

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-004134**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:** Hu Wei Qing and Lvliqing**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:** OBG Side Plates**Summary of Items Observed:**

On this date, Caltrans Office of Structural Material (OSM) Quality Assurance (QA) Inspector Joselito Lizardo was present as requested to perform observations on the fabrication of Orthotropic Box Girder (OBG) and SAS Tower at Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai, China.

The QA Inspector has randomly observed the following activities on sub-assembly Bays mentioned below;

OBG Assembly:

This QA performed 10% MT on side plates mentioned below;

a) SP120-001-013~024 - OBG Side Plate

b) SP127-001-013~024 - OBG Side Plate

These plates have been green tagged by ABF/QA after finding it acceptable by all concerned parties. For more information, please see my TL-6028 on this day.

Bay 7: OBG - Floor Beam Sub Assembly

The QA Inspector randomly observed ZPMC welder Duan Xin Zhi ID Number 050502 and Huang Xin Lan ID #044780 utilizing the SAW Process in the 1G (Flat Groove) Position with ZPMC WPS WPS-B-T-2221-B-L2c-S-2, to weld the cover pass on plate splice butt joint of floor beam sub-assembly FB024-005-078/079 and FB019-002-079 respectively. QA Inspector randomly observed ZPMC CWI Hu Wei Qing monitoring weld parameters.

This QA randomly observed ZPMC welder Liu Kaige ID #044830 utilizing the FCAW Process with a 1.4mm diameter electrode, filler metal brand E71T-1, class Supercored 71H in the 1G (Flat Groove) Position to weld CJP

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root pass on plate splice butt joint on FB020-002-079. The QA Inspector randomly observed ZPMC CWI Hu Wei Qing monitoring preheat and weld parameters.

Bay 8: Tower Diaphragm

This QA observed ZPMC welders ID #068924, ID #037997, ID #066456 and 066457 SMAW(2G) PJP welding fill pass on 60mm stiffener plate to (bottom) tower double diaphragm NSD1-SA169B/B weld joints 3, 4 15 and 16. ZPMC welders were noted utilizing Excalibur E9018M H4R, 4.8mm diameter electrode following WPS-B-T-3312-Tc-P5. The QA Inspector randomly observed ZPMC CWI Lvliqing monitoring weld parameters.

The QA Inspector randomly observed ZPMC welder Xie Lian Feng ID Number 045247 utilizing the SAW Process in the 1G (Flat Groove) Position with ZPMC WPS WPS-B-T-3221-B-U3c-S-1, to weld the root pass on 75mm plate splice butt joint of tower diaphragm plate ESD1-SA415-1B. QA Inspector randomly observed ZPMC CWI Lvliqing monitoring weld parameters.

Heat straightening was also observed on tower diaphragm plate WSD1-SA372 weld joints 3A/3B and WSD1-SA370 due to welding distortion. Natural gas was used with thermal heat input of less than 600 degree C following procedure HSR1(T)-4812 and HSR1(T)-4811 respectively.

This QA also observed flame bevel cutting of (top) tower double diaphragm SSD1-SA334B/B and grinding of cut bevel on the bottom plate was in progress. Buttering of one 60mm stiffener plate marked P244 due to short by 15mm was also observed on this diaphragm. This buttering is undertaken per critical welding report T-CWR024 and following WPS-485-3G(3F)-REPAIR. Excalibur E9018M H4R, 4.8mm diameter electrode was used in this repair.

Summary of Conversations:

No significant conversation occurred today.

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 Joshua Ishibashi, (858) 232-7081, who represents the Office of Structural Materials for your project.

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| Inspected By: | Lizardo, Joselito | Quality Assurance Inspector |
| Reviewed By: | Cuellar, Robert | QA Reviewer |
