

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
690 Walnut Ave. St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

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-021856**Date Inspected:** 20-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 12BW to Segment 12CW (Full Height Longitudinal Diaphragm to Longitudinal Diaphragm)

This QA Inspector performed Dimension Control Inspection on the Full Height Longitudinal Diaphragm to Longitudinal Diaphragm at Work Point W3 (Counter Weight side) and at Work Point W4 (Cross Beam side) for the Segment 12BW to Segment 12CW between Panel Point (PP) 114.5 to PP 115 at the following locations:

The offset was measured at 8 (Eight) different Elevations at vertical web plates.

At Elevation 20mm from the Bottom Panel.

At Elevation 1700mm from the Bottom Panel.

At Elevation 2000mm from the Bottom Panel.

WELDING INSPECTION REPORT

(Continued Page 2 of 4)

At Elevation 3400mm from the Bottom Panel.

At Elevation 3600mm from the Bottom Panel.

At Elevation 4600mm from the Bottom Panel.

At Elevation 4800mm from the Bottom Panel.

At Elevation 5400mm from the Bottom Panel.

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

The Sweep was measured at 100 mm and 600mm from Floor Beam at Panel Points (PP) 114.5 and from PP 115 at Center (Total 5 Locations) using string line.

The measurements was 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 # 10

This QA Inspector performed Dimension Control Inspection on the Bike Path bottom plate for flatness check across the longitudinal butt weld. Flatness check was performed on following mentioned Bike Paths and Bike Path are identified as:

BK008A-001.

The QA Inspector measured the flatness using 600mm long straight edge across the Butt (CJP) weld and using 1500mm long straight edge between the stiffeners which are plug weld to bottom plate.

Observed flatness within the allowable tolerance.

The result of the inspection was informed to ZPMC QC Supervisor Mr. Shi Yu, ABF QA Mr. Zhao Xian He, Caltrans Lead Inspector Mr. Mark Miller and Mr. Hiranch Patel.

Segment 12AW (U-Ribs to the Diaphragm)

This QA Inspector observed the in-process welding by Shielded Metal Arc Welding (SMAW) process on a Fillet weld. The weld joint was designated as DP3048-001-009. The welder identification was 046709 and was observed welding in the 4G (Overhead) position using approved Welding Procedure Specification WPS-345-SMAW-4G(4F)-Repair-FCM-1. The piece mark was identified as U-Rib to the Deck Panel Diaphragm at PP 111.5, Counter Weight side.

Please reference the pictures attached for more comprehensive details.

WELDING INSPECTION REPORT

(Continued Page 3 of 4)

Segment 12CW (Floor Beam to Stiffener weld)

This QA Inspector observed the repair welding by Shielded Metal Arc Welding (SMAW) process on a Fillet weld. The weld joint was designated as FB3097-001-065. The welder identification was 041713 and observed welding in the 4F (Overhead) position using approved Welding Procedure Specification WPS-345-SMAW-4G(4F)-Repair-FCM-1. The piece mark was identified as weld connecting the Floor Beam to the Stiffeners at Corner Assembly, Counter Weight side.

Please reference the pictures attached for more comprehensive details.

Segment 12BE (Connection Clip)

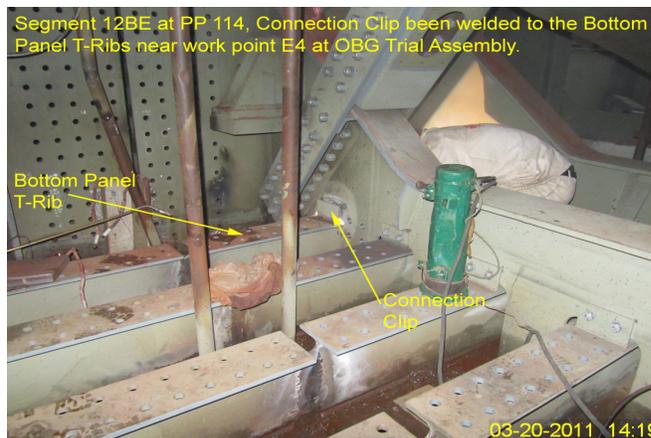
This QA Inspector observed the repair welding by Shielded Metal Arc Welding (SMAW) process on a Fillet weld. The weld joint was designated as Seg3003-038/039. The welder identification was 037932 and observed welding in the 2F (Horizontal) position using approved Welding Procedure Specification WPS-B-P-2112. The piece mark was identified as weld connecting the Connection Clips on top of Bottom Panel T-Ribs at work point E4.

Please reference the pictures attached for more comprehensive details.

Segment 12BE to Segment 12CE (U-Ribs to U-Ribs)

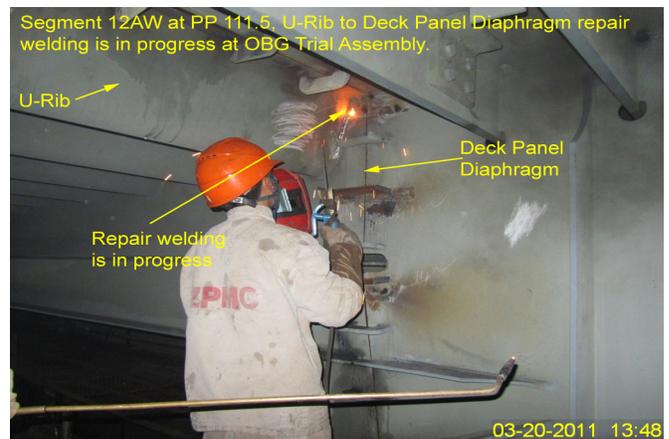
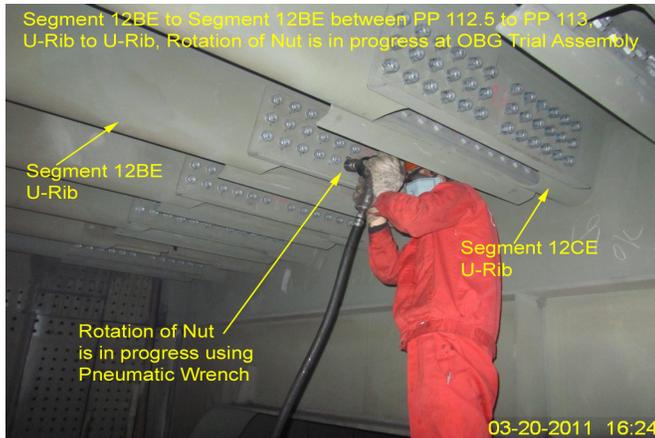
This QA Inspector observed the ZPMC personnel performing final Rotation-of-Nut using pneumatic wrench between PP 112.5 to PP 113 for Segment 12BE to Segment 12CE.

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