

**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-017116**Date Inspected:** 16-Sep-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:** Gong Wai**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 COMPONENT**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector, Subhasis Bera was present during the times noted above for observations relative to the work being performed.

In process Inspection

Out Side Yard

This QA Inspector observed the following work in progress:

SMAW in the 4F position for the OBG segment 12BE, weld No. OBE12C-006/007. The welder is identified as #054013. ZPMC QC is identified as Mr. Wu Shi Gao. The welding variables recorded by QC appear to comply with WPS-B-P-2114-FCM-1.

Bay#14

This QA Inspector observed the following work in progress:

FCAW in the 2G position for the OBG segment 13AE, weld No. KP3001-001-003. The welder is identified as #067876. ZPMC QC is identified as Mr. Wang Xu. The welding variables recorded by QC appear to comply with WPS-B-T-2232-Tc-U4b-F.

FCAW in the 2G position for the OBG segment 13AE, weld No. KP3006-001-001. The welder is identified as #067079. ZPMC QC is identified as Mr. Wang Xu. The welding variables recorded by QC appear to comply with WPS-B-T-2232-Tc-U4b-F.

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## WELDING INSPECTION REPORT

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Ultrasonic Testing (UT) for segment 13BE and 13CE

This QA Inspector performed Ultrasonic testing (UT) 10% of the area previously tested and accepted by ZPMC Quality control personnel. This QA inspector generated a (UT) report for this date. The members are identified as segment 13BE and 13CE weld joints.

The welds designation reviewed are as follows:

LD3029-001-056,057,049,050, 033,034,040,041

LD3028-001-032,022,023

LD3027-001-020,095,099,027,019

LD3030-001-037,038,044,045,054

This QA Inspector performed Ultrasonic testing (UT) 10% of the area previously tested and accepted by ZPMC Quality control personnel. This QA inspector generated a (UT) report for this date. The members are identified as Cross Beam CB18 weld joint.

The weld designation reviewed is as follows:

CB3002B-18-004

During the Quality Assurance Ultrasonic Testing (UT) review of welds located on Orthotropic Box Girder (OBG) segment 13BE and 13CE, this Quality Assurance Inspector (QA) discovered the following issues that Three(3) longitudinal linear class "A" rejectable indications measuring approximately 180mm~260mm in length. The welds are identified as LD3028-001-031, LD3027-001-026 and LD3030-001-053. Material thickness for all joints is 30mm. The indication dbS rating for joint LD3028-001-031 is a +6. The indication dbS rating for joint LD3027-001-026 is a +4. The indication dbS rating for joint LD3030-001-053 is a +5. The depth of the indications is approximately 20mm~23mm. The Weld LD3028-001-031 is joining longitudinal diaphragm (X3682A) to lifting Lug. The Weld LD3027-001-026 is joining longitudinal diaphragm (X3684B) to lifting Lug. The Weld LD3030-001-053 is joining longitudinal diaphragm (X3685A) to lifting Lug. All Welds are Complete Joint Penetration (CJP) "T" joint. All welds are Seismic Performance Critical Members (SPCM). The Y distance for joint LD3028-001-031 is 110mm from bottom cope hole. The Y distance for joint LD3027-001-026 is 40mm from bottom cope hole. The Y distance for joint LD3030-001-053 is 700mm from bottom cope hole. The indications are clearly marked on or near the weld. The all LD components are located at Bay#3. The Notice of Witness Inspection (NWIT) No. is 006680. The indications all joints are located within an area previously tested and accepted by ZPMC Quality Control (QC) personnel.

The QA generated an incident report for this date.

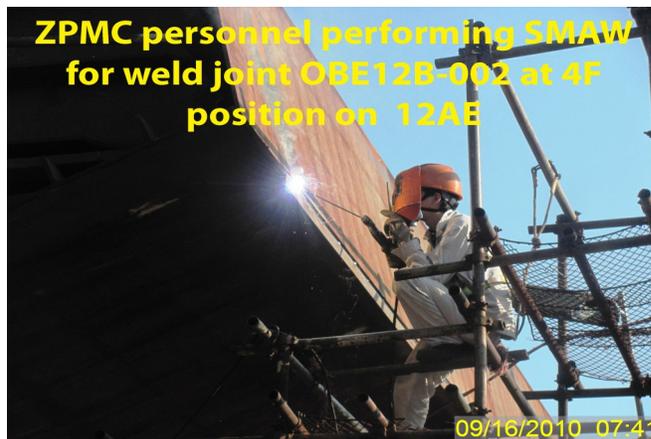
Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

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# WELDING INSPECTION REPORT

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## Summary of Conversations:

No relevant conversations

## 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 150-0042-2372, who represents the Office of Structural Materials for your project.

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**Inspected By:** Bera,Subhasis

Quality Assurance Inspector

**Reviewed By:** Patterson,Rodney

QA Reviewer

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