

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-001192**Date Inspected:** 08-Jan-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1730**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** 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:** OBG**Summary of Items Observed:**

The Caltrans Quality Assurance (QA) Inspector Charlie Franco was present at the time requested to randomly observe welding and associated operations being performed for the Orthotropic Box Girders (OBG).

Bay 7 OBG:

The QA Inspector randomly observed ZPMC welding personnel utilizing the carbon air arc process to backgouge welds in butt splices on Floor Beam Sub-Assembly Weld Joint (WJ) Numbers FB022-02-078, 079; FB022-02-081, 101; FB021-01-081, 101. The QA Inspector also randomly observed a ZPMC helper utilizing a grinder to remove the slag and clean up the above WJ's after the back gouging operations. The attached photograph provides additional detail.

The QA Inspector randomly observed ZPMC welder Yuan Wensong ID Number 055491, utilizing the Flux Cored Arc Welding (fcaw) Process with ZPMC approved Weld Procedure Specification (WPS)

WPS-B-T-2232-TC-U4b-F-1 in the 2G position to weld Flange Plate X7K to Floor Beam Web FB002-02 at WJ FB002-02-045. The QA Inspector randomly observed ZPMC CWI Cui Yi Ru monitoring weld parameters. The QA Inspector also randomly monitored weld parameters and recorded them as follows: welding amperage 293 amps, welding voltage 29.2 volts with a travel speed of 547 millimeters (mm) per minute. The weld parameters appeared to comply with contract requirements.

The QA Inspector randomly observed ZPMC welding personnel performing torch applied heat straightening operations on Floor Beam Sub-Assembly WJ FB026-02-079 per ZPMC HSR1(B)-153 Heat Straightening

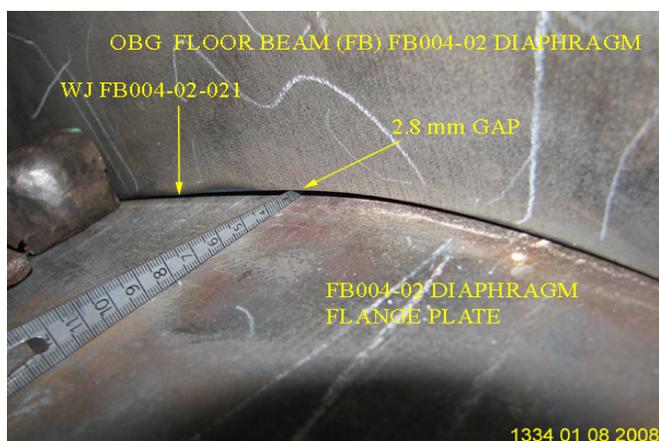
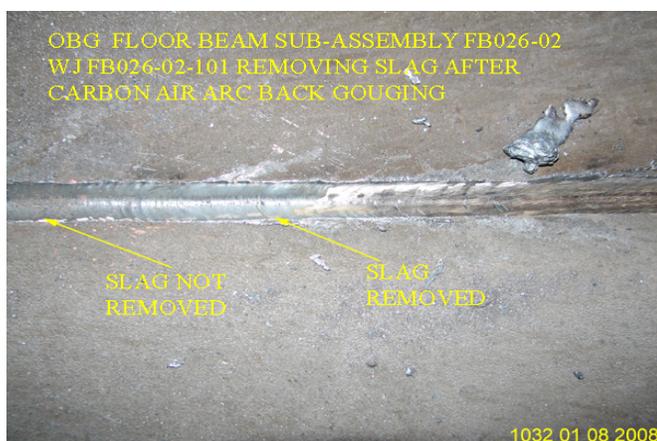
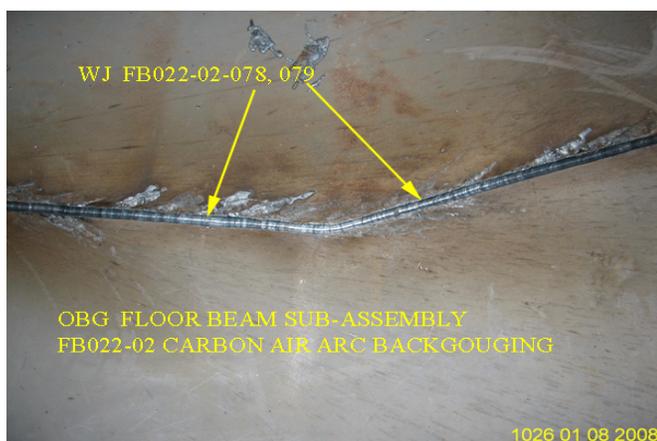
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Procedure. The attached photograph provides additional detail.

The QA Inspector randomly observed ZPMC welder Yang Xuhe ID Number 057795, utilizing the Shielded Metal Arc Welding (SMAW) Process with ZPMC approved WPS WPS-B-P-2112 in the 2F position to tack weld Stiffener X2K to Floor Beam Web FB016-03 at WJ's FB016-03-022, 023. The QA Inspector randomly observed ZPMC CWI Cui Yi Ru monitoring weld parameters. The QA Inspector also randomly monitored weld parameters and recorded them as follows: welding amperage 168 amps and welding voltage 23 volts. The weld parameters appeared to comply with contract requirements.

The QA Inspector randomly observed ZPMC measuring the gap between Floor Beam FB004-02 Diaphragm and Flange Plate at WJ FB004-02-021. The QA Inspector also randomly measured the gap in WJ FB004-02-021, and recorded one measurement of 2.8 mm at a distance of 230 mm from WJ FB004-02-020 on the 12 mm thick section of the Diaphragm. The gap measurement in this location exceeds the maximum of 2 mm. The attached photograph provides additional detail.



Summary of Conversations:

As noted in the above body of this 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

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for your project.

Inspected By:	Franco,Charlie	Quality Assurance Inspector
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Reviewed By:	Cochran,Jim	QA Reviewer
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