

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-000749**Date Inspected:** 01-Nov-2007**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:** Changxing Island**CWI Name:** Art Peterson**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 Closed Rib Trial**Summary of Items Observed:**

Caltrans Quality Assurance (QA) Inspector, Larry Viars was present to observe the welding of Orthotropic Box Girder (OBG) Mock-up closed rib trial, for the San Francisco Oakland Bay Self Anchored Suspension Bridge, at Zhenhua Port Machinery Company (ZPMC) facility on Changxing Island.

Caltrans QA Inspector Viars performed random measurements of the root gap after camber and prior to the start of welding. The previous maximum root gap noted was 0.75 mm. After camber a measurement of 1.0 mm was measured on weld # 10.

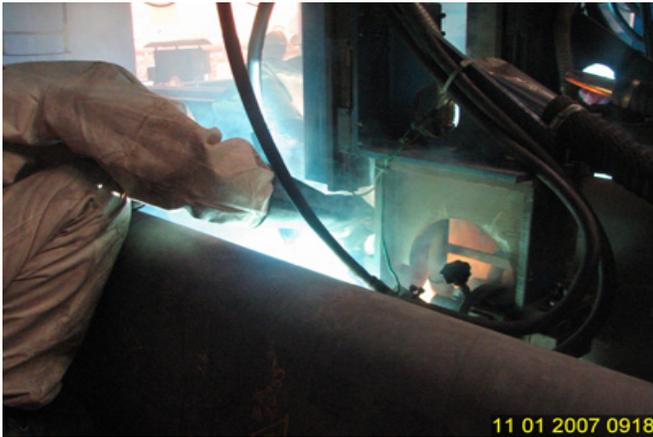
Caltrans QA Inspector welding parameters and performed visual observations of the Orthotropic Box Girders (OBG) closed rib weld trial. QA Inspector Viars monitored amperage of each section of welding on Gas Metal Arc Welding (GMAW) for the weld root and Submerged Arc Welding for the Cover pass. Semi automatic welding was performed on both processes with a welding head manipulator. Closed rib welds # 1, 2, 5, 6, 9 and 10 were welded simultaneously in 5 sections approximately 2 meters in length. Closed rib welds # 3, 4, 7 and 8 were welded in the same manor. Submerged Arc Welding of weld joint # 3, 4, 7 and 8 were performed on swing shift. The picture below illustrates ZPMC welder adjusting electrode angle during welding of GMAW on weld # 3.

Gas Metal Arc Welding of the root was performed in accordance to WPS-B-T-2342-U1 (U-ribs). The Submerged Arc Welding was performed in accordance to WPS-B-T-2322-U1 (U-ribs). QA Inspector Viars recorded the following welding parameters. Weld # 1 GMAW, amperage 362, voltage 30.3, with a travel speed of 535. Weld # 10 SAW, amperage 682, voltage 25.8, with a travel speed of 512.

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Caltrans QA Inspector monitored welding operations and performed visual observations of the OBG closed rib weld trial.



Summary of Conversations:

As identified within the contents 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 for your project.

Inspected By:	Viars,Larry	Quality Assurance Inspector
Reviewed By:	Cuellar,Robert	QA Reviewer
