

**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-018011**Date Inspected:** 20-Oct-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. 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:** 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:

BAY- 3

This QA Inspector Randomly observed the following work in progress:

Flux Cored Arc Welding (FCAW) of weld joint LD3040-001-112,113. Welder is identified as 208035. ZPMC Quality Control (QC) is identified as Mr. Zhan hai feng. The welding variables appeared to comply with the Applicable WPS: WPS-B- T-2132-3.

FCAW of weld joint LD3041-001-137,138. Welder is identified as 206623. ZPMC Quality Control (QC) is identified as Mr. Zhan hai feng. The welding variables appeared to comply with the Applicable WPS: WPS-B- T-2133.

FCAW of weld joint LD3041-001-195,196. Welder is identified as 217805. ZPMC Quality Control (QC) is identified as Mr. Zhan hai feng. The welding variables appeared to comply with the Applicable WPS: WPS-B- T-2132-3.

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FCAW of weld joint FB3286-001-255. Welder is identified as 044830. ZPMC Quality Control (QC) is identified as Mr. Zhan hai feng. The welding variables appeared to comply with the Applicable WPS: WPS-B-T-2232-TC-U4b-F.

FCAW of weld joint FB3286-001-022. Welder is identified as 050242. ZPMC Quality Control (QC) is identified as Mr. Zhan hai feng. The welding variables appeared to comply with the Applicable WPS: WPS-B-T-2232-TC-U4b-F.

FCAW of weld joint FB3286-001-228. Welder is identified as 055564. ZPMC Quality Control (QC) is identified as Mr. Zhan hai feng. The welding variables appeared to comply with the Applicable WPS: WPS-B-T-2233-TC-U5-F.

Submerged Arc Welding (SAW) of weld joint SA3338-001-040. Welder is identified as 207288. ZPMC Quality Control (QC) is identified as Mr. Wang liyang. The welding variables appeared to comply with the Applicable WPS: WPS-B-T-2221-B-L2c-S-2.

ZPMC Quality Control (QC) MT Technician was performing Magnetic Particle Testing (MT) for the Floor beam weld joint identified as FB3279-001-083. The weld is fillet weld. The "Y" locations for these cracks from nearest end of the weld measured to be approximately 180,235,280 and 405 mm. This QA Randomly witnessed the MT. During random witness of MT this QA observed ZPMC QC MT Technician found four (4) Transverse linear cracks measuring approximately 7 mm ~10 mm in length. This QA informed to ZPMC QC identified as Mr. Wang liyang and American Bridge/Fluor (AB/F) QA Inspector Mr. Chen ji wei. Mr. Wang liyang and Mr. Chen ji wei informed this QA that the Cracks would be corrected in a manner compliant with the contract documents. Refer the attached photos for further information.

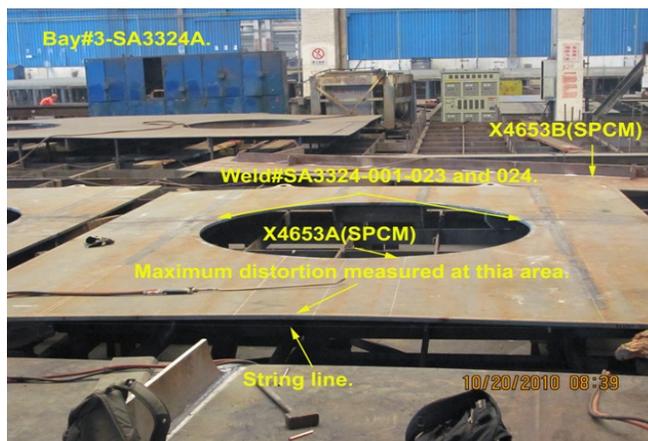
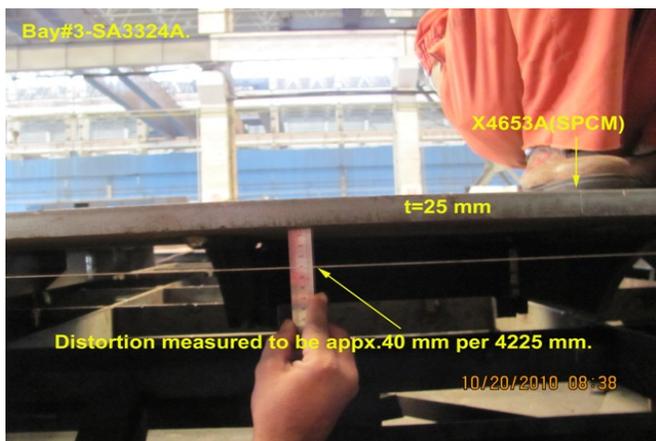
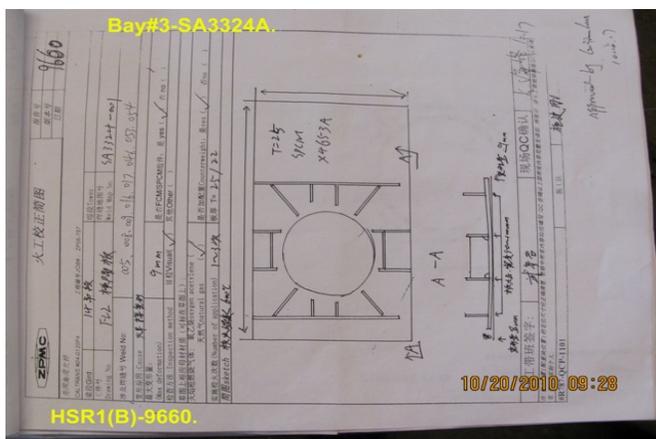
During the Caltrans QA in-process observations of the fabrication of Lift14 East Bulkhead SA3324A, this QA observed ZPMC personnel heat straightening excessive distortion without the Engineers approval. ZPMC Heat Straightening Report is identified as HSR1 (B)-9660. The Bulkhead is identified as SA3324A. The material is designated as Seismic Performance Critical Material (SPCM). The web plates are identified as X4653A (SPCM) and X4653B (SPCM). The deviation from flat as measured by this QA was 40mm per 4225mm (9 per 1000). The web plate Material thickness is 25 mm.

This QA generated an incident report on this date for the above issue, for further information see the incident report and the attached photos.

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.

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<b>Inspected By:</b>	Prabhu,Surendra	Quality Assurance Inspector
<b>Reviewed By:</b>	Hall,Steven	QA Reviewer