

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-017796**Date Inspected:** 16-Oct-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 Inspectors: ABF: Mr. Shang Qing Quan, Mr. Li Shi You, Mr. Guo Pan, Mr. Peng Wen Jun

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 Bay 14

Yesterday this QA Inspector observed ZPMC workers were performing heat straightening of OBG segment 14E anchor plate AP3007 and the heat straightening (HS) documents did not have any document numbers written in the corner of the sheets. Today ZPMC CWI Mr. Geng Wei showed this QA Inspector that HSR #9648 has been assigned to this document.

This QA Inspector observed ZPMC workers were performing heat straightening of OBG segment 14CE deck plates DP3102A, DP3103A and DP3104A. ZPMC CWI Mr. Geng Wei was monitoring this activity and he showed this QA Inspector that HSR #9629 has been assigned to this heat straightening document. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Ms. Huang Xinlan, stencil 044780 used submerged arc welding procedure specification WPS-B-T-2221-B-U2C-S-2 to make OBG segment 13CE weld SA3214-001-001 between

WELDING INSPECTION REPORT

(Continued Page 2 of 4)

OBG segment plates DP3016A and DP3016C. This QA Inspector measured a welding current of approximately 630 amps, 32.0 volts and Ms. Huang Xinlan appeared to be certified to make this weld. This QA Inspector observed the base materials were preheated with electric heaters prior to welding. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Xi Xianyou, stencil 047866 used shielded metal arc process to weld material a temporary lifting eye on OBG segment 13BE corner assembly CA3013. This QA Inspector observed Mr. Xi Xianyou appeared to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Ms. Hue Junrong, stencil 201215 was using flux cored welding procedure WPS-B-T-2231-B-U3-F to make OBG segment 13CW weld SEG3015-011. This weld joins side plate SP3112 to side plate SP3108. This QA Inspector observed a welding current of approximately 280 amps, 30.0 volts and Ms. Hue Junrong appeared to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Li Jun, stencil 051348 used shielded metal arc procedure WPS-B-P-2312-TC-P4 to tack weld the CJP weld joint that joins OBG segment 13AW floor beam plate FB3188A to bottom plate BP3074. This QA Inspector observed Mr. Li Jun has a welding current of approximately 160 amps and the base materials were preheated with a torch prior to commencement of welding. This QA Inspector observed the shielded metal arc welding electrodes were stored in an electrically heated electrode storage container and it appeared to be connected to the welding power supply cable. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Xi Xianyou, stencil 047866 used flux cored welding procedure WPS-B-T-2132 to make 2F (horizontal) position welds in OBG segment 13AW corner assembly CA3103A to the side plate near panel point PP121. ABF CWI Mr. Li Shi You informed this QA Inspector that he does not have a weld map that shows the weld identification numbers. This QA Inspector measured a welding current of approximately 300 amps and 30.0 volts. Mr. Xi Xianyou appeared to be certified to make this weld and the base materials were preheated with electrical heaters prior to welding. Items observed on this date appeared to generally comply with applicable contract documents. See the photograph below for additional information.

This QA Inspector observed ZPMC welder Mr. He Hanbi, stencil 202122 used flux cored welding procedure WPS-B-T-2132 to make 2F (horizontal) position OBG segment 13AW corner assembly plates to the side plate near panel point PP121.5. ABF CWI Mr. Li Shi You informed this QA Inspector that he does not have a weld map that shows the weld identification numbers. This QA Inspector measured a welding current of approximately 290 amps and 29.0 volts. Mr. He Hanbi appeared to be certified to make this weld and the base materials were preheated with electrical heaters prior to welding. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Tian Zhaoquan, stencil 045246 used shielded metal arc welding procedure specification WPS-B-P-2113 to make to make 3F (vertical) position OBG segment 13CW corner assembly plates to the side plate near panel point PP121. ABF CWI Mr. Li Shi You informed this QA Inspector that he does not have a weld map that shows the weld identification numbers. This QA Inspector measured a

WELDING INSPECTION REPORT

(Continued Page 3 of 4)

welding current of approximately 160 amps. Mr. Tian Zhaoquan appeared to be certified to make this weld and the base materials were preheated with electrical heaters prior to welding. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Wang Chang Ming, stencil 047864 used shielded metal arc procedure WPS-B-P-2211-B-U3B to tack weld CJP weld joint that joins OBG segment 14W side plates SP3145B and SP3144A. This QA Inspector observed Mr. Wang Chang Ming has a welding current of approximately 150 amps and the base materials were preheated with a torch prior to commencement of welding. This QA Inspector observed the shielded metal arc welding electrodes were stored in an electrically heated electrode storage container and it appeared to be connected to the welding power supply cable. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Tian Shang Long, stencil 050240 used shielded metal arc welding procedure specification WPS-B-P-2212-FCM-1 to tack weld segment 13CE floor beams FB3150-001 and FB3151-001. This QA Inspector measured a welding current of approximately 165 amps and Mr. Tian Shang Long appeared to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Rao Wei stencil 049972 used shielded metal arc welding procedure specification WPS-B-P-2212-FCM-1 to tack weld segment 13BE floor beams FB3232-001 and FB3226-001. This QA Inspector measured a welding current of approximately 170 amps and Mr. Rao Wei appeared to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

OBG Bay 16

This QA Inspector observed ZPMC welder Mr. Jiang Hong, stencil201074 used flux cored welding procedure WPS-B-T-2132 to make traffic barrier weld W5-SB31A-001-088 through -093. This QA Inspector observed a welding current of approximately 300 amps, 30.0 volts and Mr. Jiang Hong appeared to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

OBG Bay 19

This QA Inspector observed ZPMC welder Mr. Wang Cheng Long, stencil 062786 used flux cored welding procedure WPS-B-T-2132 to make to make bikepath weld BK004A2-003-008. This QA Inspector observed CWI Mr. Peng Wen Jun has recorded a welding current of 295 amps, 29.2 volts and Mr. Wang Cheng Long appeared to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

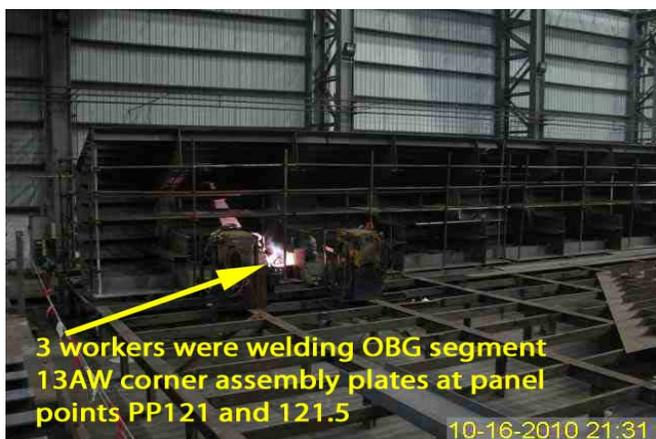
This QA Inspector observed ZPMC welder Mr. Yin Guo Qiang, stencil 058792 used flux cored welding procedure WPS-B-T-2132-2-Plug to make to make bikepath plug welds on bikepath BK004A2-003. This QA Inspector observed CWI Mr. Peng Wen Jun has recorded a welding current of 295 amps, 29.2 volts and Mr. Wang Cheng Long appeared to be certified to make these welds. Items observed on this date appeared to generally comply with applicable contract documents.

WELDING INSPECTION REPORT

(Continued Page 4 of 4)

This QA Inspector observed ZPMC welder Mr. Tian Shang Long, stencil 050240 used shielded metal arc welding procedure specification WPS-B-P-2212-FCM-1 to tack weld segment 13CE floor beams FB3150-001 and FB3151-001. This QA Inspector measured a welding current of approximately 165 amps and Mr. Tian Shang Long appeared to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Rao Wei stencil 049972 used shielded metal arc welding procedure specification WPS-B-P-2212-FCM-1 to tack weld segment 13BE floor beams FB3232-001 and FB3226-001. This QA Inspector measured a welding current of approximately 170 amps and Mr. Rao Wei appeared to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.



Summary of Conversations:

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
