

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:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-016667**Date Inspected:** 06-Sep-2010**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: Mr. Huang min
Inspected CWI report: Yes No N/A
Electrode to specification: Yes No N/A
Qualified Welders: Yes No N/A
Approved Drawings: Yes No N/A

CWI Present: Yes No
Rod Oven in Use: Yes No N/A
Weld Procedures Followed: Yes No N/A
Verified Joint Fit-up: Yes No N/A
Approved WPS: Yes No N/A
Delayed / Cancelled: Yes No N/A

Bridge No: 34-0006**Component:** Orthotropic Box Girder (OBG)**Summary of Items Observed:**

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

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The following Non Destructive Testing (NDT) Inspection carried out as per the ZPMC submitted Notification No. 06591.

Magnetic Particle Testing (MT)

This QA performed MT of approximately 15% of the area previously tested and accepted by ZPMC Quality Control (QC) personnel. This QA generated MT report for this date. The members are identified as OBG Side plate weld Components. Total number of welds MT Tested: 22 No's. The weld designations are review as follows:

1. SP3142C-001-007, 012.
2. SP3117A-001-059,060,101,102,148,149
3. SP3142A-001-015,040.
4. SP3125-001-046,047,060,061.
5. SP3121-001-011,001,004,007,010,013.
6. SP3141A-001-174,175

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This QA Inspector Randomly observed the following work in progress:

Submerged Arc Welding (SAW) of weld joint CB3002C-018-005. Welder is identified as 053748. ZPMC Quality Control (QC) is identified as Mr. Shu Yang Hua. The welding variables appeared to comply with the Applicable WPS: WPS-B- T-2221-B-L2c-S-2.

During the Caltrans QA Random in-process observations of the fabrication of Crossbeam CB18 Bottom plates, this QA observed excessive distortion after completion of welding on one of the Bottom panels. Distortion measured to be approximately 11mm per 1000mm. The weld is identified as CB3002C-018-005. The weld is CJP butt joint, joining Bottom plate (BP3051A) to Bottom plate (BP3052A). The Material thickness is 35 mm. This QA informed ZPMC Quality Control (QC) identified as Mr. Shu Yang Hua and American Bridge/Fluor (AB/F) QA Inspector identified as Mr. Liu Hua Jie of this issue. Mr. Shu Yang Hua and Mr. Liu Hua Jie informed this QA that the distorted locations would be corrected in a manner compliant with the contract documents. Refer the attached photos for reference.

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Flux Cored Arc Welding (FCAW) of weld joint BP3099-1-001-001,002. Welder is identified as 051246. ZPMC Quality Control (QC) is identified as Mr. Guopan. The welding variables appeared to comply with the Applicable WPS: WPS-B- T-2132-3.

FCAW of weld joint BP3099-1-001-005,006. Welder is identified as 205386. ZPMC Quality Control (QC) is identified as Mr. Guopan. The welding variables appeared to comply with the Applicable WPS: WPS-B- T-2132-3.

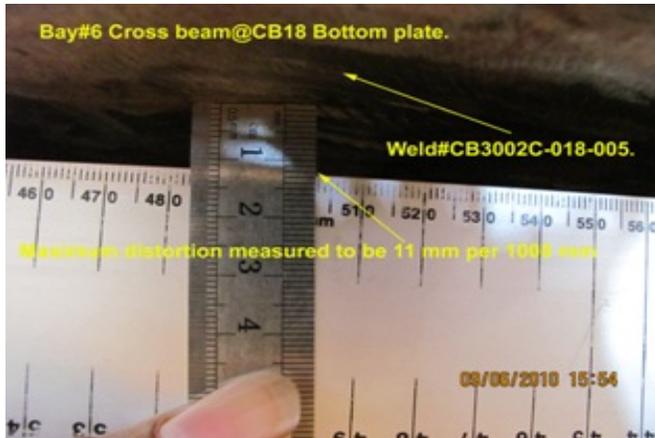
FCAW of weld joint X4254D-002-001. Welder is identified as 048625. ZPMC Quality Control (QC) is identified as Mr. Cui Jun Jie. The welding variables appeared to comply with the Applicable WPS: WPS-B- T-2231-TC-U4b-F-2.

FCAW of weld joint X4254A-002-001. Welder is identified as 053742. ZPMC Quality Control (QC) is identified as Mr. Cui Jun Jie. The welding variables appeared to comply with the Applicable WPS: WPS-B- T-2231-TC-U4b-F-2.

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

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Summary of Conversations:

Only general conversation was held between QA and Quality Control (QC) 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: Prabhu,Surendra

Quality Assurance Inspector

Reviewed By: Hall,Steven

QA Reviewer