

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-011106**Date Inspected:** 20-Dec-2009**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:** Chen Ying Xin, Du Zhi Qun**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 Umesh 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 TOWER SPARE STRUT

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 an UT report for this date. The members are identified as Tower Components. The weld designations reviewed are as follows.

SD1-A6002-6 GREEN TAG NO. 9327

BAY 10 TOWER LIFT 5 SKIN PLATE

This QA inspector performed random Visual Testing (VT) of the area previously tested and accepted by ZPMC Quality Control personnel. The members are identified as Tower Components. The weld designations reviewed are as follows.

NSD1-TL5-3E/F-3A/B GREEN TAG NO. 11553

NSD1-TL5-3C/F-9A/B GREEN TAG NO. 11554

WELDING INSPECTION REPORT

(Continued Page 2 of 4)

NSD1-TL5-3E/F-4A/B GREEN TAG NO. 11555
SSD1-TL5-1E/F-14A/B GREEN TAG NO. 11556
SSD1-TL5-1C/F-8A/B GREEN TAG NO. 11557

BAY 11 EAST TOWER LIFT 4 C/D CORNER SEAM

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 an UT report for this date. The members are identified as Tower Components. The weld designations reviewed are as follows.

ESTL4-2L/L-2A/B

This Quality Assurance (QA) Inspector observed the following work in progress:

Bay 10

TOWER INTERIOR SPLICE PLATE REPAIR

FCAW welding of weld joint 2B(Repair) located on NSD1-SPSA4-24.

Welder is identified as 053870. ZPMC CWI is identified as Mr. Du Zhi Qun.

The welding variables recorded by QC appeared to comply with WPS-345-FCAW-1G(1F)-REPAIR.

NORTH TOWER LIFT 5 BEARING PLATE

SMAW welding of weld joint 1A located on ND1-BPSA5-2-1.

Welder is identified as 050289. ZPMC QC is identified as Jiang La Mei.

The welding variables recorded by QC appeared to comply with WPS-B-T-3212-Tc-U5b-1.

SOUTH TOWER LIFT 4 A/B CORNER SEAM REPAIR (T-CWR508)

SMAW welding of weld joint 4A/B(Repair) located on SSSL4-1B/L.

Welder is identified as 067589. ZPMC QC is identified as Mr. Li Peng Fei.

The welding variables recorded by QC appeared to comply with WPS-345-SMAW-4G(4F)-REPAIR.

During random in-process Visual inspection of B/C corner diagonal angle stiffener of North Tower lift 2, this QA inspector discovered the deposition of weld metal (buttering/build up) by Shielded Metal Arc Welding (SMAW) process on the base metal of diagonal angle stiffener of B/C corner of North Tower lift 2. This build up measured to be approximately 12mm. This repair was performed without approved Critical Welding Repair (CWR) report. The welder is identified as 040581. The green tag has been already issued for this part. The member is identified as B/C corner diagonal angle stiffener. The member is located in Bay 10.

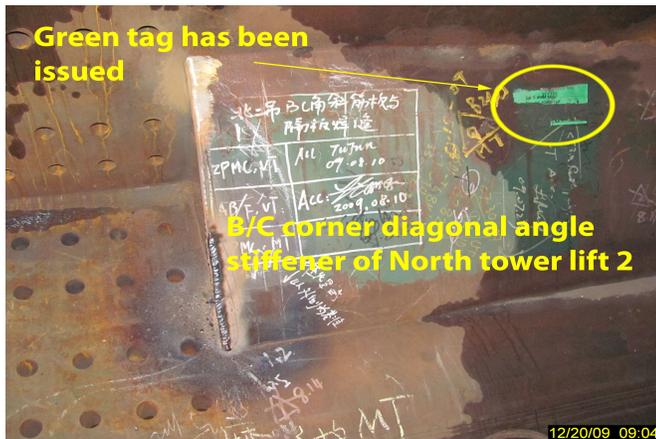
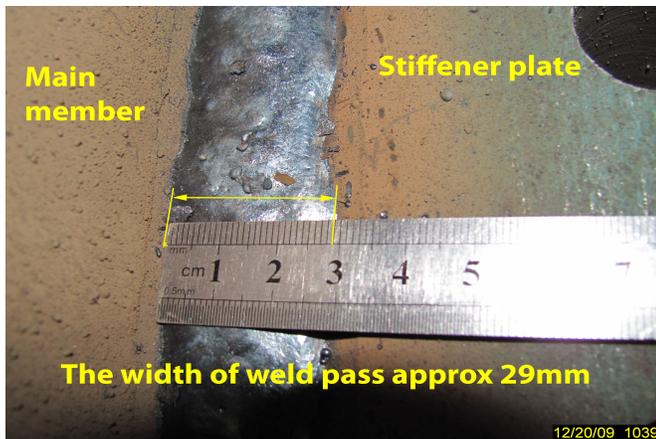
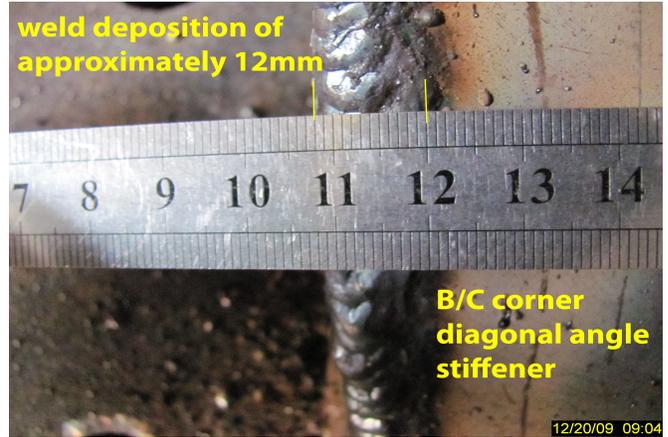
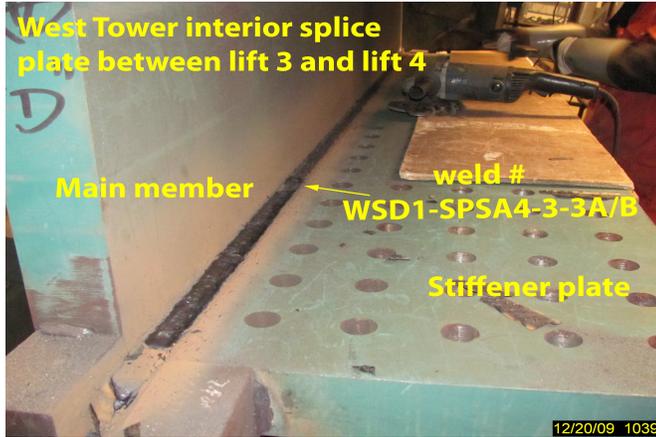
During the Quality Assurance (QA) random in-process Visual inspection of welds located on West Tower interior splice plate between lift 3 and lift 4, this QA inspector discovered the width of a weld pass measured to be approximately 29mm. This Flux Cored Arc Welding (FCAW) was performed for Complete Joint Penetration (CJP) weld in the flat position. The maximum FCAW weld pass width allowed in flat position for groove weld is 16mm. The weld is identified as: WSD1-SPSA4-3-3A/B. The Weld is a CJP weld joining the main member and stiffener plate. The member is located in Bay 11.

WELDING INSPECTION REPORT

(Continued Page 3 of 4)

The attached photographs provide additional detail.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.



Summary of Conversations:

Only general conversation was held between QA and QC concerning this project.

WELDING INSPECTION REPORT

(Continued Page 4 of 4)

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 Serge Sinevod 134-8257-0045, who represents the Office of Structural Materials for your project.

Inspected By:	Gaikwad,Umesh	Quality Assurance Inspector
Reviewed By:	Clifford,William	QA Reviewer
