

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-003330**Date Inspected:** 08-Jul-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 630**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:** Zhu Zhong Hai**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 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.

New Tower Shop

Bay 1 and Bay 2:

QA Inspector Brannon randomly observed ZPMC personnel performing heat straightening on various tower plates.

Cause for heat straightening mill induced distortion. Heat Straightening is performed by flame straightening using oxygen acetylene or natural gas using a hand held flame touch.

Bay 1 and Bay 2:

QA Inspector Brannon randomly observed ZPMC personnel CNC torch cutting 75% natural and 25% oxygen for various pieces for the tower.

Bay 1 and Bay 2

QA Inspector Brannon observed ZPMC using horizontal milling machine for milling beveled surface for various tower longitudinal plates.

South Tower Skin A - Bay 1:

QA Inspector Brannon randomly observed ZPMC qualified welders, tack welding longitudinal stiffener to South tower skin A, piece #P287B to SA15, welding in the 2G (horizontal) position utilizing a shielded metal arc

WELDING INSPECTION REPORT

(Continued Page 2 of 3)

welding (SMAW) process with a 4.0mm diameter electrode, filler metal brand E7018, class TL508. QA Inspector Brannon observed the ZPMC QC CWI Inspector Zhu Zhong Hai verifying that the welding parameters and pre-heat were in accordance with the Welding Procedure Specification (WPS). Welding parameters observed by QA Inspector Brannon appear to be in general compliance with the approved WPS-B-T-2312-Tc-P5.

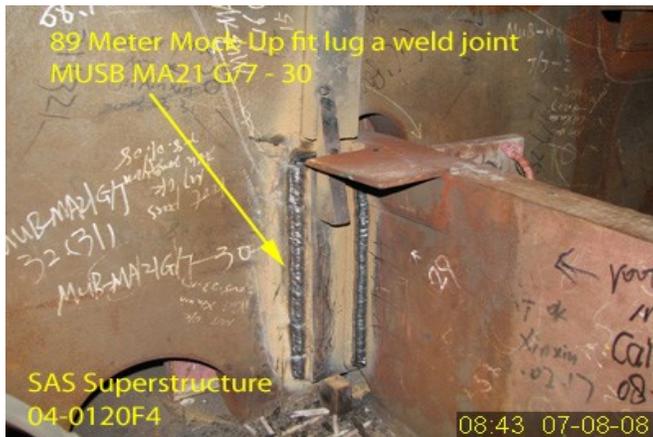
Longitudinal plate splice - Bay 2:

QA Inspector Brannon randomly observed ZPMC qualified welder, splice welding longitudinal stiffener plate to longitudinal stiffener plate, joining piece #P1330A to P1332B, welding in the 1G (flat) position utilizing a 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 Zhu Zhong Hai verifying that the welding parameters and pre-heat were in accordance with the Welding Procedure Specification (WPS). Welding parameters observed by QA Inspector Brannon appear to be in general compliance with the approved WPS-B-T-2221-B-U3c-S, Revision 1.

89 Meter Mock-Up – Outside of Bay 2:

QA Inspector Brannon randomly observed ZPMC qualified welder, fillet welding lug plate at MUSB MA21 G/7 weld joint #30, welding in the 3F (vertical) position utilizing a shielded metal arc welding (SMAW) process with a 4.0mm diameter electrode, filler metal brand E7018, class THF506Fe-1. QA Inspector Brannon observed the ZPMC QC CWI Inspector Zhu Zhong Hai verifying that the welding parameters and pre-heat were in accordance with the Welding Procedure Specification (WPS). Welding parameters observed by QA Inspector Brannon appear to be in general compliance with the approved WPS-B-T-4113-2 Revision 1.

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



Summary of Conversations:

No relevant conversations to 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 Joshua Ishibashi 13764710411, who represents the Office of Structural Materials for your project.

WELDING INSPECTION REPORT

(Continued Page 3 of 3)

Inspected By:	Brannon, Sherri	Quality Assurance Inspector
Reviewed By:	Cochran, Jim	QA Reviewer
