

**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-021821**Date Inspected:** 14-Mar-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:

**BAY 14, OBG 14W**

This QA inspector performed the measurements of cope holes of Sandwich Plates [on Anchor Plate (AP) 3032A]. During measurements and / or visual inspection, spatters were observed on some of these cope holes and needs grinding. All such locations were identified and were recorded on the data sheet and were submitted to the Task Leader for review. These locations were also informed to ZPMC QC/ CWI, identified as Mr. An Qing Xiang and ABF QA, identified as Mr. Xiao Jun Peng.

This Quality Assurance (QA) Inspector observed the following work in progress:

Bay 14

OBG Seg 14W:

Repair welding of weld joint no: SEG3020BB-109 [Vertical Shear Plate SA3442A to Anchor Plate (AP) 3032A, Complete Joint Penetration (CJP) weld at panel point (PP) 126]. The welder is identified as 051348 and was observed welding in the 3G position. Welding process was identified as Shielded Metal Arc Welding (SMAW).

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ZPMC CWI was identified as Mr. An Qing Xiang. The welding variables recorded by this QC appeared to comply with WPS: 345-SMAW-3G(3F)-FCM-Repair-1. Repair welding was done as per Welding Repair Report (WRR): B-WR 20379 Rev-1.

Repair welding of weld joint no: SEG3020BB-112 [Vertical Shear Plate SA3446A to Anchor Plate (AP) 3032A, Complete Joint Penetration (CJP) weld at panel point (PP) 126]. The welder is identified as 067588 and was observed welding in the 3G position. Welding process was identified as Shielded Metal Arc Welding (SMAW). ZPMC CWI was identified as Mr. An Qing Xiang. The welding variables recorded by this QC appeared to comply with WPS: 345-SMAW-3G(3F)-FCM-Repair-1. Repair welding was done as per Welding Repair Report (WRR): B-WR 20379 Rev-1.

Repair welding of weld joint no: SEG3020U-587 [Longitudinal Diaphragm (LD) 3049A to Anchor Plate (AP) 3032A, Complete Joint Penetration (CJP) weld at panel point (PP) 126]. The welder is identified as 067588 and was observed welding in the 3G position. Welding process was identified as Shielded Metal Arc Welding (SMAW). ZPMC CWI was identified as Mr. An Qing Xiang. The welding variables recorded by this QC appeared to comply with WPS: 345-SMAW-3G(3F)-FCM-Repair-1. Repair welding was done as per Critical Welding Repair (CWR) Report: B-CWR 2854 Rev-0.

Repair welding of weld joint no: SEG3020BB-110 [Vertical Shear Plate SA3444A to Anchor Plate (AP) 3032A, Complete Joint Penetration (CJP) weld at panel point (PP) 126]. The welder is identified as 051348 and was observed welding in the 3G position. Welding process was identified as Shielded Metal Arc Welding (SMAW). ZPMC CWI was identified as Mr. An Qing Xiang. The welding variables recorded by this QC appeared to comply with WPS: 345-SMAW-3G(3F)-FCM-Repair-1. Repair welding was done as per Welding Repair Report (WRR): B-WR 20379 Rev-1.

The Flux Cored Arc Welding (FCAW) process on weld joint no: SEG3020K-333 (Stiffener on Bottom Plate (BP) 3091A to Floor Beam (FB) 3327A, CJP weld at panel point PP 127). The welder is identified as 067275 and was observed welding in the 3G position. ZPMC QC was identified as Mr. Sun Tian Liang. The welding variables recorded by QC appeared to comply with WPS: B-T-2233-ESAB.

The Shielded Metal Arc Welding (SMAW) process on weld joint no: SEG3020L-059, 061 (Stiffener on Side Plate (SP) 3144B to Floor Beam (FB) 3325A, Fillet weld at Panel Point PP127). The welder is identified as 067942 and was observed welding in the 4F position. ZPMC QC was identified as Mr. Sun Tian Liang. The welding variables recorded by QC appeared to comply with WPS: B-P-2114-FCM-1.

The Shielded Metal Arc Welding (SMAW) process on weld joint no: SEG3020L-069, 071 (Stiffener on Side Plate (SP) 3145B to Floor Beam (FB) 3325A, Fillet weld at Panel Point PP127). The welder is identified as 067942 and was observed welding in the 4F position. ZPMC QC was identified as Mr. Sun Tian Liang. The welding variables recorded by QC appeared to comply with WPS: B-P-2114-FCM-1.

The Shielded Metal Arc Welding (SMAW) process on weld joint no: SEG3020AG-029 (Stiffener on Edge Plate (EP) 3030C to Floor Beam (FB) 3329A, CJP weld at Panel Point PP127). The welder is identified as 067764 and was observed welding in the 4G position. ZPMC QC was identified as Mr. Zhu Lin. The welding variables recorded by QC appeared to comply with WPS: B-P-2214-Tc-U4b-FCM-1. See attached photograph for additional

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details.

The Shielded Metal Arc Welding (SMAW) process on weld joint no: SEG3020K-030, 031 (Stiffener on Floor Beam Sub Assembly SA3410A to Longitudinal Diaphragm (LD) 3048A, CP weld at Panel Point PP127.3). The welder is identified as 067764 and was observed welding in the 4G position. ZPMC QC was identified as Mr. Sun Tian Liang. The welding variables recorded by QC appeared to comply with WPS: B-P-2214-Tc-U4b-FCM-1.

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



### 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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| <b>Inspected By:</b> | Gaikwad,Umesh | Quality Assurance Inspector |
| <b>Reviewed By:</b>  | Peterson,Art  | QA Reviewer                 |

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