

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-015554**Date Inspected:** 12-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:	Li Yang and Wu Zhi Cheng	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) Trial Assembly Areas

Incident Report for Counter Weight

This Quality Assurance (QA) Inspector wrote an Incident Report for impact damaged caused to Light Bracket at Counter Weight # CW-001-080 for Segment 9DW. Please refer the Incident Report # 04-0120F4_TL-15_B278_07-12-2010_Counter Weight_Light Bracket_Impact Damage dated July 12, 2010.

Please reference the pictures attached for more comprehensive details.

Segment 8AE to Segment 8BE

This QA Inspector witnessed the final bolt tension verification on bolts connecting the Longitudinal Diaphragm to Longitudinal Diaphragm between Panel Points (PP) 64 and PP 65 for Segment 8AE to Segment 8BE at Cross Beam and Bike Path side. The QA Inspector verified the bolt tension on a random basis and the results appeared to be in general compliance. The Inspection was performed against Notification No. 00419 dated July 12, 2010.

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The bolt sizes used were M24 x 70 RC Lot # DHGM240003 and the final torque value established was 543 N-m.

The bolt sizes used were M24 x 95 RC Lot # DHGM240021 and the final torque value established was 540 N-m.

The manual torque wrench used to verify tension was S/N XO2-666. Please reference the pictures attached for more comprehensive details.

Segment 8AE

This QA Inspector witnessed the final bolt tension verification on bolts connecting the Partial Height Diaphragm flange to the Side Panel at Panel Points (PP) 62, PP 63 and PP 64 for Segment 8AE. The QA Inspector verified the bolt tension on a random basis and the results appeared to be in general compliance. The Inspection was performed against Notification No. 00419 dated July 12, 2010.

The bolt sizes used were M22 x 65 RC Lot # DHGM240013 and the final torque value established was 540 N-m.

The manual torque wrench used to verify tension was S/N XO2-666. Please reference the pictures attached for more comprehensive details.

Segment 8CE

This QA Inspector witnessed the final bolt tension verification on bolts connecting the Partial Height Diaphragm flange to the Side Panel at Panel Points (PP) 68, PP 69 and PP 70 for Segment 8CE. The QA Inspector verified the bolt tension on a random basis and the results appeared to be in general compliance. The Inspection was performed against Notification No. 00419 dated July 12, 2010.

The bolt sizes used were M22 x 65 RC Lot # DHGM240013 and the final torque value established was 540 N-m.

The manual torque wrench used to verify tension was S/N XO2-666.

Segment 9CE to Segment 9DE

This QA Inspector observed the in-process welding by Flux Cored Arc Welding (FCAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as SP347-001-044, SP347-001-046, SP347-001-048, SP347-001-050, SP347-001-052 and SP347-001-054. The welder identification was 068493 and was observed welding in the 4G (Overhead) position using approved Welding Procedure Specification WPS-B-T-2234-B-U2-F. The piece mark was identified as T-Rib to T-Rib web at Side Panel Bike Path side.

Segment 9CE to Segment 9DE

This QA Inspector observed the in-process welding by Flux Cored Arc Welding (FCAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as SP374-001-044, SP374-001-046, SP374-001-048, SP374-001-050, SP374-001-052 and SP374-001-054. The welder identification was 068493 and

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was observed welding in the 4G (Overhead) position using approved Welding Procedure Specification WPS-B-T-2234-B-U2-F. The piece mark was identified as T-Rib to T-Rib web at Side Panel Bike Path side.

Segment 9CE to Segment 9DE

This QA Inspector observed the in-process welding by Flux Cored Arc Welding (FCAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as SP320-001-051, SP320-001-053, SP320-001-055, SP320-001-057, SP320-001-059 and SP320-001-063. The welder identification was 068493 and was observed welding in the 4G (Overhead) position using approved Welding Procedure Specification WPS-B-T-2234-B-U2-F. The piece mark was identified as T-Rib to T-Rib web at Side Panel Bike Path side.

Segment 9CE to Segment 9DE

This QA Inspector observed the in-process welding by Flux Cored Arc Welding (FCAW) process on a Complete Joint Penetration (CJP) groove weld. The weld joint was designated as SP708-001-031, SP708-001-032, SP708-001-033, SP708-001-034 and SP708-001-035. The welder identification was 037907 and was observed welding in the 4G (Overhead) position using approved Welding Procedure Specification WPS-B-T-2234-B-U2-F. The piece mark was identified as I-Rib to I-Rib web at Side Panel Corner Assembly Bike Path side.

Segment 9BE

This QA Inspector observed the repair welding by Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as Seg052C-043 and Seg052C-057. The welder identification was 054467 and observed welding in the 2G (Horizontal) and 3G (Vertical) position using approved Welding Procedure Specification WPS-345-SMAW-2G (2F)-FCM-Repair-1 and WPS-345-SMAW-2G (2F)-FCM-Repair-1. The piece mark was identified as Longitudinal Diaphragm web, Bike Path side. ZPMC performed repair welding in accordance with BWR-13969 Rev.0.

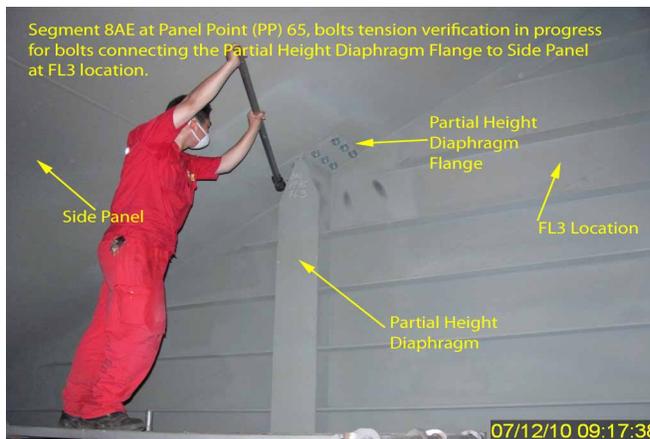
Segment 9BE

This QA Inspector observed the repair welding by Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as Seg052B-043 and Seg052B-057. The welder identification was 054467 and observed welding in the 2G (Horizontal) and 3G (Vertical) position using approved Welding Procedure Specification WPS-345-SMAW-2G (2F)-FCM-Repair-1 and WPS-345-SMAW-2G (2F)-FCM-Repair-1. The piece mark was identified as Longitudinal Diaphragm web, Cross Beam side. ZPMC performed repair welding in accordance with BWR-13969 Rev.0.

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 T Sang 1500-0042-2372, who represents the Office of Structural Materials for your project.

Inspected By: Math,Manjunath

Quality Assurance Inspector

Reviewed By: Peterson,Art

QA Reviewer