

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:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-022096**Date Inspected:** 21-Mar-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:** 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) at Trial Assembly Areas

Segment 12AW (Visual Inspection)

This QA Inspector performed Visual Inspection (VT) for the items listed in the outstanding work (Punch List) after repair/rectification work by ZPMC, during the course of Inspection Mr. Zhang Qiang (ZPMC QC) and Mr. Wei Jian Bo (ABF QA) were present. VT inspection was performed for the following Items numbers (as mentioned in Punch List).

Item No. 314.

Item No. 315.

Item No. 316.

Item No. 317.

Item No. 318.

Item No. 319.

Item No. 320.

WELDING INSPECTION REPORT

(Continued Page 2 of 4)

Item No. 321.
Item No. 322.
Item No. 323.
Item No. 324.
Item No. 325.
Item No. 326.
Item No. 327.
Item No. 328.
Item No. 329.
Item No. 330.
Item No. 331.
Item No. 332.
Item No. 333.
Item No. 334.
Item No. 335.
Item No. 336.
Item No. 337.
Item No. 338.
Item No. 339.

The report duly signed by ZPMC QC, ABF QA and Caltrans QA Inspector was submitted to the Caltrans Lead Inspector Mr. Mark Miller and Mr. Art Peterson for review and disposition.

Segment 12CE (Transverse Splice T-Ribs)

This QA Inspector witnessed final bolt tension verification on bolts connecting T-Rib to T-Rib for Transverse Splice at Side Panel Cross Beam Side (from work point E4 towards E6), Bottom Panel (from work point E3 towards E4) and Bike Path side (from work point E1 to E3) between Panel Point (PP) 116 to PP 116.5 for 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. 00629 Dated March 21, 2011.

The bolt sizes used were M22 x 65 RC Lot # DHGM220115 and the final torque value established was 327 N-m.

The bolt sizes used were M22 x 65 RC Lot # DHGM220112 and the final torque value established was 343 N-m.

The bolt sizes used were M22 x 70 RC Lot # DHGM220041 and the final torque value established was 460 N-m.

The bolt sizes used were M22 x 75 RC Lot # DHGM220034 and the final torque value established was 453 N-m.

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

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

Please reference the pictures attached for more comprehensive details.

WELDING INSPECTION REPORT

(Continued Page 3 of 4)

Segment 12CE (Transverse Splice T-Ribs)

This QA Inspector performed Dimension Control Inspection on the Transverse Splice T-Ribs to T-Ribs after bolting for the Segment 12CE between Panel Point (PP) 116 to PP 116.5 at the following locations:

Work Point E4 towards Work Point E6 (Side Panel Cross Beam Side) total 16 T-Ribs.

Work Point E3 towards Work Point E4 (Bottom Panel) total 18 T-Ribs.

Work Point E1 towards Work Point E3 (Side Panel Counter Weight Side) total 16 T-Ribs.

The QA Inspector measured the Vertical Offset using 1(One) Meter Straight Edge.

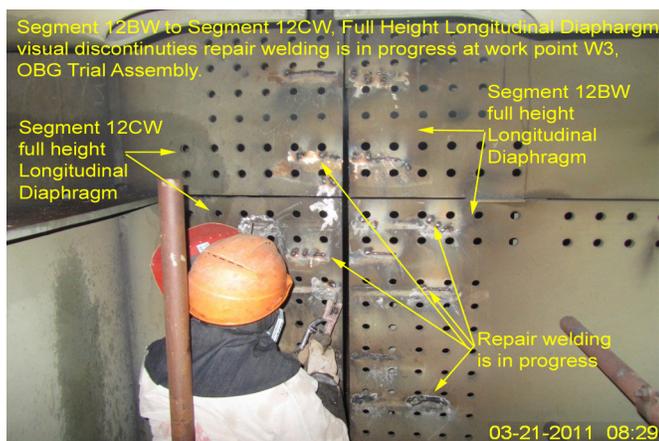
The measurements were recorded in the Dimension Control Plan (DCP) on a separate form and submitted to the Lead Inspector and Engineer for review and disposition.

Segment 12BW to Segment 12CW (Longitudinal Diaphragm)

This QA Inspector observed the repair welding by Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) weld. The welder identification was 041713 and was observed welding in the 2G (Horizontal) position using approved Welding Procedure Specification WPS-345-SMAW-2G(2F)-Repair-FCM-1. The piece mark was identified as base material repair on at full height diaphragm at work point (W3).

Please reference the pictures attached for more comprehensive details.

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



WELDING INSPECTION REPORT

(Continued Page 4 of 4)



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
