

**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 #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-019268**Date Inspected:** 24-Dec-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), Changxing Island **Location:** Shanghai, China**CWI Name:** Qiu Wen.**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 components.**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance Inspector (QA) Mr. Shailesh Wadkar was present during the times noted above for observations relative to the fabrication of the Self Anchored Suspension (SAS) Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island, in Shanghai, China. QA Inspector observed and/or found the following:

Bay 14:

This QA Inspector observed the following work in progress:

OBG Seg 13BW:

Repair welding of weld joint no: SEG3014B-201 [Floor Beam (FB) 3217A to I-rib stiffener on Bottom Panel (BP), complete joint penetration (CJP) weld at PP122]. The welder is identified as 201583 and was observed welding in the 3G position. Welding process was identified as Flux Cored Arc Welding (FCAW). ZPMC Quality Control (QC) was identified as Zhang Lin. The welding variables recorded by this QC appeared to comply with WPS: B-T-2233-Repair-ESAB. Repair welding was done as per Welding Repair Report (WRR): B-WR 14322 Rev-0.

The Shielded Metal arc Welding (SMAW) process on weld joint no: SEG3014F-191 (FB3208A to FB3209A, CJP weld, at PP121). The welder is identified as 045196 and was observed welding in the 4G position. ZPMC QC was identified as Zhang Lin. The welding variables recorded by QC appeared to comply with WPS: B-P-2214-B-U3b.

---

---

## WELDING INSPECTION REPORT

( Continued Page 2 of 3 )

---

---

OBG Seg 13AW:

Repair welding of weld joint no: SEG3013K-003 (FB3184A to SA3168A, CJP weld at PP119-1500). The welder is identified as 045240 and was observed welding in the 2G position. Welding process was identified as FCAW. ZPMC QC was identified as Liu Feng. The welding variables recorded by this QC appeared to comply with WPS: B-T-2232-Repair-ESAB. Repair welding was done as per WRR: B-WR 19197 Rev-0.

The SMAW process on weld joint no: SEG3013U-035 [Longitudinal Diaphragm (LD) 3031A to X4310B – I rib stiffener, fillet weld, at PP117.5 to PP118]. The welder is identified as 069896 and was observed welding in the 4G position. ZPMC QC was identified as Zhang Lin. The welding variables recorded by QC appeared to comply with WPS: B-P-2114.

Repair welding of weld joint no: SEG3013F-002 (FB3192A to SA3168A, CJP weld at PP119 + 1500). The welder is identified as 066361 and was observed welding in the 3G position. Welding process was identified as SMAW. ZPMC QC was identified as Liu Feng. The welding variables recorded by this QC appeared to comply with WPS: 345-SMAW-3G(3F)-FCM-Repair. Repair welding was done as per WRR: B-WR 19238 Rev-0.

Repair welding of weld joint no: SEG3013H-003 (FB3187A to SA3168A, CJP weld at PP119). The welder is identified as 066361 and was observed welding in the 2G position. Welding process was identified as SMAW. ZPMC QC was identified as Liu Feng. The welding variables recorded by this QC appeared to comply with WPS: 345-SMAW-2G(2F)-FCM-Repair. Repair welding was done as per WRR: B-WR 19199 Rev-0.

ZPMC NDT personnel performing Ultrasonic testing (UT) of weld joint no: SEG3013L-005 and 007 (FB to LD, CJP weld at PP 119-1500). UT was done after completion of repair welding. Still, on weld jt no: 007, at one location, repair was identified. See attached photo for details.

OBG Seg 14W:

The FCAW process on weld joint no: SEG3020E-044 and 045 (LD3048A to FB3343A, CJP weld, at PP128.3). The welder is identified as 201215 and was observed welding in the 3G position. ZPMC QC was identified as Zhu Lin. The welding variables recorded by QC appeared to comply with welding procedure specification (WPS): B-T-2233-ESAB.

The FCAW process on weld joint no: SEG3020D-032 and 035 (LD3051A to FB3343A, CJP weld, at PP128.3). The welder is identified as 045175 and was observed welding in the 3G position. ZPMC QC was identified as Zhu Lin. The welding variables recorded by QC appeared to comply with welding procedure specification (WPS): B-T-2233-ESAB.

The FCAW process on weld joint no: SEG3020K-025 (BO3091A to SA3409A, CJP weld, at PP127.3). The welder is identified as 066039 and was observed welding in the 2G position. ZPMC QC was identified as Zhu Lin. The welding variables recorded by QC appeared to comply with welding procedure specification (WPS): B-T-2232-ESAB.

Blast Shop 1:

---

---

# WELDING INSPECTION REPORT

( Continued Page 3 of 3 )

---

---

Cross Beam 15(CB15):

This QA Inspector performed random visual inspection of CB13 after grit blasting. Inspection was done for the internal and external surfaces of Bottom panel, Deck panel, side panels and the Floor Beams of this CB. Areas identified for any grinding and / or welding were marked and informed to ZPMC personnel. Also the same were recorded on the drawings / weld maps and was submitted to the Task Leader for review.

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



## Summary of Conversations:

No significant 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; phone: 15000422372., who represents the Office of Structural Materials for your project.

---

<b>Inspected By:</b>	Wadkar,Sailesh	Quality Assurance Inspector
<b>Reviewed By:</b>	Patterson,Rodney	QA Reviewer

---