

**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-002522**Date Inspected:** 10-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 monitoring Quality Control (QC) functions during the fabrication of the Self Anchored Suspension (SAS) section of the San Francisco/Oakland Bay Bridge.

New Tower Shop

Bay 1

The QA Inspector observed ZPMC welding personnel Yun Chuanjin, ID #0503060, Xiu Xiushui, ID # 040489, and Xa Yun, ID # 052917 performing Submerged Arc Welding (SAW) on Tower Skin plate weld joint numbers SSD1-SA159-D/J-3A, SSD1-SA173-A/K-13A, and SSD1-SA159-D/J-4A. The QA Inspector verified the welding parameters as 709 amperes and 33.5 volts on Skin Plate weld joint number SSD1-SA173-A/K-13A.

The QA Inspector observed ZPMC QC personnel were 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 personnel need to use a grinder to remove the SAW welding slag for the full

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## WELDING INSPECTION REPORT

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length of Tower Skin plate weld joint number ESD1-SA227-A/H-16A.

The QA Inspector observed ZPMC QC personnel performing Ultrasonic Testing (UT) on Tower Skin plate weld joint number ESD1-SA107-A/J-16B. The UT was in process at the end of this QA Inspectors' shift and the status of the testing is unknown.

OBG Preassembly Bay 2

The QA Inspector observed ZPMC personnel flame cutting plate material for the Tower and flame cutting macroetch coupons from the 77-meter Mock-Up.

OBG Preassembly Bay 3

The QA Inspector observed ZPMC welding personnel Tan Xiangbo, ID #066459, Zhang Feng, ID #049769, and Liu Qingyong, ID #066479 fit and tack weld WT stiffeners on Bottom Plates (BP) and Side Plates (SP): BP165-001, SP148-001, SP425-001, and SP415-001. The WPS used for the welding was WPS-B-P-2112-FCM.

The QA Inspector observed ZPMC personnel heat straightening various Side Plates, cutting W21 x 57's for use as WT's, and ZPMC QC inspecting and marking WT's for grinding due to surface irregularities from the flame cutting process.

The QA Inspector observed ZPMC QC personnel were present 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 using the SAW process to weld fill passes on Internal Tower Diaphragm plate weld joint number NSD1-SA322-A/B-1B (2B) using WPS-B-T-3221-B-U3c-S-1. The QA Inspector verified the welding parameters as 610 amperes and 31.8 volts.

The QA Inspector observed ZPMC QC personnel were 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 conversations as noted in the body of the report.

### 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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