

**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 #: 99.28**WELDING INSPECTION REPORT****Resident Engineer:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-022213**Date Inspected:** 26-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) Chanxing Island **Location:** Shanghai, China

**CWI Name:** Mr. LI YANG  
**Inspected CWI report:** Yes No N/A  
**Electrode to specification:** Yes No N/A  
**Qualified Welders:** Yes No N/A  
**Approved Drawings:** Yes No N/A

**CWI Present:** Yes No  
**Rod Oven in Use:** Yes No N/A  
**Weld Procedures Followed:** Yes No N/A  
**Verified Joint Fit-up:** 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 Shielded Metal Arc Welding of Repair weld for the side plate to deck plate weld joint located on CB-17 at Panel Point (PP-112). The weld is designated as CB3001A-017-002. The welder is identified as 041713. ZPMC QC Mr. LI YANG was onsite monitoring the welding variables. The inprocess Shielded Metal Arc Welding appears to be progressing in compliance with WPS-345-SMAW-4G (4F)-FCM-Repair-1. The weld repair report number is named as WR-20402.

ZPMC welding personnel performing Shielded Metal Arc Welding of Repair weld for the side plate to deck plate weld joint located on CB-17 at Panel Point (PP-110). The weld is designated as CB3001A-017-014. The welder is identified as 041713. ZPMC QC Mr. LI YANG was onsite monitoring the welding variables. The inprocess

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Shielded Metal Arc Welding appears to be progressing in compliance with WPS-345-SMAW-4G (4F)-FCM-Repair-1. The weld repair report number is named as WR-20400.

ZPMC welding personnel performing Flux Core Arc Welding of Fillet welds joining the I-Rib to bottom plate weld joint located on 13AW. The weld is designated as SEG3013M-194, 195. The welder is identified as 048696. ZPMC QC Mr. ZHANG QIANG was onsite monitoring the welding variables. The inprocess Flux Core Arc Welding appears to be progressing in compliance with WPS-B-T-2132-ESAB.

ZPMC welding personnel performing Shielded Metal Arc Welding of Complete Joint Penetration welds joining the floor beam to side plate weld joint located on 13AW at cross beam side, Panel Point (PP-118). The weld is designated as SEG3013AD-003. The welder is identified as 069683. ZPMC QC Mr. ZHANG QIANG was onsite monitoring the welding variables. The inprocess Shielded Metal Arc Welding appears to be progressing in compliance with WPS-B-P-2214-TC-U4b-FCM-1.

ZPMC welding personnel performing Shielded Metal Arc Welding of Complete Joint Penetration welds joining the bottom plate to side plate weld joint located on 13AW. The weld is designated as SEG3013AC-009. The welder is identified as 067764. ZPMC QC Mr. ZHANG QIANG was onsite monitoring the welding variables. The inprocess Shielded Metal Arc Welding appears to be progressing in compliance with WPS-B-P-2214-B-U2-FCM-1.

## 2. NDT:

### Ultrasonic Testing (UT):

UT carried out as per the ZPMC submitted Notification No 08635.

This QA Inspector performed Ultrasonic Testing (UT) on approximately 10 % of CJP welds that has been previously tested and accepted by ZPMC ultrasonic technicians in accordance with AWS D1.5-2002, section 6, table 6.3. The members are identified as butt & Tee joint between deck plate diaphragm weld located on 13AW at cross beam side, Panel Point (PP-118 to 119-1500). This QA inspector generated a UT (TL-6027) report for this date. Weld identification numbers were DP3076-001-015, 017, 018, 020, SEG3007M-002, 003, 004, 005, 127 & SEG3007K-004,005,006,009.

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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