

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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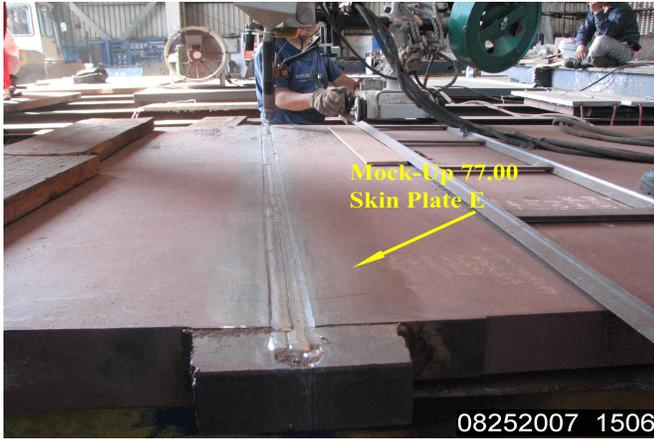
Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-000379**Date Inspected:** 25-Aug-2007**Project Name:** SAS Superstructure**OSM Arrival Time:** 1400**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 2200**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Xu Le Feng**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 77.00**Summary of Items Observed:**

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

Caltrans QA Inspector observed submerged arc welding (SAW) in progress at skin plate E, piecemark mp14 to MA5, outside, side. The in process subassembly fabrication, appears to be at step 6.1 in regards to the mock-up fabrication procedure flow plan. The weld joint is identified as a double-vee butt joint with a partial joint penetration weld. The welder operator is identified as Mr. Xue Yan. The approved welder is observed welding the partial joint penetration (PJP), fill and cover pass welds, in the flat position. The welder is using welding procedure specification (WPS), WPS-B-T-2321-B-P3-S, Revision 0. Caltrans QA Inspector measured current welding operating parameters at approximately 680 amps, 34.0 volts, 675 millimeters per minute (mm/min) travel speed. Preheat and interpass temperatures were verified during welding activities. Preheat temperature prior to the start of welding, measured more than 110 Celsius (230 degree Fahrenheit) but less than 232 Celsius (450 degrees Fahrenheit) during maximum interpass temperature verification. Caltrans QA observed ZPMC Quality Control (QC) inspector, Mr. Xu Le Feng and Bureau Vereitas QC inspector, Mr. Hou Jing Yao monitoring welding in progress. Following digital picture illustrates welding in progress.

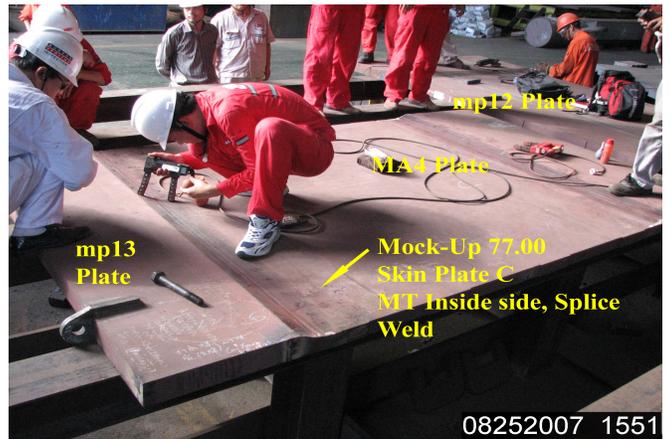
# WELDING INSPECTION REPORT

( Continued Page 2 of 3 )



Item	Description	WBS	Dwg No.	Status
1	ZPMC MT Inspection	NA	NA	Testing In Progress

Caltrans QA Inspector observed ZPMC QC nondestructive technician, Mr. Cai Xin Xin perform magnetic particle testing (MT) and Visual Testing (VT). The testing was performed at the plate splice welds and plate attachment removal locations. The subassemblies tested and locations are identified as, skin plate B, inside side, splice weld, two attachment removal locations, and outside side, splice weld; skin plate C, welds 1 and 2, inside side, splice weld, two attachment removal locations, and outside side, splice welds 1 and 2; skin plate D, inside side, two attachment removal locations and, outside side, four attachment removal locations. The testing appeared to be in general conformance with AWS D1.5 2002 requirements. At the conclusion of each inspection, ZPMC QC inspector, Mr. Xu Le Feng reported that welds and attachment locations were found acceptable. Following digital pictures illustrates MT in progress.



2	Skin Plate MT testing	NA	NA	Caltrans QA MT Testing
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The Caltrans QA Inspector performed visual test (VT) and MT examinations of the plate splice welds and plate attachment removal locations at skin plate B, C and D. Caltrans QA Inspector observed that the welds and plate attachment removal locations 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

( Continued Page 3 of 3 )

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## 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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