

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 #: 99.28**WELDING INSPECTION REPORT****Resident Engineer:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-017596**Date Inspected:** 25-Oct-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)**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 11AW (Lower Chevron)

This Quality Assurance (QA) Inspector witnessed final bolt tension verification for Lower Chevron, X3D Bracket, H-Beam to Floor Beam and Upper Chevron at Panel Point (PP) 95, PP 96 and PP 97 for Segment 11AW at Counter Weight side and Cross Beam side. Inspected 10% on a random basis and found the tension to be in general compliance. Inspection was performed against the Notification No. 00523 Dated October 25, 2010.

Bolt sizes used were M22 x 65 RC Set# DHGM220105 and final torque required was 690 N-m.

Bolt sizes used were M22 x 70 RC Set# DHGM220038 and final torque required was 480 N-m.

Bolt sizes used were M22 x 75 RC Set# DHGM220034 and final torque required was 453 N-m.

Bolt sizes used were M22 x 80 RC Set# DHGM220094 and final torque required was 470 N-m.

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The Manual Torque wrench used was Serial No. XO2-676. Please reference the pictures attached for more comprehensive details.

Segment 11AW (Lower Chevron)

This Quality Assurance (QA) Inspector witnessed final bolt tension verification for Lower Chevron, X3D Bracket, H-Beam to Floor Beam and Upper Chevron at Panel Point (PP) 95, PP 96 and PP 97 for Segment 11AW at Counter Weight side and Cross Beam side. Inspected 10% on a random basis and found the tension to be in general compliance. Inspection was performed against the Notification No. 00523 Dated October 25, 2010.

Bolt sizes used were M22 x 65 RC Set# DHGM220105 and final torque required was 690 N-m.

Bolt sizes used were M22 x 70 RC Set# DHGM220038 and final torque required was 480 N-m.

Bolt sizes used were M22 x 75 RC Set# DHGM220034 and final torque required was 453 N-m.

Bolt sizes used were M22 x 80 RC Set# DHGM220094 and final torque required was 470 N-m.

The Manual Torque wrench used was Serial No. XO2-676.

Segment 11BW (Lower Chevron)

This Quality Assurance (QA) Inspector witnessed final bolt tension verification for Lower Chevron, X3D Bracket, H-Beam to Floor Beam and Upper Chevron at Panel Point (PP) 98, PP 99 and PP 100 for Segment 11CW at Counter Weight side and Cross Beam side. Inspected 10% on a random basis and found the tension to be in general compliance. Inspection was performed against the Notification No. 00523 Dated October 25, 2010.

Bolt sizes used were M22 x 65 RC Set# DHGM220105 and final torque required was 690 N-m.

Bolt sizes used were M22 x 70 RC Set# DHGM220038 and final torque required was 480 N-m.

Bolt sizes used were M22 x 75 RC Set# DHGM220034 and final torque required was 453 N-m.

Bolt sizes used were M22 x 80 RC Set# DHGM220094 and final torque required was 470 N-m.

The Manual Torque wrench used was Serial No. XO2-779.

Segment 11CW (Connection Plates)

This QA Inspector witnessed the final bolt tension verification on bolts connecting the T-Rib connections plates at Side Panel (Counter Weight and Cross Beam side) and at Bottom Panel at the Panel Points (PP) 101, PP 102 and PP 103 for Segment 11CW. 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. 00523 dated October 25, 2010.

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The bolt sizes used were M16 x 45 RC Lot # DHGM160021 and the final torque value established was 180 N-m.

The bolt sizes used were M16 x 50 RC Lot # DHGM160003 and the final torque value established was 200 N-m.

The bolt sizes used were M16 x 65 RC Lot # DHGM160006 and the final torque value established was 180 N-m.

The Manual Torque wrench used was Serial No. XO2-676.

Segment 11DW (Connection Plates)

This QA Inspector witnessed the final bolt tension verification on bolts connecting the T-Rib connections plates at Side Panel (Counter Weight and Cross Beam side) and at Bottom Panel at the Panel Points (PP) 104, PP 105 and PP 106 for Segment 11DW. 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. 00523 dated October 25, 2010.

The bolt sizes used were M16 x 45 RC Lot # DHGM160021 and the final torque value established was 180 N-m.

The bolt sizes used were M16 x 50 RC Lot # DHGM160003 and the final torque value established was 200 N-m.

The bolt sizes used were M16 x 65 RC Lot # DHGM160006 and the final torque value established was 180 N-m.

The Manual Torque wrench used was Serial No. XO2-676.

Segment 12AE (U-Rib to U-Rib)

This QA Inspector performed Dimension Control Inspection for measuring offset along with ABF QA Inspector on the U-Rib to U-Rib from Cross Beam side towards Bike Path side at a total of 37 locations on Segment 12AE between Panel Points (PP) 112 to PP 112.5 at the following locations:

The offset was measured within 50mm from the Deck Panel on U-Rib on the South and North side. The QA Inspector measured the Offset using 1(One) Meter Straight Edge.

The measurements were recorded in the Dimension Control Plan (DCP) on a separate form and submitted to the Lead Inspector and Engineer for review and disposition.

Segment 12AW (U-Rib to U-Rib)

This QA Inspector performed Dimension Control Inspection for measuring offset along with ABF QA Inspector on the U-Rib to U-Rib from Cross Beam side towards Bike Path side at a total of 37 locations on Segment 12AW between Panel Points (PP) 112 to PP 112.5 at the following locations:

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The offset was measured within 50mm from the Deck Panel on U-Rib on the South and North side. The QA Inspector measured the Offset using 1(One) Meter Straight Edge.

The measurements were recorded in the Dimension Control Plan (DCP) on a separate form and submitted to the Lead Inspector and Engineer for review and disposition.

Bike Path at Bay # 19

This QA Inspector performed Dimension Control Inspection on the Bike Path bottom panel for flatness check for bike path and bike path are identified as following.

BK004A-002 dimension measured and recorded one location out of tolerance.

BK004A-005 dimension measured and recorded two locations out of tolerance.

BK006A-002 dimension measured and recorded five locations out of tolerance.

The QA Inspector measured the flatness using 1500mm long straight edge.

The results of the inspection were informed to Caltrans Lead Inspector Mr. Artur Peterson and ABF Mr. Peter Shaw.

Bike Path at Bay # 19

This QA Inspector performed Dimension Control Inspection on the Bike Path bottom panel for flatness check for bike path after heat straightening and bike path is identified as following.

BK004A-002 dimension measured and recorded with in tolerance.

The QA Inspector measured the flatness using 1500mm long straight edge.

The results of the inspection were informed to Caltrans Lead Inspector Mr. Artur Peterson and ABF Mr. Peter Shaw.

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

Inspected By: Math,Manjunath

Quality Assurance Inspector

Reviewed By: Peterson,Art

QA Reviewer