

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-013118**Date Inspected:** 18-Apr-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:****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, 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

Segment 7AE to 7BE (Longitudinal Diaphragm)

This Quality Assurance (QA) Inspector witnessed final tension verification for Bolts Installed at Longitudinal Diaphragm to Longitudinal Diaphragm at E3 and E4 (North and South side) at Panel Point (PP) 49 and PP 50 for Segment 7AE to 7BE. Inspected 10% on a random basis and found the Rotation of Nut to be in general compliance. Inspection was performed against the Notification No. 00322 Dated April 18, 2010.

Bolt sizes used were M24 x 70 RC Set# DHGM240003 and final torque required was 543 N-m and

Bolt sizes used were M24 x 95 RC Set# DHGM240021 and final torque required was 540 N-m.

Manual Torque wrench was been used with Sr. No. XO2-666.

Segment 7BE (Side Panel T-Ribs at FL3 Location)

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This Quality Assurance (QA) Inspector witnessed final tension verification for Side Panel T-Ribs Cross Beam side between Panel Point (PP) 50 to PP 50.5, PP 51 to PP 51.5 and PP 51.5 to PP 52 for Segment 7BE. Inspected 10% on a random basis and found the tension to be in general compliance. Inspection was performed against the Notification No. 00322 Dated April 18, 2010.

The Vertical Offset dimension Type A measured and recorded after bolts tensioning and found all are within tolerance except the following locations.

Between PP 50 to PP 50.5

16th and 19th T-Rib (Vertical Offset measured as 4.6mm and 4.7mm)

At PP 51 to 51.5

19th (Vertical Offset measured as 5mm)

At PP 51.5 to 52

10th, 11th, 12th, 13th, 17th, 18th and 19th (Vertical Offset measured as 5mm, 6.5mm, 5.5mm, 5mm, 6mm, 6.5mm and 5mm)

Bolt sizes used were M22 x 65 RC Set# DHGM220018 and final torque required was 447 N-m and

Bolt sizes used were M22 x 70 RC Set# DHGM and final torque required was N-m.

Manual Torque wrench was been used with Sr. No. XQ2-666.

Note: Above mentioned locations out of dimension tolerance areas T-Ribs bolts tension verifications not offered by ZPMC QC.

Segment 7DE (Side Panel T-Ribs at FL3 Location)

This Quality Assurance (QA) Inspector witnessed final tension verification for Side Panel T-Ribs Cross Beam side between Panel Point (PP) 56 to PP 56.5, PP 57 to PP 57.5 and PP 57.5 to PP 58 for Segment 7DE. Inspected 10% on a random basis and found the tension to be in general compliance. Inspection was performed against the Notification No. 00322 Dated April 18, 2010.

The Vertical Offset dimension Type A measured and recorded after bolts tensioning and found all are within tolerance except the following locations.

Between PP 56 to PP 56.5

13th (Vertical Offset measured as 4.5mm)

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At PP 57.5 to 58

1st, 3rd, 4th, 5th, 6th, 8th, 9th, 10th,, 11th, 12th, 13th, 14th, 15th, 18th and 19th (Vertical Offset measured as 2.6mm, 4.2mm, 4.8mm, 5.2mm, 4.8mm, 5.8mm, 5.8mm, 7.5mm, 7.6mm, 7.6mm, 5.4mm, 5.7mm, 5.9mm, 4.7mm and 5mm)

Bolt sizes used were M22 x 65 RC Set# DHGM220018 and final torque required was 447 N-m and

Bolt sizes used were M22 x 70 RC Set# DHGM and final torque required was N-m.

Manual Torque wrench was been used with Sr. No. XQ2-666.

Note: Above mentioned locations out of dimension tolerance areas T-Ribs bolts tension verifications not offered by ZPMC QC.

Segment 7DW

This QA Inspector performed Inspection along with Caltrans QA Mr. Manikandan for the following Segment 7DW from Panel Point (PP) 56, PP 57 and PP 58 for the following items.

Deck Panel Diaphragm to Deck Panel Plumbness and Flatness measured from the East side and the recorded measurements submitted to lead as well to the engineer for further action.

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

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

Inspected By:	Math,Manjunath	Quality Assurance Inspector
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Reviewed By:	Miller,Mark	QA Reviewer
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