

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:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-007733**Date Inspected:** 05-Jul-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 1900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 700**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Zhang Zhi Neng**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:** Tower and OBG Components**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector George Goulet was present during the times noted above for observations relative to the work being performed.

OBG Trial Assembly Area

This QA Inspector, George Goulet, randomly observed the following in the corner assemblies of segments 2AE/2BE in response to Bolting Inspection Notification Sheet No. 00061:

Section 1AE/1BE, Lower chevron braces:

ZPMC workers performed final bolt tightening verification at the direction of ZPMC QC Inspector Hu Mei Gang (QC1) using ZPMC calibrated wrench #X02-584. The inner lower chevron bolt sets, DHGM220006 and DHGM220050, were tested using ZPMC hydraulic pump #PW090332001 and hydraulic wrench with unreadable serial number. These bolt sets were tested to refusal with the pump set at 23 MPa. No less than 10% of the ASTM A325 bolt sets at each connection were torque tested, with a minimum of one bolt set tested at each connection. QC1 provided this QA Inspector, George Goulet, with the following information regarding the bolt sets installed at this location. This QA Inspector, George Goulet, observed ZPMC's Bolt Test Log for SFOBB (RoCap list), listing the RoCap Set numbers, bolt set size, and the N.M test result for torque tightening purposes. The information presented by QC1 and listed below appeared to this QA Inspector, George Goulet, to match the RoCap list.

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RC Set No. DHGM220004 – M22-2.5x70 – test result 543N.M

RC Set No. DHGM220006 – M22-2.5x80 – test result 440N.M

RC Set No. DHGM220050 – M22-2.5x80 – test result 486N.M

The torque of the above noted DHGM220004 bolt sets were verified by torque testing with the above noted calibrated wrench with the wrench setting displayed as above rounded up in increments of 5N.M. This QA Inspector, George Goulet, concurred with QC1 for the issuance of green tag numbers.

Bay 11

This QA Inspector, George Goulet, randomly observed the following work in progress in Bay 11:

SAW welding of weld joints WSD1-FESA4-4A/F-21A, 23A located on PCMK west tower, lift 4, skin E. Welder was identified as 042195. ZPMC QC was identified as CWI Zhang Zhi Neng (QC2). The welding variables recorded by QC2 appeared to comply with WPS-B-T-2221-Tc-U3c-S-2. Also at this location and appearing to be monitoring the welding operation was ABF Representative Luo Lai Quan.

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

Summary of Conversations:

As noted above and QC1 informed this QA Inspector, George Goulet, of the above noted Ro Cap bolt set numbers, bolt set sizes, locations of installation, and previously tested torque values relevant to the inspection being performed.

This QA Inspector, George Goulet, asked QC monitoring the welding if all the welding variables observed by QC appeared to comply with the appropriate WPS, including the preheat requirements according to thickness of the thickest member being welded. QC showed this QA Inspector, George Goulet, that QC was carrying the proper temperature sticks to monitor the minimum and maximum preheat and interpass temperatures and replied that all QC observed did appear to comply.

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, 134-8257-0045, who represents the Office of Structural Materials for your project.

Inspected By:	Goulet,George	Quality Assurance Inspector
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Reviewed By:	Carreon,Albert	QA Reviewer
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