

**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-018549**Date Inspected:** 04-Dec-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 645**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1845**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** An Qing Xiang.**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:**

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

Trial assembly yard, 11EE-12AE, SP-BP-E4, hold back area.

FCAW welding of weld joint SEG074B-022; located at Trial assembly yard. Welder is identified as 047353; ZPMC Quality Control Inspector (QC) is identified as An Qing Xiang. The welding variables recorded by Quality Control Inspector (QC) appeared to comply with the Applicable WPS: WPS-B-T-2132-ESAB.

Trial assembly yard, 11EE-12AE, SP-C5, T-rib hold back area.

SMAW welding of weld joint SP357-001-027, 028; located at Trial assembly yard. Welder is identified as 044515; ZPMC Quality Control Inspector (QC) is identified as An Qing Xiang. The welding variables recorded by Quality Control Inspector (QC) appeared to comply with the Applicable WPS: WPS-B-P-2112-FCM-1.

Trial assembly yard, 11EE-12AE, SP-C4, I-rib hold back area.

SMAW welding of weld joint SP718-001-021, 022; located at Trial assembly yard. Welder is identified as 050289; ZPMC Quality Control Inspector (QC) is identified as An Qing Xiang. The welding variables recorded by Quality Control Inspector (QC) appeared to comply with the Applicable WPS: WPS-B-P-2112-FCM-1.

Trial assembly yard, 11EW-12AW, Deck panel I-rib Hold back area.

SMAW welding of weld joint DP695-001-013, DP3039-001-012; located at Trial assembly yard. Welder is identified as 057333; ZPMC Quality Control Inspector (QC) is identified as Wang Li Yang. The welding variables

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recorded by Quality Control Inspector (QC) appeared to comply with the Applicable WPS: WPS-B-T-4114-1.

Trial assembly yard, 12AW, Bottom plate to longitudinal diaphragm.

During Random Visual in-process Inspection, this QA inspector observed fit-up of longitudinal diaphragm at intersection of OBG segment 11EE-11AE. Welder observed tack welding using Shielded metal arc welding (SMAW). Welder is identified as 218707; ZPMC Quality Control Inspector (QC) is identified as Zhu Yuan Yuan. The welding variables recorded by Quality Control Inspector (QC) appeared to comply with the Applicable WPS: WPS-B-P-2112-FCM-1. The attached photographs provide additional detail.

This QA Inspector carried out NDE on following

Trail assembly yard, 11CE-11DE.

This QA Inspector performed verification Ultrasonic Testing (ABF Request No: 12032010-1) in accordance with ABF/CT Pattern "D" UT Procedure 001 Revision 1. All recordable Indications if found were recorded on a separate data sheet that Caltrans QA generates after performing a joint inspection with ABF ultrasonic testing personnel. The location of the inspection was identified as weld between Bottom panel & Side panel at the transverse splice between OBG segment 11CE-11DE. The weld designations were as;

- 1) SEG070A-011. (11CE-11DE, BP-SP-E4, Hold back area);
- 2) SEG072A-021. (11CE-11DE, BP-SP-E4, Hold back area).

Trail assembly yard, 11CW-11DW.

This QA Inspector performed verification Ultrasonic Testing (ABF Request No: 12032010-1) in accordance with ABF/CT Pattern "D" UT Procedure 001 Revision 1. All recordable Indications if found were recorded on a separate data sheet that Caltrans QA generates after performing a joint inspection with ABF ultrasonic testing personnel. The location of the inspection was identified as weld between Bottom panel & Side panel at the transverse splice between OBG segment 11CW-11DW. The weld designations were as;

- 1) SEG071A-044. (11CW-11DW, BP-SP-W3, Hold back area);
- 2) SEG073A-013. (11CW-11DW, BP-SP-W3, Hold back area).

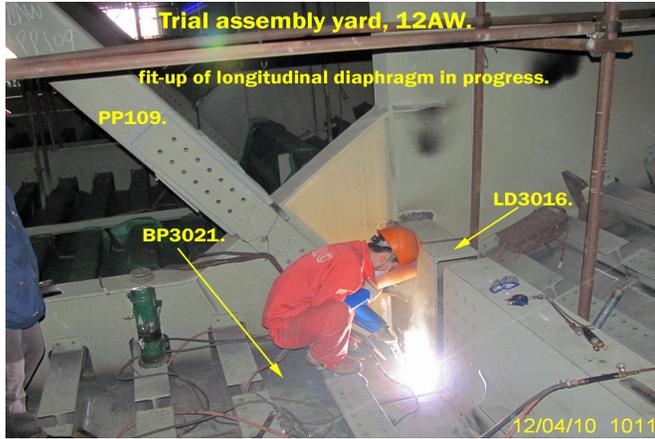
Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

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## Summary of Conversations:

No 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, 1500.042.2372, who represents the Office of Structural Materials for your project.

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**Inspected By:** Juvekar,Amit

Quality Assurance Inspector

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**Reviewed By:** Dsouza,Christopher

QA Reviewer