

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-013257**Date Inspected:** 03-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:	Lilin			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 random 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 4 Fit lug on Skin E 119M top Diaphragm. The weld designations reviewed are as follows.

SSTL4-1C/L-93, 94, 97, 98, 96, 154, Fit lug on Skin E 119M top Diaphragm
SSTL4-1C/L-99, Skin E with Diaphragm.

This QA Inspector performed random 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 4 A/E corner seam Diaphragm side weld, triangular diaphragm, angle shape weld on skin B, C, and 139M, 143M Double diaphragm web plate. The weld designations reviewed are as follows.

139M Lower and Upper Diaphragm SSTL4-1J/L-24, 30, 27, 92, 94
143M Lower and Upper Diaphragm SSTL4-1K/L-24, 25, 90, 92
135M Upper Diaphragm SSTL4-1I/L-97, 98
139M Lower and Upper Diaphragm SSTL4-1J/L-32, 33, 96, 98, 100

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143M Lower and Upper Diaphragm SSSL4-1K/L-33, 34, 96, 97
SSSL4-1J/L-25, SSSL4-1K/L-26
SSD1-FCSA4-1A/C-26, 27 – SKIN C SSD1-FBSA4-1A/C-83, 84 – SKIN B

NDT Notification No-005468

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 North Tower lift 4 A/E corner joint 135M and 139M area only. The weld designations reviewed are as follows.

NSTL4-3B/L-3A/B

NDT Notification No-005467

This QA Inspector observed the following work in progress:

BAY 10

Repair Welding

This QA Inspector observed ZPMC qualified welding personnel identified as 052493. Perform Shielded Metal Arc Welding (SMAW) on South tower lift 5 A/E corner joint. Joint identified as SSD1-TL5-1B-F-3A. ZPMC QC Identified as Deng Zhi Bing with Critical welding repair report. CWR-T-CWR608, The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-485-SMAW-2G (2F)-Repair-1.

This QA Inspector observed ZPMC qualified welding personnel identified as 053869. Perform Flux Core Arc Welding (FCAW) on North tower lift 4 A/E corner Back fill plate welding. Joint identified as NSTL4-3K/L-31. 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-4333-Tc-P4-F.

This QA Inspector observed ZPMC qualified welding personnel identified as 052493. Perform Submerged Arc Welding (SAW) on North tower lift 5 D/E corner joint. Joint identified as NSD1-TL5-3B-F-1A. 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 during random Visual inspection ZPMC Ultrasonic Testing (UT) inspector performing UT on West Tower lift 5 D/E corner joint. For more information see below attached photo No-2.

This QA Inspector observed ZPMC qualified welding personnel identified as 040699. Perform Submerged Arc Welding (SAW) on Tower strut flange plate. Joint identified as SD1-STSA4-5-119M-1-2B, WD1-STSA4-119M-1-2B. 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-4221-C-U3c-S-1.

This QA Inspector observed ZPMC qualified welding personnel identified as 041716. Perform Submerged Arc Welding (SAW) on Grillage Beam plate. Joint identified as ESD1-TL5-2B/F-21B. ZPMC QC Identified as Xu Jie,

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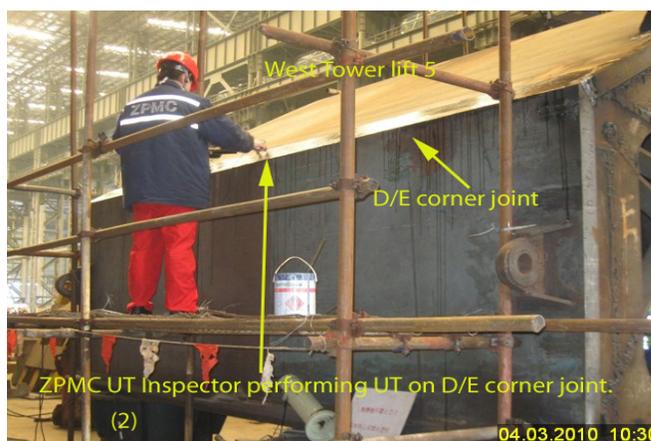
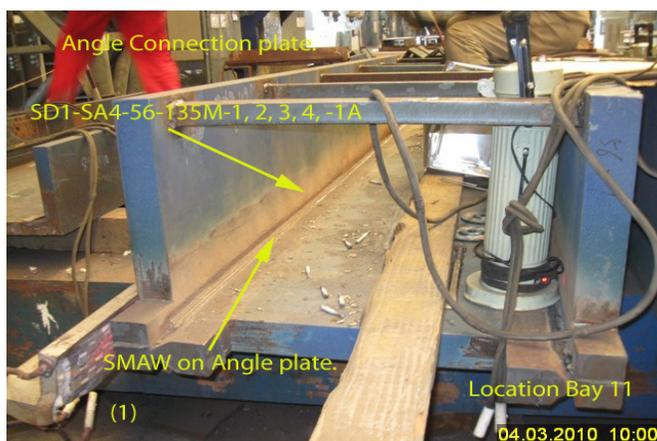
The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-3221-C-U3c-S-1.

This QA Inspector observed ZPMC qualified welding personnel identified as 040614, 040667. Perform Shielded Metal Arc Welding (SMAW) on lift 4 Angle connection plate. Joint identified as SD1-SA4-56-135M-1, 2, 3, 4-1A. 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-1. For more information see below attached photo No-1.

Repair Welding:

This QA Inspector observed ZPMC qualified welding personnel identified as 046704, 040611, 040656, Perform Shielded Metal Arc Welding (SMAW) on West Tower lift 4 Skin A/E corner joint. Joint identified as WSTL4-2B/L-60A. ZPMC CWI Identified as Lilin with Temporary welding repair report WRR-T-WR3093, The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with 345-SMAW-2G (2F) Repair.

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.

Inspected By: Gaikwad,Shailesh

Quality Assurance Inspector

Reviewed By: Clifford,William

QA Reviewer