

**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:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-013261**Date Inspected:** 08-Apr-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:** Du Zhi Qun**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:** Tower**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance (QA) Inspector Shailesh 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:

This QA Inspector performed Magnetic Particle Testing (MT) of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated a TL- 6028 (MT) report for this date. The member is identified as Tower Strut Plate. The weld designations reviewed are as follows.

ND1-SA183-18M-1-1A/B

ND1-SA183-18M-3-1A/B

NDT Notification No-005486

This QA Inspector performed Magnetic Particle Testing (MT) of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated a TL- 6028 (MT) report for this date. The member is identified as West Tower lift4 A/B and A/E corner joint. The weld designations reviewed are as follows.

WSTL4-2B/L-59B, WSTL4-2L/L-4B

WSTL4-2B/L-60B (123M, 127M Double diaphragm area only)

NDT Notification No-005488

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This QA Inspector performed Ultrasonic Testing (UT) of approximately 10% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated a TL- 6027 (UT) report for this date. The member is identified as West Tower lift4 A/B and A/E corner joint. The weld designations reviewed are as follows.

WSTL4-2B/L-59A/B,      WSTL4-2B/L-60A/B  
NDT Notification No-005488

This QA Inspector observed the following work in progress:

BAY 10

Repair Welding:

This QA Inspector observed ZPMC qualified welding personnel identified as 056364. Perform Shielded Metal Arc Welding (SMAW) on Shearing Plate. Joint identified as ED1-A27. ZPMC CWI Identified as Du Zhi Qun. With Temporary welding repair report WRR-T-WR3074. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-345-SMAW-3G (3F)-Repair. For more information see below attach photo No. 1.

This QA Inspector observed ZPMC qualified welding personnel identified as 056364. Perform Flux Core Arc Welding (FCAW) on Shearing Plate. Joint identified as ED1-A27. ZPMC CWI Identified as Du Zhi Qun. With Temporary welding repair report WRR-T-WR3074. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-345-FCAW-3G (3F)-Repair. For more information see below attach photo No. 1.

This QA Inspector observed ZPMC qualified welding personnel identified as 040252. Perform Submerged Arc Welding (SAW) on North Tower lift 5, B/C corner joint. Joint identified as NSD1-TL5-3B-F-38B, ZPMC QC Identified as Deng Zhi Bing, The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-3221-C-U2b-S.

BAY 11:

This QA Inspector observed ZPMC qualified welding personnel identified as 044560. Perform Submerged Arc Welding (SAW) on Angle connection plate. Joint identified as SD1-SA4-56-143M-1, 2, 3, 4-1B, ZPMC CWI Identified as Yu Dong Ping, The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-3221-Tc-U5-S-1.

This QA Inspector observed ZPMC qualified welding personnel identified as 040699. Perform Submerged Arc Welding (SAW) on Angle connection plate. Joint identified as WD1-SA4-69-127M-1, 2, 3, 4-1B, ZPMC CWI Identified as Yu Dong Ping, The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-3221-Tc-U5-S-1.

This QA Inspector observed ZPMC qualified welding personnel identified as 040667, 040614. Perform Shielded Metal Arc Welding (SMAW) on Angle connection plate. Joint identified as SD1-SA4-56-131M-1, 2, 3, 4-1A, ZPMC CWI Identified as Yu Dong Ping, The welding parameters as measured using QC's calibrated instrument

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appeared to be in general compliance with WPS-B-T-3211-Tc-U5b-1.

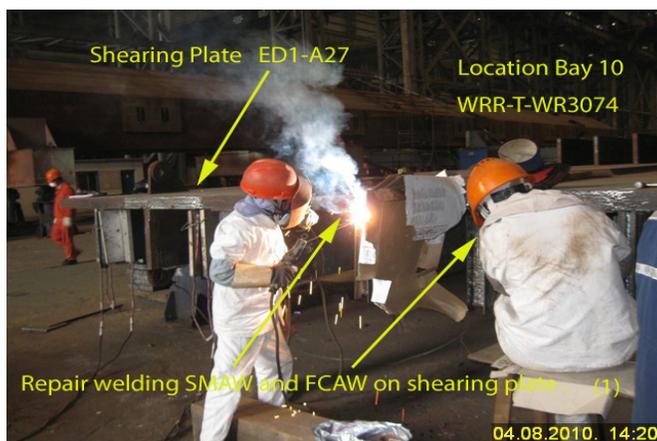
## Repair Welding:

This QA Inspector observed ZPMC qualified welding personnel identified as 040759, 040713. Perform Flux Core Arc Welding (FCAW) on Shearing Plate. Joint identified as WD1-A25. ZPMC CWI Identified as An Qing Xiang. With Temporary welding repair report WRR-T-WR3164. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-345-FCAW-2G (2F)-Repair. For more information see below attach photo No. 2

This QA Inspector observed ZPMC qualified welding personnel identified as 046704, 044541. Perform Shielded Metal Arc Welding (SMAW) on West tower lift 4 A/E corner Back fill plate welding near 143M double diaphragm. Joint identified as WSTL4-2K/L-145, 45. ZPMC QC Identified as Zhao Mao Mao, The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-3213-B-U2a.

This QA Inspector observed ZPMC qualified welding personnel identified as 044551. Perform Shielded Metal Arc Welding (SMAW) on West tower lift 4 A/E corner Back fill plate welding near 139M double diaphragm. Joint identified as WSTL4-2J/L-70. ZPMC QC Identified as Zhao Mao Mao, The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-3213-B-U2a.

Unless otherwise noted, all work observed on this date appeared to be in general compliance with the 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 Skyler Guest phone: 15000422360, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Gaikwad,Shailesh	Quality Assurance Inspector
<b>Reviewed By:</b>	Clifford,William	QA Reviewer