

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 #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-020459**Date Inspected:** 05-Feb-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:** Qiu Wen**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:** Orthotropic Box Girder (OBG)**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance (QA) Inspector Manoj Prabhune was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

This QA Inspector randomly observed the following work in progress:

Bay 14

WELDING:

Segment 14W

This QA Inspector observed ZPMC qualified welding personnel identified as 067888 perform Flux Cored Arc Welding (FCAW), weld joint identified as DP3171-001-173; located On Orthotropic Box Girder (OBG) Deck Plate to Deck Panel diaphragm CJP Weld; ABF Quality Assurance (QA) is identified as Mr. Shen Jian Yuan. This QA Inspector observed a welding current of approximately 270 amps and 26.4 volts and the base material appears to have been being preheated by an electrical heating elements prior to welding. ABF Quality Assurance (QA) Mr. Shao Jian Yuan was onsite monitoring the welding variables. The welding variables recorded by QA appeared to comply with applicable WPS-B-T-2233-ESAB. See attached photo for further details.

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This QA Inspector observed ZPMC qualified welding personnel identified as 048433 perform Flux Cored Arc Welding (FCAW), weld joint identified as DP3173-001-296; located On Orthotropic Box Girder (OBG) Deck Plate to Deck Panel diaphragm CJP Weld; ABF Quality Assurance (QA) is identified as Mr. Shen Jian Yuan. This QA Inspector observed a welding current of approximately 269 amps and 24.8 volts and the base material appears to have been being preheated by an electrical heating elements prior to welding. ABF Quality Assurance (QA) Mr. Shao Jian Yuan was onsite monitoring the welding variables. The welding variables recorded by QA appeared to comply with applicable WPS-B-T-2232-ESAB.

This QA Inspector observed ZPMC qualified welding personnel identified as 203871 perform Flux Cored Arc Welding (FCAW), weld joint identified as DP3172-001-341; located On Orthotropic Box Girder (OBG) Deck Plate to Deck Panel diaphragm CJP Weld; ABF Quality Assurance (QA) is identified as Mr. Shen Jian Yuan. This QA Inspector observed a welding current of approximately 269 amps and 24.8 volts and the base material appears to have been being preheated by an electrical heating elements prior to welding. ABF Quality Assurance (QA) Mr. Shao Jian Yuan was onsite monitoring the welding variables. The welding variables recorded by QA appeared to comply with applicable WPS-B-T-2232-ESAB.

This QA Inspector observed ZPMC qualified welding personnel identified as 066038 perform Shielded Metal Arc Welding (SMAW), weld joint identified as SEG3020D-052; located On Orthotropic Box Girder (OBG) Bottom Plate to floor Beam CJP Weld; The Critical Welding Repair Report (CWRR) was B-WR2734 This QA Inspector observed a welding current of approximately 232 amps and 24.8 volts and the base material appears to have been being preheated by an electrical heating elements prior to welding. ABF Quality Assurance (QA) Mr. Wang Jiang Hua was onsite monitoring the welding variables. The welding variables recorded by QA appeared to comply with applicable WPS-345-SMAW-2G (2F) FCM-Repair-1.

This QA Inspector observed ZPMC qualified welding personnel identified as 067765 perform Flux Cored Arc Welding (FCAW), weld joint identified as SEG3020E-058; located On Orthotropic Box Girder (OBG) FB3344A to LD3048A CJP Weld; ABF Quality Assurance (QA) Mr. Wang Jiang Hua was onsite monitoring the welding variables. The welding variables recorded by QA appeared to comply with applicable WPS-B-P-2214-TC-U4b-FCM-1.

This QA Inspector observed ZPMC qualified welding personnel identified as 067904 perform Shielded Metal Arc Welding (SMAW), weld joint identified as DP3175-001-045; located On Orthotropic Box Girder (OBG) Deck Panel to Stiffener CJP Weld; ABF Quality Assurance (QA) Mr. Shao Jian Yuan was onsite monitoring the welding variables. The welding variables recorded by QA appeared to comply with applicable WPS-B-P-2212-TC-U4b-FCM-1.

This QA Inspector observed ZPMC qualified welding personnel identified as 067707 perform Shielded Metal Arc Welding (SMAW), weld joint identified as DP3175-001-043; located On Orthotropic Box Girder (OBG) Deck Panel to Stiffener CJP Weld; ABF Quality Assurance (QA) Mr. Shao Jian Yuan was onsite monitoring the welding variables. The welding variables recorded by QA appeared to comply with applicable WPS-B-P-2212-TC-U4b-FCM-1.

This QA Inspector observed ZPMC qualified welding personnel identified as 037779 perform Shielded Metal Arc Welding (SMAW), weld joint identified as DP3175-001-142; located On Orthotropic Box Girder (OBG) Deck

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Panel to Stiffener CJP Weld; ABF Quality Assurance (QA) Mr. Shao Jian Yuan was onsite monitoring the welding variables. The welding variables recorded by QA appeared to comply with applicable WPS-B-P-2212-TC-U4b-FCM-1.

This QA Inspector observed ZPMC qualified welding personnel identified as 067707 perform Shielded Metal Arc Welding (SMAW), weld joint identified as DP3174-001-035; located On Orthotropic Box Girder (OBG) Deck Panel to Stiffener CJP Weld; ABF Quality Assurance (QA) Mr. Shao Jian Yuan was onsite monitoring the welding variables. The welding variables recorded by QA appeared to comply with applicable WPS-B-P-2212-TC-U4b-FCM.1. See attached photo for further details.

Segment 13CE

This QA Inspector performed Magnetic Particle Testing (MPT) Verification Inspection of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an MT report on this date. The members are identified as Orthotropic Box Girder (OBG) components. The weld designations Verified are as follows.

DP3108-001-047~050, 067~070, 087~090, 107~110, 135, 137, 139, 141, 143

DP3109-001-038~041, 043, 044, 037, 042

Nondestructive testing (NDT) notification No.08314

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



Summary of Conversations:

No significant 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 phone: 15000422372, who represents the Office of Structural Materials

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for your project.

Inspected By:	Prabhune,Manoj	Quality Assurance Inspector
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Reviewed By:	Peterson,Art	QA Reviewer
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