

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 99.28**WELDING INSPECTION REPORT****Resident Engineer:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-019304**Date Inspected:** 13-Jan-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)**Location:** Shanghai, China**CWI Name:** Li Yang and Zhu Zhong Hai**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**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**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

South Tower Lift 5 (Grillage) to West Tower Lift 5 (Grillage)

This QA Inspector witnessed final bolt tension verification on bolts connecting the South Tower Lift 5 (Grillage) to West Tower Lift 5 (Grillage) splice plate at Line A. Inspected the bolt tensioning on a random basis and found the tension to be in general compliance. Inspection was performed against the Notification No. 00610 Dated January 13, 2011.

The bolt sizes used were M30 x 130 RC Lot # DH4DM300030 and the final torque value established was 1587 N-m.

The bolt sizes used were M30 x 140 RC Lot # DH4DM300031 and the final torque value established was 1547 N-m.

The bolt sizes used were M30 x 150 RC Lot # DH4DM300003 and the final torque value established was 1687

WELDING INSPECTION REPORT

(Continued Page 2 of 4)

N-m.

The bolt sizes used were M30 x 200 RC Lot # DH4DM300032 and the final torque value established was 1673 N-m.

The bolt sizes used were M30 x 200 RC Lot # DH4DM300033 and the final torque value established was 1553 N-m.

The bolt sizes used were M30 x 210 RC Lot # DH4DM300034 and the final torque value established was 1540 N-m.

The bolt sizes used were M30 x 220 RC Lot # DH4DM300015 and the final torque value established was 1607 N-m.

The bolt sizes used were M30 x 230 RC Lot # DH4DM300035 and the final torque value established was 1446 N-m.

The bolt sizes used were M30 x 260 RC Lot # DH4DM300036 and the final torque value established was 1680 N-m.

The bolt sizes used were M30 x 280 RC Lot # DH4DM300037 and the final torque value established was 1500 N-m.

The bolt sizes used were M30 x 320 RC Lot # DH4DM300039 and the final torque value established was 1573 N-m.

The bolt sizes used were M22 x 75 RC Lot # DH4DM220014 and the final torque value established was 473 N-m.

The Manual Torque wrench used was Serial No. XO2-747.

Please reference the pictures attached for more comprehensive details.

Segment 12BW to Segment 12CW (Transverse Splice weld)

This QA Inspector observed the in-process welding by Flux Cored Arc Welding (FCAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as OBW12E-002. The welder identification was 049220 and observed welding in the 3G (Vertical) position using approved Welding Procedure Specification WPS-B-T-2233T-ESAB. The piece mark was identified as the Side Panel, Cross Beam side at transverse splice.

Segment 12BW to Segment 12CW (Bottom Panel, Transverse Splice weld)

This QA Inspector observed the in-process welding by Flux Cored Arc Welding (FCAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as OBE12C-001. The welder identification was 053486 and 040736 and observed welding in the 1G (Flat) position using approved Welding Procedure

WELDING INSPECTION REPORT

(Continued Page 3 of 4)

Specification WPS-B-T-2231T-ESAB. The piece mark was identified as the Bottom Panel, at transverse splice.

Please reference the pictures attached for more comprehensive details.

Segment 12BW to Segment 12CW (Transverse Splice weld)

This QA Inspector observed the in-process welding by Flux Cored Arc Welding (FCAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as OBW12E-001. The welder identification was 040759 and observed welding in the 3G (Vertical) position using approved Welding Procedure Specification WPS-B-T-2233T-ESAB. The piece mark was identified as the Side Panel, Counter Weight side at transverse splice.

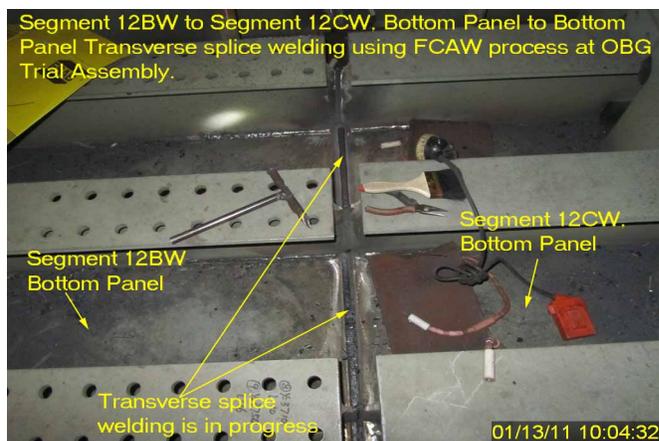
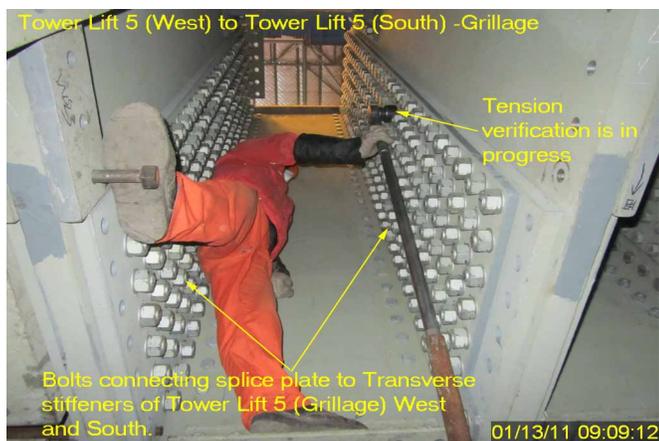
Segment 12BE (Deck Panel to Edge Panel hold back weld)

This QA Inspector observed the in-process welding by Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as CA3002-006. The welder identification was 050289 and was observed welding in the 4G (Overhead) position using approved Welding Procedure Specification WPS-B-P-2214-Tc-U4b-FCM-1. The piece mark was identified as weld connecting Deck Panel to Edge Panel hold back weld at work point E5.

Segment 12CE (Deck Panel to Edge Panel hold back weld)

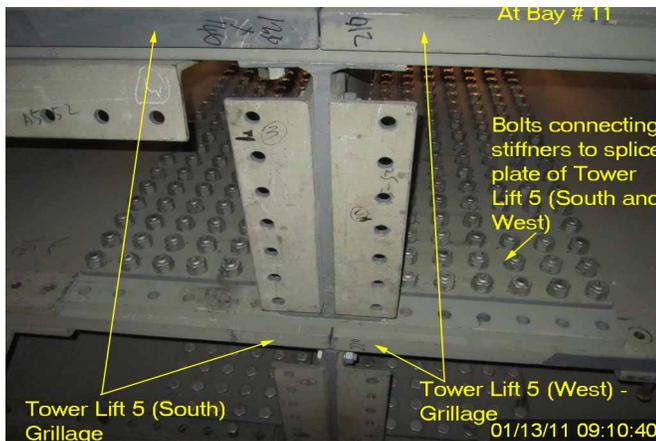
This QA Inspector observed the in-process welding by Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as CA3004-002. The welder identification was 050289 and was observed welding in the 4G (Overhead) position using approved Welding Procedure Specification WPS-B-P-2214-Tc-U4b-FCM-1. The piece mark was identified as weld connecting Deck Panel to Edge Panel hold back weld at work point E2.

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



WELDING INSPECTION REPORT

(Continued Page 4 of 4)



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 150000422372, who represents the Office of Structural Materials for your project.

Inspected By: Math,Manjunath

Quality Assurance Inspector

Reviewed By: Dsouza,Christopher

QA Reviewer