

**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-019064**Date Inspected:** 29-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:** Mr. Li jia**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- 2.

The following Non Destructive Testing (NDT) Inspection carried out as per the ZPMC submitted Notification No. 07974.

**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 Anchor plate weld Components. Total number of welds MT Tested: 33 No's. The weld designations are review as follows:

1. AP3032-001-021,638,648,649,1020,686,696,697,1021,734,744,745,1022,782,792,793,1023,830,840,841,1026,878,888,889,1027,926,936,937,1028,974,984,985,1029.

During QA MT review of welds located on OBG Lift 14 West Anchor plate (AP) AP3032A, this QA observed One Longitudinal Linear toe crack measuring approximately 18 mm in length. The weld is identified as: AP3032-001-021. The weld is designated as SPCM. This weld is a fillet weld joining anchor base plate

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(X5055A-SPCM) to Stiffener plate (X5057A-SPCM).The “Y” location is approximately 565 mm from nearest end of the weld. The “Y” location measured from bearing stiffener identified as SA3420A side.

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

BAY- 3

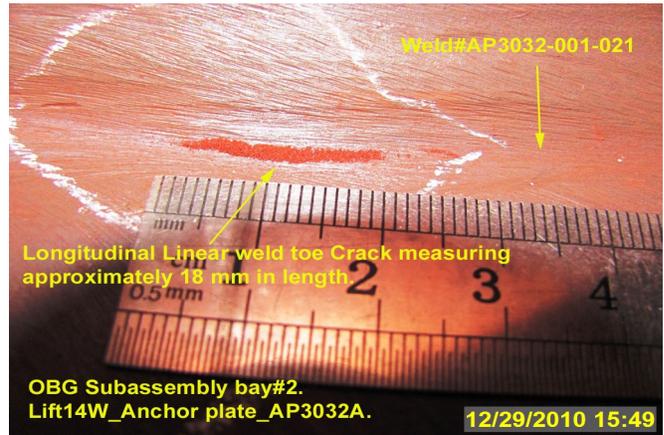
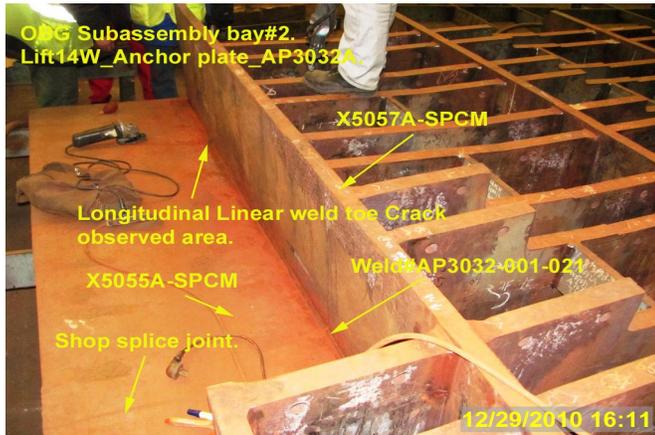
This QA Inspector Randomly observed the following work in progress:

Shielded Metal Arc Welding (SMAW) welding of weld joint identified as SP3071-001-223,225. Welder is identified as 058087. ZPMC Quality Control (QC) is identified as Mr. Zhang yaxu. The welding variables appeared to comply with the Applicable WPS: B-P-2213-TC-U4b.

Flux Cored Arc Welding (FCAW) welding of weld joint identified as AH3151-004. Welder is identified as 050977. ZPMC Quality Control (QC) is identified as Mr. Zhang yaxu. The welding variables appeared to comply with the Applicable WPS: B-T-2231-ESAB.

FCAW welding of weld joint identified as AH3151A-051,052. Welder is identified as 208035. ZPMC Quality Control (QC) is identified as Mr. Zhang yaxu. The welding variables appeared to comply with the Applicable WPS: B-T-2133-ESAB.

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

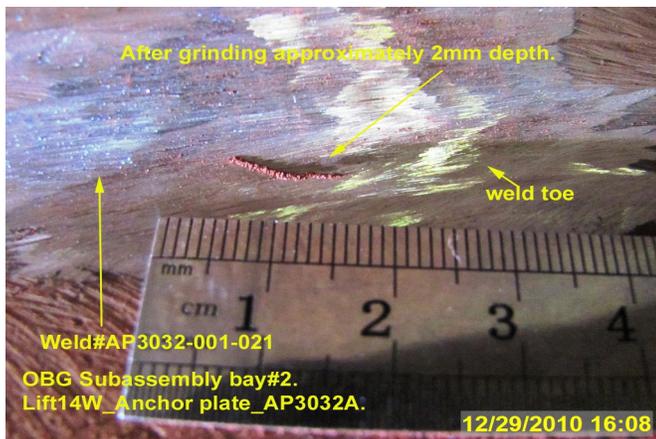


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## Summary of Conversations:

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.

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**Inspected By:** Prabhu,Surendra

Quality Assurance Inspector

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**Reviewed By:** Hall,Steven

QA Reviewer