

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-003878**Date Inspected:** 16-Aug-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**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:** See Below**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 & OBG**Summary of Items Observed:**

The Caltrans 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).

New Tower Shop Bay 1:

The QA Inspector randomly observed ZPMC welder Hua Guimei ID Number 050295, utilizing the Submerged Arc Welding (SAW) Process with ZPMC Weld Procedure Specification (WPS) WPS-B-T-2221-U3c-S-2 in the 1G (Flat Groove) Position to weld the Fill Pass in the butt splice on Tower Skin Plate C(S) longitudinal stiffener, at WJ SSD1-SA179B/E-5A. The QA Inspector randomly observed ZPMC QC under the supervision of ZPMC CWI Xu Le Feng, monitoring weld parameters. Weld parameters appeared to comply with contract requirements.

The QA Inspector randomly observed ZPMC welding personnel performing Heat Straightening Operations to correct weld induced distortion on Tower Skin Plate E Sub-Assembly SA76(N) piece marks SA76(N)+p149(N)+p150(N)+p151(N) in accordance with ZPMC Procedure HSR1(T)-3219.

The QA Inspector randomly observed ZPMC machine operators utilizing horizontal mills to mill the bevel faces on Tower Longitudinal Stiffeners piece marks p86(N) and p71(N).

New Tower Shop Bay 2:

The QA Inspector randomly observed ZPMC welder Xue Yan ID Number 040634, utilizing the SAW Process

WELDING INSPECTION REPORT

(Continued Page 2 of 3)

with ZPMC WPS WPS-B-T-2221-U3c-S-2 in the 1G (Flat Groove) Position to weld the Fill Pass in the butt splice between Tower Skin Plate D(W) Sections SA39A/K and p793(W) at WJ WSD1-SA39A/K-5B. The QA Inspector randomly observed ZPMC QC under the supervision of ZPMC CWI Jiang Jiatei, monitoring weld parameters. The QA Inspector also monitored weld parameters and recorded them as follows: 685 amps, 32.3 volts with a travel speed of 625 millimeters (mm) per minute. Weld parameters appeared to comply with contract requirements. The attached photograph provides additional detail.

The QA Inspector randomly observed ZPMC welding personnel performing Heat Straightening Operations to correct mill induced distortion on Tower Skin Plate D piece mark SA298(E), in accordance with ZPMC Procedure HSR1(T)-3232.

The QA Inspector randomly observed ZPMC welding personnel performing Heat Straightening Operations to correct mill induced distortion on Tower Skin Plate D piece mark p1043(E), in accordance with ZPMC Procedure HSR1(T)-3226.

The QA Inspector randomly observed ZPMC welder Zhang Binghua ID Number 053316 utilizing the Flux Cored Arc Welding (FCAW) Process in the 1G Position (Flat Groove) Position with ZPMC WPS WPS-B--2231-B-U3-F to weld the butt splice between sections of a Tower Skin Plate D longitudinal stiffener at WJ ESD1-SA80C/E-2B. The QA Inspector randomly observed ZPMC QC under the supervision of ZPMC CWI Jiang Jiatei monitoring weld parameters. The weld parameters appeared to comply with contract requirements.

The QA Inspector randomly observed ZPMC welder Wang Yingsheng ID Number 040775 utilizing the FCAW Process in the 1G Position (Flat Groove) Position with ZPMC WPS WPS-B--2231-B-U3-F to weld the butt splice between sections of a Tower Skin Plate D longitudinal stiffener at WJ ESD1-SA80D/E-9B. The QA Inspector randomly observed ZPMC QC under the supervision of ZPMC CWI Jiang Jiatei monitoring weld parameters. The weld parameters appeared to comply with contract requirements.

The QA Inspector randomly observed ZPMC welders utilizing the SMAW Process with ZPMC WPS WPS-B-P-2214-TC-U5b in the 4G(4F) (Overhead Groove/Overhead Fillet) Position to weld lifting lugs on to Tower Skin Plate B(E). The QA Inspector randomly observed ZPMC QC under the supervision of ZPMC CWI Jiang Jiatei monitoring weld parameters. The weld parameters appeared to comply with contract requirements.

The QA Inspector randomly observed ZPMC welder Xu Hua ID Number 049220, utilizing the FCAW Process with WPS WPS-B-T-2232-TC-F in the 2G Position, to tack weld longitudinal stiffeners to Tower Skin Plate B(E). The QA Inspector randomly observed ZPMC QC under the supervision of ZPMC CWI Jiang Jiatei monitoring weld parameters. The weld parameters appeared to comply with contract requirements. The attached photograph provides additional detail.

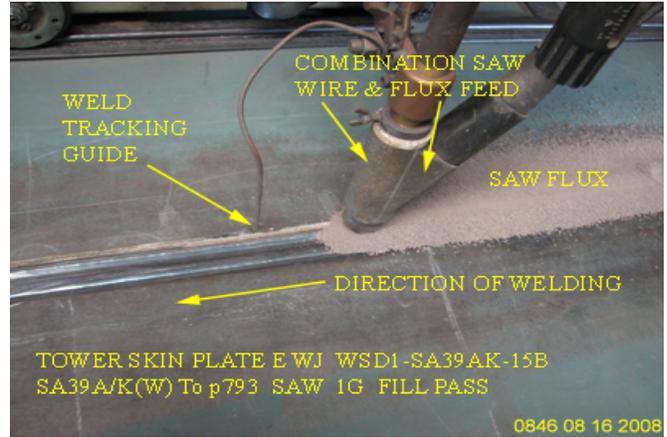
New Tower Shop Bay 3:

The QA Inspector randomly observed 3 ZPMC helpers utilizing angle grinders to blend the welds attaching the U-Ribs to 4-Rib Deck Plate DP549-002 Yellow Tag Number 000547 after weld repairs on WJ's 001/002(U-2), 003/004(U-3), 005/006(U-36 and 007/008(U-44).

WELDING INSPECTION REPORT

(Continued Page 3 of 3)

The QA Inspector performed an initial VT on the welds attaching the 5 U-Ribs to Deck Plate DP594-001 at the request of ZPMC QC and in conjunction with ZPMC CWI Chen Xi and ABF CWI Kevin Chen. Areas to be corrected were marked and Yellow Tag 000552 was signed by Mr. Chen, Mr. Kevin Chen and the QA Inspector.



Summary of Conversations:

As noted in the above body of this report.

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 Ady Velasco 13816942685, who represents the Office of Structural Materials for your project.

Inspected By:	Franco,Charlie	Quality Assurance Inspector
Reviewed By:	Carreon,Albert	QA Reviewer
