

**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-014418**Date Inspected:** 23-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 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 Tower lift 4 Angle plate. The weld designations reviewed are as follows.

**Visual Inspection:**

ND1-SA4-68-143M-1, 2-1A/B  
ND1-SA4-68-135M-2, 3, 4, 6, 8-1A/B  
ND1-SA4-68-139M-1, 2, 3, 4, 5, 6, 8-1A/B  
ED1-SA4-68-123M- 2, 3, 4, 5-1A/B  
ED1-SA4-68-127M-1, 3, 4, 7, 8-1A/B  
ED1-SA4-68-135M-1, 2, 3, 4, 5, 6, 7-1A/B  
ED1-SA4-68-139M-1, 2-1A/B  
ED1-SA4-68-143M-1, 2, 3-1A/B  
NDT Notification No-005806

**Magnetic Particle Testing:**

ND1-SA4-68-135M-5, 7-1A/B  
ND1-SA4-68-139M-7-1A/B  
ED1-SA4-68-123M-1, 6-1A/B  
ED1-SA4-68-127M-6-1A/B

---

---

## WELDING INSPECTION REPORT

( Continued Page 2 of 4 )

---

---

### 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 Tower shear plate A20. The weld designations reviewed are as follows.

SD1-A20B/B-52, 53

NDT Notification No-005808

This QA Inspector observed the following work in progress:

### BAY 11:

#### SMAW Process:

This QA Inspector observed ZPMC qualified welding personnel identified as 046704, 040656. Perform Shielded Metal Arc Welding (SMAW) on Tower Strut. Joint identified as ND1-STSA4-6-143M-1-5A, 74B. 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-3212-Tc-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 ND1-STSA4-6-143M-1-10A. 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-2212-Tc-U5b.

This QA Inspector observed ZPMC qualified welding personnel identified as 040611. Perform Shielded Metal Arc Welding (SMAW) on Tower Strut. Joint identified as ND1-STSA4-6-139M-2-73A, 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-3212-Tc-U5b-1.

This QA Inspector observed ZPMC qualified welding personnel identified as 040614. Perform Shielded Metal Arc Welding (SMAW) on Tower Strut. Joint identified as ND1-STSA4-6-139M-2-9B. 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-2212-Tc-U5b.

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-1-48B, 6A. 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-3212-Tc-U5b-1. For more information see below attach photo number 1.

This QA Inspector observed ZPMC qualified welding personnel identified as 040619. Perform Shielded Metal Arc Welding (SMAW) on Tower Strut. Joint identified as SD1-STSA4-5-119M-1-8B. 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-2212-Tc-U5b.

---

---

## WELDING INSPECTION REPORT

( Continued Page 3 of 4 )

---

---

### FCAW Process:

This QA Inspector observed ZPMC qualified welding personnel identified as 049541, 053486, 040704, 040759, Perform Flux Core Arc Welding (FCAW) on Shear plate bearing stiffener weld. Joint identified as ED1-A29A/B-72, 63, 74, 60. ZPMC QC Identified as Xu Jie. 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 044541, Perform Shielded Metal Arc Welding (SMAW) on Tower strut web to flange plate weld. Joint identified as ED1-STSA4-6-139M-1-6A/B, ZPMC QC Identified as Mao Bin Bin with Temporary welding repair report. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-485-SMAW-2G (2F) Repair-1.

### Repair Welding, SMAW Process:

This QA Inspector observed ZPMC qualified welding personnel identified as 251194, Perform Shielded Metal Arc Welding (SMAW) on Tower strut. Strut identified as ND1-A468-33M-1 buttering up to 5 to 13mm, ZPMC QC Identified as Shao Hao Long, with Critical welding repair report CWR-T-CWR628. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-485-SMAW-1G (1F) Repair-1.

This QA Inspector observed ZPMC qualified welding personnel identified as 040724, Perform Shielded Metal Arc Welding (SMAW) on Tower strut. Strut identified as ND1-A468-28M-1 buttering up to 7 to 15mm, ZPMC QC Identified as Shao Hao Long, with Critical welding repair report CWR-T-CWR627. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-485-SMAW-1G (1F) Repair-1.

This QA Inspector observed ZPMC qualified welding personnel identified as 202100, Perform Shielded Metal Arc Welding (SMAW) on Tower strut. Strut identified as ND1-A468-23M-1 buttering up to 10 to 30mm, ZPMC QC Identified as Shao Hao Long, with Critical welding repair report CWR-T-CWR626. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-485-SMAW-1G (1F) Repair-1. For more information see below attach photo number 2.

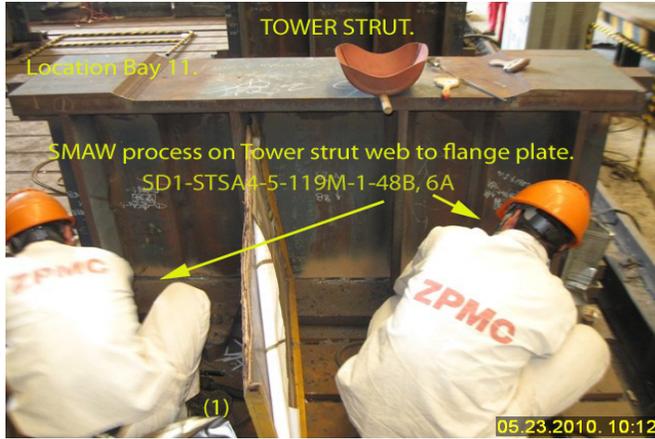
Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable contract documents.

---

# WELDING INSPECTION REPORT

( Continued Page 4 of 4 )

---



## 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.

---

**Inspected By:** Gaikwad,Shailesh Quality Assurance Inspector

---

**Reviewed By:** Clifford,William QA Reviewer