

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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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-014950**Date Inspected:** 16-Jun-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:** An Qing Xiang.**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 Skirt Beam. The weld designations reviewed are as follows.

ESD1-A63C/D-4, 5, 6, ESD1-A63D/D-88, 89, 90, 92, 94, 95
WSD1-A801C/D-4, 5, 6, WSD1-A801D/D-88, 89, 90, 92, 94, 95

NDT Notification No-005989

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 Strut. The weld designations reviewed are as follows.

WELDING INSPECTION REPORT

(Continued Page 2 of 4)

ND1-STSA4-6-131M-2-89, 90, 43, 44, 67, 68, 83, 84, 95, 96, 33, 34, 57, 58, 77, 78, 5, 6, 9, 10
NDT Notification No-005996

BAY 11

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 Tower Strut. The weld designations reviewed are as follows.

ND1-STSA4-6-131M-2-5, 6, 73, 74, 9, 10,
NDT Notification No-005996

This QA Inspector observed the following work in progress:

BAY 11:

SMAW Process, Repair Welding.

This QA Inspector observed ZPMC qualified welding personnel identified as 044541, Perform Shielded Metal Arc Welding (SMAW) on Tower strut. Joint identified as ED1-STSA4-10-119M-1-8A/B, ZPMC QC Identified as Liu Dao Feng, with temporary welding repair report WRR-T-WR3311. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-485-SMAW-2G (2F)-FCM-Repair-1.

This QA Inspector observed ZPMC qualified welding personnel identified as 044551, Perform Shielded Metal Arc Welding (SMAW) on Tower strut. Joint identified as ED1-STSA4-10-119M-1-36A/B, ZPMC QC Identified as Liu Dao Feng, with temporary welding repair report WRR-T-WR3313. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-485-SMAW-2G (2F)-FCM-Repair-1. For more information see below attach photo number 1.

This QA Inspector observed ZPMC qualified welding personnel identified as 040619, 046704, Perform Shielded Metal Arc Welding (SMAW) on West tower lift 5 Grillage plate. Joint identified as WSD1-TL5-4B/F-34A/B. ZPMC QC Identified as Liu Dao Feng, The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-3213-B-U3b.

This QA Inspector observed ZPMC qualified welding personnel identified as 046709, Perform Shielded Metal Arc Welding (SMAW) on Interior splice plate. Joint identified as ESD1-SPSA5-7-3B. 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-3211-Tc-U5b-1.

This QA Inspector observed ZPMC qualified welding personnel identified as 046769, Perform Shielded Metal Arc Welding (SMAW) on Interior splice plate. Joint identified as WSD1-SPSA5-2-1A. 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-3211-Tc-U5b-1.

This QA Inspector observed ZPMC qualified welding personnel identified as 040611, Perform Shielded Metal Arc Welding (SMAW) on Interior splice plate. Joint identified as ESD1-SPSA5-20-1A. ZPMC QC Identified as Xu Jie,

WELDING INSPECTION REPORT

(Continued Page 3 of 4)

The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-3211-Tc-U5b-1.

Repair Welding: FCAW Process.

This QA Inspector observed ZPMC qualified welding personnel identified as 040723, 040759 Perform Flux Core Arc Welding (FCAW) on Grillage Top plate. Joint identified as GTSA5-B/G-3A/B, 6A/B. ZPMC QC Identified as Xu Jun Long, with Temporary welding repair report WRR-T-WR3367 and 3368. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-345-FCAW-1G (1F)-Repair.

This QA Inspector observed ZPMC qualified welding personnel identified as 040655, Perform Shielded Metal Arc Welding (SMAW) on West Tower lift 3 A/B corner Façade plate. Joint identified as WSD1-FASA-3-2C/E-10, WSD1-FASA-3-2B/E-20. 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-4314-Tc-P5.

BAY 10: SMAW Process:

This QA Inspector observed ZPMC qualified welding personnel identified as 044511, Perform Shielded Metal Arc Welding (SMAW) on Interior splice plate. Joint identified as NSD1-SPSA5-6-1B, ZPMC QC Identified as Yuan Hai Gang, The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-3211-Tc-U5b-1.

This QA Inspector observed ZPMC qualified welding personnel identified as 056200, Perform Shielded Metal Arc Welding (SMAW) on Interior splice plate. Joint identified as SSD1-SPSA5-6-1B, 4B, ZPMC QC Identified as Yuan Hai Gang, The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-3211-Tc-U5b-1.

This QA Inspector observed ZPMC qualified welding personnel identified as 057258, Perform Shielded Metal Arc Welding (SMAW) on Interior splice plate. Joint identified as NSD1-SPSA5-16-2B, 3B. ZPMC QC Identified as Yuan Hai Gang, The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-3211-Tc-U5b-1.

This QA Inspector observed ZPMC qualified welding personnel identified as 050289, Perform Shielded Metal Arc Welding (SMAW) on Interior splice plate. Joint identified as NSD1-SPSA5-19-1A. ZPMC QC Identified as Yuan Hai Gang, The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-3211-Tc-U5b-1.

This QA Inspector observed ZPMC qualified welding personnel identified as 056364, Perform Shielded Metal Arc Welding (SMAW) on North tower lift 4 Fit Lug near 143M Double diaphragm. Joint identified as NSTL4-3K/L-93, 95. ZPMC QC Identified as Lijun, The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2313-Tc-P4. For more information see below attach photo number 2.

This QA Inspector observed ZPMC qualified welding personnel identified as 052930, Perform Shielded Metal Arc Welding (SMAW) on North tower lift 4 Fit Lug near 143M Double diaphragm. Joint identified as

WELDING INSPECTION REPORT

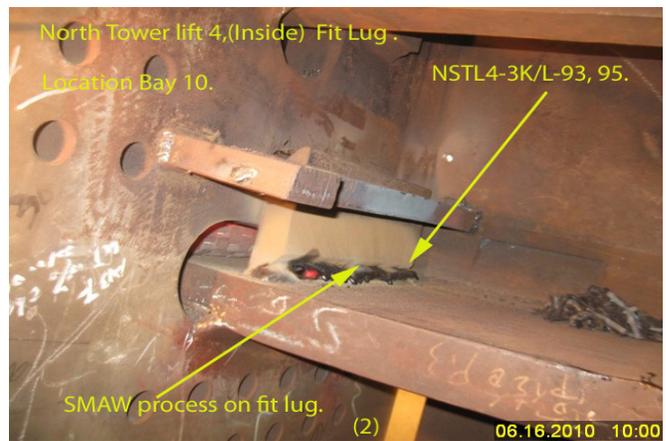
(Continued Page 4 of 4)

NSTL4-3K/L-29, 30. ZPMC QC Identified as Lijun, The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-4313-Tc-P4.

FCAW Process:

This QA Inspector observed ZPMC qualified welding personnel identified as 052075, Perform Flux Core Arc Welding (FCAW) on North tower lift 4 Fit Lug near 143M Double diaphragm. Joint identified as NSTL4-3J/L-94, 95, 29, 30. ZPMC QC Identified as Lijun, The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2333-Tc-P4-F.

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 Michael Ng Phone: 15921845703, who represents the Office of Structural Materials for your project.

Inspected By: Gaikwad,Shailesh

Quality Assurance Inspector

Reviewed By: Clifford,William

QA Reviewer