

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-024450**Date Inspected:** 11-May-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:** Mr. Lu Hua Jie**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:** Orthotropic Box Girder (OBG)**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance (QA) Inspector Shailesh Gaikwad was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Chang xing Island in Shanghai, China. QA observed and/or found the following:

OBG Trial Assembly

This QA Inspector performed randomly Visual Inspection and Ultrasonic Testing (UT) of approximately 10% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated a TL-6027 (UT) report for this date. The member is identified as OBG Segment 14 East and 13CE. The weld designations reviewed are as follows.

SEG3019N-172

SEG3011L-219

NDT Notification No-09099

NDT Notification No-09100

This QA Inspector observed the following work in progress:

OBG Trial Assembly**SMAW Process:**

This QA Inspector observed ZPMC qualified welding personnel identified as 037997 Perform Shielded Metal Arc

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Welding (SMAW) on OBG Segment 14 East. Joint identified as FB3260-001-147. ZPMC QC Identified as Zhu Yuan Yuan. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-P-2211-B-U2-FCM-1.

This QA Inspector observed ZPMC qualified welding personnel identified as 216086 Perform Shielded Metal Arc Welding (SMAW) on OBG Segment 14 East. Joint identified as SEG3019AF-007, 014, 021. ZPMC QC Identified as Zhu Yuan Yuan. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-P-2213-B-U2-FCM-1.

This QA Inspector observed ZPMC qualified welding personnel identified as 058087 Perform Shielded Metal Arc Welding (SMAW) on OBG Segment 14 East. Joint identified as SEG3019Q-Q-168, 170. ZPMC QC Identified as Zhu Yuan Yuan. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-P-2214-B-U2-FCM-1.

This QA Inspector observed ZPMC qualified welding personnel identified as 037723 Perform Shielded Metal Arc Welding (SMAW) on OBG Segment 14 East. Joint identified as SA3357-001-015, 018, 024. ZPMC QC Identified as Zhu Yuan Yuan. The welding parameters as measured using QC's calibrated instrument 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 066733 Perform Shielded Metal Arc Welding (SMAW) on OBG Segment 14 East. Joint identified as FB3262-001-128, 130. ZPMC QC Identified as Zhu Yuan Yuan. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-P-2114-FCM-1.

FCAW Process:

This QA Inspector observed ZPMC qualified welding personnel identified as 051356 Perform Flux Core Arc Welding (FCAW) on OBG Segment 14 East. Joint identified as SEG3019D-1-142. ZPMC QC Identified as Zhu Yuan Yuan. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2233-ESAB. For more information see below attached picture number 1.

Repair welding, FCAW Process:

This QA Inspector observed ZPMC qualified welding personnel identified as 067877 Perform Flux Core Arc Welding (FCAW) on OBG Segment 14 East. Joint identified as SEG3019P-194. ZPMC QC Identified as Zhu Yuan Yuan with Temporary welding repair report WRR-B-WR20247. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-345-FCAW-3G (3F)-Repair-1.

Repair welding, SMAW Process:

This QA Inspector observed ZPMC qualified welding personnel identified as 066418 Perform Shielded Metal Arc Welding (SMAW) on OBG Segment 14 East. Joint identified as SEG3019M-004. ZPMC QC Identified as Zhu Yuan Yuan with Temporary welding repair report WRR-B-WR20937. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-345-SMAW-2G (2F)-FCM-Repair-1.

Description of Incident:

During Quality Assurance (QA) random visual inspection of OBG Segment 14 East Top anchorage plate, this

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Caltrans QA Inspector observed the following issue: ZPMC personnel have miss-drilled a total of two (2) 30mm diameter bolt holes resulting in damage to the weld below. The holes were match drilled in the Top Anchorage Plate (AP3009A), and penetrate the Anchorage Plate web to the Top Anchorage Plate CJP (completed joint penetration) T-joint at panel point 126. The damaged weld is designated as SEG3019U-001. OBG Segment 14 East is located in Trial assembly. For further information, please see the attached pictures below This QA Inspector generated Incident report for this date.

Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable contract documents.



Summary of Conversations:

Only general conversation was held between QA and QC concerning this project.

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

Inspected By:	Gaikwad,Shailesh	Quality Assurance Inspector
Reviewed By:	Patterson,Rodney	QA Reviewer
