

**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-002524**Date Inspected:** 12-Apr-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 630**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1700**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Zhao Chen Sun and 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:** See Below**Summary of Items Observed:**

The Caltrans Quality Assurance (QA) Inspector, M. Paul Stovall, was present at Zhenhua Port Machinery Company (ZPMC) on Changxing Island, Shanghai, China to monitor the Quality Control (QC) functions during the fabrication of the Self Anchored Suspension (SAS) and Orthotropic Box Girder (OBG) sections of the San Francisco/Oakland Bay Bridge.

New Tower Shop

Bay 1

The QA Inspector observed ZPMC welding personnel Yun Chuanjin, ID #0503060 performing Submerged Arc Welding (SAW) of fill passes on Tower Skin plate weld joint number SSD1-SA159-D/J-3B. The QA Inspector verified the following welding parameters; 684 amperes and 34.2 volts. The welding observed appeared to comply with Welding Procedure Specification (WPS) WPS-B-T-2221-B-U3c-S and the contract requirements.

The QA Inspector observed ZPMC grind the back-gouged root on Skin Plate SSD1-SA173-A/K-15A.

The QA Inspector observed ZPMC welding personnel Chen Hongxin, ID #040460 performing Submerged Arc Welding (SAW) of fill passes on Tower Skin plate weld joint number SSD1-SA159-D/J-4B. The QA Inspector verified the following welding parameters; 693 amperes, 32.1 volts and a travel speed of 635 millimeters per minute.

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The QA Inspector observed ZPMC welding personnel Xu Yun, ID #052911 performing a weld repair using the Flux Cored Arc Welding (FCAW) process on Tower Skin plate weld joint SSD1-SA159-D/J-1A. The welding observed appeared to be in accordance with Weld Repair Report T-WR012. The QA Inspector verified the following welding parameters; 326 amperes and 30.1 volts. The welding appeared to comply with WPS-345-FCAW-1G (1F).

The QA Inspector observed ZPMC personnel flame cutting bevels on various Tower Skin plates and that ZPMC had rotated the 89-meter Mock-Up.

The QA Inspector observed ZPMC QC personnel present and monitoring the work. The work observed by this QA Inspector appeared to comply with the contract requirements.

New Tower Shop

Bay 2

The QA Inspector observed ZPMC welding personnel Xeu Yian, ID #040634 performing SAW on Tower Skin plate weld joint number ESD1-SA216-A/K-15B after grinding the back gouge to a bright metal.

The QA Inspector observed ZPMC personnel cutting Internal Tower Diaphragm plates to accept the stiffeners on Tower Skin plates.

OBG Preassembly Bay 3

The QA Inspector observed ZPMC welding personnel Wang Zhonghua, ID #053753 and Zhang Feng, ID #049769 fit and tack weld stiffeners on End Plates (EP) EP011-001 and EP012-001.

The QA Inspector observed ZPMC welding personnel Li Zhaoqian, ID #048810, and Li Shuqiang, ID #048801 fit and tack weld plates P55A and P55B for EP007-001.

The QA Inspector observed ZPMC QC personnel present and monitoring the work. The work observed by this QA Inspector appeared to comply with the contract requirements.

OBG Preassembly Bay 4

The QA Inspector observed ZPMC welding personnel Gu Caihong, ID #453748 performing SAW of fill passes on Internal Tower Diaphragm plate weld joint number NSD1-SA335-1B (1A). The QA Inspector observed the welding appeared to comply with WPS-B-T-3221-B-U3c-S-1.

The QA Inspector observed ZPMC QC personnel present and monitoring the work. The work observed by this QA Inspector appeared to comply with the contract requirements.

### **Summary of Conversations:**

The QA Inspector had no significant conversations.

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# WELDING INSPECTION REPORT

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## 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.

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<b>Inspected By:</b>	Stovall,Paul	Quality Assurance Inspector
<b>Reviewed By:</b>	Hager,Craig	QA Reviewer

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