

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-002957**Date Inspected:** 10-Jun-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 1730**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 800**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Xu Le Feng**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 & OBG**Summary of Items Observed:**

The Caltrans 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).

New Tower Shop Bay 1:

The QA Inspector randomly observed ZPMC welder Xu Quishui ID Number 040489, utilizing the Submerged Arc Welding (SAW) Process in the 1G Position (Flat Groove) with ZPMC Weld Procedure Specification (WPS)

WPS-B-T-2221-B-U3c-S(CJP) and WPS-B-T-2321-B-P3-S(PJP), to weld the fill pass in WJ

SSD1-SA17G/G-59B(CJP), 55(PJP), F/G-6B(CJP) and 8(PJP) on Tower Skin Plate C Sub-Assembly SA17(S).

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, 32.5 volts with a travel speed of 570 millimeters (mm) per minute. The weld parameters appeared to comply with contract requirements. The attached photograph provides additional detail.

The QA Inspector randomly observed a ZPMC Carbon Air Arc Operator, utilizing the Carbon Air Arc Gouging Process to back gouge WJ SSD1-SA40B/E-2(PJP), B/E-3B(CJP), C/E-2(PJP) B/E-4B(CJP), C/E-31(PJP) and C/E-32B(CJP) Tower Skin Plate D Sub-Assembly SA40(S). The QA Inspector also randomly observed one ZPMC helper cleaning up the slag and shaping the bevel after the back gouging on the above WJ. The attached photograph provides additional detail.

The QA Inspector randomly observed ZPMC welder Chen Hongxia ID Number 040460, utilizing the SAW

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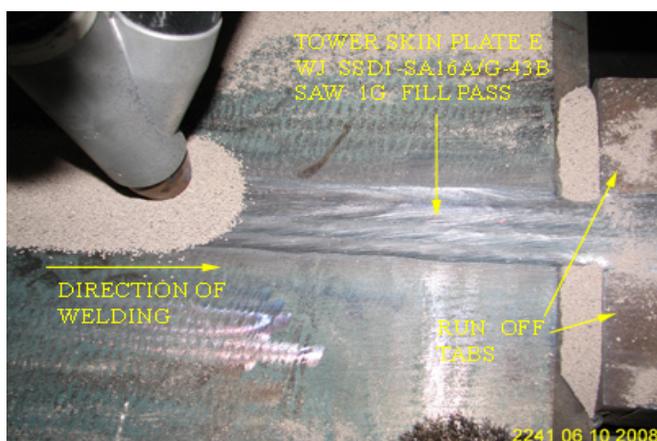
Process in the 1G Position (Flat Groove) with ZPMC WPS WPS-B-T-2221-B-U3c-S(CJP) and WPS WPS-B-T-2321-B-P3-S(PJP), to weld the fill pass in WJ SSD1-SA17G/G-59B(CJP), 55(PJP), F/G-6B(CJP) and 8(PJP) on Tower Skin Plate C Sub-Assembly SA17(S). The QA Inspector randomly observed ZPMC CWI Xu Le Feng monitoring weld parameters. The QA Inspector also randomly monitored weld parameters and recorded them as follows: 670 amps, 33.5 volts with a travel speed of 585 mm per minute. The weld parameters appeared to comply with contract requirements. The attached photograph provides additional detail.

The QA Inspector randomly observed ZPMC welder Yun Chuan Jin ID Number 0503060, utilizing the SAW Process in the 1G Position (Flat Groove) with ZPMC WPS WPS-B-T-2321-B-P3-S-1, to weld the fill and cover pass in WJ SSD1-SA16A/G-43B(CJP) in Tower Skin Plate D Sub-Assembly SA40(S) Longitudinal Stiffener p159A and P159B butt splice. The QA Inspector randomly observed ZPMC CWI Lin Hua Jie monitoring weld parameters. The QA Inspector also randomly monitored weld parameters and recorded them as follows: 670 amps, 33.1 volts with a travel speed of 605 mm per minute. The weld parameters appeared to comply with contract requirements. The attached photograph provides additional detail.

The QA Inspector randomly observed ZPMC welder Yun Chuan Jin ID Number 0503060, utilizing the SAW Process in the 1G Position (Flat Groove) with ZPMC WPS WPS-B-T-2221-B-U3c-S-1(PJP) and WPS-B-T-2321-B-P3-S-1, to weld the root pass in WJ SSD1-SA40B/E-2(PJP), B/E-3B(CJP), C/E-2(PJP) B/E-4B(CJP), C/E-31(PJP) and C/E-32B(CJP) Tower Skin Plate D Sub-Assembly SA40(S). The QA Inspector randomly observed ZPMC CWI Lin Hua Jie monitoring weld parameters. The QA Inspector also randomly monitored weld parameters and recorded them as follows: 524 amps, 29.7 volts with a travel speed of 430 mm per minute. The weld parameters appeared to comply with contract requirements. The attached photograph provides additional detail.

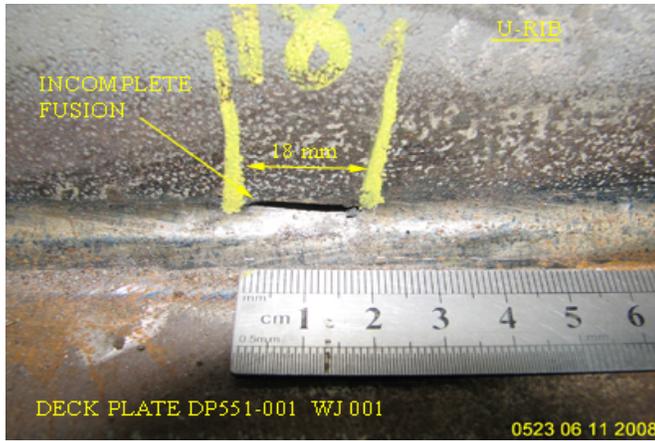
OBG Bay 1:

The QA Inspector performed Visual Inspection on the welds attaching U-Ribs to Deck Plate DP551-001 at WJ's 001, 002 and 003. VT Inspection Data was not recorded. The attached photographs provide additional detail.



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Summary of Conversations:

There were 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 Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

Inspected By: Franco,Charlie

Quality Assurance Inspector

Reviewed By: Cochran,Jim

QA Reviewer