

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-001801**Date Inspected:** 28-Dec-2007**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:	N/A	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:** 89 Meter Mock-Up/OBG Mock-Up Flang Pla**Summary of Items Observed:**

Caltrans Quality Assurance (QA) Inspector Roscoe Dixon arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai, China to periodically monitor welding and Quality Control (QC) functions. While on site the QA Inspector observed and/or discovered the following.

89 Meter Mockup-skin plate E:

Item #1 The QA Inspector observed ZPMC welder Li Xshu Qing, utilizing the flux cored arc welding process to weld longitudinal stiffener piece mark mp543 being welded to Skin plate E piece mark mp502 at weld joint (WJ) number MUSB-MA38 A/B-4.

This weld joint (WJ) consist of two partial joint penetration welds and one complete joint penetration weld. Weld joint #'s 4 and 14 are located at the ends of the stiffener and the CJP weld is located between the two PJP welds. Mr. Qing, was utilizing ZPMC Weld Procedure Specification (WPS) WPS-B-T-2331-TC-P5-F in the 1G or flat groove position, and WPS-B-T-2231-TC-U5-F.

This QA Inspector observed ZPMC CWI Xu Le Feng monitoring weld parameters. This QA Inspector also performed random verification of the weld parameters during the welding of the above listed longitudinal stiffener to Skin Plate F and documented them as follows: welding amperage 304 amps, welding voltage 31.8 volts with a travel speed of 318 millimeters per minute.

Mr. Feng's. Weld parameters appeared to comply with the above-approved ZPMC WPS's.

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89 Meter Mockup-skin plate A:

Item #2

This QA Inspector observed ZPMC blending the tack welds with a mechanical grinder at the junction of longitudinal stiffener piece mark mp504-3 Skin plate E piece mark at weld joint (WJ) number MUSB-MA38 A/B-4.

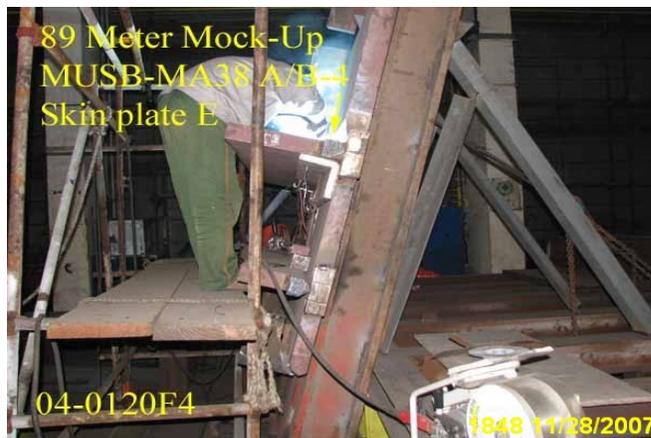
This weld joint (WJ) consist of two partial joint penetration (PJP) welds and one complete joint penetration (CJP) weld. Weld joint #'s 3 and 10 are located at the ends of the stiffener and the CJP weld is located between the PJP welds.

No welding was witnessed at this location during this QA Inspector's welding inspection for this date. See photographs below to provide additional detail.

Orthotropic Box Girder (OBG):

This QA Inspector was requested by ZPMC personnel Shen Xu Jun to observe the bending of OBG splice plate material, and while in route to the bending shop Mr. Jun was informed by Mr. Tang Yong Bo of ZPMC Procedure Department that the hydraulic break press machine which is needed to perform the bending had broken down, and that ZPMC personnel were in the process of trying to repair it.

This QA inspector Dixon and Mr Jun continued to the shop and observed as workers managed to manually position the part which needed to be turned by using a crane, but ZPMC workers made some practice bends on some scrap material and near the end of this QA Inspector's shift Mr. Tang Yong Bo decided to cancel the job on this date.



Summary of Conversations:

As noted above and basic communication between QC Inspector and QA inspector when and where welding inspections are to be performed.

Comments

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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 Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

Inspected By:	Dixon,Roscoe	Quality Assurance Inspector
Reviewed By:	Cochran,Jim	QA Reviewer
