

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-000661**Date Inspected:** 19-Oct-2007**Project Name:** SAS Superstructure**OSM Arrival Time:** 600**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Sha Zhi, Xu Liang Zhang**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 fitup, welding and related activities associated with the fabricating of Caltrans Mock-up 89.00, 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	Strut Assembly			In Progress

Caltrans QA Inspector observed SMAW in progress of fill passes on plates P913-1 to SA24-1 and P913-2 to SA24-2 welds 10A, 9B MUB-MA21. The weld joint is a Complete Joint Penetration (CJP) double bevel T-joint in the 1G position. The approved welders Dai Lu # 048659 welding 9B and Wang Zhon Hua welding 10A were using approved welding procedure specification WPS-B-T-3211-TC-U5B. Caltrans QA Inspector observed current welding parameters at approximately 196 amps, 25.6 volts and 166 millimeters per minute (mm/min) travel speed on weld 10A and 200 amps, 26 volts and 135 millimeters per minute (mm/min) travel speed on weld 9B. Preheat and interpass temperatures were verified during welding activities. The preheat temperature prior to the start of welding measures more than 110 Celsius (230 degree Fahrenheit) but less than 232 Celsius (450 degrees Fahrenheit) during maximum interpass temperature verification. SMAW welding consumable is verified and identified as classification E9018 H4R Excalibur 4mm diameter. An electrode oven was observed by Caltrans QA Inspector in use during the welding process. ZPMC Quality Control (QC) Certified Welding Inspector (CWI) Mr. Sha Zhi and Bureau Veritas Inspector Mr. Xu Liang Zhang were observed monitoring welding activities at the workstation.

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- 2 89.00M skin plate B MT stiffener tack welds c
Caltrans QA Inspector observed ZMPC QC Cai Xing Xing and Zhon Dong Yun perform Magnetic particle (MT) inspection on tack welds of stiffener plates mp531-1 and mp531-2. Inspected area appeared to be free of discontinuities.



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.

Inspected By:	Hernandez,Dan	Quality Assurance Inspector
Reviewed By:	Cuellar,Robert	QA Reviewer
