

**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-001012**Date Inspected:** 13-Dec-2007**Project Name:** SAS Superstructure**OSM Arrival Time:** 2200**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 730**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Chen Xi**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:** CalTrans mock up**Summary of Items Observed:**

Caltrans Quality Assurance (QA) Inspector, Dan Hernandez was present to observe the fit up, welding and related activities associated with the fabrication of the San Francisco Oakland Bay Self Anchored Suspension Bridge at Zhenhua Port Machinery Company (ZPMC) facility on Changxing Island.

Item Description	WBS	Dwg No.	Status
1 114m lower shaft assembly			In Progress

Caltrans QA Inspector observed Submerged arc welding (SAW) in progress of the corner connection weld of muc-ma107, skin plate E musc-ma108 to skin plate D musc-ma110, weld joint 1A. The weld joint is a Complete Joint Penetration (CJP), double bevel corner joint. The welder was observed welding root pass in the 1G position using a chipping hammer and wire brushing to clean weld pass. The approved welder is identified as Mr. Yun Chuan Jin # 0503060 using approved welding procedure specification WPS-B-T-2221-C-U2b-S. QA Inspector measured current welding parameters at approximately 639 amps, 33.8 volts and 708 millimeters per minute (mm/min) travel speed. Preheat and interpass temperatures were verified during welding activities and were within approved WPS minimum and maximum range. SAW welding consumable is verified and identified as EM12K JW3 4.8mm diameter using JF-B flux. ZPMC Quality Control (QC) Inspector, Certified Welding Inspector (CWI) Mr. Chen Xi was observed monitoring welding activities at the workstation. QC Inspector is using drawing MUC-MA106 C/C Upper Shaft Assembly resulting in incorrectly reporting of part numbers in the weld log. The 114m Lower Shaft assembly drawing is MUC-MA107.

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# WELDING INSPECTION REPORT

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## Summary of Conversations:

QA Inspector informed QC Inspector Mr. Chen Xi that he was using the incorrect drawing for the welding in progress. QC Inspector stated he was using the correct drawing because of a hand written note at the bottom of drawing MUC-MA106 C/C which stated "down tower" but would verify with ABF.

## 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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**Inspected By:** Hernandez, Dan

Quality Assurance Inspector

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**Reviewed By:** Cuellar, Robert

QA Reviewer