

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-003951**Date Inspected:** 29-Sep-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 630**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1730**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name:	Huang Wen Pang and Zhao Chen			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 and SAS Tower Fabrication		

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;

Bay 1: OBG Sub assembly

This QA observed machining of 12mm thick plate edge for U-rib prior bending; grinding of tack welds on 4-U rib stiffener to 1AE-DP585-001 was on going. SMAW(2G) welding open root repair procedure for demonstration was seen complete. Per ABF/QA, they will send this completed weld for macro inspection. There was no welding at Gantry #1 and 2 at the time this QA made the rounds at this bay.

Bay 2: 114M Tower Mock-ups, Plate Cutting, Rolling

This QA Inspector observed machining/beveling of 6-60mm thick plate marked P1141, P1232 and P1144 for tower diaphragm plate and 9-60mm thick plates marked P1142, P240, P1143 for tower double diaphragm stiffener plate was seen continuing. No Caltrans job at the cutting table and rolling machine was seen idle.

Bay 3: OBG side/bottom/edge panel

The QA Inspector randomly observed ZPMC welder Li Zhao Qian ID Number 048810, utilizing the FCAW Process with a 1.4mm diameter electrode, filler metal brand E71T-1, class Supercored 71H in the 3G (Vertical Groove) Position with ZPMC WPS WPS-B-T-2233-B-U2-F, to weld fill pass on flange (W21X57) splice butt

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joint BP119-001-003/004. The QA Inspector randomly observed ZPMC CWI Wu Ming Cai monitoring weld parameters.

Tack/fit-up of 6-wt (W18x46) rib stiffener to side plate SP722-001 and SP762-001-013~024 using TL-508 electrode was noted.

Bay 4: Tower Diaphragm

The QA Inspector randomly observed ZPMC Welders ID #066179, ID # 066398 and ID #068250 utilizing the Shielded Metal Arc Welding (SMAW) Process in the 3G (Vertical Groove) Position with Excalibur E9018M H4R, 4.8mm diameter electrode following ZPMC WPS WPS-B-T-3313-Tc-P5 to weld tower double diaphragm PJP fill pass on 40mm thick web plate to 60mm thick stiffener plate tee joint NSD1-SA261 weld joints 14, 17 and 18. The QA Inspector randomly observed ZPMC CWI Zhao Chen Sun monitoring weld parameters.

The QA Inspector randomly observed ZPMC welder ID Number 053748 and ID #046830 utilizing the SAW Process in the 1G (Flat Groove) Position with ZPMC WPS WPS-B-T-3221-B-U3c-S-1, to weld the fill pass on 75mm thick tower diaphragm plate splice butt joint ESD1-SA424A/B-9A/10A and ESD1-SA381A/B-1B respectively. The QA Inspector randomly observed ZPMC CWI Zhao Chen Sun monitoring weld parameters.

This QA also observed flame bevel cutting of (top) tower double diaphragm plate SSD1-SA27B/B (43M South) was in progress.

Bay 7: OBG - Floor Beam Sub Assembly

The QA Inspector randomly observed ZPMC welder Duan Xin Zhi ID Number 050502 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 14mm thick plate splice butt joint of floor beam sub-assembly FB023-002-079. QA Inspector randomly observed ZPMC CWI Huang Wen Pang monitoring weld parameters.

FCAW(2F) fillet welding on stiffener to web plate FB009-010 weld joints 011/012 and flange to web plate on floor beam FB003-081-004 01 utilizing the FCAW Process with a 1.4mm diameter electrode, filler metal brand E71T-1, class Supercored 71H following WPS-B-T-2132-3 this QA observed. ZPMC welder Wang Hong Lei ID #066687 and Liu Kaige ID #044830 were seen performing the task respectively. Tack/fit-up of various stiffeners to web plate on floor beam FB011-011, FB015-022 and FB010-013 using TL-508 electrode was also observed.

Bay 8: Tower Diaphragm

The QA Inspector randomly observed ZPMC Welders ID #037997, 066456, 06457 and ID #068924 utilizing the Shielded Metal Arc Welding (SMAW) Process in the 3G (Vertical Groove) Position with Excalibur E9018M H4R, 4.8mm diameter electrode following ZPMC WPS WPS-B-T-3313-Tc-P5 to weld tower double diaphragm PJP root pass on 40mm thick web plate to 60mm thick stiffener plate tee joint NSD1-SA326 weld joints 11, 12, 13, 14 and 15. After completing the root pass on the above-mentioned weld joints, same welders were seen SMAW (2G) PJP welding root pass on 40mm web plate to (bottom) tower double diaphragm NSD1-SA169B/B weld joints 11 and 12. The QA Inspector randomly observed ZPMC CWI Liu Hua Jie monitoring weld parameters.

SMAW(1G) tack welding of 75mm tower diaphragm plate splice butt joint SSD1-SA335-1A using Excalibur E9018M H4R, 4.8mm diameter electrode following WPS-B-T-3211-B-U3b-1. ZPMC welder Gu Xie Ying ID

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#045218 was seen doing the task and CWI Lvliqing was 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 SSD1-SA244A/B-1A. QA Inspector randomly observed ZPMC CWI Lvliqing monitoring weld parameters.

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.

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