

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-001031**Date Inspected:** 13-Dec-2007**Project Name:** SAS Superstructure**OSM Arrival Time:** 1330**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 2300**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Sha Zhi, Chen xi**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:** 89/114M mock-up**Summary of Items Observed:**

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

Bay 2**89 Meter Mockup MUSB-MA25:**

QA Inspector Brannon randomly observed ZPMC qualified welder Mr. Han Xiaofeng ID #054467 groove welding fill passes joining, piece # p215 to p209-2 weld joint 19B. Mr. Han was observed welding in the 1G (flat) position utilizing shielded metal arc welding (SMAW) process with a 4.8mm diameter electrode, filler metal brand E9018M-H4R, class Excalibur9018M MR, manual. QA Inspector Brannon observed the ZPMC QC CWI Inspector Sha Zhi verifying that the welding parameters and pre-heat were in accordance with the Welding Procedure Specification (WPS). QA Inspector observed preheat and welding parameters measured by the QC CWI Inspector Sha Zhi to be: preheat temperature of 160°C and welding parameters amps of 256. Welding parameters observed by QA Inspector Brannon appear to be in general compliance with the approved WPS-B-T-3211 TC-U5b.

114 Meter Mockup MUC-MA66 c/c-Upper Shaft Assembly:

QA Inspector Brannon randomly observed ZPMC qualified welder Mr. Wang Zhenxue ID #040414 groove welding fill passes joining, skin E to skin D weld joint #1A. Mr. Wang was observed welding in the 1G (flat) position utilizing submerged arc welding (SAW) process with a 4.8mm diameter electrode, filler metal brand EM12k, class JW3 machine. QA Inspector Brannon observed the ZPMC QC CWI Inspector Chen xi verifying that

WELDING INSPECTION REPORT

(Continued Page 2 of 2)

the welding parameters and pre-heat were in accordance with the Welding Procedure Specification (WPS). QA Inspector observed preheat and welding parameters measured by the QC CWI Inspector Chen xi to be: preheat temperature of 110°C and welding parameters amps of 315, volts of 31.5 and a travel speed of 461 mm/min. Welding parameters observed by QA Inspector Brannon appear to be in general compliance with the approved WPS-B-T-2221-C-U2b-S-1.

The following digital photograph below illustrates observation of the activities being performed.



Summary of Conversations:

No relevant conversations of this date.

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: Brannon, Sherri

Quality Assurance Inspector

Reviewed By: Carreon, Albert

QA Reviewer