

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-007331**Date Inspected:** 06-Jun-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Xu Le Feng, Liu Yang**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:** TOWER**Summary of Items Observed:**

The Caltrans (CT) Quality Assurance (QA) Inspector Charlie Franco was present at the time requested to randomly observe welding and associated operations being performed for the Tower and Orthotropic Box Girders (OBG).

Outside Yard at Vertical Mill:

The QA Inspector randomly observed that ZPMC milling was idle and no milling work was being performed on Lift 1 East.

The QA Inspector randomly observed that Lift 2 South Tower has been removed from the vertical mill and placed alongside; and that Lift 2 East has been placed at the vertical mill behind Lift 1 East.

Heavy Equipment Shop Bay 10:

The QA Inspector randomly observed ZPMC welder Wang Shou Qin ID 201750, utilizing the Submerged Arc Welding (SAW) Process in the 1G (Flat Groove) Position with ZPMC Weld Procedure Specification (WPS) WPS-B-T-2221-C-U2b-S-2 to weld the long seam at Weld Joint (WJ) NSD1-A112B/H-2B between Skin Plate C and Skin Plate D on Lift 1 North. The QA Inspector randomly observed ZPMC QC monitoring weld parameters. The QA Inspector also randomly monitored weld parameters and recorded them as follows: 672 amps, 31 volts with a travel speed of 531 millimeters (mm) per minute. Weld parameters appeared to comply with contract requirements.

WELDING INSPECTION REPORT

(Continued Page 2 of 3)

The QA Inspector randomly observed ZPMC welder Zhang Su Qin ID 209051, utilizing the SAW Process in the 1G (Flat Groove) Position with ZPMC WPS WPS-B-T-2221-C-U2b-S-2 to weld the long seam at WJ NSD1-A112B/H-2B between Skin Plate C and Skin Plate D on Lift 1 North. The QA Inspector randomly observed ZPMC QC monitoring weld parameters. The QA Inspector also randomly monitored weld parameters and recorded them as follows: 702 amps, 31.2 volts with a travel speed of 520 mm per minute. Weld parameters appeared to comply with contract requirements.

The QA Inspector randomly observed ZPMC welder Chen Hong Xia ID 040460, utilizing the SAW Process in the 1G (Flat Groove) Position with ZPMC WPS WPS-B-T-2221-C-U2b-S-2 to weld the long seam at WJ NSD1-A112B/H-2B between Skin Plate C and Skin Plate D on Lift 1 North. The QA Inspector randomly observed ZPMC QC monitoring weld parameters. The QA Inspector also randomly monitored weld parameters and recorded them as follows: 670 amps, 31.7 volts with a travel speed of 520 mm per minute. Weld parameters appeared to comply with contract requirements.

The QA Inspector randomly observed ZPMC welder Xu Yan ID 052917, utilizing the SAW Process in the 1G (Flat Groove) Position with ZPMC WPS WPS-B-T-2221-C-U2b-S-2 to weld the long seam at WJ NSD1-A112B/H-2B between Skin Plate C and Skin Plate D on Lift 1 North. The QA Inspector randomly observed ZPMC QC monitoring weld parameters. The QA Inspector also randomly monitored weld parameters and recorded them as follows: 675 amps, 31.1 volts with a travel speed of 520 mm per minute. Weld parameters appeared to comply with contract requirements.

The QA Inspector randomly observed ZPMC production personnel placing and fitting up diaphragms to Skin A of Lift 3 North Tower Shaft. The attached photograph provides additional detail.

Heavy Equipment Shop Bay 11:

The QA Inspector randomly observed ZPMC welders ID 040723 and 098810, utilizing the Flux Cored Arc Welding (FCAW) Process in the 1G (Flat Groove) Position with ZPMC WPS WPS-B-T-2331-C-U2-F to weld the long seam at Weld Joint (WJ) WSD1-TL6B/L-1A between Skin Plate A and Skin Plate E on Lift 2 West on either side of the upper jig rotation roller assembly. The QA Inspector randomly observed ZPMC QC monitoring weld parameters. Weld parameters appeared to comply with contract requirements.

The QA Inspector randomly observed ZPMC welders Lin Lan Zhong ID 040625, Cao Xiao Hua ID 056975, Shen Mei ID 041716, Yang Mei Zhen and ID 047304 utilizing the SAW Process in the 1G (Flat Groove) Position with ZPMC WPS WPS-B-T-2221-C-U2b-S-2 to weld the long seam at WJ WSD1-TL6B/L-1A between Skin Plate A and Skin Plate E on Lift 2 West. The QA Inspector randomly observed ZPMC QC monitoring weld parameters. Weld parameters appeared to comply with contract requirements.

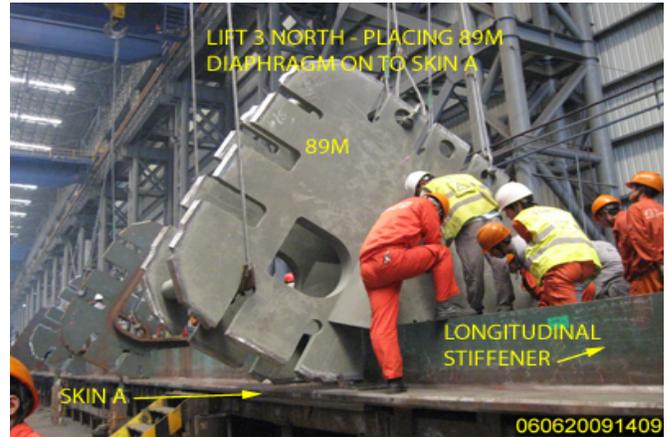
The QA Inspector performed a final Visual Testing (VT) Inspection of the welds attaching 74M Diaphragm to Skins A, B and C and the fit lugs for Skins A, B and C to 74M Diaphragm. There appeared to be no indications and the QA Inspector accepted the above listed welds.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract

WELDING INSPECTION REPORT

(Continued Page 3 of 3)

documents.



Summary of Conversations:

No relevant conversations.

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 Serge Sinevod 13482570045, who represents the Office of Structural Materials for your project.

Inspected By:	Franco,Charlie	Quality Assurance Inspector
Reviewed By:	Clifford,William	QA Reviewer
