

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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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-000616**Date Inspected:** 11-Oct-2007**Project Name:** SAS Superstructure**OSM Arrival Time:** 2330**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 800**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Sha Zhi & Hua Li Wei**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 Mockup**Summary of Items Observed:**

Caltrans Quality Assurance (QA) Inspector, Mike Hasler was present to observe the fitup, welding and related activities associated with the fabricating of Caltrans Mock-up, 77M, 89M and 114M, for 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	Skin Plate D (lower)	NA	NA	Work in Progress
	Mock-Up 89M, Skin Plate D (lower section): Caltrans QA Inspector observed submerged arc welding (SAW) in progress at complete joint penetration/partial joint penetration plate splice weld, inside side. The welder operator is identified as Mr. Wu Zhibin, welder stamp 049804, welding fill/cover pass weld in the flat position. The welder is using welding procedure specification WPS-B-T-2221-B-U3c-S-1, Revision 0 and WPS-B-T-2321-B-P3-S, Revision 0. Caltrans QA measured current welding parameters at approximately 610 amps, 32.0 volts and travel speed, 620 millimeters per minute (mm/min). Preheat and interpass temperatures were verified during welding activities. Preheat temperature prior to the start of welding measures more than 110 degrees Celsius (230 degree Fahrenheit) but less than 232 degrees Celsius (450 degrees Fahrenheit) during maximum interpass temperature verification. SAW consumables were verified and identified as JW-3, classification EM12K, diameter 4.8 mm (.189 inches) electrode and, JF-B Flux, classification F7A2.			
2	Skin Plate D (upper)	NA	NA	Cover Pass Weld
	Mock-Up 89M, Skin Plate D (upper section): Caltrans QA Inspector observed submerged arc welding (SAW) in progress at complete joint penetration/partial joint penetration plate splice weld, inside and outside side. The welder operator is identified as Mr. Wu Zhi Bin, welder stamp 049804, welding fill/cover pass weld in the flat position. The welder is using welding procedure specification WPS-B-T-2221-B-U3c-S-1, Revision 0 and WPS-B-T-2321-B-P3-S,			

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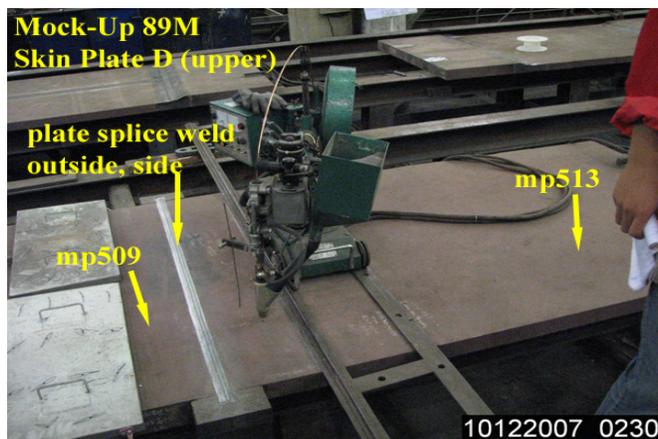
# WELDING INSPECTION REPORT

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Revision 0. Caltrans QA measured current welding parameters at approximately 630 amps, 32.6 volts and travel speed, 620 millimeters per minute (mm/min). Preheat and interpass temperatures were verified during welding activities. Preheat temperature prior to the start of welding measures more than 110 degrees Celsius (230 degree Fahrenheit) but less than 232 degrees Celsius (450 degrees Fahrenheit) during maximum interpass temperature verification. SAW consumables were verified and identified as JW-3, classification EM12K, diameter 4.8 mm (.189 inches) electrode and, JF-B Flux, classification F7A2. Following digital picture illustrates weld cover pass, outside side location.



### 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>	Hasler, Mike	Quality Assurance Inspector
<b>Reviewed By:</b>	Cuellar, Robert	QA Reviewer

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