

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-019519**Date Inspected:** 23-Jan-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 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:

This QA Inspector observed the following work in progress:

OBG Seg 13AW:

Repair welding of weld joint no: SEG3013AH-041 [K-Plate 3010A to Side panel (SP) 3101A, Complete Joint Penetration (CJP) weld at Panel Point (PP) 118.35 to PP119-1500]. The welder is identified as 066002 and was observed welding in the 2G position. Welding process was identified as Shielded Metal Arc Welding (SMAW). ZPMC QC was identified as Mr. Liu Feng. The welding variables recorded by this QC appeared to comply with WPS: 345-SMAW-2G(2F)-FCM-Repair. Repair welding was done as per Welding Repair Report (WRR): B-WR 20173 Rev-0.

The Flux Cored Arc Welding (FCAW) process on weld joint no: SEG3013AX-124 [I-rib stiffener splice joint on Bottom Panel, CJP weld at PP119-1500]. The welder is identified as 067876 and was observed welding in the 3G position. ZPMC QC was identified as Liu Feng. The welding variables recorded by QC appeared to comply with

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WPS: B-T-2233-ESAB.

Repair welding of weld joint no: SEG3013AA-036 (I-rib stiffener on EP3020C to FB3186A, CJP weld at PP119-1500). The welder is identified as 067588 and was observed welding in the 1G position. Welding process was identified as SMAW. ZPMC QC was identified as Mr. Liu Feng. The welding variables recorded by this QC appeared to comply with WPS: 345-SMAW-1G(1F)-FCM-Repair. Repair welding was done as per WRR: B-WR 20128 Rev-0.

Repair welding of weld joint no: SEG3013AA-016 (EP3020B to FB3178A, CJP weld at PP118). The welder is identified as 066261 and was observed welding in the 3G position. Welding process was identified as SMAW. ZPMC QC was identified as Mr. Liu Feng. The welding variables recorded by this QC appeared to comply with WPS: 345-SMAW-3G(3F)-FCM-Repair. Repair welding was done as per WRR: B-WR 20131 Rev-0.

OBG Seg 14W:

Repair welding of weld joint no: SEG3020M-004 [Longitudinal Diaphragm (LD) 3050A to FB3328A, CJP weld at PP127). The welder is identified as 066398 and was observed welding in the 3G position. Welding process was identified as SMAW. ZPMC QC was identified as Mr. Liu Feng. The welding variables recorded by this QC appeared to comply with WPS: 345-SMAW-3G(3F)-FCM-Repair. Repair welding was done as per WRR: B-WR 19827 Rev-0.

Repair welding of weld joint no: SEG3020BB-028 [BP3090A to Sub Assembly (SA) Plate SA3451A, CJP weld in between PP125 to PP126]. The welder is identified as 066695 and was observed welding in the 2G position. Welding process was identified as FCAW. ZPMC QC was identified as Mr. Zhu Lin. The welding variables recorded by this QC appeared to comply with WPS: 345-FCAW-2G(2F)-ESAB-REPAIR-FCM. Repair welding was done as per Critical Welding Repair Report (CWR): B-CWR 2752 Rev-0.

The FCAW process on weld joint no: SEG3020M-188 and 189 (BP3094A to EP3056A, fillet weld at PP127). The welder is identified as 066236 and was observed welding in the 2F position. ZPMC QC was identified as Zhu Lin. The welding variables recorded by QC appeared to comply with WPS: B-T-2132-ESAB.

The SMAW process on weld joint no: SEG3020AX-017 [FB3315B to RS stiffener on Side Panel (SP) 3131A, CJP weld at PP125]. The welder is identified as 067609 and was observed welding in the 4G position. ZPMC QC was identified as Zhu Lin. The welding variables recorded by QC appeared to comply with WPS: B-P-2214-B-U2-FCM.

The FCAW process on weld joint no: SEG3020AJ-389 (FB3327A to RS stiffener on Bottom Panel, CJP weld at PP127). The welder is identified as 067949 and was observed welding in the 3G position. ZPMC QC was identified as Zhu Lin. The welding variables recorded by QC appeared to comply with WPS: B-T-2233-ESAB.

During random in process inspection this QA inspector observed that the weld joining the deck panel diaphragm plate X 4089G to the flange of Floor Beam (FB) 3235A at panel point PP 124.5 of seg 13CW observed as cracked. The base metal of flange of FB 3235A has been gouged out approx 4mm during bach gouging by Air Carbon Arc Gouging. This issue has been discussed with ZPMC CWI Mr. Li Ming Yang and CT lead QA. Mr. Li Ming Yang

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informed this QA that this issue would be corrected in manner compliant with contract documents. 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.

Inspected By:	Gaikwad,Umesh	Quality Assurance Inspector
Reviewed By:	Peterson,Art	QA Reviewer
