

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-019264**Date Inspected:** 20-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 components.**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance Inspector (QA) Mr. Shailesh Wadkar 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 Inspector observed and/or found the following:

Bay 14:

This QA Inspector observed the following work in progress:

OBG Seg 14W:

Repair welding of weld joint no: SEG3020AX-004 [Side Panel (SP) 3131A to Bottom Panel (BP) 3087A, complete joint penetration (CJP) weld]. The welders are identified as 051348 and 045246 and were observed welding in the 4G position. Welding process was identified as Shielded Metal Arc Welding (SMAW). ZPMC QC was identified as Zhu Lin. The welding variables recorded by this QC appeared to comply with Welding Procedure Specification (WPS): 345-SMAW-4G(4F)-FCM-Repair. Repair welding was done as per Welding Repair Report (WRR): B-WR 19054 Rev-0.

The Flux Cored Arc Welding (FCAW) process on weld joint nos: SEG3020G-022 and 023 [Floor Beam (FB) 3334 to Longitudinal Diaphragm (LD) 3050A, fillet weld at panel point (PP) 127.5]. The welder is identified as 201215 and was observed welding in the 3F position. ZPMC QC was identified as Zhu Lin. The welding variables

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recorded by QC appeared to comply with WPS: B-T-2133-ESAB.

The FCAW process on weld joint no: SEG3020E-056 [FB3343A to BP3093A, complete joint penetration (CJP) weld at PP128.3]. The welder is identified as 202122 and was observed welding in the 2G position. ZPMC QC was identified as Zhu Lin. The welding variables recorded by QC appeared to comply with WPS: B-T-2232-ESAB.

During random inprocess visual inspection, this QA Inspector observed that the I-rib stiffener on FB3343A needs to be CJP welded with LD3050A at PP128.3. However, it was noted that due to the I-rib stiffener welded on LD3050A, there is less access to weld the above mentioned CJP weld. This is informed to ZPMC CWI, identified as Qiu Wen. See attached photo for details.

The FCAW process on weld joint nos: SEG3020R-031 and 033 (FB3320A to LD3048, CJP weld at PP126). The welder is identified as 067520 and was observed welding in the 3G position. ZPMC QC was identified as Qiu Wen. The welding variables recorded by QC appeared to comply with WPS: B-T-2233-ESAB.

The SMAW process on weld joint nos: SEG3020A-014 (SP3139A to BP3091A, CJP weld at PP128 to PP128.7). The welders are identified as 066326 and 051348 and were 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.

OBG Seg 13CW:

The FCAW process on weld joint no: SEG3015K-189 (X4498A to FB3220A, CJP weld at PP122.5). The welder is identified as 201583 and was observed welding in the 2G position. ZPMC QC was identified as Qiu Wen. The welding variables recorded by QC appeared to comply with WPS: B-T-2232-ESAB.

OBG Seg 13AW:

The SMAW process on weld joint nos: SEG3013W-199 and 200 (X4441A and X4441B to SP3091D, fillet weld at PP119 + 1500). The welders are identified as 066361 and 047864 and were observed welding in the 4F position. ZPMC QC was identified as Qiu Wen. The welding variables recorded by QC appeared to comply with WPS: B-P-2114-FCM-1.

OBG Seg 13BW:

The FCAW process on weld joint nos: SEG3013F-194, 199 and 203 (FB3208A to I-rib stiffeners on SP3106A, at PP121). The welder is identified as 045276 and was observed welding in the 3G position. ZPMC QC was identified as Qiu Wen. The welding variables recorded by QC appeared to comply with WPS: B-T-2233-ESAB. These welds are welded as CJP welds (instead of fillet welds, as required in drg) due to excess root gap (approx 11-12mm).

The FCAW process on weld joint nos: SEG3014H-135, 239 and 143 (FB3203A to I-rib stiffeners on SP3106A, at PP120.5). The welder is identified as 045209 and was observed welding in the 3G position. ZPMC QC was identified as Qiu Wen. The welding variables recorded by QC appeared to comply with WPS: B-T-2233-ESAB.

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These welds are welded as CJP welds (instead of fillet welds, as required in drg) due to excess root gap (approx 11-12mm). See attached photo for details.

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



Summary of Conversations:

No significant conversations were reported on this date.

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

Inspected By: Wadkar,Sailesh

Quality Assurance Inspector

Reviewed By: Patterson,Rodney

QA Reviewer
