

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:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-022852**Date Inspected:** 22-Apr-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:	N/A	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 to Segment 12BW (Longitudinal Diaphragm to Longitudinal Diaphragm)

This QA Inspector witnessed the final bolt tension verification on bolts connecting the Deck Panel Diaphragm to full height Longitudinal Diaphragm, at Transverse splice at elevation 4750mm, between Panel Points (PP) 112.5 and PP 113 for Segment 12AW to Segment 12BW at work point W3, Counter Weight side and work point W4 Cross Beam 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. 00660 dated April 22, 2011.

The bolt sizes used were M24 x 75 RC Lot # DHGM240020 and the final torque value established was 600 N-m.

The bolt sizes used were M24 x 100 RC Lot # DHGM240022 and the final torque value established was 527 N-m.

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

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Segment 12BW to Segment 12CW (Longitudinal Diaphragm to Longitudinal Diaphragm)

This QA Inspector witnessed the final bolt tension verification on bolts connecting the Deck Panel Diaphragm to full height Longitudinal Diaphragm, at Transverse splice at elevation 4750mm, between Panel Points (PP) 114.5 and PP 115 for Segment 12BW to Segment 12CW at work point W3, Counter Weight side and work point W4 Cross Beam 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. 00660 dated April 22, 2011.

The bolt sizes used were M24 x 75 RC Lot # DHGM240020 and the final torque value established was 600 N-m.

The bolt sizes used were M24 x 100 RC Lot # DHGM240022 and the final torque value established was 527 N-m.

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

Segment 12AW to Segment 12BW (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) 112.5 (east side) and PP 113 (west side) for Segment 12AW to Segment 12BW. Inspected the bolt tensioning on a random basis and found the tension to be in general compliance. Inspection was performed against the Notification No. 00660 dated April 22, 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 90 RC Lot # DHGM220048 and the final torque value established was 500 N-m.

The bolt sizes used were M24 x 90 RC Lot # DHGM240028 and the final torque value established was 467 N-m.

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

Please reference the pictures attached for more comprehensive details.

Segment 12BW to Segment 12CW (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) 114.5 (east side) and PP 115 (west side) for Segment 12BW to Segment 12CW. Inspected the bolt tensioning on a random basis and found the tension to be in general compliance. Inspection was performed against the Notification No. 00660 dated April 22, 2011.

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

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The bolt sizes used were M22 x 90 RC Lot # DHGM220048 and the final torque value established was 500 N-m.

The bolt sizes used were M24 x 90 RC Lot # DHGM240028 and the final torque value established was 467 N-m.

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

Please reference the pictures attached for more comprehensive details.

Segment 12AE to Segment 12BE (Longitudinal Diaphragm to Longitudinal Diaphragm)

This QA Inspector witnessed the final bolt tension verification on bolts connecting the Deck Panel Diaphragm to full height Longitudinal Diaphragm, at Transverse splice at elevation 4750mm, between Panel Points (PP) 112.5 and PP 113 for Segment 12AE to Segment 12BE at work point E3, Bike Path side and work point E4 Cross Beam 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. 00661 dated April 22, 2011.

The bolt sizes used were M24 x 75 RC Lot # DHGM240020 and the final torque value established was 600 N-m.

The bolt sizes used were M24 x 100 RC Lot # DHGM240022 and the final torque value established was 527 N-m.

The Manual Torque wrench used was Serial No. XO2-666.

Please reference the pictures attached for more comprehensive details.

Segment 12BE to Segment 12CE (Longitudinal Diaphragm to Longitudinal Diaphragm)

This QA Inspector witnessed the final bolt tension verification on bolts connecting the Deck Panel Diaphragm to full height Longitudinal Diaphragm, at Transverse splice at elevation 4750mm, between Panel Points (PP) 112.5 and PP 113 for Segment 12BE to Segment 12CE at work point E3, Bike Path side and work point E4 Cross Beam 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. 00661 dated April 22, 2011.

The bolt sizes used were M24 x 75 RC Lot # DHGM240020 and the final torque value established was 600 N-m.

The bolt sizes used were M24 x 100 RC Lot # DHGM240022 and the final torque value established was 527 N-m.

The Manual Torque wrench used was Serial No. XO2-666.

Please reference the pictures attached for more comprehensive details.

Segment 12AE to Segment 12BE (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

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Bottom Panel at work point E4 (Cross Beam side) and at work point E3 (Bike Path side) at Panel Points (PP) 112.5 (east side) and PP 113 (west side) for Segment 12AE to Segment 12BE. Inspected the bolt tensioning on a random basis and found the tension to be in general compliance. Inspection was performed against the Notification No. 00661 dated April 22, 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 90 RC Lot # DHGM220048 and the final torque value established was 500 N-m.

The bolt sizes used were M24 x 90 RC Lot # DHGM240028 and the final torque value established was 467 N-m.

The Manual Torque wrench used was Serial No. XO2-666.

Segment 12BE to Segment 12CE (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 E4 (Cross Beam side) and at work point E3 (Bike Path side) at Panel Points (PP) 114.5 (east side) and PP 115 (west side) for Segment 12BE to Segment 12CE. Inspected the bolt tensioning on a random basis and found the tension to be in general compliance. Inspection was performed against the Notification No. 00661 dated April 22, 2011.

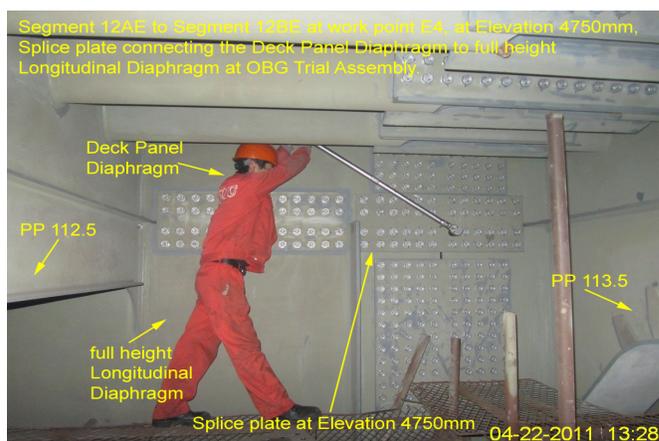
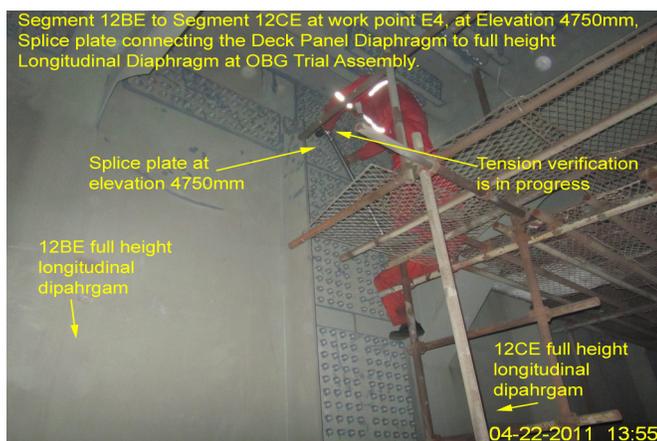
The bolt sizes used were M22 x 80 RC Lot # DHGM220118 and the final torque value established was 467 N-m.

The bolt sizes used were M22 x 90 RC Lot # DHGM220048 and the final torque value established was 500 N-m.

The bolt sizes used were M24 x 90 RC Lot # DHGM240028 and the final torque value established was 467 N-m.

The Manual Torque wrench used was Serial No. XO2-666.

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
