

**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-008780**Date Inspected:** 07-Sep-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:** Guo Yan Fei**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:** Crossbeams**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance Inspector (QA) Steve Hall 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:

**OBG CROSS BEAM CB1**

This QA observed that no significant work was being performed on this crossbeam during the time QA was present.

**OBG CROSS BEAM CB2**

This QA observed that no significant work was being performed on this crossbeam during the time QA was present.

**OBG CROSS BEAM CB3**

This crossbeam has been loaded on the ship.

**OBG CROSS BEAM CB4**

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This QA observed that no significant work was being performed on this crossbeam during the time QA was present.

### OBG CROSS BEAM CB5

This QA observed that no significant work was being performed on this crossbeam during the time QA was present.

### OBG CROSS BEAM CB6

This QA observed that no significant work was being performed on this crossbeam during the time QA was present.

### OBG CROSS BEAM CB7

This QA observed ZPMC qualified welding personnel identified as 216667 perform SMAW repair welding on various weld joints. ZPMC QC identified as Mr. Tian Lei was present to monitor the welding process. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-B-P-2112 and WPS-B-P-2114.

This QA observed ZPMC qualified welding personnel identified as 214453 perform SMAW tack welding on SP203-007-012, 013 and 014. ZPMC QC identified as Mr. Tian Lei was present to monitor the welding process. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-B-P-2113-padeye.

### OBG CROSS BEAM CB8

This QA observed that ZPMC has backgouged various Complete Joint Penetration (CJP) welds and several workers were cleaning these joints in preparation for final welding. No other significant work was observed on this crossbeam during the time QA was present.

### OBG CROSS BEAM CB9

This QA observed that no significant work was being performed on this crossbeam during the time QA was present.

### OBG CROSS BEAM CB10

This QA received ZPMC Non Destructive Testing (NDT) notification No. 004162 and performed Ultrasonic Testing (UT) of approximately 10% of the welds previously tested and accepted by ZPMC Quality Control (QC) personnel. This QA generated a UT report for this date. The weld designations are as follows: CB202C-010-003, CB202B-010-003, CB202A-010-005 and 017 and CB202B-010-004.

NOTE: Weld CB202B-010-004 was not listed on the above mentioned notification. This QA observed that ZPMC UT technicians had previously tested and accepted this weld in June 2009. QA observed that there did not appear to be any Caltrans QA marking on this joint. QA performed UT on this joint and it appeared to be in compliance

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with the contract documents.

### OBG CROSS BEAM CB11

This QA observed that no significant work was being performed on this crossbeam during the time QA was present.

### OBG CROSS BEAM CB12

This QA observed ZPMC qualified welding personnel identified as 066687 perform FCAW welding on FB205-035-036. ZPMC QC identified as Mr. Guo Yan Fei was present to monitor the welding process. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-B-T-2233-B-U2-F.

This QA observed ZPMC qualified welding personnel identified as 069118 perform FCAW welding on joint identified as FB204-036-070. ZPMC QC identified as Mr. Guo Yan Fei was present to monitor the welding process. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-B-T-2232-B-U2-F.

### OBG CROSS BEAM CB13

This QA observed ZPMC personnel fitting and tack welding floor beam sections to the side panels on this crossbeam. No other significant work was observed on this crossbeam during the time QA was present.

### OBG CROSS BEAM CB14

This QA observed ZPMC personnel fitting temporary stiffeners to the side panels on this crossbeam. No other significant work was observed on this crossbeam during the time QA was present.

### OBG CROSS BEAM CB15

This QA observed ZPMC QC CWI identified as Mr. Chen Xi perform Visual Testing (VT) of welds on floor beam corner sections. No other significant work was observed on this crossbeam during the time QA was present.

### OBG CROSS BEAM CB16

This QA observed ZPMC qualified welding personnel identified as 215158 perform FCAW welding on floor beam corner sections weld joint identified as FB205-051-012. ZPMC QC identified as Mr. Zheng Zhi Wei was present to monitor the welding process. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-B-T-2232-Tc-U4b-F.

This QA observed ZPMC qualified welding personnel identified as 215078 perform FCAW welding on floor beam corner sections weld joint identified as FB204-050-025. ZPMC QC identified as Mr. Zheng Zhi Wei was present to monitor the welding process. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-B-T-2232-Tc-U4b-F.

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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 Eric Tsang (15000422372), who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Hall,Steven	Quality Assurance Inspector
<b>Reviewed By:</b>	Prue,Erik	QA Reviewer

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