

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-002527**Date Inspected:** 02-Apr-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 630**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1700**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Zhao Chen Sun and 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:** See Below**Summary of Items Observed:**

The Caltrans Quality Assurance (QA) Inspector, M. Paul Stovall, was present at Zhenhua Port Machinery Company (ZPMC) on Changxing Island, Shanghai, China for the purpose of monitoring Quality Control (QC) functions during the fabrication of the Self Anchored Suspension (SAS) section of the San Francisco/Oakland Bay Bridge.

New Tower Shop

The QA Inspector observed that ZPMC personnel have completed removing the run-off tabs on Tower Skin plate weld joint number SSD1-SA16-F/G-88A and B, and that ZPMC personnel are grinding the weld on the "B" side.

The QA Inspector observed ZPMC personnel performing back gouging using the carbon arc process on Tower Skin plate weld joint number SSD1-SA16-F/G-6A.

The QA Inspector observed ZPMC welding personnel Xu Yan, ID #052917 preheat and begin welding on Tower Skin plate weld joint number SSD1-SA15-A/F-13A using the Submerged Arc Welding (SAW) process. This QA Inspector verified the welding parameters as 672 amperes and 32.7 volts. The work observed appeared to comply with the Welding Procedure Specification (WPS) used WPS-B-T-2221-B-U3c-S and the contract requirements.

The QA Inspector observed ZPMC welding personnel Zhai Qingshan, ID #058026 using the Shielded Metal Arc Welding (SMAW) process to fit and tack weld Tower Skin plate P283 to SA322 for the 33-meter elevation and plates P882 to SA107.

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The QA Inspector observed ZPMC personnel heat straightening various Tower Skin plates, flame cut plate for Tower Skins at two (2) locations, flame cut bevels and the machining of Tower Skin plates at the horizontal mill. The QA Inspector observed ZPMC QC personnel monitoring the work.

Bay 2

The QA Inspector observed ZPMC personnel flame cut plate for various Tower Skins.

Bay 3

The QA Inspector observed ZPMC welding personnel Fu Yanjie, ID #066268 and Wang Zhonghua, ID #053753 fit and tack weld WT stiffeners on Bottom Plates (BP) BP057-01 and BP165-001.

The QA Inspector observed ZPMC personnel heat straightening various Side Plates, grind the faying surface on cut WT's, flame cut bevels and copes on WT's, and flame cut WT's to length.

ZPMC QC personnel informed this QA Inspector that Side Plate (SP) SP-145-001, located at the aft welding gantry, has a cracked tack weld. The QA Inspector observed ZPMC personnel remove the cracked tack weld and ZPMC QC personnel perform a Magnetic Particle Test (MT) for verification.

The QA Inspector witnessed ZPMC QC personnel perform MT on the weld terminations of SP037-01 and SP044-01. The work observed appeared to comply with the contract documents.

The QA Inspector observed ZPMC QC personnel were present and monitoring the work performed.

Bay 4

The QA Inspector observed ZPMC personnel performing SAW welding on Internal Tower Diaphragm plate weld joint number ESD1-SA317-4B using WPS-B-T-2221-B-U3c-S-1. The QA Inspector verified the welding parameters as 459 amperes and 29.3 volts. The welding observed appeared to comply with the contract requirements.

The QA Inspector observed ZPMC QC personnel were present and monitoring the work performed.

Summary of Conversations:

Please see the body of the report above.

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

Inspected By: Stovall, Paul

Quality Assurance Inspector

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Reviewed By: Hager, Craig

QA Reviewer