

**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-022274**Date Inspected:** 03-Apr-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:** An Qing Xiang**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**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance (QA) Inspector Umesh 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 Quality Assurance (QA) Inspector observed the following work in progress:

Bay 14

OBG Seg 14W:

The Shielded Metal Arc Welding (SMAW) process on weld joint no: SEG3020BB-020 [Top anchorage plate (AP) 3014A to Vertical Shear Plate sub-assembly SA3445A, CJP weld in between panel point PP125 to PP126]. The welder is identified as 045246 and was observed welding in 4G position. ZPMC QC was identified as Mr. An Qing Xiang. The welding variables recorded by this QC appeared to comply with WPS: B-P-2214-Tc-U4b-FCM-1.

The SMAW process on weld joint no: SEG3020D-018 [Block out Bottom Plate Sub Assembly SA3416A to Floor Beam (FB) 3342A, Fillet weld at PP128.3]. The welder is identified as 069896 and was observed welding in 4F position. ZPMC QC was identified as Mr. An Qing Xiang. The welding variables recorded by this QC appeared to comply with WPS: B-P-2114-FCM-1.

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The Shielded Metal Arc Welding (SMAW) process on weld joint no: SEG3020BB-038 [Top anchorage plate (AP) 3014A to Vertical Shear Plate sub-assembly SA3447A, CJP weld in between panel point PP125 to PP126]. The welder is identified as 067765 and was observed welding in 4G position. ZPMC QC was identified as Mr. An Qing Xiang. The welding variables recorded by this QC appeared to comply with WPS: B-P-2214-Tc-U4b-FCM-1.

The Shielded Metal Arc Welding (SMAW) process on weld joint no: SEG3020BB-074 [Top anchorage plate (AP) 3016A to Vertical Shear Plate sub-assembly SA3451A, CJP weld in between panel point PP125 to PP126]. The welders are identified as 069841 and 066261 and were observed welding in 4G position. ZPMC QC was identified as Mr. An Qing Xiang. The welding variables recorded by this QC appeared to comply with WPS: B-P-2214-Tc-U4b-FCM-1.

The Flux Cored Arc Welding (FCAW) process on weld joint no: SEG3020AV-011 [Block out Bottom Plate Sub Assembly SA3416C to Floor Beam (FB) 3343A, CJP weld at PP128.3]. The welder is identified as 066695 and was observed welding in 1G position. ZPMC QC was identified as Mr. Zhu Lin. The welding variables recorded by this QC appeared to comply with WPS: B-T-2231-ESAB.

The Shielded Metal Arc Welding (SMAW) process on weld joint no: SEG3020AQ-025 [Top anchorage plate PL3519A to Side Plate (SP) 3144B, CJP weld in between panel point PP125 to PP127]. The welders are identified as 066002, 070432 and 066443 and were observed welding in 1G position. ZPMC QC was identified as Mr. An Qing Xiang. The welding variables recorded by this QC appeared to comply with WPS: B-P-2211-Tc-U5b-FCM-1.

The Flux Cored Arc Welding (FCAW) process on weld joint no: SEG3020AV-006 [Block out Bottom Plate Sub Assembly SA3416A to Floor Beam (FB) 3343A, CJP weld at PP128.3]. The welder is identified as 066695 and was observed welding in 1G position. ZPMC QC was identified as Mr. Zhu Lin. The welding variables recorded by this QC appeared to comply with WPS: B-T-2231-ESAB.

During random in process inspection this QA inspector observed that ZPMC personnel performing fit up of deck panel diaphragm plate X4879B of deck panel DP3172A/DP3173A to Floor Beam (FB) 3327A at PP127. During inspection the root gap observed as approx 16mm~18mm. This issue has been discussed with ZPMC CWI Mr. An Qing Xiang and CT Lead QA. Mr. An Qing Xiang informed this QA that ZPMC will use steel backing for this weld joint and provide necessary documents prior to start welding. Attached photograph provide additional details.

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 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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**Inspected By:** Gaikwad,Umesh

Quality Assurance Inspector

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**Reviewed By:** Peterson,Art

QA Reviewer