

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-001084**Date Inspected:** 15-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:** 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:** 89M/144 M mockup and OBG floor beam**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 1 - No work.

Bay 7 - No work.

Bay 2

89 Meter Mockup MUB-MA21 F/J (CWR #027):

QA Inspector Brannon observed ZPMC preheating only on CWR #027 weld joint 10A. No welding performed during this shift.

89 Meter Mockup MUSB-SA215:

QA Inspector Brannon randomly observed ZPMC qualified welder's Mr. Feng Huqjun ID#066258, Mr. Wang Jian ID#067081, Mr. Zang Wei ID#066413 and Mr. Li Zaijun ID#037996 groove welding fill passes joining, piece # mp502-4 to MA38-1 weld joints #1, 2 3 & 4. Mr. Feng, Mr. Wang, Mr. Zang and Mr. Li was observed welding in the 2G (horizontal) position utilizing shield metal arc welding (SMAW) process with a 5.0mm diameter electrode, filler metal brand E7018, class THJ506-Fe-1, manual. QA Inspector Brannon observed the ZPMC QC CWI Inspector Chen Xi 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

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Inspector Chen Xi to be: preheat temperature of 110°C and welding parameters amps of 226, 224, 210 & 220 respectively. Welding parameters observed by QA Inspector Brannon appear to be in general compliance with the approved WPS-B-T-4312-TC-p4-2 Rev. 0.

114 Meter Mockup MUC-MA106 C/C:

QA Inspector Brannon randomly observed ZPMC personnel removing flux cored arc welding (FCAW) root pass by method of carbon air arc gouging and grinding in preparation for submerged arc welding (SAW) process. Upper shaft assembly, MA112 to MA113 weld joint #2A.

114 Meter Mockup MUC-MA106 B/C:

QA Inspector Brannon randomly observed ZPMC personnel removing flux cored arc welding (FCAW) root pass by method of carbon air arc gouging and grinding in preparation for submerged arc welding (SAW) process. Lower shaft assembly, MA106 to MA109 weld joint #5A.

89 Meter Strut sub-Assembly MUSB-MA25:

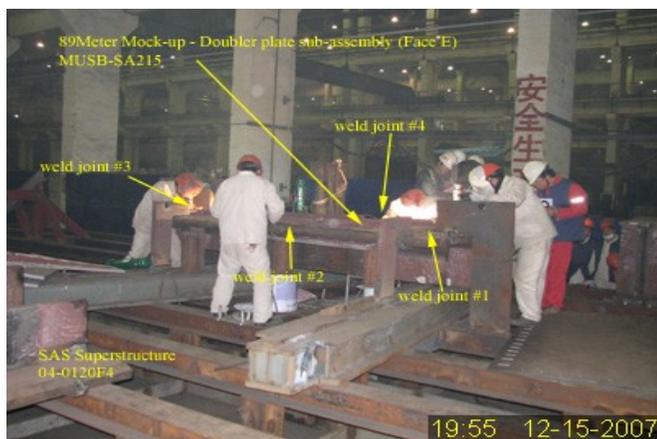
QA Inspector Brannon randomly observed ZPMC qualified welder Mr. Han Xiau Feng ID#054467 groove welding fill passes joining, piece #p215 to p209 weld joint #19B. Mr. Han was observed welding in the 2G (horizontal) position utilizing shield metal arc welding (SMAW) process with a 4.8mm diameter electrode, filler metal brand E9018M-H4R, class Excalibur9018M MR, manual. QA Inspector Brannon observed the ZPMC QC CWI Inspector Chen Xi 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 Chen Xi to be: preheat temperature of 160°C and welding parameters amps of 254. Welding parameters observed by QA Inspector Brannon appear to be in general compliance with the approved WPS-B-T-3212-TC-u5b.

Bay 3

OBG Side Plate(Heat Straightening):

QA Inspector Brannon randomly observed ZPMC personnel performing heat straightening on SP053-1. QA observed QC Mr. Duan Yabing observing the process. ZPMC heat straightening #HSR1(B)-074.

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



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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 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
