

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-001083**Date Inspected:** 14-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:** Li Jain Ping, 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:** 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 2

114 Meter Mockup MUC-MA106 C/C:

QA Inspector Brannon randomly observed ZPMC qualified welder Mr. Jiang Zhou ID #040261 groove welding fill passes joining, piece # MA102 to MA101 weld joint #4B. Mr. Jiang was observed welding in the 2G (horizontal) position utilizing flux cored arc welding (FCAW) process with a 1.4mm diameter electrode, filler metal brand Supercored 71H, class E71T-1 semi automatic. QA Inspector Brannon observed the ZPMC QC CWI Inspector Li Jain Ping 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 Li Jain Ping to be: preheat temperature of 110°C and welding parameters amps of 315, volts of 31.0, a travel speed of 303 mm/min and a shielding gas flow of 22L/min. Welding parameters observed by QA Inspector Brannon appear to be in general compliance with the approved WPS-B-T-2232-B-u4b-F.

Bay 2

114 Meter Mockup MUC-MA106 B/C:

QA Inspector Brannon randomly observed ZPMC qualified welder Mr. Chang Chuancang ID #053870 groove

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welding fill passes joining, piece # MA112 to MA113 weld joint #2B. Mr. Chang was observed welding in the 2G (horizontal) position utilizing flux cored arc welding (FCAW) process with a 1.4mm diameter electrode, filler metal brand Supercored 71H, class E71T-1 semi automatic. 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 110°C and welding parameters amps of 290, volts of 32.0, a travel speed of 317 mm/min and a shielding gas flow of 21L/min. Welding parameters observed by QA Inspector Brannon appear to be in general compliance with the approved WPS-B-T-2232-B-u4b-F.

Bay 7

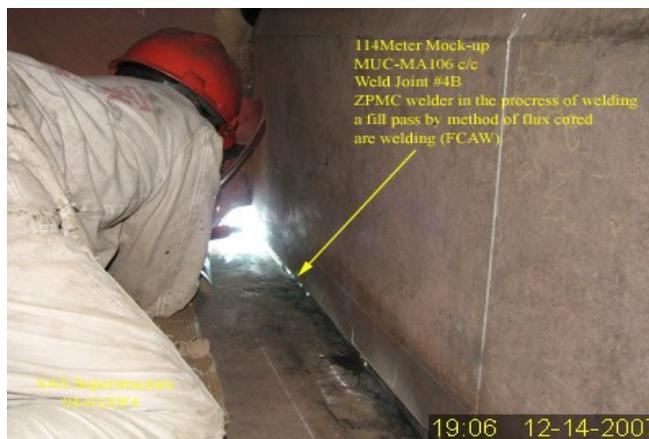
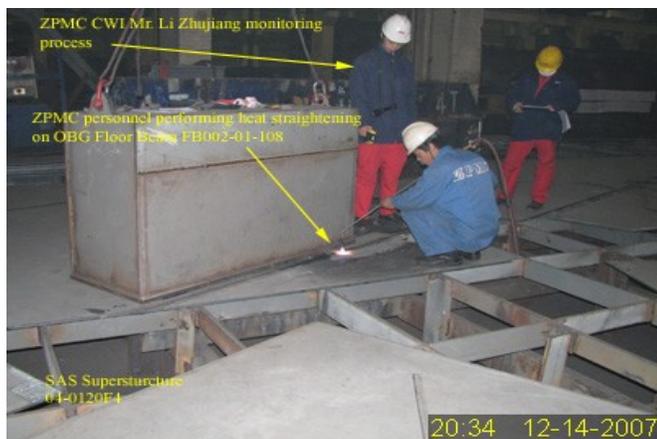
OBG Floor Beam (UT):

ZPMC NDT technician Mr. Xue Haijong performed ultrasonic testing (UT) on floor beam FB016-01-021 - x94E & x94A to x45A, FB002-01-026 - x94B-1 & x47A-1 to x15A and FB008-01-023 - x94A & x47A-2 to x15A. QA Inspector Brannon observed writing on the floor beams that Mr. Xue Haijong had accepted the floor beams.

OBG Floor Beam (Heat Straightening):

QA Inspector Brannon randomly observed ZPMC personnel performing heat straightening on FB022-01-108, x20C to x20B. QA observed QC CWI Mr. Li Zhujiang observing the process. ZPMC heat straightening #HSR1(B)-088.

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

Inspected By: Brannon, Sherri

Quality Assurance Inspector

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Reviewed By: Carreon,Albert

QA Reviewer