

**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-000697**Date Inspected:** 25-Oct-2007**Project Name:** SAS Superstructure**OSM Arrival Time:** 1430**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 2300**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Zhu Zhong Hai**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**Summary of Items Observed:**

Elevation 89:

The Caltrans Quality Assurance (QA) Inspector Charlie Franco was present at the time requested to randomly observe welding and associated operations being performed for the fabrication of the Mock Up.

The QA Inspector randomly observed welding being performed for the fabrication of the Mock Up at Elevation 89M. The QA Inspector randomly observed ZPMC qualified welder Yan Junxian ID Number 040265, utilizing the Submerged Arc Welding (SAW) process to place the fill passes in the 25 side of Complete Joint Penetration (CJP) Weld Joint (WJ) Number 25/26 on Skin Plate D, Sub-Assembly MUSB-MA22. Mr. Yan was utilizing ZPMC approved Weld Procedure Specification (WPS) WPS-B-T-2221-B-U3C-S. The QA Inspector observed ZPMC CWI Zhu Zhong Hai monitoring weld parameters. The QA Inspector also performed random verification of the weld parameters and documented them as follows: welding amperage 623 amps, welding voltage 32.5 volts with a travel speed of 590 millimeters per minute. Weld parameters appeared to comply with the above approved ZPMC WPS. The attached photograph provides additional detail.

The QA Inspector randomly observed ZPMC welding personnel cleaning up WJ's on the longitudinal plates for Skin Plate C, SA MUSB-MA23 and Skin Plate D, SA MUSB-MA22 for Elevation 89M of the Tower Mock Up. The attached photograph provides additional detail.

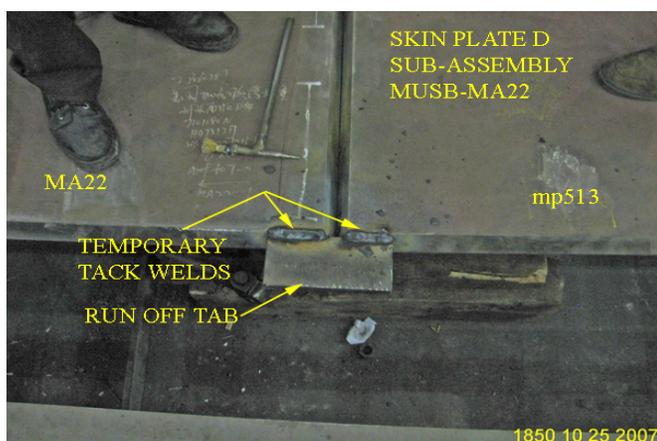
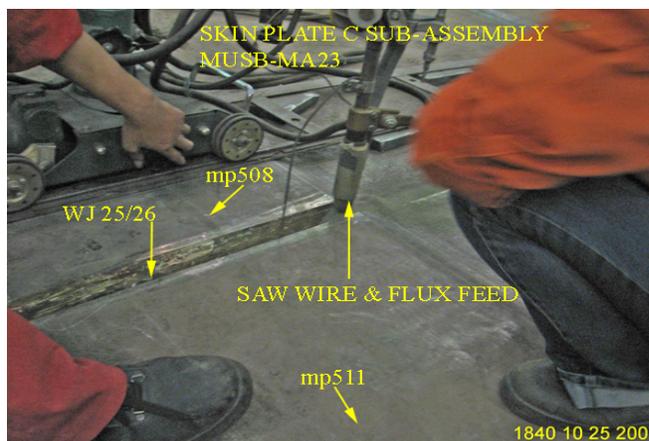
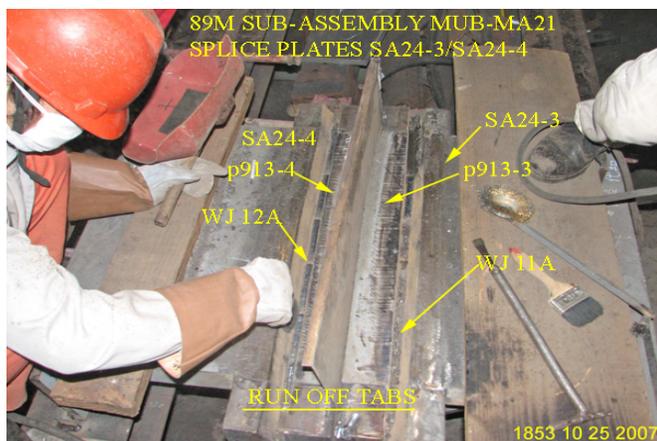
The QA Inspector randomly observed ZPMC welder Wong Zhonghua, utilizing the Shielded Metal Arc Welding

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(SMAW) process with ZPMC approved WPS WPS-B-P-2211-U3b, to attach run off tabs at the ends of the seam weld on Skin Plate C, SA MUSB-22 between piece marks MA22 and mp513. The QA Inspector also observed Mr Wong placing tack welds in the same WJ. The attached photograph provides additional detail.

The QA Inspector randomly observed ZPMC welders Han Xiaofeng ID Number 054467 and Dai Lu ID Number 048659, utilizing the SMAW process with ZPMC approved WPS WPS-B-P-3211-TC-U5b, to place the fill passes in WJ's 11A and 12A on Skin Plate A, SA MUSB-21 splice plates piece marks SA24-3 and SA24-4. Mr. Han was placing the fill passes in WJ 11A while Mr Dai was placing the fill passes in WJ 12A. The QA Inspector observed ZPMC CWI Zhu Zhong Hai monitoring weld parameters. The QA Inspector also performed random verification of the weld parameters and documented them as follows: welding amperage 202 amps, welding voltage 23.3 volts with a travel speed of 130 millimeters per minute. Weld parameters appeared to comply with the above approved ZPMC WPS. The attached photograph provides additional detail.



## Summary of Conversations:

There were no relevant 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>	Franco,Charlie	Quality Assurance Inspector
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<b>Reviewed By:</b>	Cochran,Jim	QA Reviewer
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