

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-007224**Date Inspected:** 19-Apr-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:** Sun Wei / Sun Bo**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).

Heavy Equipment Shop Bay 10:

The QA Inspector attempted to perform a 100% Visual Inspection (VT) and 15% Magnetic Particle Testing (MT) of the welds attaching the Fit Lugs to Diaphragms 53M through 80.75M and Diaphragms 53M through 80.75M to Skin Plate C in Lift 2 South Tower. There were several areas that would require at least grinding and others that would require grinding and weld repair. Most of these areas are located in the copes. These areas appeared to have been overlooked by Quality Control (QC). The QA Inspector informed QC that these areas would have to be repaired and that the welds attaching Diaphragms 53M through 80.75M to Skin Plate C in Lift 2 South Tower were not ready for inspection at this time and that a new notification sheet would have to be generated.

The QA Inspector randomly observed ZPMC welder Chen Zhi Zhong ID 052771, utilizing the Shielded Metal Arc Welding (SMAW) Process with ZPMC Weld Procedure Specification (WPS) WPS-B-T-3212-B-U2a-2 in the 2G (Horizontal Groove) Position and WPS-B-T-3213-B-U2a-2 in the 3G (Vertical Groove) Position to weld the fill piece to 38M Upper Diaphragm and to Skin Plates A and E. The QA Inspector randomly observed ZPMC QC monitoring weld parameters. Weld parameters appeared to comply with contract requirements.

The QA Inspector randomly observed ZPMC welder Chen Liang ID 053671, utilizing the SMAW Process with

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ZPMC WPS WPS-B-T-3212-B-U2a-2 in the 2G (Horizontal Groove) Position and WPS-B-T-3213-B-U2a-2 in the 3G (Vertical Groove) Position to weld the fill piece to 33M Lower Diaphragm and to Skin Plates A and E. The QA Inspector randomly observed ZPMC QC monitoring weld parameters. Weld parameters appeared to comply with contract requirements.

The QA Inspector randomly observed ZPMC welder Zhang Ji Hua ID 066482, utilizing the Flux Cored Arc Welding (FCAW) Process with ZPMC WPS WPS-B-T-4332-TC-P4-F in the 2G (Horizontal Groove) Position and WPS-B-T-4333-TC-P4-F in the 3G (Vertical Groove) Position to weld the fill piece to 18M Lower Diaphragm and to Skin Plates A and E. The QA Inspector randomly observed ZPMC QC monitoring weld parameters. Weld parameters appeared to comply with contract requirements. The attached photograph provides additional detail.

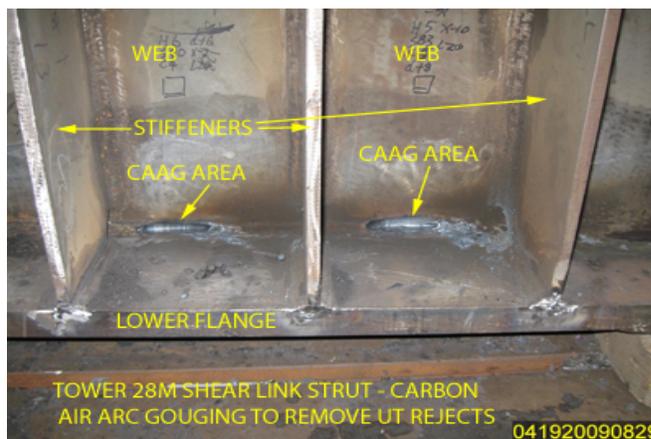
Heavy Equipment Shop Bay 11:

The QA Inspector randomly observed ZPMC welders Niu Yue Hai ID 066443 and Zhang Xiang Rong ID 066763, utilizing the Flux Cored Arc Welding (FCAW) Process with ZPMC WPS WPS-B-T-2332-TC-P5-F in the 2G/2F (Horizontal Groove/Horizontal Fillet) Positions to weld Longitudinal Stiffener D3-LS3-30 to Lift 3 East Skin Plate D at Weld Joint (WJ) ESD1-FDSA3-2BC-33A. The QA Inspector randomly observed ZPMC QC monitoring weld parameters. Weld parameters appeared to comply with contract requirements.

The QA Inspector randomly observed ZPMC welder Zhu Liu Sheng ID 068765, utilizing the FCAW Process with ZPMC WPS WPS-B-T-2332-TC-P5-F in the 2G/2F (Horizontal Groove/Horizontal Fillet) Positions to weld Longitudinal Stiffener D1-LS3-33 to Lift 3 East Skin Plate D at WJ ESD1-FDSA3-2BC-43. The QA Inspector randomly observed ZPMC QC monitoring weld parameters. Weld parameters appeared to comply with contract requirements.

The QA Inspector randomly observed 3 ZPMC welders utilizing the Carbon Air Arc Gouging Process to gouge the welds attaching the lower flange to the web of 28M West Shear Link Strut, to remove rejects detected during previous Ultrasonic Testing Inspection. The attached photograph of WJ WD1-467-28M-1-3B, provides additional detail.

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



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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
