

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:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-009023**Date Inspected:** 14-Sep-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 645**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1845**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Li Jha and Xu Yumin**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 Trail Assembly**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance Inspector (QA) S. Manjunath. Math was present during the times noted above for observations relative to the work being performed.

Orthotropic Box Girder (OBG) Trial Assembly Areas

Lift 4 (West)

This Quality Assurance (QA) Inspector witnessed final tension verification against Bolting Inspection Notification No. 00152 for Cable Tray between PP 26 to PP 27 North and South side for Segment 4BW. Inspected 10% on a random basis and found the tension to be in general compliance. Bolt sizes used were $\frac{3}{4}$ x 2 $\frac{1}{4}$ RC Set# DHG60580 and final torque required is 340 N-m. Manual Torque wrench is been used with Sr. No. X02-118.

Segment 2AE

This Quality Assurance (QA) Inspector witnessed final tension verification against Bolting Inspection Notification No. 00153 for Longitudinal Diaphragm Splice between at PP 14.5 to PP 15 South side for Segment 2AE. Inspected 10% on a random basis and found the tension to be in general compliance. Bolt sizes used were M24 x 100 RC Set# DHGM240022 and final torque required is 527 N-m, M24 x 75 RC Set# DHGM240020 and final torque required is 600 N-m. Manual Torque wrench is been used with Sr. No. XQ2-578.

Segment 4AE and 4BE

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This Quality Assurance (QA) Inspector witnessed final tension verification against Bolting Inspection Notification No. 00154 for Lower Chevron at PP 24(West side), PP 25(East and West side) and PP 28 (East side) for Segment 4AE and 4BE. Inspected 10% on a random basis and found the tension to be in general compliance. Bolt sizes used were M22 x 75 RC Set# DHGM240005 and final torque required is 473 N-m, M22 x 65 RC Set# DHGM220033 and final torque required is 470 N-m for PP 24 and PP 28 and for PP 25 apart from those bolts used M22 x 70 RC Set# DHGM220004 and final torque required is 453 N-m. Manual Torque wrench is been used with Sr. No. XQ2-578.

Segment 4AE and 4BE

This Quality Assurance (QA) Inspector witnessed final tension verification against Bolting Inspection Notification No. 00154 for Bottom Panel to Bottom Panel T-Ribs Splice between PP 25 and PP 26 for Segment 4AE and 4BE for East side only and at 8 and 10 Rib from CB side (East and West Side). Inspected 10% on a random basis and found the tension to be in general compliance. Bolt sizes used were M22 x 70 RC Set# DHGM220004 and final torque required is 453 N-m. Manual Torque wrench is been used with Sr. No. XQ2-578.

Segment 1BW

This Quality Assurance (QA) Inspector as on date wrote an Incident Report No. 04-0120F4_TL-15_B278_09-14-09_Floor Beam Flange_Counter Weight Side_1BW_PP_10.5.doc for Segment 1BW, for distortion caused at Floor Beam Flange while welding Deck Panel Diaphragm for more comprehensive details please refer to the report.

Segment 1BW

This QA Inspector measured and recorded Bottom Panel I-Rib to I-Rib distance for all the 18 Ribs including the distance from Longitudinal Shear Diaphragm and same being submitted for Mr. Mark J Miller review.

Segment 1BW

This QA Inspector observed ZPMC welding personnel performing Shielded Metal Arc Welding (SMAW) for Side Panel transverse weld. The welding was being performed against the B-WR7252 Rev.0. The weld joint is identified as OBW1A – 007. The welder is identified as 220064. In process SMAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-345-SMAW-4G (4F)-FCM-Repair-1.

Segment 1AE to 1AAE

This QA Inspector observed ZPMC welding personnel performing Shielded Metal Arc Welding (SMAW) for Bottom Panel to Bottom Panel weld, as it was noticed deformation during dimension inspection for the same base material build up 200x200mm by buttering weld was being performed. The welding was being performed against the B-WR7494 Rev.0. The welder is identified as 045196. In process SMAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-345-SMAW-4G(4F)-FCM-Repair-1.

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CB4

This QA Inspector observed ZPMC welding personnel performing Shielded Metal Arc Welding (SMAW). The weld joint is identified as CB201A-013. The welder is identified as 048659. In process SMAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-B-P-2114-Tc-U4b-FCM-1.

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

Summary of Conversations:

No relevant conversations.

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

Inspected By:	Math,Manjunath	Quality Assurance Inspector
Reviewed By:	Carreon,Albert	QA Reviewer
