

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-024478**Date Inspected:** 28-Dec-2010**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:** Qiu Wen**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:**

On this day CALTRANS OSM Quality Assurance (QA) Inspector Umesh 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 Changxing Island in Shanghai, China. QA observed and/or found the following:

BAY 14, OBG FLOOR BEAM HINGE PLATE (NWIT # 7964)

This QA inspector performed Magnetic Particle Testing (MT) of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA inspector generated MT report for this date. The members are identified as OBG Components. The weld designations reviewed are as follows.

FB3343-001-412 to 419, 117, 118, 121, 122, 131, 132, 135, 136, 145, 146, 149, 150

This Quality Assurance (QA) Inspector observed the following work in progress:

Bay 14

OBG Seg 13CW

During random in process inspection this QA inspector observed that there was no cope hole/ rat hole at the intersection of Floor Beam (FB) 3238 to Floor Beam (FB) 3233 at Panel Point (PP) 124.5 of segment 13CW.

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Adjacent weld numbers were identified as SEG3015B-106, 107 & 108. This issue has been discussed with ZPMC CWI Mr. Qiu Wen and CT lead QA. Mr. Qiu Wen informed this QA that the cope hole would be corrected in a manner compliant with the contract documents. Attached photograph provide additional details.

OBG Segment 14W

During random in process inspection this QA inspector observed that ZPMC personnel was performing repair welding of weld joint no: SEG3020AX-004 [Side Plate (SP) 3131A to Bottom Plate (BP) 3087A, complete joint penetration (CJP) weld at panel point (PP) 125.5]. The welder is identified as 045246 and was observed welding in the 4G position. Welding process was identified as Shielded Metal Arc Welding (SMAW). ZPMC QC was identified as Mr. Wang xiang Pin. This weld has been rejected two times by ZPMC NDT personnel previously. The primary requirement recorded by this QC prior to start repair welding does not appeared to comply with Critical Welding Repair (CWR) report B-CWR 2513, Rev. 0. ZPMC personnel started repair welding before performing MT of the excavation area. This issue has been discussed with ZPMC CWI Mr. Qiu Wen. ZPMC personnel ground out the welded portion and perform MT of the excavated area later on. Attached photograph provide additional detail.

The Flux Cored Arc Welding (FCAW) process on weld joint no: SEG3020M-005 [Sub Assembly (SA) plate 3410A to Bottom Plate (BP) 3093A, CJP weld at panel point (PP) 127]. The welder is identified as 047866 and was observed welding in the 2G position. ZPMC QC was identified as Mr. Sun Tian Liang. The welding variables recorded by QC appeared to comply with WPS: B-T-2232-ESAB.

The Flux Cored Arc Welding (FCAW) process on weld joint no: SEG3020A-009 [Side Plate (SP) 3142B to Bottom Plate (BP) 3094A, CJP weld in between panel points (PP) 125.5~126]. The welder is identified as 066734 and was observed welding in the 1G position. ZPMC QC was identified as Mr. Sun Tian Liang. The welding variables recorded by QC appeared to comply with WPS: B-T-2231-ESAB.

The Flux Cored Arc Welding (FCAW) process on weld joint no: SEG3020A-009 [Side Plate (SP) 3142A to Bottom Plate (BP) 3094A, CJP weld in between panel points (PP) 126.5~127]. The welder is identified as 058245 and was observed welding in the 1G position. ZPMC QC was identified as Mr. Sun Tian Liang. The welding variables recorded by QC appeared to comply with WPS: B-T-2231-ESAB.

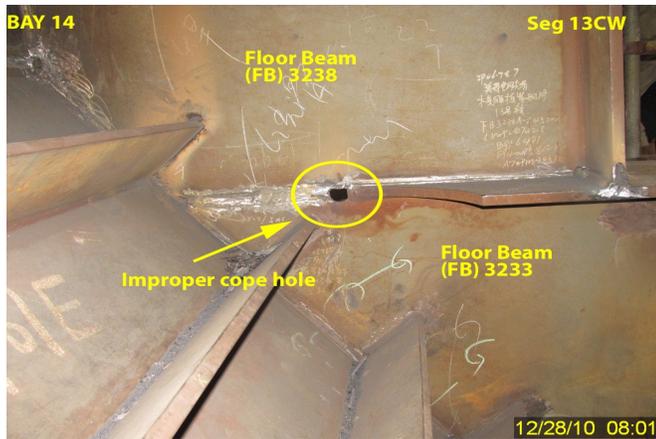
The Shielded Metal Arc Welding (SMAW) process on weld joint no: SEG3020E-107 [Stiffener of Floor Beam (FB) 3343A to Longitudinal Diaphragm (LD) 3048A, CJP weld at panel point (PP) 128.3]. The welder is identified as 066038 and was observed welding in the 1G position. ZPMC QC was identified as Mr. Sun Tian Liang. The welding variables recorded by QC appeared to comply with WPS: B-P-2211-Tc-U4b-FCM-1.

The Shielded Metal Arc Welding (SMAW) process on weld joint no: SEG3020D-219 [Stiffener X4951D of Floor Beam (FB) 3343A to Longitudinal Diaphragm (LD) 3050A, CJP weld at panel point (PP) 128.3]. The welder is identified as 066038 and was observed welding in the 1G position. ZPMC QC was identified as Mr. Sun Tian Liang. The welding variables recorded by QC appeared to comply with WPS: B-P-2211-Tc-U4b-FCM-1.

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

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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,Umesh	Quality Assurance Inspector
Reviewed By:	Patterson,Rodney	QA Reviewer
