

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-003421**Date Inspected:** 17-Jul-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 2300**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 730**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Jiang Jian Fei**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:**

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

Tower (Heavy Machinery Shop) – Bay 2

The Caltrans QA Inspector randomly observed the Submerged Arc Welding (SAW) of fill passes on Weld Nos. SSD1-SA77E/E-11B, 1B, 3B, 6 and 9B; and Weld Nos. ESD1-SA77D/E-23, 6B, 29, 13 and 19, Skin Plate Face C.

The welding was being done in the flat groove (1G) welding position. All of the above weld numbers are on one weld joint. Those designated with the letter "B" are complete joint penetration (CJP) groove welds, and those without a letter designation are partial joint penetration (PJP) groove welds. Therefore, two Welding Procedure Specifications (WPS's) were being used, WPS-B-T-2221-B-U3c-S-2 for CJP and WPS-B-T-2321-B-P3-S-2 for PJP. The welding operator was Xia Yong liu (I. D. No. 048882). ZPMC Certified Welding Inspector (CWI), Jiang Jian Fei (CWI No. 07120691), was present during the welding, as was ABF QA Inspector, Wu gui cai. The Caltrans QA Inspector verified the qualifications of the welding operator, and that the electrode classification, diameter of electrode, amperage, voltage, travel speed, and preheat/interpass temperatures were within the specified ranges on the applicable WPS.

The Caltrans QA Inspector also randomly observed the Submerged Arc Welding (SAW) of fill passes on Weld Nos. SSD1-SA77E/E-2B, 4B, 8 and 10B; and Weld Nos. ESD1-SA77D/E-2B, 25, 21B, 15 and 17, Skin Plate Face C. The welding was being done in the flat groove (1G) welding position. All of the above weld numbers are on

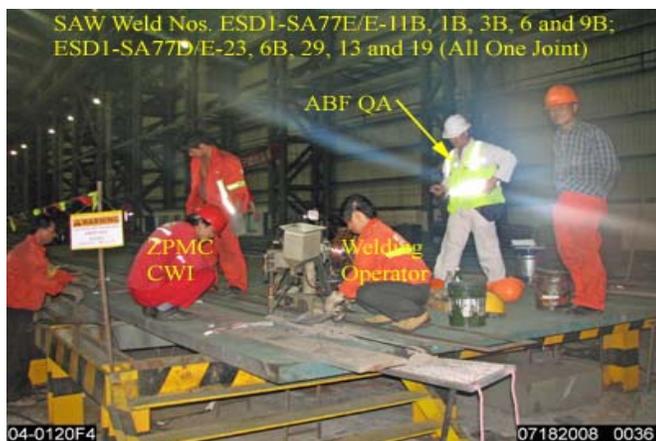
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one weld joint. Those designated with the letter “B” are complete joint penetration (CJP) groove welds, and those without a letter designation are partial joint penetration (PJP) groove welds. Therefore, two Welding Procedure Specifications (WPS’s) were being used, WPS-B-T-2221-B-U3c-S-2 for CJP and WPS-B-T-2321-B-P3-S-2 for PJP. The welding operator was Shen Mei (I. D. No. 041716). ZPMC Certified Welding Inspector (CWI), Jiang Jian Fei (CWI No. 07120691), was present during the welding, as was ABF QA Inspector, Luo Lai Quan. The Caltrans QA Inspector verified the qualifications of the welding operator, and that the electrode classification, diameter of electrode, amperage, voltage, travel speed, and preheat/interpass temperatures were within the specified ranges on the applicable WPS.

The Caltrans QA Inspector also randomly observed the machining of miscellaneous tower parts, Piece Marks p189A, p112B, p413B, p389B and p222a.

All above observations appeared to meet the requirements of the job specifications.



Summary of Conversations:

As identified within the contents 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 Tower - Joshua Ishibashi (13764710411) China, who represents the Office of Structural Materials for your project.

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Inspected By:	Jobes, Kenneth	Quality Assurance Inspector
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Reviewed By:	Carreon, Albert	QA Reviewer
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