

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
690 Walnut Ave. St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-017011**Date Inspected:** 15-Sep-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 1900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 700**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name:	See Below	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:	OBG	

Summary of Items Observed:

CWI Inspector: Mr. Liu Hua Jie

On this date CALTRANS OSM Quality Assurance (QA) Inspector, Mr. Paul Dawson, arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai China, for the purpose of monitoring welding and fabrication of the San Francisco / Oakland Bay Bridge (SFOBB) components. This QA Inspector observed the following:

OBG Segment Trial Assembly

This QA Inspector observed ZPMC welder Mr. Yun Qiang, stencil 044504 used shielded metal arc welding procedure WPS-B-P-2214-B-U2-FCM-1 to make weld OBE10A-001. This weld joins the cross beam edge plates between OBG segments 10BE and 10CE. This QA Inspector observed a welding current of approximately 185 amps and the welding procedure lists this 3G position weld to be made with a maximum welding current of 160 amps. ZPMC CWI Mr. Liu Hua Jie observed this welding current and he instructed Mr. Yun Qiang to adjust his welding machine to have a lower current. A few minutes later this QA Inspector measured Mr. Yun Qiang to have a welding current of approximately 150 amps. This QA Inspector observed Mr. Yun Qiang appeared to be certified to perform this welding and the electrodes were stored in a heated portable electrode storage container. Items observed on this date do not appear to fully comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Hua Linming, stencil 044515 used shielded metal arc welding procedure WPS-B-P-2214-B-U2-FCM-1 to make weld OBE10A-005. This weld joins the bikepath edge plates

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between OBG segments 10BE and 10CE. This QA Inspector observed a welding current of approximately 150 amps. This QA Inspector observed Mr. Hua Linming appeared to be certified to perform this welding and the electrodes were stored in a heated portable electrode storage container. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Yu Zhongye, stencil 040367 used flux cored welding procedure WPS-B-T-2233 to make weld OBE10-002. This butt weld joins the side plates between OBG segments 10BE and 10CE. This QA Inspector observed ZPMC QC has recorded a welding current of 220 amps and 24 volts. This QA Inspector observed Mr. Yu Zhongye appeared to be certified to make this weld and the base material had been preheated with electric heating elements. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Wang Hengjun, stencil 044473 used flux cored welding procedure WPS-B-T-2233 to make weld OBE10-002. This butt weld joins the side plates between OBG segments 10BE and 10CE. This QA Inspector observed ZPMC QC has recorded a welding current of 220 amps and 24 volts. This QA Inspector observed Mr. Wang Hengjun appeared to be certified to make this weld and the base material had been preheated with electric heating elements. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Lin Bo, stencil 047353 used flux cored welding procedure WPS-B-T-2233 to make the root pass of weld OBE10-002. This butt weld joins the side plates between OBG segments 10BE and 10CE. This QA Inspector observed ZPMC QC has recorded a welding current of 216 amps and 24.5 volts. This QA Inspector observed Mr. Lin Bo appeared to be certified to make this weld and the base material had been preheated with electric heating elements. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Zhang Heishan, stencil 040458 used flux cored welding procedure WPS-B-T-2233 to make the root pass of weld OBE10-002. This butt weld joins the side plates between OBG segments 10BE and 10CE. This QA Inspector observed ZPMC QC has recorded a welding current of 216 amps and 24.5 volts. This QA Inspector observed Mr. Zhang Heishan appeared to be certified to make this weld and the base material had been preheated with electric heating elements. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Wang Hongchang, stencil 052763 used flux cored welding procedure WPS-B-T-2231T-1G-FCAW to make weld OBW10A-004. This butt weld joins the deck plates between OBG segments 10BW and 10CW. This QA Inspector observed a welding current of approximately 190 amps and 25 volts. This QA Inspector observed Mr. Wang Hongchang appeared to be certified to make this weld and the base material had been preheated with electric heating elements. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Zhao Yong, stencil 046960 had recently used shielded metal arc process to tack weld temporary alignment plates between OBG segment 10AW and cross beam CB14 deck plate stiffeners. This QA Inspector observed Mr. Zhao Yong appeared to be certified to perform this welding. Items observed on this date appeared to generally comply with applicable contract documents.

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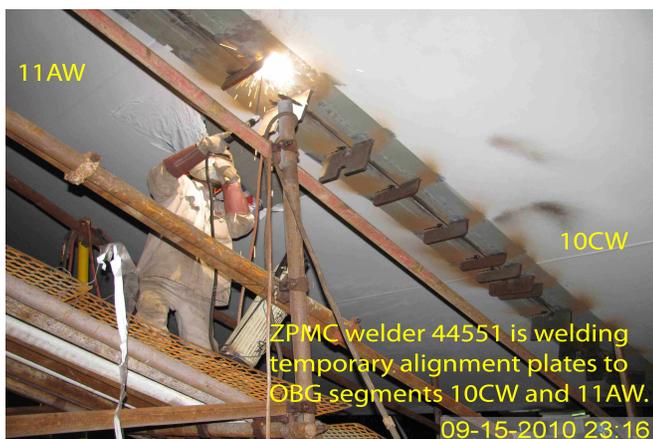
This QA Inspector observed ZPMC welder Mr. Yu Zhongye, stencil 040367 had recently used shielded metal arc process to tack weld temporary alignment plates between OBG segment 10AW and cross beam CB14 deck plate stiffeners. This QA Inspector observed Mr. Yu Zhongye appeared to be certified to perform this welding. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Xu Nai Jun stencil 044551 used shielded metal arc process to tack weld temporary alignment / jacking plates to the counterweight side plates at the weld joints between OGB segments 10CW and 11AW. This QA Inspector observed a welding current of approximately 160 amps, the base material was preheated with a torch and Mr. Xu Nai Jun appeared to be certified to perform this welding. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Zhang Qiu Jun stencil 057333 used shielded metal arc process to tack weld temporary alignment / jacking plates to the cross beam side plates at the weld joints between OGB segments 10CW and 11AW. This QA Inspector observed a welding current of approximately 165 amps, the base material was preheated with a torch and Mr. Zhang Qiu Jun appeared to be certified to perform this welding. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Wu Jun, stencil 053486 used flux cored welding process to tack weld temporary alignment / jacking plates to the deck plates at the weld joints between OGB segments 10CW and 11AW. This QA Inspector observed a welding current of approximately 310 amps, 30.5 volts, the base material was preheated with a torch and Mr. Wu Jun appeared to be certified to perform this welding. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Zhu Ming Jun, stencil 040609 used flux cored welding process to tack weld temporary alignment / jacking plates to the deck plates at the weld joints between OGB segments 10CW and 11AW. This QA Inspector observed the base material was preheated with a torch and Mr. Zhu Ming Jun appeared to be certified to perform this welding. Items observed on this date appeared to generally comply with applicable contract documents.



Summary of Conversations:

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See Above.

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 Eric Tsang phone: 150-0042-2372 , who represents the Office of Structural Materials for your project.

Inspected By:	Dawson,Paul	Quality Assurance Inspector
Reviewed By:	Carreon,Albert	QA Reviewer
