

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-022462**Date Inspected:** 24-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 13AW (NWIT # 7909)

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.

SEG3013B-249, 250, 248

SEG3013D-212~219

SEG3013P-006~008

SEG3013R-008~015

SEG3013F-021, 009, 141

SEG3013H-020, 008, 145

SEG3013K-008, 020, 122

SEG3013M-004~011

BAY 14, OBG Segment 13BE, DP Transverse Seam

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This QA Inspector performed verification Ultrasonic Testing (ABF Request No: 12242010-2) in accordance with ABF/CT Pattern "D" UT Procedure 001 Revision 1. All recordable Indications if found were recorded on a separate data sheet that Caltrans QA generates after performing a joint inspection with ABF ultrasonic testing personnel. The location of the inspection was identified as weld between two plates of deck panels of segment 13BE. The weld designations were as;

DP3086-001-123

DP3087-001-161

DP3088-001-191

DP3089-001-017

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

Bay 14

OBG Seg 13BW:

The Shielded Metal Arc Welding (SMAW) process on weld joint no: SEG3014S-052 [Vertical Plate (VP) 3013 to Side Plate (SP) 3106A, CJP weld; in between Panel Points (PP) 121.5 to 122]. The welder is identified as 067993 and was observed welding in the 2G position. ZPMC QC was identified as Mr. Zhang Lin. The welding variables recorded by QC appeared to comply with WPS: B-P-2212-Tc-U4b-FCM-1.

The Shielded Metal Arc Welding (SMAW) process on weld joint no: SEG3014F-191 [Floor Beam (FB) 3208A to Floor Beam (FB) 3209A, CJP weld at Panel Point (PP) 121]. The welder is identified as 045196 and was observed welding in the 4G position. ZPMC QC was identified as Mr. Zhang Lin. The welding variables recorded by QC appeared to comply with WPS: B-P-2214-B-U3b.

OBG Seg 13CW

The Shielded Metal Arc Welding (SMAW) process on weld joint no: SEG3015B-271 [Vertical Plate (VP) 3015 to Side Plate (SP) 3112, CJP weld; in between Panel Points (PP) 122 to 122.5]. The welder is identified as 066236 and was observed welding in the 2G position. ZPMC QC was identified as Mr. Zhang Lin. The welding variables recorded by QC appeared to comply with WPS: B-P-2212-Tc-U4b-FCM-1.

OBG Seg 14W

The Flux Cored Arc Welding (FCAW) process on weld joint no: SEG3020K-024 [Sub Assembly (SA) plate 3410A to Longitudinal Diaphragm (LD) 3048A, CJP weld at panel point (PP) 127.3]. The welder is identified as 066421 and was observed welding in the 3G position. ZPMC QC was identified as Mr. Wang Xiang Pin. The welding variables recorded by QC appeared to comply with WPS: B-T-2233-ESAB.

The Flux Cored Arc Welding (FCAW) process on weld joint no: SEG3020E-044 [Floor Beam (FB) 3343A to Longitudinal Diaphragm (LD) 3048A, CJP weld at panel point (PP) 128.3]. The welder is identified as 201215 and was observed welding in the 3G position. ZPMC QC was identified as Mr. Wang Xiang Pin. The welding

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variables recorded by QC appeared to comply with WPS: B-T-2233-ESAB.

The Flux Cored Arc Welding (FCAW) process on weld joint no: SEG3020K-026 [Sub Assembly (SA) plate 3410A to Bottom Plate (BP) 3092A, CJP weld at panel point (PP) 127.3]. The welder is identified as 047866 and was observed welding in the 2G position. ZPMC QC was identified as Mr. Wang Xiang Pin. The welding variables recorded by QC appeared to comply with WPS: B-T-2232-ESAB.

During random in process inspection this QA inspector observed the fit up for weld number, SEG3020T-311[Floor Beam (FB) 3318B to Longitudinal Diaphragm (LD) 3048A, CJP weld at panel point (PP) 125.5]. The fit up was done with root gap approx 20mm. This issue has been discussed with ZPMC lead QC Mr. Li Ming Yang. Mr Li Ming Yang informed this QA that ZPMC will make welding repair report (WRR) for buttering on the edge to reduce the root gap within acceptable limit and perform the repair work. Attached photograph provide additional detail.

Unless otherwise noted, all work observed on this date appeared to generally comply with 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,Umesh	Quality Assurance Inspector
Reviewed By:	Patterson,Rodney	QA Reviewer
