

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-006094**Date Inspected:** 10-Mar-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 645**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1845**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** See Below**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 Fabrication**Summary of Items Observed:**

CWI Inspectors Mr. Wu Ming Kai, Mr. Wenzhong Wan, Mr. Chen Shou hua

On this date CALTRANS OSM Quality Assurance (QA) Inspector Mr. Paul Dawson arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai, China, for the purpose of monitoring welding and fabrication of the San Francisco / Oakland Bay Bridge (SFOBB) components. The QA Inspector observed the following:

Tower Bay 11

This QA Inspector performed random ultrasonic inspections of approximately 10 percent length of West Tower Lift 2 Skin plate D stiffener to skin plate welds WSD1-SA209D/D-8, WSD1-SA209D/D-14, WSD1-SA209D/D-15, WSD1-SA209D/D-22 and WSD1-SA209D/D-28. These welds had previously been ultrasonically inspected and accepted by ZPMC inspection personnel. The QA Inspector observed the welds that was ultrasonically inspected by this QA Inspector appear to comply with AWS D1.5 UT requirements. For additional information on this inspection see the TL6027 Ultrasonic Test Report.

This QA Inspector performed random ultrasonic inspections of approximately 10 percent length of North Tower Lift 2 Skin plate C stiffener to skin plate welds NSD1-SA171A/D-26 and NSD1-SA171A/D-28. These welds had previously been ultrasonically inspected and accepted by ZPMC inspection personnel. The QA Inspector observed the welds that was ultrasonically inspected by this QA Inspector appear to comply with AWS D1.5 UT requirements. For additional information on this inspection see the TL6027 Ultrasonic Test Report.

WELDING INSPECTION REPORT

(Continued Page 2 of 3)

This QA Inspector performed random ultrasonic inspections of approximately 10 percent length of West Lift 2 Skin plate C stiffener to skin plate weld NSD1-SA171A/D-28. This weld had previously been ultrasonically inspected and accepted by ZPMC inspection personnel. The QA Inspector observed the weld that was ultrasonically inspected by this QA Inspector appears to comply with AWS D1.5 UT requirements. For additional information on this inspection see the TL6027 Ultrasonic Test Report.

Tower Bay 10

This QA Inspector performed random ultrasonic inspections of approximately 10 percent length of North Lift 2 Skin plate B stiffener to skin plate weld NSD1-SA223D/E-1. This weld had previously been ultrasonically inspected and accepted by ZPMC inspection personnel. The QA Inspector observed the weld that was ultrasonically inspected by this QA Inspector appears to comply with AWS D1.5 UT requirements. The other seven welds on this skin plate have been marked by ZPMC ultrasonic inspection personnel as being rejected. For additional information on this inspection see the TL6027 Ultrasonic Test Report.

This QA Inspector observed ZPMC welder Mr. Yuan Binbin, stencil 052894 is using shielded metal arc welding procedure WPS-B-P-2112-(2F) to tack weld complete joint penetration weld ED1-A27-A/E-2. Prior to welding the QA Inspector observed the base material was preheated using a torch and Mr. BinBin was verifying alignment of the plates where the tack welds were to be made and that the base material had been preheated to a minimum of 110 degrees Celsius as required by the welding procedure. Items observed by this QA Inspector appear to be progressing in compliance with project specifications.

The QA Inspector observed ZPMC welder Mr. Gao Qiang, stencil 057258 is using welding procedure WPS-B-T-3212-TC-U5b to make a shielded metal arc groove weld on shear link weld WDI-A467-23M4-6A. The QA Inspector observed ZPMC CWI Mr. Wu Ming Kai has recorded Mr. Qiang to have a welding current of 228 amps, 23.6 volts and a speed of 141 mm per minute. Items observed by the QA Inspector appear to comply with project specifications.

The QA Inspector observed ZPMC welder Mr. Huang Xhao stencil 056200 is using welding procedure WPS-B-T-3212-TC-U5b to make a shielded metal arc groove weld on shear link weld WDI-A467-23M4-4A. The QA Inspector observed ZPMC CWI Mr. Wu Ming Kai has recorded Mr. Xhao to have a welding current of 236 amps, 24.6 volts and a speed of 141 mm per minute. Items observed by the QA Inspector appear to comply with project specifications.

The QA Inspector observed ZPMC welder Mr. Zhang Weili, stencil 040570 is using the shielded metal arc process to tack weld stiffeners on shear link components. The QA inspector confirmed the base material is being preheated with a torch prior to welding and that Mr. Weili is certified to make these welds. Items observed by the QA Inspector appear to comply with project specifications. See the photograph below showing these shear link stiffeners.

WELDING INSPECTION REPORT

(Continued Page 3 of 3)



Summary of Conversations:

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

Inspected By:	Dawson,Paul	Quality Assurance Inspector
Reviewed By:	Clifford,William	QA Reviewer
