

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-021921**Date Inspected:** 05-Mar-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** An Qing Xiang**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 Components**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance (QA) Inspector, Anand Upadhye was present during the times noted above for observations relative to the work being performed.

WELDING

This QA Inspector observed the following work in progress:

BAY 14

This QA Inspector observed ZPMC qualified welding personnel identified as 051348 perform welding by Shielded Metal Arc Welding (SMAW), on Floor beam of OBG Segment 14W. Weld joint is identified as FB3329-001-013. ZPMC Quality Control (QC) Inspector identified as Sun Tian Liang was present to monitor the welding process. The welding variables recorded by ZPMC QC appeared to be in general compliance with WPS-B-P-2114-FCM-1. This QA Inspector noted welding variables were 130~145 amperes and 24.4 volts, which appears to be in compliance with the approved WPS. See attached picture.

This QA Inspector observed ZPMC qualified welding personnel identified as 066695 perform welding by Flux Cored Arc Welding (FCAW), on Vertical shear plate to bottom plate weld of OBG Segment 14W. Weld joint is identified as SEG3020BB-040. ZPMC Quality Control (QC) Inspector identified as An Qing Xiang was present to monitor the welding process. The welding variables recorded by ZPMC QC appeared to be in general compliance with WPS-B-T-2232-ESAB. This QA Inspector noted welding variables were 296~310 amperes and 25.8 volts, which appears to be in compliance with the approved WPS.

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This QA Inspector observed ZPMC qualified welding personnel identified as 066239 perform welding by Flux Cored Arc Welding (FCAW), on bottom plate stiffener to stiffener weld of OBG Segment 14W. Weld joint is identified as SEG3020AJ-369. ZPMC Quality Control (QC) Inspector identified as An Qing Xiang was present to monitor the welding process. The welding variables recorded by ZPMC QC appeared to be in general compliance with WPS-B-T-2233-ESAB. This QA Inspector noted welding variables were 248~265 amperes and 27.2 volts, which appears to be in compliance with the approved WPS.

This QA Inspector observed ZPMC qualified NDT personnel perform Ultrasonic testing on Vertical shear plate to Anchor plate welds of OBG Segment 14W. Weld joints are identified as SEG3020BB-116, 117. See attached picture.

This QA Inspector observed ZPMC qualified welding personnel identified as 037996 perform welding by Shielded Metal Arc Welding (SMAW), on Deck panel diaphragm to deck panel diaphragm weld of OBG Segment 13AW. Weld joint is identified as SEG3013P-002, 003. ZPMC Quality Control (QC) Inspector identified as Liu Fang was present to monitor the welding process. The welding variables recorded by ZPMC QC appeared to be in general compliance with WPS-B-P-2213-B-U2-FCM-1. This QA Inspector noted welding variables were 133~145 amperes and 24.7 volts, which appears to be in compliance with the approved WPS.

This QA Inspector observed ZPMC qualified welding personnel identified as 066361 perform welding by Shielded Metal Arc Welding (SMAW), on Deck panel diaphragm to deck panel diaphragm weld of OBG Segment 13AW. Weld joint is identified as SEG3013M-012, 016. ZPMC Quality Control (QC) Inspector identified as Liu Fang was present to monitor the welding process. The welding variables recorded by ZPMC QC appeared to be in general compliance with WPS-B-P-2213-B-U2-FCM-1. This QA Inspector noted welding variables were 145~160 amperes and 26.4 volts, which appears to be in compliance with the approved WPS.

This QA Inspector observed ZPMC qualified welding personnel identified as 045196 perform welding by Shielded Metal Arc Welding (SMAW), on Deck panel diaphragm to deck panel I-stiffener weld of OBG Segment 13AW. Weld joint is identified as DP3122-001-012. ZPMC Quality Control (QC) Inspector identified as Liu Fang was present to monitor the welding process. The welding variables recorded by ZPMC QC appeared to be in general compliance with WPS-B-P-2213-Tc-U4b-FCM-1. This QA Inspector noted welding variables were 142~150 amperes and 26.7 volts, which appears to be in compliance with the approved WPS.

This QA Inspector observed ZPMC qualified welding personnel identified as 069896 perform welding by Shielded Metal Arc Welding (SMAW), on Edge plate stiffener of OBG Segment 13AW. Weld joint is identified as SEG3013AA-089. ZPMC Quality Control (QC) Inspector identified as Shen Jen Bo was present to monitor the welding process. The welding variables recorded by ZPMC QC appeared to be in general compliance with WPS-B-P-2214-Tc-U4b-FCM-1. This QA Inspector noted welding variables were 132~145 amperes and 24.1 volts, which appears to be in compliance with the approved WPS.

This QA Inspector observed ZPMC qualified welding personnel identified as 066912 perform welding by Flux Cored Arc Welding (FCAW), on K- plate stiffener of OBG Segment 13AW. Weld joint is identified as SEG3013AH-035. ZPMC Quality Control (QC) Inspector identified as Shen Jen Bo was present to monitor the welding process. The welding variables recorded by ZPMC QC appeared to be in general compliance with WPS-B-T-2231-ESAB. This QA Inspector noted welding variables were 288~300 amperes and 25.9 volts, which

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appears to be in compliance with the approved WPS.

This QA Inspector observed ZPMC qualified welding personnel identified as 045196 perform welding by Shielded Metal Arc Welding (SMAW), on Deck panel diaphragm to deck panel diaphragm weld of OBG Segment 13AW. Weld joint is identified as SEG3013Q-030. ZPMC Quality Control (QC) Inspector identified as Liu Fang was present to monitor the welding process. The welding variables recorded by ZPMC QC appeared to be in general compliance with WPS-B-P-2213-B-U2-FCM-1. This QA Inspector noted welding variables were 135~150 amperes and 25.1 volts, which appears to be in compliance with the approved WPS.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.



Summary of Conversations:

No significant conversations were reported on this date.

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: 15000422372 , who represents the Office of Structural Materials for your project.

Inspected By: Upadhye, Anand

Quality Assurance Inspector

Reviewed By: Clifford, William

QA Reviewer