

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-004431**Date Inspected:** 09-Oct-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 630**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**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 & 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).

Outside North End OBG Assembly-North End:

The QA Inspector performed a 10% random final Magnetic Particle Testing (MT) Verification of the cover pass on all fillet welds attaching the U-Ribs to Side Plates SP098-001 and SP365-001. There appeared to be no indications and the QA Inspector accepted all welds.

OBG Bay 1:

The QA Inspector randomly observed 1 ZPMC magnetic drill operator and 2 drill press operators drilling bolt holes in OBG U-Rib connection plates.

The QA Inspector randomly observed 2 ZPMC magnetic drill operators drilling bolt holes in OBG U-Ribs prior to forming.

OBG Bay 2:

The QA Inspector randomly observed that no contract work was being performed in this bay.

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OBG Bay 3:

The QA Inspector randomly observed ZPMC welder Wang Fei ID 051781, utilizing the Shielded Metal Arc Welding (SMAW) Process in the 2F (Horizontal Fillet) Position with ZPMC Weld Procedure Specification (WPS) WPS-2112-FCM, to tack weld I-Ribs to Bottom Plate BP066-001 Weld Joint (WJ) Numbers 007/008 and 009/010. The QA Inspector randomly observed ZPMC QC under the supervision of ZPMC CWI Xu Xian Ping, monitoring weld parameters. The weld parameters appeared to comply with contract requirements. The attached photograph provides additional detail.

The QA Inspector randomly observed ZPMC welder Zhao Shu Ming 046819, utilizing the SMAW Process in the 2F (Horizontal Fillet) Position with ZPMC WPS WPS-2112-FCM, to tack weld I-Ribs to Side Plate SP454-001 WJ 007/008. The QA Inspector randomly observed ZPMC QC under the supervision of ZPMC CWI Xu Xian Ping, monitoring weld parameters. The weld parameters appeared to comply with contract requirements.

The QA Inspector randomly observed ZPMC welders He Yumei ID 048625 and Sun Zuo Wen ID 048920, utilizing the SMAW Process in the 2F (Horizontal Fillet) Position with ZPMC WPS WPS-2112-FCM, to tack weld I-Ribs to Side Plate SP450A-001 WJ's 013/014 and 019/020. The QA Inspector randomly observed ZPMC QC under the supervision of ZPMC CWI Xu Xian Ping, monitoring weld parameters. The weld parameters appeared to comply with contract requirements.

The QA Inspector randomly observed ZPMC welder Xiao Di ID 203204, utilizing the SMAW Process in the 2F (Horizontal Fillet) Position with ZPMC WPS WPS-2112-FCM, to tack weld I-Ribs to Side Plate SP451-001 WJ 003/004. The QA Inspector randomly observed ZPMC QC under the supervision of ZPMC CWI Xu Xian Ping, monitoring weld parameters. The weld parameters appeared to comply with contract requirements.

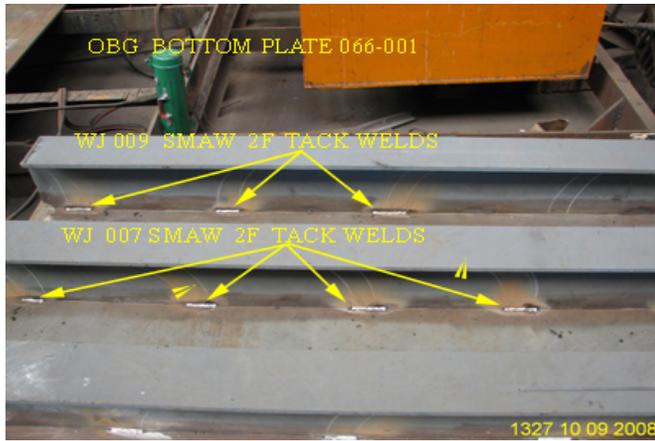
The QA Inspector randomly observed ZPMC welder Jiang Jing Teng ID 046830, utilizing the SMAW Process in the 2F (Horizontal Fillet) Position with ZPMC WPS WPS-2112-FCM, to tack weld I-Ribs to Side Plate SP451-001 WJ's 001/002 and 003/004. The QA Inspector randomly observed ZPMC QC under the supervision of ZPMC CWI Xu Xian Ping, monitoring weld parameters. The weld parameters appeared to comply with contract requirements.

OBG Bay 4:

The QA Inspector randomly observed ZPMC welder Han Hong Wen ID 200149, utilizing the Flux Cored Arc Welding (FCAW) in the 2G (Horizontal Groove) Position with ZPMC WPS WPS-B-T-2332 to weld Run On/Run Off Tabs to 59M Single Tower Diaphragm SA409 at WJ ESD1-SA409-12A/B-2. The QA Inspector randomly observed ZPMC QC under the supervision of ZPMC CWI Yu Dong Ping monitoring weld parameters. The QA Inspector also randomly observed welding parameters and recorded them as follows: 260 amps, 28.5 volts with a travel speed of 512 millimeters per minute. The weld parameters appeared to comply with contract requirements. The attached photograph provides additional detail.

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Summary of Conversations:

As noted in the above body of this report.

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 Ady Velasco 13816942685, who represents the Office of Structural Materials for your project.

Inspected By: Franco,Charlie

Quality Assurance Inspector

Reviewed By: Wright,Mark

QA Reviewer