

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:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-015733**Date Inspected:** 14-Jul-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: Gao Zhi Chun
Inspected CWI report: Yes No N/A
Electrode to specification: Yes No N/A
Qualified Welders: Yes No N/A
Approved Drawings: Yes No N/A

CWI Present: Yes No
Rod Oven in Use: Yes No N/A
Weld Procedures Followed: Yes No N/A
Verified Joint Fit-up: Yes No N/A
Approved WPS: Yes No N/A
Delayed / Cancelled: Yes No N/A

Bridge No: 34-0006**Component:** Tower & OBG Components**Summary of Items Observed:**

On this date Caltrans Office of Structural Materials Quality Assurance Inspector, Sandeep Kumar (QA) was present during the times noted above for observations relative to the work being performed.

TOWER JETTY**MEASUREMENTS ON VERTICAL TRIAL ASSEMBLY WEST TOWER LIFT-2&3**

This QA Inspector carried out the dimensional verification on West Tower lift-2 & 3 to check the misalignment and gap between the interior splice plates and longitudinal stiffeners of skin 'A', 'B', 'C', 'D' & 'E'.

Measurements were recorded on the data sheet and submitted to the assigned task leader.

This QA Inspector observed the following work not in compliance:

Description of Incident:

During the dimensional verification of longitudinal stiffener (Skin) assembly with the Splice plate stiffener of west tower lift-2/3, Quality Assurance Inspector's (QA) Sandeep Kumar and Anand Upadhye discovered the following issue:

- At the lower end of the splice plate stiffeners to longitudinal stiffeners, Misalignment and at the upper end, Gap was found more than the permissible limit as per the contract documents.
- Lift-2 Skin 'C' 2nd longitudinal stiffener (From skin 'B') Misalignment – 6mm

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- Lift-2 Skin 'D' 3rd longitudinal stiffener (From skin 'C') Misalignment – 5mm
- Lift-3 Skin 'E' 1st longitudinal stiffener (From skin 'D') Gap – 11.5mm
- Shim plates were installed at the misaligned locations

Applicable reference:

As per approved “Dimensional Control Procedure”

This QA notified ZPMC CWI identified as Mr. Zhu Feng and ABF inspector identified as Mr. Bi Dewei of the above issue and that an incident report will be generated.

For further information see below pictures:-

BAY#10

This QA Inspector observed the following work in progress

Shielded Metal Arc Welding (SMAW):

Weld joint # 21A located on North tower Lift-5 NSD1 – TL5 – 3F/F. Welder is identified as 057220. ZPMC Quality Control (QC) Inspector is identified as Yu Zhi Lai. The welding variables recorded by QC appeared to comply with the WPS – B – T – 3213 – TC – U5b.

Weld joint # 21B located on North tower Lift-5 NSD1 – TL5 – 3B/F. Welder is identified as 052930. ZPMC Quality Control (QC) Inspector is identified as Yu Zhi Lai. The welding variables recorded by QC appeared to comply with the WPS – B – T – 3213 – TC – U5b.

BAY#11

This QA Inspector observed the following work in progress

Shielded Metal Arc Welding (SMAW):

Weld joint # 2A located on Lift-5 Splice Plate Stiffener WSD1 – SPSA5 – 20. Welder is identified as 040667. ZPMC Quality Control (QC) Inspector is identified as Li Bin. The welding variables recorded by QC appeared to comply with the WPS – B – T – 3211 – Tc – U5b – 1.

Weld joint #1B located on Lift-5 Splice Plate Stiffener ESD1 – SPSA5 – 12. Welder is identified as 040614. ZPMC Quality Control (QC) Inspector is identified as Li Bin. The welding variables recorded by QC appeared to comply with the WPS – B – T – 3211 – Tc – U5b – 1.

Weld joint # 2B located on Lift-5 Splice Plate Stiffener WSD1 – SPSA5 – 7. Welder is identified as 040656. ZPMC Quality Control (QC) Inspector is identified as Li Bin. The welding variables recorded by QC appeared to comply with the WPS – B – T – 3211 – Tc – U5b – 1.

ORTHOTROPIC BOX GIRDER (OBG) LIFT-13 AT BAY#10 &11

This QA Inspector observed the following work not in compliance:

Description of Incident:

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During the Caltrans Quality Assurance in-process observations of the fabrication of Side Plate and Edge Plate of Lift 13, these Quality Assurance Inspectors (QA's) discovered the following issue:

-ZPMC personnel have wrapped the fillet welds around the ends of the I-rib stiffeners on Side plate and Edge plates.

-The affected members are identified as follows:

- 1) Side Plate SP3069-001, this member joined with two web plates PL3249A {Non-SPCM} and PL3249B {Seismic Performance Critical Member (SPCM)}. Welds#1~8 on PL3249A and Welds#9~44 on PL3249B located at fabrication Bay#10.
- 2) Edge Plate EP3023-001, Welds#3~6 and 15~18 located at fabrication Bay#11.
- 3) Side Plate SP3081-001, Welds#3; 4; 15; 16; 21; 22; 31~34 located at fabrication Bay#11. The member found to be Seismic Performance Critical Member (SPCM).

Applicable reference:

ABF-RFI-001786R00 dated June 12, 2009: ...terminate welds in accordance with the contract plans and the approved shop drawings.

General Notes GN3 Detail WT1: specifies terminating the weld 6mm from the end of the joint.

This QA notified ZPMC QC's identified as Mr. Sun Tian Liang/Mr. Ma Qian Li and ABF inspector identified as Mr. Shen Jian of the above issue and that an incident report will be generated.

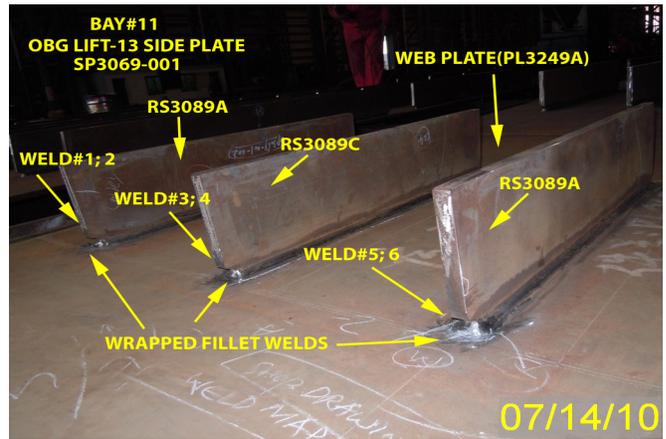
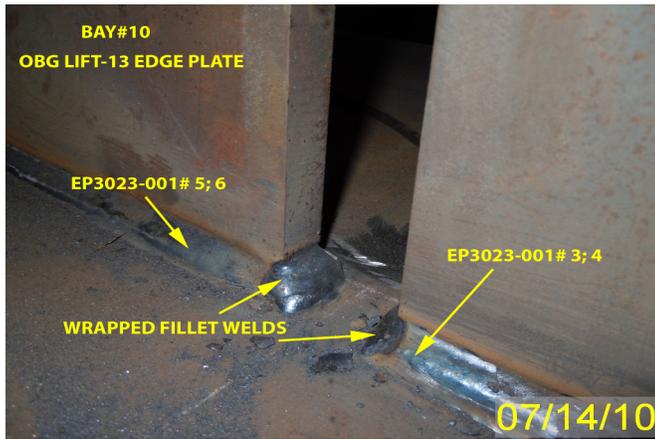
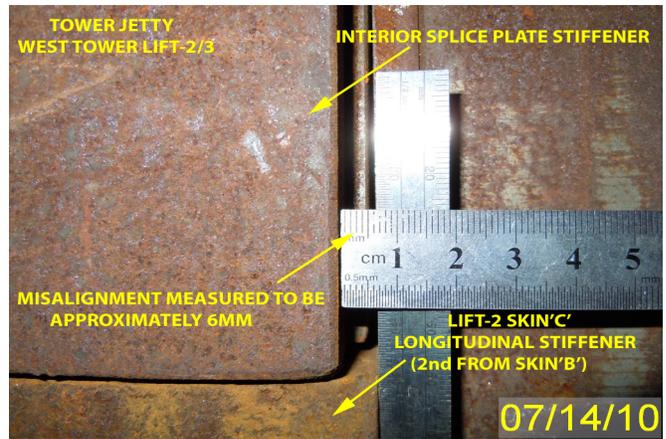
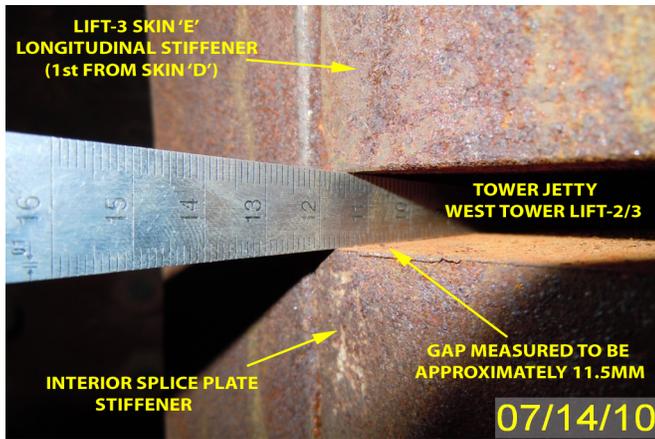
For further information see below pictures:-

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 Michael Ng - 15921845703, who represents the Office of Structural Materials for your project.

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Inspected By:	Kumar,Sandeep	Quality Assurance Inspector
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Reviewed By:	Clifford,William	QA Reviewer
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