

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-003919**Date Inspected:** 16-Sep-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:	Lvliqing and Huang Wen Pang	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 2: 114M Tower Mock-ups, Plate Cutting, Rolling

This QA Inspector observed machining/beveling of 2-75mm thick plate marked SA425 and SA404 for tower diaphragm plate was seen in progress while 2-40mm thick plates marked P658 and P641 for tower double diaphragm web plate being set-up at the table for machining/beveling. Drilling of 16-28mm diameter bolt holes on one side of 12mm thick corner assembly plates CA29D and CA16C was in progress. No Caltrans job at the cutting table and rolling machine was noted idle.

Bay 3: OBG side/bottom/edge panel

This QA Inspector also randomly observed ZPMC welder operator ID Number 051246, ID #053742 and ID #048810, utilizing the FCAW Process in the 2F (Horizontal Fillet) Position with gantry(#1) mounted welding apparatus and ZPMC WPS WPS-B-T-2132-3, to weld wt(W21x57) rib stiffener to bottom plate BP063-001-weld joints 009/010, 013/014 and 017/018 respectively. The QA Inspector randomly observed ZPMC CWI Wu Ming Cai monitoring weld parameters.

This QA observed preheating of 6-wt(W21x57) rib stiffener to bottom plate BP090-001-007/008, 011/012 and

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015/016 using ceramic thermal blanket prior welding.

Tack/fit-up of 6-wt(W18x46) rib stiffener to side plate SP721-001-001/002, 003/004 and 7-wt(W18x46) to SP482 using THJ506 electrode was noted.

Bay 4: Tower Diaphragm

The QA Inspector randomly observed ZPMC welder ID Number 200149, 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-2333-Tc-P4-F, to weld fill pass on PJP connection of 100mm x 70mm x 12mm thick clip to W16 web plate on tower diaphragm plate NSD1-SA23 weld joints 13, 17, 21 and 25. The QA Inspector randomly observed ZPMC CWI Zhao Chen Sun monitoring preheat and weld parameters.

Tack/fit-up of 40mm web plate to (bottom) tower double diaphragm plate WSD1-SA238B/B using SMAW(2G) Excalibur E9018M H4R electrode and flame bevel cutting to 45 degree one side of tower diaphragm plate(40mm thick) SSD1-SA291 this QA observed.

Bay 7: OBG - Floor Beam Sub Assembly

The QA Inspector randomly observed ZPMC welder ID Number 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 fill pass on 12mm thick plate splice butt joint of floor beam sub-assembly FB027-005-108. QA Inspector randomly observed ZPMC CWI Huang Wen Pang monitoring weld parameters.

This QA randomly observed ZPMC welder ID #044774 and Chen Chuanzong ID #044824, utilizing the FCAW Process with a 1.4mm diameter electrode, filler metal brand E71T-1, class Supercored 71H in the 1G (Flat Groove) Position with ZPMC WPS WPS-B-T-2131-B-U2-F-1 to weld CJP fill pass on flange splice butt joint on FB003-096-104 and FB003-096-105 respectively. The QA Inspector randomly observed ZPMC CWI Liu Wei Wei monitoring preheat and weld parameters.

FCAW(2F) fillet welding of flange to web plate on floor beam FB001-006-004 using WPS-B-T-2132-3 by ZPMC welder Hong Shuili ID #044815 and tack/fit-up of flange to web plate of floor beam FB005-019-007 using THJ506 electrode by ZPMC welder Wu Hai Jun ID #201087 this QA also observed.

Bay 8: Tower Diaphragm

The QA Inspector randomly observed ZPMC welder ID Number 045203 and ID #066734 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-2333-Tc-P4-F, to weld fill pass on PJP connection of 100mm x 70mm x 12mm thick clip to W8 web plate on tower diaphragm plate WSD1-SA151 weld joints 1, 3, 5 and 7. The QA Inspector randomly observed ZPMC CWI Lvliqing monitoring preheat and weld parameters.

Tack welding of 40/60mm web/stiffener plate to bottom of tower double diaphragm NSD1-SA334 using SMAW(2G) Excalibur E9018M H4R electrode was also noted. The QA Inspector randomly observed ZPMC CWI Lvliqing monitoring preheat and weld parameters.

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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
