

**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 #: 6928**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-000444**Date Inspected:** 12-Sep-2007**Project Name:** SAS Superstructure**OSM Arrival Time:** 1400**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 2300**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Changxing Island**CWI Name:** Zu Bing**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:** 114 C, 77 C, 77 Dia.**Summary of Items Observed:**

Caltrans Quality Assurance (QA) Inspector, Larry Viars was present to observe the welding of the Caltrans Mock-up #114.00 and Mock up #77.00, for the San Francisco Oakland Self Anchored Suspension Bridge, at Zhenhua Port Machinery Company (ZPMC) facility on Changxing Island.

Caltrans QA Inspector observed ZPMC shop personnel performing fit up and Shielded Metal Arc Welding (SMAW) at Skin Plate C Stiffener. ZPMC QA Inspector Fu Yuhong stated, SMAW is being performed in accordance to WPS-B-P-2212-TC-U5b and the welder performing the welding Mr. Xiang Jie.

Caltrans QA Inspector observed ZPMC QC nondestructive technician, Mr. Zhou Dong Yun perform magnetic particle testing (MT) and Visual testing (VT). The (MT) and (VT) testing was performed Mock-up #77.00 sub assemble MA4 on the cover pass Skin Plate C stiffener welds. Mr. Xu Bing rejected weld #8 for undercut. Caltrans QA measured the undercut and measured and found the areas of undercut in 190mm area with a maximum individual length of 23mm and maximum individual depth of 1mm. The following digital picture shows the area of undercut on skin plate C stiffener weld #8. Mr. Zhou Dong Yun also performed (MT) Mock-up #77.00 of diaphragm SA 104-1 to SA 104-2 outside weld number 73 cover pass. Caltrans QA inspector observed Cai Xin Xin performing (MT) of Mock-up #77.00 of diaphragm SA 95-1 to 95-2 outside weld number 73 cover pass. The testing appeared to be in conformance with AWS D1.5 2002 requirements. At the conclusion of inspection, ZPMC QC Inspectors Mr. Zhou Don Yung and Mr. Cai Xin Xin reported both outside diaphragm were found acceptable.

The Caltrans QA Inspector performed (VT) and (MT) examinations of the above mentioned appear to be in conformance with AWS D1.5 2002 requirements. See MT report TL 6028, generated on this date for further

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# WELDING INSPECTION REPORT

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information.



## Summary of Conversations:

As identified within the contents of this 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>	Viars,Larry	Quality Assurance Inspector
<b>Reviewed By:</b>	McClary,David	QA Reviewer

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