 11:15 AM, 7/18/08**Name of Caltrans Engineer notified:** Ron Matin**Time and method of notification:** Telephone conversation, 9 AM, 7/18/08**QC Inspector's Name:** Unknown**Was QC Inspector aware of the problem:**

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)

Yes No

Contractor's proposal to correct the problem:

Accept the bolts as "fit for purpose," as they pass mechanical testing and A 563M nuts can be threaded onto the bolts without excessive force.

Comments:

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Venkatesh Iyer,(858) 967-6363, who represents the Office of Structural Materials for your project.

Inspected By:	Petrina,Markian	SMR
Reviewed By:	Iyer,Venkatesh	SMR

CERTIFIED TEST REPORT

 **DYSON CORP.**

 **DOMESTIC NUT**

**53 Freedom Road
Painesville, OH 44077**

**440-946-3500
440-352-2700 fax**

<i>DYSON ORDER#</i>	<i>CUSTOMER ORDER#</i>	<i>ITEM NUMBER</i>	<i>QUANTITY SHIPPED</i>	<i>DATE SHIPPED</i>
L 91397	660110-SA-017	19 of 34	4 pcs	11/14/07

CUSTOMER
**American Bridge / Fluor JV
375 Burma Road
Oakland, CA 94607**

USA

DRAWING
829C

PRODUCT DESCRIPTION
**M30 x 3.5-6g x 420mm lg. hex bolt per DIN 6914
w/115mm useable thread. Reference Sheet # 829C of
1204. HDG per ASTM-A123 w/near white blast. Bike
Path (Third Attachment) / Bid Item 58**

SPECIFICATIONS
**ASTM-A354-04 Grade BD with special provisions
10-1.59, 10-1.60, 10-1.61 std specifications 75-1.05**

<i>STARTING MATERIAL</i>	<i>DIA</i>	<i>GRADE</i>	<i>QTY</i>	<i>LOT CODE</i>	<i>HEAT NO.</i>	<i>ORIGINAL MILL</i>
Round Bar	1.187	4140	4	LNx8	704380	Alton Steel

The product listed above was manufactured, tested, sampled, and inspected in accordance with the specification, purchase order, and any supplementary requirements and was found to meet those requirements unless otherwise noted.

1. The steel was melted and manufactured in the USA and the product was manufactured and tested in the USA.
 2. Heat treat data: Austenitized at 1580 deg. F. for 2-1/2 hours and oil quenched and tempered at 1050 deg. F. for 2-1/2 hours and air cooled.
 3. Hardness Results (2 samples): 341 HBW, 341 HBW
 4. These ASTM-A354-04 Grade BD fasteners conform to the provisions of ASTM-A143.
 5. Product meets the material and mechanical standards of ASTM A 354 Grade BD.
- Product dimensions are in conformance with DIN 6914. Product Threads are in conformance with DIN 13. Product is marked in conformance with of ASTM A 354 Grade BD.

Attachments:

Mill Test Report
Mechanical Test Report
Galvanizing Certification
Embrittlement Test Report



**Steve Marsh
Q.A. Manager**

7/25/08



CERTIFIED MILL TEST REPORT

Alton Steel Test Lab
#5 Cut Street
Alton, IL 62002-9011
(618) 463-4490 EXT 2486
(618) 463-4491 (Fax)

CODE LNX8

BILL TO

The Dyson Corporation
53 Freedom Road
Painesville, OH 44077

SHIP TO

The Dyson Corporation
53 Freedom Road
Painesville, OH 44077

Date	05/17/2007	Customer PO	53622-1	Specifications
ASI Ord No.	16173	Customer PT.		SAE 4140
ASI Ord Line Item	1			

Item Description
Steel Bar, Hot Rolled, 1.1870, 20' 0"

Strand Cast, RR = 44.28:1

Heat Number

Yield PSI

Tensile PSI

% Elongation

% ROA

Bend Test

CHEMICAL ANALYSIS TEST METHODS ASTM E-415 & E-1019

Heat Number	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Sn	Al	Nb/Cb	V	B	Ti	N	Ca
704380	0.42	0.81	0.015	0.026	0.28	0.26	0.090	0.936	0.164	0.015	0.003	0.027	0.005	0.0002	0.0024	0.0099	0.0014

JOMINY HARDENABILITY USING ASTM A-255 CALCULATED FROM CHEMICAL DI

Heat Number	GS	DI
704380	8	5.01

SPECIAL TEST RESULTS

ADDITIONAL COMMENTS

No mercury, lead, radium, or alpha containing material or equipment is used or deliberately added in the production of this steel. No weld or weld repairs were performed on this material. This Steel is 100% Electric Arc Furnace Melted and Rolled in the U.S.A.

Alteration or reproduction of this report, except in full, is not allowed without written approval by a representative of Alton Steel Incorporated.

I hereby certify that the above tests are correct as contained in the records of ALTON STEEL INCORPORATED

Quality Leader: Robert Cauley

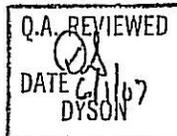
R Cauley

Subscribed and sworn to before me, a Notary Public, in and for the county of Madison, State of Illinois

this _____ Day of _____

My commission expires _____

(Notary Public)



LNX

9/19/2007

Material Testing and Non-Destructive Testing

Debbie Smith
Dyson Corp
53 Freedom Rd
Painesville, OH 44077-1232

5405 E. Schaaf Road
Cleveland, OH 44131
USA

Date Received: 9/17/2007

Telephone : (216) 524-1450
Fax : (216) 524-1459
Website : www.storkherron.com

Test Report No.: DYS006-07-09-45214-1

TEST REPORT

P.O. No.: 56041

Sample Description: One (1) M30 X 3.5-6g X 420mm Hex Bolt, Heat#: 704380, Heat Code: LNX8, Job # L91397, Customer PO# 660110-SA-017, Spec. ASTM A354, Grade BD

MECHANICAL TESTING PER ASTM F606-06, ASTM A370-06

	Full Size Yield .2% offset		Ultimate Strength with a 6° Wedge	
	(Lbs.)	(psi)	(Lbs.)	(psi)
Results:	140000	161000	140200	161000
Required:	-	> 130000 Min.	130500 Min.	-

The sample fractured in the threads.

CONFORMANCE

Sample test data is in conformance with customer requirements listed above.

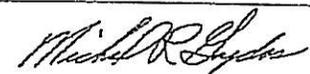
QUALITY ASSURANCE STATEMENT

The above services were performed in accordance with Herron Testing Laboratories' Quality Assurance Program Edition #1, Revision 2 dated 1/30/07 as audited and approved by Dyson Corporation on 3/12/07.

This material was not contaminated by mercury or chlorinated solvents during the handling and processing at Stork-Herron Testing Laboratories facilities.

The reported results represent the actual attributes of the material tested and indicate full compliance with all applicable specification and contract requirements.

The above services were performed in accordance with Herron Testing Laboratories' Quality Assurance Program Edition 1, Revision 2 dated 1/30/07. Information and statements in this report are derived from material, information and/or specifications furnished by the client and exclude any expressed or implied warranties as to the fitness of the material tested or analyzed for any particular purpose or use. This report is the confidential property of our client and may not be used for advertising purposes. This report shall not be reproduced except in full, without written approval of this laboratory. The recording of false, fictitious or fraudulent statements or entries on this document may be punished as a felony under Federal Statutes including Federal Law Title 18, Chapter 47. Sample remnants are held for a minimum of 30 days following issuance of test results, at which point they will be discarded unless notified in writing by the client. This material was not contaminated by mercury or chlorinated solvents during the handling and processing at Stork-Herron Testing Laboratories facilities.



Michael R. Gaydos
General Manager, COO

CERTS

DATE		9/19/2007									
THE ART GALVANIZING WKS., INC.											
3935 VALLEY ROAD-CLEVELAND, OHIO 44109 PHONE 216-749-0020											
PACKING SLIP/CERTIFICATIONS											
TO		DYSON CORP				PO#		56064			
NOTE: THE FOLLOWING MATERIAL HAS BEEN HOT DIP GALVANIZED TO ASTM-A 153 OR ASTM-A 123 (LATEST REVISION) SPECIFICATIONS AS APPLICABLE. A COPY OF THE ABOVE PURCHASE ORDER IS AN INTEGRAL PART OF THIS CERTIFICATION AND SHOULD BE ATTACHED.											
S/O L91385			S/O L91396			S/O L91397					
M30-3.5-6GX435MM HEX BOLT			M30-3.5-6GX460MM HEX BOLT			M30-3.5-6GX420MM HEX BOLT					
26PCS			19PCS			6PCS					
GALV WEIGHT		151#	GALV WEIGHT		124#	GALV WEIGHT		34#			
INCHES	OZ/SQ FT		INCHES	OZ/SQ FT		INCHES	OZ/SQ FT				
0.0064	3.76		0.0058	3.41		0.006	3.53				
0.007	4.12		0.006	3.53		0.0062	3.65				
0.0072	4.24		0.0066	3.88		0.0064	3.76				
0.0074	4.35		0.007	4.12		0.0068	4.00				
0.0078	4.59		0.0072	4.24		0.007	4.12				
AVG	4.21		AVG	3.84		AVG	3.81				
S/O L91398			S/O L91404			S/O L91409					
M30-3.5-6GX560MM HHB			M24-3-6GX300MM HX BOLT			M24-3-6GX480MM HB					
7PCS			56PCS			20PCS					
GALV WEIGHT		51#	GALV WEIGHT		165#	GALV WEIGHT		92#			
INCHES	OZ/SQ FT		INCHES	OZ/SQ FT		INCHES	OZ/SQ FT				
0.0044	2.59		0.006	3.53		0.0054	3.18				
0.006	3.53		0.0062	3.65		0.0058	3.41				
0.0062	3.65		0.0064	3.76		0.006	3.53				
0.0064	3.76		0.0066	3.88		0.0064	3.76				
0.0066	3.88		0.0068	4.00		0.007	4.12				
AVG	3.48		AVG	3.76		AVG	3.60				
GALV WEIGHT			GALV WEIGHT			GALV WEIGHT					
INCHES	OZ/SQ FT		INCHES	OZ/SQ FT		INCHES	OZ/SQ FT				
0	0.00		0	0.00		0	0.00				
0	0.00		0	0.00		0	0.00				
0	0.00		0	0.00		0	0.00				
0	0.00		0	0.00		0	0.00				
0	0.00		0	0.00		0	0.00				
AVG	0.00		AVG	0.00		AVG	0.00				

Pat M...

10/1/2007

Debbie Smith
Dyson Corp
53 Freedom Rd
Painesville, OH 44077-1232

Date Received: 9/24/2007

Test Report No.: DYS006-07-09-45658-1

Material Testing and Non-Destructive Testing

5405 E. Schaal Road
Cleveland, OH 44131
USA

Telephone : (216) 524-1450
Fax : (216) 524-1459
Website : www.storkherron.com

P.O. No.: 56150

TEST REPORT

Sample Description: One (1) M30 X 3.5-6G X 435MM Hex Bolt, Heat #: 704380, Heat Code: LNX6, LNX7, LNX8, LNX9, Material per ASTM A354, Grade BD, Job # L91385, L91396, L91397, L91398, Customer PO# 660110-SA-017

MECHANICAL TESTING PER ASTM F606

Hydrogen Embrittlement Test 4° Wedge Torque Method	
48 Hours	964 Ft. Lbs.
1	Visually Satisfactory

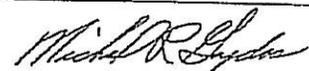
QUALITY ASSURANCE STATEMENT

The above services were performed in accordance with Herron Testing Laboratories' Quality Assurance Program Edition #1, Revision 2 dated 1/30/07 as audited and approved by Dyson Corporation on 3/12/07.

This material was not contaminated by mercury or chlorinated solvents during the handling and processing at Stork-Herron Testing Laboratories facilities.

The reported results represent the actual attributes of the material tested and indicate full compliance with all applicable specification and contract requirements.

The above services were performed in accordance with Herron Testing Laboratories' Quality Assurance Program Edition 1, Revision 2 dated 1/30/07. Information and statements in this report are derived from material, information and/or specifications furnished by the client and exclude any expressed or implied warranties as to the fitness of the material tested or analyzed for any particular purpose or use. This report is the confidential property of our client and may not be used for advertising purposes. This report shall not be reproduced except in full, without written approval of this laboratory. The recording of false, fictitious or fraudulent statements or entries on this document may be punished as a felony under Federal Statutes including Federal Law Title 18, Chapter 47. Sample remnants are held for a minimum of 30 days following issuance of test results, at which point they will be discarded unless notified in writing by the client. This material was not contaminated by mercury or chlorinated solvents during the handling and processing at Stork-Herron Testing Laboratories facilities.



Michael R. Gaydos
General Manager, COO

CERTIFIED TEST REPORT

DYSON CORP.

DIN DOMESTIC NUT

53 Freedom Road
Painesville, OH 44077

440-946-3500
440-352-2700 fax

DYSON ORDER#	CUSTOMER ORDER#	ITEM NUMBER	QUANTITY SHIPPED	DATE SHIPPED
L 91385	660110-SA-017	7 of 34	23 pcs	11/14/07

CUSTOMER
American Bridge / Fluor JV
375 Burma Road
Oakland, CA 94607

USA

DRAWING
830C thru 832C

PRODUCT DESCRIPTION
M30 x 3.5-6g x 435mm lg. hex bolt per DIN 6914 w/150mm useable thread. Ref. Sheet #'s 830C, 831C & 832C of 1204. HDG per ASTM-A123 w/near white blast. Bike Path (Upper Attachment) / Bid Item 58

SPECIFICATIONS
ASTM-A354-04 Grade BD with special provisions 10-1.59, 10-1.60, 10-1.61 std specifications 75-1.05

STARTING MATERIAL	DIA	GRADE	QTY	LOT CODE	HEAT NO.	ORIGINAL MILL
Round Bar	1.187	4140	23	LNX6	704380	Alton Steel

The product listed above was manufactured, tested, sampled, and inspected in accordance with the specification, purchase order, and any supplementary requirements and was found to meet those requirements unless otherwise noted.

1. The steel was melted and manufactured in the USA and the product was manufactured and tested in the USA.
 2. Heat treat data: Austenitized at 1580 deg. F. for 2-1/2 hours and oil quenched and tempered at 1050 deg. F. for 2-1/2 hours and air cooled.
 3. Hardness Results (3 samples): 341 HBW, 341 HBW, 341 HBW
 4. These ASTM-A354-04 Grade BD fasteners conform to the provisions of ASTM-A143.
 5. Product meets the material and mechanical standards of ASTM A 354 Grade BD.
- Product dimensions are in conformance with DIN 6914. Product Threads are in conformance with DIN 13. Product is marked in conformance with of ASTM A 354 Grade BD.

Attachments:

Mill Test Report
Mechanical Test Report
Galvanizing Certification
Embrittlement Test Report


Steve Marsh
Q.A. Manager
7/25/08



CERTIFIED MILL TEST REPORT

Alton Steel Test Lab
#5 Cut Street
Alton, IL 62002-9011
(618) 463-4490 EXT 2486
(618) 463-4491 (Fax)

CODE LNX6

BILL TO

The Dyson Corporation
53 Freedom Road
Painesville, OH 44077

SHIP TO

The Dyson Corporation
53 Freedom Road
Painesville, OH 44077

Date 05/17/2007	Customer PO 53622-1	Specifications
ASI Ord No. 16173	Customer PT.	SAE 4140
ASI Ord Line Item 1		

Item Description: Steel Bar, Hot Rolled, 1.1870, 20' 0"
 Heat Number: _____
 Strand Cast, RR = 44.28:1

Yield PSI Tensile PSI % Elongation % ROA Bend Test

CHEMICAL ANALYSIS TEST METHODS ASTM E-415 & E-1019																	
Heat Number	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Sn	Al	Nb/Cb	V	B	Ti	N	Ca
704380	0.42	0.81	0.015	0.026	0.28	0.26	0.090	0.936	0.164	0.015	0.003	0.027	0.005	0.0002	0.0024	0.0099	0.0014

JOMINY HARDENABILITY USING ASTM A-255 CALCULATED FROM CHEMICAL DI

Heat Number	GS	DI
704380	8	5.01

SPECIAL TEST RESULTS

ADDITIONAL COMMENTS

No mercury, lead, radium, or alpha containing material or equipment is used or deliberately added in the production of this steel. No weld or weld repairs were performed on this material. This Steel is 100% Electric Arc Furnace Melted and Rolled in the U.S.A.

Alteration or reproduction of this report, except in full, is not allowed without written approval by a representative of Alton Steel Incorporated.

I hereby certify that the above tests are correct as contained in the records of ALTON STEEL INCORPORATED

Subscribed and sworn to before me, a Notary Public, in and for the county of Madison, State of Illinois

this _____ Day of _____

My commission expires _____

(Notary Public)

Quality Leader: Rubert Cauley

R Cauley

Q.A. REVIEWED
 DATE 6/1/07
 DYSON

LNX

9/19/2007

Material Testing and Non-Destructive Testing

Debbie Smith
Dyson Corp
53 Freedom Rd
Painesville, OH 44077-1232

5405 E. Schaaf Road
Cleveland, OH 44131
USA

Date Received: 9/17/2007

Telephone : (216) 524-1450
Fax : (216) 524-1459
Website : www.storkherron.com

Test Report No.: DYS006-07-09-45167-1

TEST REPORT

P.O. No.: 56047

Sample Description: One (1) M30 X 3.5-6g X 435mm Hex Bolt, Heat#: 704380, Heat Code: LNX6, Job # L91385, Customer PO# 660110-SA-017, Spec. ASTM A354, Grade BD

MECHANICAL TESTING PER ASTM F606-06, ASTM A370-06

	Full Size Yield .2% offset		Ultimate Strength with a 10° Wedge	
	(Lbs.)	(psi)	(Lbs.)	(psi)
Results:	136000	156000	142800	164000
Required:	-	130000 Min.	82050 Min.	-

The sample fractured in the threads.

CONFORMANCE

Sample test data is in conformance with customer requirements listed above.

QUALITY ASSURANCE STATEMENT

The above services were performed in accordance with Herron Testing Laboratories' Quality Assurance Program Edition #1, Revision 2 dated 1/30/07 as audited and approved by Dyson Corporation on 3/12/07.

This material was not contaminated by mercury or chlorinated solvents during the handling and processing at Stork-Herron Testing Laboratories facilities.

The reported results represent the actual attributes of the material tested and indicate full compliance with all applicable specification and contract requirements.

The above services were performed in accordance with Herron Testing Laboratories' Quality Assurance Program Edition 1, Revision 2 dated 1/30/07. Information and statements in this report are derived from material, information and/or specifications furnished by the client and exclude any expressed or implied warranties as to the fitness of the material tested or analyzed for any particular purpose or use. This report is the confidential property of our client and may not be used for advertising purposes. This report shall not be reproduced except in full, without written approval of this laboratory. The recording of false, fictitious or fraudulent statements or entries on this document may be punished as a felony under Federal Statutes including Federal Law Title 18, Chapter 47. Sample remnants are held for a minimum of 30 days following issuance of test results, at which point they will be discarded unless notified in writing by the client. This material was not contaminated by mercury or chlorinated solvents during the handling and processing at Stork-Herron Testing Laboratories facilities.



Michael R. Gaydos
General Manager, COO

CERTS

DATE	9/19/2007								
THE ART GALVANIZING WKS., INC. 3935 VALLEY ROAD-CLEVELAND, OHIO 44109 PHONE 216-749-0020									
PACKING SLIP/CERTIFICATIONS									
TO	DYSON CORP			PO#	56064				
NOTE:	THE FOLLOWING MATERIAL HAS BEEN HOT DIP GALVANIZED TO ASTM-A 153 OR ASTM-A 123 (LATEST REVISION) SPECIFICATIONS AS APPLICABLE. A COPY OF THE ABOVE PURCHASE ORDER IS AN INTEGRAL PART OF THIS CERTIFICATION AND SHOULD BE ATTACHED.								
S/O L91385			S/O L91396			S/O L91397			
M30-3.5-6GX435MM HEX BOLT			M30-3.5-6GX460MM HEX BOLT			M30-3.5-6GX420MM HEX BOLT			
26PCS			19PCS			6PCS			
GALV WEIGHT 151#			GALV WEIGHT 124#			GALV WEIGHT 34#			
INCHES	OZ/SQ FT		INCHES	OZ/SQ FT		INCHES	OZ/SQ FT		
0.0064	3.76		0.0058	3.41		0.006	3.53		
0.007	4.12		0.006	3.53		0.0062	3.65		
0.0072	4.24		0.0066	3.88		0.0064	3.76		
0.0074	4.35		0.007	4.12		0.0068	4.00		
0.0078	4.59		0.0072	4.24		0.007	4.12		
AVG	4.21		AVG	3.84		AVG	3.81		
S/O L91398			S/O L91404			S/O L91409			
M30-3.5-6GX560MM HHB			M24-3-6GX300MM HX BOLT			M24-3-6GX480MM HB			
7PCS			56PCS			20PCS			
GALV WEIGHT 51#			GALV WEIGHT 165#			GALV WEIGHT 92#			
INCHES	OZ/SQ FT		INCHES	OZ/SQ FT		INCHES	OZ/SQ FT		
0.0044	2.59		0.006	3.53		0.0054	3.18		
0.006	3.53		0.0062	3.65		0.0058	3.41		
0.0062	3.65		0.0064	3.76		0.006	3.53		
0.0064	3.76		0.0066	3.88		0.0064	3.76		
0.0066	3.88		0.0068	4.00		0.007	4.12		
AVG	3.48		AVG	3.76		AVG	3.60		
GALV WEIGHT			GALV WEIGHT			GALV WEIGHT			
INCHES	OZ/SQ FT		INCHES	OZ/SQ FT		INCHES	OZ/SQ FT		
0	0.00		0	0.00		0	0.00		
0	0.00		0	0.00		0	0.00		
0	0.00		0	0.00		0	0.00		
0	0.00		0	0.00		0	0.00		
0	0.00		0	0.00		0	0.00		
AVG	0.00		AVG	0.00		AVG	0.00		

Pak Makoney

10/1/2007

Debbie Smith
Dyson Corp
53 Freedom Rd
Painesville, OH 44077-1232

Date Received: 9/24/2007

Test Report No.: DYS006-07-09-45658-1

Material Testing and Non-Destructive Testing

5405 E. Schaaf Road
Cleveland, OH 44131
USA

Telephone : (216) 524-1450
Fax : (216) 524-1459
Website : www.storkherron.com

P.O. No.: 56150

TEST REPORT

Sample Description: One (1) M30 X 3.5-6G X 435MM Hex Bolt, Heat #: 704380, Heat Code: LNX6, LNX7, LNX8, LNX9, Material per ASTM A354, Grade BD, Job # L91385, L91396, L91397, L91398, Customer PO# 660110-SA-017

MECHANICAL TESTING PER ASTM F606

Hydrogen Embrittlement Test	
4° Wedge	
Torque Method	
48 Hours	964 Ft. Lbs.
1	Visually Satisfactory

QUALITY ASSURANCE STATEMENT

The above services were performed in accordance with Herron Testing Laboratories' Quality Assurance Program Edition #1, Revision 2 dated 1/30/07 as audited and approved by Dyson Corporation on 3/12/07.

This material was not contaminated by mercury or chlorinated solvents during the handling and processing at Stork-Herron Testing Laboratories facilities.

The reported results represent the actual attributes of the material tested and indicate full compliance with all applicable specification and contract requirements.

The above services were performed in accordance with Herron Testing Laboratories' Quality Assurance Program Edition 1, Revision 2 dated 1/30/07. Information and statements in this report are derived from material, information and/or specifications furnished by the client and exclude any expressed or implied warranties as to the fitness of the material tested or analyzed for any particular purpose or use. This report is the confidential property of our client and may not be used for advertising purposes. This report shall not be reproduced except in full, without written approval of this laboratory. The recording of false, fictitious or fraudulent statements or entries on this document may be punished as a felony under Federal Statutes including Federal Law Title 18, Chapter 47. Sample remnants are held for a minimum of 30 days following issuance of test results, at which point they will be discarded unless notified in writing by the client. This material was not contaminated by mercury or chlorinated solvents during the handling and processing at Stork-Herron Testing Laboratories facilities.



Michael R. Gaydos
General Manager, COO

CERTIFIED TEST REPORT

DYSON CORP.

DIN DOMESTIC NUT

53 Freedom Road
Painesville, OH 44077

440-946-3500
440-352-2700 fax

DYSON ORDER#	CUSTOMER ORDER#	ITEM NUMBER	QUANTITY SHIPPED	DATE SHIPPED
L 91396	660110-SA-017	18 of 34	19 pcs	11/14/07

CUSTOMER
American Bridge / Fluor JV
375 Burma Road
Oakland, CA 94607

USA

DRAWING
830C

PRODUCT DESCRIPTION
M30 x 3.5-6g x 460mm lg. hex bolt per DIN 6914 w/150mm useable thread. Reference Sheet # 830C of 1204. HDG per ASTM-A123 w/near white blast. Bike Path (Lower Attachment) / Bid Item 58

SPECIFICATIONS
ASTM-A354-04 Grade BD with special provisions 10-1.59, 10-1.60, 10-1.61 std specifications 75-1.05

STARTING MATERIAL	DIA	GRADE	QTY	LOT CODE	HEAT NO.	ORIGINAL MILL
Round Bar	1.187	4140	19	LNx7	704380	Alton Steel

The product listed above was manufactured, tested, sampled, and inspected in accordance with the specification, purchase order, and any supplementary requirements and was found to meet those requirements unless otherwise noted.

1. The steel was melted and manufactured in the USA and the product was manufactured and tested in the USA.
 2. Heat treat data: Austenitized at 1580 deg. F. for 2-1/2 hours and oil quenched and tempered at 1050 deg. F. for 2-1/2 hours and air cooled.
 3. Hardness Results (3 samples): 341 HBW, 341 HBW, 341 HBW
 4. These ASTM-A354-04 Grade BD fasteners conform to the provisions of ASTM-A143.
 5. Product meets the material and mechanical standards of ASTM A 354 Grade BD.
- Product dimensions are in conformance with DIN 6914. Product Threads are in conformance with DIN 13. Product is marked in conformance with of ASTM A 354 Grade BD.

Attachments:

Mill Test Report
Mechanical Test Report
Galvanizing Certification
Embrittlement Test Report



Steve Marsh
Q.A. Manager

7/25/08



CERTIFIED MILL TEST REPORT

Alton Steel Test Lab
#5 Cut Street
Alton, IL. 62002-9011
(618) 463-4490 EXT 2486
(618) 463-4491 (Fax)

CODE LNX7

BILL TO

The Dyson Corporation
53 Freedom Road
Painesville, OH 44077

SHIP TO

The Dyson Corporation
53 Freedom Road
Painesville, OH 44077

Date	05/17/2007	Customer PO	53622-1	Specifications
ASI Ord No.	16173	Customer PT.		SAE 4140
ASI Ord Line Item	1			

Item Description
Steel Bar, Hot Rolled, 1.1870, 20' 0"

Strand Cast, RR = 44.28:1

Heat Number

Heat Number	CHEMICAL ANALYSIS TEST METHODS ASTM E-415 & E-1019											Bend Test					
	C	Mn	P	S	SI	Cu	NI	Cr	Mo	Sn	Al	Nb/Cb	V	B	Ti	N	Ca
704380	0.42	0.81	0.015	0.026	0.28	0.26	0.090	0.936	0.164	0.015	0.003	0.027	0.005	0.0002	0.0024	0.0099	0.0014

JOMINY HARDENABILITY USING ASTM A-255 CALCULATED FROM CHEMICAL DI

Heat Number	GS	DI
704380	8	5.01

SPECIAL TEST RESULTS

ADDITIONAL COMMENTS

No mercury, lead, radium, or alpha containing material or equipment is used or deliberately added in the production of this steel. No weld or weld repairs were performed on this material. This Steel is 100% Electric Arc Furnace Melted and Rolled in the U.S.A.

Alteration or reproduction of this report, except in full, is not allowed without written approval by a representative of Alton Steel Incorporated.

I hereby certify that the above tests are correct as contained in the records of ALTON STEEL INCORPORATED

Subscribed and sworn to before me, a Notary Public, in and for the county of Madison, State of Illinois

Quality Leader: Robert Cauley

this _____ Day of _____

My commission expires _____

R Cauley

(Notary Public)

Q.A. REVIEWED
DATE 5/17/07
DYSON

LNX

9/19/2007

Debbie Smith
Dyson Corp
53 Freedom Rd
Painesville, OH 44077-1232

Date Received: 9/17/2007

Test Report No.: DYS006-07-09-45166-1

Material Testing and Non-Destructive Testing

5405 E. Schaaf Road
Cleveland, OH 44131
USA

Telephone : (216) 524-1450
Fax : (216) 524-1459
Website : www.storkherron.com

P.O. No.: 56046

TEST REPORT

Sample Description: One (1) M30 X 3.5-6g X 460mm Hex Bolt, Heat #: 704380, Heat Code: LNX7, Job # L91396, Customer PO# 660110-SA-017, Spec. ASTM A354, Grade BD

MECHANICAL TESTING PER ASTM F606-06, ASTM A370-06

	Full Size Yield .2% offset		Ultimate Strength with a 6° Wedge	
	(Lbs.)	(psi)	(Lbs.)	(psi)
Results:	130000	150000	139100	160000
Required:	-	130000 Min.	130500 Min.	-

The sample fractured in the threads.

CONFORMANCE

Sample test data is in conformance with customer requirements listed above.

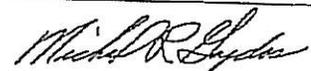
QUALITY ASSURANCE STATEMENT

The above services were performed in accordance with Herron Testing Laboratories' Quality Assurance Program Edition #1, Revision 2 dated 1/30/07 as audited and approved by Dyson Corporation on 3/12/07.

This material was not contaminated by mercury or chlorinated solvents during the handling and processing at Stork-Herron Testing Laboratories facilities.

The reported results represent the actual attributes of the material tested and indicate full compliance with all applicable specification and contract requirements.

The above services were performed in accordance with Herron Testing Laboratories' Quality Assurance Program Edition 1, Revision 2 dated 1/30/07. Information and statements in this report are derived from material, information and/or specifications furnished by the client and exclude any expressed or implied warranties as to the fitness of the material tested or analyzed for any particular purpose or use. This report is the confidential property of our client and may not be used for advertising purposes. This report shall not be reproduced except in full, without written approval of this laboratory. The recording of false, fictitious or fraudulent statements or entries on this document may be punished as a felony under Federal Statutes including Federal Law Title 18, Chapter 47. Sample remnants are held for a minimum of 30 days following issuance of test results, at which point they will be discarded unless notified in writing by the client. This material was not contaminated by mercury or chlorinated solvents during the handling and processing at Stork-Herron Testing Laboratories facilities.



Michael R. Gaydos
General Manager, COO

CERTS

DATE	9/19/2007								
THE ART GALVANIZING WKS., INC.									
3935 VALLEY ROAD-CLEVELAND, OHIO 44109 PHONE 216-749-0020									
PACKING SLIP/CERTIFICATIONS									
TO	DYSON CORP			PO#	56064				
NOTE:	THE FOLLOWING MATERIAL HAS BEEN HOT DIP GALVANIZED TO ASTM-A 153 OR ASTM-A 123 (LATEST REVISION) SPECIFICATIONS AS APPLICABLE. A COPY OF THE ABOVE PURCHASE ORDER IS AN INTEGRAL PART OF THIS CERTIFICATION AND SHOULD BE ATTACHED.								
S/O L91383			S/O L91396			S/O L91397			
M30-3.5-6GX435MM HEX BOLT			M30-3.5-6GX460MM HEX BOLT			M30-3.5-6GX420MM HEX BOLT			
26PCS			19PCS			6PCS			
GALV WEIGHT 151#			GALV WEIGHT 124#			GALV WEIGHT 34#			
INCHES	OZ/SQ FT		INCHES	OZ/SQ FT		INCHES	OZ/SQ FT		
0.0064	3.76		0.0058	3.41		0.006	3.53		
0.007	4.12		0.006	3.53		0.0062	3.65		
0.0072	4.24		0.0066	3.88		0.0064	3.76		
0.0074	4.35		0.007	4.12		0.0068	4.00		
0.0078	4.59		0.0072	4.24		0.007	4.12		
AVG	4.21		AVG	3.84		AVG	3.81		
S/O L91398			S/O L91404			S/O L91409			
M30-3.5-6GX560MM HHB			M24-3-6GX300MM HX BOLT			M24-3-6GX480MM HB			
7PCS			56PCS			20PCS			
GALV WEIGHT 51#			GALV WEIGHT 165#			GALV WEIGHT 92#			
INCHES	OZ/SQ FT		INCHES	OZ/SQ FT		INCHES	OZ/SQ FT		
0.0044	2.59		0.006	3.53		0.0054	3.18		
0.006	3.53		0.0062	3.65		0.0058	3.41		
0.0062	3.65		0.0064	3.76		0.006	3.53		
0.0064	3.76		0.0066	3.88		0.0064	3.76		
0.0066	3.88		0.0068	4.00		0.007	4.12		
AVG	3.48		AVG	3.76		AVG	3.60		
GALV WEIGHT			GALV WEIGHT			GALV WEIGHT			
INCHES	OZ/SQ FT		INCHES	OZ/SQ FT		INCHES	OZ/SQ FT		
0	0.00		0	0.00		0	0.00		
0	0.00		0	0.00		0	0.00		
0	0.00		0	0.00		0	0.00		
0	0.00		0	0.00		0	0.00		
0	0.00		0	0.00		0	0.00		
0	0.00		0	0.00		0	0.00		
AVG	0.00		AVG	0.00		AVG	0.00		

Pak material

10/1/2007

Debbie Smith
Dyson Corp
53 Freedom Rd
Painesville, OH 44077-1232

Date Received: 9/24/2007

Test Report No.: DYS006-07-09-45658-1

Material Testing and Non-Destructive Testing

5405 E. Schaaf Road
Cleveland, OH 44131
USA

Telephone : (216) 524-1450
Fax : (216) 524-1459
Website : www.storkherron.com

P.O. No.: 56150

TEST REPORT

Sample Description: One (1) M30 X 3.5-6G X 435MM Hex Bolt, Heat #: 704380, Heat Code: LNX6, LNX7, LNX8, LNX9, Material per ASTM A354, Grade BD, Job # L91385, L91396, L91397, L91398, Customer PO# 660110-SA-017

MECHANICAL TESTING PER ASTM F606

Hydrogen Embrittlement Test 4° Wedge Torque Method	
48 Hours	964 Ft. Lbs.
1	Visually Satisfactory

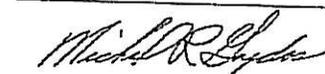
QUALITY ASSURANCE STATEMENT

The above services were performed in accordance with Herron Testing Laboratories' Quality Assurance Program Edition #1, Revision 2 dated 1/30/07 as audited and approved by Dyson Corporation on 3/12/07.

This material was not contaminated by mercury or chlorinated solvents during the handling and processing at Stork-Herron Testing Laboratories facilities.

The reported results represent the actual attributes of the material tested and indicate full compliance with all applicable specification and contract requirements.

The above services were performed in accordance with Herron Testing Laboratories' Quality Assurance Program Edition 1, Revision 2 dated 1/30/07. Information and statements in this report are derived from material, information and/or specifications furnished by the client and exclude any expressed or implied warranties as to the fitness of the material tested or analyzed for any particular purpose or use. This report is the confidential property of our client and may not be used for advertising purposes. This report shall not be reproduced except in full, without written approval of this laboratory. The recording of false, fictitious or fraudulent statements or entries on this document may be punished as a felony under Federal Statutes including Federal Law Title 18, Chapter 47. Sample remnants are held for a minimum of 30 days following issuance of test results, at which point they will be discarded unless notified in writing by the client. This material was not contaminated by mercury or chlorinated solvents during the handling and processing at Stork-Herron Testing Laboratories facilities.



Michael R. Gaydos
General Manager, COO

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
690 Walnut Ave. St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: xx.25A**QUALITY ASSURANCE -- NON-CONFORMANCE RESOLUTION****Location:** Dyson Corporation, Painesville, OH**Report No:** NCS-000061**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 30-Jul-2008**Submitting Contractor:** Dyson Corp. & Subs**NCR #:** DYSN-0002**Type of problem:**

Welding	Concrete	Other	
Welding	Curing	Procedural	Bridge No: 34-0006
Joint fit-up	Coating	Other	Component:
Procedural	Procedural	Descriptor:	

Date the Non-Conformance Report was written: 11-Jul-2008**Description of Non-Conformance:**

The Dyson Corporation Quality Control Manager (QCM) allowed submission of a Certificate of Compliance (COC) denoting conformance with a nonexistent specification: ASTM A 354 Grade BD, M30 (30 mm diameter); however, no Metric specifications exist for A 354.

The bolts were fabricated to A 354BD material standards, for which they passed Quality Control (QC) testing; threading and dimensions are apparently to A 325M.

Contract Plans (CP) Sheet 830 calls for a 30 mm diameter A 354BD bolt. Since A 354 does not have a Metric version, per CP notes sheet 423, the Contractor should have provided A 354BD bolts, inch diameter verified with Design.

Contractor's proposal to correct the problem:

Accept the bolts as "fit for purpose," as they pass mechanical testing and A 563M nuts can be threaded onto the bolts without excessive force.

Corrective action taken:

The contractor provided the correct COC's.

Did corrective action require Engineer's approval? Yes No**If so, name of Engineer providing approval:** Date:**Is Engineer's approval attached?** Yes No**Comments:**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Venkatesh Iyer (858) 967-6363, who represents the Office of Structural Materials for your project.

QUALITY ASSURANCE -- NON-CONFORMANCE RESOLUTION

(Continued Page 2 of 2)

Inspected By: Petrina,Markian

Quality Assurance Inspector

Reviewed By: Iyer,Venkatesh

QA Reviewer