

**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-000658**Date Inspected:** 20-Oct-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:** Changxing Island**CWI Name:** Ye Yong Jun**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:** Mock-up 89 and 114**Summary of Items Observed:**

Caltrans Quality Assurance (QA) Inspector, Larry Viars was present to observe Welding and Magnetic Particle Testing (MT) of the Caltrans Mock-up # 89.00 and # 114.00, for the San Francisco Oakland Bay Self Anchored Suspension Bridge, at Zhenhua Port Machinery Company (ZPMC) facility on Changxing Island.

Caltrans QA Inspector observed ZPMC shop personnel performing semi automatic Flux Core Arc Welding (FCAW) welding at Mock-up # 89.00 Face B sub assembly MA24 weld # 3 and 4. ZPMC welders were as follows, Mr. Lei Lichao (weld # 3) and Mr. Liu Xie (weld # 4). Welding procedure specifications were utilized, WPS-B-T-2332-TC-P5-F (filler passes) and WPS-B-T-2332-TC-P5-F-1 (cover passes). The following welding parameters were recorded by the Caltrans QA for the filler passes. Weld # 3, amperage 288, voltage 28.5 and travel speed of 315 mm per min. Weld # 4, amperage 290, voltage 28.5 and a travel speed of 315. A concave area the cover pass of weld joint # 4 approximately 5 mm was rejected by ZPMC Quality Control (QC) Mr. Ye Yong Jun. Mr. Jun stated that welding procedure used for repair would be WPS-345-FCAW-2G-(2F) repair. The following picture below shows the concave area of the cover pass on weld # 4.

ZPMC QC Mr. Zhou Dongyun performed Magnetic Particle Testing (MT) of Mock-up # 114.00 interior corner splice assembly A119 base metal areas after lifting device removal. Mr. Cai Xin Xin found the areas of base metal at where lifting devices had been removed to be acceptable.

The Caltrans QA Inspector performed VT and MT examinations welds and monitored welding of Mock-up #89.00 and # 114.00. Caltrans QA Inspector observed that the welding and testing appeared to be in general conformance with AWS D1.5 2002 requirements. See MT report TL6028 generated on this date for further information.

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# WELDING INSPECTION REPORT

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## Summary of Conversations:

### 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>	Cuellar,Robert	QA Reviewer

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