

**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:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-002454**Date Inspected:** 06-May-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 2300**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:** See Below**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 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 Yun Chuanjin ID Number 0503060, utilizing the Submerged Arc Welding (SAW) Process in the 1G Position (Flat Groove) with ZPMC Weld Procedure Specification (WPS) WPS-B-P-2221-B-U3c-S, to weld the fill pass in Weld Joint (WJ) SSD1-SA179A/E-4B on Tower Skin Plate C Sub-Assembly SA179(S) piece marks p1272(S) + p212(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: 730 amps, 32.5 volts with a travel speed of 600 millimeters (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 Chen Hongxia ID Number 040460, utilizing the SAW Process in the 1G Position (Flat Groove) with ZPMC WPS WPS-B-T-2221-B-U3c-S-1, to weld the root pass in WJ SSD1-SA17A/G-15B 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: 530 amps, 29.8 volts with a travel speed of 465 mm per minute. The weld parameters appeared to comply with contract requirements. The attached photograph provides additional detail.

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## New Tower Shop Bay 2:

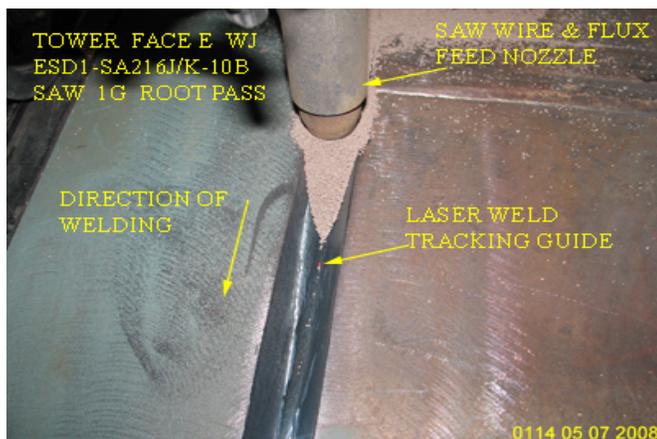
The QA Inspector randomly observed ZPMC welder Xue Yian ID Number 040634, utilizing the SAW Process in the 1G Position (Flat Groove) with ZPMC WPS WPS-B-T-2221-B-U3c-S, to weld the cover pass in WJ ESD1-SA227A/H-15A on Tower Skin Plate E Sub-Assembly SA227(E) piece marks p837(E) + p16(E) + SA227(E). The QA Inspector randomly observed ZPMC CWI Jiang Jian Fei monitoring weld parameters. The QA Inspector also randomly monitored weld parameters and recorded them as follows: 663 amps, 33.4 volts with a travel speed of 610 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 Cao Guimei ID Number 047304, utilizing the SAW Process in the 1G Position (Flat Groove) with ZPMC WPS WPS-B-T-2221-B-U3c-S, to weld the fill pass in WJ ESD1-SA294A/G-1A on Tower Skin Plate C Sub-Assembly SA294(C) piece marks SA294(E) to p143(E). The QA Inspector randomly observed ZPMC CWI Jiang Jian Fei monitoring weld parameters. The QA Inspector also randomly monitored weld parameters and recorded them as follows: 662 amps, 33.5 volts with a travel speed of 610 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 Xue Yian ID Number 040634, utilizing the SAW Process in the 1G Position (Flat Groove) with ZPMC WPS WPS-B-T-2221-B-U3c-S-1, to weld the root pass in WJ ESD1-SA216J/K-10B(CJP), ESD1-SA216J/K-2(PJP), ESD1-SA216J/K-5B(CJP), ESD1-SA216J/K-4(PJP), ESD1-SA216J/K-6B(CJP) on Tower Skin Plate E Sub-Assembly SA216(E). The QA Inspector randomly observed ZPMC CWI Jiang Jian Fei monitoring weld parameters. The QA Inspector also randomly monitored weld parameters and recorded them as follows: 499 amps, 29.4 volts with a travel speed of 457 mm per minute on WJ ESD1-SA216J/K-2(PJP) and 514 amps, 29.7 volts with a travel speed of 457 mm per minute for WJ ESD1-SA216J/K-10B(CJP). The weld parameters appeared to comply with contract requirements. The attached photograph provides additional detail.

## New Tower Shop Bay 3:

The QA Inspector observed no welding or other contract work being performed at this location.

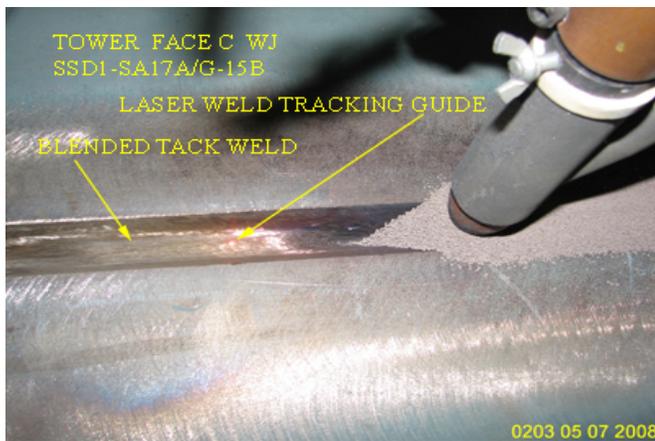
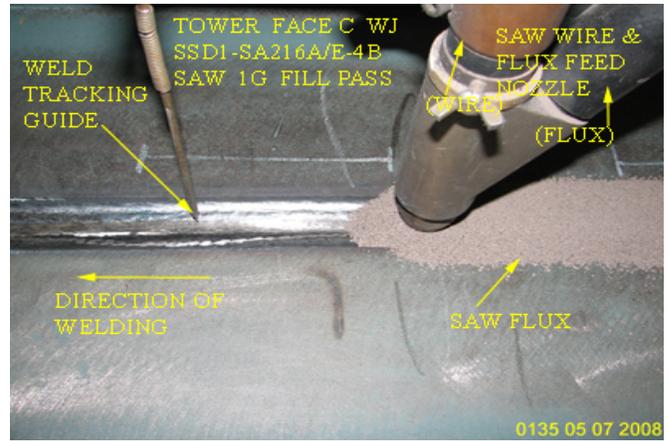
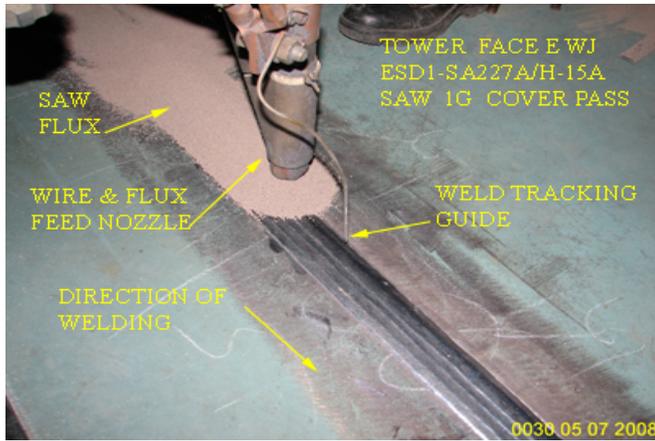


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## Summary of Conversations:

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.

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**Inspected By:** Franco,Charlie

Quality Assurance Inspector

**Reviewed By:** Carreon,Albert

QA Reviewer

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