

**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 #: 99.28**WELDING INSPECTION REPORT****Resident Engineer:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-022549**Date Inspected:** 04-Nov-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) Chanxing Island **Location:** Shanghai, China**CWI Name:** Mr. LIU HUA JIE**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 Segment**Summary of Items Observed:**

On this date CALTRANS OSM Quality Assurance (QA) Inspector Santhosh Ramakrishna Pillai was present during the times noted above for observations relative to fabrication work of the Self Anchored Suspension (SAS) Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China.

This QA inspector randomly observed the following work:

## 1. INPROCESS:

Orthotropic Box Girder (OBG) at Trial Assembly Area:

ZPMC welding personnel performing Flux Core Arc Welding (FCAW) of Complete Joint Penetration (CJP) welds joining the side plate to side plate transverse splice weld joint located on 11DW+11EW at cross beam side. The weld is designated as OBW11C-009. The welder is identified as 049220 & 040759. ZPMC QC Mr. ZHU YUAN YUAN was onsite monitoring the welding variables. The inprocess FCAW appears to be progressing in compliance with WPS-B-T-2233T-1.

ZPMC welding personnel performing Flux Core Arc Welding (FCAW) of Complete Joint Penetration (CJP) welds joining the side plate to side plate transverse splice weld joint located on 11DW+11EW at cross beam side. The weld is designated as OBW11C-007. The welder is identified as 040609 & 046706. ZPMC QC Mr. ZHU YUAN

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YUAN was onsite monitoring the welding variables. The inprocess FCAW appears to be progressing in compliance with WPS-B-T-2233T-1.

ZPMC welding personnel performing Shielded Metal Arc Welding (SMAW) of Complete Joint Penetration (CJP) welds joining the edge plate to edge plate transverse splice weld joint located on 11DW+11EW at counter weight side. The weld is designated as OBW11A-006. The welder is identified as 046709. ZPMC QC Mr. ZHU ZHONG HAI was onsite monitoring the welding variables. The inprocess SMAW appears to be progressing in compliance with WPS-B-P-2213-B-U2-FCM-1.

ZPMC welding personnel performing Shielded Metal Arc Welding (SMAW) of Repair weld for the bottom plate to bottom plate transverse splice weld joint located on 11BW+11CW. The weld is designated as OBW11B-008. The welder is identified as 046709. ZPMC QC Mr. ZHU ZHONG HAI was onsite monitoring the welding variables. The inprocess SMAW appears to be progressing in compliance with WPS-345-SMAW-1G (1F)-FCM-Repair-1. The weld repair report number is named as WR-16518.

ZPMC welding personnel performing Shielded Metal Arc Welding (SMAW) of Repair weld for the side plate to side plate transverse splice weld joint located on 11CW+11DW at cross beam side. The weld is designated as OBW11B-009. The welder is identified as 040656. ZPMC QC Mr. ZHU ZHONG HAI was onsite monitoring the welding variables. The inprocess SMAW appears to be progressing in compliance with WPS-345-SMAW-4G (4F)-FCM-Repair-1. The weld repair report number is named as WR-16506.

ZPMC welding personnel performing Flux Core Arc Welding (FCAW) of Fillet welds joining the longitudinal diaphragm to bottom plate hold back weld joint located on 11CW at cross beam side. The weld is designated as SEG069C-007 & 008. The welder is identified as 053486. ZPMC QC Mr. ZHOU PENG was onsite monitoring the welding variables. The inprocess FCAW appears to be progressing in compliance with WPS-B-T-2132.

ZPMC welding personnel performing Shielded Metal Arc Welding (SMAW) of Complete Joint Penetration (CJP) welds joining the I-rib to I-rib transverse splice weld joint for deck plate located on 11CW+11DW at counter weight side. The weld is designated as DP681-019-021. The welder is identified as 044551. ZPMC QC Mr. ZHOU PENG was onsite monitoring the welding variables. The inprocess SMAW appears to be progressing in compliance with WPS-B-T-3213-B-U3b.

ZPMC welding personnel performing Submerge Arc Welding (SAW) of Complete Joint Penetration (CJP) welds joining the deck plate to deck plate transverse splice weld joint located on 11DE+11EE. The weld is designated as OBE11A-008. The welder is identified as 050295 & 040460. ZPMC QC Mr. WANG LI YANG was onsite monitoring the welding variables. The inprocess SAW appears to be progressing in compliance with WPS-B-T-223(2)1-T-2.

ABF Quality Control (QC) personnel performing Magnetic particle Testing (MT) for the after completed root and hot pass of deck plate to deck plate transverse splice weld joint located on 11DW+11EW. The weld is designated as OBW11A-008. ABF QC found longitudinal linear crack in the weld. The above information passed over ZPMC QC Mr. ZHU ZHONG HAI for further ratification. See attached picture for details.

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



## Summary of Conversations:

No relevant conversations were reported on this date.

## 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 150-0042-2372, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Pillai,Santosh	Quality Assurance Inspector
<b>Reviewed By:</b>	Miller,Mark	QA Reviewer

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