

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:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-007789**Date Inspected:** 12-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 11:

The QA Inspector randomly observed ZPMC welder Cao Xiao Hua ID 056975, utilizing the Submerged Arc Welding (SAW) Process in the 1G (Flat Groove) Position with ZPMC Weld Procedure Specification (WPS) WPS-B-T-2221-B-U3c-S-2, to weld a butt seam between longitudinal stiffener sections of Lift 4 West Tower at WJ WSD1-FBSA4-2A/C-71A. The QA Inspector randomly observed ZPMC QC monitoring weld parameters. The QA Inspector also randomly monitored weld parameters and recorded them as follows: 645 amps, 32.1 volts with a travel speed of 624 mm per minute. Weld parameters appeared to comply with contract requirements.

The QA Inspector randomly observed ZPMC welder Xia Wen Ying ID 044558, utilizing the SAW Process in the 1G (Flat Groove) Position with ZPMC WPS WPS-B-T-4221-B-U3c-S-1, to weld the seam between A 90 mm Grade 485 base metal section to a 90 mm + 60 mm 345 base metal section, of Lift 4 West Tower Skin Plate D at WJ WSD1-FDSA4A/D-15A. The QA Inspector randomly observed ZPMC QC monitoring weld parameters. Weld parameters appeared to comply with contract requirements.

The QA Inspector randomly observed ZPMC welders ID 070140, ID 066479, ID 068493, and ID 066683, utilizing the Flux Cored Arc Welding (FCAW) Process in the 2G (Horizontal Groove) Position with ZPMC WPS

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WPS-B-T-4332-TC-P4-F, to weld doubler plates to Lift 4 East Tower Skin Plate A at WJ's ESD1-FASA4-2A/E-1, 12, 21 and 27 respectively. The QA Inspector randomly observed ZPMC QC monitoring weld parameters. Weld parameters appeared to comply with contract requirements. The attached photograph provides additional detail.

The QA Inspector randomly observed ZPMC welders ID 066484 and ID 070046, utilizing the FCAW Process in the 2G (Horizontal Groove) Position with ZPMC WPS WPS-B-T-4332-TC-P4-F, to weld doubler plates to Lift 4 East Tower Skin Plate A at WJ's ESD1-FASA4-2B/E- 25 and ESD1-FASA4-2C/E-17 respectively. The QA Inspector randomly observed ZPMC QC monitoring weld parameters. Weld parameters appeared to comply with contract requirements.

The QA Inspector randomly observed ZPMC welders ID 066484 and ID 070046, utilizing the FCAW Process in the 1G (Flat Groove) Position with ZPMC WPS WPS-B-T-2231-B-U3-F, to weld a small raised section to the top of a longitudinal stiffener for Lift 4 West Tower Skin Plate B at WJ WSD1-FBSA4-2A/C-89B. The QA Inspector randomly observed ZPMC QC monitoring weld parameters. The QA Inspector also randomly monitored weld parameters and recorded them as follows: 295 amps, 29.5 volts with a travel speed of 292 mm per minute. The QA Inspector randomly observed ZPMC QC monitoring weld parameters. Weld parameters appeared to comply with contract requirements. The attached photograph provides additional detail.

Heavy Equipment Shop Bay 11:

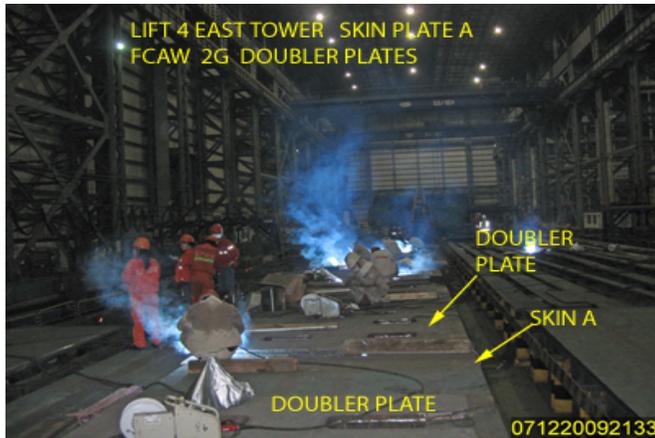
The QA Inspector randomly observed ZPMC welder Yang Yong Zeng ID 059418, utilizing the SAW Process in the 1G (Flat Groove) Position with ZPMC WPS WPS-B-T-2231-B-U2c-S-2, to weld the cover pass in a butt seam between Lift 12 East Deck Plate 12AE-DP3006-001 sections at WJ DP3006-001-027. The QA Inspector randomly observed ZPMC QC monitoring weld parameters. Weld parameters appeared to comply with contract requirements.

The QA Inspector randomly observed ZPMC welder Yang Yong Zeng ID 059418, utilizing the SAW Process in the 1G (Flat Groove) Position with ZPMC WPS WPS-B-T-2231-B-U2c-S-2, to weld the fill pass in a butt seam between Lift 12 East Deck Plate 12AE-DP3005-001 sections at WJ DP3005-001-027. 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.

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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