

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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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-022220**Date Inspected:** 30-Mar-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:** Li Yang and Zhu Zhong Hai**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 Trial Assembly**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector Mr. S. Manjunath Math was present during the time noted above for observations relative to the work being performed.

This QA Inspector randomly observed the following work in progress:

Orthotropic Box Girder (OBG) at Trial Assembly Areas

Segment 12AW (Triangular Plate)

This QA Inspector witnessed final bolt tension verification on bolts connecting triangular plate connecting the stiffeners of Floor Beam and full height Longitudinal Diaphragm at elevations 1772 mm and at 3332mm from Bottom Panel at work point W4 (Cross Beam side) and at work point W3 (Counter Weight side) at Panel Points (PP) 115.5 (east side), PP 112 (east and west side), 112.5 (east and west side) for Segment 12AW. Inspected the bolt tensioning on a random basis and found the tension to be in general compliance. Inspection was performed against the Notification No. 00634 Dated Mar 30, 2011.

The bolt sizes used were M22 x 80 RC Lot # DHGM220118 and the final torque value established was 467 N-m.

The bolt sizes used were M22 x 85 RC Lot # DHGM220121 and the final torque value established was 393 N-m.

The Manual Torque wrench used was Serial No. XO2-777.

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Please reference the pictures attached for more comprehensive details.

Segment 12AW(Service Platform Anchor Bracket)

This QA Inspector observed the in-process welding by Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) weld. The weld joint was designated as Seg3004AD-006. The welder identification was 046709 and was observed welding in the 4G (Overhead) position using approved Welding Procedure Specification WPS-B-P-2214-Tc-U4b-FCM-1. The piece mark was identified as Service Platform Anchor Bracket welded at Edge Panel at PP 109.5, Cross Beam side.

Please reference the pictures attached for more comprehensive details.

Segment 13AE (Deck Panel to Edge Panel)

This QA Inspector observed the repair welding by Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) weld. The Weld joint was designated as Seg3007AB-095. The welder identification was 200113 and observed welding in the 4G (Overhead) position using approved Welding Procedure Specification WPS-345-SMAW-4G(4F)- FCM- Repair-1. The piece mark was identified as the weld connecting the Deck Panel to Edge Panel at Cross Beam side. ZPMC performed repair welding in accordance with Welding Repair Report B-WR20486.

Segment 13AE (Side Panel to Floor Beam)

This QA Inspector observed the in-process welding by Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) weld. The Weld joint was designated as Seg3007AD-134. The welder identification was 067183 and observed welding in the 4G (Overhead) position using approved Welding Procedure Specification WPS-B-P-2214-Tc-U4b-FCM-1. The piece mark was identified as the weld connecting the Side Panel to Floor Beam at PP 119(+1500mm).

Segment 13AW (Edge Panel I- Stiffener)

This QA Inspector observed the in-process welding by Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) weld. The Weld joint was designated as Seg3013Q-086. The welder identification was 069683 and observed welding in the 4G (Overhead) position using approved Welding Procedure Specification WPS-B-P-2214-Tc-U4b-FCM-1. The piece mark was identified as the weld connecting the Edge Panel I-Stiffener at Cross Beam side.

Segment 13AW (Bottom Panel I- Stiffener)

This QA Inspector observed the in-process welding by Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) weld. The Weld joint was designated as Seg3013Q-086. The welder identification was 048433 and observed welding in the 3G (Vertical) position using approved Welding Procedure Specification WPS-B-T-2233-ESAB. The piece mark was identified as the weld connecting the Bottom Panel

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I-Stiffener at Cross Beam side between work point E4 and work point E14.

Segment 13AW (Side Panel to Floor Beam)

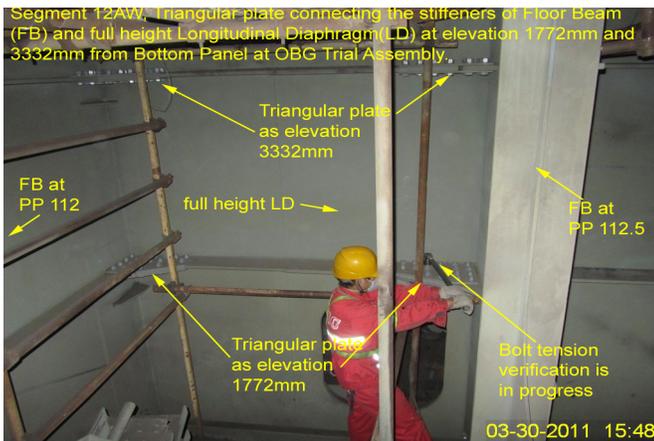
This QA Inspector observed the repair welding by Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) weld. The Weld joint was designated as Seg3013AD-035. The welder identification was 070432 and observed welding in the 3G (Vertical) position using approved Welding Procedure Specification WPS-345-SMAW-3G(3F)- FCM- Repair-1. The piece mark was identified as the weld connecting the Side Panel to Floor Beam at Cross Beam side. ZPMC performed repair welding in accordance with Welding Repair Report B-WR20534.

OBG Cantilever Box Bracket (BK15A)

This QA Inspector observed the in-process welding by Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) weld. The welder identification was 040270 and observed welding in the 3G (Vertical) position using approved Welding Procedure Specification WPS-B-P-2213-B-U2-FCM-1. The piece mark was identified as the weld connecting the lifting lug 4 (pieces) welded to the Cantilever Box Bracket # BK15A (which will be installed at PP 113 at Segment 12AE, Bike Path side).

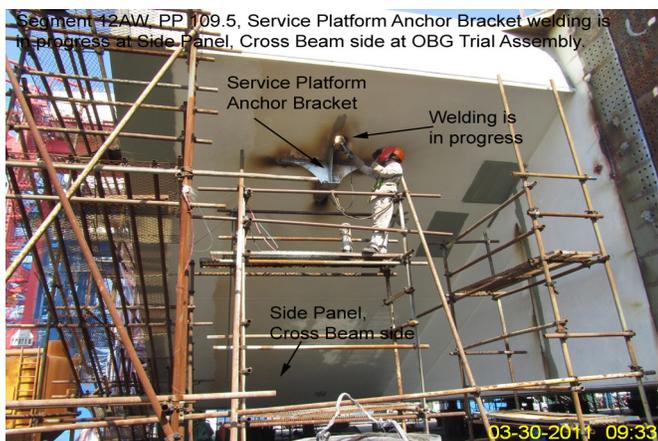
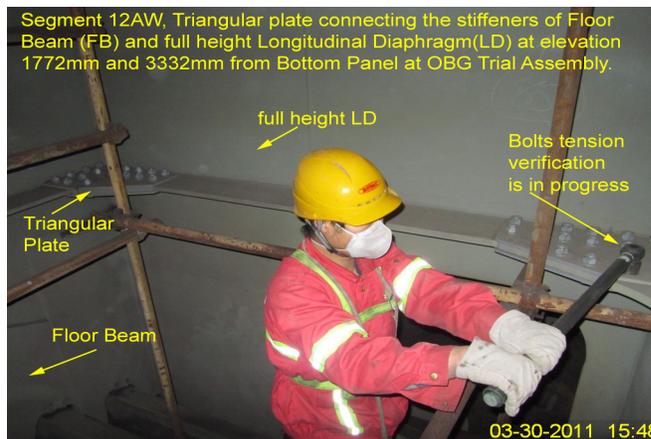
Please reference the pictures attached for more comprehensive details.

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 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.

Inspected By: Math,Manjunath

Quality Assurance Inspector

Reviewed By: Miller,Mark

QA Reviewer