

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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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-022858**Date Inspected:** 20-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**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 Self-Anchored Suspension (SAS) Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

OBG Segment 13BW

This QA Inspector performed verification Ultrasonic Testing (ABF Request No: UT-13W-018R1) 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 Deck panels at intersection of OBG segment 13BW. The weld designations were as;

SEG3014-006 (DP3132A to DP3133A)

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

Bay 14

OBG Seg 14W:

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The Shielded Metal Arc Welding (SMAW) process on weld joint no: SEG3020AG-002 [Deck Plate PL3491A of Deck Panel (DP) 3183A to EP 3030A, CJP weld at Panel Point (PP) 125]. The welder is identified as 037748 and was observed welding in 4G position. ZPMC QC was identified as Mr. Zhu Lin. The welding variables recorded by this QC appeared to comply with WPS: B-P-2214-Tc-U4b-FCM-1.

The Submerged Arc Welding (SAW) process on weld joint no: SEG3020\*-005 [DP 3171A to DP 3172A, CJP weld]. The welder is identified as 045270 and was observed welding in 1G position. ZPMC QC was identified as Mr. Zhu Lin. The welding variables recorded by this QC appeared to comply with WPS: B-T-223(2)1T-ESAB-1.

The Flux Cored Arc Welding (FCAW) process on weld joint no: SEG3020V-041 [DP diaphragm of DP 3172A to DP diaphragm of DP 3173A, CJP weld at PP125]. The welder is identified as 045280 and was observed welding in 3G position. ZPMC QC was identified as Mr. An Qing Xiang. The welding variables recorded by this QC appeared to comply with WPS: B-T-2233-ESAB.

The FCAW process on weld joint no: SEG3020E-001 [DP diaphragm of DP 3173A to Floor Beam (FB) 3343A, CJP weld at PP128.3]. The welders are identified as 067949 and 066239 and were observed welding in 2G position. ZPMC QC was identified as Mr. An Qing Xiang. The welding variables recorded by this QC appeared to comply with WPS: B-T-2232-ESAB.

The SMAW process on weld joint no: SEG3020K-006 [DP diaphragm to DP diaphragm of DP 3174A, CJP weld at PP127.3]. The welder is identified as 067520 and was observed welding in 3G position. ZPMC QC was identified as Mr. An Qing Xiang. The welding variables recorded by this QC appeared to comply with WPS: B-P-2213-Tc-U4b-FCM-1.

The FCAW process on weld joint no: SEG3020D-039 [DP diaphragm of DP 3172A to DP diaphragm of DP 3173A, CJP weld at PP128.3]. The welder is identified as 066421 and was observed welding in 3G position. ZPMC QC was identified as Mr. An Qing Xiang. The welding variables recorded by this QC appeared to comply with WPS: B-T-2233-ESAB.

The FCAW process on weld joint no: SEG3020W-003 [DP diaphragm of DP 3173A to DP diaphragm of DP 3174A, CJP weld at PP125]. The welder is identified as 067275 and was observed welding in 3G position. ZPMC QC was identified as Mr. An Qing Xiang. The welding variables recorded by this QC appeared to comply with WPS: B-T-2233-ESAB.

The FCAW process on weld joint no: DP3174-001-022 [DP diaphragm X4881A to DP diaphragm X4812D of DP 3174A, CJP weld at PP125]. The welder is identified as 067275 and was observed welding in 3G position. ZPMC QC was identified as Mr. An Qing Xiang. The welding variables recorded by this QC appeared to comply with WPS: B-T-2233-ESAB.

The FCAW process on weld joint no: DP3172-001-389 [DP diaphragm X4857D to DP diaphragm X4882H of DP 3172A, CJP weld at PP128.3]. The welder is identified as 066881 and was observed welding in 3G position. ZPMC QC was identified as Mr. An Qing Xiang. The welding variables recorded by this QC appeared to comply with WPS: B-T-2233-ESAB.

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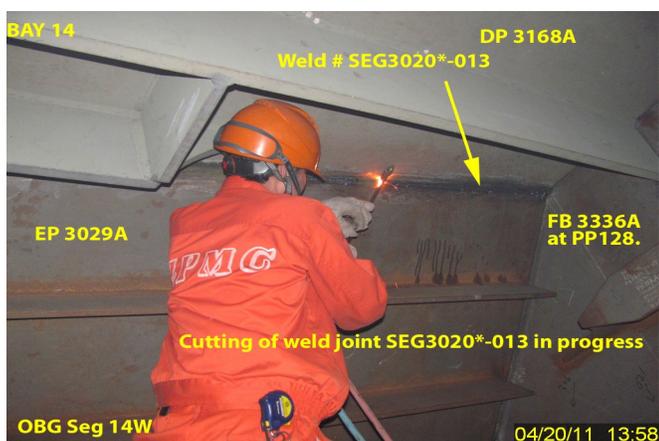
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The FCAW process on weld joint no: DP3172-001-039 [DP diaphragm to DP diaphragm of DP 3172A, CJP weld at PP125]. The welder is identified as 045280 and was observed welding in 3G position. ZPMC QC was identified as Mr. An Qing Xiang. The welding variables recorded by this QC appeared to comply with WPS: B-T-2233-ESAB.

During random in process visual inspection this QA Inspector observed that ZPMC personnel were performing cutting of the weld joint SEG3020\*-013 for the alignment of deck plate as per Welding Repair Report (WRR) B-WR20776. Attached photograph provide additional details.

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.

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<b>Inspected By:</b>	Gaikwad,Umesh	Quality Assurance Inspector
<b>Reviewed By:</b>	Peterson,Art	QA Reviewer

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