

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-023361**Date Inspected:** 08-May-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name:	N/A	CWI Present:	Yes	No
Inspected CWI report:	Yes No N/A	Rod Oven in Use:	Yes	No N/A
Electrode to specification:	Yes No N/A	Weld Procedures Followed:	Yes	No N/A
Qualified Welders:	Yes No N/A	Verified Joint Fit-up:	Yes	No N/A
Approved Drawings:	Yes No N/A	Approved WPS:	Yes	No N/A
Bridge No:	34-0006	Delayed / Cancelled:	Yes	No N/A
		Component:	OBG Trial Assembly	

Summary of Items Observed:

On this date Caltrans OSM Quality Assurance (QA) Inspector Mr. S. Manjunath Math was present during the time noted above for observations relative to the work being performed.

This QA Inspector randomly observed the following work in progress:

Orthotropic Box Girder (OBG) at Trial Assembly Areas

Incident Report generated at Segment 13AE (WT Stiffener)

This Quality Assurance (QA) Inspector wrote an Incident Report for Impact Damaged and Distorted, WT Stiffener at Side Panel, 1st from the Edge Beam E13 for Segment 13AE and PP 117.5.

Please reference the Incident Report # 04-0120F4_TL-15_B278_05-07-2011_12CW_Bottom Panel _Distorted dated May 07, 2011 for further detail.

Please reference the pictures attached for more comprehensive details.

Incident Report generated at Segment 12CW (Bottom Panel Distorted)

This Quality Assurance (QA) Inspector validated the Incident Report by taking the pictures of distorted Bottom Panel, when the Segment 12CW was sitting flat on the saddle, on ZPMC Ship Zhenhua # 18, Forwarded the

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pictures to SMR Engineer Mr. Eric Tsang and to all the Lead Inspector.

After reviewing the pictures Non Conformance Report # ZPMC 0962 was generated and issued to ABF and ZPMC.

Please reference the pictures attached for more comprehensive details.

Segment 12CE (Floor Beam Angle Brace)

This QA Inspector witnessed final bolt tension verification for Floor Beam Angle Brace connecting the Side Panel I-Stiffener to the Floor Beam for Segment 12CE. At the following locations, inspected the bolt tensioning on a random basis and found the tension to be in general compliance. Inspection was performed against the Notification No. 00672 Dated May 08, 2011.

Segment 12CE at PP 117.

Floor Beam Angle Brace installed at 4th I-Rib (Bike Path side) reference taken from work point E1 towards E13.
Floor Beam Angle Brace installed at 3rd I-Rib (Cross Beam side) reference taken from work point E6 towards E14.

The bolt sizes used were M22 x 55 RC Lot # DHGM220011 and the final torque value established was 457 N-m.

The bolt sizes used were M22 x 60 RC Lot # DHGM220046 and the final torque value established was 483 N-m.

The Manual Torque wrench used was Serial No. XO2-666.

Segment 12CW (Floor Beam Angle Brace)

This QA Inspector witnessed final bolt tension verification for Floor Beam Angle Brace connecting the Side Panel I-Stiffener to the Floor Beam for Segment 12CW. At the following locations, inspected the bolt tensioning on a random basis and found the tension to be in general compliance. Inspection was performed against the Notification No. 00672 Dated May 08, 2011.

Segment 12CW at PP 117.

Floor Beam Angle Brace installed at 4th I-Rib (Counter Weight side) reference taken from work point W1 towards W13.

Floor Beam Angle Brace installed at 3rd I-Rib (Cross Beam side) reference taken from work point W6 towards W14.

The bolt sizes used were M22 x 55 RC Lot # DHGM220044 and the final torque value established was 473 N-m.

The bolt sizes used were M22 x 60 RC Lot # DHGM220046 and the final torque value established was 483 N-m.

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The Manual Torque wrench used was Serial No. XO2-777.

Segment 12CE (Splice Plates)

This QA Inspector witnessed the final bolt tension verification on bolts connecting the Splice Plates to Deck Panel Diaphragm and full height Longitudinal Diaphragm at elevation 4750mm (from Bottom Panel) for Segment 12CE. The QA Inspector verified the bolt tension on a random basis and the results appeared to be in general compliance. The Inspection was performed against Notification No. 00672 dated May 08, 2011.

The Splice plates are installed between the following Panel Points.

Segment 12CE between PP 117 to PP 117.25 at work point E4 (Cross Beam side) and E3 (Bike Path side).

The bolt sizes used were M24 x 75 RC Lot # DHGM240020 and the final torque value established was 600 N-m.

The bolt sizes used were M24 x 100 RC Lot # DHGM240022 and the final torque value established was 527 N-m.

The Manual Torque wrench used was Serial No. XO2-666.

Lift 12 East (Cross-brace Cable for Cable Tray's)

This QA Inspector witnessed the final tension verification for cross-brace cables for the Cable Tray structure connected diagonally by Crosby clips. The Cable Trays were installed at Bottom Panel Cross Beam and Bike Path side at following Panel Points for Segment 12AE, Segment 12BE and Segment 12CE. The QA Inspector verified the tension of cross-brace cables and observed the results appeared to be in general compliance with RFI No. ABF-RFI-001874R00 Dated August 27, 2009.

Inspection was performed against the Inspection Notification # 00672 dated May 08, 2011.

The Panel Points (PP) where the steel cables were installed for cable trays are identified as below.

Segment 12AE

Between PP 109 to PP 110.

Between PP110 to PP 111

Between PP111 to PP 112.

Between PP112 to PP 113.

Segment 12BE

Between PP 113 to PP 114.

Between PP114 to PP 115

Segment 12CE

Between PP 115 to PP 116.

Between PP116 to PP 117

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Lift 12 West (Cross-brace Cable for Cable Tray's)

This QA Inspector witnessed the final tension verification for cross-brace cables for the Cable Tray structure connected diagonally by Crosby clips. The Cable Trays were installed at Bottom Panel Cross Beam and Bike Path side at following Panel Points for Segment 12AW, Segment 12BW and Segment 12CW. The QA Inspector verified the tension of cross-brace cables and observed the results appeared to be in general compliance with RFI No. ABF-RFI-001874R00 Dated August 27, 2009.

Inspection was performed against the Inspection Notification # 00672 dated May 08, 2011.

The Panel Points (PP) where the steel cables were installed for cable trays are identified as below.

Segment 12AW

- Between PP 109 to PP 110.
- Between PP110 to PP 111
- Between PP111 to PP 112.
- Between PP112 to PP 113.

Segment 12BW

- Between PP 113 to PP 114.
- Between PP114 to PP 115

Segment 12CW

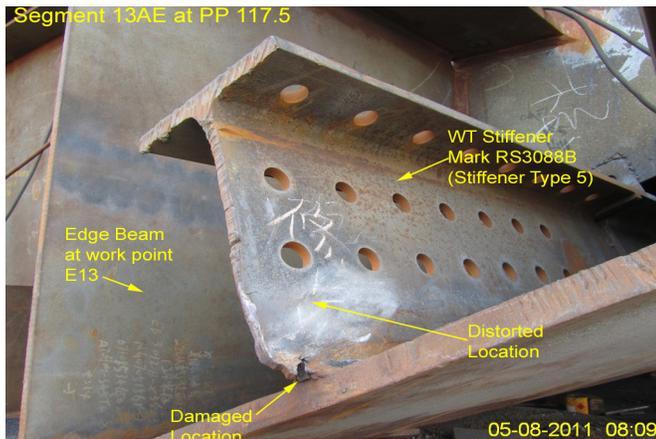
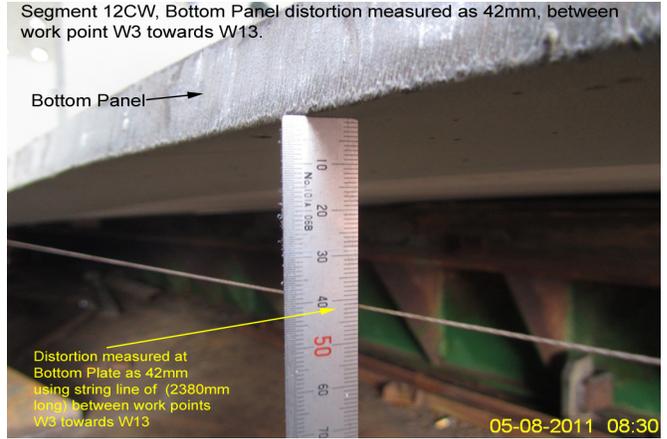
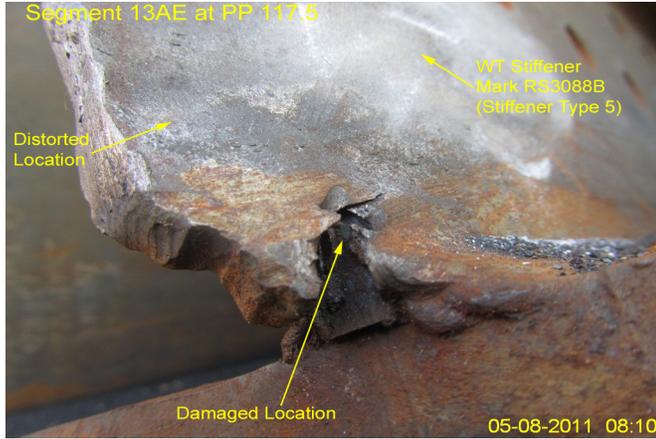
- Between PP 115 to PP 116.
- Between PP116 to PP 117

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.



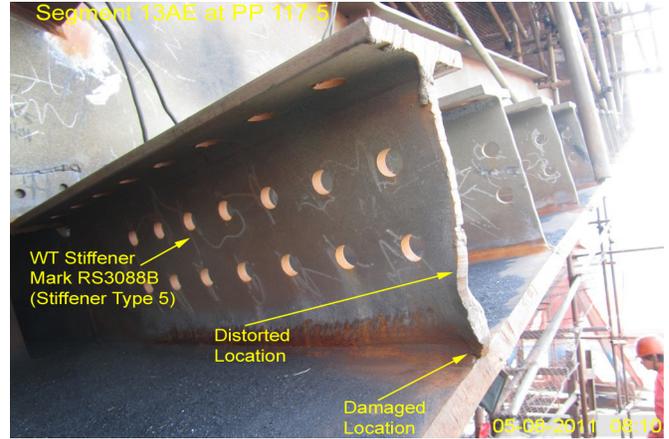
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Summary of Conversations:

No relevant conversations were reported on this date.

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 Eric Tsang 15000422372, who represents the Office of Structural Materials for your project.

Inspected By: Math,Manjunath

Quality Assurance Inspector

Reviewed By: Miller,Mark

QA Reviewer