DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

Bay Area Branch
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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 99.28

WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-017227
Date Inspected: 05-Oct-2010

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC)

OSM Arrival Time: 700
OSM Departure Time: 1900
Location: Shanghai, China

CWI Name: Li Yang and Zhu Zhong Hai

Inspected CWI report:	☐ Yes	☐ No	☑ N/A	**CWI Present:**	☑ Yes	☐ No	
Electrode to specification:	☑ Yes	☐ No	☐ N/A	**Rod Oven in Use:**	☑ Yes	☐ No	☐ N/A
Qualified Welders:	☑ Yes	☐ No	☐ N/A	**Weld Procedures Followed:**	☑ Yes	☐ No	☐ N/A
Approved Drawings:	☑ Yes	☐ No	☐ N/A	**Verified Joint Fit-up:**	☐ 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

Anchorage Bearing Stiffeners at Machine Shop # 1(for Lift 14- East and West)

This QA Inspector performed Dimension Control Inspection to check and measure the Anchorage Bearing Stiffeners at machine shop # 1. The following dimensional inspection was performed.

The scribe line distances of anchor rod were measured.

The offset were measured from scribe line.

The vertical spacing between the bearing stiffeners at four locations were measured.

The vertical offset between bearing stiffeners at two locations were measured.

The QA Inspector verified the surface condition met the mill to bear condition at MTB1, MTB2 and MTB3

locations.

The Anchorage Bearing Stiffeners piece marks are identified below.

-Anchorage Bearing Stiffeners identified as SA3369B and top plate piece mark identified as X4747C.

-Anchorage Bearing Stiffeners identified as SA3428G and top plate piece mark identified as X5037R.

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 10AE (Catwalk)

This Quality Assurance (QA) Inspector witnessed final bolt tension verification for Catwalk structure which is connected to Bottom Panel T-Ribs between Panel Points (PP) 85.25 to PP 86, PP 86 to PP 87 and PP 87 to PP 88 for Segment 10AE at Bottom Panel. Inspected 10% on a random basis and found the tension to be in general compliance. Inspection was performed against the Notification No. 00506 Dated October 05, 2010.

Bolt sizes used were M16 x 45 RC Set# DHGM160010 and final torque required was 200 N-m.

Bolt sizes used were M16 x 50 RC Set# DHGM160011 and final torque required was 200 N-m.

The Manual Torque wrench used was Serial No. XO2-114.

Segment 10BE (Catwalk)

This Quality Assurance (QA) Inspector witnessed final bolt tension verification for Catwalk structure which is connected to Bottom Panel T-Ribs between Panel Points (PP) 88 to PP 89, PP 89 to PP 90 and PP 90 to PP 91 for Segment 10BE at Bottom Panel. Inspected 10% on a random basis and found the tension to be in general compliance. Inspection was performed against the Notification No. 00506 Dated October 05, 2010.

Bolt sizes used were M16 x 45 RC Set# DHGM160010 and final torque required was 200 N-m.

Bolt sizes used were M16 x 50 RC Set# DHGM160011 and final torque required was 200 N-m.

The Manual Torque wrench used was Serial No. XO2-114.

Segment 10CE (Catwalk)

This Quality Assurance (QA) Inspector witnessed final bolt tension verification for Catwalk structure which is connected to Bottom Panel T-Ribs between Panel Points (PP) 91 to PP 92, PP 92 to PP 93, PP 93 to PP 94 and PP 94 to PP 94.75 for Segment 10CE at Bottom Panel. Inspected 10% on a random basis and found the tension to be in general compliance. Inspection was performed against the Notification No. 00506 Dated October 05, 2010.

Bolt sizes used were M16 x 45 RC Set# DHGM160010 and final torque required was 200 N-m.

Bolt sizes used were M16 x 50 RC Set# DHGM160011 and final torque required was 200 N-m.

The Manual Torque wrench used was Serial No. XO2-114. Please reference the pictures attached for more comprehensive details.

Segment 11AE

This QA Inspector observed the in-process fillet welding by Flux Cored Arc Welding (FCAW) process. The weld joint was designated as CA081-005. The welder identification was 052763 and observed welding in the 1F (Flat) position using approved Welding Procedure Specification WPS-B-T-2231-Tc-U4b-F. The piece mark was identified as Corner Assembly hold back weld at work point E6.

Segment 11BE

This QA Inspector observed the in-process fillet welding by Flux Cored Arc Welding (FCAW) process. The weld joint was designated as CA068A-028. The welder identification was 052763 and observed welding in the 1F (Flat) position using approved Welding Procedure Specification WPS-B-T-2231-Tc-U4b-F. The piece mark was identified as Corner Assembly hold back weld at work point E6.

Segment 11AE

This QA Inspector observed the in-process fillet welding by Flux Cored Arc Welding (FCAW) process. The weld joint was designated as CA082-001. The welder identification was 047353 and observed welding in the 1F (Flat) position using approved Welding Procedure Specification WPS-B-T-2231-Tc-U4b-F. The piece mark was identified as Corner Assembly hold back weld at work point E1.

Segment 11BE

This QA Inspector observed the in-process fillet welding by Flux Cored Arc Welding (FCAW) process. The weld joint was designated as CA084-005. The welder identification was 047353 and observed welding in the 1F (Flat) position using approved Welding Procedure Specification WPS-B-T-2231-Tc-U4b-F. The piece mark was identified as Corner Assembly hold back weld at work point E1.

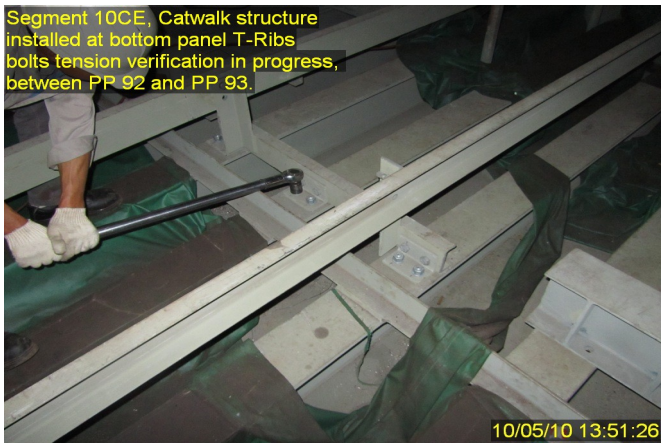
Segment 10BE to Segment 10CE

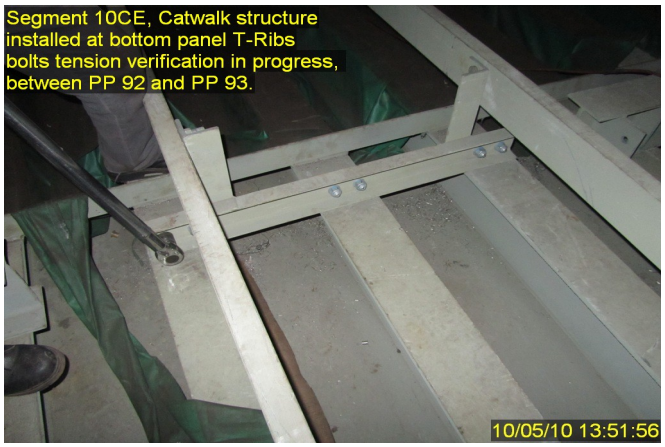
This QA Inspector observed the repair welding by Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as DP702-001-039. The welder identification was 052493 and observed welding in the 3G (Vertical) position using approved Welding Procedure Specification WPS-485-SMAW-3G (3F)-FCM-Repair. The piece mark was identified as Deck Panel I-Rib, Cross Beam side. ZPMC performed repair welding in accordance with B-WR-15517.

Segment 10BE to Segment 10CE

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 DP715-001-019. The welder identification was 052493 and observed welding in the 3G (Vertical) position using approved Welding Procedure Specification WPS-485-SMAW-3G (3F)-FCM-Repair. The piece mark was identified as Deck Panel I-Rib, Bike Path side. ZPMC performed repair welding in accordance with B-WR-15520.

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