

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-014583**Date Inspected:** 29-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:** 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 Tower skirt ring beam. The weld designations reviewed are as follows.

ESD1-SA452A/B-5, 7, ESD1-SA452B/B-34, 40, 53, 47, WSD1-SA38B/B-11, 17, 15, 16
NDT Notification No-005849

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 Tower shear plate A27 and North tower lift 4 Stiffener to double diaphragm 119M. The weld designations reviewed are as follows.

ED1-A27B/E-53, 88, 86, 84, 81, 80, 77, 75, 73, 72, 69, 67

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NSTL4-3C/L-35, 38, 154, 96

NSTL4-3F/L-29, 25, 96, 95

NDT Notification No-005854

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 North Tower lift 4 Angle brackets. The weld designations reviewed are as follows.

Visual Inspection

NSD1-FBSA4-1A/C-3~6, 9~13, 18~21, 28, 29, 37~40, 38~87

NSD1-FCSA4-1A/C-2~37,

Magnetic Particle Testing

NSD1-FBSA4-1A/C-42, 43, 44, 45

NSD1-FCSA4-1A/C-38, 39, 40, 41, 42, 43

NDT Notification No-005856

This QA Inspector observed the following work in progress:

BAY 11:

SMAW Process:

This QA Inspector observed ZPMC qualified welding personnel identified as 040619, 046704. Perform Shielded Metal Arc Welding (SMAW) on Tower Strut. Joint identified as WD1-STSA4-6-139M-1-48A, 6B. 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-3212-Tc-U5b-1.

This QA Inspector observed ZPMC qualified welding personnel identified as 041271, 040614. Perform Shielded Metal Arc Welding (SMAW) on Tower Strut. Joint identified as ND1-STSA4-6-143M-2-67, 68, 83, 79, 63, 64, 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 040614. Perform Shielded Metal Arc Welding (SMAW) on Tower Strut. Joint identified as ND1-STSA4-6-143M-2-84, 80. 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-4113.

This QA Inspector observed ZPMC qualified welding personnel identified as 251194. Perform Shielded Metal Arc Welding (SMAW) on Tower Strut. Joint identified as ED1-STSA4-6-143M-1-89, 95. 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 044551, 040610. Perform Shielded

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Metal Arc Welding (SMAW) on Tower Strut. Joint identified as ED1-STSA4-6-143M-1-90, 96. 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-4113-1.

This QA Inspector observed ZPMC qualified welding personnel identified as 046769, 040656. Perform Shielded Metal Arc Welding (SMAW) on Tower Strut. Joint identified as ED1-STSA4-6-135M-2-35, 36, 45, 46, 39, 40, 55, 56, 53, 54. 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.

This QA Inspector observed ZPMC qualified welding personnel identified as 040656. Perform Shielded Metal Arc Welding (SMAW) on Tower Strut. Joint identified as ND1-STSA4-6-127M-2-97, 98, 21, 22, 25, 26, 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.

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 SD1-STSA4-5-143M-1-5A/B. ZPMC QC Identified as Mao Bin Bin with temporary welding repair report WRR-T-WR3272, The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-485-SMAW-2G(2F)-Repair-1. For more information see below attach photo number 1.

SAW Process:

This QA Inspector observed ZPMC qualified welding personnel identified as 044550, 042195. Perform Submerged Arc Welding (SAW) on Saddle grillage plate. Joint identified as GTSA5-B/G-6B, 3B, ZPMC CWI Identified as An Qing Xiang, The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2221-B-U3c-S-2.

SMAW Process

This QA Inspector observed ZPMC qualified welding personnel identified as 044551, Perform Shielded Metal Arc Welding (SMAW) on Saddle grillage plate. Joint identified as ESD1-SPSA5-2-1A. ZPMC CWI Identified as An Qing Xiang, The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-3211-Tc-U5b.

FCAW Process:

This QA Inspector observed ZPMC qualified welding personnel identified as 040759, 053316, 040723, Perform Flux Core Arc Welding (FCAW) on Shear plate bearing stiffener weld. Joint identified as ED1-A29A/B-57, 69, 67. 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.

Magnetic Particle Testing:

This QA Inspector observed ZPMC Magnetic Particle Testing Inspector, performing MT on WD1-A25, Shearing Plate bearing stiffener weld at location Bay 11. 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

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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.

Inspected By: Gaikwad,Shailesh

Quality Assurance Inspector

Reviewed By: Clifford,William

QA Reviewer
