

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 #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-008729**Date Inspected:** 31-Aug-2009**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:** Li Zhi Jiang**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 crossbeams**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance Inspector (QA) Steve Hall was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island, in Shanghai, China. QA observed and/or found the following:

OBG cross beam CB7 bay 1

This QA observed ZPMC qualified welding personnel identified as 215326 perform SMAW repair welding on various weld joints. ZPMC QC identified as Mr. Tian Lei was present to monitor the welding process. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-B-P-2112 and WPS-B-P-2113.

OBG cross beam CB15 bay 1

This QA observed that no significant work was being performed on this crossbeam during the time QA was present.

OBG cross beam CB14 bay 3

This QA observed that no significant work was being performed on this crossbeam during the time QA was present.

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OBG cross beam CB11 bay 5

This QA observed that no significant work was being performed on this crossbeam during the time QA was present.

OBG cross beam CB8 bay 6

This QA observed that no significant work was being performed on this crossbeam during the time QA was present.

OBG cross beam CB9 bay 6

This QA observed that no significant work was being performed on this crossbeam during the time QA was present.

OBG cross beam CB12 bay 8

This QA observed ZPMC qualified welding personnel identified as 069118 perform FCAW welding on weld joint identified as CB201G-035-021. ZPMC QC identified as Mr. Zhang Jing Xin was present to monitor the welding process. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-B-T-2133.

OBG cross beam CB13 bay 8

This QA received ZPMC Non Destructive Testing (NDT) notification No. 004113 and performed Magnetic particle Testing (MT) of approximately 15% of the welds previously tested and accepted by ZPMC Quality Control (QC) personnel. This QA generated a MT report for this date. The weld designations are as follows: CB202C-013-001, 003 and 004, CB202D-013-002, CB202E-013-002 and 003 and CB202F-013-002. The above mentioned welds are SPCM Complete Joint Penetration (CJP) welds on the side and bottom panels of crossbeam CB13. This QA performed MT on both sides of each weld.

OBG cross beam CB1 outside trial assembly area

This QA observed that no significant work was being performed on this crossbeam during the time QA was present.

OBG cross beam CB4 outside trial assembly area

During random in process visual inspection of this crossbeam this QA found the following deficiencies:

1. Non compliant cope holes in the FL3 area on the partial height floor beam diaphragms where the vertical beam joins to the corner section. These cope holes are located at PP032 on the westline and eastline. See attached photos for details.
2. Weld joints between partial height floor beam diaphragms and top connection plate to OBG side panel needs to

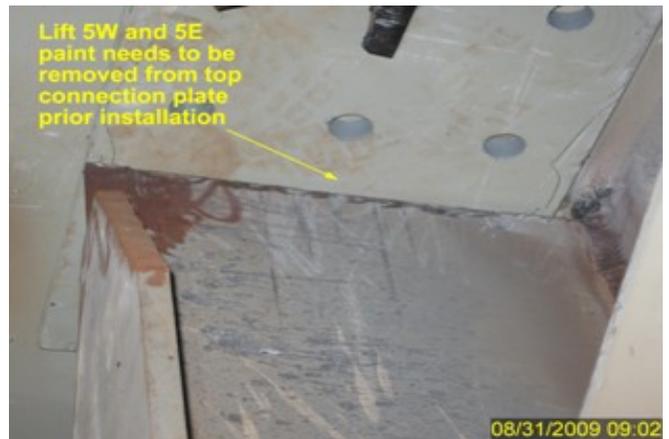
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have the paint removed from the joints prior to welding. This condition exists at PP031~PP033 at all locations. See attached photos for details.

3. Numerous nicks, notches and gouges in the edges of the side panels in the FL3 areas as well as inside of the crossbeam. Some of these notches measure up to 5mm in depth. See attached photos for details.

Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable contract documents.



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Summary of Conversations:

Only general conversation was held between QC and QA concerning this project.

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:	Hall,Steven	Quality Assurance Inspector
Reviewed By:	Prue,Erik	QA Reviewer
