

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-019412**Date Inspected:** 09-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:** Mr. Qiu wei**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:

OBG Assembly Bay- 14.

The following Non Destructive Testing (NDT) Inspection was carried out as per the ZPMC submitted Notification No. 08104.

Magnetic Particle Testing (MT)

This QA performed MT of approximately 15% of the area previously tested and accepted by ZPMC Quality Control (QC) personnel. This QA generated MT report for this date. The members are identified as OBG weld Components. Total number of welds MT Tested: 30 No's. The weld designations inspected were as follows:

1. FB3226-001-057, 058, 023~028
2. SEG3015J-004, 059, 060, 139, 140, 142, 143
3. SEG3015M-073~080
4. LD3033-001-067~070, 100~103

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This QA Inspector randomly observed the following work in progress:

Flux Cored Arc Welding (FCAW) welding of weld joint identified as DP3172-001-133,134. Welder is identified as 048696. ZPMC Quality Control (QC) is identified as Mr. Li ping. The welding variables recorded by QC personnel observed appeared to comply with WPS:WPS-B-T-2133-ESAB.

FCAW welding of weld joint identified as DP3172-001-141,142. Welder is identified as 048433. ZPMC Quality Control (QC) is identified as Mr. Li ping. The welding variables recorded by QC personnel observed appeared to comply with WPS:WPS-B-T-2133-ESAB.

FCAW welding of weld joint identified as DP3174-001-087,088. Welder is identified as 207465. ZPMC Quality Control (QC) is identified as Mr. Li ping. The welding variables recorded by QC personnel observed appeared to comply with WPS:WPS-B-T-2133-ESAB.

FCAW welding of weld joint identified as SEG3020BB-001. Welder is identified as 067949. ZPMC Quality Control (QC) is identified as Mr. Zhulin. The welding variables recorded by QC personnel observed appeared to comply with WPS: WPS-B-T-2232-ESAB.

FCAW welding of weld joint identified as SEG3020BB-028. Welder is identified as 045276. ZPMC Quality Control (QC) is identified as Mr. Li ming yang. The welding variables recorded by QC personnel observed appeared to comply with WPS: WPS-B-T-2133-ESAB.

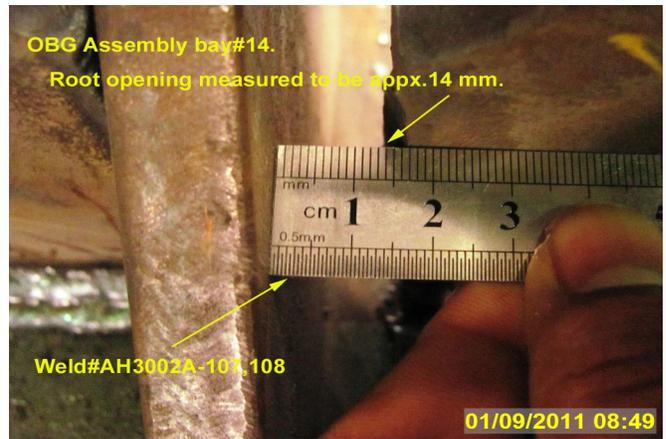
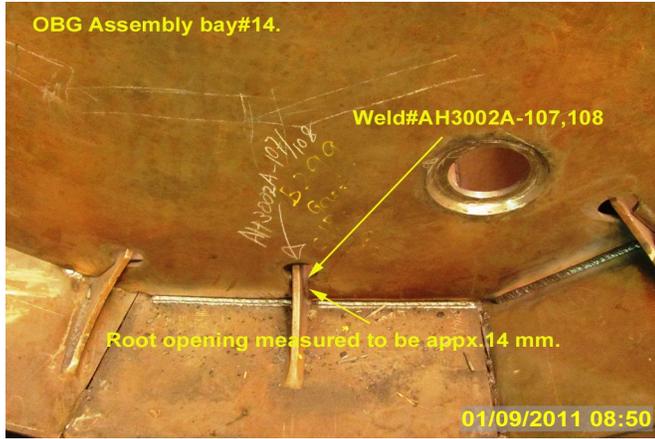
During random Visual Testing of OBG Arch structural housing AH3002A, this QA observed the root opening of the fillet welds is exceed the maximum allowable tolerance. The root opening as measured by this QA approximately 14 mm. These welds to be connected to the stiffener plate and diaphragm. The affected welds are identified as AH3002A-107,108.This QA marked the affected area and informed ZPMC Quality Control (QC) Inspector identified as Mr. Zheng zhi wei of this issue. Mr. Zheng zhi wei informed this QA that the joints would be corrected in a manner compliant with the contract documents. This QA also informed the above issue to shop Lead QA inspector (verbally). Refer the attached photos for reference.

During QA random in-process observations of the fabrication of Side plate SP3109A, this Caltrans QA Inspector observed Complete Joint Penetration (CJP) welding was performing without using run-off tabs. The use of run-off tabs is specified in AWS D1.5 2002 section 3.12.1.The welds are identified as SP3109-001-038~042.The welds are a CJP, butt joints joining to I stiffener to I stiffener plates. The welding was being performed by using Shielded Metal Arc Welding process in vertical 3G position. This QA informed ZPMC Quality Control (QC) identified as Mr. Zheng zhi wei of this issue. Mr. Zheng zhi wei informed this QA that the for future weld joints wherever possible weld tab shall be used as per the contract documents. This QA also informed the above issue to shop Lead QA inspector (verbally). Refer the attached photos for reference.

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

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

Inspected By: Prabhu,Surendra

Quality Assurance Inspector

Reviewed By: Peterson,Art

QA Reviewer