

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-023824**Date Inspected:** 19-Apr-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 045175 perform welding by Flux Cored Arc Welding (FCAW), on Traveler Rail TR3001. Weld joint is identified as TR3001-TR1-001-012, 016. 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-T-2233-ESAB. This QA Inspector noted welding variables were 250~265 amperes and 25.1 volts, which appears to be in compliance with the approved WPS.

This QA Inspector observed ZPMC qualified welding personnel identified as 066734 perform repair welding by Flux Cored Arc Welding (FCAW), on Traveler Rail TR3021. Weld joint is identified as TR3021-TR2-001-011. 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-345-FCAW-3G (3F)-ESAB-Repair-1 and Welding repair report B-WR20756. This QA Inspector noted welding variables were 245~265 amperes and 25.3 volts, which appears to be in compliance with the approved WPS.

WELDING INSPECTION REPORT

(Continued Page 2 of 3)

This QA Inspector observed ZPMC qualified welding personnel identified as 045246 perform repair welding by Shielded Metal Arc Welding (SMAW), on Vertical shear plate to Anchor plate weld of OBG Segment 14W. Weld joint is identified as SEG3020BB-065. ZPMC Quality Control (QC) Inspector identified as Zhu Lin was present to monitor the welding process. The welding variables recorded by ZPMC QC appeared to be in general compliance with WPS-345-SMAW-4G (4F)-FCM-Repair-1 and Welding repair report B-WR20713.

This QA Inspector observed ABF qualified NDT personnel perform Magnetic particle testing on Extension plate of Vertical shear plate to Anchor plate weld of OBG Segment 14W, after back gouging. Weld joints are identified as SEG3020BB- 075, 066, 057, 048, 039, 030, 021, 012, 003 and SEG3020U-563. See attached picture.

This QA Inspector observed ZPMC qualified welding personnel identified as 045280 perform welding by Flux Cored Arc Welding (FCAW), on Deck panel DP3171 to Deck panel DP3172 weld of OBG Segment 14W. Weld joint is identified as SEG3020-005. ZPMC Quality Control (QC) Inspector identified as Zhu Lin was present to monitor the welding process. The welding variables recorded by ZPMC QC appeared to be in general compliance with WPS-B-T-223(2)1T-ESAB-1. See attached picture.

This QA Inspector observed ZPMC qualified welding personnel identified as 066361, 069841, 067572, 037932 perform welding by Shielded Metal Arc Welding (SMAW), on Edge plate to Deck plate weld between panel point PP125 and panel point PP127, of OBG Segment 14W. Weld joint is identified as SEG3020AG-002. ZPMC Quality Control (QC) Inspector identified as Zhu Lin 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 observed ZPMC qualified welding personnel identified as 066261, 037748 perform welding by Shielded Metal Arc Welding (SMAW), on Edge plate to Deck plate weld between panel point PP127 and panel point PP128, of OBG Segment 14W. Weld joint is identified as SEG3020AF-003. ZPMC Quality Control (QC) Inspector identified as Zhu Lin 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 observed ZPMC qualified welding personnel identified as 069896 perform welding by Shielded Metal Arc Welding (SMAW), on Floor beam diaphragm to Deck plate weld at panel point PP126 of OBG Segment 14W. Weld joints are identified as SEG3020R-016, 017, 071 ~ 076. ZPMC Quality Control (QC) Inspector identified as Zhu Lin 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 observed ZPMC qualified welding personnel identified as 066421 perform welding by Flux Cored Arc Welding (FCAW), on Deck panel diaphragm to Deck panel diaphragm weld at panel point 128.3, of OBG Segment 14W. Weld joint is identified as SEG3020D-039. 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 245~260 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 066239 perform welding by Flux Cored Arc Welding (FCAW), on Deck panel diaphragm to Deck panel diaphragm weld at panel point 128.3, of OBG Segment 14W. Weld joint is identified as SEG3020E-002. ZPMC Quality Control (QC) Inspector identified

WELDING INSPECTION REPORT

(Continued Page 3 of 3)

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 245~260 amperes and 25.2 volts, which appears to be in compliance with the approved WPS.

This QA Inspector observed ZPMC qualified welding personnel identified as 067520 perform welding by Shielded Metal Arc Welding (SMAW), on Deck panel diaphragm to Floor beam flange weld at panel point 127.3, of OBG Segment 14W. Weld joint is identified as SEG3020K-004. 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-P-2212-Tc-U4b-FCM-1.

This QA Inspector observed ZPMC qualified welding personnel identified as 067275 perform welding by Flux Cored Arc Welding (FCAW), on Deck panel diaphragm to Anchor plate weld at panel point 125, of OBG Segment 14W. Weld joint is identified as SEG3020V-034. 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 290~305 amperes and 24.3 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