

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:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-015654**Date Inspected:** 16-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 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) Trial Assembly Areas

Incident Report for Segment 9BW

This Quality Assurance (QA) Inspector wrote an Incident Report for bend Side Panel T-Rib web for Segment 9BW at Panel Points (PP) 76. Please refer the Incident Report # 04-0120F4_TL-15_B278_07-16-2010_9BW_Side Panel_T-Rib_Counter Weight_Impact Damage dated July 16, 2010.

Please reference the pictures attached for more comprehensive details

Segment 7BE

This QA Inspector witnessed the final bolt tension verification on bolts connecting the Handrail to Fiber Glass Grating between Panel Points (PP) 50 and PP 51 for Segment 7BE at Bottom Panel and Side Panel Cross Beam at FL3 area. 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. 00427 dated July 16, 2010.

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The bolt sizes used were M16 x 95 RC Lot # DHGM160036 and the final torque value established was Snug Tight.

A spanner wrench was used to verify the snug tight condition.

Segment 7DE

This QA Inspector witnessed the final bolt tension verification on bolts connecting the Handrail to Fiber Glass Grating between Panel Points (PP) 56 and PP 57 for Segment 7DE at Bottom Panel and Side Panel Cross Beam at FL3 area. 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. 00427 dated July 16, 2010.

The bolt sizes used were M16 x 95 RC Lot # DHGM160036 and the final torque value established was Snug Tight.

A spanner wrench was used to verify the snug tight condition.

Segment 9DE to Segment 9EE

This QA Inspector observed the in-process welding by Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) groove weld. The weld joint was designated as DP700-001-019. The welder identification was 066258 and was observed welding in the 3G (Vertical) position using approved Welding Procedure Specification WPS-B-T-3213-B-U3b. The Piece Mark was identified as the Deck Panel I-Ribs.

Segment 9DE to Segment 9EE

This QA Inspector observed the in-process welding by Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) groove weld. The weld joint was designated as DP700-001-020. The welder identification was 066258 and was observed welding in the 3G (Vertical) position using approved Welding Procedure Specification WPS-B-T-3213-B-U3b. The Piece Mark was identified as the Deck Panel I-Ribs.

Segment 9DE to Segment 9EE

This QA Inspector observed the in-process welding by Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) groove weld. The weld joint was designated as DP700-001-021. The welder identification was 066258 and was observed welding in the 3G (Vertical) position using approved Welding Procedure Specification WPS-B-T-3213-B-U3b. The Piece Mark was identified as the Deck Panel I-Ribs.

Segment 9DE to Segment 9EE

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 SP692-001-056, SP692-001-057, SP692-001-058, SP692-001-059 and SP692-001-060. The welder identification was 068493 and was observed

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welding in the 3G (Vertical) position using approved Welding Procedure Specification WPS-B-T-2233T. The Piece Mark was identified as the Side Panel Corner Assembly I-Ribs.

Segment 9BW to Segment 9CW

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 OBW9B-007. The welder identification was 066443 and 066683 and was observed welding in the 3G (Vertical) position using approved Welding Procedure Specification WPS-B-T-2233T-1. The Piece Mark was identified as the Side Panel Counter Weight side.

Segment 9BW to Segment 9CW

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 OBW9B-009. The welder identification was 066239 and 066673 and was observed welding in the 3G (Vertical) position using approved Welding Procedure Specification WPS-B-T-2233T-1. The Piece Mark was identified as the Side Panel Counter Weight side.

Segment 9BW to Segment 9CW

This QA Inspector observed the in-process welding by Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) groove weld. The weld joint was designated as OBW9-006. The welder identification was 045196 and was observed welding in the 4G (Overhead) position using approved Welding Procedure Specification WPS-B-P-2214-B-U2-FCM-1. The Piece Mark was identified as the Edge Panel Counter Weight side.

Segment 9BW to Segment 9CW

This QA Inspector observed the in-process welding by Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) groove weld. The weld joint was designated as OBW9-010. The welder identification was 066326 and was observed welding in the 4G (Overhead) position using approved Welding Procedure Specification WPS-B-P-2214-B-U2-FCM-1. The Piece Mark was identified as the Edge Panel Cross Beam side.

Segment 9CW

This QA Inspector observed that the ZPMC personnel were cutting the Bottom Panel using the mechanical guided flame cutting torch on the pre-scribed lines for Segment 9CW at Panel Point (PP) 79. Please reference the pictures attached for more comprehensive details. Please reference the pictures attached for more comprehensive details

Segment 9DW

This QA Inspector observed that the ZPMC personnel were cutting the Bottom Panel T-Rib web for bevel

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preparation using the manual flame cutting torch for Segment 9DW at Panel Point (PP) 80. Please reference the pictures attached for more comprehensive details. A RFI was approved to allow free hand cutting for a length up to 300mm.

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



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 150000422372, who represents the Office of Structural Materials for your project.

Inspected By: Math,Manjunath

Quality Assurance Inspector

Reviewed By: Peterson,Art

QA Reviewer