

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-000421**Date Inspected:** 10-Sep-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:	Xu Le feng & 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:		

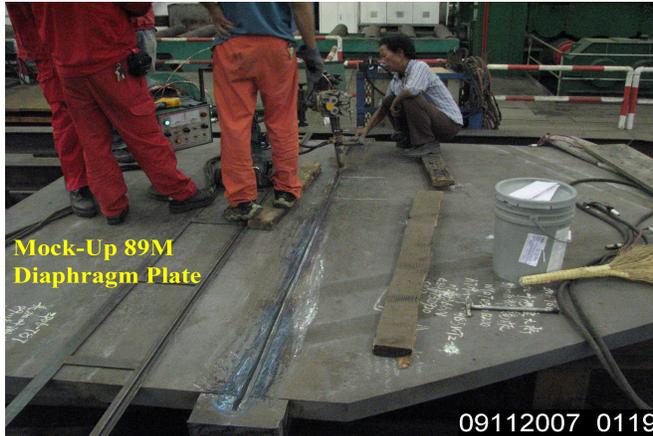
Summary of Items Observed:

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	89M Diaphragm Plate	NA	NA	Work In Progress
	Mock-Up 89M, Diaphragm (top section): Caltrans QA Inspector observed submerged arc welding (SAW) in progress at plate splice weld, piecemark, SA13 to P1236-1. The welder operator is observed welding a complete joint penetration (CJP) fill pass weld in the flat position. The welder is identified as Mr. Wu Zhi Bin, welder stamp 048904. The welder is using welding procedure specification WPS-B-T-3221-B-U3c-S, Revision 1. Caltrans QA observed ZPMC Quality Control (QC) inspector, Mr. Fu Guo and Bureau Veritas inspector, Mr. Xu Liang Zhang, monitoring welding activities at the workstation. Caltrans QA measured current welding parameters at approximately 620 amps, 31 volts and travel speed, 480 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 180 degrees Celsius (350 degree Fahrenheit) but less than 232 degrees Celsius (450 degrees Fahrenheit) during maximum interpass temperature verification. SAW consumables were verified and identified as LA85, classification ENi5, diameter 4.8 mm (.189 inches) electrode and, Mil800-HPNi, classification F9A4 flux. Following digital picture illustrates welding in progress.			

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2 114M Skin Plate B NA NA Work In Progress

Mock-Up 114M, Skin Plate B (top section): Caltrans QA Inspector observed flux cored arc welding (FCAW), fill pass weld in the horizontal position. The weld location is identified as 3 and 5 and welder, Mr. Li Shou fu, welder stamp 066674. The welder is using welding procedure specification WPS-B-T2232-TC-U5-F, Revision 1/WPS-B-T-2332-TC-P5-F, Revision 0. Caltrans QA observed ZPMC Quality Control inspector, Mr. Qu Yan Qun and ZPMC Certified Welding Inspector (CWI), Mr. Xu Le feng, monitoring welding activities at the workstation. Caltrans QA Inspector measured current welding parameters at approximately 305 amps, 31 volts and 310 millimeters per minute (mm/min) travel speed. 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. FCAW welding consumable is verified and identified as Supercored 71H, classification E71T-1, diameter 1.4 mm (.055 inches). Following digital picture illustrates welding in progress.



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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Inspected By:	Hasler, Mike	Quality Assurance Inspector
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Reviewed By:	Cuellar, Robert	QA Reviewer
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