

**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-019521**Date Inspected:** 21-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. 08248.

**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 a MT report for this date. The members are identified as OBG weld Components. Total number of welds MT Tested: 8 No's. The weld designations inspected were as follows:

1. SEG3007T-101~108

This QA Inspector randomly observed the following work in progress:

Shielded Metal Arc Welding (SMAW) Repair welding of weld joint identified as SEG3020BB-028. Welder is identified as 067942. ZPMC Quality Control (QC) is identified as Mr. Zhulin. The welding variables recorded by

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QC personnel observed appeared to comply with Welding Procedure Specification (WPS): WPS-345-SMAW-2G (2F)-FCM-Repair. The repair welding was being performed as per approved Critical Welding Repair Report (CWR) No: B-CWR2752. This weld was previously rejected by ZPMC QC personnel and recorded on UT report B787-UT-18580.

SMAW Repair welding of weld joint identified as SEG3020BB-037. Welder is identified as 066038. ZPMC Quality Control (QC) is identified as Mr. Zhulin. The welding variables recorded by QC personnel observed appeared to comply with WPS: WPS-345-SMAW-2G (2F)-FCM-Repair. The repair welding was being performed as per approved Critical Welding Repair Report (CWR) No: B-CWR2752. This weld was previously rejected by ZPMC QC personnel and recorded on UT report B787-UT-18580.

Flux Cored Arc Welding (FCAW) welding of weld joint identified as SEG3020AG-005. Welder is identified as 066695. 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-2233-ESAB.

SMAW welding of weld joint identified as SEG3020AG-063. Welder is identified as 037748. ZPMC Quality Control (QC) is identified as Mr. Zhulin. The welding variables recorded by QC personnel observed appeared to comply with WPS: WPS-B-P-2214-TC-U4b-FCM.

SMAW welding of weld joint identified as DP3135-001-022,023. Welder is identified as 037840. ZPMC Quality Control (QC) is identified as Mr. Sun tian liang. The welding variables recorded by QC personnel observed appeared to comply with WPS: WPS-B-P-2213-TC-U4b-FCM-1.

During random Visual Testing of OBG Longitudinal diaphragm LD3050A, this QA observed the fillet welds are not wrapped as per the approved shop drawing requirement. Total of 4 locations as shown on the picture below. This QA marked the affected area and informed ZPMC Quality Control (QC) Inspector identified as Mr. Zhulin of this issue. Mr. Zhulin 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 Lead QA inspector (verbally) and locations marked on the drawing and submitted to lead QA Inspector for further action. Refer the attached photos for reference.

This QA Inspector did not generate an incident report for the above issue as per the lead QA inspector's instruction.

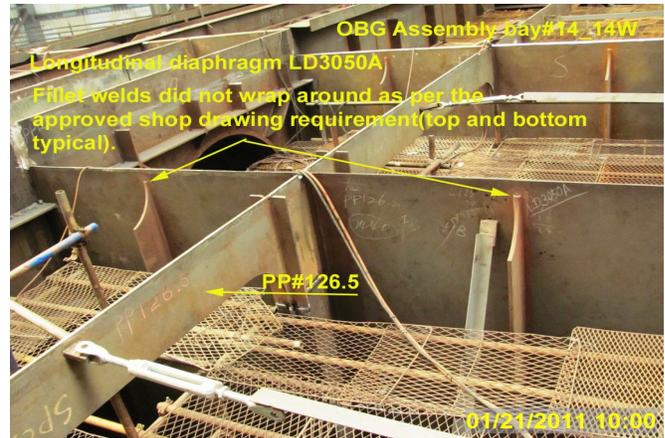
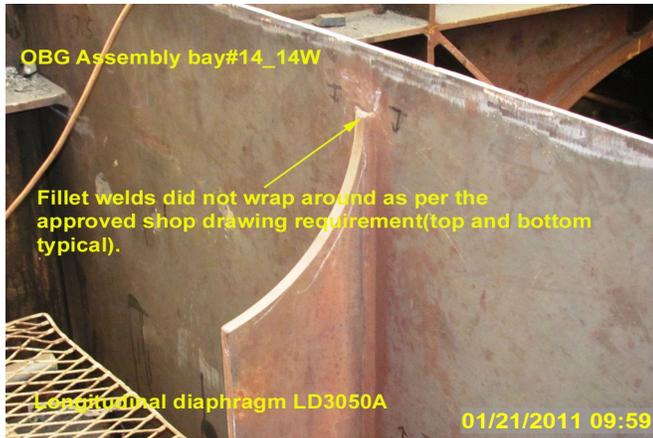
Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

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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.

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**Inspected By:** Prabhu,Surendra

Quality Assurance Inspector

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**Reviewed By:** Peterson,Art

QA Reviewer