

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 #: 13.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-009515**Date Inspected:** 05-Oct-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** Oregon Iron Works Clackamas, Or.**Location:** Clackamas, OR**CWI Name:** Mike Gregson, Jose Salazar**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:** Hinge K Pipe Beams**Summary of Items Observed:**

The Quality Assurance Inspector Sean Vance arrived on site at Oregon Iron Works, Inc (OIW) in Clackamas, OR, to randomly observe the in process welding of the Hinge K Pipe Beam assemblies. The QA Inspector arrived on site to randomly observe the OIW Quality Control (QC) Inspectors in process and completed visual and nondestructive testing. Upon the arrival of the QA Inspector the following observations were made:

OIW Fabrication Shop-Bay 3

Hinge-K Pipe Beam Assembly 102A-3: 10/5/09

a111-3 Forging to a110-3 Base Plate

QA Inspector noticed this assembly 102A-3 was in-process of being placed in the welding positioner, in preparation for the submerged arc welding, on the previously FCAW tacked radial stiffeners. QA Inspector noted that there was a total of 3 OIW production personell, utilizing rigging and a bay crane to lift, position and clamp/bolt this assembly 102A-3, to the welding positioner, as shown in picture below.

Note: QA Inspector later noticed that OIW production personell had completed this above mentioned task and welder #J6, Mr. Craig Jacobson, was in process of performing submerged arc welding, on the b108 radial stiffener plate to a111-3 tubular forging, designated as weld joint # W1-140, in the flat position. QA Inspector noted that this weld joint was designated as a partial joint penetration (AWS D1.5 TC-P5-S) and QA Inspector noted that Mr. Jacobson was currently performing the submerged arc welding on the root pass. QA Inspector noted that Mr. Jacobson was utilizing OIW approved welding procedure specification (WPS 4016) and randomly recorded pre-heat temperatures of approximately 350 degrees Fahrenheit (177 C) and in-process welding parameters of 420 amps/28 volts. QA Inspector noticed QC Inspector Jose Salazar was present to monitor in-process welding parameters (amps/volts) and noted that Mr. Salazar had previously recorded in-process welding parameters of 405

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amps and 28 volts, on this submerged arc welding root pass, which is in accordance with the applicable welding procedure specification (WPS 4016).

QA Inspector later spoke with QC Inspector Jose Salazar and Mr. Salazar explained that the above mentioned weld joint, was completed by Mr. Jacobson, by end of shift. Mr. Salazar explained that 100% magnetic particle testing was performed on the above mentioned SAW root pass and no rejectable indications were found, per AWS D1.5 and contract requirements. See attached picture below.

Material, Equipment, and Labor Tracking

QA Inspector Sean Vance performed a verification of material, personnel and equipment involved with the project. The QA Inspector observed at Oregon Iron Works: 5 OIW production personnel and 2 QC Inspectors.



Summary of Conversations:

As noted above.

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 Mohammad Fatemi (916) 813-3677, who represents the Office of Structural Materials for your project.

Inspected By:	Vance,Sean	Quality Assurance Inspector
Reviewed By:	Adame,Joe	QA Reviewer
