

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-002866**Date Inspected:** 11-Jun-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 1400**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 2300**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name:	Chen Chih-Ming / Chen Xi	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, bottom and deck panels**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance Inspector (QA) Steve Hall was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island, in Shanghai, China. QA observed and/or found the following:

OBG new assembly bay 2

QA observed ZPMC personnel fitting floor beam FL1 south at panel point PP-025 OBG segment 4AW.

QA observed ZPMC personnel fitting floor beam FL2-1 and FL2-2 at panel point PP-025 OBG segment 4AW.

QA noted that ZPMC QC Ultrasonic Testing (UT) technicians have rejected the following R1 repairs on floorbeam welds @ PP-023: SSD19A-PP-023-006, SSD19-PP-023-131 and SSD19A-PP-023-127.

QA observed ZPMC qualified welding personnel perform SAW on SEG-026-006 SP-333 to SP-306 following the guide lines of WPS# WPS-B-T-2221-B-L2c-S-1. QC monitored the welding process continuously throughout the evening. The welding parameters as measured with Quality Controls calibrated instruments appeared to be in conformance with the posted WPS's and were as follows:

Volts: 30.3 Amps: 540 Travel speed: 430mm/min

QA observed ZPMC qualified welding personnel perform FCAW root weld on SEG-022A-002 SP-561 to SP-521 following the guide lines of WPS# WPS-B-T-2231-B-U2-F-1. QC monitored the welding process continuously throughout the evening. The welding parameters as measured with Quality Controls calibrated

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instruments appeared to be in conformance with the posted WPS's and were as follows:

Volts: 30.8 Amps: 290 Travel speed: 521mm/min

Other general observations include ZPMC personnel grinding side and bottom panels and weld bevel prep.

OBG Bay 1

QA observed ZPMC qualified welding personnel FCAW U-Rib diaphragms in U-Ribs U21 and U37.

QA observed ZPMC personnel fitting U-Ribs to deck plate DP-561-001.

QA noted that gantry# 1 appeared to be temporarily out of order. QA observed ZPMC maintenance personnel working on this gantry today. This gantry was being used to weld U-Ribs to deck plates on DP-596-001 and DP-557-001. QA noted that the GMAW welds were completed on both deck panels and SAW welds on DP-596-001 welds 1, 2, 5, 6, 9 and 10 had been completed before the gantry was shut down for maintenance. Neither one of the above deck panels were completed before shifts end.

QA performed 10% UT verification on U-Rib diaphragm welds for deck panel DP-546-001. The welds examined appeared to meet the requirements of the contract specifications.

Other general observations by QA were as follows:

QA observed ZPMC has approximately 45 workers performing various functions relative to the fabrication of the OBG Deck Panels. These functions include; closed rib press forming, hole drilling at ends of U-Ribs using a drill template, PJP bevel preparation, closed rib splice FCAW welding, closed rib diaphragm fit-up and FCAW welding, closed rib to deck plate fit-up and tack welding.



Summary of Conversations:

Only general conversations were held between QA and QC concerning this project.

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 Patrick Lowry (858)-344-2712, who represents the Office of Structural Materials for your project.

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Inspected By:	Hall, Steven	Quality Assurance Inspector
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Reviewed By:	Cuellar, Robert	QA Reviewer
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