

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-017201**Date Inspected:** 02-Oct-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:** Mr. Huang min / Mr. Tian Le**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:** Orthotropic Box Girder (OBG)**Summary of Items Observed:**

This CALTRANS OSM Quality Assurance Inspector (QA) Surendra Prabhu 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:

BAY- 1

This QA Inspector Randomly observed the following work in progress:

Flux Cored Arc Welding (FCAW) of weld joint E2-SB9-001-126~131. Welder is identified as 066421. ZPMC Quality Control (QC) is identified as Mr. Xiang feng feng. The welding variables appeared to comply with the Applicable WPS: WPS-B- T-2132-3.

FCAW of weld joint E2-SB2-002-051~054. Welder is identified as 066399. ZPMC Quality Control (QC) is identified as Mr. Xiang feng feng. The welding variables appeared to comply with the Applicable WPS: WPS-B- T-2132-3.

BAY- 3

FCAW of weld joint FB3271-001-084,085. Welder is identified as 217805. ZPMC Quality Control (QC) is identified as Mr. Zhan Hai Feng. The welding variables appeared to comply with the Applicable WPS: WPS-B-

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T-2132-3.

During random in process inspection of OBG member identified as Lift 14 East Floor beam FB3271A, this QA observed a cracked tack weld on weld joint identified as FB3271-001-085. The Y location is 2000mm from North end of the stiffener. The Floor beam web plate is designated as Seismic Performance Critical Material (SPCM) on the approved shop drawing. ZPMC welding personnel were welding this joint from south end of the stiffener. This QA marked the cracked tack and informed ZPMC Quality Control (QC) identified as Mr. Zhan Hai Feng of this issue. Mr. Zhan Hai Feng informed this QA that the cracked tack would be corrected in a manner compliant with the contract documents. Refer the attached photos for reference.

BAY- 7

FCAW of weld joint FB3241-001-001,002. Welder is identified as 062447. ZPMC Quality Control (QC) is identified as Mr. Xu Hai Yang. The welding variables appeared to comply with the Applicable WPS: WPS-B-T-2132-3.

FCAW of weld joint SA3077-005-002. Welder is identified as 068920. ZPMC Quality Control (QC) is identified as Mr. Xu Hai Yang. The welding variables appeared to comply with the Applicable WPS: WPS-B-T-2331-C-P2-F-2.

FCAW of weld joint X4253F-001-001. Welder is identified as 217185. ZPMC Quality Control (QC) is identified as Mr. Xu Hai Yang. The welding variables appeared to comply with the Applicable WPS: WPS-B-T-2231-TC-U4b-F-2.

FCAW of weld joint X4253D-001-001. Welder is identified as 053609. ZPMC Quality Control (QC) is identified as Mr. Xu Hai Yang. The welding variables appeared to comply with the Applicable WPS: WPS-B-T-2231-TC-U4b-F-2.

FCAW of weld joint W2-SB1G-009-126~131. Welder is identified as 048625. ZPMC Quality Control (QC) is identified as Mr. Wang Li Yang. The welding variables appeared to comply with the Applicable WPS: WPS-B-T-2132-3.

During QA random in-process observations of the fabrication of OBG Cross Beam(CB) CB18 Tie Down Seat SA3077B, this QA observed single pass FCAW groove weld that exceeds the maximum single pass weld size as specified in AWS D1.5 2002. The weld was performed in the flat (1G) position. The single pass groove weld, as measured by this QA, is approximately 25mm. AWS D1.5 specifies the maximum FCAW single pass weld width allowed in this position is 16mm. The weld is a Partial joint penetration (PJP) weld joining the Top Bearing plate (X3734F) to Top Bearing plate(X3734G). The weld is identified as SA3077-005-002. The Tie down Seat Bearing plate's material thickness is 100 mm.

This QA generated an incident report on this date for the above issue, for further information see the incident report and attached photos.

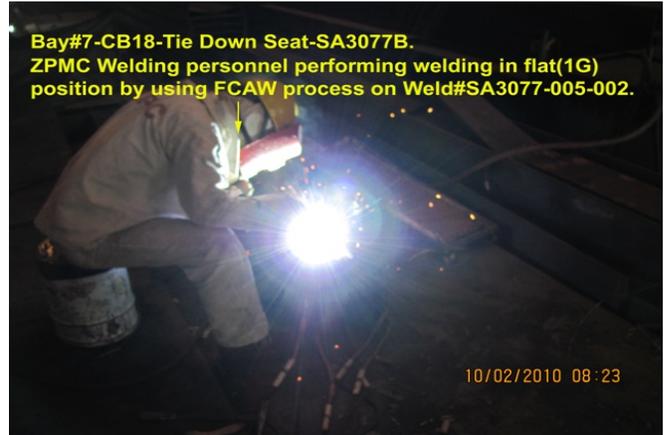
BAY- 8

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FCAW of weld joint BK4ASD1-063-005. Welder is identified as 067947. ZPMC Quality Control (QC) is identified as Mr. Liu Fa Wen. The welding variables appeared to comply with the Applicable WPS: WPS-B-T-2231-B-U2-F.

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



Summary of Conversations:

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Only general conversation was held between QA and Quality Control (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:	Prabhu,Surendra	Quality Assurance Inspector
Reviewed By:	Hall,Steven	QA Reviewer
