

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 #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-007773**Date Inspected:** 14-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:** Wan Wen Zhong**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 response to Bolting Inspection Notification Sheet No. 00069:

Section 2AE/2BE joint, U-rib bolt sets #4, 5, 6 reinforced with heavy channel :

ZPMC workers performed final bolt tightening verification at the direction of ZPMC QC Hu Mei Gang (QC1) using ZPMC calibrated wrench identified by scribing on the handle as XO2-578. No less than 10% of the ASTM A325 bolt sets, per lot, at each connection were torque tested, with a minimum of one bolt set tested at each side of the 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.

RC Set No. DHGM220033 – M22-2.5x65 – RoCap test result 470N.M

RC Set No. DHGM220013 – M22-2.5x85 – RoCap test result 433N.M

WELDING INSPECTION REPORT

(Continued Page 2 of 2)

The torque of the above noted bolt sets was verified by torque testing with the above noted calibrated wrench with the wrench setting displayed as 470N.M.

This QA Inspector, George Goulet, randomly observed the following work in progress in the trial assembly area:

1BW, panel point 10.5, east side – four ABF personnel performing MT on transverse bulkhead above south side plates.

2AW/2BW joint, – ZPMC workers installing bolt sets at U-rib #21, reinforced with heavy channel.

1AW/1AAW joint - ZPMC workers measuring mating surfaces and marking, possibly for fit-up.

Bay 10

This QA Inspector, George Goulet, randomly observed the following work in progress in Bay 10:

SAW welding of weld joints ED1-A6003-1-2A, 2-2A, 3-2A, 4-2A located on PCMK east tower, shear plates. Welder was identified as 040252. ZPMC QC was identified as CWI Wan Wen Zhong (QC2). The welding variables recorded by QC3 appeared to comply with WPS-B-T-4221-B-U3c-S-1.

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

Summary of Conversations:

As noted above, and this QA Inspector, George Goulet, was informed by QC1 that the above noted bolt set numbers were recorded by ZPMC during installation and ZPMC would perform the torque verification tests of the above noted bolt sets to the highest torque test result displayed in the RoCap list for the two bolt sets listed together of the same diameter.

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 monitoring the welding 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
Reviewed By:	Carreon,Albert	QA Reviewer
