

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-012944**Date Inspected:** 01-Apr-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 1000**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1830**Contractor:** Oregon Iron Works Clackamas, Or.**Location:** Clackamas, OR**CWI Name:** M. Gregson, J. 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:

Hinge-K Pipe Beam Assembly 102A-2:

The QA Inspector witnessed WID #B62 (Marcus Belgarde) and Production Lead Troy Smith attaching 2 slings to previously placed clamps, on the assembly. Lead Troy Smith explained that the slings are being placed in preparation for flipping the assembly for the Submerged Arc Welding on weld joints # W2-01 and W2-02. Lead Troy Smith explained that the slings will be attached to the overhead bay crane and then the assembly will be lifted and placed on the shop floor. Lead Troy Smith explained that the clamps will be re-attached to the opposite side of the assembly and then will be lifted in the upright position and then placed to access the weld joints. The QA Inspector noted that the weld joints are the Partial Penetration, a109 Cap Plate/a110 Base Plate to b106 stiffener. Lead Troy Smith explained that once the Assembly is in position, the Cooperheat would be placed to begin pre-heating in preparation for the SAW. See attached picture below.

Hinge-K Pipe Beam Assembly 120A-8:

The QA Inspector was informed by OIW QC Inspector Jose Salazar that WID #F17 was currently setting up in preparation for the Electroslag Welding (ESW) on the Fuse. QC Inspector Salazar explained that the Fuse had previously placed on 2 sets of rollers and WID #F17 was currently setting up the Submerged Arc Welding machine and a stationary torch. The QA Inspector noted that OIW is setting up to apply an additional layer of

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316L overlay material, to achieve the minimum outside diameter requirements, after the Fuse is machined. See attached picture below.

Material, Equipment, and Labor Tracking (MELT)

QA Inspector Sean Vance performed a verification of material, personnel and equipment involved with the project. The QA Inspector observed at Oregon Iron Works: 4 OIW production personnel and 2 QC Inspectors on day shift- 2 OIW production and 1 QC on swing shift.

The QA Inspector noted that the following personnel were present at AG Machine shop: 1 Machinist and 1 Machinist supervisor.



Summary of Conversations:

On this date, the QA Inspector reviewed a copy of the FARO testing report for the Fuse 120A-7, which was provided by OIW Project Manager Bill Pender. After reviewing the testing report, the QA Inspector noted that OIW Machinist Matt Ackerson had previously arrived at AG Machine Works (on 3/25/10) to perform the final outside diameter and cylindrical measurements on the Fuse, after final machining. Per the testing report, the QA Inspector noted that Matt Ackerson had recorded the final outside diameter of the Fuse at 1920.7813 mm and Cylindrical deviation recorded at .1574 mm. Per the testing report, the report showed a tolerance of +/- 2mm for the outside diameter and 2 mm tolerance for the cylindricity. The QA Inspector noted that these measurements and tolerances appear to be in compliance with the contract requirements.

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
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Reviewed By:	Adame, Joe	QA Reviewer
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