

**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-021205**Date Inspected:** 28-Feb-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 deck plate to deck plate transverse splice weld joint located on 12BE+12CE. The weld is designated as OBE12A-003. The welder is identified as 067752. ZPMC QC Mr. WANG LI YANG was onsite monitoring the welding variables. The inprocess Shielded Metal Arc Welding appears to be progressing in compliance with WPS-345-SMAW-1G (1F)-FCM-Repair-1. The weld repair report number is named as CWR-2813 R1.

ZPMC welding personnel performing Shielded Metal Arc Welding of Repair weld for the edge plate to edge plate transverse splice weld joint located on 12BW+12CW at counter weight side. The weld is designated as CA3012-010. The welder is identified as 040611. ZPMC QC Mr. ZHOU PENG was onsite monitoring the

---

---

## WELDING INSPECTION REPORT

( Continued Page 2 of 3 )

---

---

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 CWR-2823.

ZPMC welding personnel performing Shielded Metal Arc Welding of Repair weld for the edge plate to edge plate transverse splice weld joint located on 12BW+12CW at cross beam side. The weld is designated as OBW12A-003. The welder is identified as 046709. ZPMC QC Mr. ZHOU PENG 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 CWR2824.

ZPMC welding personnel performing Shielded Metal Arc Welding of Repair weld for the deck panel longitudinal diaphragm to deck panel diaphragm located on 12BW at cross beam side. The weld is designated as DP3056-001-020. The welder is identified as 067993. ZPMC QC Mr. ZHOU PENG was onsite monitoring the welding variables. The inprocess Shielded Metal Arc Welding appears to be progressing in compliance with WPS-345-SMAW-3G (3F)-FCM-Repair-1. The weld repair report number is named as WR20076.

### 2. NDT:

#### Ultrasonic Testing (UT):

UT carried out as per the ZPMC submitted Notification No 08419.

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 Tee joint between longitudinal shear plate to bottom plate & longitudinal shear plate to deck plate located on 12BW. This QA inspector generated a (UT) (TL-6027) report for this date. The QA Inspector generated a TL-6027 UT report on this date. Weld identification numbers were DP3054-001-009, SEG3005M-017 & SEG3005K-017.

#### Ultrasonic Testing (UT) (A, B, C and D-Scan):

UT carried out as per the ABF submitted UT Report.

This QA Inspector performed Ultrasonic testing (UT) 10 % of the area that has been previously tested and accepted by ABF Quality control personnel. This QA inspector generated a UT (TL-6027) report on this date. The members are identified as corner joint between edge plate to deck plate hold back weld joint located on 12BW+12CW at counter weight side. According to rejection criteria of "D" Scan procedure that Caltrans QA did not find any Rejected indication at scanning area. The Weld Designation is as follows: CA3008-006 & CA3010-002.

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

### Summary of Conversations:

---

---

# WELDING INSPECTION REPORT

( Continued Page 3 of 3 )

---

---

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.

---

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

---