

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-007791**Date Inspected:** 15-Jul-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 1900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 700**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Guo Yan Fei, Yu Dong Ping**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:** TOWER**Summary of Items Observed:**

The Caltrans (CT) Quality Assurance (QA) Inspector Charlie Franco was present at the time requested to randomly observe welding and associated operations being performed for the Tower and Orthotropic Box Girders (OBG).

Heavy Equipment Shop Bay 10:

The QA Inspector performed a 100% Visual Testing (VT) Inspection and a 15% Magnetic Particle Testing (MT) Verification of the outside corner seam weld between Skin Plates D and E of Lift 1 North Tower at Weld Joint (WJ) Numbers NSD1-A112B/H-1A and NSD1-A166E/J-97A per ZPMC NDT Notification Sheet 003703. There appeared to be no indications and the QA Inspector accepted the VT Inspection and MT verification of the above listed welds. The attached photograph provides additional detail.

Heavy Equipment Shop Bay 11:

The QA Inspector randomly observed 2 ZPMC production personnel utilizing hand held torches to perform heat straightening operations to the beveled edge of Lift 4 West Skin Plate B per ZPMC Heat Straightening Request HSR1 (T)-9840. Heat straightening was being performed to reduce weld induced distortion at Weld Joint (WJ) Numbers WSD1-FBSA4-2A/B, 16A/B, 17A/B, 18A-2, 18B-2, 18A-1 and 18B-1. The QA Inspector randomly observed ZPMC Quality Control (QC) monitoring the applied heat straightening temperature. The temperature appeared to comply with contract requirements.

WELDING INSPECTION REPORT

(Continued Page 2 of 3)

The QA Inspector randomly observed ZPMC welder ID 070254, utilizing the Flux Cored Arc Welding (FCAW) Process in the 2G (Horizontal Groove) Position with ZPMC Weld Procedure Specification (WPS) WPS-B-T-2232-TC-P5-F and Gantry 1 mounted welding apparatus, to weld Longitudinal Stiffener B2 to Lift 4 East Tower Skin Plate A at WJ WSD1-FASA4-2E/E-22/23. The QA Inspector randomly observed ZPMC QC monitoring weld parameters. Weld parameters appeared to comply with contract requirements.

The QA Inspector randomly observed ZPMC welder Yang Hong Jun ID 066683, utilizing the FCAW Process in the 2G (Horizontal Groove) Position with ZPMC WPS WPS-B-T-2232-TC-P5-F, to weld Longitudinal Stiffener B2 to Lift 4 East Tower Skin Plate A at WJ WSD1-FASA4-2E/E-23. The QA Inspector randomly observed ZPMC QC monitoring weld parameters. Weld parameters appeared to comply with contract requirements

The QA Inspector randomly observed ZPMC welder ID 047470, utilizing the Shielded Metal Arc Welding (SMAW) Process with ZPMC WPS WPS-B-T-3312-TC-P4, to weld a stiffener to the web in between 109M Upper and Lower Diaphragms of Lift 3 East Tower at WJ ESTL3-4I/K-24. The QA Inspector randomly observed ZPMC QC monitoring weld parameters. Weld parameters appeared to comply with contract requirements. The QA Inspector also randomly observed that the welder was not keeping the weld area clean and informed ZPMC and ABF QC. The welder cleaned the area before continuing to weld. The attached photograph provides additional detail.

The QA Inspector randomly observed ZPMC welder Xie Zhong Cheng ID 041271, utilizing the SMAW Process with ZPMC WPS WPS-B-T-3312-TC-P4, to weld a stiffener to the web in between 99M Upper and Lower Diaphragms of Lift 3 East Tower at WJ ESTL3-4L/K-87. The QA Inspector randomly observed ZPMC QC monitoring weld parameters. Weld parameters appeared to comply with contract requirements.

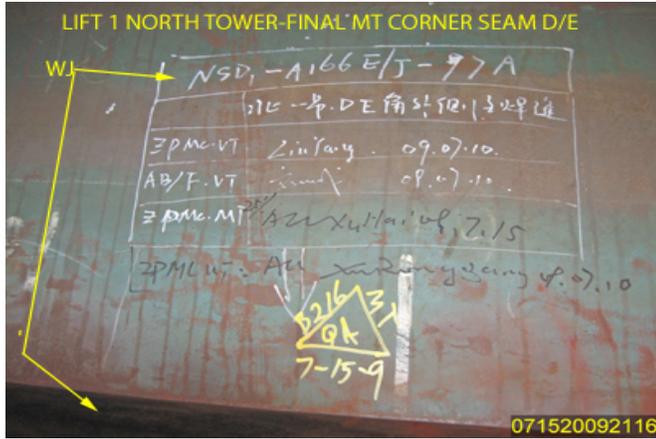
The QA Inspector randomly observed ZPMC welder Yang Zai Hua ID 040669, utilizing the SMAW Process with ZPMC WPS WPS-B-T-3312-TC-P4, to weld a stiffener to the web in between 89M Upper and Lower Diaphragms of Lift 3 East Tower at WJ ESTL3-4G/K-29. The QA Inspector randomly observed ZPMC QC monitoring weld parameters. Weld parameters appeared to comply with contract requirements.

The QA Inspector randomly observed ZPMC welder ID 003973, utilizing the SMAW Process with ZPMC WPS WPS-B-T-2211-B-U3b, to tack weld section FESA4-4+FE4-6+FE4-22 to section FE4-20+FE4-19+FE4-16+FE4-4+FE4-3=FE4-16+FE4-13 of Lift 4 East Tower Skin Plate E at WJ WSD1-FESA4-4A/F-7A+9A. The QA Inspector randomly observed ZPMC QC monitoring weld parameters. Weld parameters appeared to comply with contract requirements.

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

WELDING INSPECTION REPORT

(Continued Page 3 of 3)



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 Serge Sinevod 13482570045, who represents the Office of Structural Materials for your project.

Inspected By: Franco,Charlie

Quality Assurance Inspector

Reviewed By: Clifford,William

QA Reviewer