

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-004628**Date Inspected:** 11-Nov-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:** Sahnghai, China

CWI Name:	Lvliqing and Hu Wei Qing	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
Bridge No:	34-0006	Delayed / Cancelled:	Yes	No	N/A
		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 7: OBG - Floor Beam Sub Assembly

This QA Inspector randomly observed ZPMC welder ID #044774 utilizing the FCAW Process in the 2G (Hor. Groove) Position with WPS-B-T-2232-Tc-U4b-F and a 1.4mm diameter electrode, filler metal brand E71T-1, class Supercored 71H, semi automatic to weld fill pass on web plate to flange tee joint on floor beam FB028-003-146. FCAW(2G) CJP welding fill pass on repair of flange to web plate tee joint of FB012-012-043 per welding repair report B-WR1350. ZPMC welder Hong Shuili ID #044815 was seen performing the repair. The QA Inspector randomly observed ZPMC CWI Hu Wei Qing monitoring preheat and weld parameters.

FCAW(2F) fillet welding on stiffener to web plate FB020-002 weld joints 106/107, FB020-002-050/051 and FB028-003-040/041 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 ID # 044824 and ID #066687 were seen performing the task. Tack/fit-up of various stiffeners to web plate on floor beam FB027-005 using THJ506 electrode was observed.

This QA performed 10% MT on the following floor beam for green tagging;

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- a)FB015-027B
- b)FB011-019B
- c)FB009-021B
- d)FB012-016B

Bay 8: Tower Diaphragm

This QA Inspector randomly observed ZPMC welder ID number 045290, ID #048669 and ID #202654 utilizing the FCAW Process in the 3G (Vertical Groove) Position with a 1.4mm diameter electrode, filler metal brand E71T-1, class Supercored 71H, semi automatic with ZPMC WPS WPS-B-T-2233-B-U3-F, to weld fill pass on groove (bent heavy plate) splice butt joint on Tower Diaphragm Flange Sub-Assembly, NSD1-SA361-8A, WSD1-SA416-14B and NSD1-SA244A/B-4B respectively. The QA Inspector randomly observed ZPMC CWI Lvliqing monitoring weld parameters.

This QA observed ZPMC welders ID #066413, ID #039779, ID #066416 and 067081 SMAW(2G) PJP welding fill pass on 75mm web plate to (bottom) tower double diaphragm ESD1-SA414B/B weld joints 3 and 4. 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.

Heat straightening was also observed on tower diaphragm flange NSD1-SA362 weld joints 8A/B, 7A/B, 6A/B, 5A/B, 3A/B, 10A/B, 9A/B and 4A/B due to welding distortion. Natural gas was used with heating temperature of less than 650 degree C with the aid of 50Ton hydraulic jack and following procedure HSR1(T)-5468.

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,Josecito	Quality Assurance Inspector
Reviewed By:	Cuellar,Robert	QA Reviewer
