

**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 #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-014412**Date Inspected:** 20-May-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:** You Qi Guo.**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:

**BAY 10**

This QA Inspector performed randomly Visual Inspection and 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 Skirt Plate Pad eye. The weld designations reviewed are as follows.

SSD1-A544A/B-1-85, SSD1-A544A/B-2-85,  
SSD1-A434A/D-31, 32, NSD1-A802A/D-31, 32  
NDT Notification No-005776

**BAY 11**

This QA Inspector performed randomly Visual Inspection and 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 Shear Plate A23. The weld designations reviewed are as follows.

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## WELDING INSPECTION REPORT

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SD1-A23A/B-32, 33  
NDT Notification No-005776

### BAY 10

This QA Inspector performed randomly Visual Inspection and 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 South Tower Lift 5 Skin E Diaphragm. The weld designations reviewed are as follows.

SSD1-TL5-1B-F-35A/B, 2A/B  
NDT Notification No-005780

### BAY 10

This QA Inspector performed randomly Visual Inspection 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 South Tower Lift 5 Skin E Diaphragm. The weld designations reviewed are as follows.

SSD1-TL5-1B-F-35A/B, 2A/B  
NDT Notification No-005780

This QA Inspector observed the following work in progress:

### BAY 11:

#### SMAW Process:

This QA Inspector observed ZPMC qualified welding personnel identified as 041271, 046709. Perform Shielded Metal Arc Welding (SMAW) on Tower Strut. Joint identified as ND1-STSA4-10-119M-2-7B, 35A, ZPMC QC Identified as Mao Bin Bin, The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-3212Tc-U5b-1.

This QA Inspector observed ZPMC qualified welding personnel identified as 046769. Perform Shielded Metal Arc Welding (SMAW) on Tower Strut. Joint identified as ED1-STSA4-10-119M-1-35B, ZPMC QC Identified as Mao Bin Bin, The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-3212Tc-U5b-1.

This QA Inspector observed ZPMC qualified welding personnel identified as 044551, 044541. Perform Shielded Metal Arc Welding (SMAW) on Tower Strut. Joint identified as ED1-STSA4-6-143M-1-73A, 6B, ZPMC QC Identified as Mao Bin Bin, The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-3212Tc-U5b-1.

This QA Inspector observed ZPMC qualified welding personnel identified as 040655, 206189. Perform Shielded Metal Arc Welding (SMAW) on Tower Strut. Joint identified as ND1-STSA4-6-123M-1-97, 98, 47, 48, 75, 76, 61, 62, 59, 60, 37, 38, ZPMC QC Identified as Mao Bin Bin, The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2112.

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## WELDING INSPECTION REPORT

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This QA Inspector observed ZPMC qualified welding personnel identified as 206189. Perform Shielded Metal Arc Welding (SMAW) on Tower Strut. Joint identified as ED1-STSA4-6-135M-1-83, ZPMC QC Identified as Mao Bin Bin, The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2113.

This QA Inspector observed ZPMC qualified welding personnel identified as 040690, 040619. Perform Shielded Metal Arc Welding (SMAW) on Tower Strut. Joint identified as SD1-STSA4-5-119M-1-48A, 6B, 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-3212Tc-U5b-1.

This QA Inspector observed ZPMC qualified welding personnel identified as 040656, 046704. Perform Shielded Metal Arc Welding (SMAW) on Tower Strut. Joint identified as ED1-STSA4-6-143M-2- 74B, 5A. 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-3212Tc-U5b-1.

This QA Inspector observed ZPMC qualified welding personnel identified as 046704, 040656. Perform Shielded Metal Arc Welding (SMAW) on Tower Strut. Joint identified as ED1-STSA4-6-143M-2- 10A. 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-2212Tc-U5b.

### FCAW Process:

This QA Inspector observed ZPMC qualified welding personnel identified as 040704, 040759, 040723, 049541, Perform Flux Core Arc Welding (FCAW) on Shear plate bearing stiffener weld. Joint identified as WD1-A25B/E-3, 12, 20, 29. 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-2331-Tc-P4-F.

This QA Inspector observed ZPMC qualified welding personnel identified as 053316, Perform Flux Core Arc Welding (FCAW) on Shear plate bearing stiffener weld. Joint identified as SD1-A20A/B-32. 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-2331-Tc-P4-F. For more information see below attach photo number 1.

### BAY 10

#### FCAW Process:

This QA Inspector observed ZPMC qualified welding personnel identified as 057258, 053869. Perform Flux Core Arc Welding (FCAW) on Shear plate bearing stiffener weld. Joint identified as WD1-A22A/B-17, 23. ZPMC CWI Identified as You Qi Guo. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2331-Tc-P4-F.

#### Repair Welding, SMAW Process:

This QA Inspector observed ZPMC qualified welding personnel identified as 500373, 053870, 052493, Perform Shielded Metal Arc Welding (SMAW) on Splice Plate of North tower lift 4. Plate identified as SPSA4-22 and SPSA4-18, Buttering 4~8mm, ZPMC QC Identified as Lu Wei Chao with Temporary welding repair report. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with

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# WELDING INSPECTION REPORT

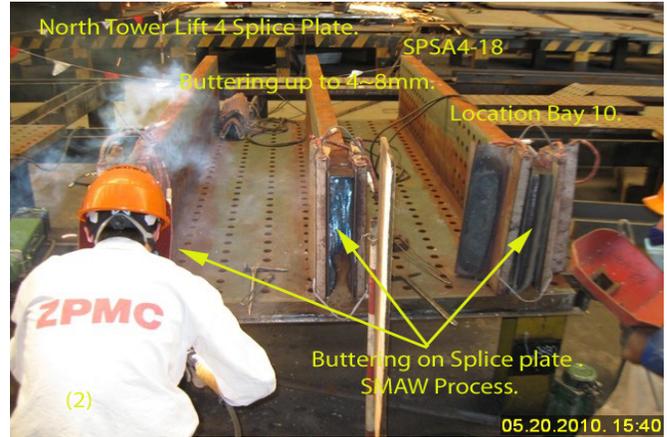
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WPS-345-SMAW-3G (3F) Repair. For more information see below attach photo number 2.

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

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