

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:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-019443**Date Inspected:** 07-Jan-2011**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. Yu Jiao

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.

OBG Bay 14

This QA Inspector observed ZPMC welder Mr. Zhu Jibo, stencil 055564 used flux cored welding procedure WPS-B-T-2132-ESAB to make OBG segment 13AE weld SEG3007P-093. This QA Inspector measured a welding current of approximately 260 amps and 32.2 volts. This QA Inspector observed that the maximum welding voltage listed in the welding procedure specification is 26.6 volts and that Mr. Jin Rong had a welding voltage that was approximately 5.6 volts above the maximum limit. This QA Inspector showed the welding voltage meter to QC Inspectors and they had Mr. Zhu Jibo adjust the welding machine voltage. This QA Inspector then measured a welding voltage of approximately 26.0 volts. Following adjustment of the welding machine, items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Wang Zhengbin, stencil 216086 used shielded metal arc welding procedure WPS-345-SMAW-2G(2F)-FCM-Repair-1 to make a weld repair of ultrasonic rejections to OBG segment 13AE weld SEG3007AT-095. ZPMC had issued weld repair document B-WR-19140 that documents the repair of this weld. This QA Inspector measured a welding current of approximately 220 amps and Mr. Wang

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Zhengbin 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. Zhang Xiang Rong, stencil 066763 used flux cored welding procedure specification WPS-B-T-2232-ESAB to make OBG segment 14E welds DP3159-001-244 and 245. This QA Inspector observed a welding current of approximately 245 amps, 24.5 volts and Mr. Zhang Xiang Rong appeared to be certified to make this weld. ZPMC had electric heaters to preheat and maintain the base material temperature of this weld joint. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Ni Lei Jiang stencil 037723 used shielded metal arc welding procedure specification WPS-B-P-2114-TC-U4B-FCM-1 to perform OBG segment 14E weld SEG3019AL-003. This QA Inspector measured a welding current of approximately 160 amps and the base materials 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. Cao Xinglong, stencil 069683 used shielded metal arc welding procedure specification WPS-B-P-2114-TC-U4B-FCM-1 to perform OBG segment 14E weld SEG3019AL-008. This QA Inspector measured a welding current of approximately 160 amps and the base materials 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. Fong Youjun stencil 066416 used shielded metal arc welding procedure specification WPS-345-SMAW-3G(3F)-FCM-Repair-1 to make OBG segment 13AE weld repair SEG3007L-046. This QA Inspector measured a welding current of approximately 160 amps and Mr. Fong Youjun appeared to be certified to make this weld.

This weld repair was the result of ultrasonic rejections and was documented on weld repair B-WR-18557. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Li Yong Shui, stencil 067656 used shielded metal arc welding procedure specification WPS-B-P-2214-B-U2-FCM-1 to make OBG segment 13AE weld SEG3011J-423. This QA Inspector observed measured a welding current of approximately 170 amps and Mr. Li Yong Shui appeared to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

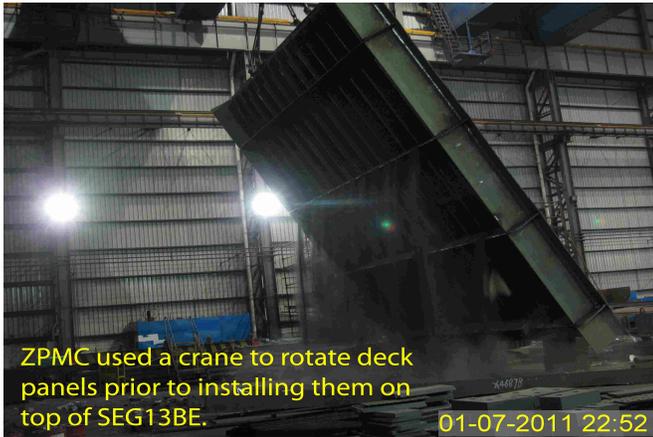
This QA Inspector observed ZPMC welder Mr. Wang Wei Li stencil 070008 used shielded metal arc welding procedure specification WPS-345-SMAW-3G(3F)-FCM-Repair-1 to make OBG segment 13BE weld repair SEG3009J-218. This QA Inspector measured a welding current of approximately 170 amps and Mr. Wang Wei Li appeared to be certified to make this weld. This weld repair was the result of ultrasonic rejections and was documented on weld repair B-WR-19786. Items observed on this date appeared to generally comply with applicable contract documents.

ZPMC used two overhead cranes to install two sections of deck plates over segments 13BE and 13CE, and these deckplates were not welded to other OBG components this shift. See the photographs below for additional

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information



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 James Devey +8615000026784, who represents the Office of Structural Materials for your project.

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