

DEPARTMENT OF TRANSPORTATION
 DIVISION OF ENGINEERING SERVICES
 Office of Structural Materials
 Quality Assurance and Source Inspection



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Contract #: 04-0120F4
 Cty: SF/ALA Rte: 80 PM: 13.2/13.9
 File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-000532
Date Inspected: 27-Sep-2007

Project Name: SAS Superstructure **OSM Arrival Time:** 630
Prime Contractor: American Bridge/Fluor Enterprises, a JV **OSM Departure Time:** 1530
Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

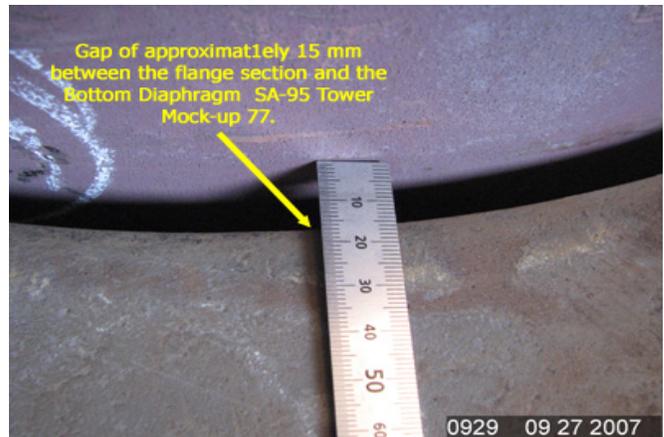
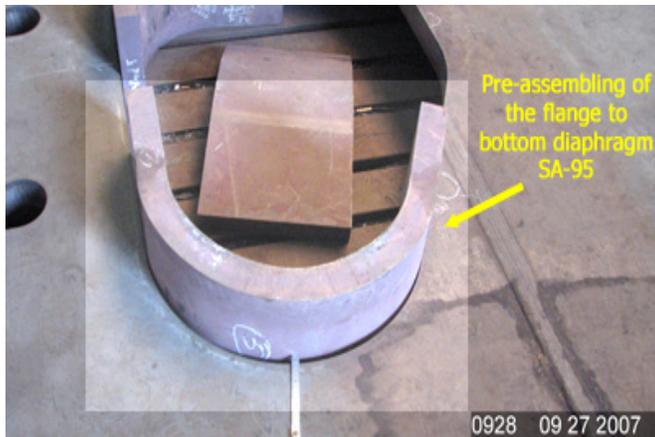
CWI Name:	Ye YongJun	CWI Present:	Yes	No
Inspected CWI report:	Yes No N/A	Rod Oven in Use:	Yes No N/A	
Electrode to specification:	Yes No N/A	Weld Procedures Followed:	Yes No N/A	
Qualified Welders:	Yes No N/A	Verified Joint Fit-up:	Yes No N/A	
Approved Drawings:	Yes No N/A	Approved WPS:	Yes No N/A	
		Delayed / Cancelled:	Yes No N/A	
Bridge No:	34-0006	Component:	Tower Mock-up 77 and 114 M	

Summary of Items Observed:

CALTRANS Quality Assurance (QA) Inspector, Alfredo Acuna was present for the fabrication of the Mock-up 77, 89 and 114 meters elevations scheduled for this project at the ZPMC facility in Shanghai, China for the San Francisco Oakland Bay Self Anchored Suspension Bridge.

Tower Mock-up 77 Meter Elevation

The QA inspector had a conversation with ABF representative Mr. Danny McDonald. Mr. McDonald relayed to the QA inspector that the bent flange sections did not meet the tolerance of the contract documents, and was rejected by ZPMC with an internal non conformance report (NCR).



WELDING INSPECTION REPORT

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Item	Description	WBS	Dwg No.	Status
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2 Tower Mock-up 77 Meter Elevation Skin A Repairs.

ZPMC, welder Xang Lei was observed by the QA Inspector performing welding repairs at the junction of the longitudinal stiffener MA1-5 to skin panel E weld joint # 5 following the approved welding procedure specification WPS-345-FCAW-1G-Repair. Base metal was designated as A-709 Grade 50. ZPMC was using the semi-automatic flux cored arc welding gas (FCAW-G) process in the flat (1G) position with the 1.4 mm diameter electrode designated as E71T-1 /AWS A5.20, brand name Supercored. The QA Inspector verified amperage, voltage, travel speed, preheat and heat interpass temperatures for the filler passes. The QA inspector found that the welding parameters recorded after approved Certified Welder Inspector Ye Yong Jun and approved CAWI Zhu Xu Bing appeared to be in accordance with the contract documents.

The QA inspector witnessed the ZPMC Magnetic Particle testing (MT) on the excavations areas at the weld repairs # 2, 3 and 4, side B at the junction of the skin A panel and the longitudinal stiffener MA2-3. The QA inspector observed MT ASNT Level II technician Cai Xin Xin performing MT verifications. The QA inspector observed that Mr. Cai's MT verifications appeared to be in compliance with the Contract documents.

In visual examination of the excavated area from repair # 2 (900 mm of length), side B, Skin A. The QA inspector observed numerous localized areas that were not ground to the bright metal. The QA inspector brought this discrepancy to the attention of the ABF QA inspector Danny McDonald and ZPMC QC inspector Shen Xue Jun attention. Mr. Shen and Mr. McDonald agreed and relayed that ZPMC QC Xu Bing was the CWI inspector that performed the visual examination and that ZPMC would perform additional grinding to obtain bright metal on the full excavated area at the repair # 2.

At the end of the shift ZPMC was still grinding the excavated areas on repair # 2, skin A, side B. The photo below shows the location of the repair # 2, stiffener # 3 at the skin A.



3 Tower Mock-up 114 Meter Elevation Subassembly MA110

ZPMC, welder Cao Henjin was observed by the QA Inspector performing welding operations at the junction of the skin D lower section MA110 subassembly to the longitudinal stiffener weld joint # 6 following the approved welding procedure specification WPS-B-T-2232-TC-U5-F. Base metal was designated as A-709 Grade 50. ZPMC was using the semi-automated flux cored arc welding gas (FCAW-G) process in the horizontal (2G) position with the 1.4 mm diameter electrode designated as E71T-1 /AWS A5.20, brand name Supercored. The QA Inspector verified amperage, voltage, travel speed, preheat and heat interpass temperatures for the filler passes. The QA inspector found that the welding parameters recorded after approved Certified Welder Inspector Ye Yong Jun and approved CAWI Zhu Xu Bing appeared to be in accordance with the contract documents.

WELDING INSPECTION REPORT

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Summary of Conversations:

As noted above.

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 Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

Inspected By:	Acuna,Alfredo	Quality Assurance Inspector
Reviewed By:	Cuellar,Robert	QA Reviewer
