

**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:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-021574**Date Inspected:** 30-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), Changxing Island **Location:** Shanghai, China**CWI Name:** Mr. Xu Le Feng.**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 Orthotropic Box Girder (OBG)**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance (QA) Inspector Shailesh Gaikwad 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:

This QA Inspector observed the following work in progress:

**BAY 10:**

Repair welding, FCAW Process:

This QA Inspector observed ZPMC qualified welding personnel identified as 040434, Perform Flux Core Arc Welding (FCAW) on OBG Traveler rail joint. Joint identified as 20TR2-039-015. ZPMC CWI Identified as Zhao Chen Sun with temporary welding repair report. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-345-FCAW-1G (1F) ESAB-Repair. For more information see attached picture number 1.

**Bay 14, WELDING:**

Segment 14W

This QA Inspector observed ZPMC qualified welding personnel identified as 067520 perform Flux Core Arc Welding (FCAW), weld joint identified as DP3170-001-114; located On Orthotropic Box Girder (OBG) Deck Panel to Stiffener PJP Weld; ABF Quality Assurance (QA) is identified as Mr. Shen Jian Yuan. This QA

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Inspector observed a welding current of approximately 307 amps and 26.0 volts and the base material appears to have been being preheated by an electrical heating elements prior to welding. ABF Quality Assurance (QA) Mr. Shao Jian Yuan was onsite monitoring the welding variables. The welding variables recorded by QA appeared to comply with applicable WPS-B-T-2232-ESAB.

This QA Inspector observed ZPMC qualified welding personnel identified as 203871 perform Flux Core Arc Welding (FCAW), weld joint identified as DP3171-001-356; located On Orthotropic Box Girder (OBG) Deck Panel to Stiffener PJP Weld; ABF Quality Assurance (QA) is identified as Mr. Shen Jian Yuan. This QA Inspector observed a welding current of approximately 302 amps and 25.0 volts and the base material appears to have been being preheated by an electrical heating elements prior to welding. ABF Quality Assurance (QA) Mr. Shao Jian Yuan was onsite monitoring the welding variables. The welding variables recorded by QA appeared to comply with applicable WPS-B-T-2232-ESAB.

This QA Inspector observed ZPMC qualified welding personnel identified as 067572 perform Flux Core Arc Welding (FCAW), weld joint identified as DP3171-001-299; located On Orthotropic Box Girder (OBG) Deck Panel to Stiffener PJP Weld; ABF Quality Assurance (QA) is identified as Mr. Shen Jian Yuan. This QA Inspector observed a welding current of approximately 300 amps and 26.0 volts and the base material appears to have been being preheated by an electrical heating elements prior to welding. ABF Quality Assurance (QA) Mr. Shao Jian Yuan was onsite monitoring the welding variables. The welding variables recorded by QA appeared to comply with applicable WPS-B-T-2232-ESAB.

### Segment 14W

This QA Inspector observed ZPMC qualified welding personnel identified as 037779 perform Shielded Metal Arc Welding (SMAW), weld joint identified as DP3169-001-158; located On Orthotropic Box Girder (OBG) Deck Panel to Stiffener CJP Weld; ABF Quality Assurance (QA) Mr. Shao Jian Yuan was onsite monitoring the welding variables. The welding variables recorded by QA appeared to comply with applicable WPS-B-P-2212-TC-U4b-FCM-1.

This QA Inspector observed ZPMC qualified welding personnel identified as 069493 perform Shielded Metal Arc Welding (SMAW), weld joint identified as DP3170-001-216; located On Orthotropic Box Girder (OBG) Deck Panel to Stiffener CJP Weld; ABF Quality Assurance (QA) Mr. Shao Jian Yuan was onsite monitoring the welding variables. The welding variables recorded by QA appeared to comply with applicable WPS-B-P-2212-TC-U4b-FCM-1.

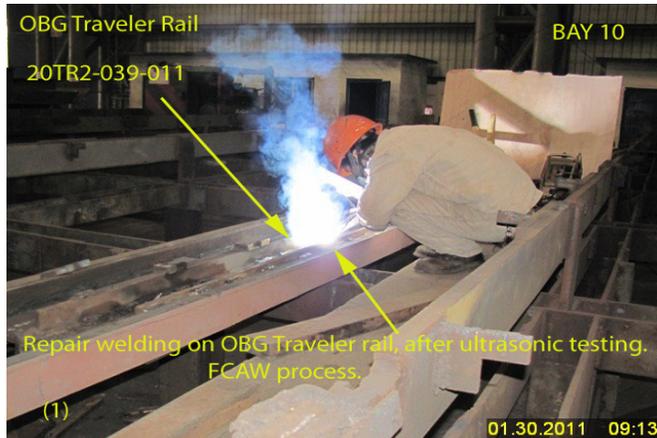
Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable contract documents.

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## Summary of Conversations:

Only general conversation was held between QA and 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 Thomas Ho: 150002048250, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Gaikwad,Shailesh	Quality Assurance Inspector
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<b>Reviewed By:</b>	Clifford,William	QA Reviewer
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