

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-000392**Date Inspected:** 31-Aug-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:	Ye Yong Jun, Hou Jing Jun, Xu Bing			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 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. The assembly is identified as Diaphragm Plate SA104, plate splice weld. The approved welder operator is observed welding a complete joint penetration (CJP) fill and cover in the flat position. Welder is identified as Ms. Shen Mei. The welder is using welding procedure specification WPS-B-T-3221-B-U3c-S, Revision 1. Caltrans QA Inspector measured current welding parameters at approximately 630 amps, 31 volts and travel speed, 505 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.

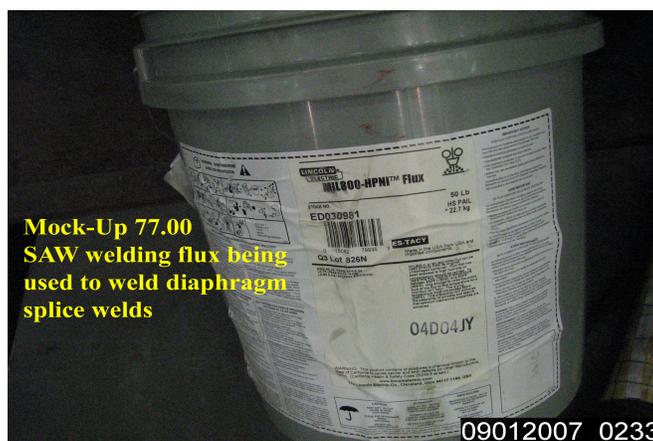
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Item	Description	WBS	Dwg No.	Status
1	Diaphragm Plate SA95	NA	NA	Welding in progress

Caltrans QA Inspector observed submerged arc welding (SAW) in progress. The assembly is identified as Diaphragm Plate SA95, plate splice weld. The approved welder operator is observed welding a complete joint penetration (CJP) fill and cover in the flat position. Welder is identified as Mr. Xue Yian. The welder is using welding procedure specification WPS-B-T-3221-B-U3c-S, Revision 1. Caltrans QA Inspector measured current welding parameters at approximately 640 amps, 31 volts and travel speed, 490 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.



2	Skin Plate A	NA	NA	NA
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Caltrans QA Inspector visually inspected air carbon arc backgouge, weld joint preparation. The assembly is identified as Skin Plate A, stiffener plate mp2-1, CJP weld. ZPMC QA inspector, Mr. Zhang Jidi reported that the weld joint preparation has been completed and that Bureau Veritas inspector Mr. Hou Jing Yao has inspected the backgouge and found it acceptable. The backgouge area appeared to have been ground to bright metal, with the bevels being profiled, and in conformance with the contract requirements. Caltrans QA informed Mr. Xue Jun of the inspection results, at the conclusion of the inspection.

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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.

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